# ELEHENT

### RF MODULE WEAPON MOUNTED BALLISTIC RANGEFINDER

# INDEX

1)	INTRODUCTION & OVERVIEW	1
2)	<b>DEVICE ORIENTATION &amp; CHARGING</b>	2
3)	MOUNTING	3
4)	BEAM ALIGNMENT	5
5)	CONNECTING THE REMOTE SWITCH	7
6)	PAIRING WITH BLUETOOTH DEVICES	8
7)	WARRANTY INFORMATION	12
8)	SPEC SHEET	13



ELEMENT BALLISTICS CHIP



PLATINUM WARRANTY



USB-C RECHARGEABLE



WEATHER RESISTANT



1000m RANGE



BLUETOOTH CONNECTIVITY

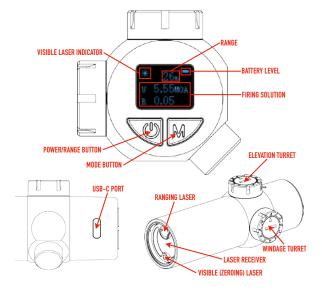


### **INTRODUCTION & OVERVIEW**

The Element Optics Rangefinder Module takes the concept of what a laser rangefinder should be and turns it on its head. Instead of using an optical viewfinder, this unit connects to your weapon system, and can be "zeroed" to your riflescope. This eases your workflow and enables you to range and engage your target without changing position. And it's not just the range it will tell you: the RF Module will present you with an accurate firing solution out to 1000 Meters, harnessing the full power of the integrated Ballistics Chip to factor in weather conditions, incline, spin drift and more. Create a ballistic profile on an app, send it across in seconds, and have the relevant data displayed on the rear screen.



### **DEVICE ORIENTATION & CHARGING**



#### **CHARGING PROCEDURE**

The RF MODULE is powered by an integrated rechargeable CR2 Battery. This cannot be removed, but is USB-C chargeable via the port on the bottom rear of the unit. This port also accommodates the remote switch which can be attached to the fore-end of your rifle system.



When charging, the display will illuminate and the battery icon will flash between full and empty to indicate flow of current. When fully charged, The battery icon will appear full.

### MOUNTING

It is extremely important to follow these steps correctly if accurate range measurements are to be obtained. The RF MODULE comes with an included

Picatinny Gimbal Mount with which it can be attached to a weapon system. The RF MODULE is 30mm in diameter and therefore CAN be mounted using any standard 30mm ring, however it is possible that without the extra adjustment that the gimbal provides, the internal up/down/left/right travel of the unit's turrets may not be adequate. We recommend using the included mount to avoid this issue.



#### **CHOOSING A MOUNTING POINT**

Since the riflescope itself will be the viewfinder for the RF MODULE, it is very important to mount the module as close as physically possible to the optical line of sight. The greater the distance between rangefinder and riflescope, the more challenging it will be to accurately range small targets.



#### MOUNTING TO THE ELEMENT HYPR-7

The HYPR-7 is designed to pair with the RF MODULE to provide instant firing solutions with no need for external input. To make this system more user-friendly, we include a short picatinny rail with the HYPR-7 specifically for mounting the module. This can be fitted directly above, or to the side of the the HYPR-7.



3

#### MOUNTING TO OTHER OPTICS OR RIFLES

To mount to traditional riflescope, a mount with an integrated top picatinny rail will be required. Alternatively, the RF MODULE can be mounted to a picatinny rail on the fore-end of a rifle system. The physical distance between the module and optic doesn't really matter, as long as the distance between the line of sight and laser axis are close.

Once a mounting point has been chosen, loosen the base screw of the mount with the included T15 Torx Key, fit to the rail, and torque to a maximum of 25 in-lbs.



Then, loosen the four ring screws and slide in the RF MODULE. Once

roughly in position, the ring screws can be tightened just enough to hold in position but allow movement of the module. These ring screws will be correctly torqued down after the next step is complete.



### **BEAM ALIGNMENT**

With the mounting position chosen, the RF MODULE now needs to be aligned and zeroed to your optical system. Before we continue with this step, it's important to understand the two different ways this can be achieved:

#### 1) PARALLEL (RECCOMMENDED)

The beam and line of sight follow parallel paths, remaining the same distance apart and never intersecting. This means that if the offset is 5cm at the mounting point, the offset will still be 5cm at 100m, 1000m, etc. This is the method we recommend, because the offset remains constant at all ranges and therefore can easily be accounted for: For example, if ranging a deer at 500m, crosshairs can be held on the deer's centre of mass and the ranging beam will still land on the deer's body.



#### 2. SET DISTANCE ZERO

The beam and crosshairs are zeroed to intersect at a specific distance. The downside to this method is that the beam will diverge at longer ranges, making it harder to predict where to hold when ranging. The HYPR-7 does feature an aim point () for the laser beam if you choose to use this method.



#### ZEROING PROCEDURE

We're going to run through the procedure for zeroing the module beam using the recommended parallel method.

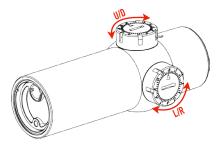
- Choose a distance to zero at. If using the parallel method, the distance doesn't matter, since the beams will not diverge as the distance changes.
- 2) Next, measure the offset distance between the beam and the line of sight. This will be roughly from the centre of the module tube to the centre of the riflescope tube. Take your target sheet and mark a point at an equal distance and position to the actual scope offset.



- 3) The RF MODULE features a visible laser that can be switched on to aid in the zeroing process. To enable, hold in the MODE button for 3 seconds. An indicator will appear on the display confirming the activation of the visible laser.
- 4) Look through your scope and focus on the target downrange, holding your crosshairs on the target centre. Then, begin to swivel the RF MODULE within the gimbal until it roughly aligns with the marked laser point on the target.
- 5) With the beam roughly aligned, torque down the ring screws to between 15-18 in.lbs to hold the gimbal firmly in place.
- 6) Lastly, using a cartridge case rim, coin or flat screwdriver, adjust the elevation & windage turrets on the module to fine-tune the laser

### CONNECTING THE REMOTE SWITCH

position. Note that if the turrets run out of travel, the ring screws will need to be loosened and the position of the module re-adjusted.



#### SETTING DISTANCE UNITS

To switch between Meters and Yards, press the MODE button. You will see the selected unit displayed on the screen.

Screen Timeout and all Ballistic Data Settings are configured through the Element Ballistics App, OR automatically synchronised from the HYPR-7.



#### RANGING

Press the POWER button to range, or press the remote switch. Holding in these buttons will allow continuous ranging in SCAN mode.

### PAIRING WITH EXTERNAL DEVICES

The RF MODULE includes a remote switch which can be connected via USB-C and fitted to the grip or stock fore-end within reach of your fingers' natural position. This can also be removed entirely if cable management becomes an issue; the module CAN operate independently of the remote switch.



Depending on where the module is mounted, you may need to make use of the included 90-degree adapter. This can be flipped backwards or forwards depending on which direction the cable is running.



The RF MODULE is compatible with a number of external Bluetooth 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.

#### HYPR-7

The RF MODULE will automatically pair with the HYPR-7 when in range, displaying the Bluetooth icon within both the HYPR-7 display and the Module display.



When paired, the rangefinder transmits range data to the HYPR-7, providing an instant firing solution with no need for manual input. Note that when paired, the RF MODULE will display ballistic data from the HYPR-7, bypassing its own ballistic chip. This means that a spotter/shooter pair will always be working with the same data.

#### 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 RF MODULE, you will need to install the app and create a profile for your rifle.

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

 SELECT UNIT PREFERENCES. Click on the "UNITS" tab on the bottom left of the home screen (Fig.1D, pg.10) 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.2A) 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 (Note

ANGLE LINITS	
	SEMDA

that MRAD is shown as "MIL") If any other unit is selected, the rangefinder will display a click value and "CLI"

- CREATE PROFILE. Select a profile tab (Fig.1A) and begin to enter all required data (Bullet, Scope Height, Zero Distance, Muzzle Velocity, etc). You can also update weather data and input wind conditions (Fig.3B)
- CONNECT TO YOUR RF MODULE. Ensure your bluetooth is activated and rangefinder switched on. You will see a tab on the home screen

indicating that the RF MODULE is within range (Fig.1C). Tap on this tab, and the device will pair.



4) SET SCREEN TIMEOUT & UPLOAD PROFILE. Select your preferred screen timeout on the configuration screen (Fig.3A) and choose a profile you'd like to upload (Fig.3B). Ensure that you send the correct profile, as the RF MODULE can only store one at a time.





A Fig.3



1

### WARRANTY INFORMATION

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.

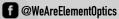


### For full terms and information, visit <u>element-optics.com/</u> <u>warranty</u> or scan the QR code below.

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

TUBE DIAMETER	30mm
RENGING DISTANCE	5-1000m
CONNECTIVITY	Bluetooth
BEAM DIVERGENCE	2 MRAD
BATTERY	Rechargeable CR2
LENGTH	97.3mm (3.83")
WEIGHT	116g (4.09oz)
WEATHER RESISTANT	YES
BALLISTIC CHIP	YES



Element Optics

element\_optics

www.element-optics.com

