

# **FH35R V2**

Thermal imaging





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# 用户指南/User Guide V1.0

**FH35R V2** 

热成像观察镜 Thermal Sights

FH35R V2

# **DISCLAIMER**

This product is prohibited for illegal use, including illegal hunting, military, chemical, biological or nuclear weapons, illegal privacy photographing, and other violations of laws and regulations. It is prohibited to transport goods prohibited by the United Nations, the European Union or the OSCE. The products are only sold in the place where the company is registered and cannot be exported.

Purchase of this machine is equivalent to accepting the constraints of this statement, equivalent to agreeing to sign the relevant liability statement. In case of any violation, the company shall not be held responsible.

## **LONGOT TECHNIC**

## 产品概述

The Finder series are easy to carry and can be operated with one hand. With its compact size and light weight, it can be placed in the pocket any time. The built-in laser ranging can quickly locate the target distance. The ergonomic construction and powerful function make the Finder the best choice for outdoor exploration

## **Package Contents**

- ·Finder Series Thermal Imaging Monocular
- · Portable Bag
- ·Type C USB cable
- ·HDMI cable
- · Power adapter
- · IBP-2 battery pack × 2
- ·IBC-2 battery charger
- ·Hand strap
- ·Neck strap
- · Lens cloth
- · User manual
- \* Improvements may be made to the design and software to enhance its useful features without prior notice of the users.

Model	FH35R V2
Detector Type	Vox
Resolution, Pixel	640 x 512
Pixel Size, µm	12 µ m
Optical Characteristics	
Objective lens, mm	35mm
Magnification, x	2-8x
Digital zoom, x	1-4x (0.5x)
Min Focus Distance, M/Y	1m
Exit pupil distance, mm	20mm
Exit pupil Diameter, mm	5mm
Field of View (H × V), degree	12.6 x 10.1°
Diopter, D	±5D
Identify distances, m (Target size: 1.7m×0.5m)	860 m
Rangefinder Characteristics	
Wavelength, nm	905nm
Measuring Range, M/Y	800m
Measurement accuracy, M/Y	±(1+L×0.25%)(100-800m,L)
Electrical Characteristics	
Display Type	OLED
Resolution, pixels	1024*768
WiFi Frequency,GHz	2.4GHz
Video/Photo fomat	MP4/JPG
Built-in memory, GB	32GB

型号	FH35R V2
Power Supply, V	3.6v
Battery type*QTY/Capacity, mA	Replaceable lithium-ion battery, 3200mah
External power supply, V	5V2A
Others CharacteristicsSupport	
Operating time (at t=22 $^{\circ}$ C) , hours	≥5.5H
Storage temperature, °C/°F	-30℃~+60℃
Body material	PC+ABS
Degree of protection, IP code (IEC60529)	IP67
Dimension (L*W*H), mm	160x90x50mm
Weight(without battery), g	400g

## **Features**

- $\cdot$ 12  $\mu$  m thermal imaging detector
- · High image quality
- · Integrated laser rangefinder
- · Display off function
- · OLED display
- · Long detection distance
- · Ultraclear mode for harsh weather conditions
- · Cool hue and warm hue for selection
- · 32GB Build-in memory
- · Support photo and video recording
- · Support APP connection via Wi-Fi
- · Built-in digital compass and motion sensor
- · Replaceable Battery Pack
- · Convenient user interface

Button Operations		Button Operations						
Button	Current status	First short	Next short	Long press		Defective	Switch	
		press	press			pixels	movement	Save and
	The device is off.			Power on		Calibration	direction of the	exitcalibration
				device		interface	cursor	
	Home screen	Standby the	Wake up the	Power off			Turn on the laser	
	Tiome sereer	device	device	device		Homescreen	rangefinder	
	Defective pixels			Undo all			function	
	calibration int	Calibrate a	Undo the pixel	calibrations		Single	Make a single	Single
Power	erface	defective pixel	calibration	of this		ranging		_
button	errace			operation		mode	ranging	ranging mode
	Shortcut menu /	Return to the	Standby the		Up/ Ranging	Shortcut	Adjust E-zoom	
	Main menu	home screen	device			menu 1		
		Turn off			button	Shortcut	Adjust display	
	Laser	thelaser	Standby the	Power off		menu 2	brightness	
	rangefinder r	rangefinder	device	device	Mai		Toggle menu	
		function				Main menu	options up	
	Home screen	Open shortcut	Openshortcut	Open the		Defective		
		menu 1	menu 2	main menu		pixels	Move up / right	Move up /
	Shortcut menu 1	Open shortcut	Exit the			calibration	slowly	right quickly
Menu		menu 2	shortcutmenu			interface		
button	Shortcut menu 2	Exit the	Open shortcut		_ ,	Home	Talca a mh ata	Start video
200071	Shortout mond 2	shortcut menu	menu 1		Down /	screen	Take a photo	recording
		Switch the paran	neters / Enter	Exit menu	Photo	\		Stop and save
	Main menu	the submenu	.55.67 211661	option/	button		Take a photo	video
		the submend		main menu		recording		recording

Butto	n Operations		
	Shortcut	Image mode	
	menu 1	adjustment	
	Shortcut	Adjust image	
Down /	menu 2	contrast	
Photo	Main menu	Toggle menu	
button	Main menu	options down	
Dutton	Defective		
	pixels	Move down / left	Move down /
	calibration	slowly	left quickly
	interface		
Up + Down	Home screen	Shutter correction	Background correction

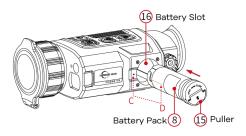
# **Components and Controls**

- 1. Lens cap
- 2. Lens focus ring
- 3. Power button
- 4. Menu button
- 5. Up / Ranging button
- 6. Down / Photo button
- 7. Laser rangefinder
- 8. IBP-2 battery pack
- 9. Eyepiece
- 10. Infrared sensors switch
- 11.Diopter adjustment
- 12. LED indicator
- 13. Type C port
- 14. HDMI port



## **Battery Pack Installation**

- Turn up the puller (15) on the battery pack (8), and align the orange line (D) on the battery pack (8) with the triangle symbol (C) on the battery slot (16) and push the battery pack (8) into the battery slot (16).
- · When the battery pack is completely inserted into the battery slot, turn the puller (15) clockwise to lock the battery pack.
- · Close the puller (15), and the battery pack is completely installed.
- · Finder can only be powered by this battery pack. If other battery packs are used, it may cause irreparable loss, damage to the device, and can even possibly cause fire.

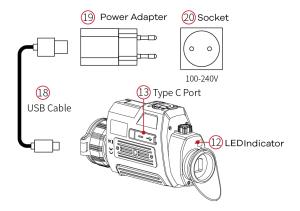


## **Battery Pack**

Finder series thermal imaging monocular is supplied with a quickly removable 18650 Li-ion battery pack, which enabled the device to be used for up to 6h. The battery should be fully charged before first use.

Method 1: Charging with Type-C Port

- · When the battery pack is installed into the battery slot of theFinder series, connect the Type C end of the data cable (18) to the Type C port (13) of the product.
- · Connect the other end of the data cable (18) to the power adapter (19) that comes with the product, or connect to another USB power socket with a rated output voltage not exceeding 5V.
- $\cdot$  Plug the adapter (19) into a 100-240V power socket (20) for charging.
- · When charging, the LED indicator (12) will change to red.
  Unplug the cable when the LED indicator changes to green.

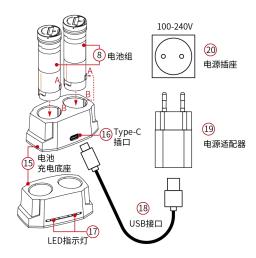


LED indicator displaying the current status of the device

LED Color	LED Status	LED Status
	Normal	Fully charged
	Flashing	Standby
_	Normal	Charging
	Flashing	Less than 10% battery
		level

#### Method 2: Charging with Battery Charger

- · Align the positioning block (A) of the battery pack (8) with the groove (B) of the battery charger (15), and insert the battery pack (8) into the battery charger (15).
- · Connect the plug of the USB Type-C cable (18) to the USB connector of the power adapter (19). Plug the power adapter (19) into a socket 100-240V (20) (110V for US).
- · Connect the other end of the USB cable (18) to the Type-C port (16) of the battery charger (15).
- · After finishing the above steps, the LED indicator (17) on the battery charger (15) will display the battery charge state.
- $\cdot$  After the battery is fully charged, remove the battery pack from the battery charger.



#### Battery charge status (see table)

LED Indicator	Battery charge status
•	Battery level is from 1% to 25%.
• •	Battery level is from 25% to 50%.
	Battery level is from 50% to 75%.
	Battery level is from 75% to 99%.
•••	Battery is fully charged.

Note: Two batteries can be charged at the same time: the second slot is designed for it.

#### Safety Measures

- $\cdot$  Only use the battery charger to charge the battery pack included in the package.
- · Check the power supply unit, cable and adapter for visible damage before use.

- · Do not expose the battery pack to high temperature or open flame. Do not use the power unit in wet or humid environments.
- · Do not charge the battery immediately after you bring it from the cold to the warm. Wait 30 to 40 minutes for it to warm up.
- · Do not use the charger if it is modified or damaged. Do not make any technical modifications to the power unit.
- · Do not disassemble or modify the battery pack or charger without professional instructions. Do not knock or drop the battery pack.
- ·Only charge the battery pack at a temperature range of 0°C ~
- +45°C. Otherwise the battery life will be significantly reduced.
- · When charging, please don't leave the battery unattended.
- · It is not recommended to connect third-party devices that consume more power than allowed.
- $\cdot$  Do not charge the battery for more than 24 hours after it is already fully charged.
- · Before a long storage time, the battery pack should be partially charged, not fully charged or discharged.
- ·The battery pack has short circuit protection. But situations that may lead to short circuits should be avoided.
- · Please keep the battery pack out of the reach of children.

## **External Power Supply**

Finder series supports external power supply, such as the portable power source (5V).

· Connect the external power supply to the Type-C port (13) of the device.

- The device will automatically switch to the external power supply and charge the battery pack (8) at the same time.
- · At this time, the battery icon on the display will become to the charging icon and the power indicator will turn red, and then turn green after the battery is fully charged.
- · If an external power supply is connected, but no battery pack is installed, the battery icon will become a USB icon and the power indicator will turn green.
- · When the external power supply is disconnected, Finder series will automatically switch to the battery pack power supply and will not power off.

Icon Descriptions	
*	White Hot
(&	Black Hot
**	Red Hot
4	Target Highlight
	Ironbow
<b>N</b>	Rainbow
x1/x1.5/x2/x2.5/x3/x3.5/x4	Digital zoom
※ ※ ※ ※ ※	Display brightness
	Image sharpness
<b>⊗</b> A	Automatic calibration
<b>⊗</b> M	Manual calibration
•	Ultraclear mode
<b>?</b>	Wi-Fi

<b>□</b> → <b>□</b> →out	Video out
•	PIP
•	Digital compass
À,	Motion sensor
	Auto display off
•	Micphone
<b>№</b>	Switch unit
<b>₽</b>	More
•	Calibration mode
*	Image hue
+	Defective pixel calibration
<b>③</b>	Compass calibration
0	Time and date
(i)	System information
Ð	Factory reset
<b>~</b>	Return to the main menu
•	Single ranging
• • •	Continuous ranging
	Battery indication
4	Battery charging

## Operation

Power on and image adjustment

- $\cdot$  Remove the lens cap (1). Press and hold the Power button
- (3) for 2s to power on the device. Then, the home screen appears after 10s.

- ·Rotate the eyepiece diopter adjustment (11) to adjust the resolution of the icons on the display. After the adjustment is completed, for the same user, when using it again there is no need to adjust the diopter again.
- · Rotate the lens focus knob (2) to focus on the object observed.
- · Set the digital zoom, image mode, screen brightness and image sharpness with a short press of the Menu button (4) (Refer to the Shortcut Menu section in this manual for details).

#### **Shut Down**

- · After using the device, press and hold the Power button (3) for 3 seconds. The shutdown countdown screen will appear.
- ·When the countdown from 3 to 0 is completed as indicated by the countdown icon, the device is powered off. Then release the button. The display is off, the indicator is off, and the device is shut down

# Standby

- The standby mode can let the device into a sleep state (turn off the display screen, the main chip is standby).
- · In the home screen, press the Power (3) button briefly to standby the device.
- · Press the Power (3) button again to wake up the device.

#### **Home Screen**

When the device booted up, the home screen shows upon. There is some general information shown on the interface. Detail as follows:

- ·Upper left corner Color palette, magnification, calibration mode, Wi-Fi (on), Automatic screen off (on), Ultraclear mode (on), Microphone (on).
- · Upper right corner Battery level
- · Lower left corner Time and date
- ·Lower right corner Video output icon (when it is on).

The color of the battery icon represents the current battery level. When the battery icon is shown in red, it indicates that the battery is low. Please charge it in time.

Icon	Color	Battery level
	Blue	30%-100%
	Yellow	20%-30%
	Red	Less than 10%
4		Charging

## **Calibrate the Sensor**

When the image is degraded or uneven, it can be improved by calibration. Calibration enables the detector temperature background to be equalized and defects in the image to be eliminated.

There are two calibration modes: manual calibration (M) and automatic calibration (A).

Select the required mode in the Main Menu.

- · A mode (automatic). The device is calibrated autonomously by the software algorithm. The lens cap need not be secured (the sensor is closed by an internal shutter).
- $\cdot$  M mode (manual). The device needs to be calibrated manually.
- (1)Short press the Up (5) + Down (6) buttons for shutter calibration, and long press for background calibration.
- (2)The lens cap should be closed for background calibration. Note:

Manual shutter calibration and manual background calibration are still possible even in mode A.

## **Photographing and Video Recording**

Finder Series thermal imaging monocular is equipped with a function for video recording and photographing an observed image onto the built-in memory card.

The files of images and videos will be named after the time, so it is recommended to reset the system time in the Main Menu or to synchronize the system time and date in the Settings of the APP before using the camera and video function. For specific operations, you can download the operating instructions of the APP from the company's website.

Photographing:

- ·Take a photograph with a short press of the Down/Photo
- (6) button in the home screen. The image freezes for  $0.5\,$

seconds with a photo icon () displayed on the upper-right corner of the display.

• The picture file is saved to the build-in memory card.

## Video Recording

- ·In the home screen, press and hold the Down/Photo (6) button to start video recording.
- · A tooltip showing the recording time (showing in MM: SS (minutes: seconds) format) will appear in the upper right corner of the display.
- ·The red dot in the tooltip flashes during recording.
- · During recording, short press the Down/Photo (6) button to take a photo also.
- ·Stop the video recording by pressing and holding down the Down/Photo (6) button.
- · Video and picture files are stored in the built-in memory card after video recording has been turned off.

#### Note:

- ·You can enter and work on the menu during video recording.
- •The recording time is accumulated in minutes until the recording stops, that is, the time shows 60:00 after 59:59.
- ·The maximum duration of a video recording file is 10 minutes. When it's more than 10 minutes, the video will be recorded onto a new file
- ·The number of files is limited by the capacity of the device's built-in memory. Regularly monitor the amount of

free memory in the built-in memory card, transferring footage and photos to other media to free up space on the memory card.

#### **Memory Access**

When the device is turned on and connected to a computer, it is recognized by the computer as a flash memory card, which is used to access the device's memory and make copies of pictures and videos.

- ·Turn on the device and connect it to the computer through the USB cable.
- · Double-click "my computer" on the desktop double-click to open the device named "longot" then click and open the device named "Internal Storage" to access memory.
- ·There are different folders named by time in memory.
- ·Recorded videos and photographs are saved in thesefolders in the format: IMG\_HHMMSS. jpg (for photos) and VID\_HHMMSS.mp4 (for video). HHMMSS- hour/minute/second

# **Laser Rangefinder**

- · Finder FH35R is built-in laser rangefinder module.
- ·Short press the Up/Ranging (5) button to switch on the laser rangefinder function in the home screen.
- · A blue cursor appears automatically on the screen, and the tooltip at the bottom of the screen displays the current ranging mode and the distance of the target indicated by the cursor.

- •There are two kinds of ranging modes: single ranging and continuous ranging . Press and hold the Up/Ranging (5) button to switch between the two modes.
- ·In the single ranging mode, short press the Up/Ranging (5) button is required for ranging.
- In the continuous ranging mode, the distance of the target indicated by the cursor will be refreshed automatically every 1 second, without any keystroke operation.
- ·The measurement range and accuracy is 800m±1m, and it will be affected by fog and heavy rain and other weather.
- After the measurement is completed, short press the Power (3) button to exit the laser rangefinder function.





#### **Shortcut Menu Function**

The basic settings (such as the smooth digital zoom function, the image mode, the display brightness and the image sharpness) are adjusted in the Shortcut Menu.

- In the home screen, by pressing the Menu (4) button to enter shortcut menu 1-shortcut menu 2-exit the menu accordingly.
- After entering the menu, press the Up (5) button to set the parameters at the top of the screen and press the Down (6) button to set the parameters at the bottom of the screen.

- $\cdot$  Smooth Digital Zoom- by pressing the Up (5) button to change the digital zoom value from 1.0 to 4.0 in the shortcut menu 1.
- ·Image Mode- by pressing the Down (6) button to change the image mode in the shortcut menu 1.The icons from left to right are white hot, black hot, red hot, hot target highlight, ironbow and rainbow.





## **Main Menu Function**

- · Enter the menu with a long press of the Menu (4) button in the home screen.
- ·Press the Up (5) / Down (6) button to move through the menu functions, and the background of the option will become blue simultaneously.
- ·Press the Menu (4) button to set the parameters of the current option, or open the menu item.
- On the "More "option, short press the Menu (4) button to enter the sub menu for more settings.
- The button operation of the sub menu is the same as that of the Main Menu.
- · Press and hold down the Menu (4) button to exit the menu.
- ·An automatic exit from the menu occurs after 10 seconds of inactivity. Also, it will return to the home screen quickly with a short press the Power (3) button.





## Composition and Description of the Main Menu

Ultraclear - Selection of the Ultraclear mode

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Ultraclear' option with Up (5) / Down (6) button.
- · Short press Menu button (4) to turn the Ultraclear on/off.
- ·When the Ultraclear mode is on, the image contrast is enhanced, which is suitable for rainy, foggy and other harsh weather conditions.

Wi-Fi - Selection of the Wi-Fi function

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Wi-Fi' option with Up (5) / Down (6) button.
- · Short press the Menu button (4) to turn the Wi-Fi on/off.
- ·The Wi-Fi icon is displayed in the upper-left status bar when it is on.

Video Out-Selection of the video out function

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Video out' option with Up (5) / Down (6) button.
- ·Short press the Menu button (4) to turn the video out on/off.
- ·The Video out icon is displayed in the lower-right corner when it is on.

PIP Mode- Selection of the Picture in Picture Mode

· Press and hold the Menu button (4) to enter the menu.

- · Select the 'PIP Mode' option with Up (5) / Down (6) button.
- · Short press the Menu button (4) to turn the PIP on/off.
- · A2x magnified image in a separate 'window' appears at the top of the display simultaneously with the main image.

  Digital Compass Selection of the Digital Compass
- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Digital Compass' option with Up (5) / Down (6) button
- ·Short press the Menu button (4) to turn the compass on/off.
- $\cdot$  The compass is displayed in the top center of the image. Motion Sensor Selection of the Motion Sensor
- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Motion Sensor' option with Up (5) / Down (6) button.
- ·Short press the Menu button (4) to turn the Motion sensor function on/off
- ·When enabled, relevant functions will appear on the right side of the image, that the horizontal scale plate represents the dip angle, while the vertical represents the pitch angle.

Automatic Display-off - Selection of the Auto Display-off

- · Press and hold the Menu button (4) to enter the menu
- · Select the 'Automatic Display-off' option with Up (5) / Down (6) button.
- · Short press the Menu button (4) to turn Auto Display-off function on/off.
- ·The icon is displayed in the upper-left status bar when it is

on.

Microphone- Selection of the Mic function.

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Microphone function' option with Up (5) / Down (6) button.
- ·Short press the Menu button (4) to turn the MIC on/off.
- ·The icon is displayed on the status bar when it is on.

Unit - Selection of the length unit

There are two units for selection: meter (M) and yard (Y).

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Unit' option with Up (5) / Down (6) button.
- · Briefly press the Menu button (4) to select M or Y.

More - Get more settings

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'More' option with Up (5) / Down (6) button.
- $\cdot$  Short press the Menu button (4) to enter the sub menu for more settings.

Calibration Mode - Selection of calibration mode.

There are two calibration modes: automatic(A) and manual(M).

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Calibration Mode' option with Up (5) / Down (6) button.
- · A short press of the Menu button (4) to select A or M.

Automatic(A)

Calibration requirements in the automatic mode are determined by the software algorithm, with the calibration process being started automatically.

#### Manual(M)

The user independently sets the calibration requirements according to the image being observed.

Image Hue - Selection of image hue.

There are two hues for selection: cool hue@ and warm hue(W).

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Image Hue' option with Up (5) / Down (6) button.
- · Short press the Menu button (4) to select C or W.
- •The switch between the warm and cool hues is not appears at the top of the display simultaneously with the main image.

  Cold hue mode

Image will be more contrast, more hierarchy, and more obvious targets.

Warm hue mode (W)

Image will be softer, it can be reducing the visual fatigue of the observer, and long time observation is not dazzling.

Defective Pixels Calibration

When using the device, defective (broken) pixels may appear on the sensor: i.e., bright or dark points of constant brightness that are visible on the image. The Finder Series supports automatic defective pixels calibration.

- ·In the More submenu interface, select the 'Defective Pixels Calibration' option with Up (5) / Down (6) button
- $\cdot$  Enter the Defective Pixels Calibration interface with a short press of the Menu button (4).

Select the option 'or' with the Up (5) / Down (6) button.

- ·Short press the Menu button (4) to confirm selection.
- ·When '  $\checkmark$  ' is selected, it will calibrate all defective pixels automatically. When ' $\times$  ' is selected, it will cancel and return to the upper interface.

Compass Calibration - Calibrate the digital compass

- Open the sub menu by pressing the Menu button (4).
- · Select the 'Compass Calibration' option with the Up (5) / Down (6) button.
- · Enter the compass calibration interface with a short press of the Menu button (4).
- · An icon like a triaxial coordinate system appears on the screen. Rotate the device at least one 360° in three axial directions in 15 seconds according to the direction shown as the icon to complete the compass calibration.
- · Press the Power button (3) briefly to terminate and exit the calibration without saving within 30 seconds.

Time Settings - Reset the system date and time

- Open the sub menu by pressing the Menu button (4).
- ·Select the 'Time Settings' option with the Up (5) / Down (6) button.
- $\cdot$ Short press of the Menu button (4) to enter the time settings interface, that is displayed as Year. Month. Day | Hour: Minute format
- · Short press the Menu (4) button to switch between digits.

  Select the correct value with a short press of the Up (5) / Down
  (6) button.

- ·Long press the Menu button (4) to exit to the upper interface.
- System Information View the information of this device
- Open the submenu by pressing the Menu button (4).
- · Select the 'System Information' option with the Up (5) / Down (6) button.
- Open the system information box with a short press of the Menu button (4).
- $\cdot$  Long press the Menu button (4) to exit to the upper interface.

Factory Reset - Restore Factory Settings

- Open the sub menu by pressing the Menu button (4).
- ·Select the 'Factory Reset' option with the Up (5) / Down (6) button.
- · Short press of the Menu button (4) to enter the 'Factory Reset' submenu.
- $\cdot$ Select the option ' ' to reset to factory settings or ' ' to cancel with the Up (5) / Down (6) button.
- $\cdot$  Confirm your selection with a short press of Menu button (4).

The following settings will be restored to their factory state before being set by the user:

- · Image mode white hot
- · Digital zoom ×1
- ·Image hue warm
- ·Display brightness level 3
- · Image sharpness level 1
- · Calibration mode -automatic
- ·System time 00:00 2020/01/01

- · Video out / PIP / MIC/ Compass / Motion sensor off
- · Automatic Display off / Ultraclear mode / Wi-Fi off Note
- ·When factory Settings are restored, the Wi-Fi name and password are also restored to factory default Settings.

#### **Return To The Main Menu**

- Open the sub menu by pressing the Menu button (4).
- · Select the 'Return to Main Menu' option with the Up (5) / Down (6) button.
- Return to the main menu interface with a short press of the Menu button (4).

#### **Wi-Fi Function**

The device is equipped with wireless communication with external devices (computer, smartphone) via Wi-Fi.

- · Press and hold the Menu button (4) to enter the menu.
- · Select the 'Wi-Fi' option with the Up (5) / Down (6) button.
- ·Short press the Menu button (4) to turn the Wi-Fi on.
- •The device is recognized by an external device under the label 'Finder\_xxxxx-xxxxxx', xxxxx-xxxxxx is the SN code of the device.
- ·Enter the password on an external device, and establish a connection. The initial password is 12345678.
- $\cdot$  And then, the device can be controlled through the APP.

Set Wi-Fi name and password

The Wi-Fi name and password of your device can be set in the APP.

- ·Click the "Setting" icon in the APP to enter the setting interface.
- ·In the text box, enter and submit the name (SSID) and password of the new Wi-Fi.
- ·It needs to restart the device to take the new name and password effect.

#### Note

·When factory Settings are restored, the Wi-Fi name and password are also restored to factory default Settings.

## **Technical Inspection**

A technical inspection of the device is recommended before use.

- · Check the external appearance of the device (there should be no cracks in the casing).
- · Check the condition of the lens and eyepiece (there should be no cracks, greasy spots, dirt or other deposits)
- ·Check the condition of the rechargeable battery (this

#### Maintenance

Maintenance should be carried out at least twice a year and consist of the following actions.

- ·Wipe the external surfaces of metal and plastic parts free of dust and dirt with a cotton cloth. Silicone grease maybe used for this.
- ·Clean the electrical contacts of the battery and battery slot on the unit using a non-greasy organic solvent.
- ·Check the glass surfaces of the eyepiece and the lens. If

necessary, remove dust and sand from the lenses (preferably using a non-contact method). Cleaning of the external surfaces of the optics should be done with substances designed specially for this purpose.

## **Troubleshooting**

This table lists all the problems that may arise when operating the device. Carry out the recommended checks and repairs in the order shown in the table. If a defect should occur that is not listed in the table, or if it is impossible to repair the defect yourself, the device should be returned for repair.

Malfunction	Possible Cause	Solution
Thermal imager	Batterycompletely	Charge the
does not power	discharged	battery
up.		
Does not operate	USB cable is	Replace USB
from external	damaged.	cable
power source.	External power	Chargeexternal
	source discharged	power source
		(if necessary).
Image is unclear,	Calibration	Perform image
with vertical lines	required	calibration
and uneven		according
background.		to Section
		'Calibration' of
		the Manual.

Poor image	These problems may occur during		
quality/reduced	observation in	difficult weather	
Detection	conditions(snow, r	ain, fog, etc. ).	
distance			
Smartphone or	The device	Delete the network	
tablet cannot be	password Has	and reconnect	
connected to	been changed.	using the device	
the device.		password	
	The device is in	To ensure stable	
	an area wit a	Wi-Fi operation,	
	large number of	relocate the	
	Wi-Fi networks	device to an area	
	that may cause	with fewer Wi-Fi	
	interference.	networks, or into	
		an area with none.	
Wi-Fi signal non	The device is	Relocate the	
existent or	outside the area	device	
interrupted	of Wi-Fi	into direct line of	
	coverage. There	sight	
	are obstacles	of the Wi-Fi signal.	
	between the		
	device and the		
	receiver (e.g.		
	concrete walls.)		

When used in lowtemperature conditions, the image quality of the surroundings is worse than in Positive temperature conditions.

In positive temperature conditions, objects being observed (surroundings and background) heat up differently because of thermal conductivity, thereby generating a high-temperature contrast. Accordingly, the image quality produced by the device will be higher.

In low-temperature conditions, objects being observed (background) do, as a rule, cool down to roughly the same temperature because of which temperature contrast is substantially reduced and the image quality (detail) is poorer. This is a feature of thermal imaging devices.

## **Legal and Regulatory Information**

Wireless transmitter module frequency range:

WLAN: 2.412-2.472GHz (For EU)

Wireless transmitter module power <20dBm (only for EU) We, Technology Co., Ltd., hereby declares that radio equipment Finder series is in compliance with the Directives 2014/53/EU, 2011/65/EU and RER 2017 (SI 2017/1206).

FCC Statement

FCC ID: 2AYGT-26-00

Labeling requirements

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.

Information to the user Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

EMC: Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment isoperated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

To comply with RF exposure requirements, a minimum separation distance of 0.00 cm must be maintained between the user's body and the handset, including the antenna.

#### Laser Statement

#### Caution statement

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

#### Information for the user

Telescopes and binoculars may pose an eye hazard and thus the user should not direct the beam into an area where such instruments are likely to be used.

#### Certification label

And it is a Class IM laser product that complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.



Wavelength: 905 nm typical Pulse duation: 20 ns Frequency: 5000 Hz Standad: EN 60825-1:2014/A11:2021