



## Raider® Owner's Manual

### Complete Rangefinder Operating Instructions

Various language translations of the Redfield Raider Manual can be found at [www.leupold.com](http://www.leupold.com).  
 La traduction en français du manuel Redfield Raider se trouve à [www.leupold.com](http://www.leupold.com).  
 La traducción al español del manual Redfield Raider se encuentra en [www.leupold.com](http://www.leupold.com).  
 Das Redfield Raider-Handbuch in deutscher Sprache finden Sie unter [www.leupold.com](http://www.leupold.com).  
 La traduzione in italiano del manuale Redfield Raider è pubblicata sul sito seguente: [www.leupold.com](http://www.leupold.com).

the Soul of the American Hunter

Since 1909

## The Redfield Story

Born in 1859 on a farm near Glendale, Oregon, John Hill Redfield was one of eight children of John and Adelia Redfield.

As a boy, John loved to hunt and explore the regions around the homestead. Eventually, John's mechanical aptitudes and inventiveness led him into the firearms industry, and in 1909, John started the Redfield Gun Sight Co.

A small building behind his home served as his first factory. From this humble beginning, the company expanded its offerings to include scope mounts and eventually a premier line of riflescopes for which it was widely known.

In 1997, Redfield closed its manufacturing facility in the United States and spent most of the next decade languishing as a name used by various companies.

In 2008, Leupold & Stevens, an Oregon company with a long tradition of manufacturing optical instruments, purchased the Redfield optics brand and committed to bringing American hunters a new generation of Redfield products. These new products embody the values that Leupold and Redfield share: ruggedness, performance, durability, and value. We hope your new Redfield brings you years of success and enjoyment in the field.

## How The Redfield Raider Works

The Redfield Raider is a top-quality 6x20mm monocular that incorporates the additional benefit of a state-of-the-art laser rangefinder capable of measuring the distance of a deer-sized animal from 6-500yds/6-457m, an inanimate object from 6-600yds/6-548, and a reflective target from 6-650yds/6-594m. The Raider emits a series of invisible, infrared energy pulses that are reflected off the

selected target back to the optical unit. State-of-the-art circuitry and precision computing electronics are used to calculate the distance by measuring the time it takes for each pulse to travel from the Redfield Raider to the object and back. The Raider 650A, with a built in inclinometer, will calculate the true horizontal distance to the target when the target is on an incline or decline.

## Safety & Operation Precautions



The Redfield Raider employs an eye safe FDA Class 1 and IEC Class 3R laser in its operation. Even so, there are a few precautions that are important to remember:

Do not depress the POWER button while aiming at a human eye or while looking into the optics from the objective side.

Do not leave the rangefinder within the reach of small children.

Do not take the product apart as it has a self-protection device in the electronic control module and may cause an electric shock.

Do not attempt to use any power source other than a CR2 battery (or equivalent) — the Redfield Raider is designed to prohibit accessing any other external power supply.

## Specifications

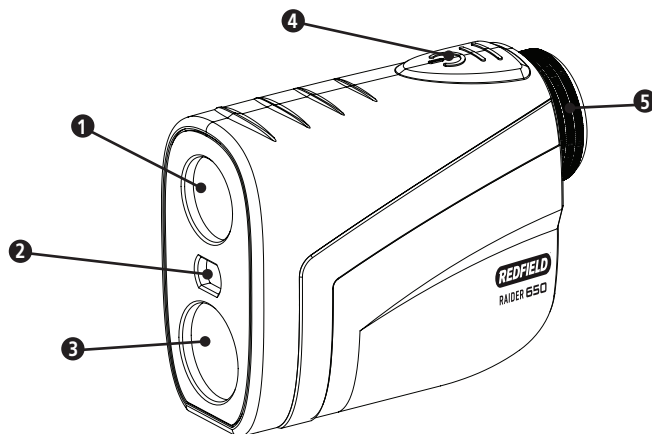
Magnification	6x
LCD Display	Yes
Line of Sight Distance (LOS)	Yes
Yards/Meters Mode	Yes
Scan Mode	Yes
Battery Life	>3000 Actuations
Accuracy	+/- 1 Yard
Weight	6.0 oz
Dimension (Inches)	3.8 x 2.9 x 1.5
Battery Status Indicator	Yes
Waterproof	Yes
Warranty	2 Years

MAXIMUM RANGE		
CONDITION	Yards	Meters
Reflective Target	650	594
Trees	600	548
Deer	500	457

Surface texture, color, size, and shape of the target all affect reflectivity, which in turn affects the maximum range of the instrument. As a rule of thumb, brightly colored targets are much more reflective than darker targets. Tan game coats are more reflective (and thus provide a more solid reading) than a black roof. A shiny surface is more reflective than a dull surface. Smaller targets are more difficult to range than larger targets. Light conditions, haze, fog, rain, and other environmental conditions can all affect ranging performance. Any factor which degrades air clarity will reduce the maximum effective range. The sun generates infrared energy that can degrade ranging performance in bright conditions or when ranging towards the sun.

## Parts of the Rangefinder

1. Objective Lens
2. Emitter Channel
3. Receiver Channel
4. Activation Button
5. Eyepiece Focus Adjustment



## Battery Status Indicator

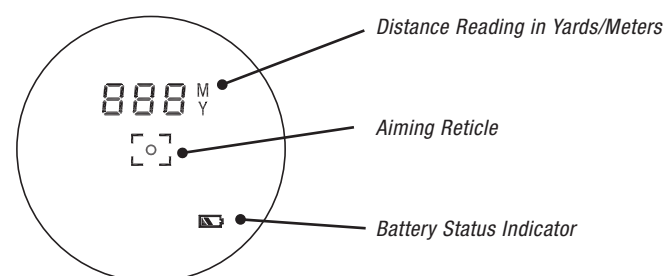
### BATTERY POWER STATUS INDICATOR

To determine your battery's power level, look for the following indicators:  
**FULL** — Between full power and half power, no battery status indicator will be displayed.

**HALF** — A half-full bar indicates your battery has reached half-capacity.

**NO POWER** — If the battery bar is empty, and there is no data displayed above the bar, your battery is dead and you must replace it. The battery status bar will flash and the unit will shut down when no power remains.

## Reading the Display



Display shown with all possible modes visible

## Measuring Distance

### UNIT OUTPUT

This mode is used to choose between yards and meters as the preferred unit of measure.

To set the unit of measure, with the Redfield Raider turned OFF, push and hold the POWER button for approximately 10 seconds. The unit of measure will toggle from yards to meters or vice versa. Release the POWER button when the preferred unit of measure is shown.

Measurement of distance with the Redfield Raider is a very simple operation. In order to see your target and the display clearly, make sure that the digital laser rangefinder is in focus by turning the eyepiece left or right:

1. View the object of interest through the monocular.
2. Depress the POWER button to activate the unit.
3. Align the reticle over the object being viewed.
4. Depress the POWER button again — this will cause the laser to activate.
5. Read the distance as shown in the image field. The Raider 650A will give the true horizontal distance when

the target is on an incline or decline.

### CONTINUOUS MEASUREMENT OF A MOVING TARGET / SCAN MODE:

Follow the instructions for "Measurement of distance..." as explained previously.

Once the target has been measured, continue to hold down the POWER button and follow the object as it moves. The distance will automatically update as long as the POWER button is continuously depressed. This procedure can also be used to obtain the range of multiple animals or objects; simply move the reticle from one target to another while holding down the POWER button.

### CLEARING THE LAST DISTANCE OBTAINED:

The last range reading does not need to be cleared before reading another object's distance. For that reason, there is no reset button. Simply aim at the new object using the reticle, depress the POWER button and hold until the new range reading is displayed. The Raider will automatically turn off after a period of inactivity.

## Cleaning & Maintenance

Blow away dust or debris on lenses, or use a soft lens brush (such as the one found on the Leupold® Lens Pen®). To remove fingerprints, water spots or tougher dirt, use a soft cotton cloth or the cleaning end of the Leupold Lens Pen. A lens tissue with lens cleaning fluid may be used for more stubborn dirt. Always apply cleaning fluid to the cleaning cloth, never directly to the lens.

To insert a new battery, remove battery cover and remove exhausted battery. Insert new CR-2 battery, negative terminal first, into the battery compartment. Close battery cover.

## Redfield Product Service

If your Redfield Raider fails to perform in any way, you may return it directly to the Redfield factory for service. It is not necessary for your dealer to ship the rangefinder to Redfield; however, they can be very helpful in determining if factory service is necessary.

PLEASE FOLLOW THESE SHIPPING INSTRUCTIONS:

1. Include a note with your name, address, telephone number, e-mail address, and a description of the problem.
2. Pack the Raider in its original box or another suitably strong shipping box.
3. Wrap the package securely using filament strapping tape on the outside.
4. Ship the rangefinder by parcel or mail service (we recommend insuring the shipment) to one of the following addresses in the United States:

### Parcel Service:

Redfield Product Service  
 14400 NW Greenbrier Parkway  
 Beaverton, OR 97006-5790 USA

### By Mail:

Redfield Product Service  
 P.O. Box 688  
 Beaverton, OR 97075-0688 USA

Our Product Service telephone numbers are (503) 526-1400 or (877) 798-9686.

We can also be contacted through our web site at [www.redfield.com](http://www.redfield.com)

## The Redfield No Excuses Warranty

### REDFIELD: NO EXCUSES

We build our Redfield riflescopes, sights, binoculars, spotting scopes and laser rangefinders to do their jobs. Day after day. Season after season. It's what you expect for your hard earned money.

If you ever have an issue, the last thing you need is backpedaling and passing the buck. That's where our "No Excuses" Warranties come in. If you have a problem with your Redfield product, we will make it right. No Hassle, no excuses. That's the Redfield way. Please see [www.redfield.com](http://www.redfield.com) for warranty details.

electronic components are found to be defective due to issues with materials or workmanship, we will, at our discretion, repair or replace the product, free of charge. Detailed information regarding date of purchase may be required.

All warranties are void if damage results from unauthorized repair, alteration or misuse.



### THE REDFIELD NO EXCUSES ELECTRONICS WARRANTY

The electronic components in your Redfield product are warranted to be free of defects in materials and workmanship for TWO YEARS from the date of purchase. If at any time in this two year period, the



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[www.redfield.com](http://www.redfield.com)

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