PRODUCT MANUAL

TALON® HD 10K

BALLISTIC LASER RANGEFINDING BINOCULARS

TABLE OF CONTENTS

SPECIFICATIONS

	10x42	12x50
MAGNIFICATION x OBJECTIVE LENS DIAMETER		
LINEAR FIELD OF VIEW (@ 1000 YARDS)	321' (98m)	272' (83m)
ANGULAR FIELD OF VIEW	6.1°	5.2°
CLOSE FOCUS	15.0' (4.6m)	25.0' (7.6m)
EYE RELIEF	18.5mm	18.5mm
INTERPUPILLARY DISTANCE	58mm - 76mm	58mm - 76mm
DIOPTER RANGE	± 4.0	± 4.0
MAX REFLECTIVE RANGE	Up to 10K yds. (9144m)	Up to 10K yds. (9144m)
TREE RANGE	Up to 4000 yds. (3658m)	Up to 4200 yds. (3840m)
DEER RANGE	Up to 2400 yds. (2195m)	Up to 2600 yds. (2377m)
MINIMUM RANGE	10 yds. (9m)	10 yds. (9m)
BATTERY TYPE	CR123	CR123
HEIGHT	6.3" (160.0mm)	7.2" (182.9mm)
WIDTH	5.5" (139.7mm)	5.6" (142.2mm)
WEIGHT (W/BATTERY)	40.8 oz. (1.16kg)	46.8 oz. (1.33kg)

TALON® HD 10K BALLISTIC LASER RANGEFINDING BINOCULARS

Built for hunters and competitors, where split-second decisions make or break success. Talon® HD 10K puts the Vortex's top-tier glass, extreme-range performance, and real-time ballistic data in one tool you can count on. Run it solo or pair with Vortex Relay™ devices for seamless data flow across your setup. From spotting your target to taking the shot, Talon® HD keeps you fast and focused – no matter the distance.

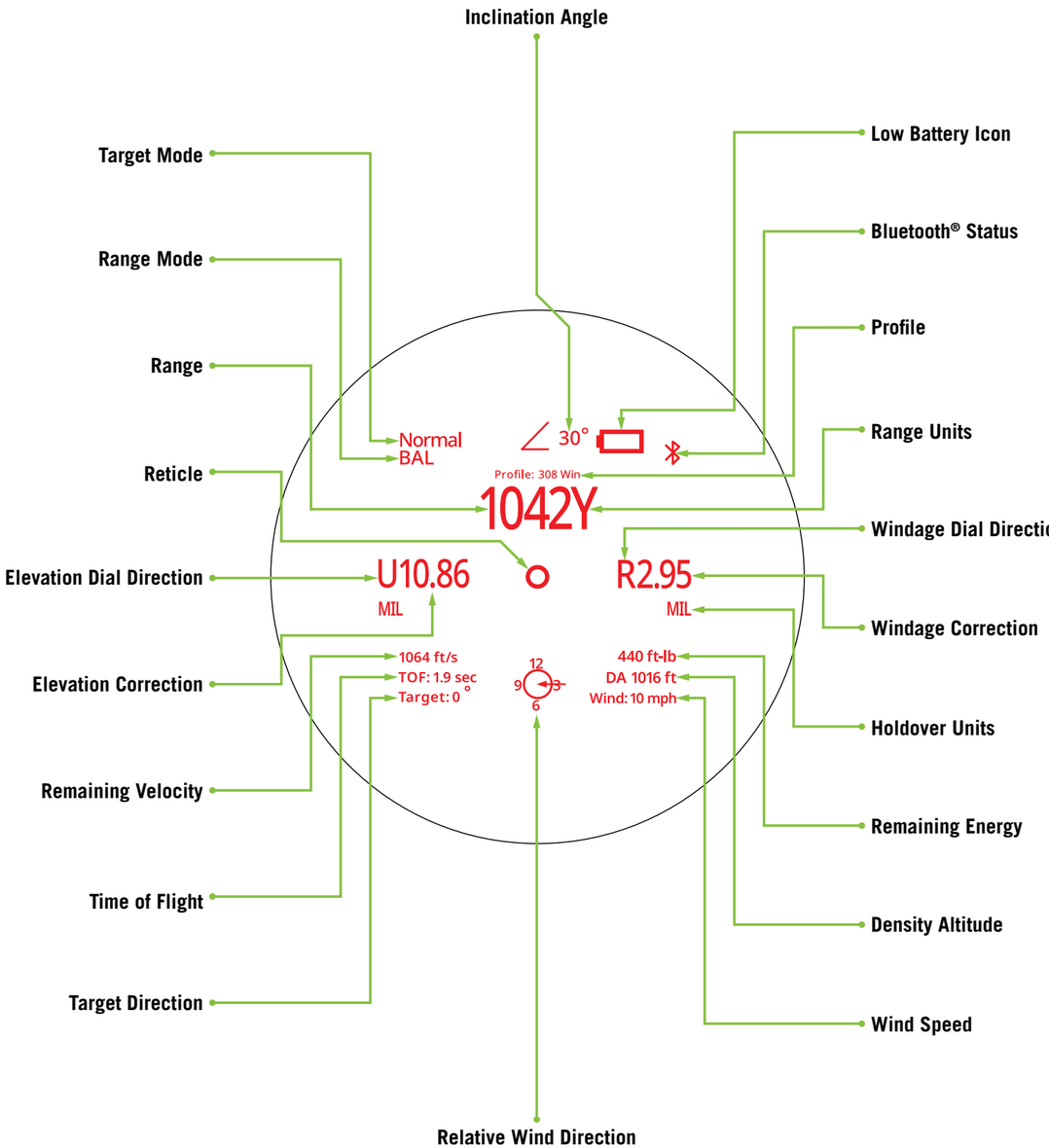
The Talon® HD 10K can pair, via Bluetooth®, with your mobile device and the GeoBallistics® App. Scan the QR code below to download the GeoBallistics® App with your Apple or Android device.

The QR code below will also give access to instructional videos.

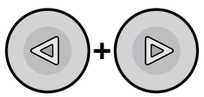
SCAN QR CODE TO GET STARTED

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

ACTIVE MATRIX RED OLED DISPLAY



BUTTON NAVIGATION

NAME	BUTTON	FUNCTION
MEASURE BUTTON		• Power ON • Takes Range • Closes the Menu
MENU BUTTON		• Opens the Menu • Selects Menu Options
WIND BEARING CAPTURE BUTTON		• Single Press on Range Screen to Select and Edit Wind Speed and Direction • Press and Hold to Open Environment Menu • Selects Menu Options
RIGHT ARROW BUTTON		• Navigates Down in Menu Structure • Increases Manually Inputted Values
LEFT ARROW BUTTON		• Navigates Up in Menu Structure • Decreases Manually Inputted Values
LEFT ARROW BUTTON & RIGHT ARROW BUTTON		• Simultaneous Press on Range Screen will Turn OFF • Simultaneous Press within Menu Returns to Previous Screen

BASIC OPERATION

Adjust the Eyecups

The Eyecups on the Talon® HD 10K twist up and down between four discrete positions allowing anyone to obtain a full field of view and comfortable viewing despite differences in facial structure and for use with or without glasses.

When not using glasses, generally the Eyecups will be fully extended. When using glasses, generally the Eyecups will be fully collapsed.

Adjust the Interpupillary Distance

The interpupillary distance (IPD) is the distance between the centers of the left and right eye pupils. Match the IPD of your eyes to the binocular so that you see a single image free of edge distortion.

Distance between the centers of the Ocular Lenses.

Rotate the binocular barrels inward or outward to line your eyes up with Ocular Lenses.

Note: The display will automatically rotate to be approximately level with your IPD setting.

Battery Installation and Replacement

To insert a new battery, flip the tab on the Battery Cap located on the bottom of the unit and unscrew, counterclockwise to remove. Insert a new CR123 battery with the positive side (+) facing inwards. Reinstall the Battery Cap and ensure it is tightly closed.

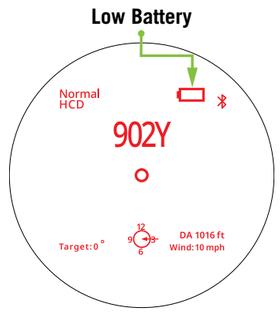
Note: It is recommended to re-calibrate your Talon® HD after battery changes. See calibration instructions on page 12.

Power Up

Once the battery is installed, the Talon® HD 10K is in ready condition – the normal, power-off condition when not ranging. To power up the Talon® HD from ready condition, press and release the “Measure” button. The Range screen will display.

Low Battery Icon

The Low Battery Icon displays once the battery reaches 25% life and stays on until there is no power or the battery is replaced.



Focus Reticle Display and Binocular

For the best views, follow this process to properly adjust the Locking Reticle Focus, Center Focus, and Locking Diopter Focus. Choose an object about 20 yards away from you and stay in the same spot until you have adjusted the binocular for your eyes.

Note: Before starting, lift the Locking Reticle Focus ring and the Locking Diopter Focus ring to unlock.

1. Power up the binocular and close your left eye or cover the left Objective Lens with your hand.
2. While viewing the reticle with your right eye, focus your right eye on the object and adjust the Center Focus wheel until the object is in focus. Leave the Center Focus in this position.
3. Then, using the Reticle Focus ring, bring the reticle into focus. Once this is done, you will not have to refocus the reticle.
4. Close your right eye or cover the right Objective Lens with your hand. Looking at the object with your left eye, adjust the Diopter Focus ring until your object is in focus. From this point on, you will only need to use the Center Focus.

Note: Once you have adjusted the Reticle Focus and Diopter Focus, press the rings down to lock.

Compass Calibration

Compass calibration is important for the accuracy of the on-board compass. Read the following steps before beginning calibration. The Talon® HD should be calibrated during initial setup and should be re-calibrated every time you significantly change location, typically 30 miles or more, and after battery changes. Calibrate your Talon® HD outside and away from large metal structures or objects.

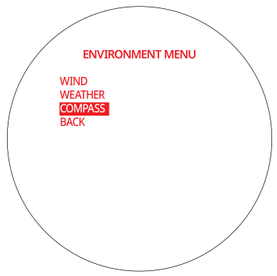
Important: Do not hit any buttons on the Talon® HD during this process unless specifically instructed to do so in the following steps.

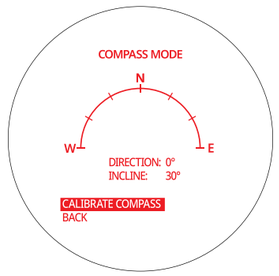
Note: If planning to utilize the Talon® HD on a tripod, it is recommended to calibrate the Talon® HD with the binocular adapter installed.

Scan the QR code for links to a video instruction on how to calibrate your Talon® HD.

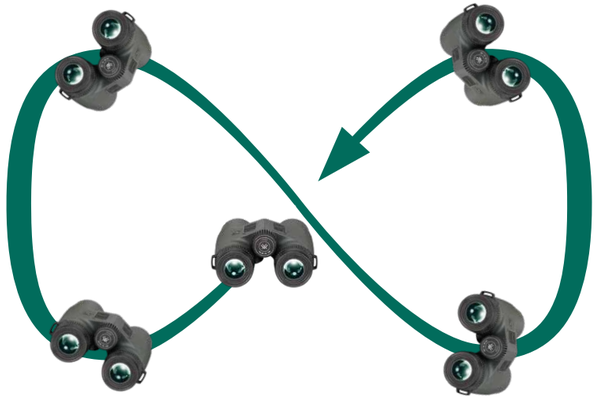
Calibrating the Compass

To navigate to the Compass Mode screen, press the “Menu” to open the Main Menu. Navigate to “Environment” and press the “Menu” button to select and open the Environment screen. Navigate to “Compass” and press the “Menu” button to select and open the Compass Mode screen. Press the “Menu” button to select “Calibrate Compass” to begin calibration.

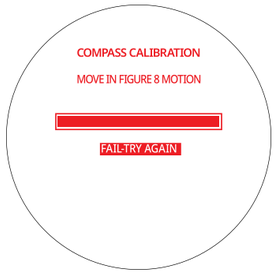




1. Rotate the rangefinder in a figure eight for 25 seconds.

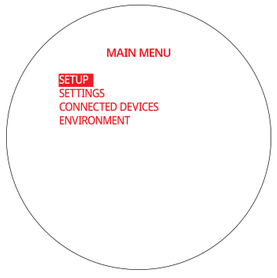


The screen will read “Calibration Success” if the compass has successfully calibrated. If the screen reads “Fail Try Again”, press the “Menu” button to restart the calibration process until the Talon® HD is successfully calibrated.



MAIN MENU NAVIGATION

To open the Main Menu, press the “Menu” button. From the Main Menu you can access the Setup Menu, Settings Menu, Connected Devices Menu, and Environment Menu screens.



Setup Menu

Changing Modes on the Talon® HD 10K

The Talon® HD 10K is factory set to angle compensating HCD Range Mode, Normal Target Mode, .308 Winchester® Profile, and Range Card OFF.

To Change Modes:

Press the “Measure” button to power on the unit, and then press the “Menu” button to open the Main Menu. Navigate to and select “Setup”. In the Setup Menu, you can access both Range and Target Mode Selection screens, select and modify Profiles, and edit or access saved Range Cards.

Note: You may exit the Menu at any time and save your settings by pressing the “Measure” button and the unit will return to the Range screen.

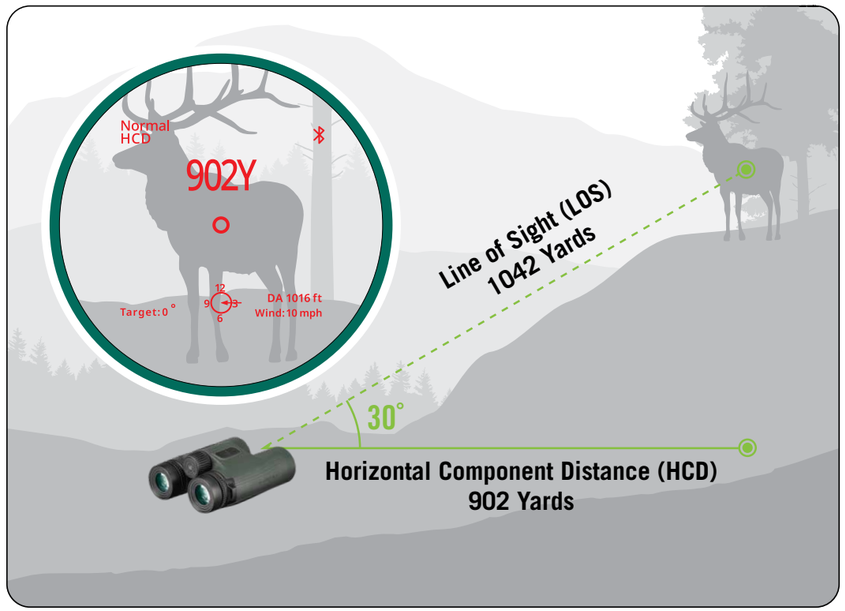
Range Mode Selection

Choose Between HCD, LOS, and BAL Modes

On the Setup Menu screen, toggle to and select “Range Mode”. You can choose between the HCD, LOS, and BAL displays. The selected mode will be designated with an arrow. Navigate to and select “Back” to return to the Setup Menu screen to continue to Target Mode Selection.

HCD Mode

The Horizontal Component Distance Mode (HCD) will be your primary mode when not using the on-board ballistic solver. The yardage number displayed is the critical horizontal component distance. 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 for the range displayed and shoot.

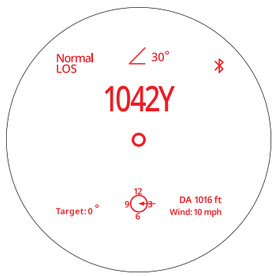


Note: To correctly account for wind, you need to know the line of sight distance to the target as it is based on how far the bullet travels to the target. This can be achieved using LOS or BAL Mode.

LOS Mode

The Line of Sight (LOS) 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.

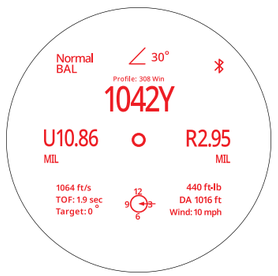
The Range number displayed in LOS Mode is the actual line of sight range with no ballistic correction for slope. Most of the commonly used ballistic devices can provide independent slope correction for bullet drop data and require actual line of sight range input. Using the LOS range when calculating bullet wind drifts under these steep slope/long range conditions will provide a higher degree of accuracy than using the HCD range. While in LOS Mode, the Inclination Angle of the target is also displayed on the screen. Downward angles are denoted with negative numbers.



BAL Mode

When in Ballistics (BAL) Mode, in addition to the Range, the Inclination Angle in degrees, Riflescope Units in MOA, MIL, or inches, and the Ballistic Correction based on the selected Profile is also displayed. To use the on-board ballistic solver, you need to be in BAL Mode. When in BAL Mode, line of sight measurements are used to calculate ballistic solutions.

Note: There are some display features that can only be displayed in BAL Mode.



Target Mode Selection

Choose Between Normal, ELR, Last, First, and Rain/Fog Modes

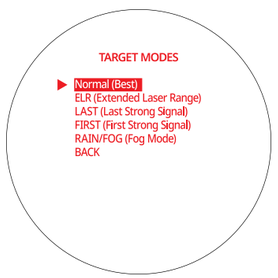
On the Setup Menu screen, toggle to and select “Target Mode”. You can choose between Normal, ELR, Last, First, and Rain/Fog Mode. The selected mode will be designated with an arrow. Return to the Setup Menu to continue to Profile Selection.

Normal Mode

The Talon® HD 10K comes preset to Normal Mode. This is the standard mode providing the target’s range with the strongest range result. Normal Mode is recommended for most situations.

Extended Laser Range (ELR) Mode

This 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 range response time may be required to a desired range. It is recommended to utilize a tripod for the best results.



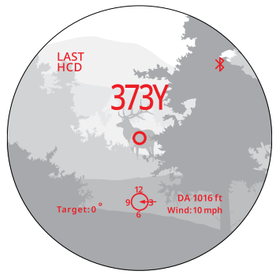
Last Mode

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

First Mode

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

LAST MODE



Range captured on farther elk.

FIRST MODE

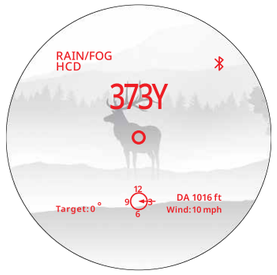
Range captured on closer elk.

Rain/Fog Mode

This mode is ideal for ranging in rain or fog and helps the rangefinder return accurate readings despite poor visibility.

Note: Max ranging ability will be greatly decreased in poor visibility but reliability on intermediate targets will be improved in Rain/Fog Mode.

RAIN/FOG MODE

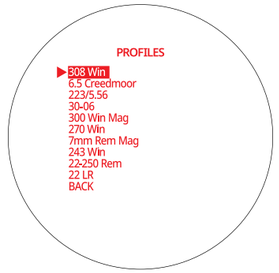


Profile Selection

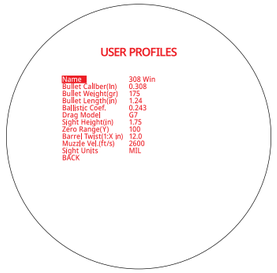
The Talon® HD 10K comes with 10 common default Ballistic Profiles. The Profiles can be used as is or customized to reflect your specific rifle and bullet combination.

The default Profiles include .308 Winchester®, 6.5 Creedmoor®, .223/5.56, .30-06, .300 Winchester® Magnum, .270 Winchester®, 7mm Remington® Magnum, .243 Winchester®, .22-250 Remington®, and .22 Long Rifle.

On the Setup Menu screen, toggle to and select “Profile”. You can choose between the 10 Ballistic Profiles. The selected Profile will be designated with an arrow.



To edit a Profile, navigate to the Profile you’d like to edit and press the “Menu” button to select it. Once the Profile is designated with an arrow, press the “Menu” button again to open the edit screen. Use the Left and Right Arrow buttons to navigate the field you’d like to edit. Press the “Menu” button to select the field you’d like to edit. Use the Left and Right Arrow buttons to toggle through options or increase or decrease a value. Press the “Menu” button to accept or advance to the next character or value you’d like to edit. Use the Left or Right Arrow buttons to toggle through the fields. When you’ve completed your edits, toggle to and select “Back” to return to the Setup Menu.



Note: Profiles can also be easily edited from the GeoBallistics® App. See pages 55-71 for instructions.

Name

To rename the Profile, toggle to and select “Name”. Use the Menu button to select which character to change and the Left and Right Arrow buttons to toggle through the keyboard options.

Bullet Caliber (in)

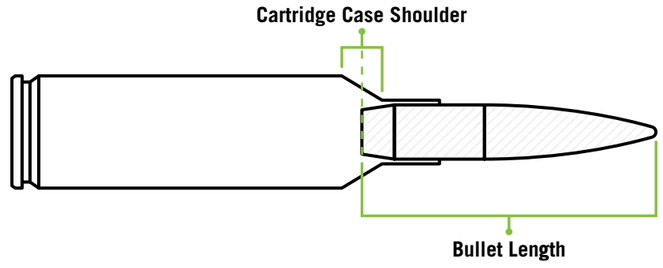
The bullet’s diameter in inches.

Bullet Weight (gr)

The bullet’s weight in grains.

Bullet Length (in)

The bullet’s length in inches.



Note: Bullet Caliber and Bullet Weight can be found on the ammo box or on the manufacturer’s website.

Note: To estimate a Bullet’s Length, measure from the middle of the cartridge case shoulder to the tip of the bullet. If unknown, enter “1”. This value is used to calculate Spin Drift.

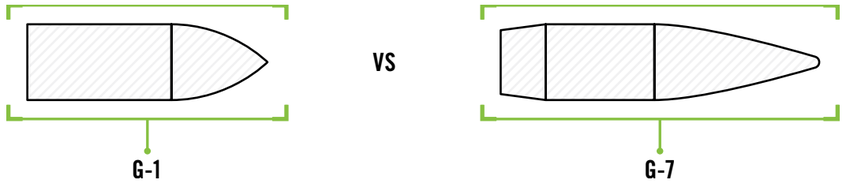
Ballistic Coefficient (B.C.)

The bullet's Ballistic Coefficient as it correlates to drag function. This value is critical for targets beyond 400 yards.

Note: Bullet information can be found on the ammunition box or on the manufacturer's website.

Drag Model – G1 vs G7

This information may be printed on the box if you are using manufactured bullets. If you are using custom loads, use the Drag Model listed on the packaging for your bullet. If the Drag Model is not listed on the packaging, this information can usually be found on the bullet/ammo manufacturer's website. 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 centerfire cartridges.



Note: Drag Model options: Multi G1, Multi G7, or CD, can be imported from the GeoBallistics® App. When using these the Ballistic Coefficient will read "Multi" or "1" and the Drag Model will read "Multi G1", "Multi G7", or "CD" based on your selection.

Sight Height

Height from the center of the rifle bore to the center of the optic. The measurement units can be set to standard (inches) or metric (centimeters) in the Settings Menu.

Zero Range

The distance at which you have zeroed your rifle. The measurement units can be set to yards or meters in the Settings Menu.

Barrel Twist Rate

Barrel Twist Rate is the distance covered for each revolution of the bullet within the barrel. For example, if your barrel is denoted as "1:8", this means the bullet will complete one full rotation every eight inches and you should enter "8" into this space. This information may be marked on the rifle barrel, or on the manufacturer's website.

Note: If your barrel has a left-hand twist, you must enter the Barrel Twist Rate via the GeoBallistics® App and denote it with a negative or minus sign. A negative sign will then be displayed before the Barrel Twist Rate on the device. If you cannot find the Barrel Twist Rate for your barrel, we recommend inputting 10. This value is used in conjunction with Bullet Length to calculate Spin Drift.

Muzzle Velocity

Muzzle Velocity (MV) is the projectile's speed as it leaves the muzzle. You can find this information on the packaging from most ammunition manufacturers, or their websites. We highly recommend that you use a chronograph to verify this information or utilize the MV Truing feature within the GeoBallistics® App. The measurement units can be set to standard (ft/s) or metric (m/s) in the Settings Menu.

An MV Temp Table can be input via the GeoBallistics® App, see page 58 for instructions. If an MV Temp Table is active, the calculated MV will be displayed with a T preceding it. Ex: T2743.

Sight Units

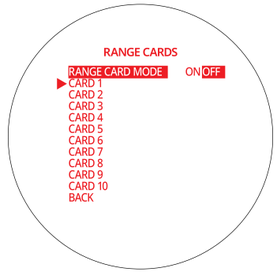
Choose the Sight Units you would like to have your drop chart displayed with MIL, MOA, or inches. This information will be based off the angular unit of measurement your riflescope's turrets and reticle are laid out in.

Navigate to and select "Back" to save edits and return to the Profiles screen. Navigate to and select "Back" to return to the Setup Menu and continue to Range Card.

Range Card

A Range Card can help provide quick and accurate ballistic solutions that can be used again and again. The Talon® HD 10K has the capability to store 10 Range Cards. Within each Range Card, 10 targets can be stored.

To build a Range Card, navigate to and select "Range Card" from the Setup Menu. On the Range Cards screen, select "On" to turn on the Range Card Feature.

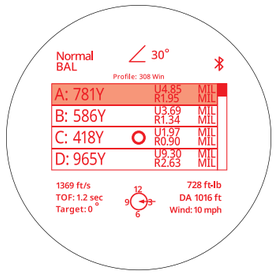


Select which card you'd like to edit. To rename the Range Card, press the "Menu" button to open the Range Card Edit screen. Use the "Menu" button to select which character to change and the Left and Right Arrow buttons to toggle through the keyboard options. Navigate to and select "Back" to return to the Range Cards screen.

Building a Range Card

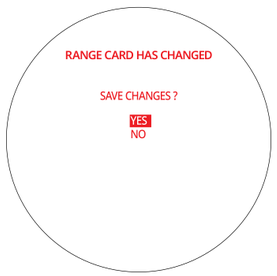
To build a Range Card, select the Range Card you'd like to edit and press the "Measure" button to open the Range Card. Line up your reticle to your target and press the "Measure" button to Range. The measured Range will show up as A. You can change this Range until you are satisfied with the distance by pressing the "Measure" button to Range again, move onto the next target by pressing the "Right Arrow" button to move to letter B. Continue these steps until all the targets are entered.

To manually enter Range, press and hold the "Right Arrow" button to select the Range value. Use the Left and Right Arrow buttons to adjust the Range. Press the "Measure" button to move onto the next target.



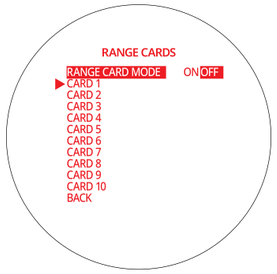
To save the Range Card, press the "Menu" button. You will be prompted with a "Range Card Has Changed, Save Changes?" notification. Select "Yes" to save changes.

Note: The Range Card will save the Range, Inclination Angle, and Target Direction. If you update your wind or weather parameters or your Profile, your Range Card and ballistic solutions will automatically update accordingly.



To turn OFF the Range Card, toggle to and select "Off" from the Range Cards screen.

Return to the Main Menu and continue to adjust the Talon® HD 10K Settings.



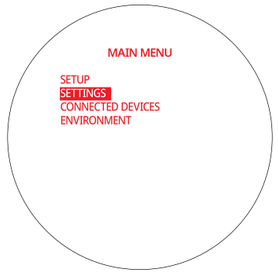
Settings Menu

Changing Settings on the Talon® HD 10K

The Talon® HD 10K is factory set to Auto Brightness, all Display Features ON, Circle Reticle, Standard Units, and Auto-Shutoff set to 3 minutes.

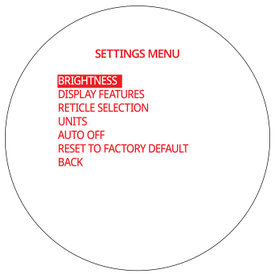
To Change Settings:

Press "Menu" to open the Main Menu. Navigate to and select "Settings" to open the Settings Menu. In the Settings Menu, you can access Brightness Settings, Display Features, Reticle Selection, Units, and Auto-Shutoff. This menu is also where you can reset the device to factory settings.



Brightness Selection

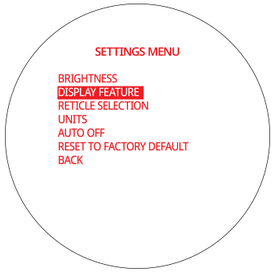
The Talon® HD 10K comes preset to an Automatic Brightness setting that will adjust the display brightness based on the observed environment. Within the Brightness screen, users can also choose between five brightness settings. Press "Menu" to select your desired brightness level. The selected brightness level will be denoted with an arrow. Toggle to and select "Back" to return to the Settings Menu.

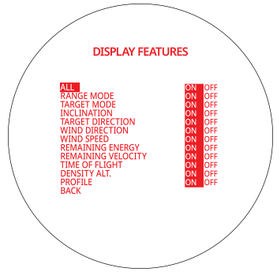


Display Features Selection

The Range screen within the Talon® HD 10K is completely customizable. Users can decide which features they'd like to display within the Display Features screen in the Settings Menu.

The default is to have all features shown. Users can decide to turn off all display features or to individually customize their display by using the "Menu" button to toggle ON or OFF the following features: Range Mode, Target Mode, Inclination, Target Direction, Wind Direction, Wind Speed, Remaining Energy, Remaining Velocity, Time of Flight, Density Altitude, and Profile. Once your desired selections are made, toggle to and select "Back" to save and return to the Settings Menu.



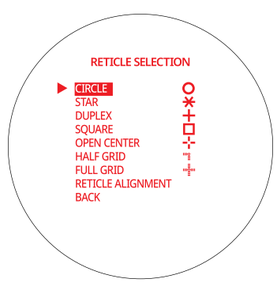


Note: Remaining Energy, Remaining Velocity, Time of Flight, and Profile are only available in BAL Mode.

Reticle Selection

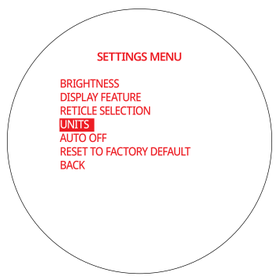
The Talon® HD 10K offers seven reticle options. To change your reticle, open the Reticle Selection screen and use the Left or Right Arrow buttons to toggle between the Circle, Star, Duplex, Square, Open Center Crosshair, Half Grid, or Full Grid reticle options. Press the “Menu” button to select your desired reticle. The selected reticle will be denoted with an arrow. From the Reticle Selection screen, you can also adjust your reticle alignment to ensure it is perfectly aligned with the laser. Toggle to and select “Back” to save and return to the Settings Menu.

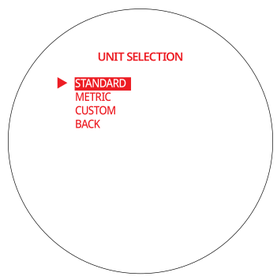
Note: Grid units will match the Active Profile units to be either MIL or MOA.



Unit Selection

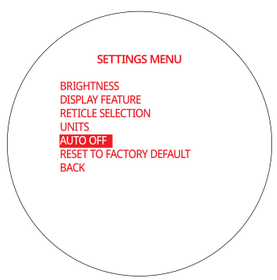
The Talon® HD 10K offers the selection of standard or metric units. This will set all applicable Rifle Units, Weather Units, and Distance Units to that unit of measure. To customize each unit individually, navigate to and select “Custom”. Once selected, press the “Menu” again to open the Custom Unit Selection screen where you can edit Rifle Units, Weather Units, and Distance Units independently. Use the Left or Right Arrow button to navigate to the unit you’d like to change and press the “Menu” button to toggle through unit options. Once you have selected your desired unit of measure, press the “Right Arrow” button to continue to the next field. Repeat until all units are set to your preferences. Navigate to and select “Back” to save and return to the Unit Selection screen, select “Back” again to return to the Settings Menu.

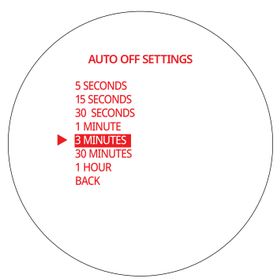




Auto-Shutoff Selection

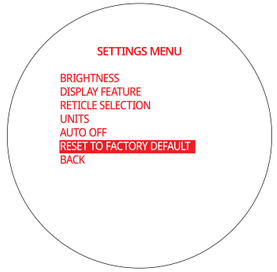
The Talon® HD 10K offers seven Auto-Shutoff options: 5 seconds, 15 seconds, 30 seconds, 1 minute, 3 minutes, 30 minutes, or 1 hour. Use the Left and Right Arrow buttons to navigate to your desired setting and press the “Menu” button to select it. The selected Auto-Shutoff setting will be denoted with an arrow. Navigate to and select “Back” to return to the Settings Menu.





Factory Reset

The Factory Reset screen can be utilized to restore the Talon® HD 10K to factory settings. Select “Erase All Data & Restore” to reset the device. Navigate to and select “Back” to return to the Settings Menu.



Note: This will clear your Range Cards, Profiles, and all other selections made. If you wish to save off a copy of your Range Cards and Profiles prior to performing this step, make sure to create an account and sync your device with the GeoBallistics® App.

Navigate to and select “Back” to return to the Main Menu.

Connected Devices

The Talon® HD 10K can connect with other Vortex Relay™ devices to maximize shooting accuracy and efficiency through real-time data sharing. Vortex Relay™ is a closed network that recognizes and remembers every Vortex Relay™ enabled device in your long-range toolkit. Set it up once, and it reliably connects every device, every time. Connecting multiple Vortex Relay™ products seamlessly integrates your ballistic tools and transmits information between devices so you don't have to, keeping information up-to-date and consistent across devices.

Note: The Talon® HD 10K is a stand-alone device. Connection to other Vortex Relay™ devices is not required.

Device Manager

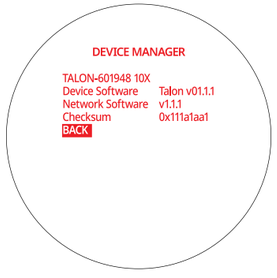
To enter the Device Manager screen from the Main Menu, select "Connected Devices". Then select "Device Manager". The Device Manager screen allows you to view, add, or remove compatible Vortex Relay™ devices to your network and connect to a Vortex Relay™ Bluetooth Remote.

View

Under the View section on Device Manager screen, you can view which devices are currently connected via the Vortex Relay™ Network. To show up on the network, the devices must be previously added and turned on. By selecting "View" next to a device you can see the Device Name, Device Software, and Network Software.

Note: A network is a group of devices and/or mobile applications that communicate with each other. Devices can only be connected to one network at a time.

Note: On the Range screen, the Bluetooth® icon will change to a coin icon with a number to indicate how many devices are on the network. A "1" indicates that the Talon® HD is the only device active on the network. A "4" would indicate that three other devices are active on the network with the Talon® HD.



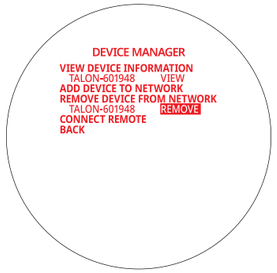
Add

The Add screen is where you can add devices to your network. The Talon® HD will automatically find all compatible devices on the Vortex Relay™ Network that are turned on and within Bluetooth® range (approximately 30 feet) that are not already connected to another network. Select the device from the list that you wish to add. When the new device joins the network, if the Profiles or Range Cards are different, you will be asked on both devices which device's information should be used. Repeat to add any additional devices.

Remove

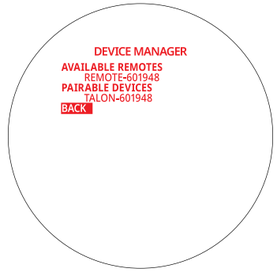
The Remove screen is where you can remove devices from your network. Select the device you wish to remove from the network.

Note: You can remove your Talon® HD device from your network if you wish to join another network or if you sell or lend your Talon® HD to someone else.



Connect Remote

The Connect Remote screen will appear when a Bluetooth® Remote is added to your network. This screen is where you can control which device your Bluetooth® Remote is paired with. Select your remote, and then select which device you'd like to connect your remote to.



Blinking Red

- Not On a Network

Blinking Orange

- On a Network
- Not Connected to a Device

Blinking Green

- On a Network
- Communicating With a Device

Note: When the Bluetooth® Remote blinks red, it is not on a network. When it blinks orange, it is on a network but not connected to any other device. When it blinks green, it is on the network and communicating with another device on the network.

Note: You are not able to connect the remote to control the Ace™ Ballistic Weather Meter or GeoBallistics® App. To manually disconnect the Bluetooth® Remote from a device but keep it on the network, press and hold the remote's "Left Arrow" button and "Right Arrow" button together for three seconds. The Bluetooth® Remote can also be disconnected from the network manually by pressing and holding the remote's "Up Arrow" button and "Down Arrow" button together for three seconds.

Select "Back" to return to the Device Manager screen. Select "Back" again to return to the Connected Devices screen.

Source Manager

Once you have connected your devices to the network, select "Source Manager" to open the Source Manager screen. From this screen you can designate which device you'd like to provide Ballistics, Weather, and Wind information. The ability to select the source for each of these fields means that you always know where your information is coming from.

Ballistic Source

Select which device's on-board solver you'd like to provide Ballistics from the list. The selected device will be noted with "Active".

Weather Source

Select which device you'd like as the Weather Source from the list. The selected device will be noted with "Active". Devices that are not selected will be noted with "Select".

Weather can be sourced from the Talon® HD on-board Environmental Sensors, another Vortex Relay™ device, or from the GeoBallistics® App. The GeoBallistics® App can source weather from local weather stations or third-party weather meters.

Note: If the Talon® HD is not the active Weather Source, you will be unable to edit the weather values from the Talon®.

Wind Source

Select which device you'd like as the Wind Source from the list. The selected device will be noted with "Active".

Wind data can manually be inputted via the Talon® HD or sourced from another Vortex Relay™ device or from the GeoBallistics® App. The GeoBallistics® App can source wind data from local weather stations or third-party weather meters.

Note: If the Talon® HD is not the active Wind Source, you will be unable to edit the wind values from the Talon®.

Navigate to and select "Back" to return to the Connected Devices Menu. Select "Back" again to return to the Main Menu and continue to the Environment Menu.

Environment Menu

When calculating ballistic corrections in BAL Mode, it will be necessary to account for wind and weather for the most accurate solution.

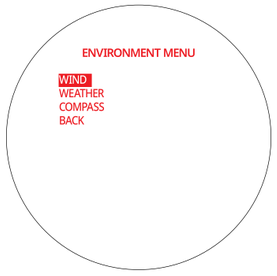
The Talon® HD 10K comes with on-board Environmental Sensors to capture the following data:

- Direction (compass)
- Temperature (thermometer)
- Inclination Angle (inclinometer)
- Pressure (barometer)
- Humidity (hygrometer)

Wind, Weather, and Compass Settings can be found in the Environment Menu which can be accessed through the Main Menu or quickly opened by pressing and holding the “Wind Bearing Capture” button.

Wind Capture Screen

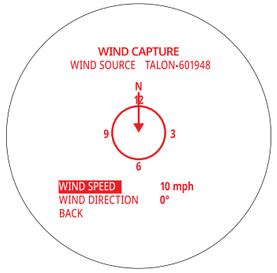
The Wind Capture screen can be accessed through the Environment Menu. The active Wind Source will be shown at the top of the screen.



Wind Bearing Capture

The Talon® HD 10K uses the patented Wind Bearing Capture to manually input Wind Speed and Direction. The Talon® HD will keep track of Wind Direction regardless of the direction the user is facing.

Note: Be sure the Talon® HD has been properly calibrated (see pages 12 and 13) before attempting to use the Wind Bearing Capture Mode.



Establishing the Wind Bearing and Speed:

To manually enter Wind Speed, navigate to Wind Speed and press the “Menu” button to select and edit the Wind Speed. Press the “Right Arrow” button to increase and the “Left Arrow” button to decrease the Wind Speed. Press “Menu” to save.

To manually enter Wind Direction, navigate to Wind Direction and press the “Menu” button to select and edit Wind Direction. Press the “Left Arrow” button to move the wind direction indicator counterclockwise or press the “Right Arrow” button to move the wind direction indicator clockwise. The wind direction indicator moves in 15-degree increments. Orient the wind direction indicator to represent the direction the wind is coming from relative to the direction you currently have the binoculars facing. (i.e. indicator direction is the Wind Direction). Press the “Menu” button to save your entry.

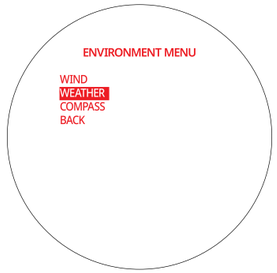
Note: If calibrated properly, the wind direction indicator will rotate as the device rotates regardless of the direction the user is facing.

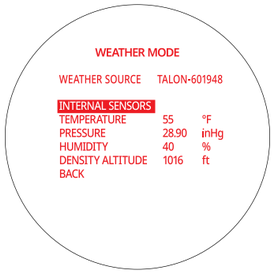
Wind Speed and Wind Direction can be quickly edited from the Range screen by pressing the “Wind Bearing Capture” button to select the variable you’d like to edit and using the Left and Right Arrow buttons to adjust.

Navigate to and select “Back” to return to the Environment Menu.

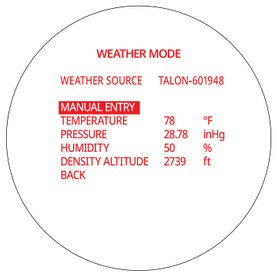
Weather Screen

The Weather screen can be accessed through the Environment Menu. The active Weather Source will be shown at the top of the screen. Temperature, Pressure, Humidity, and a calculated Density Altitude are displayed on the Weather screen.





The values for Temperature, Pressure, and Humidity can be measured by the on-board Environmental Sensors, provided by another Vortex Relay™ device or entered manually. The Talon® HD 10K defaults to utilizing its Internal Sensors. By pressing the "Menu" button with Internal Sensors selected you can toggle to Manual Entry. With Manual Entry selected, you can navigate to and edit Temperature, Pressure, and Humidity manually by pressing the "Menu" button to select the value and pressing the "Left Arrow" button to decrease and the "Right Arrow" button to increase the values. Press the "Menu" button to save and return to the field list.



Note: Pressure refers to station pressure, which is the actual air pressure at the exact location where it's being measured.

Note: When Temperature, Pressure, and Humidity are provided by another Vortex Relay™ device, they cannot be manually adjusted via the Talon® HD.

Note: Density Altitude is calculated from the weather information provided and cannot be directly entered.

Navigate to and select "Back" to return to the Environment Menu.

Compass

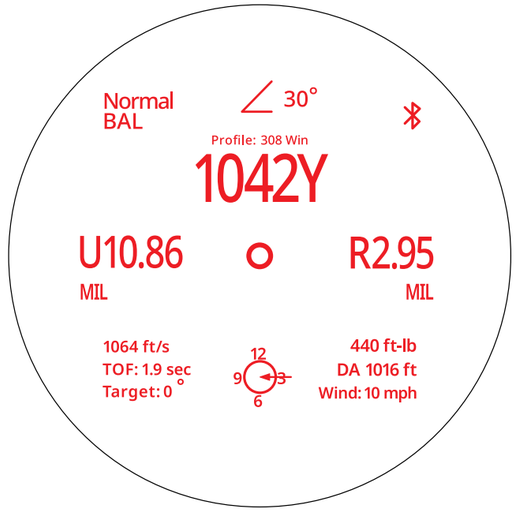
The Compass screen can be accessed through the Environment Menu. On this screen you can access the internal compass or calibrate the compass. The Talon® HD 10K compass needs to be calibrated during initial setup and should be re-calibrated every time you significantly change location, typically 30 miles or more, and after battery changes. Calibrate your Talon® HD 10K outside and away from large metal structures or objects.

For instructions on how to calibrate your Talon® HD 10K see the "Calibrating the Compass" section on pages 12 and 13.

Press the "Measure" button to close the Menu and open the Range screen.

RANGING

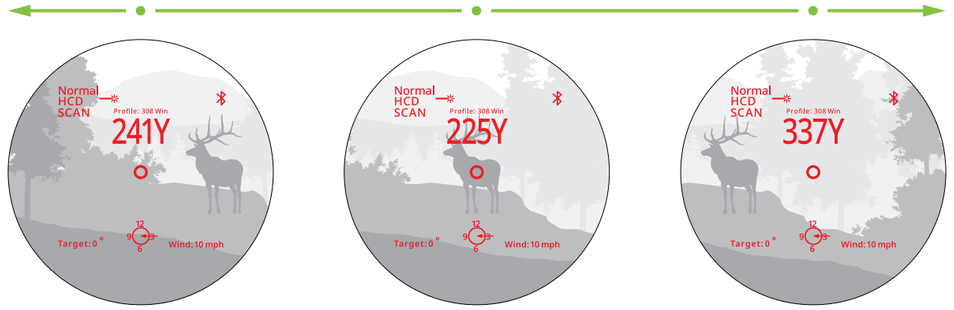
Once the Talon® HD 10K is set to your rifle's setup and preferences, and the wind and weather are captured, it is ready to Range. With the Talon® HD powered up, position the reticle on the target you wish to Range, then press and release the "Measure" button to get the distance measurement. If in BAL Mode, a custom wind/drop solution will be displayed. The number on the left is your Elevation Correction and the number on the right is your Windage Correction. The direction you dial is signified on the left side of the correction with a "U" for up or "D" for down for elevation and either a "L" for Left or "R" for right for windage. Simply dial or hold for the correction.



Note: If the laser is not able to Range due to the reflectivity of the target object, or being too close, you will see a Range return of zero. To Range a new target, simply re-aim and press the "Measure" button again.

Scan Feature

Activate the Scan Feature by pressing and holding the "Measure" button. Keeping the button depressed will continuously measure as you pan back and forth across the target objects. "Scan" will flash in the upper left-hand corner of the display while scanning.



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 Talon® HD is used on a tripod, the reticle may appear tilted depending on tripod level.

Note: It is recommended to re-calibrate with your binocular adapter attached if you're going to be utilizing the Talon® HD with a tripod. See instructions on pages 12 and 13.

Rangefinding Tips

Laser rangefinding binoculars 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.

- 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.
- 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.
- Using a tripod to steady the Talon® HD will greatly increase your ability to range small targets at longer distances.
- If you are having difficulty ranging an animal or object, try ranging a different nearby object, or use the Scan Feature to pan back and forth while watching for changes in range number.

ACCESSORIES

GlassPak™ Sport Binocular Harness

Streamlined, silent, and functional. The GlassPak™ Sport is designed for the minimalist hunter who demands all-day comfort and fast access to gear when seconds count.

Follow these steps to adjust the fit of your harness:

1. Position the harness so the stitched logo is facing outward with the G-hooks at the top and the side-release buckles at the bottom.

2. Clip the G-hooks into the loops at the top of the backside of the case.

3. Slip the harness over your head so that the harness is on your back and the case is on your chest.

4. Snap the side-release buckles to the buckles at the bottom of the backside of case. Adjust the straps to fit your body snugly so the harness is positioned high and tight on your chest.
5. Roll up and secure any loose straps at the top of the harness.

6. Thread the binocular tether straps through the strap attachments on binocular. Thread the binocular tether straps back through the tether strap buckles to secure.

Lens Covers

The Talon® HD comes with a Tethered Objective Lens Covers and Rainguard for the Ocular Lenses. Use the covers to protect the lenses whenever you are not using your binocular.

Neck Strap

Attach the Padded Neck Strap in these three simple steps:

1. Push a few inches of the strap through the Strap Attachment on the binocular.

2. Hold the buckle and thread the end of the strap through the buckle.

3. Adjust the overall length, then pull tight until the strap is secured within the buckle.

Note: If using another type of strap, never attach metal O-rings directly onto the Strap Attachment.

GEOBALLISTICS® APP

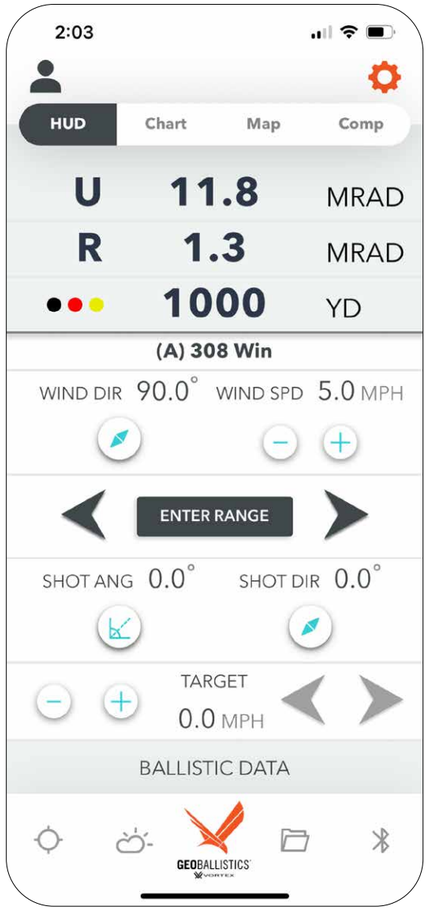
While use of the GeoBallistics® App is not required, it can be a great tool for quick edits and inputs and offers additional features. Go to your device's app store and download the GeoBallistics® App.

SCAN QR CODE TO GET STARTED

NAVIGATING THE GEOBALLISTICS® APP

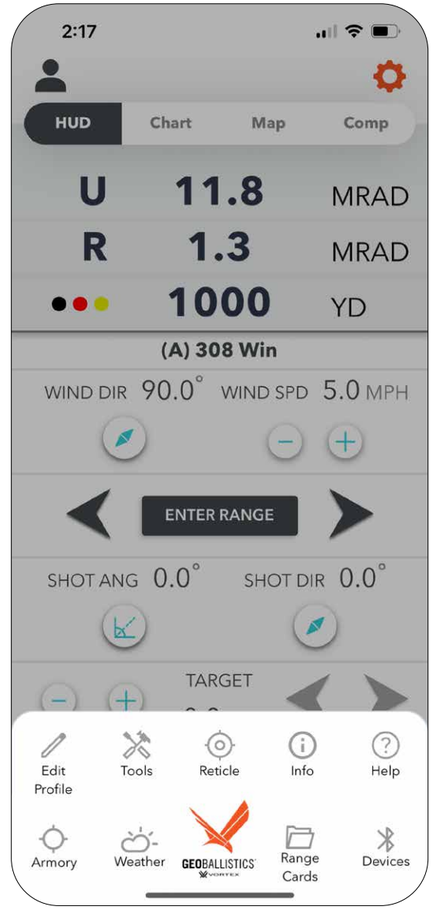
From the main screen of the GeoBallistics® App, you will see these main icons:

ICON	NAME	FUNCTION
	Account	On the Account page you may log into your account to access your Profiles and Range Cards.
	App Settings	On the App Settings page you may customize your app experience by selecting preferences, units, and more.
	Armory	On the Armory page, you can create, edit, delete, and sort profiles to be used for your ballistic devices. You can also create and store rifles, bullets, optics, and muzzle devices for use within Profiles.
	Atmospherics	On the Atmospherics page you may view and input weather data, connect to a weather meter, or select a nearby airport to pull weather data from.
GEOBALLISTICS VORTEX	**Quick Access Menu**	Pressing the GeoBallistics® logo provides quick-access to features including Edit Profile, Tools, Reticle View, Info, and Help.
	Range Cards	On the Range Cards page you may save your range card data created in the GeoBallistics® App.
	Manage Devices	On the Manage Devices page you may connect compatible devices to the GeoBallistics® App and edit your preferences with each device.



By pressing the GeoBallistics® Logo you can open the Quick Access Menu. From this menu you can access the Edit Profile, Tools, Reticle View, GeoBallistics® Info, and Help screens by clicking on the icons below:

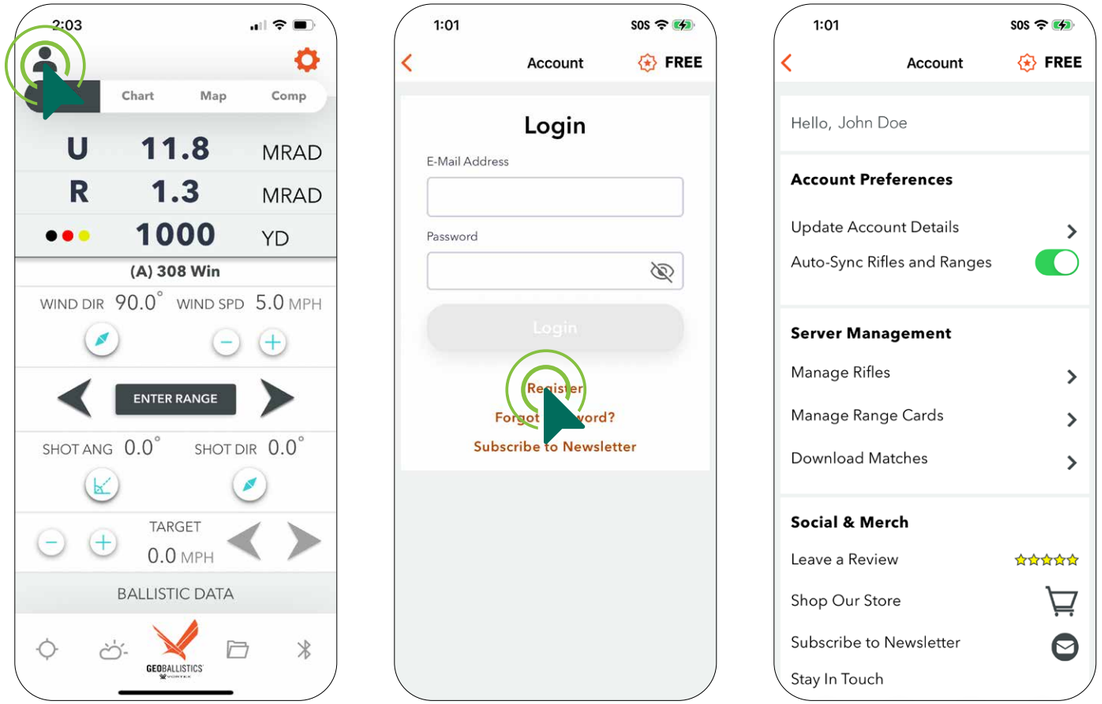
ICON	NAME	FUNCTION
Edit Profile	**Edit Profile**	On the Edit Profile screen you can access and make quick edits to the Active Profile.
Tools	**Tools**	On the Tools screen you can access calculators for Target Distance, Target Size, and a MOA/MRAD conversion.
Reticle	**Reticle View**	On the Reticle View screen you can see your ballistic correction holdovers on your reticle for the Active Profile.
Info	**GeoBallistics® Info**	On the GeoBallistics® Info screen you can see high level app navigation information.
Help	**Help**	On the Help Center screen you can access Vortex® Contact information and FAQs for common issues.



Creating an Account

Although it is not required, we recommend creating an Account on the GeoBallistics® App. Doing so will ensure your data is backed up should anything ever happen to your device or app.

1. To create an Account, select the icon from the top left corner of the main screen.
2. Click the “Register” link from the Account screen.
3. Once you’ve registered and created an Account, you will be able to manage your Account Preferences.



STEP 1 **STEP 2** **STEP 3**

GeoBallistics® App Main Screens

Across the top of the main screen of the GeoBallistics® App, there are four tabs: HUD, Chart, Map, and Comp. See the App Settings Menu section on page 49 for more information regarding how to select which tab is your default when first opening the GeoBallistics® App.

HUD Tab

From the HUD tab, you will see your ballistic solution displayed in either MOA, MRAD, or inches based on your preferences.

You will also see wind and target information based on data collected from either the Talon® HD, GeoBallistics® App, another Vortex Relay™ device, a third-party weather meter, or selected airport data. Here you may also click any buttons below each data point to capture measurements from your mobile device. Wind Speed can be changed manually. Below is the Enter Range button. This button can be used to manually enter Range from the app and push it to the Talon® HD. Clicking either the Left or Right Arrow next to this button will manually change the Range value.

You can tap on the respective icons to have your phone measure Shot Angle and Shot Direction. Double tapping the icons will zero out these values.

For Target, you may select the speed and direction of a moving target to add this data to your ballistic solution.

On the bottom of the screen is Ballistic Data. This is based on information from your selected Profile. See page 55 for more information about Profiles.

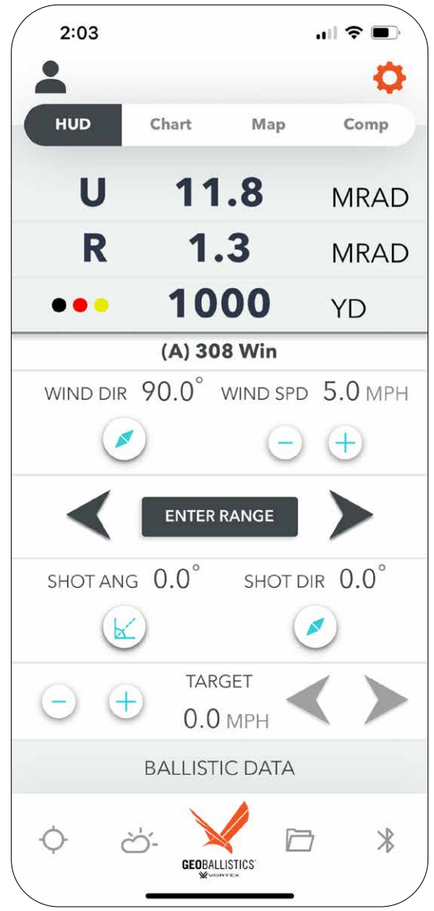


Chart Tab

From the Chart tab, you will see data for Shot Angle, Shot Direction, and Range. Here you may also manually input this data to change your ballistic solution.

Shot Angle°

This displays your Shot Angle in degrees from the horizon (ex: level = 0°, straight up = 90°).

Shot Direction°

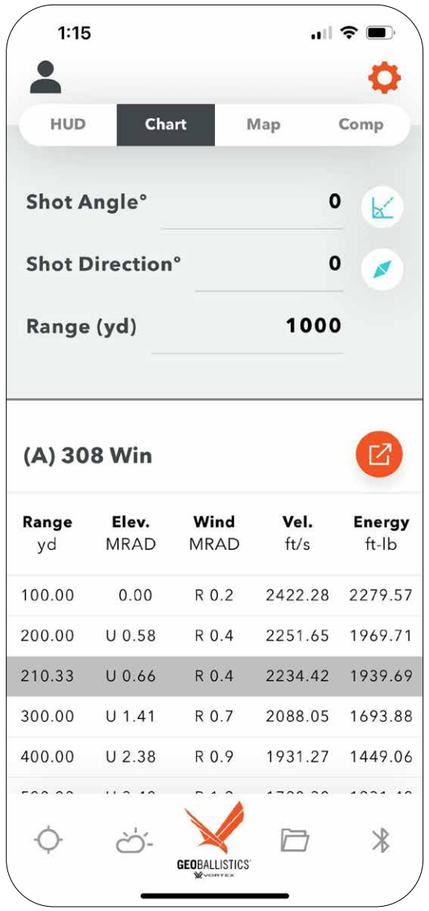
This displays Shot Direction in degrees from due north (ex: north = 0°, east = 90°, south = 180°, west = 270°).

Range

This displays the maximum chart distance either manually entered or the ranged distance in either yards or meters.

You will also see a chart containing ballistic information based on your selections. You can modify the range increments and units on the App Settings screen. If values are set for the GeoBallistics® Overlays within your Profile, you will see gray, red, and yellow highlighted rows to denote those values within the chart. See the GeoBallistics® Overlays section on page 65 for more information.

You may export the chart data using the button.



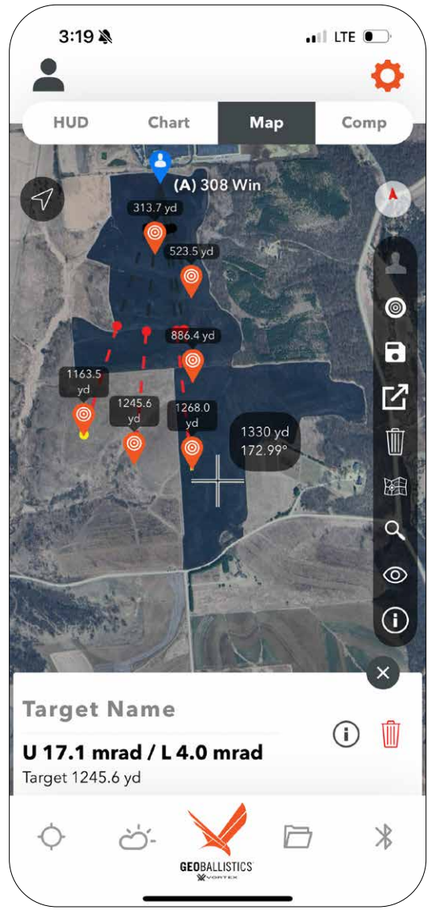
Map Tab

From the Map tab, you may locate your current position by clicking .

While on this tab, you can use the shooter icon to drop a pin to denote your location and the target icon to drop pins for your target's locations. You may also use the Talon® HD to Range a target, which will then drop a pin on the map representing that target's position. For the best results, make sure the Talon® HD is calibrated correctly. See pages 12 and 13 for instructions on how to calibrate your Talon® HD.

Use your finger to move the cursor around the Map screen. You will be shown the distance and direction of that point from your position if you have dropped the shooter position pin. If you have dropped target pins, you may click on each one to name them and to see the calculated ballistic solution, additional information, or delete the target.

If your target position is far enough to show your GeoBallistics® Overlays, they will appear using a black dot (Max Vital Range), red dot (Energy Threshold), and yellow dot (Velocity Threshold). The line will also change color (dashed black, red, or yellow) to indicate you are beyond that threshold. You can save the pin positions to your Range Card folders by clicking the save icon or export them to your Comp tab by clicking the export icon . You can also change the map view to either terrain, standard, hybrid, or satellite view by pressing the map icon .



Comp Tab

From the Comp tab, you may manually enter Shot Angle, Shot Direction, and Range. This information can also be populated with data from the Talon® HD.

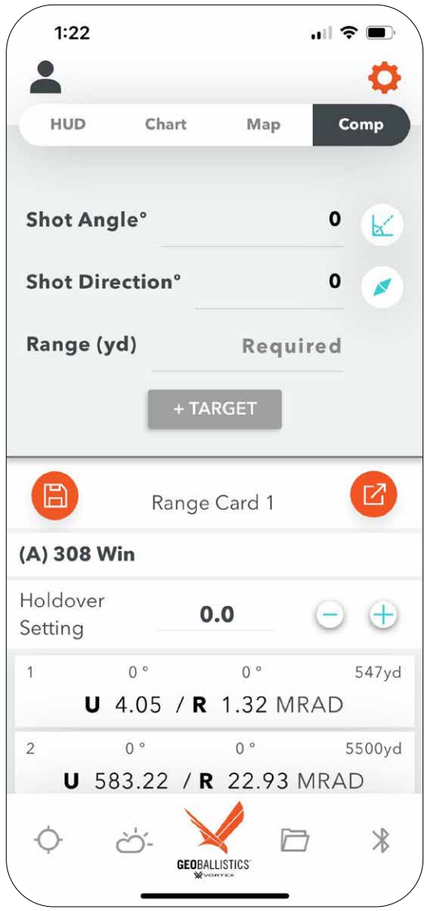
On this screen, you can build Range Cards. Range Cards built on the Comp tab will automatically update to the Talon® HD or any other devices on the network when connected.

Changing Profile, weather, or wind information will automatically update your Range Card solutions. Ensure these inputs are updated to ensure accurate solutions. The selected Profile is shown next to the (A-J) designation depending on how your Profiles are sorted.

Once the desired values for Shot Angle, Shot Direction, and Range are populated, press the + TARGET button to save the ballistic solution for that target. You will see the ballistic solution appear at the bottom of the screen.

Repeat this process for additional targets if desired. By clicking the “Edit” button, you can modify the input parameters for an individual target entry by clicking the box next to the entry or all entries at once by clicking the box next to “Select All Targets”. You may also re-order the target entries by either pressing the Up and Down Arrows or by typing the order number in the space provided. Click “Save” to save your changes. You can also click “Clear” to delete all target entry data.

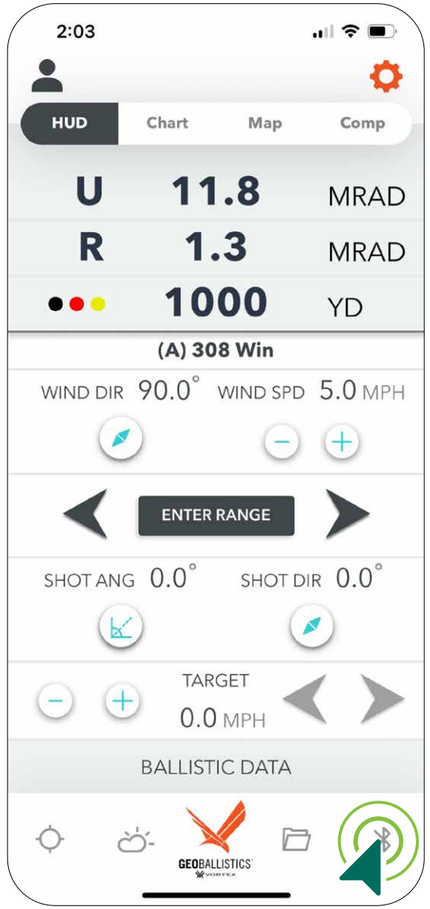
Once you have at least one target entry saved, you may modify the Holdover Setting by clicking ⊖ or ⊕ or by manually entering the desired value. This setting can be used to set the elevation value on your reticle that you plan to use as a holdover. For example, if you have targets that call for Elevation Corrections of 3.0, 4.2, and 5.5 MRAD, you can set the holdover correction to 3.0 and hold center, 1.2, and 2.5 MRAD.



Once you’ve created your Range Card, you can save the data to your Range Card folders by clicking save or export the data to several options by clicking . Range Cards saved to the Vortex Relay™ Range Cards Folder will be automatically synced with your Talon® HD.

PAIRING THE TALON® HD 10K TO THE GEOBALLISTICS® APP

To pair your Talon® HD with your mobile device, ensure the Bluetooth® on your mobile device is turned on and the GeoBallistics® App has been allowed access to your mobile device's location services.



Pairing the Talon® HD to the GeoBallistics® App

1. Power on the Talon® HD. Ensure the Bluetooth® icon is visible on the Range screen.

   Note: If the Bluetooth® icon is not visible, click on the "Join an Existing Network" pop-up on the GeoBallistics® App.

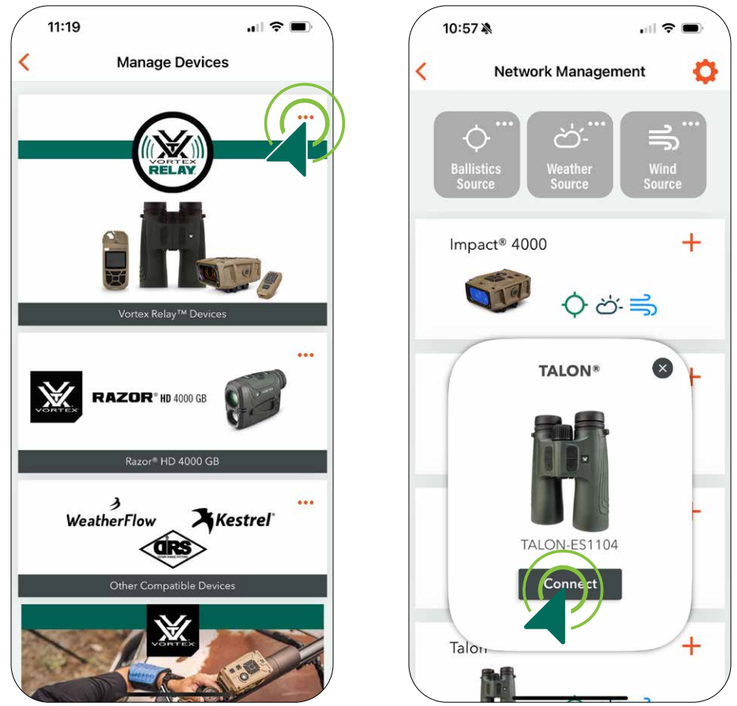
2. Open the GeoBallistics® App and select the Bluetooth® symbol in the lower right-hand corner of the screen.

3. Select the Vortex Relay™ tile.

4. You should be prompted with a Talon® pop-up. Click "Connect".

Note: If not prompted, press the + icon next to the Talon® image. Tap on your Talon® HD referencing the last four digits of the serial number on the bottom of your Talon® HD. This will connect the unit with the GeoBallistics® App.

Note: If the Talon® HD is already on a network, you will be prompted to join the existing network automatically.



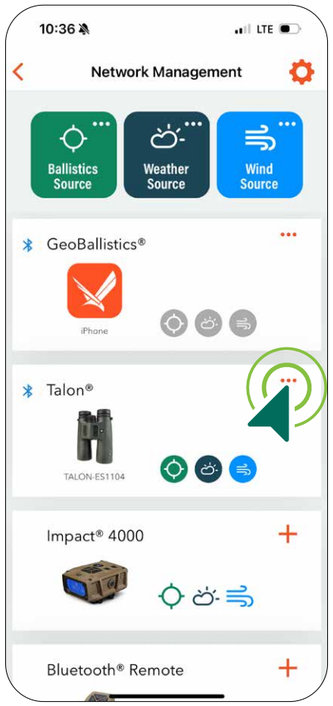
The GeoBallistics® App and Talon® HD are now connected. This is denoted by a blue Bluetooth® symbol next to the Talon® HD on the GeoBallistics® App. Also, a Vortex Relay™ icon Vortex Relay™ 2 with the number of devices on the network with appear while on the main screens of the GeoBallistics® App.

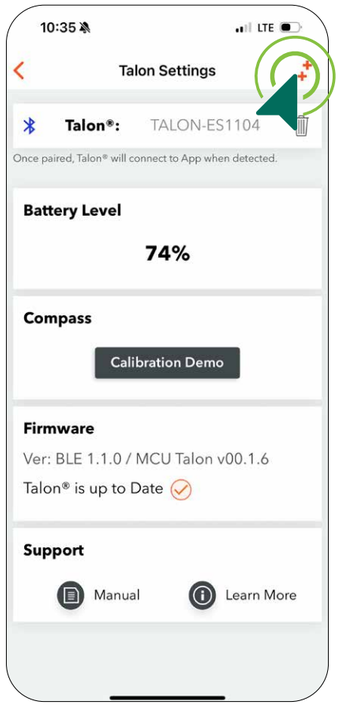
Note: Follow the same process to add additional Vortex Relay™ devices to your network.

Adding a Second Talon® HD to Your Network

If you need to add a second Talon® HD device to your network, you can do so by following the same instructions above. If you are not prompted, you can add it manually by following the instructions below.

1. Select the ellipses ••• next to the Talon® HD on the Network Management screen to open Talon® Settings.
2. Select the + icon on the top right corner of the screen.
3. Ensure your Talon® HD is on and select it from the list.



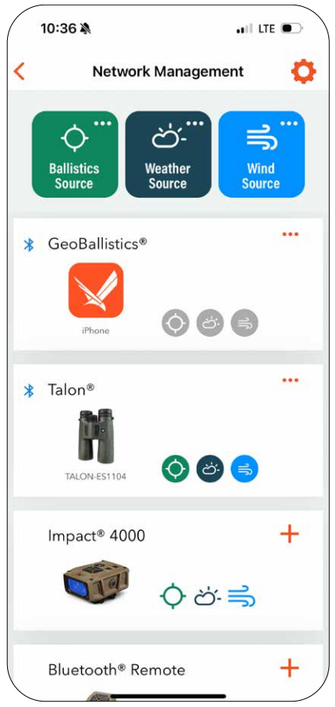


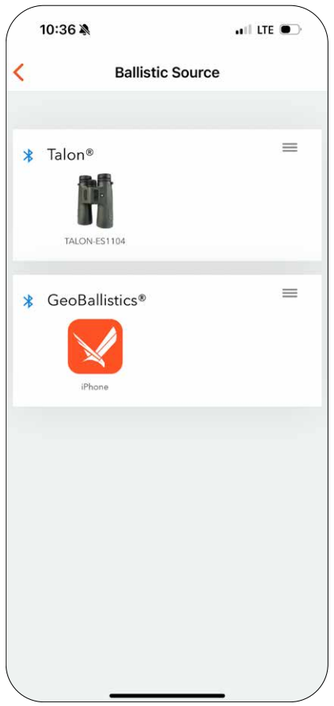
4. Your Talon® HD is now connected.

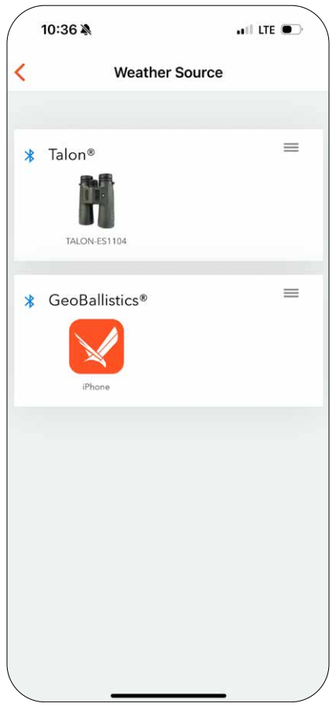
Choosing Data Sources

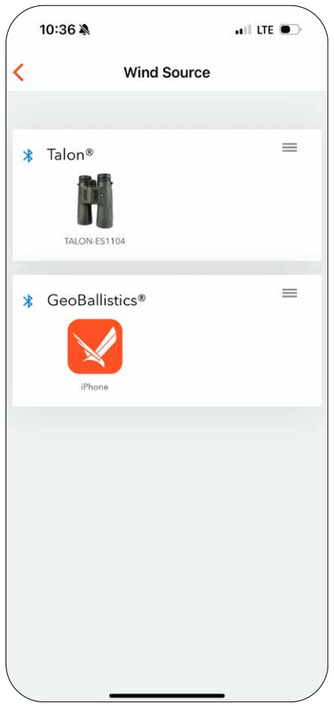
You can customize where your ballistic, weather, and wind information are coming from on your network. To do so, from the Network Management screen, select the ballistics icon next to the device you would like to calculate your ballistic solution. Select the weather icon next to the device you would like to provide weather and the wind icon next to the device you would like to provide wind information.

You can establish a priority as to which devices will provide which information by selecting the Ballistics Source, Weather Source, and Wind Source icons at the top of the page. The priority would come into effect if one of your devices was not present or not connected to the network.









TALON® HD SETTINGS MENU

Bluetooth® Connection Status

If your Talon® HD is connected it will be denoted by a blue Bluetooth® symbol. If your device is not connected, the symbol will appear gray.

Disconnecting a Device from the Network

To disconnect a device from the network from the Talon® HD Settings Menu, simply click the trash can icon next to the device name.

Battery Level Indicator

The Talon® HD's battery level will be displayed in this section of the Talon® HD Settings Menu.

Compass

To calibrate the compass, press the "Calibration Demo" button. Follow the on-screen prompts or see pages 12 and 13 for step-by-step calibration instructions.

Firmware

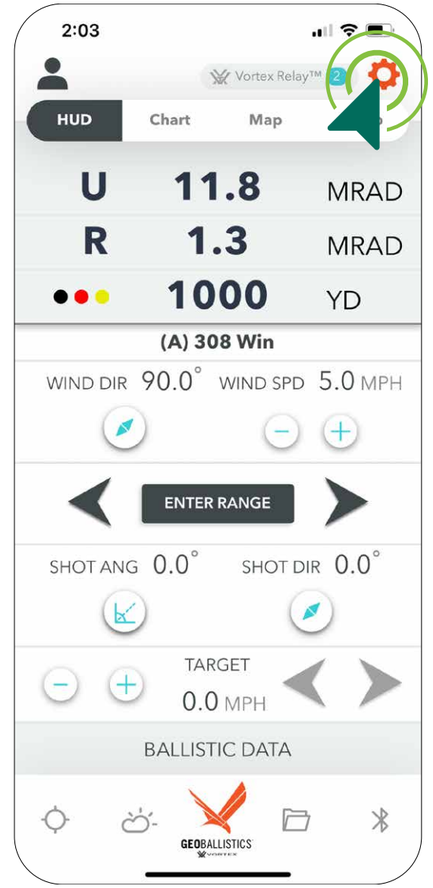
This section shows the latest firmware version for Talon® HD. If there is an update available, it will be listed in this section. You will also be automatically prompted if it is detected that you have an older version of software on your device. Press the "Update" button to update to the latest version. Read and follow all prompts. Do not turn your devices off during this process.

Support

This section has links to find more information about the product.

APP SETTINGS MENU

To navigate to the App Settings Menu, select the settings icon in the upper right-hand corner of the screen. While in the App Settings Menu you will be able to change App Preferences, Ballistic Preferences, Mobile Sensors, Chart Increments, Distance Units, Rifle Profile Units, and Weather Units.



At the top of the App Settings screen, you'll see HUD, Chart, Map, and Comp. By selecting one of these options, that will be the default when opening the app.

App Preferences

Auto-Locate

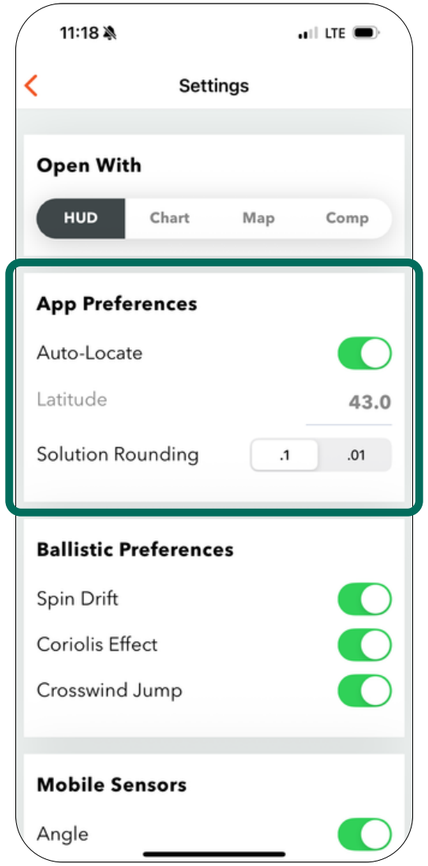
Auto-Locate will use your mobile device's latitude for ballistic calculations.

Latitude

Latitude allows for manual entry of latitude. This is disabled if Auto-Locate is on.

Solution Rounding

Solution Rounding allows you to set how many decimal places you would like the app solution to display.



Ballistic Preferences

For the most accurate ballistic solution, it is recommended to have Spin Drift, Coriolis Effect, and Crosswind Jump enabled.

Spin Drift

Spin Drift is a bullet's drift left or right due to the spin imparted by the Bullet Length in conjunction with Barrel Twist Rate, and the interaction of gyroscopic and aerodynamic forces.

The Talon® HD accounts for the effect of Spin Drift on the bullet when solving for your ballistic solution. To turn Spin Drift ON/OFF, tap the toggle icon.

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.

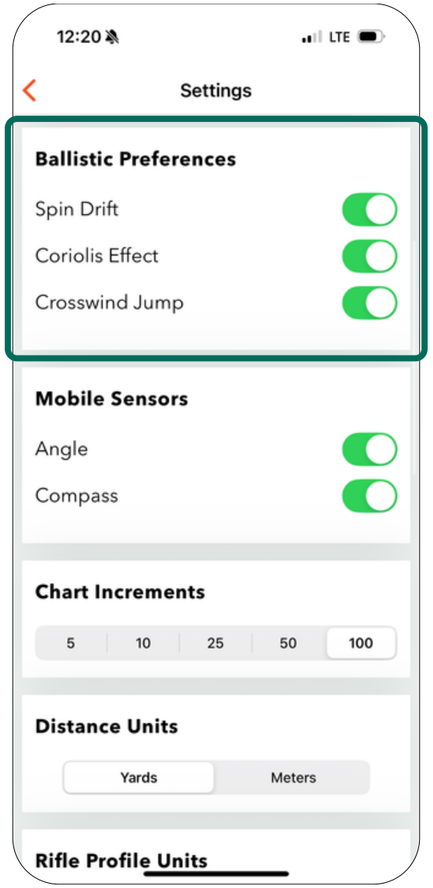
The Talon® HD accounts for the effect of the Coriolis Effect on the bullet when solving for your ballistic solution. To turn Coriolis Effect ON/OFF, tap the toggle icon.

Crosswind Jump

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

The Talon® HD accounts for the effect of Crosswind Jump on the bullet when solving for your ballistic solution. To turn Crosswind Jump ON/OFF, tap the toggle icon.

Note: The GeoBallistics® App should be the Ballistics Source if you wish for Spin Drift, Coriolis Effect, and Crosswind Jump to not be accounted for in your ballistic solution.



Mobile Sensors

Angle

Angle turns ON/OFF the mobile inclination angle sensor to determine the angle of the target. Tap the icon to toggle ON/OFF.

Compass

Compass turns ON/OFF the mobile compass sensor to determine the direction of the target. Tap the icon to toggle ON/OFF.

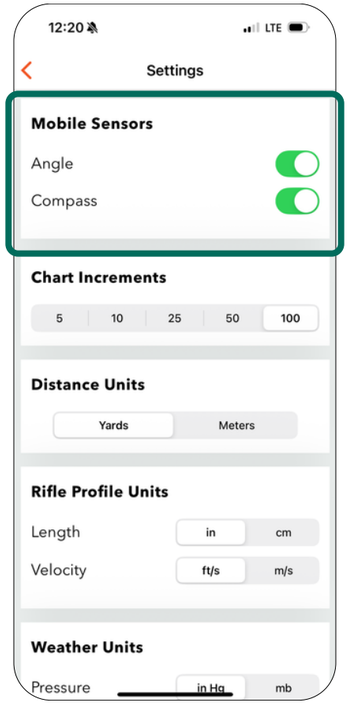
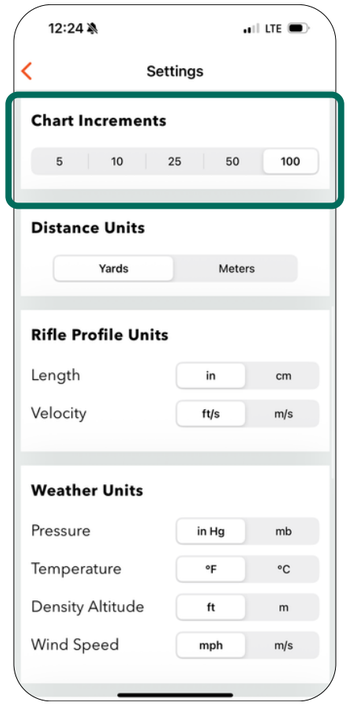


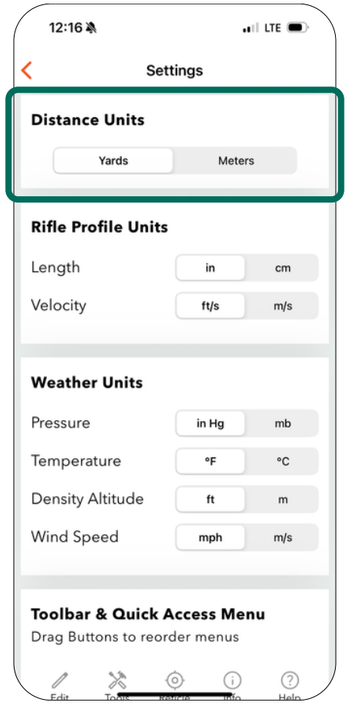
Chart Increments

Tap on the distance increments you wish the chart to be laid out in. (5, 10, 25, 50, or 100 yds./m)



Distance Units

The distance to the target can be displayed in yards or meters. Select the desired distance option from the menu.



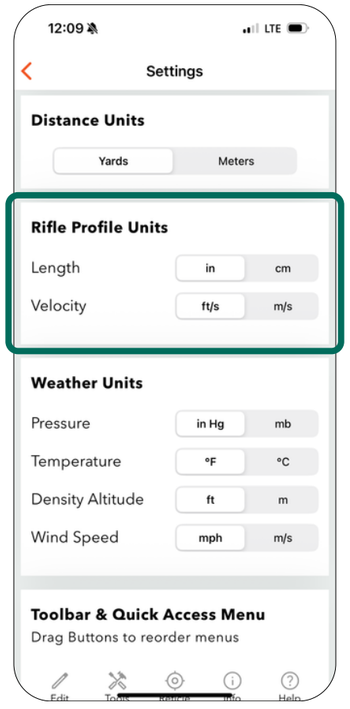
Rifle Profile Units

Length

The measured Sight Height, Elevation Offset, Windage Offset, and Vital Size can be displayed in either inches (in) or centimeters (cm). Select the desired option in the menu.

Velocity

The measured Muzzle Velocity and Velocity Threshold can be display in either feet per second (ft/s) or meters per second (m/s). Select the desired option in the menu.



Weather Units

Pressure

Pressure corresponds to the ambient atmospheric pressure surrounding you and your equipment. Atmospheric pressure can be displayed in inches of mercury (in Hg) or millibars (mb). Select the desired option in the menu.

Temperature

Temperature corresponds to the ambient temperature surrounding you and your equipment. Temperature can be displayed in Fahrenheit (°F) or Celsius (°C). Select the desired option in the menu.

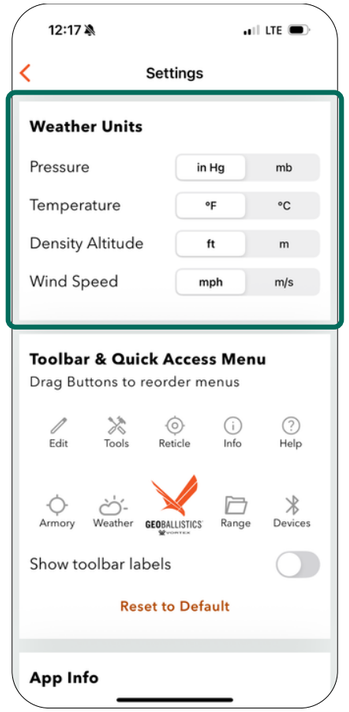
Density Altitude

Density Altitude is a value derived from a combination of Temperature, Pressure, and Relative Humidity and can be used as a quick reference for atmospheric conditions. The Density Altitude can be displayed in feet (ft) or meters (m). Select the desired option in the menu. It will display in both the app and the rangefinder.

Wind Speed

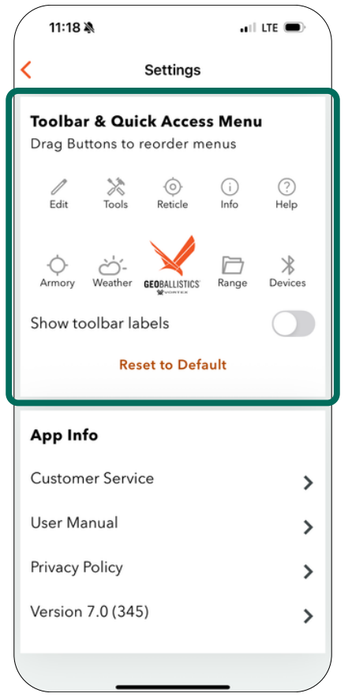
Wind Speed corresponds to the wind speed at your measurement device. Wind Speed can be displayed in miles per hour (mph) or meters per second (m/s). Select the desired option in the menu.

Note: Weather units do not have to agree between the GeoBallistics® App and the Talon® HD.



Toolbar & Quick Access Menu

From the Toolbar & Quick Access Menu section you can drag and reorder the menus based on your preferences. You can also choose wheather the toolbar icons are labeled or not within this section. To reset to the App defaults, click “Reset to Default.”



RIFLE & AMMUNITION PROFILES

You must have 10 Profiles loaded into the Talon® HD at all times. These Profiles can be set up in the Talon® HD Menu or via the GeoBallistics® App.

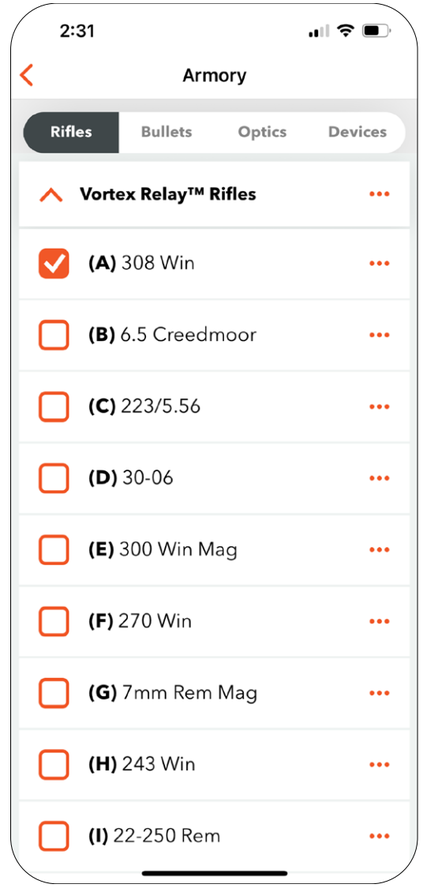
Default Profiles

The default Profiles include .308 Winchester®, 6.5 Creedmoor®, .223/5.56, .30-06, .300 Winchester® Magnum, .270 Winchester®, 7mm Remington® Magnum, .243 Winchester®, .22-250 Remington®, and .22 Long Rifle.

Syncing Profiles to the Talon® HD

After connecting the Talon® HD to your app, the Profiles will automatically sync between the Talon® HD and your app. 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 Talon® HD, navigate to the Armory screen by selecting the ⌖ icon on the lower left corner of the main screen. The currently synced Profiles will be annotated with A-J before their names in the Vortex Relay™ Rifles folder.

Note: If a change is made to a Profile on either the Talon® HD or on your app when they are not connected, upon reconnection, you will be notified that there is a discrepancy and asked which device’s information you’d like to use.

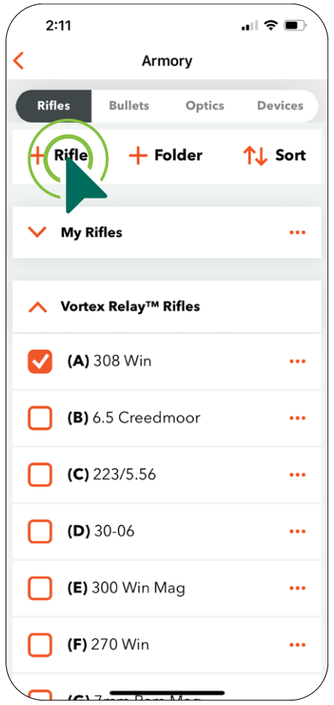


Creating Custom Ballistic Profiles

Custom Ballistic Profiles can also be created in the GeoBallistics® App. The bullet library will be periodically updated with the latest ballistic information from GeoBallistics®.

To Create A Custom Ballistic Profile:

1. Select ⌖ from the main screen, then select + **Rifle** on the Rifles screen.

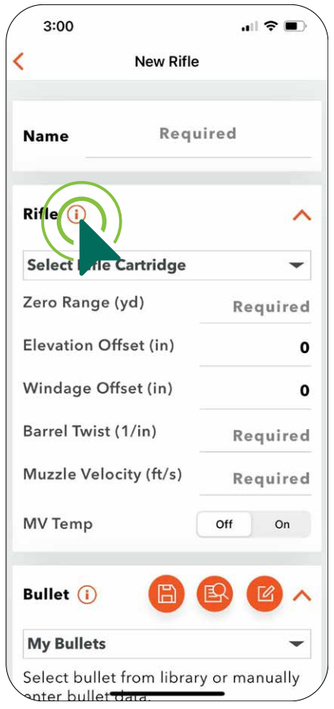


2. Select the Folder you wish to add the Profile to. “Vortex Relay™ Rifles” is the only folder that Profiles can be synced to your Talon® HD.

   Note: You can change folders after the Profile is created.

3. Name the Profile and complete the following information.

   Note: Press the information icon ⓘ next to each section for more information on how to find, measure, and input each of the values.



Rifle Information

Cartridge

Select your Rifle Cartridge from the drop-down menu of options.

Zero Range

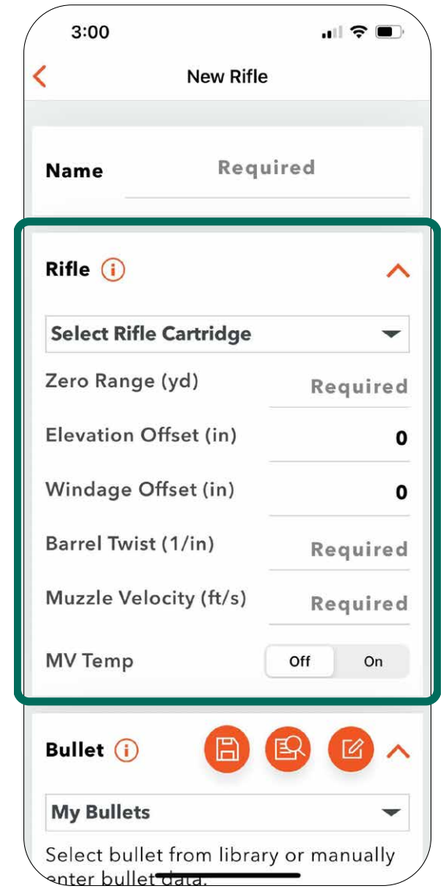
The distance at which you have zeroed your rifle. The measurement units can be set to standard (yards) or metric (meters) in the Settings Menu.

Elevation Offset

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, if your point of impact is 1 inch low, enter “-1” here. The measurement units can be set to standard (inches) or metric (centimeters) in the Settings Menu.

Windage Offset

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, if your point of impact is 1 inch left, enter “-1” here. The measurement units can be set to standard (inches) or metric (centimeters) in the Settings Menu.



Barrel Twist Rate

Barrel Twist Rate is the distance covered for each revolution of the bullet within the barrel. For example, if your barrel is denoted as “1:8”, this means the bullet will complete one full rotation every 8 inches and you should enter “8” into this space. This information may be marked on the rifle barrel, or on the manufacturer’s website. Update the Barrel Twist Rate to match your rifle.

Note: Use a negative or minus sign in front of the entered value to denote lefthand twist. If the twist direction is not known, do not use a negative or minus sign which will denote righthand twist.

Muzzle Velocity

Muzzle Velocity is the projectile’s speed as it leaves the muzzle. You can find this information on the packaging from most ammunition manufacturers, or their websites. We highly recommend that you use a chronograph or use the MV Truing Feature to verify this information. The measurement units can be set to standard (ft/s) or metric (m/s) in the Settings Menu.

MV Temp (Optional)

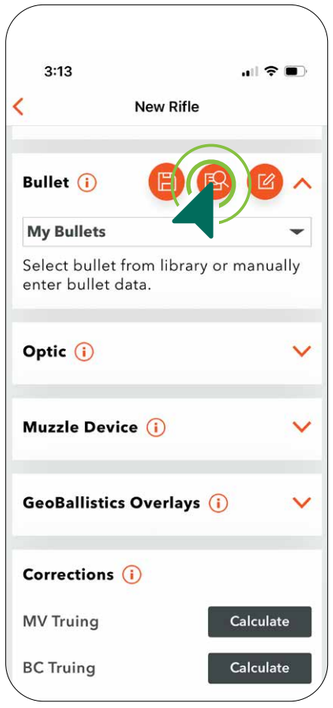
Muzzle Velocity Temperature (MV Temp) allows you to add recorded Muzzle Velocity as it correlates to the ambient temperature at the time of the shot. This can be important to fine tuning your ballistic solution. MV Temp is defaulted to off, but it may be turned on by toggling the switch to on. After you have toggled the MV Temp on, Muzzle Velocity will be "Disabled" in the field above. You can enter a custom Muzzle Velocity temperature table. The use of a chronograph is required for this information. Enter the Muzzle Velocity measured, and the temperature at which it was measured. It is required to enter at least two temperatures with corresponding Muzzle Velocities. For best results, each temperature entry should increase/decrease by at least 10 degrees. If only using two measurements, they should be close to the minimum and maximum expected temperatures expected. The measurement units can be set to standard (°F) or metric (°C) in the Settings Menu.

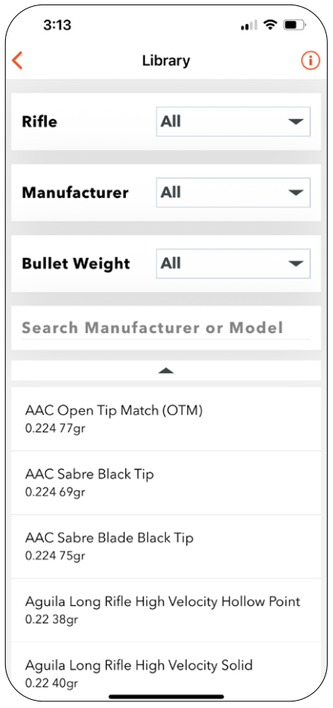
Note: You can import the latest temperature reading received by the app by selecting the "+ current" button.

Bullet Information

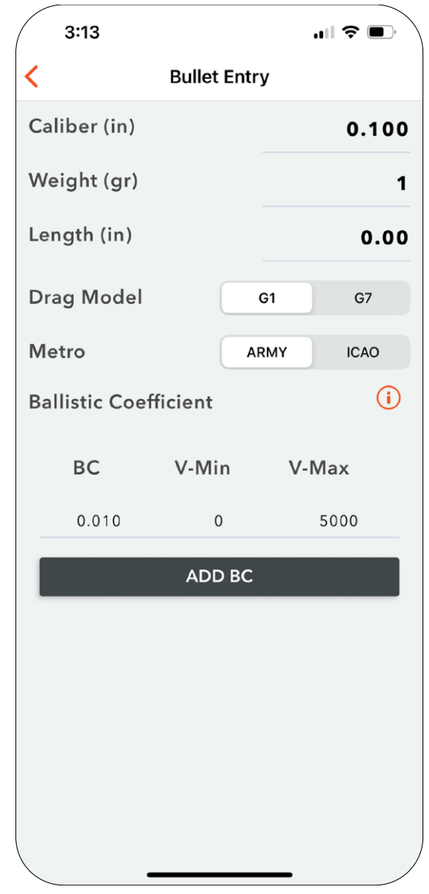
Find your bullet in the bullet library by selecting the icon. Select your Rifle, Manufacturer, and Bullet Weight from the drop-down lists. Then, select the exact bullet you are using. This information can be found on your ammunition box.

You can access any previously saved bullets from your Armory by selecting from the My Bullets drop-down list.





Bullet data may also be added manually by selecting the icon and inputting the following:



Caliber (in):

The bullet's diameter in inches.

Weight (gr):

The bullet's weight in grains.

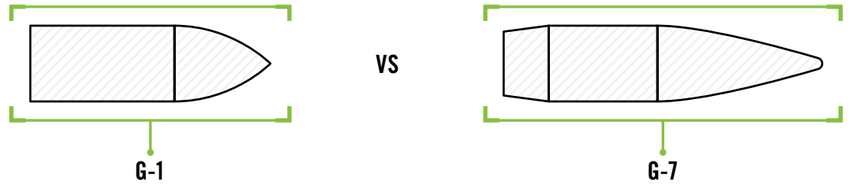
Length (in):

The bullet's length in inches.

Drag Model – G1 vs. G7 vs. Drag Coefficient

This information may be printed on the box if you are using manufactured bullets. If you are using custom loads, use the Drag Model listed on the packaging for your bullet. If the Drag Model is not listed on the packaging, this information can usually be found on the bullet/ammo manufacturer's website.

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 in centerfire cartridges.



A Custom Drag Model is a more refined way of modeling drag for bullets because it uses the actual measured drag of a specific bullet in a ballistic solver. The app provides access to the full bullet library including custom curve data on nearly all commercially available bullets. We recommend always selecting a Custom Drag Model when available as it will provide the most accurate solution.

Note: Drag Model options: Multi G1, Multi G7, or CD can be imported from the GeoBallistics® App. When using these the Ballistic Coefficient will read "Multi" or "1" and the Drag Model will read "Multi G1", "Multi G7", or "CD" based on your selection.

Meteorological Conditions (Metro) – Army vs. ICAO

This will be a standard set of atmospheric conditions used to calculate the aerodynamic drag on the 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 Ballistic Coefficient, 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 Ballistic Coefficient will yield slightly improved ballistic numbers at long ranges.

Ballistic Coefficient:

The bullet's Ballistic Coefficient as it correlates to the drag function.

These values can be found on the cartridge box or on the manufacturer's website.

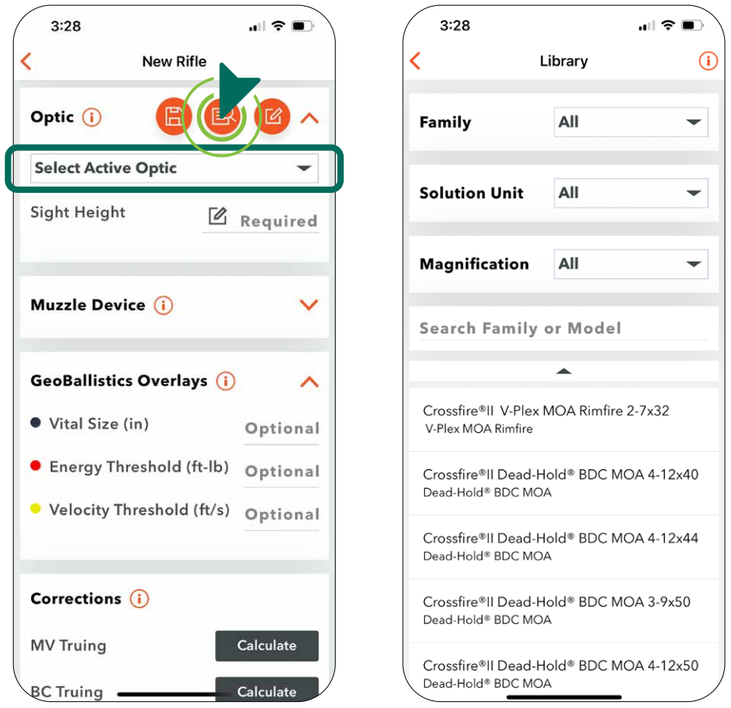
Once you've input all your bullet information, you can save your bullet to your Armory for quick access in the future by pressing the save icon . You can also build and save bullets directly from the Armory screen for future use within Profiles.

Note: The ballistic solution provided by the Talon® HD is only as reliable as the following data provided by the user. Please contact Vortex Optics at **1-800-4VORTEX (1-800-486-7839) Ext. 1** with any questions.

Optic Information

Find your Vortex® optic from the Vortex Optic library by selecting the icon. Select your Optic Family, Solution Unit, and Magnification from the drop-down lists. Then, select the exact optic you are using. This information can be found on your riflescope.

You can access any previously saved optics from your Armory by selecting from the Select Active Optic drop-down list.



Optic data may also be added manually by selecting the icon and inputting the following on the next page:

Optic Name

Enter a name for your optic.

Solution Units

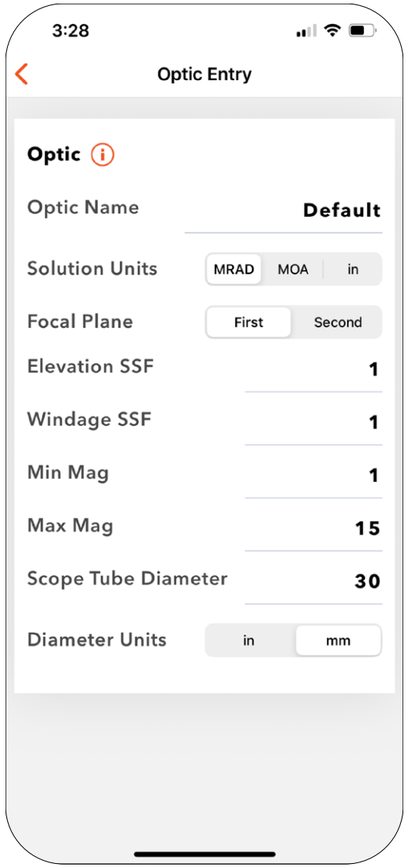
Choose the Solution Unit you would like to have your drop chart displayed with. MRAD, MOA, or inches. This information will be based off the angular unit of measurement your riflescope's turrets and reticle are laid out in.

Focal Plane

Select if your optic is first focal plane or second focal plane. First focal plane reticles scale with magnification, and their subtension values remain accurate across the magnification range. Second focal plane reticles remain visually constant in size and weight across the magnification range and their subtension values are only accurate at one magnification, typically the highest.

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.

Min Mag

Enter the minimum magnification of your riflescope. This can typically be found on the riflescope's eyepiece.

Max Mag

Enter the maximum magnification of your riflescope. This can typically be found on the riflescope's eyepiece.

Tube Size

Enter diameter or your riflescope's main tube.

Diameter Units

Select between inches (in) or millimeters (mm) for the measurement of your riflescope's main tube diameter.

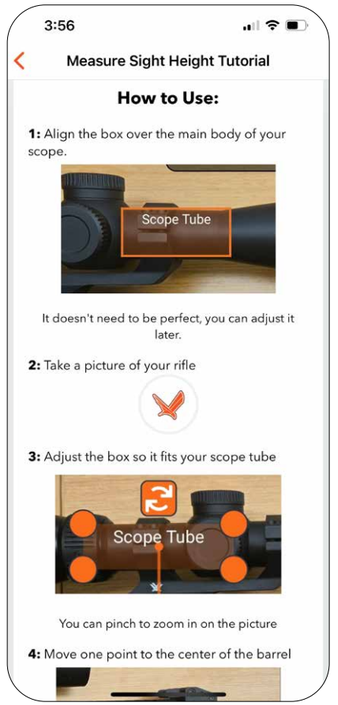
Sight Height

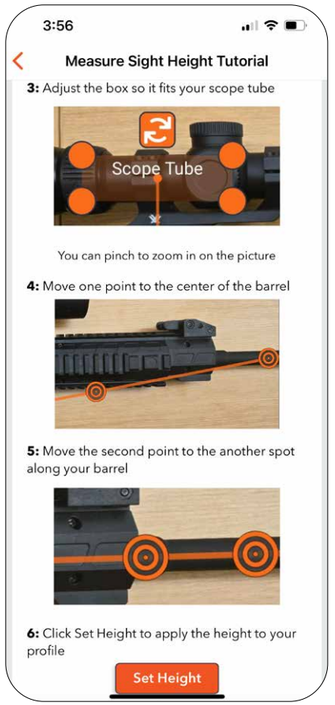
Height from the center of the rifle bore to the center of the optic. The measurement units can be set to standard (inches) or metric (centimeters) in the Settings Menu.

If you are not able to physically measure your Sight Height, you can utilize your device's camera to measure this dimension by pressing the edit button next to Sight Height.

This will open the Measure Sight Height Tool. Read the How to Use instructions and then press the "Continue" button to begin.

How to Use:



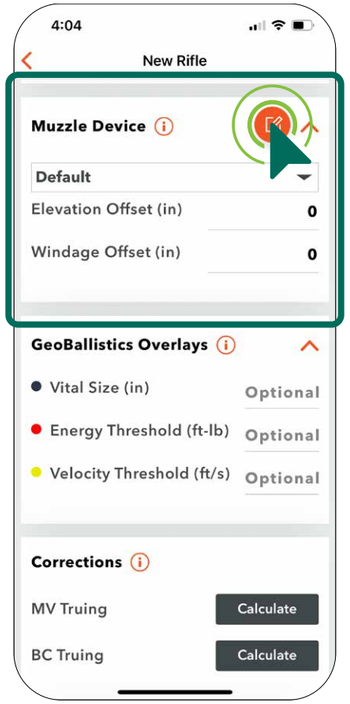


Once you've input all your optic information, you can save your optic to your Armory for quick access in the future by pressing the save icon . You can also build and save Optics directly from the Armory screen for future use within Profiles.

Note: If you plan to change between optics on the same rifle setup, you can easily choose between Optics saved in your Armory within your Profile without building separate Profiles for each optic.

Muzzle Device

Within the Profile you can add in your muzzle device information to account for offsets incurred by the device. Muzzle Device data may be added manually by selecting the icon and inputting the following:



Device Name

Enter a name for your muzzle device.

Elevation Offset

Vertical offset from the point of aim at your zero distance with your muzzle device installed. 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, if your point of impact is 1 inch low, enter “-1” here. The measurement units can be set to standard (inches) or metric (centimeters) in the Settings Menu.

Windage Offset

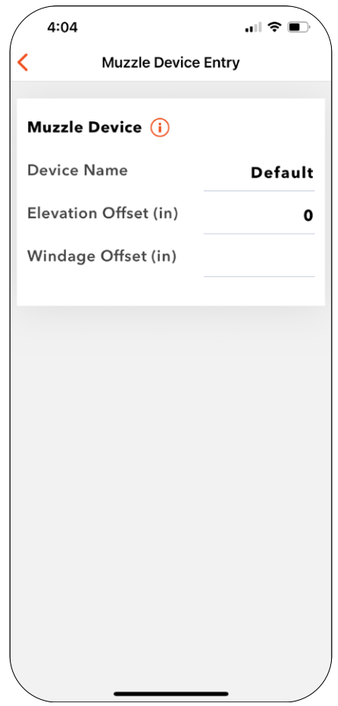
Horizontal offset from the point of aim at your zero distance with your muzzle device installed. For example, you entered 100 yards for your Zero Range and at 100 yards your point of impact is 1 inch right, enter “1” here, if your point of impact is 1 inch left, enter “-1” here. The measurement units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

You can also access any previously saved muzzle device from your Armory by selecting from the Select Active Device drop-down list.

Once you’ve input all your muzzle device information, you can save your device to your Armory for quick access in the future by pressing the save icon . You can also build and save muzzle device’s directly from the Armory screen for future use within Profiles.

Note: If you plan to change between muzzle devices on the same rifle setup, you can easily choose between muzzle devices saved in your Armory within your Profile without building separate Profiles for each device.

Note: If you are not using a muzzle device, leave this section blank.



GeoBallistics® Overlays (Optional)

Vital Size

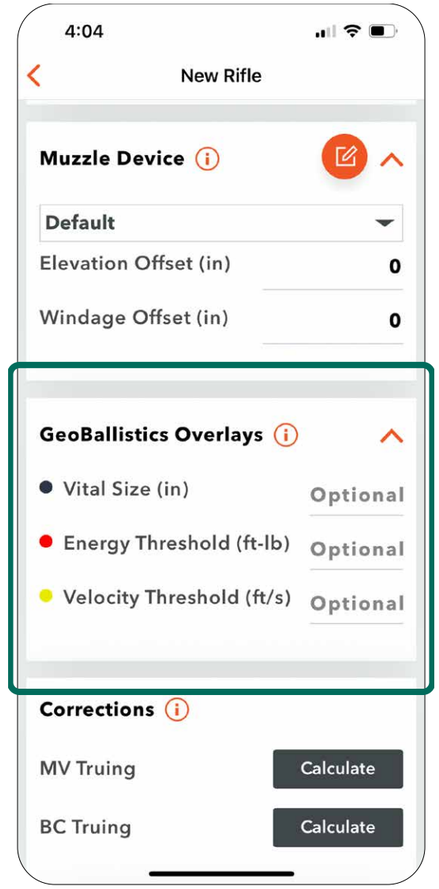
For Vital Size, estimate the diameter of the vital area of your target and enter here. The ballistic solver will take this value into account when calculating and displaying your ballistic solution in the GeoBallistics® App. If the point of aim (POA) is in the middle of the vital area, the GeoBallistics® 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.



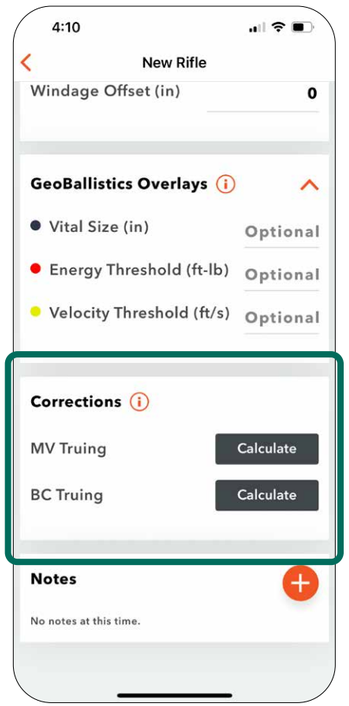
Corrections (Optional)

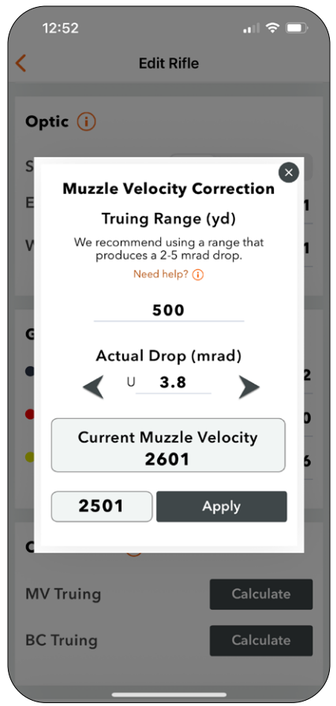
MV Truing

The MV Truing Correction can be used to fine tune the ballistic solver by calculating your Muzzle Velocity based on your rifle, riflescope, and ammunition. This process updates the predicted Muzzle Velocity with an observed drop that was built from your personal equipment. Before starting, make sure all Profile and environmental data are accurate and up to date. We recommend performing truing at a range that produces a 2-5 MRAD drop (7-17 MOA drop) for accurate results.

To Utilize MV Truing:

1. Press “Calculate” next to MV Truing.
2. Enter a Truing Range. An expected drop will populate based on your Profiles and inputs.
3. Enter the Actual Drop that you observed at your Truing Range. An updated Muzzle Velocity will be calculated.
4. Select “Apply” to utilize the calculated Muzzle Velocity. To keep your Current Muzzle Velocity, press the “X” in the top right corner to exit.



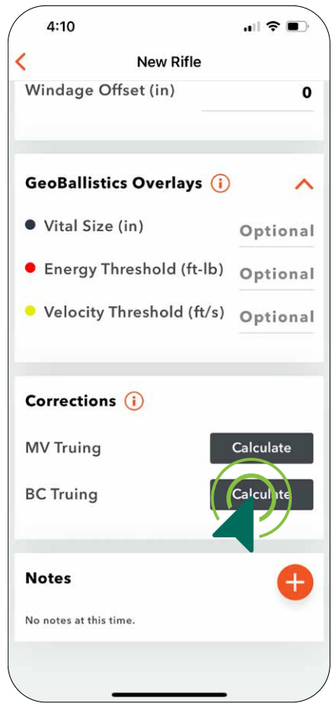


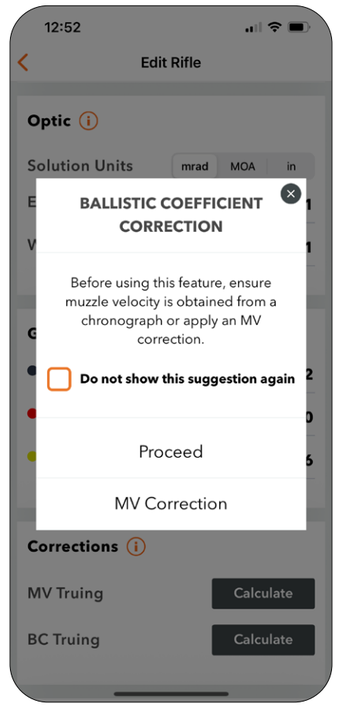
BC Truing

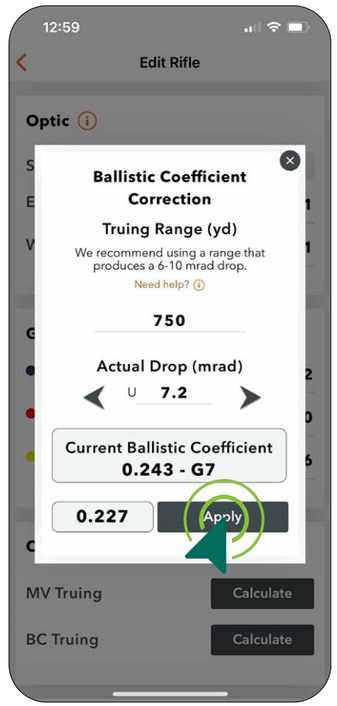
The BC Truing Correction can be used to fine tune the ballistic solver by calculating your Ballistic Coefficient based on your rifle, riflescope, and ammunition. This process updates the predicted Ballistic Coefficient with an observed drop that was built from your personal equipment. Before starting, make sure you have an accurate Muzzle Velocity input (from a chronograph or via MV Truing) and make sure all Profile and environmental data are accurate and up to date. For BC Truing, we recommend performing truing at a range that produces a 6-10 MRAD drop (21-34 MOA drop) for accurate results.

To Utilize BC Truing:

1. Press “Calculate” next to BC Truing.
2. If you have obtained your Muzzle Velocity via chronograph or MV Truing, press “Proceed”. If not, that must be done before proceeding.
3. Enter a Truing Range. An expected drop will populate based on your Profiles and inputs.
4. Enter the Actual Drop that you observed at your Truing Range. An updated Ballistic Coefficient will be calculated.
5. Select “Apply” to utilize the calculated Ballistic Coefficient. To keep your Ballistic Coefficient, press the “X” in the top right corner to exit.



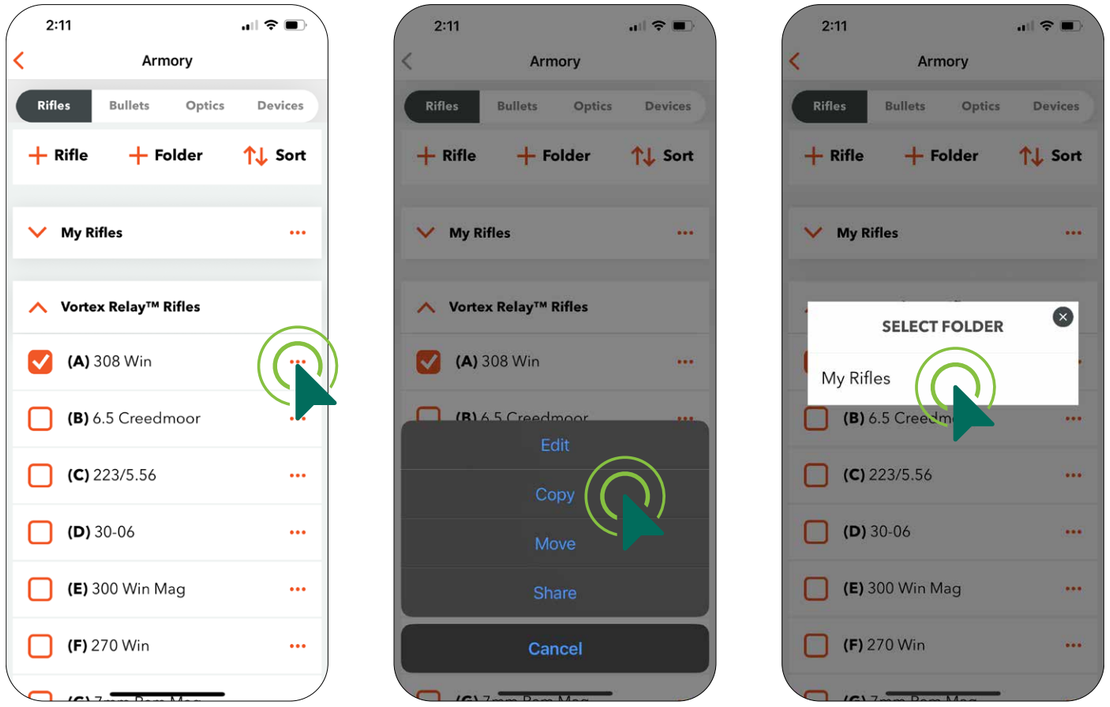




Copying a Profile

To Copy a Profile:

1. While in the Rifles section, select the Profile that you wish to duplicate by tapping the ellipsis ••• on the right of the Profile.
2. Select “Copy”.
3. Select the folder you wish to add the Profile to.
4. Once a Profile has been copied, the Profile will automatically rename with the addition “(copy)” at the end of the Profile name. If desired, rename the Profile using the steps in the following section.

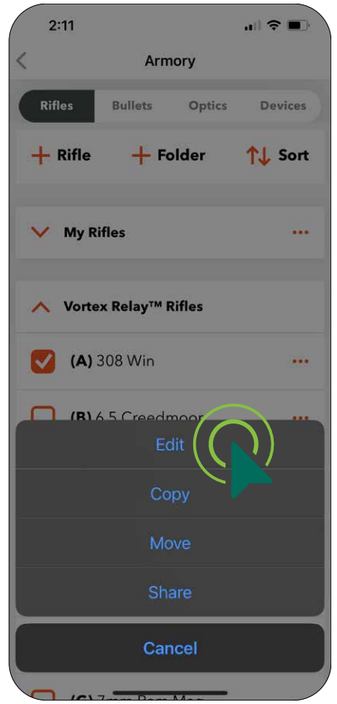


Editing a Profile

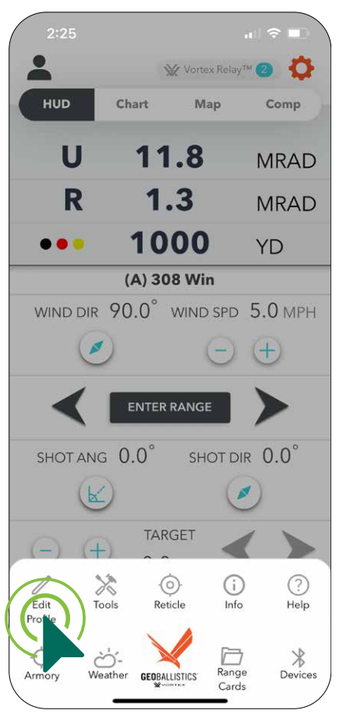
Profiles can be edited to update specific data to represent the ballistic information most accurately for your firearm and ammunition.

To Edit a Ballistic Profile:

1. Press the ellipsis ••• and select “Edit”.
2. Update the data points for your firearm and ammunition.
3. The edits will save automatically when you exit the Profile.



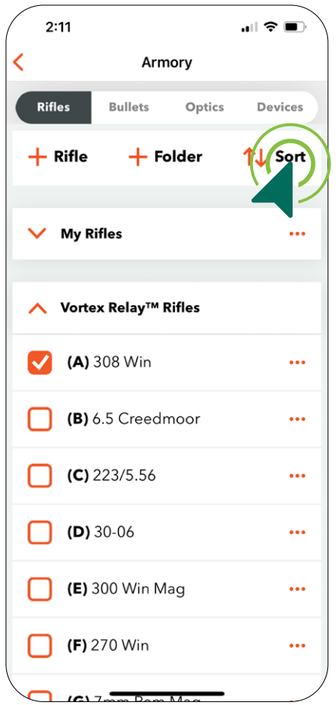
You can also quickly access and edit the Active Profile by clicking the GeoBallistics® logo from the main screen and clicking the Edit Profile icon.

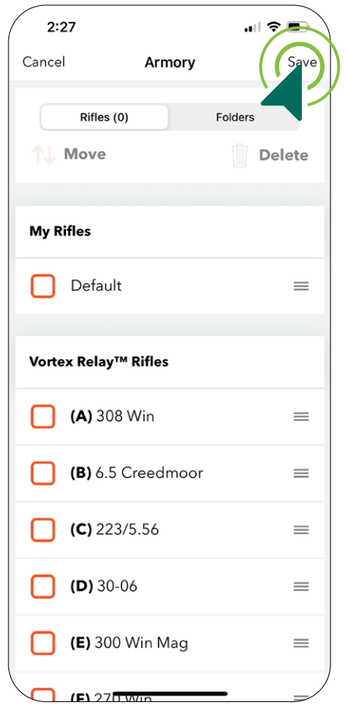


Setting Up & Switching Profiles in the GeoBallistics® App

You can change the identifier (A-J) assigned to a Profile in the GeoBallistics® App. Only Profiles in the Vortex Relay™ Rifles folder can be assigned an identifier.

1. At the top of the Rifles screen select the ↑↓ **Sort** icon.
2. Press and drag the Profile to the desired location. The top Profile in Vortex Relay™ Rifles will be identified as (A), the second Profile will be (B), and the third Profile will be (C) etc.
3. Once the Profiles are identified correctly and are in the correct folder, tap “Save” in the top right-hand corner.
4. The Profile will automatically sync to the Talon® HD the next time it is connected to the GeoBallistics® App.

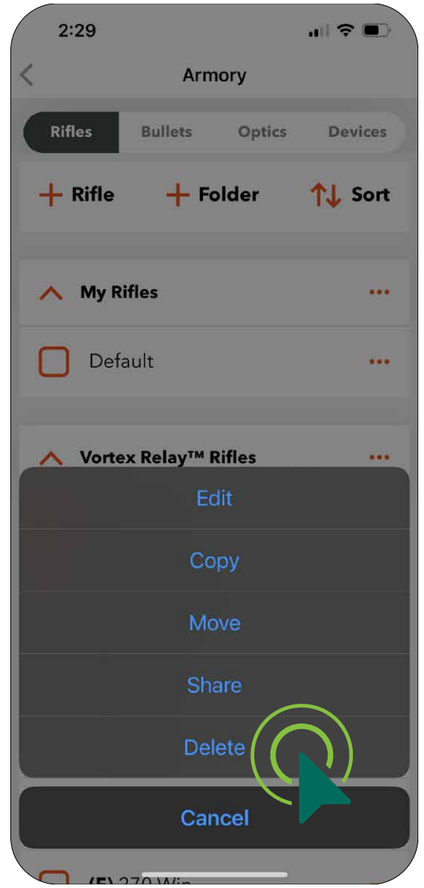




Deleting a Profile in the GeoBallistics® App

While in the Rifles screen, select the ellipsis ••• next to the Profile that you wish to delete. Select “Delete”.

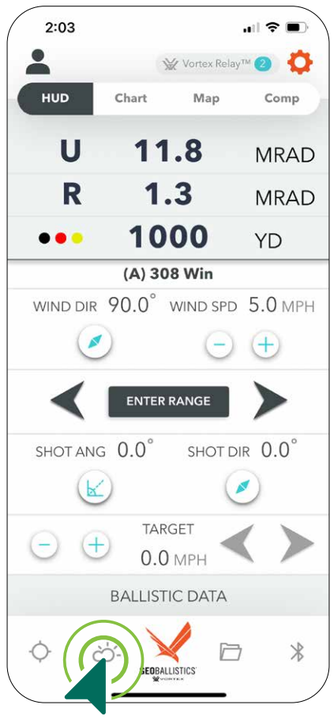
Note: It is required to always have 10 Profiles saved in the Vortex Relay™ Rifles folder.

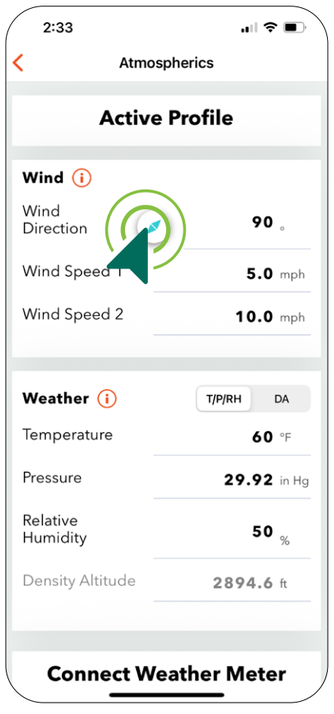


ENTERING WEATHER IN GEOBALLISTICS® APP

Wind

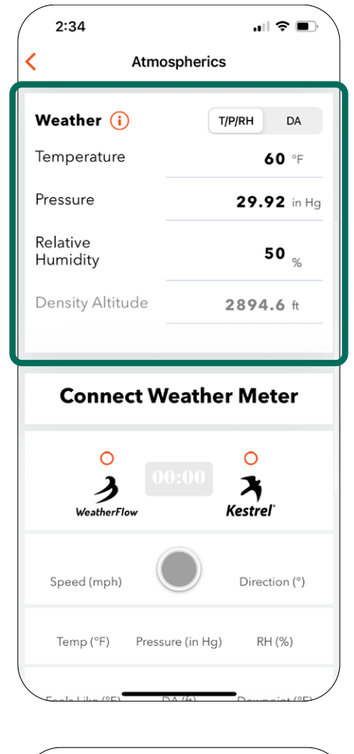
1. Select the from the main page on the GeoBallistics® App to view the Atmospherics page.
2. Under Active Profile, press the button while facing into the wind to capture wind bearing.
3. Input Wind Speed.





Weather

Ambient Temperature, Absolute Pressure, and Relative Humidity can be manually entered, or obtained by the Talon® HD, Ace™ Ballistic Weather Meter, a Kestrel®, third-party weather meters, or a nearby airport. Density Altitude can be manually entered or obtained from the Ace™ or the Kestrel® when connected to the GeoBallistics® App.

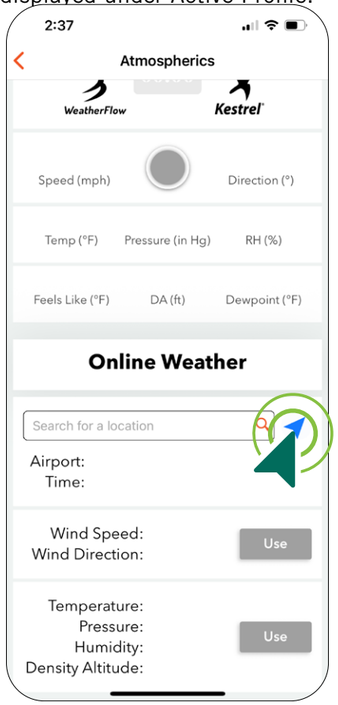


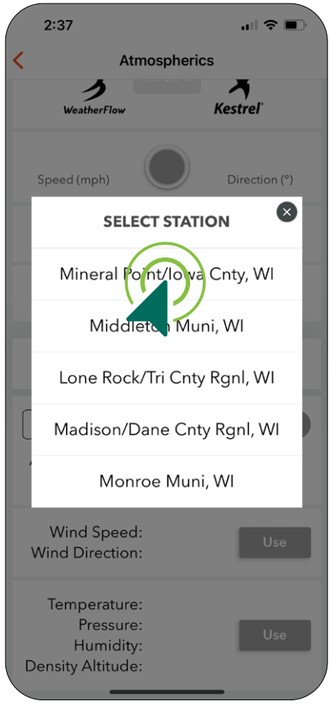
Connect Weather Meter

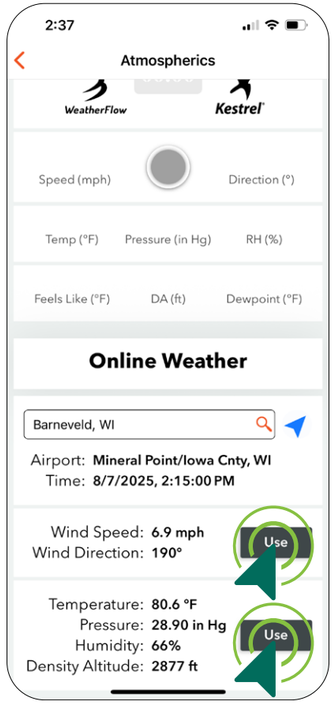
This section will display live environmental data measured from your Kestrel® or WeatherFlow® once it is connected to the app. Refer to the “Third Party Weather Devices” section. Hold the green button to collect and lock in the weather meter environmental data into your Active Profile displayed above.

Online Weather

Tap the arrow to select a nearby airport as your Weather Source or utilize the search bar to manually search for a location. The drop-down menu will display the nearest airports. Once selected, you can tap “Use” next to the Wind Speed/Direction Data and the Temperature, Pressure, Humidity, and Density Altitude Data that was obtained from the selected airport. This data will then be displayed under Active Profile.







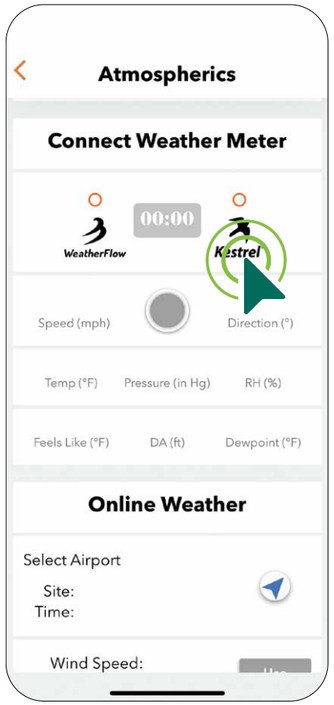
Third Party Weather Devices

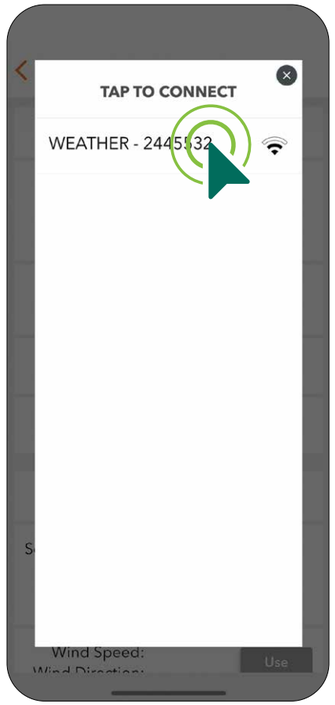
The GeoBallistics® App is compatible with Kestrel® and WeatherFlow® devices for gathering environmental conditions and wind. When the Kestrel® or WeatherFlow® is connected to the GeoBallistics® App, the ballistic solution is provided by the app's on-board solver using environmental data from the Kestrel® or WeatherFlow® device.

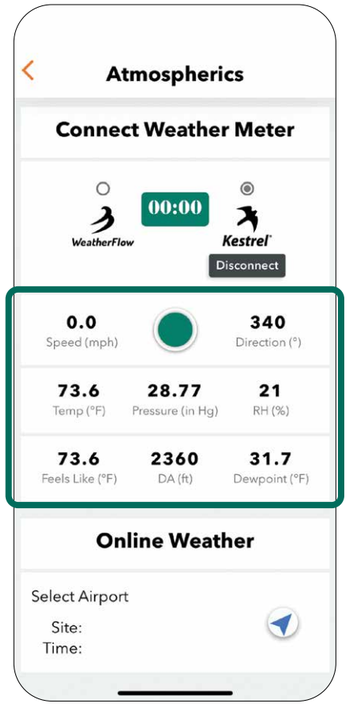
To Connect a Kestrel® or WeatherFlow® to the GeoBallistics® App:

Note: This method will allow you to use environmental data from your third-party weather device including Wind Speed and Direction, Ambient Temperature, Pressure, Relative Humidity, Density Altitude, and Dew Point.

1. Make sure your third-party device has Bluetooth® enabled and is in PC/Mobile mode (Kestrel® only).
2. From the main screen of the GeoBallistics® App, select to access the Atmospherics screen. Scroll down until you see Connect Weather Meter.
3. Select the logo of the brand of the device you have and tap the device name to connect.



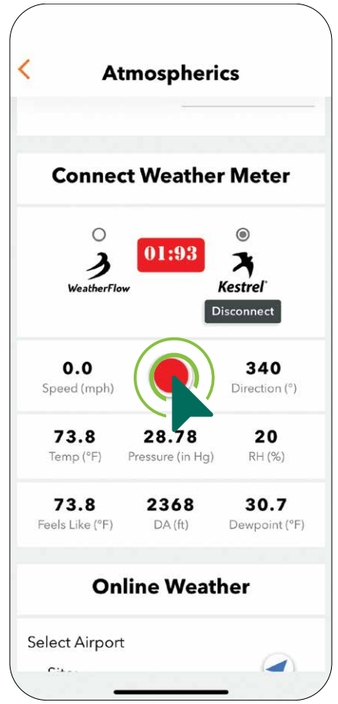




4. Make sure you see data from your device populate the Atmospherics screen. You are connected. When your device is connected to the GeoBallistics® App, a button will appear on the top left of your main screen in the GeoBallistics® App denoting the device has successfully connected.

Using a Third-Party Weather Meter with the Talon® HD and the GeoBallistics® App

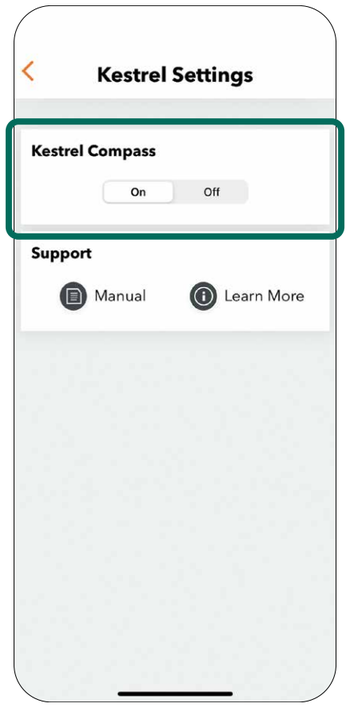
When your weather device is connected to the GeoBallistics® App, it can provide all environmental data to the GeoBallistics® App to calculate your ballistic solution. Once your weather meter is properly connected to the GeoBallistics® App, press the green button under Connect Weather Meter on the Atmospherics screen to lock in the data measured from the device to your Active Profile. You may also press and hold the green button to capture an average of data while you're holding the button, which will turn red and display a timer while holding.



From the main screen of the GeoBallistics® App, you will see a button appear on the top left if your weather meter is properly connected to the GeoBallistics® App. Select this button to toggle the weather meter compass On or Off. Enabling the weather meter's compass will populate the wind direction in the GeoBallistics® App with the data received from the device.

Disconnecting a Third-Party Weather Meter

To disconnect the weather meter from the GeoBallistics® App, select Disconnect from the Atmospherics screen under Connect Weather Meter.



MAINTENANCE

Cleaning

Your Talon® HD 10K requires very little routine maintenance other than periodically cleaning the exterior lenses. The exterior may be cleaned by wiping with a soft cloth. When cleaning the lenses, be sure to use products that are specifically designed for use on coated optical lenses.

- Be sure to blow away any dust or grit on the lenses prior to wiping the surfaces.
- Using your breath, or a very small amount of water or pure alcohol, can help remove stubborn dried water spots.

Lubrication

All components of the Talon® HD 10K are permanently lubricated, so no additional lubricant should be applied.

Note: Other than to remove the Battery Cap, Rainguard, Objective Lens Covers, and Tripod Adapter Socket Cap, do not attempt to disassemble any binocular components. Disassembling of the binocular may void warranty.

Storage

If possible, avoid storing your binoculars in direct sunlight or any very hot location for long periods of time.

Caution: Binoculars are not intended for looking at the sun, or any other intense light source. Such viewing could damage the retina and cornea of your eyes – even to the point of causing blindness.

TROUBLESHOOTING GUIDE

The Talon® HD will not show up in the GeoBallistics® App in my device.

- Bluetooth® modules of a certain age may not be able to communicate with modern devices. Devices such as iPhone 6 and older, or Android 4.0 and older, may not work with the Talon® HD.

I have paired my Talon® HD with my GeoBallistics® App, but they are not communicating.

- If you have successfully paired before, and the device and Talon® HD will not communicate, ensure your mobile device's Bluetooth® is on. If it is, toggle Bluetooth® OFF and ON.

My compass will not calibrate.

- If the compass will not calibrate, ensure you are calibrating the compass outside and away from buildings, cell towers, or other structures.
- If the Talon® HD calibration is off, then repeat the calibration. The Talon® HD may need to be recalibrated when changing geographic location, typically 30 miles or more, and after battery changes.

INDEX

Default Profiles

BULLET	.308 WIN	6.5 CREEDMOOR	223/5.56	30-06	300 WIN MAG
Bullet Weight	175gr	140gr	55gr	165gr	180gr
Bullet Diameter	0.308 in	0.264 in	0.224 in	0.308 in	0.308 in
Bullet Length	1.24 in	1.38 in	0.75 in	1.17 in	1.24 in
Barrel Twist	12 (1:12)	8 (1:8)	12 (1:12)	10 (1:10)	10 (1:10)
Drag Function	G7	G7	G7	G7	G7
METRO	ICAO	ICAO	ICAO	ICAO	ICAO
Ballistic Coefficient	0.243	0.326	0.131	0.204	0.246
RIFLE					
Latitude	43	43	43	43	43
Muzzle Velocity	2600 ft/s	2710 ft/s	3240 ft/s	2800 ft/s	2960 ft/s
Sight Height	1.75 in	1.75 in	2.70 in	1.75 in	1.75 in
Zero Range	100 yds.	100 yds.	100 yds.	100 yds.	100 yds.
Elevation Offset	0	0	0	0	0
Windage Offset	0	0	0	0	0
Elevation SSF	1	1	1	1	1
Windage SSF	1	1	1	1	1
Elevation Units	MIL	MIL	MOA	Inches	MOA
Windage Units	MIL	MIL	MOA	Inches	MOA

BULLET	270 WIN	7MM REM MAG	243 WIN	22-250 REM	22 LR
Bullet Weight	130gr	160gr	100gr	55gr	40gr
Bullet Diameter	0.277 in	0.284 in	0.243 in	0.224 in	0.224 in
Bullet Length	1.24 in	1.40 in	1.03 in	0.82 in	0.48 in
Barrel Twist	10 (1:10)	10 (1:10)	10 (1:10)	14 (1:14)	16 (1:16)
Drag Function	G7	G7	G7	G7	G1
METRO	ICAO	ICAO	ICAO	ICAO	ICAO
Ballistic Coefficient	0.223	0.236	0.183	0.12	0.121
RIFLE					
Latitude	43	43	43	43	43
Muzzle Velocity	3100 ft/s	2950 ft/s	2960 ft/s	3680 ft/s	1255 ft/s
Sight Height	1.75 in	1.75 in	1.75 in	1.75 in	1.75 in
Zero Range	100 yds.	100 yds.	100 yds.	100 yds.	50 yds.
Elevation Offset	0	0	0	0	0
Windage Offset	0	0	0	0	0
Elevation SSF	1	1	1	1	1
Windage SSF	1	1	1	1	1
Elevation Units	Inches	MOA	MOA	Inches	Inches
Windage Units	Inches	MOA	MOA	Inches	Inches

COMPLIANCE

United States

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Contains FCC ID: SQGBL654

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.

Canada

CAN ICES-3B/NMB-3B

Contains IC: 3147-BL654

Australia and New Zealand

Japan

Class B ITE

この装置は、クラスB 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。　　VCCI－B

Translation:

This is a Class B product based on the standard of the VCCI Council. If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

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.

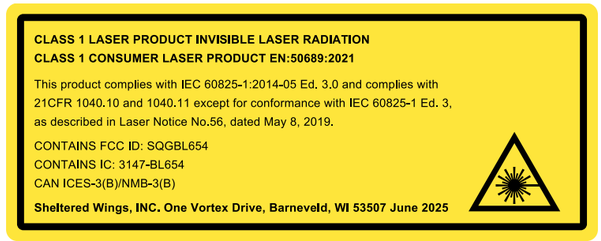
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate 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 safety eye protection is not needed.

- Use the correct battery (CR123) 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.

NOTICE

Virtual Patent Marking Notice by Vortex Optics

This product may be protected by patents in the U.S. and elsewhere for Vortex Optics. **http://vtx.legal** website is provided to satisfy the virtual patent marking provisions of various jurisdictions including the virtual patent marking provisions of the America Invents Act and provide notice under 35 U.S.C. §287(a). Please visit **http://vtx.legal** to view list of products that may be covered by one or more U.S./Foreign patents or published patent applications.

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

For additional and latest manuals, visit **VortexOptics.com**

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