



NyzPro Series

Infrared Sight User
Maintenance Manual



Refer to the maintenance manual for guidance.

Publication Statement

This instruction manual is a guiding document for people who use infrared sights to understand their basic structure, performance, usage, maintenance and storage.

Before the new instruction manual is published, the use and maintenance of the infrared sight should be based on this one, and other materials are for reference only.

If any unit finds any problem during use, please provide feedback in time so that we can study and modify it.

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Important Notes

Please strictly observe the following precautions at all times:

- * Do not use or store the instrument in an environment that exceeds the permitted operating temperature or storage temperature of this product.
- * Do not point this product directly at high-intensity heat radiation sources, such as the sun, lasers, welding machines, etc.
- * Do not expose this product to dust or moisture.
- * Do not knock, drop or vibrate the instrument and accessories to avoid damage.
- * Do not disassemble the machine by yourself, as this may cause damage to the device and void the warranty.

Please follow the steps below when wiping this device:

- * Non-optical surfaces: When necessary, the non-optical surfaces of the product can be wiped with a clean, soft cloth.
- * Optical surface: Avoid dirtying the optical surface of the lens when using the product. Do not touch the lens with your hands, as sweat on your hands will leave marks on the lens glass and may corrode the optical coating layer on the glass surface. When the optical lens surface is contaminated, use professional lens paper to wipe it carefully.

Refer to the maintenance manual for guidance.

1. Product Overview

1. Product Features

- 10 types of reticle styles and 9 colors of reticles to meet various usage requirements.
- 7 types of image polarity switching (white hot, black hot, iron red, pseudo-color, deep brown, red hot, green hot).
- Supports WIFI wireless transmission.
- Equipped with a built-in electronic compass and angle sensor.
- Supports probabilistic ranging.
- Supports blind element correction.
- Features picture-in-picture functionality.
- Supports electronic magnification: 1×, 2×, 4×.
- Enables photography and video recording.
- Long-lasting battery life, with a built-in battery providing ≥ 12 h of operation.

2. Product Appearance

The product's eyepiece lens is interchangeable, supporting focal lengths of 35 mm and 50 mm.



Figure 1: Overall Structure of the Infrared Sight

1 – Side Focus Adjustment Wheel

2 – TYPE-C Wheel

3 – Encoder Wheel

4 – Battery Cover Wheel

5 – Button

6 – Eyepiece Diopter Adjustment Ring

Refer to the maintenance manual for guidance.

II. Technical Parameters

Table 1: Main Technical Parameters of the Infrared Sight

Index	Parameter	
Model	NyzPro	
Product Code	35mm	50mm
Detector Specifications	640 × 512,12 μ m	
Display Screen Specifications	1024 × 768	
EyeRelief Distance	≥60mm	
NETD	≤25mk	
DiopterAdjustmentRange	-5SD--+5SD	
FieldofView	12.5° × 10°	8.7° × 7°
ExitPupilDiameter	≥5mm	
Magnification	2.8x-22.4x	
Power Supply Method	Built-inBattery+ExternalBattery or Type-CPower Supply	
Continuous Operating	Built-inBatteryLife: ≥12 hours ExternalBatteryLife: ≥5 hours	
DataInteface	Type-C,rechargeable, software upgradeable,and capable of videoandimageexport	
Wireless Interface	W-Fi Data Communication,Bluetooth, with corresponding mobile APP	
Operating Temperature	-30°C--+55°C	
Storage Temperature	-40°C--+70°C	
Protection Level	IP67	
Impact Resistance	800G	

Refer to the maintenance manual for guidance.

3. Basic Description

1. Buttons

The top of the product features 1 Encoding Handwheel, the top of the eyepiece lens has 3 buttons (as shown in Figure 2), and the outer side of the lens includes a focusing handwheel. For definitions and operations of the buttons, please refer to the table below.

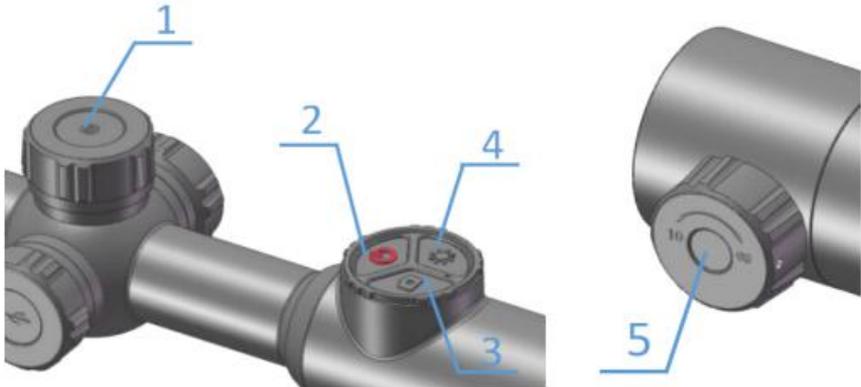


Figure 2: Keys and Encoding Handwheel

Table 2: Definitions and Operations of the Infrared Sight Keys

Serial Number	Key Name	Operation Type	Function Description	
			In the Main Interface	In the Menu Interface
1	Encoding Handwheel	Short Press	/	Select the Current Option
		Press and hold	Access Main Menu	Return to the previous menu
		Rotate	Digital zoom	Toggle options
2	Power Button	Press and hold	Power/Shutdown	
3	The 'Photography/Recording' button	Short Press	Photography	
		Press and hold	Recording	
4	The 'Brightness' button	Short Press	Adjust screen brightness	
5	Focusing ring (two types available)	Rotate	Adjust focus position	

2. Interface

There is 1 Type-C interface located on the left side of the product (refer to Figure 3).



Figure 3: Interface

- ① Use the included Type-C-cable to charge the product.
- ② Connect to a computer as a USB device to upgrade the software and export video images.

When connecting the product to a computer using the Type-C-cable, a selection prompt will appear:

- As a power port: this will charge the built-in battery pack of the product. During charging, a lightning bolt icon will appear on the battery icon.  The LED indicator on the device will display red;
- As a storage port: video images can be viewed and exported through the computer.

3. Power On/Off

in the off state, press and hold the product's "⏻" button for 3 seconds to turn on the power. The startup screen will be visible through the eyepiece (as shown in Figure 4), indicating that the product is starting up. Once completed, it will enter the main interface

Press and hold the product's "⏻" button to power it off. The screen will display a shutdown countdown of 3 seconds, indicating that the product is shutting down. Release the button when the countdown concludes.

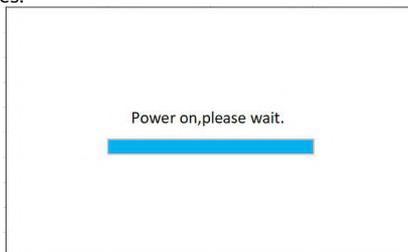


Figure 4: Startup Screen

Refer to the maintenance manual for guidance.

4. Main Interface

The main interface is illustrated in Figure 5, with the status bar located at the bottom of the screen. The meanings of the status bar icons are provided in Table 3.

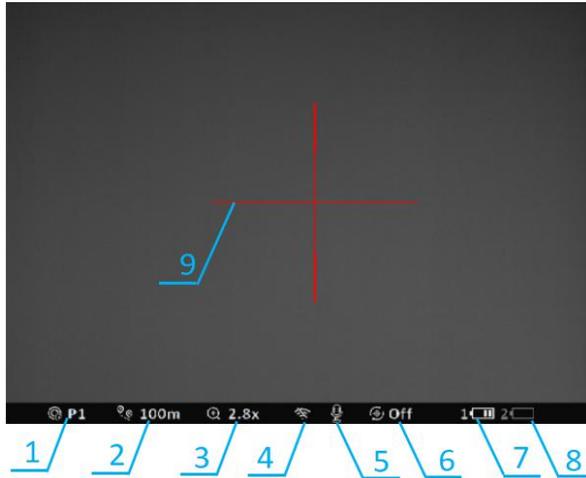


Figure 5: Main Interface

Table 3: Meanings of the Infrared Sight Status Bar Icons

Serial Number	Name	Serial Number	Name
1	Zeroing Type	6	Automatic Calibration
2	Zeroing Distance	7	Built-in Battery Level Status
3	Magnification	8	External Battery Level Status
4	WIFI Hotspot	9	Center Crosshair
5	Microphone		

5. Diopter Adjustment

The eyepiece diopter adjustment ring can compensate for the vision of individuals with myopia ranging from 500° to hyperopia 500° . Rotate clockwise to accommodate myopic individuals and counterclockwise for hyperopic individuals.

6. Focal Length Adjustment

Turning the side focus adjustment wheel can eliminate parallax when aiming at targets at different distances, with a focusing range from 10meters to infinity.

Refer to the maintenance manual for guidance.

4. Functional Operations

1. Photography/Video Recording

In the main interface, briefly press the  button to take a photograph; the camera icon will appear in the upper right corner of the screen while taking a photograph. Long press the  button to start video recording; during recording, the video icon will appear in the upper right corner of the screen. To stop recording, briefly press the  button. The captured videos and photos will be saved in the built-in storage.

2. Brightness Adjustment

In the main interface, briefly press the  key to adjust the screen brightness.

3. Main Menu

In the main interface, long press the Encoding Handwheel to access the Main Menu, as illustrated in Figure 6. In the Main Menu, the cursor's  position indicates the current selection. The functional options in the Main Menu are cyclic: when the cursor  reaches the last menu option on the first page, it will continue from the first menu option on the second page. When the cursor  is on the first option of the first page, rotating the Encoding Handwheel counterclockwise will directly jump to the last menu option on the second page.



Figure 6: Main Menu

In the main menu and submenus, various operations can be performed using the keys. If there are no specific operational instructions, please refer to the table below for guidance.

Refer to the maintenance manual for guidance.

Table 4: Key Descriptions for the Infrared Sight

Serial Number	Key Operations	Function Achieved
1	Short press the Encoding Handwheel	Open or select the current option/execute the current option
2	Long press the Encoding Handwheel	Return to the previous level/exit the menu
3	Rotate the Encoding Handwheel left or right	Move the Cursor/switch option content

3. 1. Zeroing Distance

In the main menu, rotate the Encoding Handwheel to position the Cursor  on 'Zeroing Distance'; the icon will change from blue to white, and the current zeroing distance will be displayed on the right side, as shown in Figure 7.

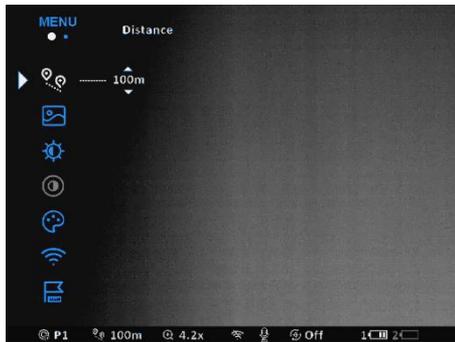


Figure 7: Zeroing Distance

3. 2: Image Mode

In the Main Menu, rotate the Encoding Handwheel to position the Cursor  on 'Image Mode'. The icon will change from blue to white, and the current image mode will be displayed on the right side. You can switch between two modes. Press the Encoding Handwheel briefly to enter the options, then rotate the Encoding Handwheel to select the desired image mode. Press the Encoding Handwheel briefly to confirm your selection.

Refer to the maintenance manual for guidance.

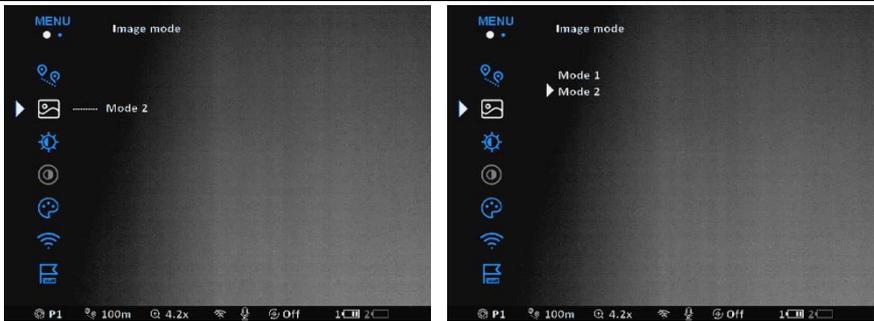


Figure 8: Image Mode Settings Interface

3. 3: Brightness

In the Main Menu, rotate the Encoding Handwheel to position the Cursor  on 'Screen Brightness'. The icon will change from blue to white, displaying the current brightness level, which can be set from 1 to 20. Press the Encoding Handwheel briefly to enter the options, then rotate the Encoding Handwheel to change the screen brightness level. After selecting the appropriate brightness, press the Encoding Handwheel briefly to confirm your choice.



Figure 9: Screen Brightness Settings Interface

3. 4: Contrast

In the Main Menu, rotate the Encoding Handwheel to position the Cursor  on 'Image Contrast.' The current contrast level will be displayed on the right side, allowing you to set the contrast from 1 to 20. Briefly press the Encoding Handwheel to enter the options, rotate the Encoding Handwheel to change the contrast level, and briefly press the Encoding Handwheel again to confirm your selection.

Refer to the maintenance manual for guidance.

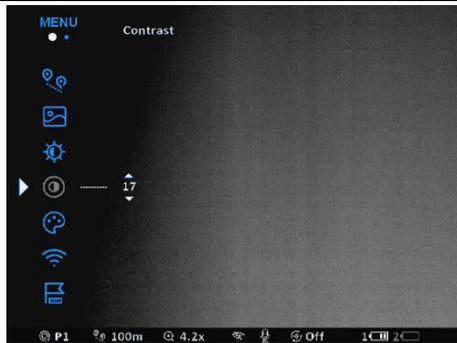


Figure 10: Image Contrast Settings Interface

3. 5: Color Palette

In the Main Menu, rotate the Encoding Handwheel to position the Cursor  on 'Color Palette.' The icon will change from blue to white, and the current Image Polarity will be displayed on the right side. Briefly press the Encoding Handwheel to enter the options, which include White Hot, Black Hot, Iron Red, Pseudocolor, Deep Brown, Red Hot, and Green Hot. Rotate the En-coding Handwheel to select the desired Image Polarity, and briefly press the Encoding Handwheel again to confirm.



Figure 11: Color Palette Selection

3. 6. WIFI

In the Main Menu, rotate the Encoding Handwheel to position the Cursor  on the 'WIFI' option. The icon will change from blue to white, and the current 'WIFI' switch status will be displayed on the right. Briefly press the Encoding Handwheel to enter the option, and rotate the Encoding Handwheel to make a selection.

Refer to the maintenance manual for guidance.

Select to turn the ' WIFI ' hotspot on or off, and briefly press the Encoding Handwheel to confirm. When turning on or off, the Status Bar will reflect the corresponding icon changes.



Figure 12: WIFI Status Switching

3.7 Probability Ranging

Enter the Probability Ranging option, and the interface shown in Figure 13 will appear, prompting you to rotate the Encoding Handwheel for adjustment. Briefly press the Encoding Handwheel to confirm. The predefined target value is ' 1.7m '. This function can estimate the approximate distance to a target of known size.

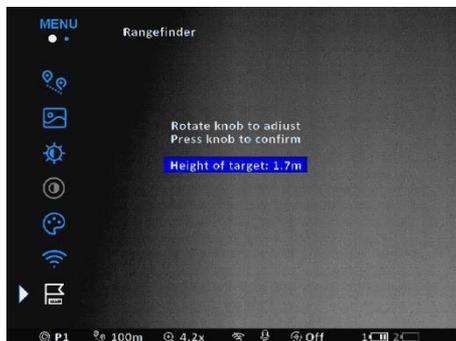


Figure 13: Probability Ranging

Refer to the maintenance manual for guidance.

When activated, two horizontal measurement lines will appear in the center of the image, and the measured distance value will be displayed at the top, as shown in Figure 14. Adjust the device to center the target in the display area, and rotate the Encoding Handwheel to modify the width of the measurement lines so that the target is completely positioned between them. Rotate clockwise to widen and counterclockwise to narrow. After a brief press of the Encoding Handwheel to confirm, the measured distance value will be displayed above the measurement line.



Figure 14: Probability Rangefinding Activation Interface

3. 8. Scale Settings

In the Main Menu, rotate the Encoding Handwheel to position the Cursor on 'Scale Settings.' Press the Encoding Handwheel briefly to enter the scale parameter settings, which include the submenu as shown in Figure 15, featuring options for style, color, and return.



Figure 15: Scale Settings Submenu

A) Style: The scale line style can be modified, with 10 styles available for selection.

Refer to the maintenance manual for guidance.

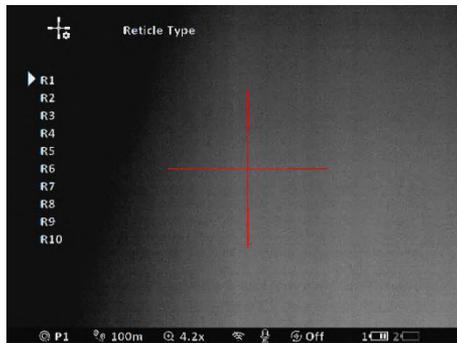


Figure 16: Scale Line Style Settings Interface

B) Color: The scale line color can be modified, with options including white / red, green / red, white / green, black / green, red, blue, green, yellow, and automatic, totaling 9 colors available for selection.

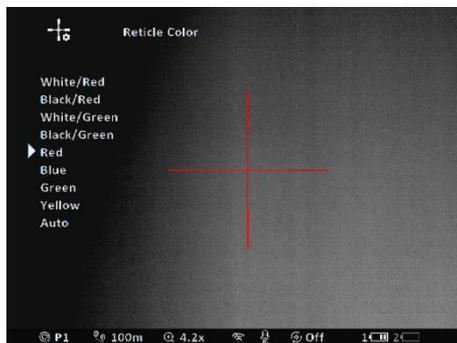


Figure 17: Scale Line Color Settings Interface

3. 9: Picture-in-Picture

To access the Picture-in-Picture option, rotate the Encoding Handwheel to select on/off for Picture-in-Picture mode, and briefly press the Encoding Handwheel to confirm. The interface for activating Picture-in-Picture mode is shown in Figure 18.

The Picture-in-Picture function displays a separate 'small window' above the main image, showing a portion of the image that is magnified 2 times, centered around the crosshair in the main image.

Refer to the maintenance manual for guidance.

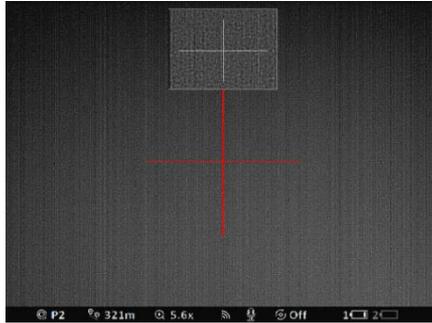


Figure 18: Picture-in-Picture Activation Interface

3. 10. Gallery

In the Main Menu, rotate the Encoding Handwheel to position the Cursor  on 'Gallery'; the icon will change from blue to white. Briefly press the Encoding Handwheel to enter the option, with its submenu displayed as shown, including Video, Photo, and Storage.



Figure 19: Gallery Submenu

Video and photo files are named and stored based on the date and time when the recording or photography was performed. Video files are stored in .avi format, while image files are stored in .jpg format. Therefore, it is recommended to set the system date and time in 'Settings' before using the photography and recording functions (refer to 'Settings - Time').

Refer to the maintenance manual for guidance.



Figure 20: Video and Photo Storage Interface

The storage space indicates the amount of storage used by the product and the remaining storage capacity.



Figure 21: Storage Space

3. 11. Zeroing Type

In the Main Menu, rotate the Encoding Handwheel to position the Cursor  on 'Zeroing Type'. The icon will change from blue to white, and the current zeroing type will be displayed on the right. Briefly press the Encoding Handwheel to enter the options. There are 5 available zeroing types. Rotate the Encoding Handwheel to select the desired zeroing type, and briefly press the Encoding Handwheel to confirm.

Refer to the maintenance manual for guidance.

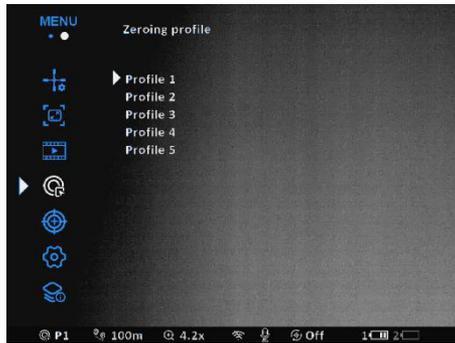


Figure 22: Zeroing Type Settings Interface

3. 12. Zeroing

In the Main Menu, rotate the Encoding Handwheel to position the Cursor  on 'Zeroing', and perform zeroing using the 'Freeze' method. Briefly press the Encoding Handwheel to enter the options. Depending on the selected target distance, you can choose or add a new zeroing distance.

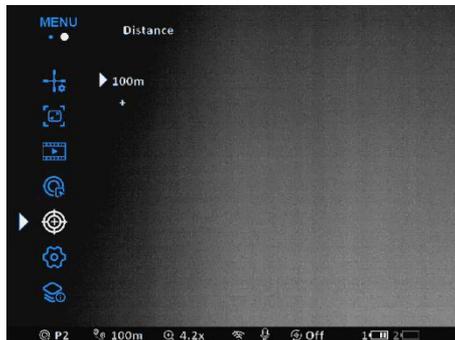


Figure 23: Zeroing

After setting the zeroing distance, briefly press the Encoding Handwheel to access the options, select the zeroing settings, and then briefly press the Encoding Handwheel to enter the zeroing interface, as illustrated in Figure 24. The Cursor  will remain at the 'X/Y Axis' position, with the current coordinates of the Crosshair displayed on the right.

Refer to the maintenance manual for guidance.

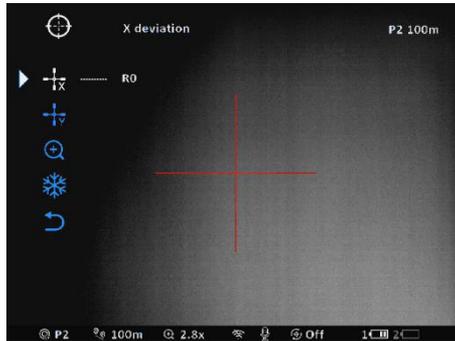


Figure 24: Zeroing Submenu

Aim at the target and fire; observe the actual Point of Impact. Assume that the center of the Crosshair represents the location of the Point of Impact (this indication is for illustrative purposes only; it should correspond to an actual bullet hole). If the Point of Impact does not align with the Aim Point (the center of the Crosshair), maintain the aiming position, rotate the Encoding Handwheel to select , and a snowflake-shaped freeze icon will appear in the upper right corner of the screen , as shown in Figure 25.

Based on the actual situation, briefly press the Encoding Handwheel to select the axis (X or Y) that requires adjustment. Rotate the Encod-ing Handwheel to move in the currently selected coordinate direction. Once the center of the scale aligns with the actual Point of Impact, briefly press the Encoding Handwheel to save. Repeat the aiming and shooting process until the Point of Impact matches the Aim Point.

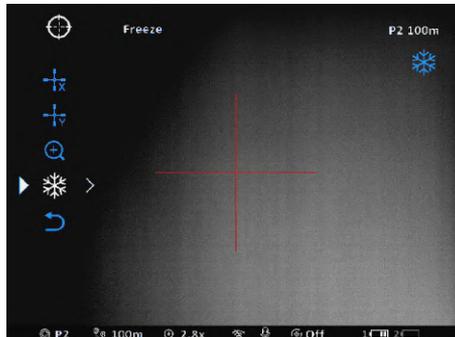


Figure 25: Freeze Frame

At the same time, electronic zoom can be performed, and the image can be magnified 1x, 2x, and 4x. The bottom menu bar updates the current magnification in real time, and the image will be magnified by 2.8x.

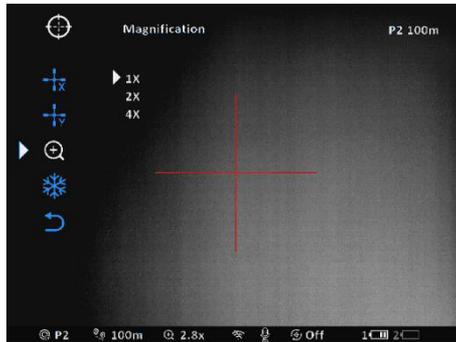


Figure 26: Electronic Zoom Settings Interface

If the zeroing distance does not correspond to the set target distance, it can be configured using this option; select an invalid zeroing distance, briefly press the Encoding Handwheel to enter its submenu; rotate the Encoding Handwheel to select the 'Set Zeroing Distance' option, as illustrated in Figure 27. Short press the coding handwheel to activate the calibration distance reset function, and two small triangle symbols appear **100m** at the upper and lower ends of the number; turn the coding handwheel to set the value of the number at the current position, switching cyclically from 0-9; short press the coding handwheel to switch the hundreds, tens, and units digits. Short press the coding handwheel to save and exit, and the status bar will also be synchronously updated to the new calibration distance.

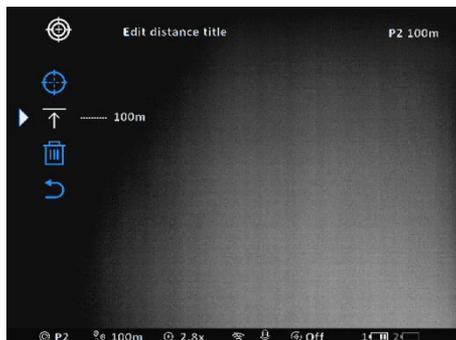


Figure 27: Zeroing Distance Setting Interface

Refer to the maintenance manual for guidance.

3. 13. Settings

In the Main Menu, rotate the Encoding Handwheel to position the Cursor ▶ on 'Settings'. Then, briefly press the Encoding Handwheel to enter the options, as shown in Figure 28.

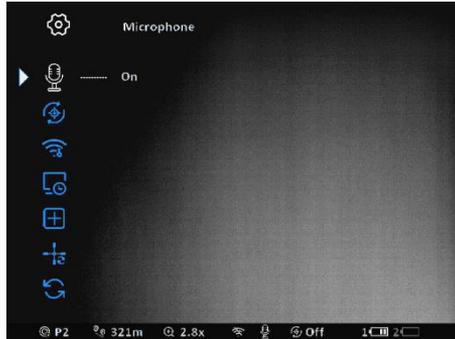


Figure 28: Settings Submenu

A) Microphone: You can change the microphone's on/off status. Briefly press the Encoding Handwheel to select, rotate the Encoding Handwheel to toggle the microphone's on/off status, and briefly press the Encoding Handwheel to confirm.

B) Auto Refresh: You can disable auto refresh or select the auto refresh interval, with three options available. When auto refresh is enabled, the image pauses for one second, and the screen brightens.

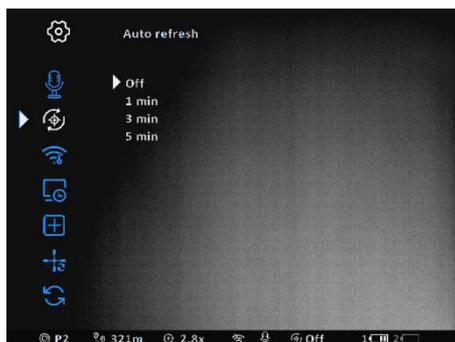


Figure 29: Automatic Refresh Settings Menu

Refer to the maintenance manual for guidance.

C) WIFI Hotspot: Displays an 8-digit WIFI password that can be modified. Briefly press the Encoding Handwheel to switch the digit position. Two small triangle symbols will appear at the top and bottom of the digits. Rotate the Encoding Handwheel to adjust the digits, switching from 0 to 9. Press the Encoding Handwheel again briefly to save.

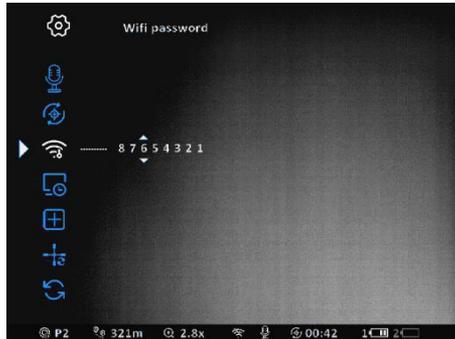


Figure 30: WIFI Password Settings Interface

D) Time: You can modify the system time and date of the product. Short press the coding handwheel to switch between year, month, day, hour, minute and second. The background color changes to black **2024 - 06**. Adjust the numbers by turning the coding handwheel and short press again to confirm and save.



Figure 31: System Time/Date Modification Interface

E) Blind Element Correction: The submenu for blind element correction is illustrated in the figure.

Refer to the maintenance manual for guidance.

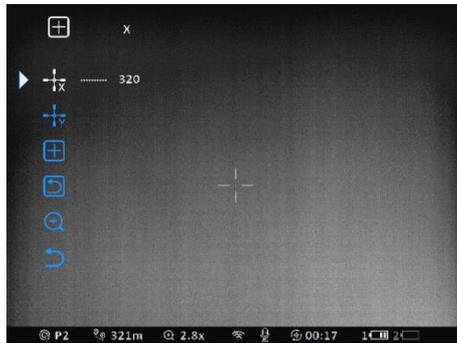


Figure 32: Blind Element Correction Submenu

Short press the Encoding Handwheel to select the X/Y axis, then rotate the Encoding Handwheel to move in the currently selected coordinate direction. When the Cursor reaches the position of the blind element, press the Encoding Handwheel again to add the blind element.

Confirm whether to add the blind element or cancel it: Rotate the Encoding Handwheel to switch options, and press the Encoding Handwheel briefly to confirm.

The scale line can be enlarged.

F) Scale Reset: The position of the scale line returns to its default initial position. If you confirm the scale reset, the interface shown in Figure 33 will appear for confirmation.

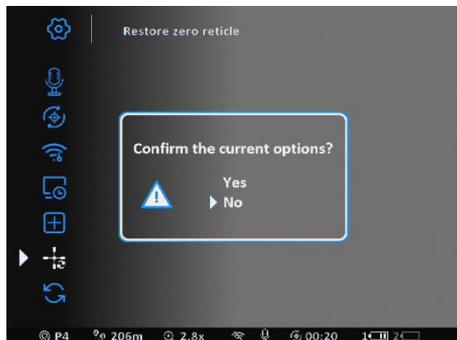


Figure 33 Zeroing Confirmation Interface

G) Restore Factory Settings: If you confirm the restoration of factory settings, the interface shown in Figure 34 will appear.

Refer to the maintenance manual for guidance.

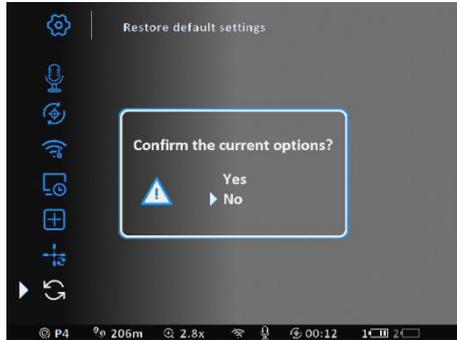


Figure 34 Factory Settings Confirmation Interface

3. 14. Product Information

In the Main Menu, rotate the Encoding Handwheel to position the Cursor ▶ on 'Product Information', then briefly press the Encoding Handwheel to enter the option; detailed information is displayed in Figure 35 .



Figure 35 Product Information

Refer to the maintenance manual for guidance.

V. Simple Troubleshooting

Table 5 Common Issues and Solutions

Phenomenon	Specific Analysis	Measures
Unable to Power On	Insufficient Battery Power	Replace the battery or use a Type-C cable to charge the product.
	The power button was pressed for too short a duration.	Press the power button for more than 3 seconds, and release it after the boot screen appears in the eyepiece and the progress bar turns blue.
The image appears unclear.	The objective lens or eyepiece is dirty.	Please use professional cleaning tools.
	The focal length has not been properly adjusted.	Rotate the side focus adjustment wheel.
The reticle markings are unclear.	It has not been adjusted to the corresponding diopter.	Adjust the diopter adjustment wheel.
The image is too dark.	The screen brightness is low.	Adjust screen brightness
The Wi-Fi signal is lost or interrupted	The device is not within Wi-Fi coverage; there are obstacles between the device and the receiver (such as a concrete wall)	Relocate the device to a location where it can see the Wi-Fi signal directly