

MINI 2

Thermal & Night Vision Dual Channel



User Manual

MINI 2 H13

V1.0

IMPORTANT SAFETY INFORMATION

Environmental influences

- Never point the lens of the device directly at intense heat sources such as the sun or laser equipment. The objective lens and eyepiece can function as a burning glass and damage the interior components.
- Avoid touching the metal surface (cooling fins) after exposure to sunlight or cold.

Ergonomics notes

Take breaks after longer periods of use to avoid wrist pain.

Risk of swallowing

Do not place this device in the hands of small children. Incorrect handling can cause small parts to come loose which may be swallowed.

Safety instructions for use

- Handle the device with care: rough handling can damage the internal battery.
- Do not expose the device to fire or high temperatures.
- Install the batteries correctly according to the instruction on the device. Reverse connection is prohibited.
- The battery capacity decreases when operated in a cold ambient temperature. This is not a fault and occurs for technical reasons.
- The recommended temperature for using this product is -20° to +50°. Otherwise, it will affect the service life of the product.
- Do not store the device for long periods at temperatures below -20°C or above 50°C, or it will permanently reduce the battery capacity.
- Always store the device in a dry, well-ventilated space.
- If the device has been damaged or the battery is defective, send the device to our after-sales service for repair.

Safety instructions for the power supply unit

- Check the power supply unit, cable and adapter for visible damage before use.

- Do not use any defective parts. Defective components must be replaced.
- Do not use the power supply unit in wet or humid environments.
- Only charge the device at temperatures ranging between 0°C and 50°C.
- Do not make any technical modifications.

Disposal of batteries



Directive 2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. For battery details, refer to the documentation of the specific product. The battery is marked with this symbol, which may include Cd (indicating cadmium), Pb (indicating lead), or Hg (indicating mercury). For proper recycling, please return the battery to your supplier or send it to a designated collection point. For more information, visit www.recyclethis.info.

User information on the disposal of electrical and electronic devices (private households)



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

For business customers within the European Union

Please contact your dealer or supplier regarding the disposal of electrical and electronic devices. He will provide you with further information.

Information on disposal in other countries outside of the European Union

This symbol is only applicable in the European Union. Please contact your local authority or dealer if you wish to dispose of this product and ask for a disposal option.

Intended use

The device is intended for displaying heat signatures during nature

observation, remote hunting observations and for civil use. This device is not a toy for children.

Use the device only as described in this operating manual. The manufacturer and the dealer accept no liability for damages which arise due to non-intended or incorrect use.

Function test

- Before use, please ensure that your device has no visible damage.
- Test to see if the device displays a clear, undisturbed image.
- Check that the settings for the thermal imaging monocular are correct. See the notes in the section **Power On and Image Settings**.

Installing/Removing the battery

The MINI2 series thermal imaging monocular is equipped with built-in battery pack . The built-in battery pack cannot be removed.

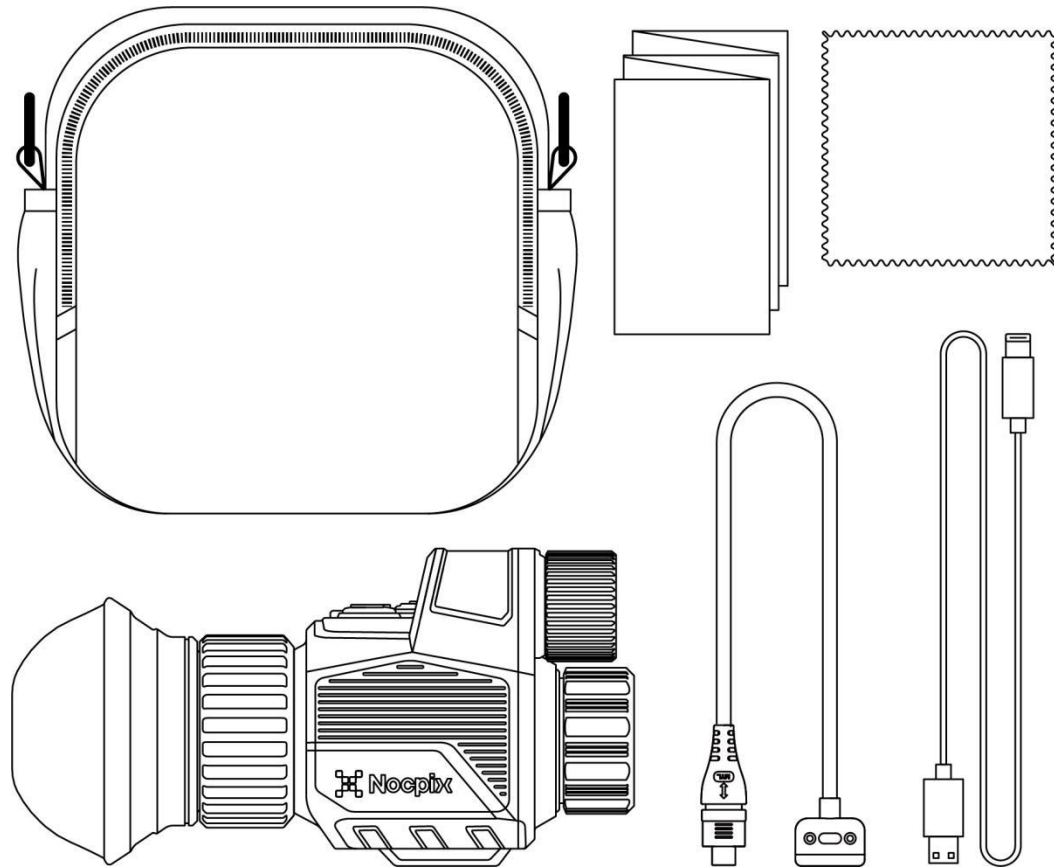
1 Specifications

Product Model		MINI2 H25	
Thermal Module			
Image Sensor	Uncooled Vox	Resolution, pixel	640*512
Pixel Size, μm	12	NETD, mk	≤15
Frame Rate, Hz	60	Objective Lens	F25mm /1.0
FOV	17..6*14.1	Detection Range, m (Target Size: 1.7m×0.5m, P(n)=99%)	1298
Optical Module			
Image Sensor	1/1.8" CMOS	Resolution	960x540
Pixel Size, μm	8	FOV	30.8*17.3
Objective Lens	F 14.3/0.85		
Eyepiece			
Diopter Adjustment, D	-5~+5	Exit Pupil Diameter	17 mm
Eye Relief, mm	25mm		
Display			
Type	AMOLED	Resolution, pixel	1280x1024
Size, inch	0.6inch		
Power Supply			
Battery Type/Capacity	Internal Lithium-ion battery / 750mAh External battery pack / 4000mAh	External Power Supply	5V (Type C USB)
Physical Parameters			
Operating Time (t=22°C), h★	7h	IP Rate	IP67
Memory Capacity, GB	32	Operating Temperature, °C	-20°C-50°C

Dimension	101.55*43.7*64.5 (without eyepiece)	Weight, g	240g
-----------	--	-----------	------

2 Package Contents

- MINI 2 series infrared thermal imager
- Magnetic Charging Cable
- USB-C Cable
- Soft Case
- Lens Cloth
- Nocpix External Battery Pack



3 Description

The MINI 2 is a dual-light head-mounted device featuring a 640 × 512 resolution infrared detector. It is designed around the principles of infrared thermal imaging. In challenging weather conditions - such as rain, snow, fog, and haze - it operates seamlessly without the need for external light sources, day or night. Its performance is unaffected by intense light, allowing it to observe targets even through obstacles like branches, grass, and bushes. Additionally, the MINI 2 integrates a digital detector, enabling it to capture finer details even under starlight conditions.

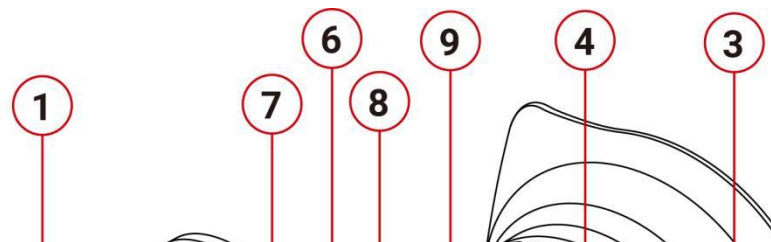
The device boasts a 0.6-inch AMOLED display, with a 17 mm large exit pupil diameter and a semi-circular display design, the MINI 2 delivers an enhanced visual experience for users.

4 Features

- 15mK NETD
- Thermal Digital Dual channel
- Compact and lightweight
- 1280x1024 0.6 Inch AMOLED display
- High frame frequency:60hz
- Built-in memory, supporting photographing, video recording
- Built-in Wi-Fi module, supporting APP connection
- PIP (picture-in-picture) function
- Convenient operation interface
- Support dual device control

5 Components and Controls

All rights reserved and sh



- 1.Digital Lens focus ring

2. Thermal Lens focus ring

3. Eyeguard

4. Diopter Adjustment Ring

5. USB-C Port

6. Power Button

7. Up/Magnification Button

8. Menu button/M Button

9. Down/Photo button

10. Magnetic chargsing Port
10. Magnetic chargsing Port

9. Down/Photo button

10. Magnetic chargsing Port

7. Up/Magnification Button

8. Menu button/M Button

9. Down/Photo button

10. Magnetic Chargeing Port

6

Button Operation

Button	Current Status	Short Press	Long Press
Power Button 	Shut down	--	Boot
	Under the main interface	Standby (black screen)	Shutdown (3-second shutdown countdown)
	Menu interface	Return to the previous level	
Up / Magnification key 	Under the main interface	1×/2×/3×/4× amplification loop	Switching between the digital / infrared / Fusion modes
	Menu interface	Scroll up menu options	--

Menu key / M key M	Under the main interface	Enter the shortcut menu	Save and return to main interface
	Shortcut menu interface	Adjust specific parameters of a function	
	Advanced menu interface	Toggle on_off / Go to the next level of options/Confirm current option parameters	
Down / Photo key 	Under the main interface	Take pictures	Enable the video recording function
	Video interface	Take pictures	End and save the video
	Menu interface	Scroll down menu options	--
Up + Down key	Main interface (select A/M)	Shutter calibration	Background calibration
	Under the main interface (select B)	Background calibration	

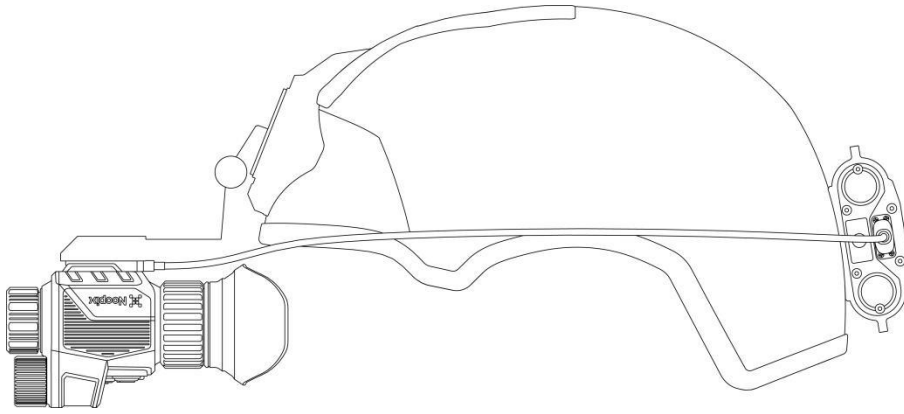
7 Power Supply

The MINI 2 is equipped with a built-in 750mAh battery pack, which serves solely as an emergency power supply. When using it, please connect the Nocpix External Battery Pack.

Powering with the Nocpix External Battery Pack:

- Connect the magnetic power supply cable to the device (as shown in the image).

- Secure the dovetail skin rail screw and attach the magnetic connection wire (as shown in the image).
- Use the Velcro straps to secure the Nocpix External Battery Pack in position.
- Connect the Type-C end of the magnetic charging cable to the Nocpix External Battery Pack.



Powering on

- Open the **objective lens cap (1)**.
- Long press the **Power Button** for 2 seconds to turn on the device. The Nocpix logo will appear.

Powering Off

To power off the MINI2:

- Long press the Power Button. The shutdown screen will open, showing a 3-second countdown.
- The MINI2 will shut down automatically when the 3-second countdown completes.

NOTE: Press any button before the countdown completes to cancel the

shutdown and return to the home screen.

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

8 Adjusting the Focus

Adjusting the diopter/eyepiece

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

NOTES:

After the initial adjustment, there is no need to rotate the eyepiece adjustment ring (8) for long distances or other conditions.

If necessary during standard use, the objective lens focus knob (2) may be rotated to adjust fine focus on the target object being observed. See Focusing the Objective Lens below.

Focusing the objective lens

To adjust the focus on the target object:

- Rotate the objective lens focus knob (2) left or right to adjust fine focus.

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

The MINI2 has both thermal and digital channels, so please adjust the sharpness of the objective lens for each channel separately.

9 Status Bar Icons

The status bars at the top and bottom of the screen show information on the operating status of the MINI2.



1. Electronic zoom: 1×, 2×, 3×, 4×.
2. Infrared()/ Digital()/ Fusion status switch icon.
3. Ultra-clear mode: On()/Off()(default is off from the factory).
4. Wi-Fi (Master-Slave mode): On()/Off() (default is off from the factory).
5. Shutter mode: Automatic Shutter (), Manual Shutter (), Background Calibration (). A 5-second countdown will precede automatic shutter activation. If Manual Shutter () is selected, you'll be prompted to press the up and down buttons for manual calibration (default is Automatic Shutter A from the factory).
6. Microphone: On()/Off() (default is on from the factory).
7. Real-time display.
8. Power status: Indicates the precise power level, with a lightning icon appearing when charging.

10 Display functions on the main interface

- **Upper-right corner:** Photo, video, and memory full indicators.
- **Centre-top:** Magnification value (320px × 256px), showing a 2x magnification of the main field of view in Picture-in-Picture (PIP) mode.
- **Left and right sides:** Motion sensor (tilt angle, pitch angle).

11 Calibration

The user may perform a shutterless NUC based on the quality of the observed image. A shutterless NUC uses less power than a shuttered NUC because it does not use the imager shutter to cover the sensor; instead, the user must close the lens cap (1).

A shutterless NUC may be performed in manual or automatic mode:

- Close the objective lens cap (1).
- From the home screen, short press the Up and Down Buttons at the same time.

- A prompt to close the lens cap (1) appears onscreen. The shutterless NUC starts after about 2 seconds.

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

12 Digital Zoom

The MINI 2 will quickly increase the base magnification by enlarging the image from 1 to 4 times digitally. To use digital zoom:

In the observation interface, a short press of the button will quickly cycle through electronic magnification, from 1x to 4x.

13 Photo and Video Recording

The MINI2 is equipped with video recording and image capture.

All videos and photos are automatically saved to the built-in 32 GB memory storage.

NOTE: Photo and video files are named with the time and date; therefore, it is recommended to set the date and time before using the photo and video functions.

14 Photography

To take a photo:

1. From the home screen, short press the **Down Button**.
2. The **camera icon** will appear briefly in the upper-left corner of the screen to indicate a photo was taken.

NOTE: A **red warning icon** ① appears next to the **camera icon** in the upper-left corner of the screen when insufficient memory storage is available. Transfer video and image files to other storage media to free up space on the memory card.

Video Recording

To record video:

Turn on the microphone in the main menu if desired.

From the home screen, long press the **Down Button** to start a video

recording.

3. When the video recording starts, the recording timer, in HH:MM:SS (hour, minute, second) format, appears in the top status bar.
4. When recording, short press the **Down Button** to take a photo.
5. Long press the **Down Button** to stop and save the video recording.

Video and Photography Notes

You may enter and navigate the menu during video recording.

The user interface (the status bar, icons, and menu) is captured in recorded video or photo files.

Recorded photos and videos are saved to the memory card.

Photos are saved as PIC_HHMMSS.jpg.

Videos are saved as VID HHMMSS.mp4 or RAV HHMMss.mp4.

HHMMSS is hour, minute, second.

The maximum duration of a recorded video file is 5 minutes.

After this time, video recording will begin a new file automatically.

The number of recorded files is limited only by the capacity of the internal memory.

Regularly check the available memory storage space and move video footage and images to other storage media to free up space on the memory card.

Memory access

When the device is powered on and connected to a computer, it will be recognized by the computer as a flash memory card. Then, you can access the memory of the device and copy images and videos.

- Connect the device to a computer through the USB cable.
- Power on the device.
- Double-click My Computer - Double-click to open the device named NOCPIX  - Double-click to open the device name MINI 2 to access the memory.
- There are different folders named by date in the format of xxxx (year) xx (month) xx (day) in the memory.
- Recorded photos and videos in that day are saved in the folders.
- Select desired files or folders to copy or delete.

Shortcut Menu

In the quick menu, the color palette, image brightness, image contrast, image sharpness and screen brightness can be quickly adjusted.

On the home screen, short press the MenuButton to enter the quick menu.

Short press the Up or Down Button to move between the menu options below. The selected menu item is highlighted in the background.

(Color Palette): Short press the Menu Button to set the color palette to white hot, black hot, red hot, rainbow, violet, crimson, or viridian.

(Image Brightness): Short press the MenuButton to set the image brightness level, from 1-10.

(Image Contrast): Short press the Menu Button to set the image contrast level, from 1-10.

(Image Sharpness): Short press the Menu Button to set the image sharpness level, from 1-10.

(Screen Brightness): Short press the MenuButton to set the Screen brightness level, from 1-10.

Long press the MenuButton to save any changes and return to the home screen.

NOTE: In the quick menu, after 5 seconds of inactivity, the system will automatically save any changes and return to the home screen.

16 Main Menu

Press and hold the **Menu button** to open the **Main Menu**;

Within the **Main Menu** options, short press Up or **Down button** switch between different **main menu** options. Icons change from white to blue when a **Main Menu** option is selected.

Press the **Menu button** to adjust the parameter settings of the **Main Menu**;

If there is no operation for 10 seconds, the **Main Menu** will exit automatically. You can also exit the **Main Menu** screen by pressing and holding the **Menu button** or pressing the **Power button**.

Within the **Main Menu** options, you can perform the following settings:

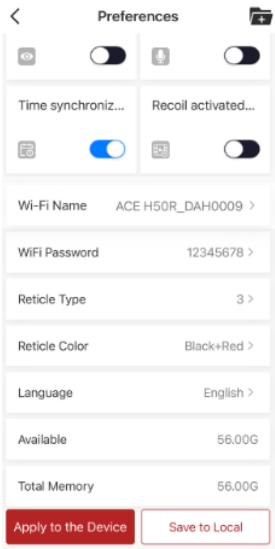
Ultra Clear 	● Press and hold the Menu button to open the Main Menu; ● Short press Up or Down button to switch to the Ultra Clear option; ● Within the Ultra Clear option, press the Menu button to enable or disable the Ultra Clear mode. ● Note: We recommend to enable Ultra Clear mode on cloudy and rainy days to effectively enhance image quality.	
---	---	--

WIFI



Press and hold the Menu button to enter the Main Menu interface.

- Short press Up or Down button to switch to the WIFI option.
- Within the WIFI option, press the Menu button to enable or disable WIFI.
- After the Wi-Fi function is on, search for the Wi-Fi signal with the name "MINI2 H13_XXXXXXX" on the mobile device.
- Select the Wi-Fi and enter the password to connect. The initial password is 12345678.
- When Wi-Fi is successfully connected, it supports to control the scope via the NOCPPIX
- APP downloaded in the mobile device.
- Setting Wi-Fi name and password
- The name and password of the Wi-Fi in MINI 2 series can be reset on the Nocpix app.
- After the scope is connected to a mobile device, locate and click the 'Settings' icon on
- the Nocpix image screen to enter the WiFi setting interface
- In the text box, enter and submit the new Wi-Fi name (SSID) and password.
- It needs to reboot the device to take the new name and password effect.
- Note: If the device is reset to the factory settings, the name and password of the Wi-Fi will also be restored to the default settings.



PIP 	● Press and hold the the Menu button to enter the Main Menu interface. ● Short press Up or Down button to switch to the PIP option. ● Within the PIP option, press the Menu button to enable or disable PIP mode.	
Calibration 	Press and hold the Menu button to enter the Main Menu interface. ● Short press Up or Down button to the Calibration option. ● In the calibration interface, you can select manual calibration, automatic calibration and background calibration.	
Microphone 	● Press and hold the Menu button to enter the Main Menu interface. ● Short press Up or Down button to switch to the Microphone option. ● Within the Microphone option, press the Menu button to enable or disable the Microphone function.	

Standby 	● \Press and hold the Menu button to enter the Main Menu interface. ● Short press Up or Down button to switch to the Standby option. ● Within the Standby option, press the Menu button to enable or disable the standby function. 
Motion Sensor 	● Press and hold the Menu button to enter the Main Menu interface. ● Short press Up or Down button to the Motion Sensor option. ● Within the Motion Sensor option, press the Menu button to enable or disable the Motion Sensor. ● When the motion sensor is on, the horizontal scale representing the tilt angle is displayed on the left side, the vertical scale representing the pitch angle is displayed on the right side. 
Fusion Mode adjustment	● Press and hold the Menu button to enter the Main Menu interface. ● Short press Up or Down button to the Fusion Mode adjustment option. Within the Fusion Mode adjustment option, there are three options: X-direction adjustment, Y-direction adjustment, and transparency settings. In the direction adjustment options, you can adjust the relative position of the infrared image and the digital image to achieve better fusion results. The transparency option allows you to set the transparency of the infrared image—the smaller the value, the higher the transparency.

Setting 	● Press and hold the Menu button to enter the Main Menu interface. ● Short press Up or Down button to select the Setting option. ● Press the Menu button briefly to enter the submenu. ● This menu item allows you to configure the following settings.	
	Date 	Set system date ● Within the Date option, short press the Menu button to switch the Year / Month / Day option; ● Short press Up or Down button to adjust the value of Year / Month / Day. ● After the adjustment is completed, press and hold the Menu button to save and exit Date option.
	Time 	Set system time ● Within the Time option, short press the Menu button to switch the Hour / Minute option; ● Short press Up or Down button to adjust the value of Hour / Minute. ● After the adjustment is completed, press and hold the Menu button to save and exit Time option.

	Languages 	Set system languages ● Within the Languages option, short press Up or Down button to switch different languages. ● Languages available for the MINI2 series include English, German, Spanish, Italian, French, Czech, Hungarian. ● After the adjustment is completed, press and hold the Menu button to save and exit Languages option.
	Unit 	Set system unit ● Within the Unit option, short press Up or Down button to switch the unit of Meter or Yard. ● Press Menu button to select Meter / Yard. ● After the adjustment is completed, press and hold the Menu button to save and exit Unit option.
	Factory Reset 	Factory reset ● Within the Factory Reset option, you can use UP or Down button to choose yes option, and short press Menu button to set MINI 2 to factory default settings.
	Info 	System information ● Within in the Info option, you can press the Menu button to enter the Info interface to View the device information.

17 FW Updates and APP

The MINI2 series allows you to transmit images to a smartphone or tablet via Wi-Fi in real time mode.

Continuous improvements will be made to improve the user experience. The latest programs can be automatically detected and updated via the Nocpix APP.

Also, it is feasible to download and update from the official website:

www.nocpix.com.

About Nocpix

You can download and install the Nocpix APP on the official website (www.nocpix.com) or the app store. Alternatively, you can scan the QR code below to download it for free.

- Open the Nocpix APP after installation.
- If your device has been connected to a mobile device, please turn on the mobile data of the mobile device. After connection, an update prompt will be displayed automatically on the App.
- Nocpix automatically registers the last connected device. Therefore, once you have connected with Nocpix before, it will automatically detect the update even when the scope is not connected to the mobile device.

- If an update is available and the mobile device accesses the Internet, you can download the update first. Then when the device is connected with the mobile device, it will be updated automatically.
- After the update is installed, the device will restart automatically.



Maintenance

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

- Wipe the surface of metal and plastic parts to clear off dust and dirt by using a cotton cloth. Silicone grease may be used for the cleaning process.
- Clean the electric contacts and battery slots on the device using a non-greasy organic solvent.
- Check the glass surface of the eyepiece and lens. If necessary, clear off the dust and sand on the lens (it is perfect to use a non-contact method). Use a specialized wiping tool and solvent to clean the optical surfaces.

19 Troubleshooting

The following table lists all problems that are likely to occur during device operation. Check and address problems by referring to this table. If faults not included in this table occur or you cannot fix the fault, return the device to its vendor or supplier for troubleshooting.

Fault	Possible Causes	Solution
The device cannot be started.	The battery is out of charge.	Charge the battery.
The device cannot be powered by using 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.
Images are unclear, vertical lines are present, or the background is not even.	Calibration is required.	Calibrate the images as instructed in this User Manual.
The image is too dark.	The screen is not bright enough.	Adjust the display brightness.
The icons are clear but the image is blurry.	The lens is not focused.	Rotate the lens focus ring to adjust the focus.
	The inner or outer optical surface of the lens is dusted or iced.	Wipe the outer optical surface by using a soft cotton cloth or leave the scope to dry in a warm and dry environment for more than 4 hours.

The device cannot focus.	Wrong settings.	Set the scope according to the contents of section Power-on and Settings in this user manual. Check the outer surface of the objective lens and eyepiece, and if necessary, wipe off any dust and frost on it. In cold weather, a special antifogging coating can be applied (such as those used on eyeglasses or car rearview mirrors).
The device cannot connect to the mobile device.	The Wi-Fi password is incorrect.	Enter the correct password.
	Too many Wi-Fi networks around the device.	Move the device to an area with no or fewer Wi-Fi signals.
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.
The observed target disappears.	Observation through glass.	Observe the target directly without the presence of glass.
The image quality is poor or the detection range is shortened.	These problems are likely to occur when you use the device in harsh weather (such as snow, rain, and fog).	
When the device is used at a low temperature, the imaging quality is poorer than that at a normal temperature.	At temperatures above 0°C, the temperature rise varies with the observed objects (environment and background) due to different heat conductivity coefficients. As a result, high-temperature contrast occurs and the image quality is better. At low temperatures, the observed targets (background) usually cool down to a similar temperature because of reduced temperature contrast. Therefore, the image quality (details) is poor, which is a characteristic of thermal imaging devices.	

20 Legal and Regulatory Information

Wireless transmitter module frequency range:

WLAN: 2.412-2.472 GHz

Wireless transmitter module power < 20 dBm



We Inlumen Technologies Co., Ltd. hereby declares that the radio equipment types MINI2 is in compliance with the Directives 2014/53/EU and 2011/65/EU

FCC Statement

FCC ID: 2BHFB-5028-00

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.



Manufacture: Inlumen Technologies Co., Ltd.



E-mail: service@nocpix.com



Website: www.nocpix.com



Address: North 6F, Building B3, Hefei Software Park, No.800 Wangjiang West Road, Hefei National High-tech Industry Development District, Anhui, China.