



**THERMAL  
IMAGING SCOPE**

# LEAP

User Manual v1.0

**5** YEAR  
WARRANTY  
Thermal Devices

**3** YEAR  
WARRANTY  
Digital Devices

**CUSTOMER  
SERVICE**

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info@rix-nv.com



We appreciate you choosing RIX.

Please read the instruction manual carefully before using this product.

Thank you and happy hunting!

**RIX**





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## 01 PRODUCT OVERVIEW

Introducing the LEAP series, featuring advanced thermal imaging technology and high-sensitivity infrared detectors for exceptional outdoor hunting and night vision capabilities. With the ability to perform in adverse weather conditions, such as rain, snow, fog, and haze, the LEAP series is perfect for night hunting, observation, and geographical positioning. Equipped with a 30mm standard pipe diameter, it offers a range of functions including photo taking, video recording, recoil activated video, optical eyepiece magnification, digital zoom, PIP, and multiple reticle options.

## 02 PRODUCT FEATURES

High resolution 1920x1080 display	Optical Zoom: 1x~ 3x
Zoom eyepiece, super-large basic visual magnification	PIP function
High image quality	Built-in Wi-Fi module, supporting app connection
Replaceable 18650 battery, long battery life	"IMAGE ENH Mode"
Built-in 32GB storage, photo and video recording available	Digital zoom: 1x~ 4x

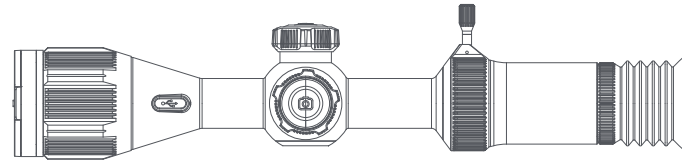
## 03 PRODUCT DESCRIPTION

	Model	LEAP L3	LEAP L6
Sensor	Type	VOx Uncooled	
	Resolution, pixels	384x216	640x360
	Pixel pitch, μm	12	
	NETD, mK	<25	
	Frame rate, Hz	50	
Optics	Objective lens, mm	35mm	50mm
	Optic zoom, x	3.2-9.6	2.8-8.4
	Field of view (H), degrees / m @ 100 m	7.5/13.2	8.8/15.4
	Digital zoom, x	1 - 4	
	Eye relief, mm	50	
Range Performance	Diopter Adjustment, D	-5 - +5	
	Detection range, yd	1800	2600
Display	Type	AMOLED	
	Resolution, pixels	1920x1080	

Model	LEAP L3	LEAP L6	
Video Recorder	Video / photo resolution, pixel	960x540	
	Video / photo format	.mp4 / .jpg	
	Built-in memory, GB	32	
Wi-Fi	Wireless Protocol	Wi-Fi	
	Frequency, GHz	2.4GHz	
Operating Features	Degree of protection, IP code	IP67	
	Operating temperature range, °F	-4 - +122	
	Battery type	18650	
	Capacity, mAh	3200	
	Operating time on battery pack (at t=72°F), h *	7	7
	External power supply, V	5V (Type C USB)	
Weight & Size	Dimensions, inch	14.2x3.5x3	14.6x3.5x3
	Weight, lb	2.4	2.6

Tips: The results of operating time is tested at 72°F using RIX batteries, it is normal that temperature changes can shorten battery life.

## 04 IN THE BOX



The Leap series Thermal Imaging Scope

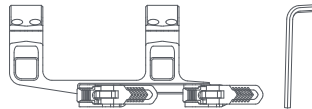
Eyeshade



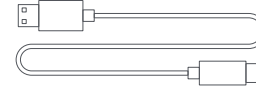
Battery



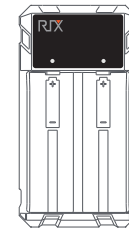
Thermal Target



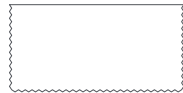
Scope Ring



USB Type-C Cable



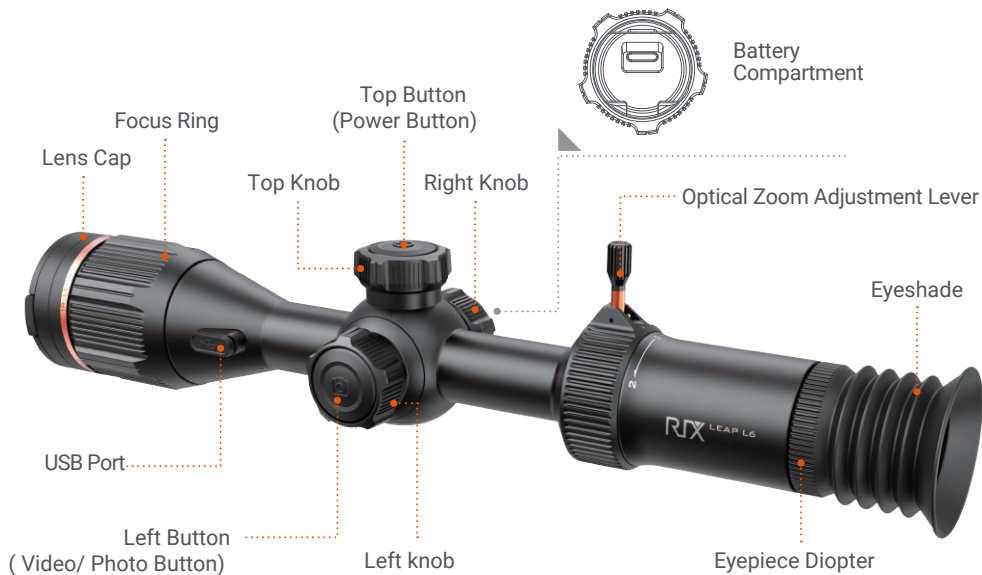
Battery Charger



Lens Cloth

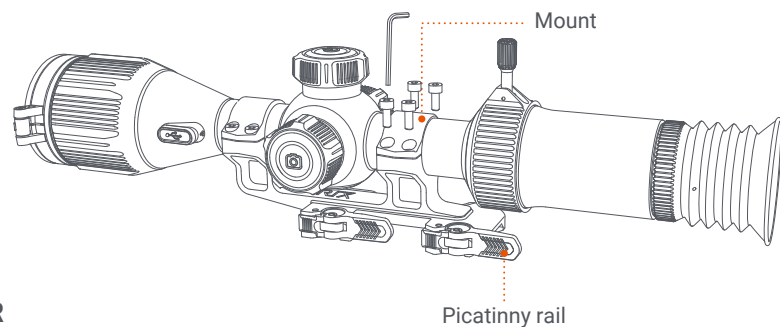


## 05 PRODUCT APPEARANCE



## 06 DEVICE INSTALLATION

There is Picatinny compatible scope ring provided in the box. Please follow the schematic below for proper installation.



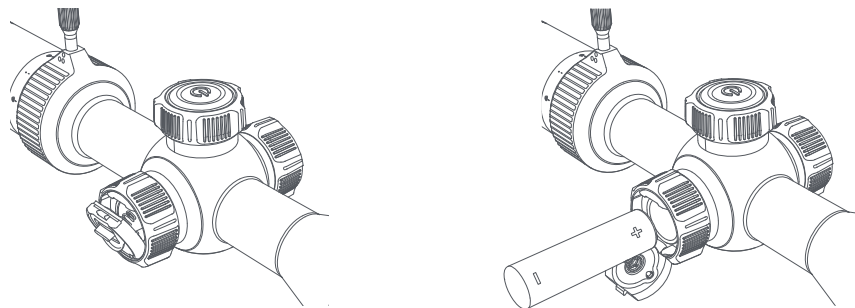
## 07 POWER SUPPLY

The LEAP series is powered by a replaceable 18650 battery.

- ▶ To open the battery compartment lid, push down on the latch.
- ▶ Install the 18650 battery into the battery compartment, positive pole inward and negative pole outward, as indicated by the symbols within the battery compartment.
- ▶ After inserting the battery, press and push up on the latch to secure the battery cover.

### Warning

- ▶ Please remove the battery if the device is not in use for extended periods of time.
- ▶ Do not power the device with a modified or damaged battery.
- ▶ Please Note: The decrease in battery capacity under sub-zero temperatures is normal and not a factory defect.
- ▶ Do not use the battery at a temperature above 122°F or 50°C, as it may reduce the service life of the battery.



## 08 BUTTONS AND KNOBS OPERATION

Button	Current Status	Short Press	Long Press	Rotate
Up Button (Power Button)	Powered off	—	Power on the device	—
	Home screen	Shutter correction	Shut down the device	—
	Stand by	Wake up the device		—
	Main menu screen	Return to the upper menu with saving changes	—	—
Left Button	Home screen	Start / Stop video recording	Take a photo	—
	Main menu screen	Confirm selection / Enter the submenu	—	—
Left Knob	Home screen	—	—	Open menu options
	Main menu screen	—	—	Switch menu options
	Setting menu screen	—	—	Switch menu options
Upper Knob	Home screen	—	—	Switch image mode
	Main menu interface	—	—	Adjust the parameters of a function
	Zeroing interface	—	—	Move to the left / right
Right Knob	Home screen	—	—	Adjust the magnification
	Main menu interface	—	—	Adjust the parameters of a function
	Zeroing interface	—	—	Move to the up / down

## 09 POWER ON/OFF

### Power On / Starting

1. Open the objective lens cap.
2. Long press the Power button for 3 seconds to turn on the rifle scope. The RIX logo will appear.

### Powering Off / Stopping

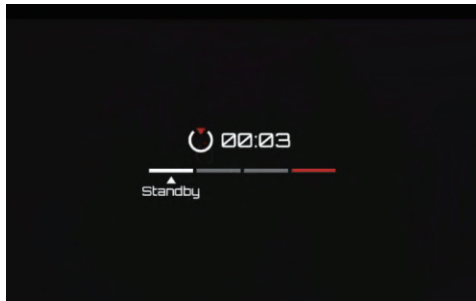
1. Long press the Power button. The standby screen will open, showing a 3-second countdown.
2. Continue holding the Power button until the 3-second countdown completes.
3. "Data saving..." appears onscreen and the LEAP will shut down automatically after saving.

#### Note

Releasing the Power Button at any time during this shutdown cycle will stop the shutdown process and the rifle scope will enter standby mode. Short press on the Power button to exit standby mode.

#### Warning

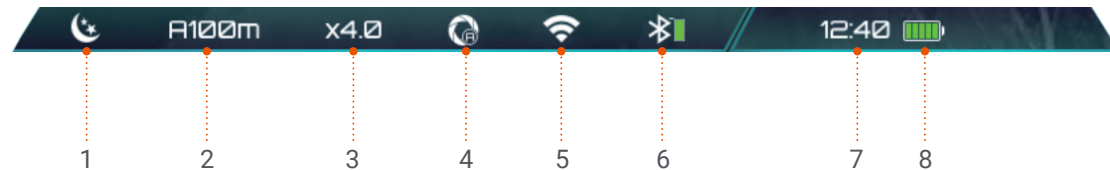
If using an external power supply, do not disconnect the power supply when saving data, otherwise the data may not be saved.



## 10 STATUS BAR

The status bar is located at the top of the screen and displays the current status of the riflescope, from left to right:

1. Image mode ( white hot (default), black hot, red hot, color)
2. Zeroing Profile and distance
3. Current magnification (e.g., 1.0x)
4. Calibration mode ( A = Automatic, M = Manual)
5. Wi-Fi connection ( Wi-Fi off; Wi-Fi on)
6. Bluetooth
7. Clock
8. Battery Level





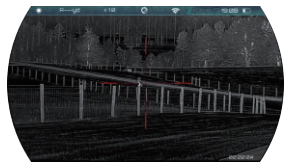
# 11 SHORTCUT FUNCTION

## Digital Zoom ( Right Knob)

On the home screen, toggle the image mode by rotating the top knob. The available options include white hot (default), black hot, red hot, and color.

## Image Mode Switching (Top Knob)

On the home screen, toggle the image mode by rotating the top knob. The available options include white hot (default), black hot, red hot, color.



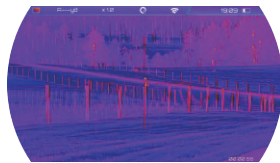
White Hot (Default)



Black Hot



Red Hot



Color

## Photo/Video (Left Button)

### ► Photo Taking

On the home screen, long press the left button to take a photo, and the screen will freeze, with a photo icon flashing in the lower right corner.



### ► Video Recording

On the home screen, short press the left button to start recording, and a prompt box showing the recording time appears in the lower right corner, with a time format of HH:MM:SS (hour: minute: second). Short press the left button again to stop and save the video recording.



## Note

- ▶ The photos and videos taken will be saved on the built-in memory card in the format of IMG\_yyyyMMd-dHHmmss.jpg (photos), and VID\_yyyyMMdHHmmss.mp4 (videos); (It is recommended to synchronize the device time and date through the app before using the photo taking/video mode. You can find detailed instructions on the LEAP Product App, which is available for download on our website.
- ▶ The maximum duration of a single video is 10 minutes. When the duration of a recorded video exceeds 10 minutes, the device will automatically start recording a new video file for the remainder of time.
- ▶ To download photos and videos, turn on the device to run, and connect it to a computer with the data cable. On your computer, Double-click MY COMPUTER on the Desktop Screen, find the device named "RIX", and double-click to open the device named "LEAP\_ Storage" to access the captured media.
- ▶ You can easily free up storage space by either deleting or moving the media files to an external storage device.
- ▶ To avoid damaged or corrupted video footage, please turn off the device properly.

## 12 MAIN MENU

On the home screen, rotate the left knob to open the main menu.

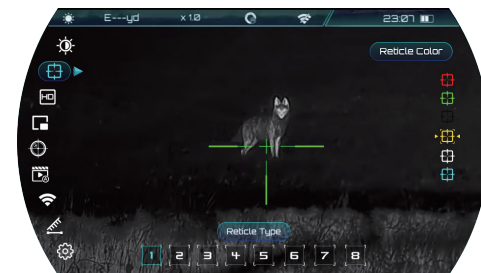
### Display Settings

In the main menu, rotate the left knob to select Display Settings. Rotate the top knob to set Display Brightness, with a range of 1-10 and 5 as the default. Rotate the right knob to set Contrast, with a range of 1-10, with 5 being the default.



### Reticle Settings

In the main menu, rotate the left knob to select Reticle Setting. Rotate the top knob to set the Reticle Style, with a total of 8 reticle options available. Rotate the right knob to set the Reticle Color, and choose from white, green, black, yellow, red and blue.



### IMAGE ENH Mode (Image Enhance Mode)

In the main menu, rotate the left knob to select IMAGE ENH Mode.

Rotate the top knob to turn this function on/off.

When activated, the IMAGE ENH Mode is designed to enhance image details in adverse weather conditions such as rain, fog, or heavy snow.



### PIP (Picture in Picture)

In the main menu, rotate the left knob to select PIP.

Rotate the top knob to turn this function on/off.

When the PIP function is activated, a frame line in the middle of the display highlights the selected area for enlargement. A small window appears on the upper part of the display, magnifying the selected area by 2 times. This allows users to easily observe target details and aim more accurately.



### Zeroing Profile

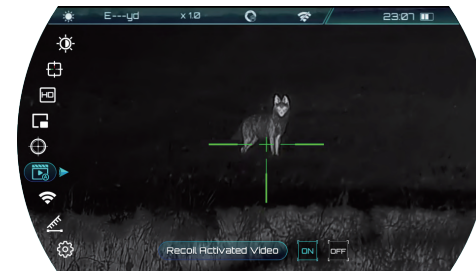
In the main menu, rotate the left knob to select Zeroing Profile. Rotate the top knob to switch back and forth between zeroing profile.

### Recoil Activated Video

In the main menu, rotate the left knob to select Shooting Video. Rotate the top knob to turn this function on/off. By enabling the Shooting Video function, you can automatically capture and save the most important moments of hunting and shooting.

#### Note

To avoid damaged or corrupted video footage, please turn off the device properly.





## Wi-Fi

The LEAP series has a built-in Wi-Fi module. The device can connect to an external device (computer or mobile phone) via Wi-Fi.

In the function menu, rotate the left knob to select the wireless function.

Rotate the upper knob to turn this function on/off.

Search for the Wi-Fi named "LEAP\_XXXXXX" on the external device, With "XXXXXX" being the serial number of the device.

Select the Wi-Fi and enter the password to connect. The initial password is 12345678.

After a successful connection to Wi-Fi, the device can be controlled via the mobile app.



### Note

- ▶ The LEAP series allows you to change the name and password of the Wi-Fi in the app.
- ▶ In the app, find the My Device icon, and click it to enter the interface for settings.
- ▶ In the text box, enter and submit the new Wi-Fi name (SSID) and password.
- ▶ After submitting the changes, reset the device to activate them.
- ▶ **If the device is reset, the name and password of the Wi-Fi will also be restored to the default settings.**

## Stadiametric Rangefinding

The LEAP series includes the stadiametric rangefinding function, which calculates the approximate distance from a target with a known size. In the function menu, rotate the left knob to select Stadiametric Rangefinding. Rotate the top knob to select the size of the target, and rotate the right knob to move the upper and lower horizontal lines of the display area to coincide with the upper and lower edges of the target. The distance measurement value is displayed below the horizontal line in real time.

## Bluetooth & Laser Rangefinder

The LEAP series supports an external laser rangefinder module. If you already have the RIX LRF-01 laser rangefinder module, please install the ranging module to the LEAP device. See LRF-01 manual for details.

In the function menu, rotate the left knob to select the wireless function. Rotate the right knob to turn this function on/off.

Press and hold the power key on LRF-01 to power it on. Then enable the Bluetooth is function on LEAP. These two devices will automatically connect via Bluetooth.

The following is an introduction to Bluetooth status:

After the Bluetooth is connected, press the power button on the LRF-01 to turn on/off the ranging function. If the ranging function is enabled, the distance value will be displayed on the screen.



	Bluetooth function is off
	Bluetooth function is on but not connected
	Bluetooth function is on and connected

## Setting Menu

On the home screen, rotate the left knob to open the Function Menu. In the Function Menu, rotate the left knob to select Settings, and then press the left button to open the Setting Menu.

### ► Zeroing

In the Setting Menu, rotate the left knob to select Zeroing, and press the left button to enter the interface for zeroing settings. Rotate the left knob to switch between the A/B/C/D/E zeroing profile, or press the plus sign to add a new one. After selecting the zeroing profile, press the left button to enter the zeroing interface.

On the zeroing interface, use the left knob to navigate through the options, including zeroing distance setting, screen freeze, reticle movement, save zeroing and exit, and zeroing deletion. Simply rotate the left knob to select the desired option.



When selecting Zeroing Distance, rotate the upper knob to choose the setting options for hundreds, tens, and ones. To adjust each digit, rotate the right knob and cycle through the numbers 0-9 accordingly. When Screen Freeze is selected, press the left button to freeze the screen.

#### Note

Press the top button (power button) to unfreeze the screen after zeroing.

When Reticle Movement is selected, rotate the upper knob to move the reticle in the X direction, and rotate the right knob to move the reticle in the Y direction.

Once the reticle is calibrated, choose "Save" to save the calibration settings and exit directly. A prompt will confirm the successful saving, and you will be returned to the home screen.

When Exit without saving is selected, press the left button to exit without saving and return to the home screen.



When Exit without saving is selected, press the left button to exit without saving and return to the home screen.

If you select "Delete," simply press the left button to delete the current group and return to the upper menu of the zeroing interface. In the event that there is only one group remaining, a prompt will appear indicating that the deletion has been canceled, stating: "There is only one group left. Delete operation canceled."

### ► Calibration

Calibration is an effective solution for enhancing degraded or uneven images. By balancing the background temperature of the detector, calibration can eliminate image defects and improve overall quality.

In the Setting Menu, rotate the left knob to select Shutter Correction Mode.

Rotate the upper knob to switch between Auto Calibration and Manual Calibration.

When Auto Calibration is selected, the device will automatically correct the shutter according to the software algorithm.

When Manual Calibration is selected, on the home screen, press the up button to correct manually.



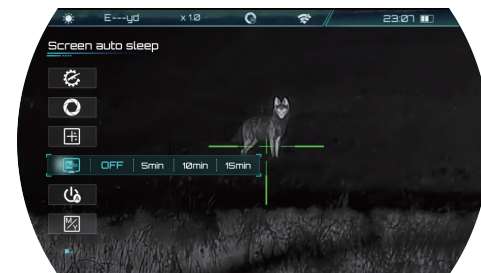
### ► Pixel Defect Correction

When using the scope, you may see pixel defects, such as visible light spots or dark spots with stable brightness. To address this problem, the Pixel Defect Correction function can be used to remove the pixel defects. In the Setting Menu, rotate the left knob to select Pixel Defect Correction, and press the left button to enter the interface for pixel defect correction.



### ► Screen Auto Sleep

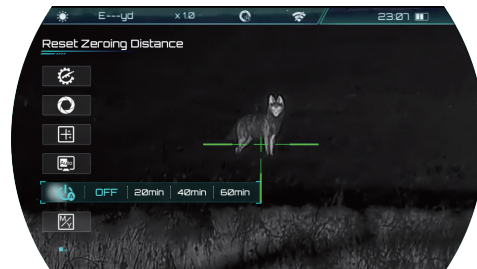
In the Setting Menu, rotate the left knob to select Auto Display-Off. Turn the upper knob to switch between OFF/5min/10min/15min.





### ► Auto Power Off

In the Setting Menu, rotate the left knob to select Auto Power Off. Rotate the upper knob to switch between OFF/20min/40min/60min.



### ► Distance Unit

In the Setting Menu, rotate the left knob to select Unit Switching. Rotate the upper knob to switch between meters/yards.



### ► Time Setup

In the Setting Menu, rotate the left knob to select Time Setup. Rotate the upper knob to switch between the setting items (year, month, day, hour, minute, and second), and rotate the right knob to change the value.



### ► Factory Reset

In the Setting menu, rotate the left knob to select Factory Reset. Press the left button and follow the prompt on the pop-up interface to select whether to restore the device to its factory settings.



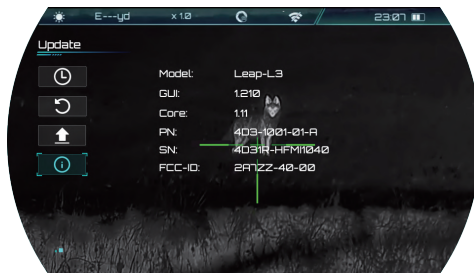
### ► Firmware Update

In the Setting Menu, rotate the left knob to select Firmware Upgrade. Press the left button, and it detects the upgrade file and upgrades.



### ► Product Information

In the Setting Menu, rotate the left knob to select Product Information. Product information includes the product model, software version number, hardware version number, PN code, SN code, and FCC ID.



## 13 APP DESCRIPTION

The LEAP series comes with a dedicated app. By connecting the device to the app on a mobile phone, tablet, or laptop you can enjoy real-time image transmission, perform device operations, and receive program updates. Download instructions for using the app from the official website ([www.rix-nv.com](http://www.rix-nv.com)). Users have the option to update the firmware of the LEAP product by utilizing the app or downloading the latest version from [www.rix-nv.com](http://www.rix-nv.com).

### ► About App

You can download and install the app on the official website ([www.rix-nv.com](http://www.rix-nv.com)) or by searching RIX+ in an app store.



Linktree



RIX+ Android



RIX+ IOS

## 14 PRODUCT MAINTENANCE

Prior to using the device, it is important to conduct a thorough technical inspection to ensure the following items are in proper working condition.

To remove dust and dirt from the metal and plastic parts, use a cotton cloth and gently wipe the surface clean.

Make sure that the 18650 battery being used is free from any bulges or deformations and that the plastic cover is undamaged.

## 15 PRODUCT TROUBLESHOOTING

Refer to the table below, which outlines potential issues that may arise during operation. For any product issues that can not be remedied or are not listed below, please contact the RIX Optics customer support by visiting our website at [www.rix-nv.com](http://www.rix-nv.com).

Fault	Possible Causes	Solutions
The scope cannot be started.	The battery is out of charge.	Charging
The device cannot be powered by an external power supply.	The USB cable is damaged.	Replace the USB cable.
	The external power supply is insufficient.	If necessary, check the external power supply.
The image is too dark.	The screen is not bright enough.	Adjust the display brightness
The image quality is poor or the detection range shortens.	These problems are likely to occur when you use the device in harsh weather (such as snow, rain, and fog).	
The device cannot connect to a mobile phone or computer.	The Wi-Fi password is incorrect.	Enter the correct password or reset the device back to factory setting.
	There are too many Wi-Fi networks in the range of the device, which may cause interference.	For a stable network connection, it is recommended to relocate the device to an area with a lower number of Wi-Fi networks.
Wi-Fi signals are lost or interrupted.	The device is beyond Wi-Fi coverage. There is blocking (such as concrete walls) between the device and the receiver.	Move the device to a place where you can receive Wi-Fi signals.
When using the device in low-temperature environments, the image quality is reduced when compared to image quality produced in environments with normal temperature ranges.	At temperatures above 0°C or 32°F, the temperature difference is vastly different between observed objects (environment and background) due to different heat conductivity coefficients. As a result, the environment has a high-temperature contrast between objects and the background, and the differences in temperature allow the device to produce a higher quality image. At low temperatures below 0°C or 32°F, the observed objects (environment and background) will be a similar temperature and produce less contrast between temperatures. Therefore, the image quality (details in particular) is reduced, which is a characteristic of thermal imaging devices.	

**Wireless Transmitter Module Frequency Range**

WLAN: 2.412-2.472GHz

Wireless transmitter module power < 20dBm

**FCC Statement**

FCC-ID: 2A7ZZ-4D-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 is operated 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.