



Handheld Acoustic Imaging Camera

User Manual

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Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

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.

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This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Directive 2014/30/EU (EMCD), Directive 2014/35/EU (LVD), Directive 2011/65/EU (RoHS).



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According to Article 10 (10) of Directive 2014/53/EU, when operating in the 5150 to 5350 MHz frequency range, this device is restricted to indoor use in: Austria (AT), Belgium (BE), Bulgaria (BG), Croatia (HR), Cyprus (CY), the Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (EL), Hungary (HU), Iceland (IS), Ireland (IE), Italy (IT), Latvia (LV), Liechtenstein (LI), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Northern Ireland (UK(NI)), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Slovakia (SK), Slovenia (SI), Spain (ES), Sweden (SE), Switzerland (CH), and Turkey (TR).

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The frequency bands and modes and transmitting power (radiated and/or conducted) nominal limits applicable to the following radio equipment are as follows:

Wi-Fi: 2.4 GHz (2.4 GHz to 2.4835 GHz): 20 dBm; 5 GHz (5.15 GHz to 5.25 GHz): 23 dBm; 5 GHz (5.25 GHz to 5.35 GHz): 23 dBm; 5 GHz (5.47 GHz to 5.725GHz): 23 dBm; 5 GHz (5.725 GHz to 5.85 GHz): 14 dBm

Use the power adapter provided by a qualified manufacturer. Refer to the product specification for detailed power requirements.

Use the battery provided by a qualified manufacturer. Refer to the product specification for detailed battery

requirements.



Directive 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.

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Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.




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KC

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The symbols that may be found in this document are defined as follows.

Symbol	Description
 Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
 Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 Note	Provides additional information to emphasize or supplement important points of the main text.

Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

Laws and Regulations

- Use of the product must be in strict compliance with the local electrical safety regulations.

Transportation

- Keep the device in original or similar packaging while transporting it.
- Keep all wrappers after unpacking them for future use. In case of any failure occurred, you need to return the device to the factory with the original wrapper. Transportation without the original wrapper may result in damage on the device and the company shall not take any responsibilities.
- DO NOT drop the product or subject it to physical shock. Keep the device away from magnetic interference.

Power Supply

- Please purchase the charger by yourself. Input voltage should meet the Limited Power Source (5 VDC, 2 A) according to the IEC61010-1 standard. Please refer to technical specifications for detailed information.
- Make sure the plug is properly connected to the power socket.
- DO NOT connect multiple devices to one power adapter, to avoid over-heating or fire hazards caused by overload.

Battery

- Improper use or replacement of the battery may result in explosion hazard. Replace with the same or equivalent type only. Dispose of used batteries in conformance with the instructions provided by the battery manufacturer.
- The built-in battery cannot be dismantled. Please contact the manufacture for repair if necessary.
- For long-term storage of the battery, make sure it is fully charged every half year to ensure the battery quality. Otherwise, damage may occur.
- DO NOT charge other battery types with the supplied charger. Confirm there is no flammable material within 2 m of the charger during charging.
- DO NOT place the battery near heating or fire source. Avoid direct sunlight.
- DO NOT swallow the battery to avoid chemical burns.
- DO NOT place the battery in the reach of children.
- When the device is powered off and the RTC battery is full, the time settings can be kept for 15 days.
- In the first use, power on the device and charge the RTC battery with the lithium battery for more than 10 hours.
- The lithium battery voltage is 3.6 V, and the battery capacity is 6230 mAh.
- The battery is certified by UL2054.

Maintenance

- If the product does not work properly, please contact your dealer or the nearest service center. We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.
- A few device components (e.g., electrolytic capacitor) require regular replacement. The average lifespan varies, so periodic checking is recommended. Contact your dealer for details.
- Wipe the device gently with a clean cloth and a small quantity of ethanol, if necessary.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the device may be impaired.
- We recommend you send the device back for calibration once a year, and please contact the local dealer for

the information on maintenance points.

- Please notice that the current limit of USB 3.0 PowerShare port may vary with the PC brand, which is likely to result in incompatibility issue. Therefore it's advised to use regular USB 3.0 or USB 2.0 port if the USB device fails to be recognized by PC via USB 3.0 PowerShare port.

Using Environment

- Make sure the running environment meets the requirement of the device. The operating temperature shall be -20 °C to 50 °C (-4 °F to 122 °F), and the operating humidity shall be 90% or less.
- DO NOT expose the device to high electromagnetic radiation or dusty environments.
- DO NOT aim the lens at the sun or any other bright light.

Technical Support

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Emergency

- If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.

Manufacture Address

Room 313, Unit B, Building 2, 399 Danfeng Road, Xixing Subdistrict, Binjiang District, Hangzhou, Zhejiang 310052, China

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Chapter 1 Overview

1.1 Device Description

The handheld acoustic imaging camera is a handheld device designed for detecting acoustic waves. Equipped with 64 low-noise MEMS microphones and adjustable frequency range (2 kHz to 60 kHz), the device is able to quickly detect compressed air leaks in the industrial scenarios and partial discharges in the high-voltage systems, and then the acoustic images are generated to precisely mark the sound sources.

The device is easy to hold and use, and adopts ergonomic design. It is widely applied to the electrical facilities for electricity transmission, substation and distribution of power industry, and the detections of transmission lines, tanks, and valves in the gas industry.

1.2 Main Function

Acoustic Imaging

Device detects the real-time sound intensity of the sources, and locates the sources in the scene.

Connection

Device can be connected to the client software via Wi-Fi and hotspot.

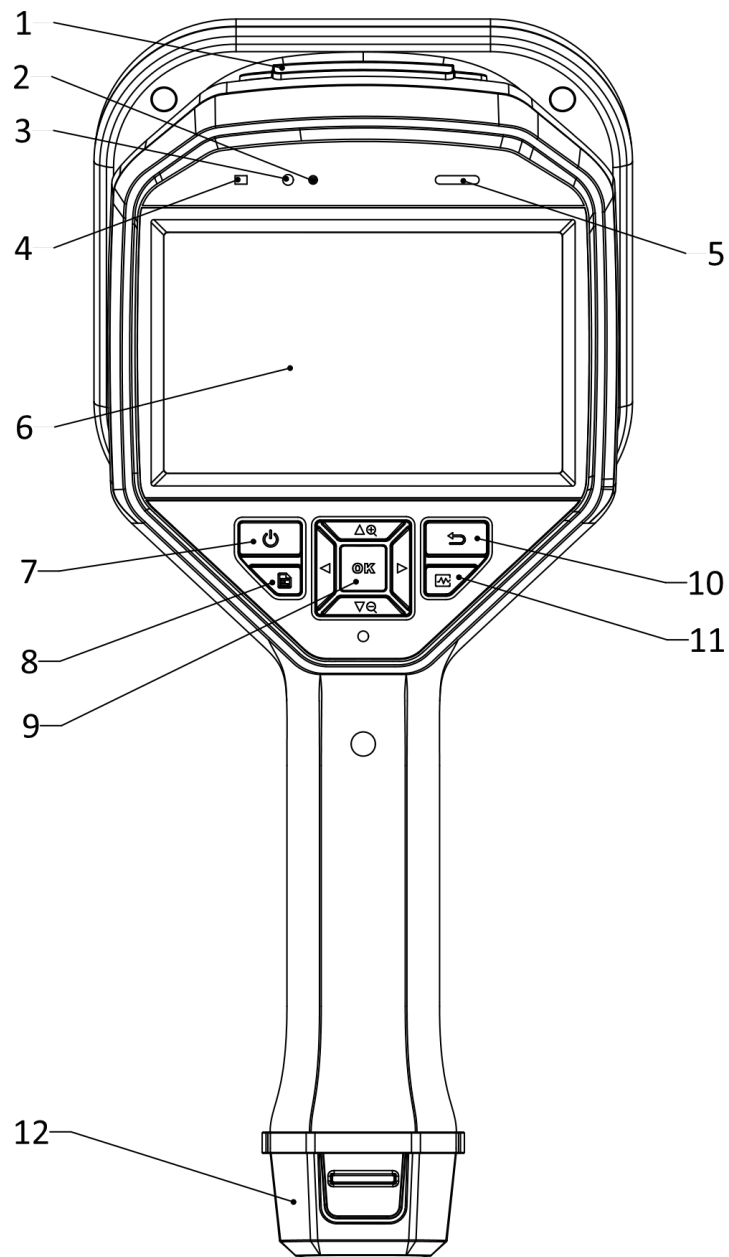
Palette

Device supports multiple palettes.

Record Videos & Capture Snapshots

Device supports recording videos, capturing snapshots, and managing albums.

1.3 Appearance



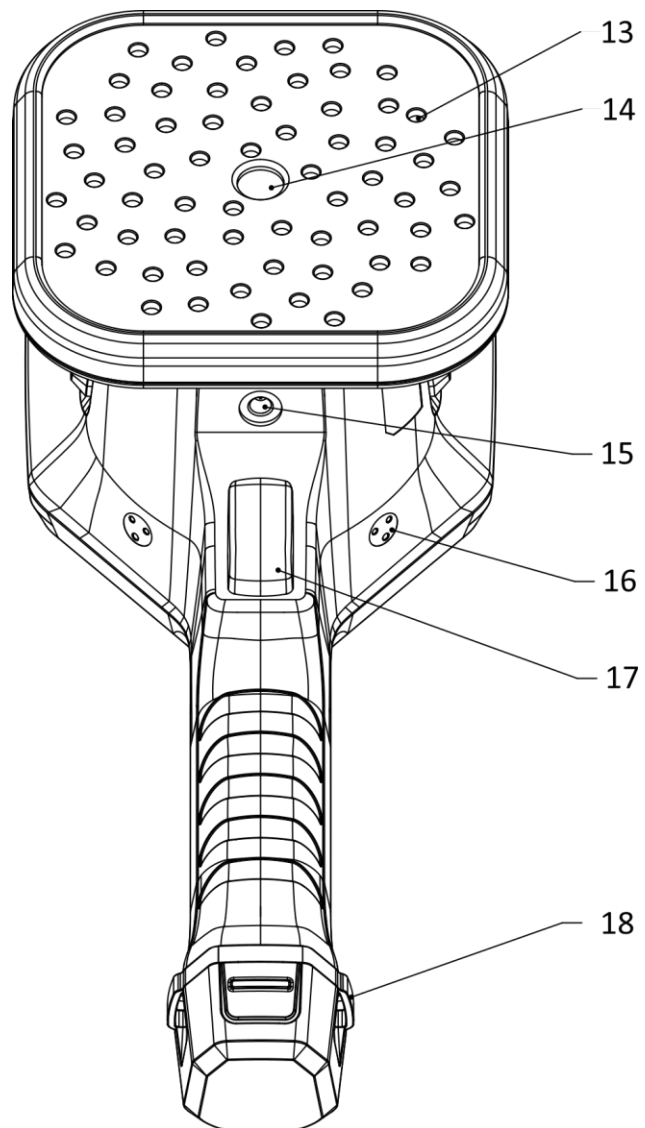


Figure 1-1 Appearance

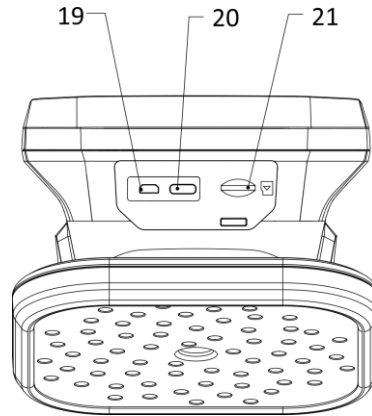















Figure 1-2 USB Interface

Table 1-1 Interface Description

No.	Component	Function
1	USB Interface Cover	Protect the SD card slot, mini HDMI interface, and type-C interface.
2	Light Sensor	Sense the ambient brightness.
3	Microphone	Record voice remarks.
4	Power Indicator	Solid red: charge normally Solid green: fully charged
5	Loudspeaker	Play voice remarks.
6	LCD Touch Screen	Allow live view and touch-screen operation.
7	Power Button	Hold  to power on/off.
8	File Button	Press  to access to the albums.
9	Confirm & Navigation Button	<p>Confirm Button:</p> <ul style="list-style-type: none"> Non-Menu Mode: press  to enter menu. Menu Mode: press  to confirm. <p>Navigation Button:</p> <ul style="list-style-type: none"> Non-Menu Mode: press/hold  and  to start digital zoom. Menu Mode: press , , , and  to select parameters.
10	Back Button	<ul style="list-style-type: none"> Press  to save the parameters and return to previous menu. Hold  to return to the live view interface.
11	Frequency	Press  to select frequency range. Refer to <u>Set Frequency Range</u> .
12	Battery Compartment	Install battery in it.
13	Microphone Array	Detect sound in the scene.

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No.	Component	Function
14	Optical Lens	View the optical images.
15	Tripod Attachment Point	Mount the tripod.
16	Hand Strap Buckle Attachment Points	Mount the hand strap.
17	Trigger	<ul style="list-style-type: none">● Pull the trigger to capture snapshots.● Hold the trigger to record videos.
18	Hand Strap Attachment Holes	Fix the lower part of the hand strap.
19	Mini HDMI Interface	Display the image and menu interface via HDMI output.
20	Type-C Interface	Charge the device or export files with supplied cable.
21	SD Card Slot	Insert SD card in it.

Chapter 2 Preparation

2.1 Mount Hand Strap

The hand straps aim at attaching to the device and stabilizing it. Please make sure wrap your hands with the hand straps to prevent the device from accidental falling or bumping.

The upper part of the hand strap is attached to the camera by a buckle. There are two buckle attachment points on both sides of the device. The lower part of the hand strap is threaded through the holes at the base of the device.

Steps

1. Insert the upper part of the hand straps into the buckles.

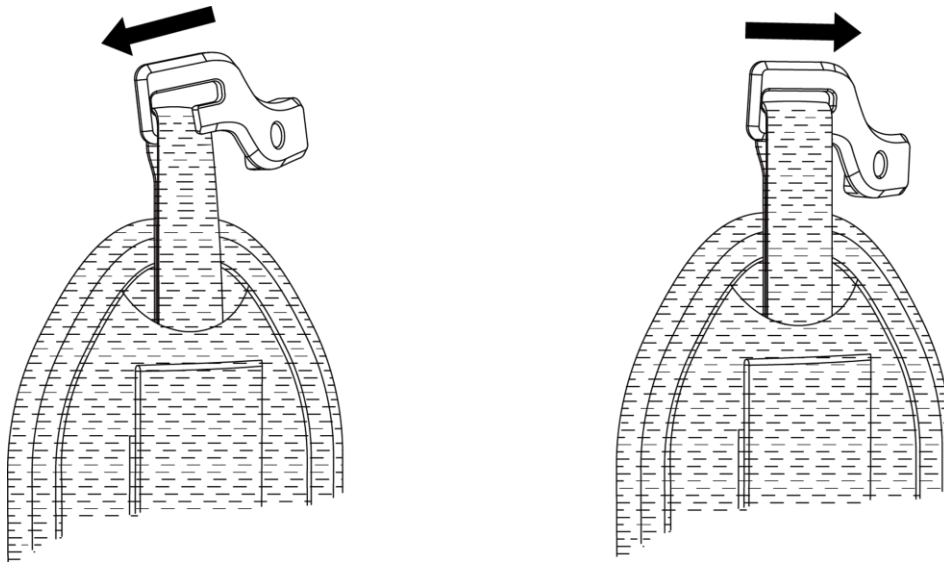


Figure 2-1 Insert Upper Part of Hand Strap

2. Fit the buckle on the device and tighten the screw with the supplied wrench.
3. Thread the lower part of the hand strap through the hole at the base of the device.
4. Secure the hand strap with the hook-and-loop fastener. Adjust the tightness according to your hands.

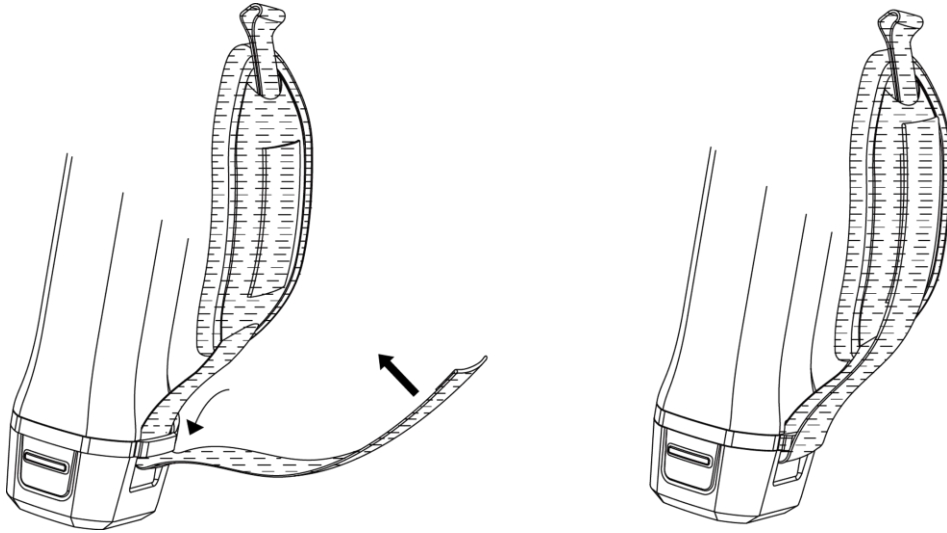


Figure 2-2 Secure Lower Part of Hand Strap

2.2 Operation Method

The device supports both touch-screen control and button control.

Touch-Screen Control

Tap on the screen to set parameters and configurations.

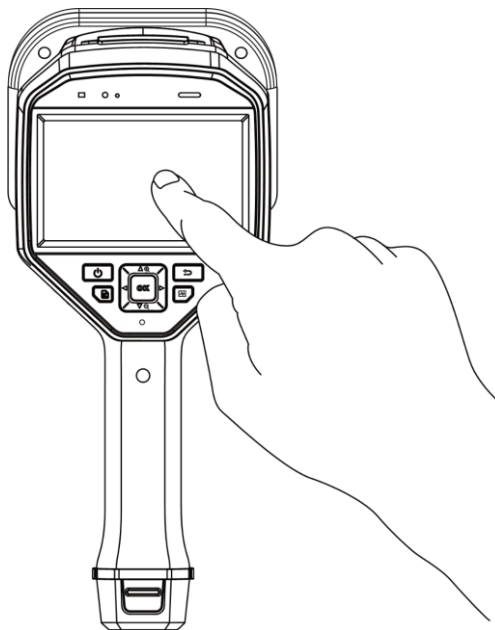


Figure 2-3 Touch-Screen Control

Button Control

Press the navigation buttons to set parameters and configurations.

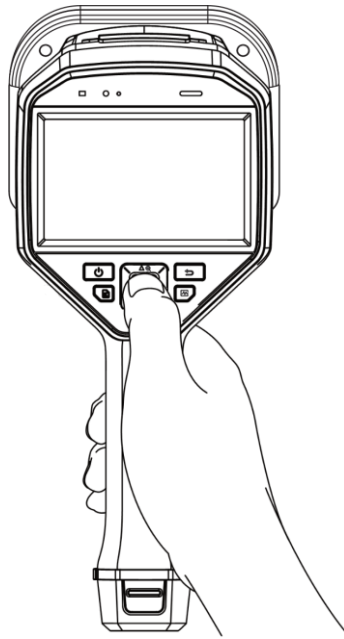


Figure 2-4 Button Control

2.3 Charge Device

Please fully charge the device before it is used for the first time or when it is in low battery.

2.3.1 Charge Device via Cable Interface

Before You Start

Please make sure the battery is installed before charging via cables.

Steps

1. Open the connector cover of the device.
2. Connect the type-C interface and the power adaptor with type-C or USB cable.

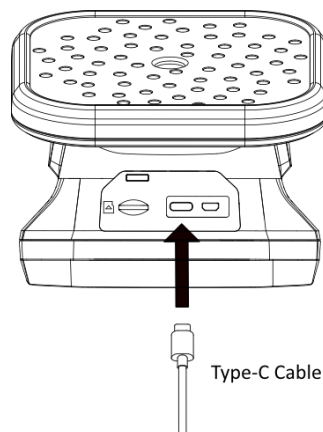


Figure 2-5 Charge via Type-C Cable

2.3.2 Charge Device via Charging Base

You can take out the battery and insert it into the charging base for fast charging.

Before You Start

Please make sure the device is power off before removing the battery.

Steps

1. Hold the device, and press both battery lock catches of the device.

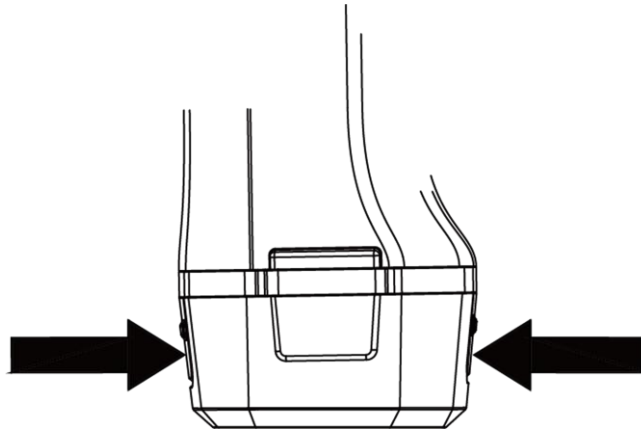


Figure 2-6 Remove Battery Base

2. Hold the lock catches, and draw the battery base to take out the battery.
3. Insert the battery into the charging base. You can see the charging status via the pilot lamp on the charging base.

Note

The red indicating light is on if the battery is charging properly, and the green indicating light is on if the battery is fully charged.

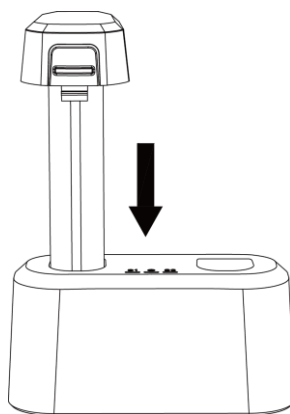



Figure 2-7 Charge Battery

4. When the battery is fully charged, draw the battery from the charging base.
5. Insert the battery into the device and push it into the locked position.

2.4 Power On/Off


Power On

Hold  to turn on the device. You can observe the target when the live view interface is stable.

Note




If the battery of the device is low, please charge it in time or replace it with a fully-charged standard battery, so as to ensure that the device functions normally.

Power Off



When the device is turned on, hold  to power off the device.

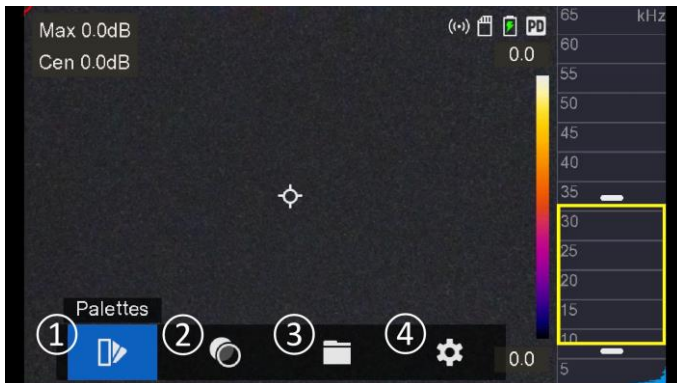
2.4.1 Set Auto Power-off Countdown

Steps

1. Press  in the live view interface to show the menu.
2. Go to **Settings** → **Device Settings** → **Auto Off**.
3. Tap **Auto Off** or press  to enable auto power-off.
5. Set the automatic shutdown time for device as required.
4. Press  to save and return to previous menu.

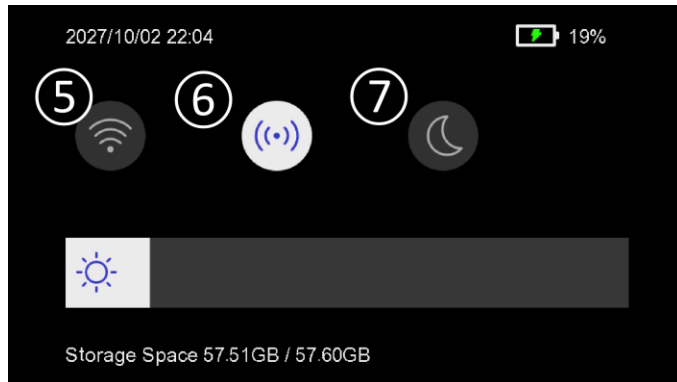
2.5 Menu Description

In the live view interface, tap  or press  to show the menu bar, and swipe down to call the drop-down menu.



- ① Palettes
- ② Opacity
- ③ File
- ④ Settings

Figure 2-8 Main Menu



- ⑤ Wi-Fi
- ⑥ Hotspot
- ⑦ Dark/Bright Mode

Figure 2-9 Drop-Down Menu

Chapter 3 Display Settings

3.1 Set Screen Brightness

You can manually adjust the screen brightness or enable automatic brightness adjustment to fine-tune the brightness levels for the screen.

Steps



1. In the live view interface, tap  or press  to show the menu.
2. Go to **Settings** → **Device Settings** → **Display Brightness**.
 - Auto: The device adjusts screen brightness automatically according to the ambient brightness.
 - Manually: Drag the brightness adjustment slider to the left or right to manually adjust screen brightness.






Figure 3-1 Brightness Adjustment Slider

3.2 Set Palettes

The device can collect sound data, and overlay the corresponding acoustic images on the optical images to mark the sound sources, and display sound intensities. You can switch preferable palettes for acoustic images.





Steps

1. Press  in the live view interface to show the menu.
2. Select  from the main menu, and tap on the icons to select a palette type.
3. Press  to save and exit.

3.3 Set Opacity

You can adjust the opacity of the acoustic images, and view the acoustic images and the optical images at the same time if the opacity is properly set.

Steps

1. In the live view interface, tap  or press  to show the menu.
2. Select , and choose the preferable opacity.
3. Press  to save and exit.

Note

The opacity ranges from 0% to 100%. The lower the value is, the more transparent the acoustic images are.

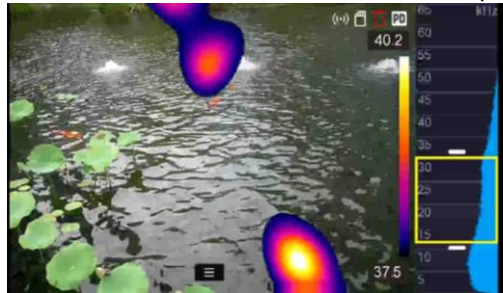


Figure 3-2 100% Opacity

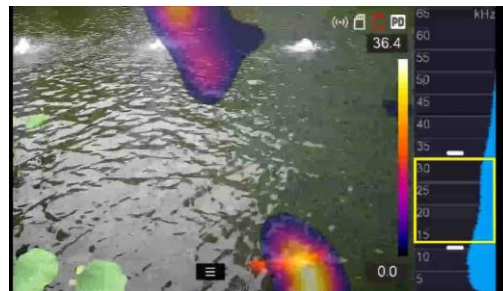


Figure 3-3 50% Opacity

3.4 Adjust Digital Zoom




The device supports 1× to 8× digital zoom.

- In the live view interface, hold $\triangle\oplus$ or $\nabla\ominus$ to zoom in or zoom out by 1× continuously.
- In the live view interface, press $\triangle\oplus$ or $\nabla\ominus$ to zoom in or zoom out by 0.1× precisely.

3.5 Display OSD Info.

OSD information informs you the status, time and date, and other information of the device in the live view interface.

Steps

1. In the live view interface, tap  or press $\odot\mathbb{K}$ to show the menu.
2. Go to **Settings** → **Device Settings** → **Display Settings**.
3. Tap  or press $\odot\mathbb{K}$ to select the on-screen information.
4. Press  to save and exit.






Chapter 4 Acoustic Wave Detection

The device supports acoustic wave detection. You can locate and mark the sound sources with acoustic images, and view the real-time sound intensities in the scene.

4.1 Set Detection Mode

The device supports compressed air leaks detection and partial discharge detection. You can set a proper detection mode catering to your needs.

Steps

1. In the live view interface, tap  or press  to show the menu.
2. Go to **Settings** → **Acoustic Settings** → **Detection Mode**.
3. Tap  or press  to select a detection mode.
4. Press  to save and exit.

4.2 Set Frequency Range





The device supports frequency range adjustment. You can set preferable frequency range to filter out background noises, so as to obtain the signals from the target frequency range.



Figure 4-1 Frequency Range

4.2.1 Set Overall Frequency Range

Steps

1. Press  for once or tap the frequency range frame in the live view interface.
2. Press/hold  and , or drag the frequency range frame up and down to adjust the overall frequency range.
3. Press  to save and exit.

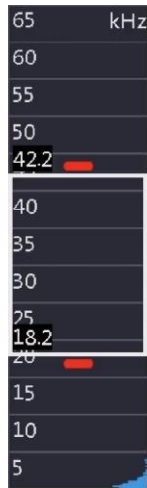




Figure 4-2 Set Overall Frequency Range

4.2.2 Set Max. Frequency

Steps

1. Press  for 2 consecutive times or tap the top edge of the frequency range frame in the live view interface.
2. Press/hold $\Delta \oplus$ and $\nabla \ominus$, or drag the top edge of the frequency range frame up and down to adjust the maximum frequency.
3. Press  to save and exit.

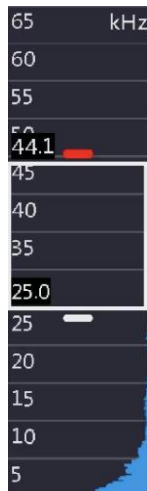



Figure 4-3 Set Max. Frequency

4.2.3 Set Min. Frequency

Steps

1. Press  for 3 consecutive times or tap the bottom edge of the frequency range frame in the live view interface.

2. Press/hold $\Delta \oplus$ and $\nabla \ominus$, or drag the bottom edge of the frequency range frame up and down to adjust the minimum frequency.
3. Press \hookrightarrow to save and exit.



Figure 4-4 Set Min. Frequency

Note

The frequency range is from 2 kHz to 60 kHz. The difference between max. and min. frequency ranges from 1 kHz to 24 kHz.

4.3 Set Sound Intensity Rule

You can monitor the real-time sound intensities of the target or the surroundings, and mark them with cursor. The corresponding results are displayed on the left of the interface.

Steps

1. In the live view interface, tap \equiv or press $\odot K$ to show the menu.
2. Go to **Settings** \rightarrow **Acoustic Settings** \rightarrow **Sound Intensity Display**.
3. Set the point rules, and tap the icons or press $\odot K$.
4. Press \hookrightarrow to save and exit.

Table 4-1 Icon Description

Icon	Description
	Peak Point: locate the peak sound intensity in the scene
	Center Point: display the sound intensity of the center in the scene

Chapter 5 Picture and Video

In the live view interface, you can record videos or capture snapshots to save important data. You can also export the recorded videos and snapshots to PC via USB cable.



Note

- Capturing or recording is not allowed in menu mode.
 - When the device has no SD cards or it is connected to your PC, capturing, recording, and accessing to the albums are not allowed.
-

5.1 Initialize SD Card

You can initialize the SD card if needed.

Steps

1. Go to **Settings** → **Device Settings** → **Device Initialization**.
2. Select **SD Card Initialization**, and tap **OK** to initialize SD card.

5.2 Capture Picture

You can capture snapshots of the target, and the snapshots will be automatically saved in the SD card. The capture modes are selectable.


Before You Start

A SD card must be inserted for picture storage.

Steps

1. Go to **Settings** → **Capture Settings**.
2. Select **Capture Mode** to set the capture mode.

Single Capture	Capture one picture for one time by pulling the trigger for once.
Timed Capture	Device captures one picture after the specified time interval. You can set the time interval as needed.
Continuous Capture	Capture multiple pictures for one time by pulling the trigger for once. You can set the amount of pictures.

3. **Optional:** After capturing, you can tap the thumbnail of the captured image at the right part of the interface to view and edit the image.
4. Select **Filename Header** to set filename header. The snapshot name consists of the header and the capture date and time.
4. Press  to save and exit.
5. In the live view interface, pull the trigger to capture snapshot.
6. Refer to **Export Files** to export the snapshots.

5.3 Record Video

You can record the target. The recorded video and the synchronous audio are saved in the SD card.

Steps

1. In the live view interface, hold the trigger to start recording. The recording status icon and time icon appear.

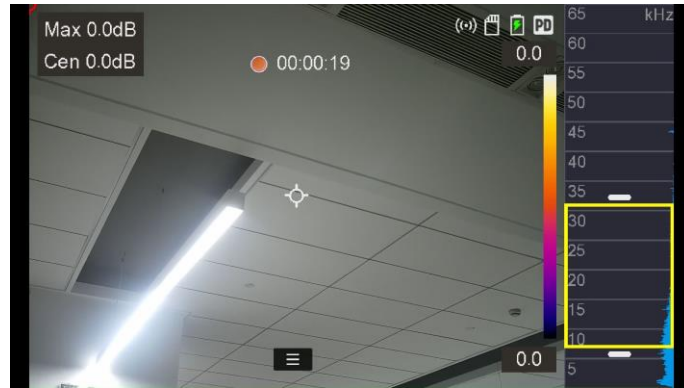




Figure 5-1 Record Video

2. When you finish, pull the trigger again to stop recording. The recorded video will be saved automatically and exit.

Note

You can also press  or  to stop recording.

3. Refer to [Export Files](#) to export the snapshots.

Note

The video format is MP4 format. You can play videos on the device or export to the compatible players to play.

5.4 View Local Files

Steps









1. In the live view interface, press  to enter **Albums**.
2. Press  and  to select an album.
3. Press , ,  and  to select a video clip or snapshot.
4. Press  to view the file.

Table 5-1 File Type and Description

File Type	Description
MP4 videos, format .mp4	Videos of this format can be played on local device, or exported to be played by any other supported player.
Radiometric images, format .jpeg	Images can be viewed on local device.

Note













- Files are arranged in chronological order, with the most recent at the top. If you fails to find the most recently taken snapshots or videos, please check the time and date settings of your device. See [Set Date and Time](#) for instructions.
- For file exporting, see [Export Files](#) for instructions.

What to do next

For file management, see [Manage Files](#) for instructions; for album management, see [Manage Albums](#) for instructions.













5.4.1 Manage Albums

The recorded image/video files are saved in the albums. You can create new albums, rename an album, change the default album, and delete albums.



Task	Operations
Create a New Album	<ol style="list-style-type: none"> Press  to enter Albums. Tap . Enter an album name by the soft keyboard. Tap  to finish.
Rename an Album	<ol style="list-style-type: none"> Press  to enter Albums. Select the album to rename. Tap , and select Rename. A soft keyboard is displayed. Tap  to delete the old name, and enter the new name for the album by touching the screen. Tap  to finish.
Change the Default Saving Album	<ol style="list-style-type: none"> Press  to enter Albums. Select the album you want to use as the default saving album. Tap , and select Set as Default Saving Album. <p> Note The default saving album appears at the top of the album list.</p>
Delete an Album	<ol style="list-style-type: none"> Press  to enter Albums. Select the album you want to delete. Tap , and select Delete. A prompt box appears on the interface. Tap OK to delete the album.

5.4.2 Manage Files

You can delete the recorded files and move the files to other albums on the device.

Task	Operations
Delete File(s)	<ol style="list-style-type: none">Press  to enter Albums.Tap to select the album storing the file to be deleted.In the album, tap to select the file to be deleted.Tap , and select Delete. A prompt box appears on the interface.Tap OK to delete the file.
Move File(s)	<ol style="list-style-type: none">Press  to enter Albums.Tap to select the album storing the file to be moved.In the album, tap to select the file to be moved.Tap , and select Move. The album list is displayed.Tap to select the album to move to.
Edit File(s)	<ol style="list-style-type: none">Press  to enter Albums.Tap to select the album storing the file to be edited.In the album, tap the file to be edited.Tap the video or snapshot file to start edit.<ul style="list-style-type: none">Tap  to add a text note to the file. You can tap the file to view the added text note.Tap  to add a voice note to the file. Tap  in the screen center to start or end recording the voice note.Tap  to play recorded videos.Tap  to move the file to other albums.Tap  to delete the file. <p> Note The text and voice notes can only be added to snapshots.</p>

Note

You can tap  to select all files, and tap  to cancel the selection.

5.6 Export Files

Connecting the device to your PC with USB cable, you can export the recorded videos and captured snapshots.

Note

- You can export the files using USB cable while the device is turned off.
 - You can export the files by inserting the SD card to your PC which has a card slot.
-

Steps

1. Open the cover of cable interface.
2. Connect the device to your PC with cable and open the detected disk.
3. Select and copy the videos or snapshots to PC to view the files.
4. Disconnect the device from your PC.

Note

You can play the recorded videos using the default players.




Chapter 6 Connect

6.1 Connect via Wi-Fi

Before You Start

Download and install HIKMICRO Viewer on your phone.

Steps

1. Press  in the live view interface to show the menu.
2. Go to **Settings** → **Connect** → **WLAN**.
3. Tap  or press  to enable or disable **Wi-Fi**. When **Wi-Fi** is enabled, the device can automatically search and display available Wi-Fi networks.
4. Select a Wi-Fi network and enter password.

Note

- DO NOT tap space, or the password may be incorrect.
 - Leaving the Wi-Fi setting interface does not interrupt the connection.
-





Result

A Wi-Fi icon shows in the live view interface when the connection is completed.

6.2 Connect via Hotspot

When the device's hotspot is on, other equipment with Wi-Fi function can join the device for data transmission.

Steps

1. Press  in the live view interface to show the menu.
2. Go to **Settings** → **Connect** → **Hot Spot**.
3. Tap  or press  to enable or disable hotspot.  in the status bar indicates that the hotspot is on.

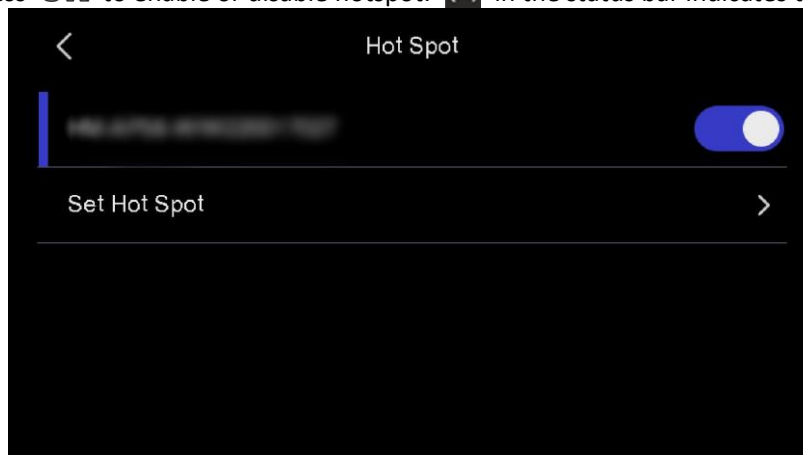


Figure 6-1 Hotspot


Note

The hotspot name consists of the device model No. and series No.. Refer to [**View Device Information**](#).

4. Tap **Set Hot Spot** to set the hotspot password.
-

Note



When setting password, DO NOT tap **enter** or **space**, or the password may be incorrect. The password should include at least 8 digits, consisting of numbers and characters.

5. Tap  to save the password.

Chapter 7 Maintenance

7.1 View Device Information



Steps

1. Press  to show the menu in the live view interface.
2. Go to **Settings** → **Device Information** to view the device information.
3. You can view the major information like device No., serial No., and the current version.
4. Press  to save and exit.

7.2 Set Date and Time

You can set and calibrate the system time and date.

Steps

1. Press  to show the menu in the live view interface.
2. Go to **Settings** → **Device Settings** → **Time and Date**.
3. Set the date and time.
4. Press  to save and exit.

Result

The time and date are displayed in the top area of the live view interface.



Go to **Settings** → **Image Settings** → **Display Settings** to enable or disable time and date display.

7.3 Upgrade Device

Before You Start

Please download the upgrade file and turn on the device.

Steps

1. Connect the device to your PC with cable and open the detected disk.
2. Copy the upgrade file and paste it to the root directory of the device.
3. Disconnect the device from your PC.
4. Reboot the device and then it will upgrade automatically. The upgrading process will be displayed in the main interface.



- Please make sure the battery is fully charged during when upgrading to avoid accidental suspension.
- After upgrading, the device reboots automatically. You can view the current version in **Settings** → **Device**

Information.

7.4 Restore Device

You can default the device to the factory settings.



Caution

This function should be used with caution.

Steps

1. Press **OK** to show the menu in the live view interface.
2. Go to **Settings** → **Device Settings** → **Device Initialization**.
3. Select **Restore**. A prompt appears.

OK: Tap **OK** to initialize the device.

Cancel: Tap **Cancel** to exit and return to the previous menu.

Chapter 8 Appendix

8.1 Common Material Emissivity Reference

Material	Emissivity
Human Skin	0.98
Printed Circuit Board	0.91
Concrete	0.95
Ceramic	0.92
Rubber	0.95
Paint	0.93
Wood	0.85
Pitch	0.96
Brick	0.95
Sand	0.90
Soil	0.92
Cloth	0.98
Hard Paperboard	0.90
White Paper	0.90
Water	0.96

8.2 Device Command

Scan the following QR code to get device common serial port commands.

Note that the command list contains the commonly used serial port commands for HIKMICRO thermal cameras.



8.3 Device Communication Matrix

Scan the following QR code to get device communication matrix.

Note that the matrix contains all communication ports of HIKMICRO thermal cameras.



8.4 FAQ

Scan the following QR code to get device common FAQ.





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