User's Manual

NOCPIX

RICO 3 PRO H50R

Rugged Infrared Compact Optic



Nocpix

W A R N I N G !
ITAR REQUIREMENTS

These products may be subject to export and foreign trade control laws of the United States and may not be exported without prior approval of the U.S. Department of State. Learn more at irayusa.com/ITAR.

CAUTION

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

2601 State Hwy 121, Building 3, Suite 306, Lewisville, TX 75056
800.769.7125 info@irayusa.com

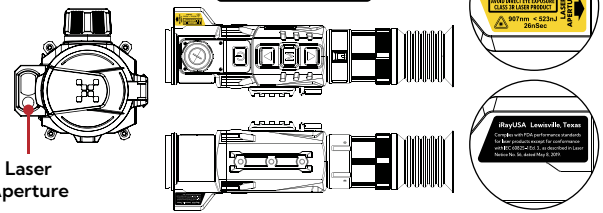
NOTICE: This product is a Class 3R laser product.

Explanatory Label



Mfr ID and Certification Label





NOTE: There is no scheduled maintenance or service necessary to keep this product in compliance and no user service or maintenance is required.

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

Wavelength: 907 nm
Laser Power for Classification: <523nJ
Emission Type: Pulsed, Invisible
Pulse Width: 26 nSec

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

NOTES:

- 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.
- 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 laser or allow laser light to be directed or reflected toward other people or reflective objects.
- Operators should be trained to not target the eyes of people, animals, and pets or aim at reflective objects, etc.
- 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 operate the product with the aperture pointed downrange.

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WARNING: CHOKING HAZARD
Children under 3 years old can choke or suffocate on small parts of this product. This product is not a toy; keep out of reach of children.

1. Overview

Built upon the RICO 2 series, the RICO 3 PRO now boasts an integrated 1,600-yard capable rangefinder and 10-hour battery life. The RICO 3 PRO features a high-performance 12 µm Nocpix core and an ultra-high-contrast 1.03" circular AMOLED HD display for an unparalleled viewing experience. The RICO 3 PRO takes its image processing one step further with Advanced Image Correction and Automatic Image Optimization courtesy of its Reality+ processor. An intuitive and easy-to-use interface combines with a picture-in-picture function, QD picatinny mount, magnesium housing, 1000 G/s^2 shock resistance, and 64 GB of internal memory. The RICO 3 PRO also unlocks advanced features such as a rotating digital zoom lever, 2× ocular zoom, auto-focus mode, magnetic charging port, and recoil-activated video.

2. Features

- 12 µm high-performance thermal detector
- ≤15 mK sensitivity
- 1600-yard integrated, high-precision laser rangefinder
- High image quality
- Magnesium alloy housing
- Quick-change rechargeable battery pack
- Maximum detection range 2840 yards
- HD 2560×2560 AMOLED display
- High frame frequency: 60Hz
- 2× ocular zoom and 4× digital zoom
- Auto-focus mode
- Multi-variable ballistics calculator
- Multiple reticle types and color options
- Supports multiple charging options
- Recoil-activated video
- Multiple zero profiles and ranges
- Built-in 64 GB storage to support video recording
- Built-in Wi-Fi module
- Mobile device App compatible
- Picture in Picture (PIP)
- Pixel calibration functions

3. Tech Specs

RICO 3 PRO	H50R
Sensor	
Resolution	640×512
Pixel Size	12 µm
Frame Rate	60hz
Sensor Sensitivity	≤15 mK
Image Processing	Reality+
Core	Nocpix 640
Optics	
Objective Lens	50 mm f/1.0
Magnification	3×
Zoom	2x Optical Zoom, 4x Digital Zoom
Field of View	8.8° × 7.0°
Detection Range	2840 Yards
Display Type	1.03-inch Large-format AMOLED
Display Resolution	2560×2560
Color Palettes	White Hot, Black Hot, Red Hot, Rainbow, Violet, Crimson, Viridian
Reticle Types	8 (7 Static, 1 DIY)
Reticle Colors	Black Red, Black Green, White Red, White Green, Black White, White Black, Red, Green, Yellow
Mounting System	Picatinny MIL-STD 1913 Rail
P.I.P.	Yes
Rangefinder	Integrated 1,600 yd LRF
Eye Relief	60 mm
Diopter Range	-5 to +5
Electronics	
Onboard Recording	Video, Recoil-Activated Video
Onboard Storage	64 GB
Wireless Connectivity	Image and Video via App.
Data/Power Connector	USB-C
Power Supply	USB-C External, NBP-8 Li-ion Battery Pack (×2)
Max. Operating Time	10 Hours
Start Up Time	<10 Seconds, Instant from Standby
Physical	
Size	9.69" × 3.43" × 3.43"
Weight	42.13 Oz
Environmental/Warranty	
Warranty	5 Years
Housing Material	Magnesium Alloy
Ingress Protection	IP67
Operation Temperature	-4°F~122°F
Max. Recoil	1000 g/s^2 (300 Win./7mm Mag)

4. Accessories

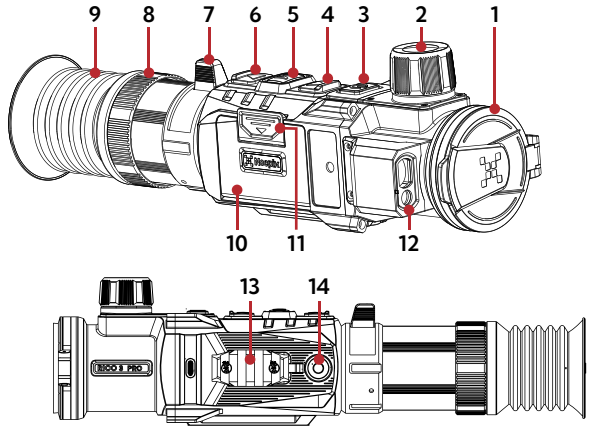
The RICO 3 PRO rifle scope ships with everything you need to get out and hunt.

- Objective Lens Cap
- Standard Rubber Eyeguard
- Dual Throw Mount
- M5 Screws
- 3mm Hex Key and Spanner Tool
- Remote Control
- Magnetic Charging Cable
- USB-C Data Cable
- NBP-8 Battery
- Soft Case
- Lens Cloth
- User Manual



Various replacement accessories are available for purchase.
Contact 800-769-7125 or irayusa.com/support.

5. Components and Controls



1	Objective Lens Cap
2	Objective Lens Focus Knob
3	Power Button
4	Up Button
5	Menu Button
6	Down Button
7	Zoom Lever
8	Eyepiece / Diopter Adjustment Ring
9	Eyeguard
10	NBP-8 Battery Pack
11	Battery Compartment Latch
12	Laser Rangefinder
13	Accessory Rail
14	Magnetic Charging Port / USB-C Port

6. Description of Control Buttons & Shortcuts

Power Button ⏻		
Current Screen, Menu, or Device Status	**Short Press**	**Long Press**
Device off	——	Power on the device
Home screen	Manually perform a shuttered NUC (non-uniformity correction)	Power off the device
Main menu	Return to the previous menu without saving changes	——
Continuous rangefinding mode	Deactivate rangefinding mode	——
Defect pixel correction & reticle zeroing interfaces	Exit the interface without saving	——

Up Button ▲		
Current Screen / Menu	**Short Press**	**Long Press**
Home screen	Take a single ranging measurement.	**Continuous LRF is ON:** Activate/deactivate continuous ranging.
		Continuous LRF is OFF: Long press, move LRF cursor to target, then release the button to take a single ranging measurement.
Continuous rangefinding mode	——	Deactivate rangefinding mode
Main menu / quick menu	Move the cursor up	——
Defect pixel correction & reticle zeroing interfaces	Move the cursor 1 pixel in the positive direction	Move the cursor 10 pixels in the positive direction

Up Button ▲ + Down Button ▼		
Current Screen / Menu	**Short Press**	**Long Press**
Home screen	Perform a shutterless NUC (non-uniformity correction)	Perform a shutterless NUC (non-uniformity correction)

Menu Button M		
Current Screen / Menu	**Short Press**	**Long Press**
Home screen	Enter the quick menu	Enter the main menu
Main menu	Change menu options; enter the submenu; or confirm submenu changes and return to previous	Save and return to the previous menu
Quick menu	Toggle through the quick menu options	Exit the quick menu
Defect pixel correction & reticle zeroing interfaces	Select / deselect axis of movement (X or Y)	Save and return to previous

Down Button ▼		
Current Screen / Menu	**Short Press**	**Long Press**
Home screen	When auto-focus mode is enabled, press to auto focus the objective	Start / stop recording video
Main menu / quick menu	Move the cursor down	——
Defect pixel correction & reticle zeroing interfaces	Move the cursor 1 pixel in the negative direction	Move the cursor 10 pixels in the negative direction

Zoom Lever	
Current Screen / Menu	**Rotate**
Home screen	Adjust the ocular and digital zoom level at the same time: Turn clockwise to zoom in. Turn counterclockwise to zoom out.

Objective Lens Focus Knob		
Current Screen / Menu	**Pull Up**	**Press Down**
Home screen	Enable manual-focus mode	Enable auto-focus mode

7. Quick Start Guide

Step 1: Prepare to Use the RICO 3 PRO

1. Compare the box contents to the accessories list and examine each for any shipping damage. See **Accessories** on page 4.
2. Check the lens to ensure there are no smudges or dirt present. Clean with the included lens cloth, if necessary.
3. Charge the battery pack **(10)**. See **Charging the Battery Pack** on page 9.
4. Install the eyeguard **(9)**.

Step 2: Turn On the RICO 3 PRO

1. Open the objective lens cap **(1)**.
2. Long press the **Power ⏻ button** for 3 seconds to power on the RICO 3 PRO.
3. Rotate the eyepiece diopter adjustment ring **(8)** until the interface icons are clear.

WARNING: Do not point the objective lens toward intense energy sources, such as the sun or laser equipment. This may render the electronic components inoperative. The warranty does not cover damage caused by improper operation.

Step 3: Adjust Settings in the Quick Menu

Short press the **Menu M button** to enter the quick menu to adjust the following settings (see **Using the Quick Menu** on page 18 for detailed instructions):

1. Set the color palette to white hot, black hot, red hot, rainbow, violet, crimson, or viridian.
2. Select an image brightness level, from 1 to 10.
3. Select an image contrast level, from 1 to 10.
4. Select an image sharpness level, from 1 to 10.
5. Turn on Ultra-clear mode.
6. Set the image hue to warm or cool.
7. Select a preset ballistic distance.

Step 4: Adjust Device Settings

1. Long press the **Menu M button** to enter the main menu (see **Main Menu Options and Descriptions** on page 32 for detailed instructions) to:
   a. Turn on the PIP window.
   b. Set the non-uniformity correction (NUC) mode to automatic (A) or manual (M).
   c. Turn on the motion sensor.
   d. Turn on recoil activated video.
   e. Turn on the microphone.
   f. Set the date and time.
   g. Set the unit of measure to meters or yards.
2. From the home screen, rotate the zoom lever **(7)** clockwise to zoom in or counterclockwise to zoom out on the observed object.

Step 5: Set Up and Zero the Reticle

1. Adjust the reticle settings (see **Main Menu > Reticle&Zeroing** on page 33):
   a. Select a zeroing profile or create a new one.
   b. Set the reticle type from 1 to 7. A custom reticle is also available for purchase in the Nocpix App.
   c. Set the reticle color to black red, black green, white red, white green, black white, white black, red, green, or yellow.
   d. Set the reticle brightness from 1 to 6.
2. Zero the rifle scope. See **Zeroing the RICO 3 PRO** on page 20.
   a. Set a zero distance that matches the target distance.
   b. Zero the reticle.

8. Charging the Battery Pack

The RICO 3 PRO rifle scope comes with two long-lasting rechargeable lithium-ion NBP-8 battery packs, which allow up to 10 hours of operation each. Fully charge the battery packs before using the RICO 3 PRO for the first time.

When not installed in the rifle scope, the battery can be charged directly:

1. Connect the included data cable **(15)** to the USB-C port on the side of the battery.
2. Connect the USB end of the data cable to:
   a. A 5V–2A USB power adapter; **OR**
   b. Any standard USB 3.0 port on a laptop or computer; **OR**
   c. An external power supply, such as a USB power bank.
3. The indicator lights on the side of the battery indicate the battery charge level. When all four lights are lit, the battery is fully charged.
4. When fully charged, disconnect the USB-C cable.

Charging Via the Magnetic Charging Port

1. Connect the magnetic charging cable **(16)** to the magnetic port **(14)** on the side of the rifle scope.
2. Connect the USB end of the magnetic charging cable to:
   a. A 5V–2A USB power adapter; **OR**
   b. Any standard USB 3.0 port on a laptop or computer; **OR**
   c. An external power supply, such as a USB power bank.

Charging via the USB-C Port

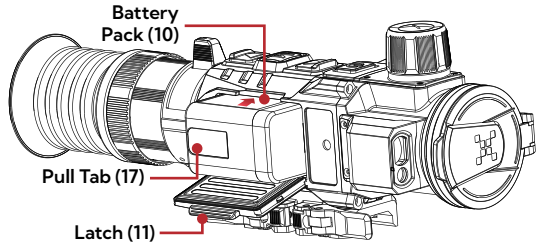
1. Remove the magnetic charging port and connect the data cable **(15)** to the USB-C port **(14)** behind it.
2. Connect the USB end of the data cable to:
   a. A 5V–2A USB power adapter; **OR**
   b. Any standard USB 3.0 port on a laptop or computer; **OR**
   c. An external power supply, such as a USB power bank.
3. During charging, the battery status icon in the status bar changes to the battery charging icon.
4. When fully charged, disconnect the charging cable.

NOTES:

- You may charge and operate the RICO 3 PRO at the same time.
- The battery status icon turns red when the battery is below 20%; charge right away to avoid over-discharge and a reduction in battery capacity or service life.

9. Installing the Battery Pack

1. Pull the battery compartment latch **(11)** down to open the cover.
2. Position the battery with the terminal slots on the front edge and the red pull tab **(17)** on the back. Insert the battery **(10)**.
3. Press the battery compartment cover closed.



WARNING: The RICO 3 PRO can only be powered by a factory-supplied NBP-8 battery pack. Using any other battery pack may cause irreparable damage to the rifle scope or cause a fire. Any damage from using an improper battery pack will not be covered by warranty.

10. Removing the Battery Pack

To remove the battery pack from the RICO 3 PRO:

1. Pull the battery compartment latch **(11)** down to open the cover.
2. Pull the red tab **(17)** on the battery to remove it.

11. Battery Safety Warnings

WARNINGS:

- Do not use a power adapter or USB cable that has been modified or damaged.
- Do not expose the battery to high temperatures or open flame, and do not immerse it in water.
- Do not leave the battery unattended while charging.

- Do not leave the battery charging for long periods after full charge is reached. Charging time should not exceed 24 hours.
- Keep the battery pack out of the reach of children and pets.
- The battery is equipped with short-circuit protection. However, any situation that may cause short-circuiting should be avoided.
- Do not disassemble, modify, hit, or drop the battery pack.
- Do not connect the battery to any external device with an electrical current that exceeds permitted levels.
- Do not connect an external device with a current supply that exceeds the 3.0 USB port.

To maintain optimal battery capacity and service life:

- When storing for long periods, avoid fully charging or discharging the battery; instead, partially charge the battery and store it separately from the device.
- Do not charge an extremely cold battery. Allow the battery to warm up for about 45 minutes before charging.
- Charge the battery at a temperature range from 32 °F to 113 °F; otherwise, the service life of the battery may be reduced.
- The recommended operating temperature range is -4 °F to 122 °F. Avoid using the battery above the maximum or below the minimum recommended temperature range, as this may decrease the battery capacity or service life.

12. External Power Supply

The RICO 3 PRO supports the use of a 5V external power supply, such as a mobile power bank. To connect to an external power supply:

1. Remove the magnetic charging port **(14)** and connect the data cable **(15)** to the USB-C port behind it.
2. Connect the other end of the USB-C cable to the external power supply.
3. The RICO 3 PRO will switch to operation from the external power supply, and the internal battery pack will begin slowly charging.
4. In the status bar, the battery status icon will change to the battery charging icon.
5. If the external power supply is disconnected, the RICO 3 PRO will automatically switch to the battery pack without powering off.

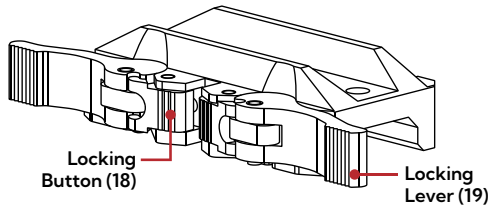
NOTE: Do not connect the RICO 3 PRO to an external device with a power supply that exceeds the 3.0 USB cable.

13. Mounting the RICO 3 PRO

To mount the RICO 3 PRO rifle scope to the Picatinny rail of your rifle.

1. Press the locking button **(18)** and pull the locking lever **(19)** to open each throw lever on the Dual Throw Mount.
2. Install the mount to the Picatinny rail.
3. Press the levers closed to lock the mount in place. You will hear the lever and locking button click.

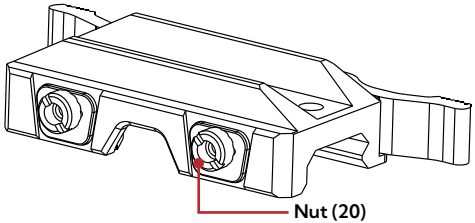
The RICO 3 PRO is now ready to be zeroed. See Zeroing the RICO 3 PRO for instructions.



Adjusting the Throw Lever Tension

If you cannot slide the mount onto the Picatinny rail because the throw levers are in the open position but the locking plate is not, or if the mount is not tight to the rail after the throw levers are closed, you may loosen or tighten the tension of the throw levers by adjusting the nuts **(20)**.

1. Open both throw levers. This will cause the adjustment nuts **(20)** to protrude on the opposite side of the mount.
2. Use the prong side of the included spanner tool 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 it reaches a 45-degree angle. Do not overtighten.



14. Operating Instructions

WARNING!
Don't point the objective lens towards any intense energy sources, such as laser radiation or the sun. This may render the electronic components inoperative. The warranty does not cover damage caused by improper operation.

Using the Control Buttons

The RICO 3 PRO is operated via four control buttons. The control buttons can be used to perform shortcut operations from the home screen, as well as in the menu and full-screen interfaces. See **Description of Control Buttons and Shortcuts** on page 6 for shortcut button details.

Powering On

1. Open the objective lens cap **(1)**.
2. Long press the **Power ⏻ button** for 3 seconds to turn on the rifle scope. The Nocpix logo will appear.
3. To determine the current battery charge, check the battery status icon in the status bar.

Powering Off and Entering Standby

To power off the RICO 3 PRO:

1. Long press the **Power ⏻ button**. The shutdown screen will open, showing a 3-second countdown.
2. The RICO 3 PRO will shut down automatically when the 3-second countdown completes.

NOTE: Press any button before the countdown completes to cancel the shutdown and return to the home screen.

WARNING: If using an external power supply, do not remove the power supply when saving data, as the data may not be saved.

STANDBY MODE

The rifle scope may be set to enter standby mode automatically to conserve battery.

1. Enable automatic standby in the main menu.
2. When on, the RICO 3 PRO will automatically enter standby when tilted down more than 70°.
3. When tilted up less than 70°, the device will wake.

NOTES:

- See **Main Menu > Standby** on page 52 for detailed instructions.
- When auto standby is turned off, the rifle scope will operate until the batteries run out.

Adjusting the Focus

ADJUSTING THE DIOPTER/EYEPIECE

1. Rotate the eyepiece diopter adjustment ring **(8)** at the rear of the rifle scope right or left until the user interface is clear.
2. Look closely to ensure all icons, the status bar, and the reticle appear sharp and in focus. No additional diopter adjustments are required unless the user wishes to make changes.

NOTES:

- After the initial adjustment, there is no need to rotate the eyepiece adjustment ring **(8)** for long distances or other conditions.
- If necessary during standard use, the objective lens focus knob **(2)** may be rotated to adjust fine focus on the target object being observed. See **Focusing the Objective Lens** on the next page.

FOCUSING THE OBJECTIVE LENS

The objective lens can be focused manually or using the auto-focus feature.

NOTE: Re-adjusting the focus will be necessary if the distance to the target changes.

To use the auto-focus feature:

1. Press the objective lens focus knob **(2)** down to enable auto-focus mode. The auto-focus [A] icon will appear in the status bar.
2. **On the remote control,** short press the **Auto Focus** ⊡ **button**. The RICO 3 PRO will focus the objective lens, centering it on the main shooting reticle.
3. **On the RICO 3 PRO,** short press the **Down** ▼ **button** to auto focus the lens.

NOTE: In good weather conditions, the objective lens will auto focus in under one second. However, in adverse weather conditions, it may take longer to focus the lens. This is normal device functionality.

To manually adjust the focus:

1. Pull the objective lens focus knob **(2)** up to enable manual-focus mode. The manual-focus [M] icon will appear in the status bar.
2. Rotate the focus knob **(2)** left or right to focus on the target.

Status Bar Overview

The status bars at the top and bottom of the screen show information on the operating status of the RICO 3 PRO.



1 **Magnification:** Shows the real-time amplification.

2 **Ultra-Clear:** Shows the Ultra-Clear status, on or off .

3 **Wi-Fi Status:** Shows the Wi-Fi status, on or off .

4 **Time:** Shows the current time in 24-hour format.

5 **Battery Status and Charge:** Shows the battery status. A charging icon appears when the battery is charging.

6 **Non-Uniformity Correction (NUC) Mode:** Shows the icon for the selected non-uniformity correction (NUC) mode, automatic or manual . A countdown timer icon will appear when 5 seconds remain until an automatic NUC.

7 **Microphone:** Shows the Microphone status, on or off .

8 **Recoil Activated Video:** Shows the RAV status, on or off .

9 **Focus Mode:** Shows the selected focus mode, auto [A] or manual [M].

10 **Zeroing Distance:** Shows the set zero distance.

11 **Zeroing Profile:** Shows the selected zeroing profile.

Using the Quick Menu

In the quick menu, the following commonly used settings can be quickly adjusted: the color palette, image brightness, image contrast, image sharpness, Ultra-clear mode, image hue, and preset ballistic calculation distance.



- On the home screen, short press the **Menu** [M] **button** to enter the quick menu.
- Short press the **Up** [▲] or **Down** [▼] **button** to move up and down through the quick menu options. The selected menu option turns from white to blue to mark the cursor location.
- Short press the **Menu** [M] **button** to toggle through the parameters for the selected menu option.
- Long press the **Menu** [M] **button** to save any changes and return to the home screen.
- After 10 seconds of inactivity, the system will automatically save any changes and return to the home screen.

NOTE: See **Quick Menu Options and Descriptions** on page 29 for detailed information about the quick menu options.

Navigating the Main Menu



- From the home screen, long press the **Menu** [M] **button** to enter the main menu.
- Short press the **Up** [▲] or **Down** [▼] **button** to move up and down through the menu options. The selected menu option turns from white to blue to mark the cursor location.
- Short press the **Menu** [M] **button** to:
  - Toggle through the parameters for the selected menu option; **OR**
  - Enter the submenu; **OR**
  - Confirm submenu changes and return to the previous menu.
- Long press the **Menu** [M] **button** to confirm any changes and return to the previous menu.
- Short press the **Power** [⏻] **button** to exit without saving.
- After 10 seconds of inactivity, the menu will automatically close, and the interface will return to the previous menu. Changes (except changes to toggle on / off menu items, such as Ultra-Clear and Wi-Fi) are not saved automatically.

NOTE: See **Main Menu Options and Descriptions** on page 32 for detailed information about the main menu options.

15. Zeroing the RICO 3 PRO

RICO 3 PRO features a freeze zeroing method. To zero the rifle scope:

1. Set a suitable target at the desired zero distance.
2. Confirm that the rifle is empty, safe, and pointed in a safe direction, with no ammunition near the weapon.
3. Adjust the image and device settings following the steps in the **Quick Start Guide** on page 8, if you have not done so already.
4. Select or create a new zeroing profile. See **Reticle&Zeroing Menu > Zeroing Profile** on page 33.
5. Based on the distance to the target you wish to zero, set a zero distance to match. See **Reticle&Zeroing Menu > Zeroing** on page 34.
6. Ensure a stable platform and natural shooting position is achieved behind the rifle.
7. Load ammunition, aim, and take one good shot at the target.
8. Make your rifle safe and observe the location of impact on the target.
9. If the point of impact does not match the point of aim (the center of the reticle), adjust the X/Y position of the reticle.
10. In the reticle zeroing interface, center the reticle on the aiming point and freeze the image view.
    a. Short press the **Down ▼ button** to move to the image freeze ❄ icon.
    b. Short press the **Menu M button** to freeze the image. The icon will turn from white to blue.
11. Select the axis (X or Y) along which to move the reticle.
    a. Short press the **Up/Down button** to move between **X** and **Y**. The axis turns blue to indicate the cursor position.
    b. Short press the **Menu M button** to select X or Y. The selected axis will begin flashing.
12. Adjust the X/Y position of the reticle until the reticle matches the point of impact.
    a. Use the **Up ▲ button** to move in the positive direction: X= Right and Y= Up.
    b. Use the **Down ▼ button** to move in the negative direction: X= Left and Y= Down.
    c. Upon moving the reticle, a white dot appears on the screen, representing the original position of the reticle.
13. Long press the **Menu M button** to save the reticle position.
14. Take a confirmation shot—the point of impact should now match the point of aim. If not, adjust the X/Y position of the reticle again.

See **Reticle&Zeroing Menu > Zeroing** on page 34.

16. Non-Uniformity Correction

A non-uniformity correction (NUC) allows a thermal imager's sensors to correct pixels and eliminate any image defects caused by pixel drift. A NUC will be performed automatically each time the RICO 3 PRO is powered on.

The RICO 3 PRO has two non-uniformity correction (NUC) modes, automatic **(A)** and manual **(M)**. In either mode, the user may choose to manually perform a NUC (shuttered or shutterless) at any time. Set the NUC mode in the main menu, see **Main Menu > Calibration** on page 49.

Automatic Mode

In automatic mode **(A)**, the RICO 3 PRO will perform a shuttered NUC automatically according to the internal software algorithm. There is no need to close the objective lens cap **(1)** as the RICO 3 PRO's internal shutter covers the sensor.

When automatic mode is selected, a countdown timer icon will appear when 5 seconds remain until a NUC. The timer will appear only after the microbolometer temperature has stabilized—after approximately 10 minutes of continuous operation of the RICO 3 PRO.

> **NOTE:** A manual NUC (see below) may be performed at any time while in Automatic **(A)** mode.

Manual Mode

In manual mode **(M)**, the user independently determines the need to perform a shuttered or shutterless NUC based on the quality of the observed image.

Performing a Shuttered NUC

A shuttered NUC may be performed at any time while in manual or automatic mode. It is not necessary to close the objective lens cap during a shuttered NUC, as the internal shutter covers the sensor.

1. From the home screen, short press the **Power ⏻ button**.
2. The internal shutter will cover the sensor, and a shuttered non-uniformity correction (NUC) will be performed instantly.

Performing a Shutterless NUC

A shutterless NUC may be performed at any time while in manual or automatic mode. A shutterless NUC uses less power than a shuttered NUC because it does not use the imager shutter to cover the sensor; instead, the user must close the lens cap **(1)**.

1. Close the objective lens cap.
2. From the home screen, short press the **Up ▲** and **Down ▼ buttons** at the same time.
3. A prompt to close the lens cap appears onscreen. The shutterless NUC starts after about 2 seconds.

NOTE: If the lens is not properly covered, a temporary "image burn" will remain in the image until the next non-uniformity correction. This "image burn" is temporary and is not a defect or sign of permanent damage.

17. Video Recording

The RICO 3 PRO is equipped with video recording. Videos are automatically saved to the built-in 64 GB memory storage.

NOTE: Video files are named with the time and date; therefore, it is recommended to set the date and time before using the video function. See **Settings Menu > Date and Time** on page 59. Alternatively, the date and time may be synchronized in the Nocpix App.

Video Recording



To record video:

1. Turn on the microphone in the main menu if desired. See **Main Menu > Microphone** on page 52.
2. From the home screen, long press the **Down ▼ button** to start a video recording.
3. When the video recording starts, the recording timer, in HH:MM:SS (hour, minute, second) format, appears in the upper-right corner of the screen.
4. Long press the **Down ▼ button** to stop and save the video recording.

NOTE: A red warning icon ⓘ appears in the upper-right corner of the screen when the memory storage is nearly full. Transfer video files to other storage media to free up space on the memory card.

Recoil Activated Video Recording

When recoil activated video is turned on in the main menu, a video is automatically recorded when a shot is taken. The RICO 3 PRO will record 9 seconds before the shot and 81 seconds after the shot. The recoil activated video icon appears in the status bar when RAV is turned on. The video recording timer, in HH:MM:SS (hour, minute, second) format, will appear when recoil-activated video is being recorded. See **Main Menu > Recoil Activated Video** on page 51 for instructions.

NOTES:

- When multiple shots are taken within the same 30-second period, only one video will be taken.
- When recoil activated video recording is turned on, standard video recording is unavailable.

Video Recording Notes

- You may enter and navigate the menu during video recording.
- Recorded videos are saved to the memory card:
  - User-recorded videos: VID_HHMMSS.mp4
  - Recoil-activated videos: RAV_HHMMSS.mp4.
  - HHMMSS is hour, minute, second.
- The maximum duration of a recorded video file is 5 minutes. After this time, video recording will begin a new file automatically.
- The number of recorded files is limited only by the capacity of the internal memory.
- Regularly check the available memory storage space and move video footage to other storage media to free up space on the memory card.

18. Accessing Internal Memory

When the RICO 3 PRO is turned on and connected to a computer via the included data cable, it is recognized by the computer as a flash memory (USB) drive. This allows the user to access the saved multimedia files and copy or delete any desired files.

To access the internal memory:

1. Turn on the RICO 3 PRO.
2. Connect the RICO 3 PRO to your computer via the included magnetic charging cable **(16)** or the USB-C data cable **(15)**.
3. Double-click **My Computer** on your computer desktop.
4. Double-click to open the device named **Nocpix**.
5. Double-click to open the device named **RICO3** to access the built-in memory.
   a. Recorded videos are separated into folders by date, YYYYDDMM.
6. Select the desired files or folders to copy or delete.

19. Using the Nocpix App

The RICO 3 PRO can be operated using the Nocpix App when connected to a tablet or smartphone via Wi-Fi.

1. Download the App for free and install it on your device:
   a. Scan a QR code to download it from the App Store or Google Play; **OR**
   b. Download the App from any app store.
2. Connect the RICO 3 PRO to Wi-Fi:
   a. Turn on the Wi-Fi. See **Main Menu > Wi-Fi** on page 32 for instructions.
   b. Open the App and tap the **Connect to Device button**. Then, tap **Connect Phone WLAN**.
   c. On the mobile device, go to **Settings > Wi-Fi**.
   d. Select the RICO 3 PRO from the list of Wi-Fi networks. It will appear in the list as "RICO 3 XXXX_YYYYYYY" where XXXX is the model number and YYYYYYY is the device serial number.
   e. Enter the Wi-Fi password and tap the **Join button**. The default password is 12345678.
3. Operate the RICO 3 PRO via the App:
   a. Take real-time photos and videos, with or without audio.
   b. View, share, download, and delete photos and videos taken via the App, which are saved to the mobile device.
   c. Change the Wi-Fi password and SSID.
   d. Synchronize the date and time from the mobile device.
   e. Update the RICO 3 PRO firmware.

NOTE: When a factory reset is performed, the Wi-Fi SSID and password are reset to the defaults, RICO3_XXXX_YYYYYY and 12345678. See **Settings Menu > Factory Reset** on page 62.

20. Bluetooth Remote Control



Before using the remote control for the first time, it must be paired with the RICO 3 PRO. Follow the pairing instructions in **Settings > Accessory Connection** on page 61.

To use the remote:

1. Use the attached strap to install the remote control to the stock/handguard of the weapon.
2. Long press the **Power button** for 2 seconds to turn on the remote.
3. During use, when the battery level is above 5%, the LED indicator on the remote control is green. When the battery level is below 5%, the LED turns red.

By default the remote control functions as follows:

- Use the **scroll wheel** to adjust the digital zoom. **NOTE:** The scroll wheel does not adjust ocular zoom. Use the zoom lever to adjust ocular and digital zoom at the same time.
- Short press the **Power button** to take a single rangefinding measurement.
- Long press the **Power button** for 10 seconds to turn off the remote.
- When auto-focus mode is enabled, short press the **Auto Focus button** to focus the objective lens, centering it on the main shooting reticle. See **Focusing the Objective Lens** on page 16 for detailed information.

NOTE: The scroll wheel and button actions can be configured in the main menu. See **Custom > Custom Buttons** on page 57.

Charging the Remote Control

1. Connect the included USB-C charging cable to the USB-C port on the remote control.
2. Connect the USB end of the included USB-C cable to a power source, such as a 5V–2A USB power adapter.
3. The indicator light is red during charging and turns green when fully charged.

21. Integrated Laser Rangefinder



The RICO 3 PRO is equipped with an integrated, precision laser rangefinder which allows the user to measure the distance to objects up to 1,600 yards away, with ±1-yard accuracy. The laser rangefinder has two rangefinding modes: continuous and single-measurement capture. Continuous rangefinding allows the user to adjust quickly to changing distances for better shot placement.

CAUTION: Do not stare directly into the laser.



The rangefinder interface has the following features:

1 **Cursor:** The rangefinder cursor appears in the center of the screen.

2 **Rangefinding Mode:** Shows the selected rangefinding mode, CONT (continuous) or SGL (single).

3 **Rangefinding Measurement:** Shows the target distance.

4 **Ballistic Calculation (Single Ranging Only):** Displays when enabled in the menu.

NOTES:

- Ballistic calculation is only available in single ranging mode; it is automatically disabled in continuous ranging mode.
- When the range exceeds the measurable distance, **----yd** is displayed.
- The rangefinder can be customized in the main menu (see **Main Menu > Laser Rangefinder** on page 44):
  - Turn the LRF reticle on/off.
  - Set LRF data to always-on or two-second display.

- Set the LRF reticle type, color, and brightness level.
- Turn continuous LRF mode on and off. When continuous ranging is active, the distance to the target indicated by the LRF cursor will be refreshed automatically by the rangefinder every second.

- To change the units of measurement (meters or yards), see **Settings > Unit** on page 60.

Using the rangefinder:

- **Short press the Up ▲ button:** Perform a single ranging measurement. **SGL XXXyd** and the ballistic calculation will be displayed. When enabled, the ballistic calculation appears before the single range measurement.
- **When continuous LRF mode is enabled:**
  - Long press the **Up ▲ button** to activate continuous ranging. **CONT XXXyd** will be displayed.
  - Long press the **Up ▲ button** a second time or short press the **Power ⏻ button** to deactivate continuous ranging.
- **When continuous LRF mode is disabled:**
  - Long press the **Up ▲ button** and move the LRF cursor to the target, then release the Up button to trigger a single ranging measurement. **SGL XXXyd** will be displayed.

NOTE: Ballistic calculation is disabled in continuous ranging mode.

ACCURACY NOTES:

- The measurement accuracy and maximum range depend on the reflection ratio on the target surface, the angle at which the laser beam 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.

22. Ocular and Digital Zoom

The RICO 3 PRO combines 2× ocular zoom with 4× digital zoom to increase the base magnification of 3× to 24×. When using the zoom lever, the ocular and digital zoom level are adjusted at the same time:

1. From the home screen, rotate the zoom lever **(7)** clockwise to zoom in or counterclockwise to zoom out on the target.
2. The real-time amplification appears in the status bar.

NOTE: The scroll wheel on the remote control can be used to adjust the digital zoom, but not the ocular zoom.

23. Quick Menu Options and Descriptions

1. Short press the **Menu M button** to enter the quick menu.
2. Short press the **Up/Down buttons** to move through the quick menu options. The selected option icon changes from white to blue to mark the cursor location.
3. Short press the **Menu M button** to toggle through the parameters for each menu item.
4. Long press the **Menu M button** to confirm and exit.

Quick Menu Structure:

- Image Mode, Screen Brightness, Image Contrast, Image Sharpness, Ultra-Clear, Image Hue, and Preset BC Distance.

Image Mode



Set the color palette

1. In the quick menu, **Image Mode** is selected by default.
2. Short press the **Menu M button** to toggle through the color palette options: white hot, black hot, red hot, rainbow, violet, crimson, and viridian.
3. Long press the **Menu M button** to confirm and exit.

Brightness / Image Contrast / Image Sharpness

Set the screen brightness, image contrast, or image sharpness



1. In the quick menu, short press the **Up/Down buttons** to select **Brightness**, **Image Contrast**, or **Image Sharpness**.
2. Short press the **Menu [M] button** to toggle through levels 1 to 10.
3. Long press the **Menu [M] button** to confirm the selection and exit.

Ultra-Clear

Turn Ultra-clear mode on or off



When Ultra-clear is turned on, the image contrast is enhanced, which is suitable for rainy, foggy, or low-contrast conditions.

1. In the quick menu, short press the **Up/Down buttons** to select **Ultra-Clear**.
2. Short press the **Menu [M] button** to turn Ultra-Clear ON or OFF.
3. The Ultra-Clear status, on or off, appears in the status bar.
4. Long press the **Menu [M] button** to confirm the selection and exit.

NOTE: When Ultra-Clear mode is turned on and off, the RICO 3 PRO will automatically perform a shuttered non-uniformity correction.

Image Hue



Set the image hue mode

1. In the quick menu, short press the **Up/Down buttons** to select **Image Hue**.
2. Short press the **Menu [M] button** to toggle between the options:
   a. **Warm (toggle ON):** Provides a softer image and reduces eye strain.
   b. **Cool (toggle OFF):** Provides increased contrast and image brightness.
3. Long press the **Menu [M] button** to confirm the selection and exit.

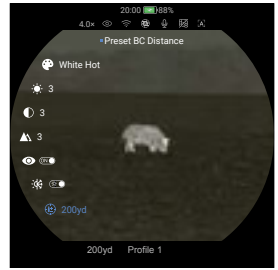
NOTE: Image hue is available when using the white hot or black hot color palette.

Preset BC Distance



Select a preset ballistic calculation distance

1. In the quick menu, short press the **Up/Down buttons** to select **Preset BC Distance**.
2. Short press the **Menu [M] button** to toggle through the options: OFF, 200m, 225m, 250m, 275m, and 300m.
   a. **OFF:** Disable the preset BC distance.
   b. **Preset BC distances (200m, 225m, 250m, 275m, 300m by default):** Select a preset distance to enable ballistic calculation.



3. Long press the **Menu** [M] **button** to confirm the selection and exit.

NOTES: Go to **Zeroing > BC Distance** on page 43 for information about editing the preset BC distances.

24. Main Menu Options and Descriptions

1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to move through the main menu options. The selected option changes from white to blue to mark the cursor location.
3. Short press the **Menu** [M] **button** to toggle through the parameters for each menu item.
4. Long press the **Menu** [M] **button** to confirm, or short press the **Power** [⏻] **button** to exit.

Main Menu Structure:

- **Main Menu:** Reticle&Zeroing, Laser Rangefinder, WIFI, PIP, Calibration, Motion Sensor, Gallery, Recoil, Standby, Microphone, Pixel Defect Correction, Custom Settings.
- **Reticle&Zeroing Menu:** Zeroing Profile, Zeroing, Reticle Type, Reticle Color, Reticle Brightness, Ballistic Calculation, BC Type, BC Color, BC Units, BC Parameter, BC Distance, Delete.
- **Laser Rangefinder Menu:** LRF Reticle, Range Data, Type, Color, Brightness, Continuous LRF.
- **Custom Menu:** Custom Palettes, Custom Buttons, Custom Max Magnification.
- **Settings Menu:** Date, Time, Languages, Unit, Accessory Connection, Firmware Update, Factory Reset, Info.

Menu option details, descriptions, and navigation instructions are listed in order on the following pages.

Reticle&Zeroing



Choose a zeroing profile and adjust the reticle, zeroing, and ballistic calculation settings

1. Long press the **Menu** [M] **button** to enter the main menu.
2. **Reticle&Zeroing** is selected by default. Short press the **Menu** [M] **button** to enter the Reticle&Zeroing submenu.

RETICLE&ZEROING > ZEROING PROFILE



Select or add a zeroing profile

1. In the reticle&zeroing submenu, **Profile 1** is selected by default.
2. Short press the **Menu** [M] **button** to select it and enter the submenu to begin customizing the Profile 1 options; OR
3. Add a new zeroing profile:
   a. Short press the **Up/Down buttons** to move to the **Add** ⊕ **button**.
   b. Short press the **Menu** [M] **button** to add a new profile. The RICO 3 PRO supports up to eight profiles (Profile 1 to Profile 8).
   c. Short press the **Menu** [M] **button** a second time to select the new profile and begin customizing it.



4. When the zeroing profile is selected, the following options can be adjusted:
    a. Customize the zero distance and reticle position.
    b. Change the reticle type, color, and brightness.
    c. Turn ballistic calculation on or off.
    d. Adjust the ballistic calculation options: color and type, units, parameters, and preset distances.
    e. Delete the selected zeroing profile.

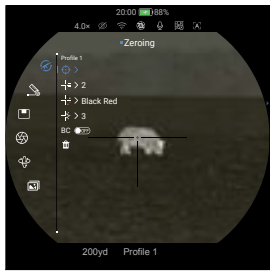
NOTES:

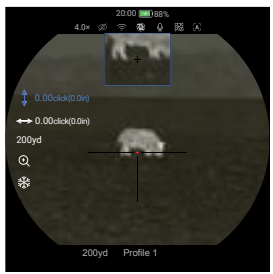
- The zeroing profile names and parameters can be edited in the NOCIPIX App.
- The selected zeroing profile appears in the status bar.

RETICLE&ZEROING > ZEROING

Customize the zero distance and adjust the reticle position for the selected zero profile to match the point of impact.

1. In the submenu for the selected zeroing profile, **Zeroing** is selected by default.
2. Short press the **Menu** [M] **button** to select it and enter the reticle zeroing interface.
3. The zeroing interface has the following features:





1 **Y-Axis** ↕ :
Click: At 1× zoom, 1 pixel of movement = 1 click; 2× zoom = 0.5 click; 4× zoom = 0.25 click.
cm/in: Vertical point of impact change, in cm or inches (the actual distance at the current zoom level and zero distance).

2 **X-Axis** ↔ :
Click: At 1× zoom, 1 pixel of movement = 1 click; 2× zoom = 0.5 click; 4× zoom = 0.25 click.
cm/in: Horizontal point of impact change, in cm or inches (the actual distance at the current zoom level and zero distance).

3 **Zero Distance:** Select to customize the zero distance.

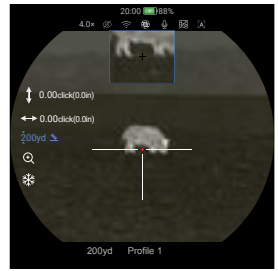
4 **Zoom** : Select to change the zoom level.

5 **Freeze** : Select to freeze the image. When frozen, the icon turns from white to blue.

6 **Reticle:** Shows the new reticle position.

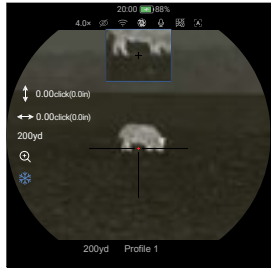
7 **White Dot:** Indicates the center of the original reticle position.

4. To edit the zero distance or use the LRF ranging distance:

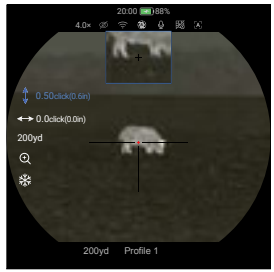


    a. Short press the **Up/ Down buttons** to move the cursor to the zeroing distance.
    b. Short press the **Menu** [M] **button** to begin editing it. Blue arrows appear above and below the far-left digit to mark the cursor location.
    c. Short press the **Menu** [M] **button** to switch between the three digits and the LRF range option. The blue arrows move to indicate the selection.
    d. **To manually set the zero distance:** Short press the **Up/ Down buttons** to increase or decrease the value of the selected digit from 0 to 9.
    e. **To use the ranging distance:** Short press the **Up** or **Down button** with the LRF icon selected to take a rangefinding measurement and set it as the zeroing distance.
    f. To stop editing the zero distance, short press the **Menu** [M] **button** until the blue arrow editing arrows disappear.

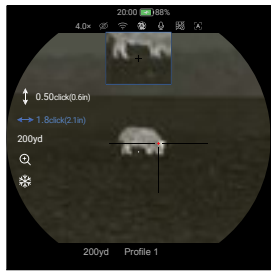
5. Center the reticle on the aiming point and freeze the image view.
   a. Short press the **Up/Down buttons** to move the cursor to the freeze ❄ icon.
   b. Short press the **Menu [M] button** to freeze the image. The freeze icon will turn from white to blue. Short press the **Menu [M] button** a second time to unfreeze.



6. Adjust the zoom level, as needed:
   a. Short press the **Up/Down buttons** to move the cursor to the zoom 🔍 icon.
   b. Short press the **Menu [M] button** to select it.
   c. Short press the **Up/Down buttons** to zoom in or out. The selected real-time amplification appears in the status bar.
7. Select the axis (X or Y) along which to move the reticle:
   a. Short press the **Up/Down buttons** to move the cursor between **X** and **Y**. The axis icon will turn from white to blue to mark the cursor location.
   b. Short press the **Menu [M] button** to select the desired axis. The selected axis will begin flashing.



8. Adjust the X/Y position of the reticle until the reticle matches the point of impact.
   a. **X** (horizontal) is the windage and **Y** (vertical) is the elevation.



   b. Upon moving the reticle, a white dot appears onscreen, representing the original position of the reticle.
   c. Use the **Up [▲] button** to move in the positive direction: X= Right and Y= Up.
   d. Use the **Down [▼] button** to move in the negative direction: X= Left and Y= Down.
   e. Short press the **Up/Down button** to move the reticle in the corresponding direction by 1 pixel; long press to move 10 pixels.
   f. The click and cm/in parameters for the X-axis and Y-axis represent the movement of the reticle.
   NOTE: After exiting the zeroing menu, the click value is saved and the cm/in value is reset to zero.
      i. **Click parameter:** Represents the pixel movement at the selected zoom level. At 1× zoom, 1 pixel of movement = 1 click; 2× zoom = 0.5 click; 4× zoom = 0.25 click.
      ii. **Cm/in parameter:** Is the horizontal or vertical point of impact change at the current zoom level and zero distance:

MODEL	DISTANCE (YARDS)	ONE CLICK (INCHES)
RICO 3 PRO H50R	50	0.22
	100	0.43
	200	0.86

   g. The distance of your X/Y adjustments will update automatically when the zero distance is changed, for example, from 100 to 200 yards.
9. Short press the **Menu [M] button** to save the position for the selected axis and deselect it. When deselected, the axis will stop flashing.
10. Repeat steps 7–9 to adjust the reticle position along the second axis if needed.
11. Short press the **Power [⏻] button** to exit the interface without saving the reticle position; **OR**
12. Long press the **Menu [M] button** to confirm changes.
13. A pop-up window shows the message "Do you want to keep these settings?" and two options, Yes and No.

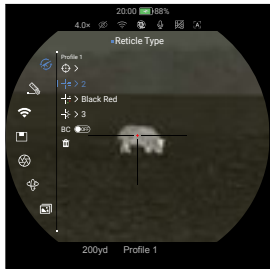
14. Short press the **Menu** [M] **button** to select **Yes** to save the reticle position.
15. Short press the **Up/Down buttons** to move to **No**, and short press the **Menu** [M] **button** to exit without saving.
16. Take a confirmation shot—the point of impact should now match the point of aim. If not, adjust the X/Y position of the reticle again.



RETICLE&ZEROING > RETICLE TYPE

Select the reticle type

1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **Reticle Type**.
2. Short press the **Menu** [M] **button** to enter the reticle type submenu.
3. Short press the **Up/Down buttons** to move through reticle types, 1 to 7 (see next page). The reticle changes as the cursor moves through the reticle types. A custom reticle is also available for purchase in the Nocpix App.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.



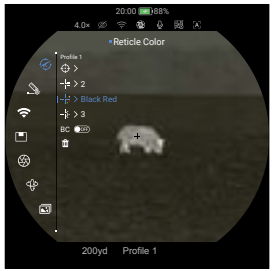


Reticle Types



RETICLE&ZEROING > RETICLE COLOR

Select the reticle color



1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **Reticle Color**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through color options: black red, black green, white red, white green, black white, white black, red, green, or yellow. The reticle color changes as the cursor moves through the color options.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

NOTE: For two-color reticles, the first color is the color of the stadia lines, and the second is the center cross color.

RETICLE&ZEROING > RETICLE BRIGHTNESS

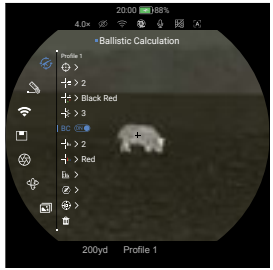
Select the reticle brightness



1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **Reticle Brightness**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to adjust the brightness from 1 to 6. The reticle brightness changes as the cursor moves through the options.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

RETICLE&ZEROING > BALLISTIC CALCULATION BC

Turn ballistic calculation on or off



1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **Ballistic Calculation** BC.
2. Short press the **Menu** M **button** to turn the ballistic calculation toggle ON or OFF. When ballistic calculation is enabled:
   a. When a single ranging measurement is taken, ballistic calculation data (MOA/mil/cm/inch) will display below the range distance, and the reticle will display the predicted impact-point position.
   b. The following ballistic calculation options will appear in the ballistic calculation submenu: BC type, BC color, BC units, BC parameter, and BC distance.
3. Long press the **Menu** M **button** to confirm the selection and return to the previous menu.

RETICLE&ZEROING > BC TYPE

Set the reticle type for the suggested point of aim



1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **BC Type**.
2. Short press the **Menu** M **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through the options: ×, +, ●, • •●• •, and Move Reticle.
4. Long press the **Menu** M **button** to confirm the selection and return to the previous menu.

NOTE: When the BC type is set to Move Reticle, the RICO 3 PRO will automatically move the original reticle to the suggested point of aim.

RETICLE&ZEROING > BC COLOR

Set the reticle color for the suggested point of aim



1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **BC Color**.
2. Short press the **Menu** M **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through the options: blue, green, red, white, and black.
4. Long press the **Menu** M **button** to confirm the selection and return to the previous menu.

RETICLE&ZEROING > BC UNITS

Set the units of measurement for ballistic calculation





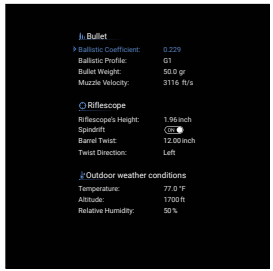
1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **BC Units**.
2. Short press the **Menu** M **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through the unit toggles.
4. Short press the **Menu** M **button** to turn the unit toggles ON or OFF:
   a. Set the angular units to **MOA** or **mil**; only one can be turned on.
   b. Set the linear units to **cm** or **inches**; only one can be turned on, but both can be turned off.

5. Long press the **Menu** [M] **button** to confirm changes and return to the previous menu.

RETICLE&ZEROING > BC PARAMETER

Set parameters for bullet, rifle scope, and weather conditions





1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **BC Parameter**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move to a parameter, and short press the **Menu** [M] **button** to begin editing it:
   a. When editing non-numerical parameters, such as ballistic profile, short press the **Menu** [M] **button** to toggle through the options.
   b. When editing numerical values:
      i. Blue arrows appear above and below the far-left digit to mark the cursor location.
      ii. Short press the **Up/Down buttons** to increase or decrease the value of the selected digit from 0 to 9.
      iii. Short press the **Menu** [M] **button** to switch between the digits. The blue arrows move to indicate the selected digit.
   c. Short press the **Power** [⏻] **button** to exit without saving; **OR**
   d. Long press the **Menu** [M] **button** to confirm and return.
4. When all parameters have been edited:
   a. Short press the **Power** [⏻] **button** to exit the parameters interface without saving; **OR**
   b. Long press the **Menu** [M] **button** to confirm all parameter changes and return to the previous menu.

NOTES: The ballistic parameters on this screen can also be adjusted in the Nocpix App.

RETICLE&ZEROING > BC DISTANCE

Edit the default preset ballistic calculation distances that appear in the quick menu (200m, 225m, 250m, 275m, and 300m)





1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **BC Distance**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move to a BC distance, and short press the **Menu** [M] **button** to begin editing it.
4. Blue arrows appear above and below the far-left digit to mark the cursor location.
5. Short press the **Menu** [M] **button** to switch between the three digits and the LRF range option. The blue arrows move to indicate the selection.
6. **To manually edit the BC distance:** Short press the **Up/Down buttons** to increase or decrease the value of the selected digit from 0 to 9.
7. **To use the ranging distance:** Short press the **Up** or **Down button** with the LRF icon selected to take a rangefinding measurement and set it as the BC distance.
8. Long press the **Menu** [M] **button** to save the changes and return to distance selection submenu.
9. Long press the **Menu** [M] **button** a second time to return to the previous menu.

RETICLE&ZEROING > DELETE

Delete the selected zeroing profile



1. In the reticle&zeroing submenu, short press the **Up/Down buttons** to select **Delete** .
2. Short press the **Menu M button** to delete the selected zeroing profile.
3. A pop-up window shows the message "Do you want to delete the profile?" and two options, No and Yes.
4. Short press the **Menu M button** to select **Yes** to delete the zeroing profile and return to the previous menu; **OR**
5. Short press the **Up/Down buttons** to select **No**, and short press the **Menu M button** to return to the previous menu without deleting the zeroing profile.

Laser Rangefinder

Customize the rangefinder cursor and turn continuous LRF on or off



1. In the main menu, short press the **Up/Down buttons** to select **Laser Rangefinder** .
2. Short press the **Menu M button** to enter the submenu.

LASER RANGEFINDER > LRF RETICLE

Turn the rangefinding reticle on or off



1. In the laser rangefinder submenu, short press the **Up/Down buttons** to select the **LRF Reticle toggle**.
2. Short press the **Menu M button** to turn the LRF reticle toggle ON or OFF.
3. Long press the **Menu M button** to confirm the selection and return to the previous menu.

LASER RANGEFINDER > RANGE DATA

Set how long single rangefinding data stays on the screen



Set single rangefinding data to "always on" or to hide after 2 seconds.

1. In the laser rangefinder submenu, short press the **Up/Down buttons** to select the **Range Data toggle**.
2. Short press the **Menu M button** to toggle between 2 seconds and ON.
3. Long press the **Menu M button** to confirm the selection and return to the previous menu.

LASER RANGEFINDER > TYPE

Select the LRF reticle type



1. In the laser rangefinder submenu, short press the **Up/Down buttons** to select **Type**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through LRF reticle type options: ⛶, ⌖, ●, and ○.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

LASER RANGEFINDER > COLOR

Select the LRF reticle color



1. In the laser rangefinder submenu, short press the **Up/Down buttons** to select **Color**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through color options: blue, green, red, white, black, and yellow.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

LASER RANGEFINDER > BRIGHTNESS

Set the LRF reticle brightness



1. In the laser rangefinder submenu, short press the **Up/Down buttons** to select **Brightness**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to select a brightness level, from 1 to 6.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

LASER RANGEFINDER > CONTINUOUS LRF

Turn continuous LRF mode on or off



1. In the laser rangefinder submenu, short press the **Up/Down buttons** to select the **Continuous LRF toggle**.
2. Short press the **Menu** [M] **button** to toggle Continuous LRF ON or OFF.
3. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

WIFI



Turn Wi-Fi on or off

1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **WIFI**.
3. Short press the **Menu** [M] **button** to toggle Wi-Fi ON or OFF. The Wi-Fi status, on or off, appears in the status bar.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

PIP



Turn the picture-in-picture window on or off

1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **PIP**.
3. Short press the **Menu** [M] **button** to toggle the PIP window ON or OFF. When turned on, the PIP window appears at the top of the screen and displays a 2× zoomed image.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

Calibration



Set the non-uniformity correction (NUC) mode to automatic or manual

1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **Calibration**.
3. Short press the **Menu** [M] **button** to toggle between the A (automatic) and M (manual) non-uniformity correction (NUC) mode. The selected NUC mode, or , appears in the status bar.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

Motion Sensor



Turn the motion sensor on or off

1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **Motion Sensor**.
3. Short press the **Menu** [M] **button** to toggle the motion sensor ON or OFF. When on, the tilt angle appears on the left side of the screen and the pitch angle appears on the right side of the screen.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

NOTE: The tilt angle is not shown in the figure above because it is hidden by the menu.

Gallery

View videos saved to the device

1. In the main menu, short press the **Up/Down buttons** to select **Gallery**.
2. Short press the **Menu [M] button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through the multimedia folders and files.
   a. Folders are named by date in YYYYMMDD (year/month/day) format and videos are named in HHMMSS format (hour/minute/second).
   b. Folders and files are ordered from newest to oldest.
   c. As the cursor moves through the files in a folder, a thumbnail of the selected video appears on the right.
4. Short press the **Menu [M] button** to enter a folder or view a video in full screen.
   a. Short press the **Menu [M] button** to play or pause a video.
   b. Short press the **Up/Down buttons** to fast forward and rewind.
5. Long press the **Menu [M] button** to return to the previous menu level.







Recoil

Turn recoil activated video (RAV) on or off and set recoil sensitivity

1. In the main menu, short press the **Up/Down buttons** to select **Recoil** to enter the RAV submenu.



RECOIL > RECOIL ACTIVATED VIDEO

Turn RAV on or off

1. In the recoil submenu, short press the **Menu [M] button** a second time to turn the RAV toggle ON or OFF.
   a. The RAV status, on or off, appears in the status bar.
   b. RAV records 9 seconds before a shot and 81 seconds after. A timer (hours, minutes, seconds) appears at the top of the screen when RAV is recording.
   c. When RAV is turned on, standard video recording is unavailable.
2. Long press the **Menu [M] button** to confirm the selection and return to the previous menu.



RECOIL > RECOIL SENSITIVITY

To adjust the recoil sensitivity

1. In the recoil submenu, short press the **Up/Down buttons** to move to **Recoil Sensitivity**.
2. Short press the **Menu [M] button** to enter the submenu.
3. Short press the **Up/Down buttons** to toggle through the sensitivity levels, 1 to 6.



a. **Smaller values:** It is easier to trigger the recoil recording, which is suitable for a smaller bullet.

b. **Larger values:** It is more difficult to trigger the recoil recording, which is suitable for a larger bullet.

4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

NOTES: When multiple shots are taken within the same 30-second period, only one video is recorded.

Standby



Turn on automatic standby mode

The RICO 3 PRO may be set to enter standby mode automatically to conserve battery.

1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **Standby**.
3. Short press the **Menu** [M] **button** to toggle auto standby on or off. When turned on, the RICO 3 PRO will automatically enter standby when it is tilted down more than 70°. When tilted up less than 70°, the device will wake automatically.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

NOTE: When auto standby is turned off, the rifle scope will operate until the batteries run out.

Microphone



Turn the microphone on or off

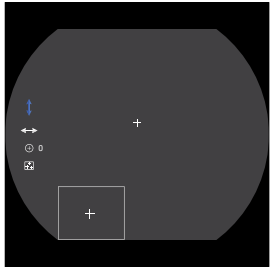
1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **Microphone**.
3. Short press the **Menu** [M] **button** to turn the microphone ON or OFF.
4. The microphone status, on or off, appears in the status bar.
5. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

Pixel Defect Correction

Correct defective pixels



Defective pixels are pixels that do not change correctly compared to the other image pixels—they are either brighter or darker than surrounding pixels. The RICO 3 PRO has a tool that corrects defective pixels on the sensor using its internal software.



1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **Pixel Defect Correction**.
3. Short press the **Menu** [M] **button** to enter the pixel correction interface.
4. The interface has the following features:

1 **Y-Axis ↕ Button:** Select to move the cursor vertically.

2 **X-Axis ↔ Button:** Select to move the cursor horizontally.

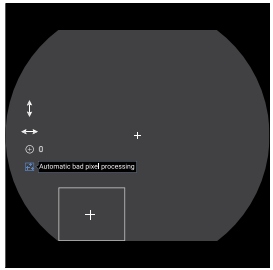
3 **Add ⊕ Button:** Select to add a defective pixel to the "to be corrected" list.

4 **Automatic Pixel Correction Button:** Select to correct all defective pixels automatically.

5 **Pixel Cursor ┼:** Appears in the center of the screen in place of the reticle. Move the cursor to the position of the defective pixel.

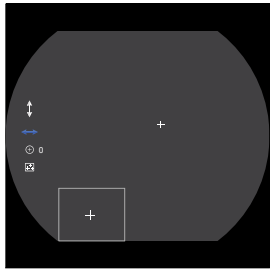
6 **PIP Window:** Appears in the lower-left corner.

To auto-correct defective pixels:



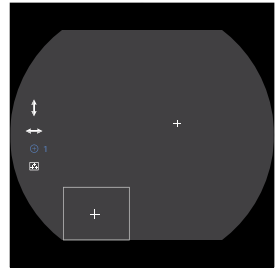
1. Short press the **Up/Down buttons** to move to the automatic pixel correction button.
2. Short press the **Menu [M] button** to correct all defective pixels automatically.

NOTE: If the algorithm fails to locate all defective pixels, it may be necessary to manually correct additional pixels.



To manually select and correct defective pixels:

1. Select the axis (X or Y) along which to move the cursor:
   a. Short press the **Up/Down buttons** to move between **X** and **Y.** The axis icon will turn from white to blue to mark the cursor location.
   b. Short press the **Menu [M] button** to select X or Y. The selected axis will begin flashing.
2. Move the cursor along the selected axis to the location of the defective pixel:
   a. Use the **Up [▲] button** to move in the positive direction: X= Right and Y= Up.
   b. Use the **Down [▼] button** to move in the negative direction: X= Left and Y= Down.
   c. Short press the **Up/Down buttons** to move the cursor in the corresponding direction by 1 pixel; long press to move 10 pixels.
3. Short press the **Menu [M] button** to save the position for the selected axis and deselect it. When deselected, the axis will stop flashing.
4. Move to and select the second axis and adjust the cursor position, as needed.



5. Add the pixel to the "to be corrected" list:
   a. With the cursor in position, short press the **Menu [M] button** to deselect the axis of movement.
   b. Press the **Up/Down buttons** to move to the add ⊕ icon.
   c. Short press the **Menu [M] button** to add the pixel. The number of pixels to the right of the add icon will increase to indicate that one pixel has been added to the list.
   d. If the defective pixel has been added in error, short press the **Menu [M] button** a second time from the same X/Y coordinates (do not move the cursor) to remove the pixel from the "to be corrected" list. The number of pixels shown to the right of the add icon will decrease to indicate the pixel has been removed.
6. Repeat steps 1–5 to add additional defective pixels as needed.
7. Short press the **Power [⏻] button** to exit the interface without saving; **OR**
8. When all defective pixels have been added to the list, long press the **Menu [M] button** to confirm changes.
9. A pop-up window shows the message "Do you want to keep these settings?" and two options, Yes and No.
10. Short press the **Menu [M] button** to select **Yes** to save.
11. Short press the **Up/Down buttons** to move to **No**, and short press the **Menu [M] button** to exit without saving.

Custom

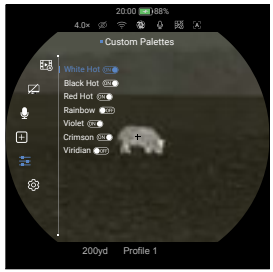


Customize the color palettes that appear in the quick menu, the button actions for the device and remote control, and the max digital zoom levels

1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **Custom**.
3. Short press the **Menu** [M] **button** to enter the custom submenu.

CUSTOM > CUSTOM PALETTES

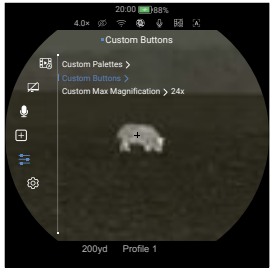


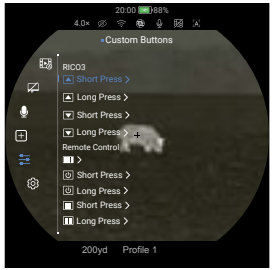


Customize the color palettes that appear in the quick menu, so that only frequently used colors appear

1. In the custom submenu, short press the **Up/Down buttons** to select **Custom Palettes**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through the toggles for the available color palettes: White Hot, Black Hot, Red Hot, Rainbow, Violet, Crimson, and Viridian.
4. Short press the **Menu** [M] **button** to turn each color palette toggle on or off. Colors set to off will not appear in the quick menu. At least one color palette must stay on.
5. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

CUSTOM > CUSTOM BUTTONS







Customize button actions for the RICO 3 PRO and the remote control

1. In the custom submenu, short press the **Up/Down buttons** to select **Custom Buttons**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through the options that can be customized, and short press the **Menu** [M] **button** to select:
   a. **RICO 3 PRO:**
      i. **Up** [▲] **Button:** Actions for short press and long press.
      ii. **Down** [▼] **Button:** Actions for short press and long press.
   b. **Remote Control:**
      i. **Scroll Wheel:** Action performed when scrolling up and down.
      ii. [⏻] **Button:** Actions for short press and long press.
      iii. [⊞] **Button:** Actions for short press and long press.
4. Short press the **Up/Down buttons** to move through the available button actions:
   a. Available button actions are:
      i. SGL LRF
      ii. CONT LRF

iii. Photo
iv. PIP
v. Color
vi. Brightness
vii. Auto Focus

5. Long press the **Menu** [M] **button** to confirm changes and return to button selection.
6. Long press the **Menu** [M] **button** a second time to return to the previous menu.

CUSTOM > CUSTOM MAX MAGNIFICATION

Customize the maximum digital zoom level



1. In the custom submenu, short press the **Up/Down buttons** to select **Custom Max Magnification**.
2. Short press the **Menu** [M] **button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through the maximum digital zoom level options: 9×, 12×, 24×.
4. Long press the **Menu** [M] **button** to confirm the selection and return to the previous menu.

Settings

Adjust the general settings



1. Long press the **Menu** [M] **button** to enter the main menu.
2. Short press the **Up/Down buttons** to select **Settings**.
3. Short press the **Menu** [M] **button** to enter the settings submenu.

SETTINGS > DATE



Set the date

1. In the settings submenu, short press the **Up/Down buttons** to select **Date**.
2. Short press the **Menu** [M] **button** to edit the date. Blue arrows appear above and below the year digit. The date is displayed in YYYY.MM.DD format.
3. Short press the **Up/Down buttons** to select the correct value for each digit (year, month, and day).
4. Short press the **Menu** [M] **button** to switch between digits. The blue arrows move to indicate the selected digit.
5. Long press the **Menu** [M] **button** to save the date and return to the previous menu.

SETTINGS > TIME



Set the time

1. In the settings submenu, short press the **Up/Down buttons** to select **Time**.
2. Short press the **Menu** [M] **button** to edit the time. Blue arrows appear above and below the hour digit. The time is displayed in HH.MM, in 24-hour format.
3. Short press the **Up/Down buttons** to select the correct value for each digit (hour and minute).
4. Short press the **Menu** [M] **button** to switch between digits. The blue arrows move to indicate the selected digit.
5. Long press the **Menu** [M] **button** to save the time and return to the previous menu.
6. The time in the status bar updates to the set time.

SETTINGS > LANGUAGES

Select the languages



1. In the settings submenu, short press the **Up/Down buttons** to select **Languages**.
2. Short press the **Menu M button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through the language options.
4. Long press the **Menu M button** to confirm the selection and return to the previous menu.

SETTINGS > UNITS

Set the units of measurement



1. In the settings submenu, short press the **Up/Down buttons** to select **Units**.
2. Short press the **Menu M button** to enter the submenu.
3. Short press the **Up/Down buttons** to move through unit options: yards and meters. The zero distance in the bottom status bar is updated with the selected units.
4. Long press the **Menu M button** to confirm the selection and return to the previous menu.

SETTINGS > ACCESSORY CONNECTION

Pair the RICO 3 PRO and the remote control



1. Long press the **Power button** on the remote control for 2 seconds to turn it on. The LED indicator on the remote will begin flashing.
2. In the settings submenu, short press the **Up/Down buttons** to select **Accessory Connection**.
3. Short press the **Menu M button** to enter the pairing interface.
4. Short press the **Up/Down buttons** to move to the bluetooth remote control, and short press the **Menu M button** to begin pairing.
   a. When successfully paired, a blue checkmark appears next to the device name, and the LED on the remote will stop flashing for 5 seconds and turn off.
   b. Once the RICO 3 PRO and remote have been paired, they will automatically connect when the remote is powered on.
   c. If the RICO 3 PRO and the remote cannot be paired within 3 minutes, the remote will automatically turn off.
5. Long press the **Menu M button** to return to the previous menu.



SETTINGS > FIRMWARE UPDATE

Update the firmware



1. In the settings submenu, short press the **Up/Down buttons** to select **Firmware Update**.
2. Short press the **Menu [M] button** to check for firmware updates on the internal storage.

NOTE: A firmware update can also be performed in the Nocpix App.

SETTINGS > FACTORY RESET

Restore factory default settings



1. In the settings submenu, short press the **Up/Down buttons** to select **Factory Reset**.
2. Short press the **Menu [M] button** to enter the factory reset submenu.
3. Two options, Yes and No, appear; Yes will restore factory settings and No will cancel the operation.
4. Short press the **Menu [M] button** to select **Yes** to confirm the factory reset. The screen will go dark and the factory reset will begin after a brief pause. The RICO 3 PRO will reboot automatically; **OR**
5. Short press the **Up/Down buttons** to select **No** and short press the **Menu [M] button** to confirm cancellation of the factory reset and return to the submenu.

NOTES: A factory reset cannot be undone.

SETTINGS > INFO

Show device information



1. In the settings submenu, short press the **Up/Down buttons** to select **Info**.
2. Short press the **Menu [M] button** to enter the submenu.
3. The info submenu will display the following information about the RICO 3 PRO: model, boot, hardware, and software version, part and serial number, and FCC ID.
4. Long press the **Menu [M] button** to return to the previous menu.

25. Basic Inspection

It is recommended to carry out a technical inspection before each use. Please check the following:

- The rifle scope appearance: there should be no cracks in the body or visible damage.
- The condition of the objective lens and eyepiece: there should be no cracks, greasy spots, dirt, or other deposits on the lens.
- The internal battery pack should be fully charged.
- The control buttons should be in working order.

26. Basic Maintenance

Always replace the objective lens cap **(1)** after use to avoid damaging or scratching the lens. Never touch the lens directly; oil from your skin can damage the lens coating and surface.

Basic maintenance should be carried out at least twice a year and includes the following steps:

- Wipe the surface of the external metal and plastic components with a clean, dry cotton cloth. Do not use chemical, corrosive, or abrasive cleaners. Canned air may also be used to clean the external components.

- Clean the electric contacts and battery slots on the rifle scope using a non-greasy organic solvent.
- Check the lens and eyepiece. If necessary, remove any dirt or sand from the optics; a non-contact cleaning method is preferred.
- Cleaning the exterior of the lens should only be done with the included microfiber lens cloth or a similar product. Only clean the lens when it is visibly soiled. Frequent wiping or cleaning can degrade the anti-reflective lens coating.

27. Button Cell Battery Warnings

⚠ WARNING

- **INGESTION HAZARD:** This product contains a button or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH OF CHILDREN**.
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- Compatible battery type: MS621FE-FL11E
- Nominal battery voltage: 3V
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above manufacturer's specified temperature rating, or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical bums.
- This product contains non-replaceable batteries. The batteries are sealed inside the device and are not intended to be removed or replaced by the user. Do not attempt to remove or replace the batteries as this may damage the product and could cause battery leakage, overheating, or explosion, resulting in personal injury or property damage.

28. Warranty

At iRayUSA, we're first and foremost hunters and users of our products, and we understand that failure isn't an option. We also understand that having to wait extended periods for repair isn't something that a customer should have to put up with when something does go wrong. During your published warranty period, iRayUSA will repair or replace, at its discretion, any optic that becomes defective during normal use. Additionally, if we cannot fix your optic in less than one week, we will offer to replace it with a replacement product in like or better condition. If you would rather wait for your specific optic to be repaired, we can handle that too. We know you've never seen this from a thermal manufacturer and neither have we; that's why we started iRayUSA.

Our warranty follows the product and is not tied to the original owner. The warranty period is tied to the date of sale to the dealer. This warranty only covers normal use and does not cover cosmetic damage, normal wear, intentional damage, theft, loss, any act of God, or a condition caused by use other than intended. Any product that is modified, opened, or tampered with will void any warranty coverage. Any serial number damage or alteration on the product will be considered a modification. Be sure to register your RICO 3 PRO rifle scope at irayusa.com/register.

To return a product for repair:

1. Go to irayusa.com/warranty and click the **Request an RMA button** to request an RMA number. Returns will not be accepted without an RMA.
2. The customer is responsible for shipping the product to iRayUSA, per the instructions included with the RMA. iRayUSA will return the product at no cost.

WARRANTY NOTES:

- The one-week timeline starts from the time of receipt of the product at iRayUSA.
- iRayUSA is not liable for any damages or loss incurred when shipping to iRayUSA.
- This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Please give us a call at **800-769-7125**, visit irayusa.com/warranty, or email info@irayusa.com with any questions.

29. FCC Statement

FCC ID: 2BHFB-RICO-00

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.

CAUTION: Changes or modifications not expressly approved by IRayUSA 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.

This device was tested for typical body-supported operations and use. To comply with RF exposure requirements, a minimum separation distance of 0cm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

30. General Troubleshooting

The troubleshooting table on the next page lists issues that may occur when operating the RICO 3 PRO. Carry out the recommended troubleshooting steps in the order shown in the table.

Please contact iRayUSA at 800-769-7125 or irayusa.com/support or an authorized vendor for assistance before attempting to perform any modifications or repairs beyond the scope of the troubleshooting procedures in this manual. Unauthorized repairs or modifications will void your warranty.

31. Notes

ISSUE	POSSIBLE CAUSES	TROUBLESHOOTING STEPS
The RICO 3 PRO will not turn on.	The battery is very low or completely discharged.	Charge the battery pack.
The RICO 3 PRO can not connect to a computer or external power supply.	External power supply has completely discharged.	Check the external power supply and charge it if necessary.
	Computer is turned off.	Power on the computer.
	USB-C or magnetic charging cable is damaged.	Replace the cable.
The RICO 3 PRO can not connect to the mobile device (smartphone or tablet).	Mobile device's Wi-Fi is not turned on.	On the mobile device, go to **Settings > Wi-Fi** to turn on Wi-Fi.
	Wrong Wi-Fi password entered.	On the mobile device, go to **Settings > Wi-Fi** and enter the correct password. The default password is 12345678.
	Too many Wi-Fi signals nearby, which may cause interference.	Move the RICO 3 PRO and mobile device to an area with no or fewer Wi-Fi signals.
Wi-Fi signal is lost or interrupted.	The device is out of range of a strong Wi-Fi signal, or there are obstacles (such as concrete walls) between the device and the signal.	· Try again when the Wi-Fi signal is stable. · Move the RICO 3 PRO closer to the Wi-Fi signal.
Image is blurry, background is uneven, or vertical lines or artifacts are present.	Non-uniformity correction is required.	Perform a non-uniformity correction. See **Non-uniformity Correction** on page 21/
The image is too dark.	Screen brightness level is too low.	Adjust the brightness. See **Quick Menu > Brightness** on page 30.
The GUI is clear, but the image is blurry.	The lens is not focused.	· Adjust the focus on the target by rotating the objective focus knob **(2)**. · Adjust the image sharpness. See **Quick Menu > Image Sharpness** on page 30.
	There is dust or ice on the interior or exterior optical surfaces of the lens.	· Wipe the external optical surface with the included microfiber lens cloth.
	There is condensation on the interior or exterior optical surfaces of the lens.	· Wipe the external optical surface with the included microfiber lens cloth. · Leave the RICO 3 PRO to dry in a warm, dry environment for at least 4 hours.
The aiming reticle shifts after firing rounds.	The RICO 3 PRO is not mounted securely or the mount is not secured on the RICO 3 PRO.	· Check that the RICO 3 PRO has been securely mounted. · Make sure you are using the same brand, type, and weight of the bullets as when the RICO 3 PRO and weapon were initially zeroed. · If the RICO 3 PRO was zeroed in different environmental conditions, a slight shift of the zero is possible.
Observed target disappears.	Observing the target through glass.	Remove any glass windows from the field of view.
The RICO 3 PRO will not focus.	Image settings are not optimal for the current environmental conditions or the object being observed.	· Check the external surface of the objective lens and eyepiece and, where necessary, wipe away any dust, condensation, frost, etc. · In cold weather, you can use special anti-fogging coatings, such as those made for corrective glasses. · Adjust the focus on the target by rotating the objective focus knob **(2)**. · Adjust the image sharpness. See **Quick Menu > Sharpness** on page 30. · Turn on Ultra-Clear mode. See **Quick Menu > Ultra-Clear** on page 30.
Image quality is low or the detection range is reduced.	Environmental conditions, such as snow, rain, humidity, and fog.	Turn on Ultra-Clear mode. See **Quick Menu > Ultra-Clear** on page 30.
When the RICO 3 PRO is used in low-temperature conditions, the image quality of the surroundings is worse than in warm-temperature conditions.	Environmental conditions.	In warm-temperature conditions, objects being observed (surroundings and background) heat up differently because of thermal conductivity, thereby generating a high-temperature contrast. Accordingly, image quality produced by the rifle scope will be higher. In low-temperature conditions, the background will cool down to roughly the same temperature, and thus the temperature contrast is substantially reduced and image detail can go down as there is less contrast in the scene. This is a normal function of a thermal imager and is no indicator of actual detector performance.



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A26G28CT

Specifications are subject to change without notice. For the most up-to-date specs, go to irayusa.com. Not responsible for typographical errors. Ver 1.0.