

# FORESIGH PORTABLE SERIES

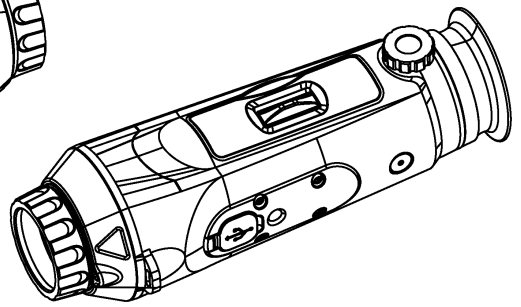
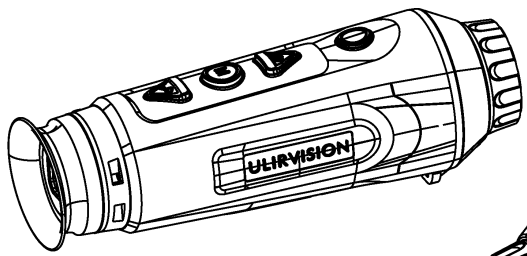
Thermal Imaging Monocular

User Manual



Version: A2

Issue Date: 20260305



# About this Manual

Dear user,

Thank you for choosing the FS series Thermal Imaging Monocular.

Please take a few minutes to read this manual before first use.

Please strictly follow the operating procedures outlined in this manual.

Due to version upgrades or other reasons, this manual is subject to change without further notice.

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- In the event of any conflict between the provisions of this manual and applicable laws and regulations, the latter shall prevail.

# FORESIGHT PORTABLE SERIES

# Precautions

- During the installation and use of the equipment, all electrical safety regulations of the country and the area of use must be strictly observed.
- Please use only the power adapter supplied by ULIRVISION. Refer to the product specifications for the required adapter specifications.
- Do not connect multiple devices to the same power adapter. Overloading the adapter may cause overheating and pose a fire risk.
- Do not swallow batteries as they may cause chemical burns. Keep batteries out of reach of children.
- Do not use deeply discharged or damaged batteries. Using such batteries may lead to leakage, overheating, or failure. Charge discharged batteries promptly using only the charger specified for this product. Using an incompatible charger may damage the battery or pose a safety risk.
- The device has a built-in removable battery, please use the correct specification battery, improper use may result in explosion hazard. After the battery has been installed or removed, the battery compartment is required to be closed safely.

- Battery shall be charged ONLY within an ambient temperature range of 0°C to 50°C (32°F to 122°F). Charge outside this range may damage the battery, reduce its lifespan, cause overheating, or pose a safety risk.
- You must use the battery provided by our company, or the model battery with protection specified by our company.
- Before performing any wiring, disassembling or other operations, always disconnect the power supply of the device. Never perform work on energized equipment.
- If the device smokes, produces peculiar smells, or emits noise, please disconnect the power of the device immediately and contact the dealer or service center in time.
- If the device is not working properly, contact the store where the device was purchased or the nearest service center and do not disassemble or modify the device in any way. (The company is not responsible for problems caused by unauthorized modifications or repairs).
- Check the lens for foreign matter or scratches. If there are any, wipe them carefully with a lens cloth.
- Check whether the products and accessories are complete, the host should be handled with care, the infrared lens is fragile and should not be in direct contact with other objects.
- It is forbidden to face high-temperature objects, and the equipment should be stored in a dry and

non-corrosive gas environment, and avoid storing the equipment in direct sunlight, poor ventilation or near heat sources such as heaters, etc., Ignoring this may lead to fire hazards.

- Place the battery in the matching charger, and place the positive and negative poles of the battery according to the "+" and "-" marked on the battery compartment. Plug it into a 220V AC power source to charge.

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# 1. Specification

Model	FS313	FS319	FS625
Detector	384x288, 12 $\mu$ m	384x288, 12 $\mu$ m	640x512, 12 $\mu$ m
Frame Rate	50Hz	50Hz	50Hz
NETD	< 20mk	< 20mk	< 20mk
Lens	13mm (F1.0)	19mm (F1.0)	25mm (F1.0)
FOV	19.5° × 14.4°	13.8°×10.4°	17.5°×13.1°
Focusing Method	Fixed	Manual	Manual
Detection Range	675m	900m	1300m
Digital Zoom	1X/2X/4X/8X (1.3X-10.4X)	1X/2X/4X/8X(1.8X-14.4X)	1X/2X/4X/8X(1.4X-11.2X)
Display Screen	0.39' OLED 1024*768	0.39' OLED 1024*768	0.39' OLED 1024*768
WIFI	Support	Support	Support
Laser Pointer	650nm, 1mW	650nm, 1mW	650nm, 1mW
Battery/Operating	18650 Li Battery/5.5h	18650 Li Battery/5.5h	18650 Li Battery/4.5h

Time			
Power Supply	5V 2A	5V 2A	5V 2A
Storage	32G	32G	32G
Interface	Type-C	Type-C	Type-C
Working Temp/Humidity	-30°C~55°C, 90%	-30°C~55°C, 90%	-30°C~55°C, 90%
Shock	30g,11ms	30g,11ms	30g,11ms
Fall	1m	1m	1m
Size	174x55x55(mm)	174x55x55(mm)	174x55x55(mm)
Weight	390g	390g	400g

## 2. Product Overview

Foresight Portable Series (Abbreviated as FS series) is a kind of thermal imaging monocular, suitable for outdoor adventure, emergency search and rescue, environmental biological monitoring and other occasions. It has a variety of convenient operation functions such as hotspot tracking, digital zoom, distance estimation, picture-in-picture, etc., and can adjust the imaging effect according to different scenes. It supports the connection of the external high-definition screen components and has the characteristics of strong scalability, long battery life, and durability.

### **Key features:**

- Optimize algorithms according to different scenarios, and maintain custom parameters.
- Equipped with hotspot marking and automatic tracking functions.
- Powerful image adjustment function and details enhancement, available for adjusting brightness, contrast, and sharpness.
- Equipped with built-in storage and supports photo and video capture.
- Equipped with Wi-Fi, enabling app control and file sharing.

- Equipped with Picture-in-picture function, 2x magnification of the target area.
- Accurate distance estimation algorithm.
- Comfortable focus feel and short focus throw, focus is achieved quickly and precisely.

## 2.1. Package List



Portable thermal imaging  
monocular (x1)



18650 Battery (x2)



18650 Battery Charging  
Stand (x1)



User Manual (x1)



Flannel Bag (x1)



USB Cable (x1)









Wristband (x1)







## 2.2. Appearance Introduction

1. Power button
2. Photo/Video
3. Menu button
4. Zoom button
5. Eyepiece cover
6. Battery compartment lock
7. Eyepiece diopter
8. Microphone
9. Tripod mounting holes
10. USB-Type
11. Lens cap slot



## 2.3. Buttons and Operating Instruction



















Before entering the menu		
Buttons	Short Press	Long Press (2S)
	Sleep/Wake	Power on/off (Long press 3s) Long press (6s) to force shutdown
	Digital zoom 1×, 2×, 4×, and 8× cycle	Hot Spot Tracking
	Switch color palettes	Invoke the menu
	Photo/Video	Turn on/off Laser
	/	 zeroing (There will be a countdown reminder)




After entering the menu		
Button	Short press	Long press (2S)
	Sleep/wake	Power on/off (long press 3s) Long press (6s) to force shutdown
	Down adjustment	/
	Confirm	Return to previous menu
	Up adjustment	/
	/	 zeroing (There will be a countdown reminder)

**NOTE:** Under different working conditions, the functions of the host buttons are different. Please refer to the prompts in the table to operate the product.

## 3. Main Operation Interface Instruction

### 3.1. Menu/Status Bar Icons

	Brightness		WI-FI		OLED
	Contrast		Distance		Auto Shutdown
	Sharpness		Advanced Setting		Anti-burn
	PIP		System Setting		Laser Calibration
	Photo/Video		Tone		Bad Pixel Correction
	Time		Language		OSD

	Restore Factory Settings		Format		System Information
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## 3.2. Device Operation Guide

### 3.2.1. Power On/Off

Long press power button for 3s  
to turn on or off the device

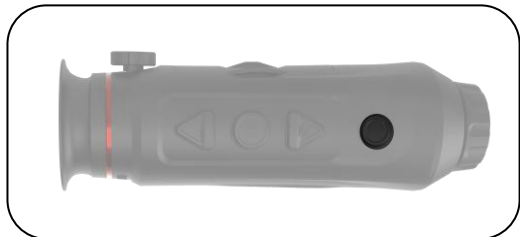
### 3.2.2. Standby /Sleep

Short press the power button to standby.



Short press the power button again to wake the device

### 3.2.3. Diopter Adjustment

Rotate the eyepiece knob to make the  
OLED display image clear.





### 3.2.4. Pseudo Colors Switching

Short press “A grayscale image of a deer, where the lighter areas are white and the darker areas are black, representing the 'white hot' pseudo color mode.



### 3.2.5. Laser Pointer

Long press “A 3D rendering of a grey, cylindrical night vision device, likely a monocular or binocular. The device is shown from a front-facing perspective, enclosed in a rounded rectangular frame. It features a lens at the front, a red ring around the lens housing, and a small green rectangular display or sensor on the lens. The body of the device has several buttons and a small circular opening near the top.

### 3.2.6. Electric Zoom

Short press "🔍" to cycle the digital zoom: 1×, 2×, 4×, and 8×



### 3.2.7. Battery Replacement

The device can be charged directly, or the battery can be replaced and charged with a specified charger.





① Replace battery

② Adapter charging



### 3.3. Main Menu Interface Instruction

- ① on the main screen, long press the menu button “/

### Menu Function Instruction



## Brightness Adjustment

- ① Long press the menu button “(M)” to enter the main menu.
- ② Use the button “(Camera icon) / (Magnifying glass icon)” to select “Brightness” option. Short press the menu button “(M)” to enter the brightness adjustment interface.
- ③ The icon will turn blue when selected, 0-8 levels for adjustment.





## Contrast Adjustment

- ① Long press the menu button “(M)” to enter the main menu.
- ② Use the button “(Camera icon) / (Magnifying glass icon)” to select “Contrast” option. Short press the menu button “(M)” to enter the contrast adjustment interface.
- ③ The icon will turn blue when selected, 0-8 levels for adjustment..







## Sharpness Adjustment

- ① Long press the menu button “**M**” to enter the main menu.
- ② Use the button “/ ” to select “Sharpness” option. Short press the menu button “**M**” to enter the sharpness adjustment interface.
- ③ The icon will turn blue when selected, 0-8 levels for adjustment.






## Picture-in-Picture On/Off

- ① Long press the menu button “**M**” to enter the main menu.
- ② Use the button “/ ” to select “PIP” option. Short press the menu button “**M**” to enter the PIP on/off interface.
- ③ When the PIP mode is turned on, the main interface will magnify the image in the center frame by 4 times.








## Wi-Fi on/off

- ① Long press the menu button “” to enter the main menu.
- ② Use the button “/” to select “Wi-Fi” option. Short press the menu button “” to enter the Wi-Fi on/off interface.
- ③ After turning it on, the device turns on Wi-Fi, and the Wi-Fi icon will appear on the navigation bar.



## Distance Estimation

- ① Long press the menu button “” to enter the main menu.
- ② Use the button “/” to select Distance Estimation option. Short press the menu button “” to enter the distance estimation interface.
- ③ In the distance estimation setting interface, you can select the type of target to be measured, set the height parameter of the target type to be measured, and the measurement unit of the distance measurement return value in meters or yards.





## Advanced Setting









### Photo/Video

- ① Long press the menu button “**M**” to enter the main menu.
- ② Use the button “/🔍” to select the Advanced Setting option. Short press the menu button “**M**” to enter the Advanced Setting interface.
- ③ Use the button “/🔍” to set the shoot key as Photo or Video.





### Tone

- ① Long press the menu button “**M**” to enter the main menu.
- ② Use the button “/🔍” to select the Advanced Setting option. Short press the menu button “**M**” to enter the Advanced Setting interface.
- ③ Use the button “/🔍” to set the Warm or Cold tone.



 <p><b>OLED Adjustment</b></p>	<ol style="list-style-type: none"> <li>① Long press the menu button “  <p><b>Auto Shutdown</b></p> </li></ol>	<ol style="list-style-type: none"> <li>① Long press the menu button “  <p><b>Anti-burn</b></p> </li></ol>	<ol style="list-style-type: none"> <li>① Long press the menu button “ <i>The Anti-burn mechanism has been triggered. Long press the zoom button to return to normal. After it is turned on, when encountering an ultra-high temperature scene, the lens will automatically close to protect the detector.</i> </li></ol>
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### Laser Calibration

- ① Long press the menu button “/” to select the Advanced Setting option. Short press the menu button “

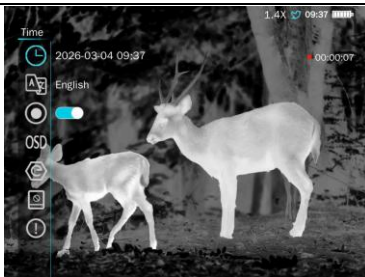
### Bad Pixel Correction

- ① Long press the menu button “/” to select the Advanced Setting option. Short press the menu button “





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



















## System Setting



## Time Setting

- ① Long press the menu button “” to enter the main menu.
- ② Use the button “ /  / 


 <p><b>Language Setting</b></p>	<p>① Long press the menu button “” to enter the main menu.</p> <p>② Use the button “” to select the System Setting option. Short press the menu button “” to enter the System Setting interface.</p> <p>③ Press the button “” to adjust, select the language setting, 2 languages for selection.</p>
 <p><b>Standby Indicator</b></p>	<p>① Long press the menu button “” to enter the main menu.</p> <p>② Use the button “” to select the System Setting option. Short press the menu button “” to enter the System Setting interface.</p> <p>③ Press the button “” to set the Standby Indicator On/Off, on by default.</p>
 <p><b>Status Display</b></p>	<p>① Long press the menu button “” to enter the main menu.</p> <p>② Use the button “” to select the System Setting option. Short press the menu button “” to enter the System Setting interface.</p> <p>③ Press the button “” to set the navigation bar information display as needed.</p>

 <p><b>Restore factory setting</b></p>	<p>① Long press the menu button “  <p><b>Format</b></p> </p>	<p>① Long press the menu button “  <p><b>System Information</b></p> </p>	<p>① Long press the menu button “ <p>24</p> </p>
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## 3.4. Capture, Record and Save Instruction

Built-in 32GB storage space for taking pictures and recording videos. Picture and video files will be named according to time, so it is recommended to synchronize the time in the system settings in the main menu before using the shooting and recording functions.

### Photo:

- In Advanced Settings, set the shooting mode to Photo
- Aim the device at the object to be observed, short press “

### Video:

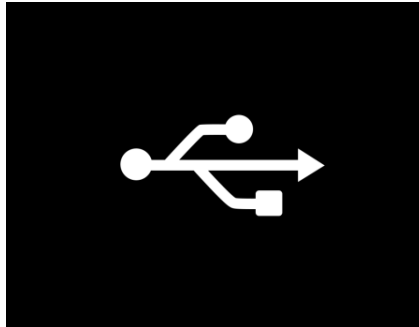
- In Advanced Settings, set the shooting mode to video
- Aim the device at the object to be observed, short press “

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Note: The quantity of recorded files is limited by the internal memory capacity. Please check the available memory regularly.

## 4. USB File Storage Mode

When the device is connected to the PC via USB and enters the file storage mode, the interface displays the USB connection status. When in the USB connection state, all operations on the device are temporarily invalid.



## 5. Simple Fault Diagnosis and Elimination

If you encounter a problem while using the device, please refer to the following table to troubleshoot. If the problem cannot be solved, please cut off the power supply and contact our technical support department.

Failures	Causes and Solutions
The device can't start	<ul style="list-style-type: none"><li>● The battery is uninstalled or improperly installed. →Insert the battery or re-install the battery.</li><li>● The battery power runs out →Replace or charge the battery.</li><li>● Device shutdown for protection→ Wait 5 seconds and then restart</li></ul>
Battery power runs out too fast	<ul style="list-style-type: none"><li>● Ambient temperature is too low or too high.</li><li>● The battery is not fully charged. →Recharge the battery.</li><li>● The life of battery is almost over →Replace rechargeable battery.</li></ul>
No thermal image	<ul style="list-style-type: none"><li>● The lens cap is not open →Remove the lens cap</li></ul>
Automatic shutdown	<ul style="list-style-type: none"><li>● Battery exhausted → replace the battery.</li></ul>

## 6. Product Warranty Card

1. If this product is damaged under normal use, the company is responsible for free warranty; the warranty period is from the date of purchase:

Host: 2 years

other accessories: 1 year

Product warranty terms for special items shall be subject to the specific purchase and sales contract.

2. If a part is repaired or replaced, the warranty period of the part will be extended by 3 months.

3. When the product fails, please call ULIRVISION's after-sales team 400-711-1599 to get solutions in time.

4. In any of the following circumstances, no warranty is provided, but paid repairs can be provided:

- ① Expiration of the warranty validity period;
- ② Damage caused by failure to use, maintain, and keep the product in accordance with the product manual;
- ③ Damage caused by repair by a repairer not authorized by ULIRVISION;
- ④ No valid warranty certificate and invoice (except for those that can prove that the product is within the warranty period);

- ⑤ Unauthorized alteration of the warranty certificate;
- ⑥ Product failure caused by the use of third-party accessories;
- ⑦ Damage caused by force majeure such as fire, flood, earthquake, etc.

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