#### INFIRAY OUTDOOR

# I L R - 1 0 0 0 - 2

Laser Rangefinder for HYBRID





## THIS PRODUCT IS A CLASS 3R LASER PRODUCT

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.





This Laser Product is designated as Class 3R during all procedures of operation.

Wavelength 650 nm (CW), 905 nm (Pulsed) Laser Power for Classification <5 mW (4.5 mW typical) Emission Type CW and Pulsed

Pulse Width 33 nSec

Pulse Repetition Frequency 48Hz

Beam Diameter <7 mm

Divergence 5.25 mRad

VISIBLE AND INVISIBLE LASER RADIATION AVOID DIRECT EYE EXPOSURE CLASS 3R LASER PRODUCT

## ▲ CLASS 3R LASER PRODUCT NOTES:

- There is no scheduled maintenance or service necessary to keep this product in compliance and no user service or maintenance is required.
- There is no service required or allowed of this product by the end user.
- This product is to be serviced or repaired only by factory-authorized technicians.
- This product is not to be opened or modified by the user, nor is it allowed to attempt to cheat or defeat safety interlocks.
- The user is not to modify the unit or remove protective covers or housing. Service is only to be handled by authorized factory-trained technicians.
- · This product has no user-serviceable parts.
- Do not point the laser or allow the laser indicator to be directed or reflected toward people or reflective objects.
- Operators should be trained to not target the eyes of people or animals or to aim at reflective objects.
- There is a potential hazard of eye or skin exposure to laser radiation if the included instructions are not followed.
- This laser is never to be operated if the unit is defective or the cover or seal is damaged.
- Always install the LRF module with the aperture pointed downrange.

## Overview

RICO HYBRID Series rifle scopes support the use of the InfiRay Outdoor ILR-1000-2 Laser Rangefinder, allowing users to measure distances to objects up to 1000 yards away.

To ensure the safe and proper operation of the laser rangefinder, do not attempt to install or use the LRF until you have read and understand all warnings, directions, and guidance in this manual. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## **Tech Specs**

MODEL	ILR-1000-2	Р
Measuring Range	1000 yd Max	N
Accuracy	±1yd	11
Laser Wavelength	905 nm ±15 nm	D
Ranging Modes	Continuous, Single	w

Power Connector	USB-C
Mounting System	Picatinny
IP Rating	IP67
Dimensions	1.6"×2.2"×2.8"
Weight	7.76 Oz

# **Components and Controls**



- A. Laser Rangefinder Module
- B. Laser Indicator
- F. Locking Button G. Throw Lever

E.

- C. Laser Receive PortD. Laser Launch Port
- H. Adjustment Nut

Mount

# Mounting the LRF

To mount the laser rangefinder:

 Press the locking button (F) on the mount (E), then pull the throw lever (G) up to open it.



- Install the mount to the Picatinny rail (13) on the side of the rifle scope, with the laser aperture pointing downrange.
- 3. Press the throw lever closed to lock the mount in place. You will hear the lever and locking button click.
- 4. Connect the USB-C cable for the LRF to the USB-C port on the rifle scope.

## ADJUSTING THE TENSION OF THE THROW LEVER

If the mount is too tight to lock onto the Picatinny rail or if it is not tight enough to the rail when the throw lever is closed, you will need to adjust the tension of the throw lever.

- Open the throw lever (G). This will cause the adjustment nut (H) to protrude on the opposite side of the mount (E).
- Use your fingers or the spanner tool included with the RICO HYBRID to turn the adjustment nut—clockwise to tighten or counterclockwise to loosen—to achieve the correct amount of tension. You should not feel any tension on the locking lever when closing until the locking lever reaches a 45-degree angle.

# Connecting the LRF to the RICO HYBRID

- 1. Turn on the RICO HYBRID rifle scope.
- 2. Mount the LRF to the HYBRID and connect the USB-C cable.
- 3. The rangefinder reticle will automatically appear on the screen.

## Using the Laser Rangefinder

The ILR-1000-2 Laser Rangefinder allows the user to measure the distance to objects up to 1000 yd away, with  $\pm 1$  yd accuracy. The LRF has two ranging modes continuous ranging (CONT) and single ranging (SGL). With continuous ranging, the measurement is updated automatically every 3 seconds to allow the user to adjust quickly to changing distances for better shot placement.

WARNING: Do not point the laser directly to human eyes or faces.

- When the LRF module is connected to the RICO HYBRID, the rangefinding reticle will automatically be displayed. The rangefinding mode and ranging value will be displayed in the lower-left corner of the screen.
- 2. Short press the **Power Button (5)** and the **Palette Button (6)** to switch between single ranging mode (SGL) and continuous ranging mode (CONT).
- 3. In the continuous ranging mode, the target distance information will be updated automatically every 3 seconds.
- 4. In single rangefinding mode, short press the **Power Button (6)** to update the range value.

## NOTES:

- To switch the units of measurement to meters or yards, go to Main Menu > Settings > Units on your RICO HYBRID rifle scope.
- For detailed instructions on using your rifle scope, please refer to the user manual for the RICO HYBRID.

## RANGEFINDING ACCURACY NOTES:

- The measurement accuracy and maximum range depend on the reflection ratio on the target surface, the angle at which the laser indicator falls on the target surface, and environmental conditions. Reflectivity depends on the surface texture, color, size, and shape of the object. Typically, a glossy, bright surface will have higher reflectivity than a darker surface.
- Ranging performance can degrade in bright conditions or when ranging towards the sun.
- The measurement accuracy can be affected by fog, smog, heavy rain, snow, and other weather conditions. It can also be affected by a low battery or a dirty or smudged objective lens.
- Measuring the range to a small target is more difficult than measuring the range to a large target.

## Laser Calibration

When the laser indicator does not point to the center of the rangefinder cursor in the rangefinder interface, it may need to be calibrated. To calibrate the laser rangefinder:

- 1. Select a target in common with your zero distance.
- 2. With the LRF connected to the HYBRID, long press the **Power Button (5)** and the **Palette Button (6)** to open the laser calibration interface and turn on the visible red laser indicator.
- 3. The following information appears in the center of the screen:
  - a. X: Select to move the cursor horizontally.
  - b. Y: Select to move the cursor vertically.
- 4. Rotate the **Rotary Encoder** to move through the two options, X and Y. The location of the cursor is indicated by a gray outline.
- 5. Short press the **Rotary Encoder** to select X or Y. The outline turns blue to indicate the axis is now selected.
- Rotate the Rotary Encoder to move the cursor until its center is aligned with the position of the visible laser beam downrange. A second cursor appears to mark the new XY location; the original cursor remains on the screen to mark the original XY location.
  - Rotate counterclockwise to move in the positive direction: X= Right and Y= Up.
  - B. Rotate clockwise to move in the negative direction: X= Left and Y= Down.
  - c. Rotate one click to move the cursor by 1 pixel.
- 7. Short press the **Rotary Encoder** to save the new cursor location and to deselect the axis.
- 8. Adjust the cursor position along the second axis as needed.
- 9. Long press the **Power Button (5)** and the **Palette Button (6)** to save the laser calibration, turn off the laser indicator, and exit the calibration interface.



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