

ELEMENT[®]



SEEKER

WEAPON MOUNTED LASER RANGEFINDER

EU/UKCA Declaration of Conformity

Hereby, Element Optics declares that this product is in compliance with the essential requirements and other relevant provisions of applicable EU directives and regulations, including the Radio Equipment Directive (RED) 2014/53/EU and RoHS Directive 2011/65/EU. A copy of the EU and UK Declarations of Conformity is available at <https://global.element-optics.com/documents>

Disposal of electrical & electronic equipment according to WEEE 2012/19/EU.

This product shall not be disposed of with household waste. Electrical and electronic equipment shall be collected and disposed of separately in accordance with local laws and regulations.

This product complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3 as described in FDA Laser Notice No. 56.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. 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.

FCC Radiation Exposure Statement

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC ID: 2BWPT-SEEKER

Classification

This product is classified as a Class 3R laser product in accordance with IEC 60825-1:2014

Visible and Invisible Laser Radiation – Avoid direct exposure to beam

- Do not stare into beam
- Do not view the beam directly with optical instruments (e.g binoculars, magnifiers, telescopes)



General precautions

- Always operate the laser in accordance with this manual.
- Keep the laser product out of reach of children and unauthorized users.
- Do not use the product if the housing or aperture is damaged.
- Avoid exposing the laser beam to reflective surfaces; scattered reflections may be hazardous.
- Do not attempt to disassemble, reassemble or modify this rangefinder. Emitting laser radiation may pose a serious health risk. The manufacturer's warranty is void once a device has been disassembled.
- Do not use the device while walking, you might trip and fall.
- Do not use optical aids (binoculars, telescopes, magnifiers) to view the laser beam.
- Only activate the laser when the product is correctly aimed at the target object.
- Do not aim the laser at people or animals.

Maintenance and service:

- The laser contains no user-serviceable parts.
- All service and repairs must be performed by the manufacturer or qualified personnel authorized by Element Optics.

Invisible Laser:

Class 3R Laser Radiation

Avoid direct eye exposure

Wavelength: 905NM

Maximum output power: <746µW

Pulse Wave (PW) 20ns

Visible Laser:

Class 3R Laser Radiation

Avoid direct eye exposure

Wavelength: 605NM

Maximum output power: <5mW

Continuous Wave (CW)

MANUFACTURER:

ELEMENT OPTICS

Västerängsvägen 10, 54235 Mariestad, Sweden

info@element-optics.com

global.element-optics.com/documents

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ELEMENT
BALLISTICS
CHIP



ONBOARD
SENSORS



REMOTE
OPERATION



3000M
RANGE



INTEGRATED
COMPASS



WEATHER
RESISTANT



QUICK
CONNECT



BLUETOOTH
CONNECTIVITY



CR123
BATTERY



SMARTPHONE
APP

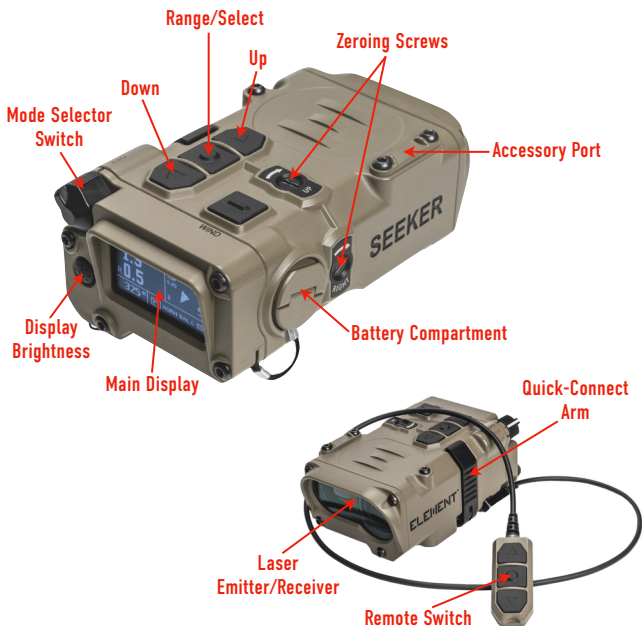


FEATHERWEIGHT
DESIGN



WARRANTY

The Seeker is a Weapon Mounted Laser Rangefinder (WMLRF) with an integrated Ballistics Calculator. Using the full power of the Element Ballistics Chip, the Seeker measures atmospheric conditions using on-board sensors, and allows for wind data capture to provide instant, accurate firing solutions. With seamless app integration, storage for 4 profiles and a user-friendly interface, the Seeker is our solution for rapid target engagement out to 3000 Meters.



The SEEKER uses a CR123 Battery. To access the battery compartment:

- 1) Lift up the finger tab (Fig 1.1)
- 2) Twist the cap anti-clockwise to unscrew (Fig 1.2)
- 3) Remove the protective film from the top of the battery, and refit battery cap.



FIG. 1

ALWAYS install battery with the flat side (negative) facing inwards, and positive side facing outwards as shown in Fig 1.3



FIG. 2

- 1) **MODE SELECTOR SWITCH:** Toggles between OFF, RANGE and SETTINGS screens.
- 2) **DOWN:** Use for navigating settings menu, or adjusting wind speed/direction. When held down for 2 seconds in "Range" mode, this button toggles between target priority modes (FIRST/LAST/NORMAL)
- 3) **SELECT/RANGE:** In "Range" mode, this button activates the ranging laser, and scans continuously when held down. In "Settings" mode, use this button to select.
- 4) **UP:** Use for navigating settings menu, or adjusting wind speed/direction. When held down for 2 seconds in "Range" mode, this button toggles between ranging modes (LOS/HCD/BAL.C)
- 5) **WIND:** This button starts the wind configuration process, allowing you to enter your wind speed and direction.
- 6) **BRIGHTNESS:** Allows you to adjust screen brightness when in "Range" mode. Switches on visible laser in "Settings" mode.

FIG.3: ADVANCED MODE



FIG.4: SIMPLE MODE



The SEEKER features a high-contrast screen which can be configured to display information in a number of ways.

- 1) **RANGE:** Distance measured by the laser module, displayed in METERS (M) or YARDS (Y).
- 2) **ACTIVE PROFILE:** The Seeker can store 4 ballistic profiles. This icon indicates which profile is currently being used to calculate firing solutions.
- 3) **TARGET PRIORITY MODE:**
 - **FIRST:** The processor prioritises the signal from the closest target detected. Useful when ranging an object in an open field.
 - **LAST:** The processor prioritises the signal from the furthest target detected. Useful when ranging through vegetation. This is also the best mode to use in fog, however it is important to note that in heavy fog the ranging function may be impaired.
 - **NORMAL (BEST):** The processor prioritises the strongest signal returned.
 - **SCAN MODE** can be activated by holding in the RANGE button. This gives a continuous distance readout.
 - Hold in the “Down” button for 2 seconds to cycle between modes, or select in the settings menu.
- 4) **RANGING MODE:**
 - **LOS (LINE OF SIGHT):** Direct distance to target
 - **HCD (HORIZONTAL COMPONENT DISTANCE):** The angle-compensated distance to your target, useful when referencing a bullet drop chart for given distances.
 - **BAL.C (BALLISTIC CALCULATOR):** Direct Target Distance shown, but additionally, Elevation & Windage data also displayed.
 - Hold in the the “Up” button for 2 seconds to cycle between these modes, or select in the settings menu.
 - When LOS or HCD are active, no firing solution will be displayed.
- 5) **BATTERY LEVEL INDICATOR:** Indicates remaining battery capacity.

- 6) **FIRING SOLUTION:** Shown as a numerical value in MRAD, MOA, CLICKS, CM, IN, etc. U (up) or D (down) for elevation, and L (left) and R (right) for windage. Can be configured to show 2 wind values.
- 7) **BUBBLE LEVEL:** Indicates whether the unit is level or canted. Can be calibrated in the settings menu.
- 8) **INCLINOMETER:** Angle of fire. Can be calibrated in the settings menu.
- 9) **COMPASS HEADING:** Direction the unit is pointing. Can be calibrated in settings menu.
- 10) **ADDITIONAL INFORMATION:** This space can be programmed to display TOF (time of bullet flight for distance ranged) or DOF (direction of fire for last range value)
- 11) **WIND DIRECTION:** Direction of oncoming wind. Can be captured using the wind menu, or obtained from external devices wirelessly.
- 12) **WIND SPEED:** Can be captured using the wind menu, and displayed in m/s, mph or knots.

FIG.5: SETTINGS MENU



COMPASS CALIBRATION

The SEEKER has an integrated compass which can track your direction of fire, as well as help calculate the effects of Coriolis. The compass sensor can be affected by surrounding metal objects and therefore may need to be calibrated when its surroundings change dramatically.

To calibrate, enter the settings menu and go to `compass/lvl>calibrate compass`. Then rotate the seeker around its axis in a variety of directions (left/right, up/down, side-side) until calibration is complete.



Note that when fitted to a rifle, the compass may be affected by the steel below it. In this case, re-calibrate with the unit fitted to the rifle, ensuring safety at ALL TIMES (bolt removed, chamber empty, nobody around you)

OFFSET COMPASS

If you want to fine-tune your compass heading or match to an external unit, face the SEEKER towards North and go to `settings>compass/lvl>offset compass`.

LEVEL CALIBRATION

The SEEKER has a bubble level and inclinometer (Fig.3.7,3.8) which can be calibrated by going to `settings>compass/lvl>calibrate bubble level`. The device must be placed on a flat surface before calibrating.

CORIOLIS

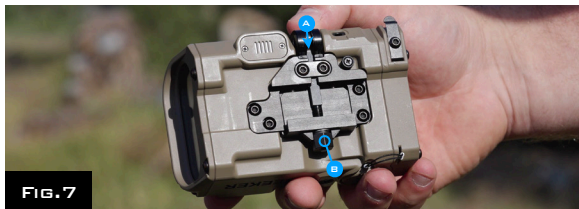
Coriolis is a force that can affect a bullet's trajectory at long ranges due to the rotation of the earth. In order for this to be corrected for, your compass must be calibrated correctly and your latitude entered. Go to `settings>compass/lvl>coriolis` to toggle on/off and to enter your latitude.

The SEEKER can be mounted to any picatinny rail using a quick-connect arm. The picatinny rail can be a diving-board installed above your riflescope, or to the side of your rifle/scope (rotated 90 or 270 degrees). Ideally, you want your offset between the Seeker and your riflescope to be as small as possible, with the display in a visible position.

1. To mount, extend and loosen the quick-connect arm (Fig 5) to widen the picatinny clamp, and place over the rail, closing the arm gently (Fig 6)



2. If the clamping force is too loose or too tight, release the nut (Fig 7B) from its locking position by pressing the shaft from the opposite side (Fig 7A), and rotate it one position clockwise (tighter) or counterclockwise (looser), checking the clamping force each time until a reasonable force is achieved.



3. If mounted sideways, the screen orientation can be set by going to settings>display>simple/advanced>upright/right/left

The SEEKER is wirelessly compatible with a number of external devices, including the Element HYPR-7 and, most importantly, the Element Ballistics mobile app, from which you can create & send ballistic profiles and change preferences.

ELEMENT BALLISTICS APP



The Element Ballistics App is available for free on the Apple and Android app stores. Before using the Ballistic Calculator function on the SEEKER, you will need to install the app and create a profile for your rifle. Remember to allow for use of bluetooth when prompted.



SCAN TO DOWNLOAD

HYPR-7

The SEEKER will automatically pair with the HYPR-7 when in range. When paired, the rangefinder transmits range & incline data to the riflescope, providing an instant firing solution with no need for manual input. Note that when in **BAL.C** mode, the SEEKER will display ballistic data from the HYPR-7, bypassing its own ballistic chip. This means that both units will always be working with the same data.



Once the app has been downloaded and installed, the following steps should be followed:

- 1) **SELECT UNIT PREFERENCES.** Click on the **SETTINGS** button at the top of the home screen (Fig 8A, pg.14) and select the units you feel most comfortable with. These will be needed when creating profiles, but more importantly for us, the **ANGLE UNITS** selection (Fig 9A) will determine how data within the ballistic display area of the rangefinder will be shown. If **MRAD** or **MOA** are selected, the rangefinder will display this unit preference in-screen. The click value units (0.1 MRAD, 1/4 MOA, etc.) will show as “**CLK**”



- 2) **CREATE PROFILE.** Select a profile tab (Fig 8D) and begin to enter all required data (Bullet, Scope Height, Zero Distance, Muzzle Velocity, etc). Weather data entered in the app becomes your default weather when the SEEKER's sensors are switched OFF (Fig 8C).
- 3) **CONNECT TO THE SEEKER.** Ensure your bluetooth is activated and unit in range mode. Click on the LINKED DEVICES icon at the top of the home screen (Fig 8B). The Seeker should appear here - Click on it to pair. The SEEKER will provide a 6-digit code to enable pairing.
- 4) **FIRMWARE UPDATE.** If a firmware update is available, this will be shown on the configuration screen (Fig 10) - Go ahead and update the firmware if prompted, following the instructions on screen.
- 5) Once firmware is updated, re-enter the configuration screen. Select your preferred screen timeout (Fig 10A) and upload profiles. The 4 active profiles in the profile tabs (Fig 8D,E) will be uploaded to the SEEKER.

FIG. 8

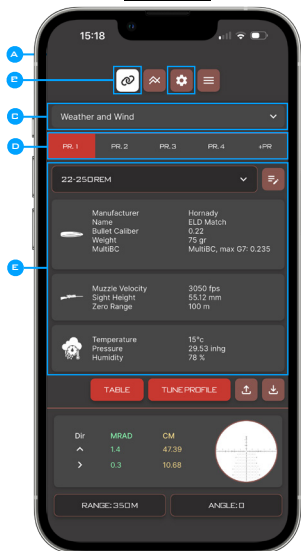


FIG. 9

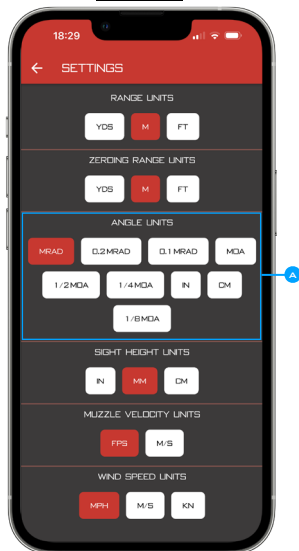
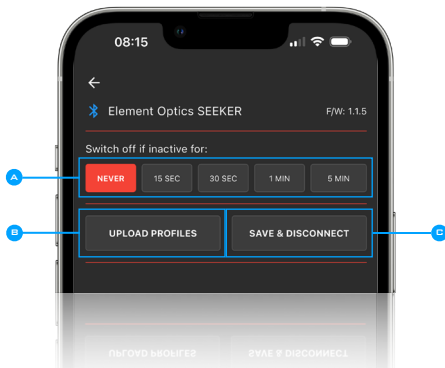


FIG. 10



For the SEEKER to work properly, it has to be zeroed to your riflescope so that the position of the invisible laser remains predictable. In order to do this, a visible laser needs to be activated during the zeroing process by:

1. Entering the settings menu (using the selector knob shown at Fig.2.1) and going to visible laser>switch on and then holding in the screen brightness button for 3 seconds.
2. When the zeroing laser is activated, it should be visible through the scope. If it cannot be seen, wait for darker conditions, move your target closer, or zoom your scope to minimum magnification.
3. Using the provided target and reflectors, create an aim point for the laser by placing a reflector at the same offset distance and position as your SEEKER sits relative to your riflescope (Fig.12B & 13B). For example, if your Seeker is 5cm directly above the center of your riflescope, place your laser target 5cm above the center of the riflescope target (Fig 13) This is to ensure that the laser beam remains parallel to your reticle center at all times (Fig.9), keeping the same offset at any distance. We provide a line on the Seeker's housing to indicate the zeroing laser height (Fig.10A).



FIG. 11

4. Place your target at a distance that is as far as possible while still being able to see the laser (25-50m/yds is good) and set up your rifle in a stable position (rest, sand bag or bipod)
5. Now you can adjust the laser position using the U/D & L/R screws on the SEEKER (Fig.12C,D) using the included flat head tool.

FIG. 1 2

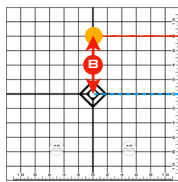
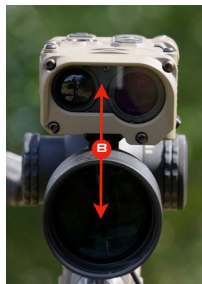


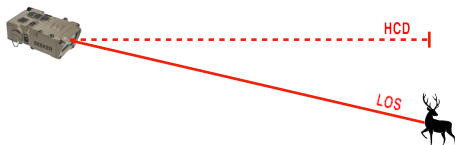
FIG. 1 3

***Note that if you dial your turrets after zeroing, the position of the laser will shift compared to your reticle. Ensure you return to zero each time before ranging.**

The SEEKER features a number of different ranging and targeting modes, making it easier to obtain an accurate reading in challenging conditions.

RANGING MODES:

By changing Ranging Modes, you allow the processor to change the way it reads out the data it has measured. As demonstrated in the below graphic, **LOS** mode gives you the direct distance to the target you have ranged, while **HCD** mode gives you the horizontal component of that distance, i.e. the actual distance multiplied by the cosine of the angle. Since gravity only acts vertically, the HCD more accurately predict how much bullet drop you need to account for.



To cycle between **LOS**, **HCD** and **BAL.C**, double-tap the “Up” button on the unit or the remote. Note that when set to **BAL.C** mode, the direct (LOS) will be shown. When set to **LOS** or **HCD**, the firing solution will be switched off.

TARGET PRIORITY MODES:

No matter how powerful the laser system in a rangefinder is, a returning laser signal still has to be read and processed. The processor may receive multiple return signals from different objects downrange, and needs to predict which one is the one you want a reading for. By changing modes, you can instruct the processor to focus on specific data, giving you a better chance of obtaining the reading you want. These modes are summarised on PAGE 8.

The SEEKER also has a SCAN function which can be used in any mode. To activate, simply hold in the RANGE button. This will give a continuous reading for a few seconds. This feature is useful when trying to obtain a reading off a small target - By scanning past the target and watching the readout, you may be able to detect a sudden change in the range value, possibly indicating a return signal from the small target as the beam passes by.

WIND INPUTS (MANUAL):

The SEEKER has an advanced ballistics engine which calculates for many external factors such as wind drift, aerodynamic jump, spin drift and more. Wind can be captured using the wind menu, and once captured the SEEKER will factor in the entered wind whenever the range button is pressed.

1. To capture wind data, press the wind button (Fig 2.5) and enter the wind speed, using the UP and DOWN buttons to increase or decrease the value before confirming with the SELECT button. This value will be saved, and the wind direction screen will open.
2. Enter the wind direction by using the UP and DOWN buttons to change the arrow indicator before saving your selection by pressing the SELECT button again.
3. If you have a second wind speed activated (gust speed), you can now enter a value before saving altogether. To activate wind speed 2, go to settings>environment>2nd wind and toggle on/off.



OBTAINING WIND FROM A KESTREL DEVICE:

The SEEKER can connect to and obtain wind data from Kestrel devices with Link protocol (bluetooth), a compass, and a capture button. Compatible devices are as follows:

•5700 Sportsman/Ballistics • 5700 Elite• 5700X• 5700X WEZ

1. Before using this function, ensure that both the Seeker and Kestrel compasses are calibrated, and both showing the same North direction. If the compasses do not align, the captured wind direction will display incorrectly on the Seeker.
2. Make sure that your Kestrel has its bluetooth switched ON, is in PC/Mobile mode (not ballistics mode), and has the privacy pin set to "OFF".
3. To Pair, press the Wind Button on the Seeker (Fig 2.5), then press the Wind Button a second time. This will begin a search for compatible devices.
4. Your Seeker should display your device on the main screen once detected. Select to connect. Once connected, the Seeker will display a "+K" symbol on the wind block (Fig 3.12).
5. To capture wind, ensure the Kestrel is in Weather mode (not Ballistics Mode), and hold into the wind. Press the red "capture" button on your Kestrel to begin wind capture, and continue holding into the wind for 5-10 seconds. Then, press the capture button again to end the capture period.
6. Once capture is complete, the Seeker will save two wind speeds (average and gust) and a wind direction, and will automatically recalculate the wind based on the captured compass azimuth each time you range, as long as the Kestrel remains on and within range.



WEATHER SENSORS

Integrated sensors (thermometer, hygrometer, barometer) measure the atmospheric conditions and are factored in to the ballistics calculations. To activate/deactivate the weather sensors, go to settings>environment>weather sensor and press the select button to toggle on/off. When OFF, the SEEKER will use environmental from the ballistic profile saved in the app.

REMOTE SWITCH

The SEEKER can be connected to the included remote switch via a 3.5mm jack, allowing for the UP, DOWN and SELECT/RANGE buttons to be accessed in a more convenient position without changing your hold on the rifle.

The jack plugs into the port on the rear left of the SEEKER, and the cable can be secured via the retainer clip. We include double-sided tape for easy mounting of the remote to your preferred position.



*Ensure that the excess cable is wrapped around your riflescope tube or tucked away in a position that prevents it from snagging on obstacles.

ACCESSORY PORT

The SEEKER has been designed to integrate seamlessly with future accessories, which will connect via a port on the top right of the housing. This is weather sealed via a protective cover - please keep this cover in place when not in use.



DISPLAY SETTINGS:

- Display brightness can be adjusted using the brightness button (Fig 2.6) or by navigating to settings>brightness and selecting a brightness level.
- Hold the brightness button to toggle through 5 settings, while a short press switches between your chosen setting and minimum brightness.
- Display mode can be set by navigating to settings>display and selecting between “simple” and “advanced”.
- After choosing display mode, you can select between an upright, left or right screen orientation.
- After selecting “advanced” mode and your display orientation, you can choose whether to add additional information like Time of Flight or Direction of Fire (See Fig 3.10)



SELECTING A PROFILE:

- To select a ballistic profile, navigate to settings>profiles and select the profile of your choice.

SCREEN TIMEOUT:

- The screen timeout setting can save your battery life. The display will automatically and instantly switch back on when any button is pressed.
- Go to settings>timeout and select your preferred timeout period, or select when uploading profiles from the app.

UNIT PREFERENCES:

- It is important to note that unit preferences are chosen in the app itself when your profiles are created, and sent through to the SEEKER.
- To update, select within the Element Ballistics app (Fig 8A), connect with your SEEKER and re-upload your profiles to save your preferences.

DEVICE RESET:

- The SEEKER can be reset to factory settings by navigating to settings>reset

As shooters, we know that there is nothing worse than being let down by your equipment. We have made every effort to build a rugged, reliable product that will not break under any normal circumstances, and have implemented some of the strictest quality control measures in the industry. However, we know that things can go wrong, and therefore we back our electro-optics with a 3 year warranty, which is fully transferable. This warranty requires proof of purchase.

For full terms and information, visit element-optics.com/warranty or scan the QR code below.



The Element Optics 3 Year Warranty applies to Electro Optics only, and does not cover accessories purchased separately. Theft, loss, deliberate damage and cosmetic damage that does not hinder the operation of the riflescope is not covered. If your product can not be repaired and a replacement model is no longer in production, a model of equal value will be substituted.

SPEC SHEET

RANGING DISTANCE	3000M
LASER CLASS	Class 3R (905nm)
CONNECTIVITY	Bluetooth, Cable Remote
LASER LENS	32x26mm
ENVIRONMENTAL SENSORS	Barometer, Hygrometer, Thermometer
ADDITIONAL SENSORS	Inclinometer, Compass
BATTERY	CR123
BATTERY LIFE	6000+ Rangings
DIMENSIONS	L118 x W72 x H50mm
WEIGHT (W/BATTERY)	318g (11.2oz)
WEATHER RESISTANCE	IPX6
BALLISTIC ENGINE	ELEMENT BALLISTICS
HEIGHT ABOVE MOUNT	41mm

