



# Firefighting Thermal Camera

HIKMICRO FT Series

User Manual



Contact Us


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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 2011/65/EU (RoHS).

Hereby, Hangzhou Microimage Software Co., Ltd. declares that this device (refer to the label) is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

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### Frequency Bands and Power (for CE)

The frequency bands 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

### RF Exposure Information

This device has been tested and meets applicable limits for Radio Frequency (RF) exposure.

For the device without a supplied power adapter, use the power adapter provided by a qualified manufacturer. Refer to the product specification for detailed power requirements.

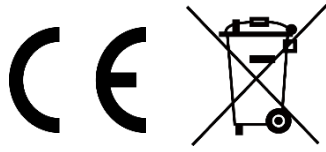
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#### 1. Getrennte Erfassung von Altgeräten:

Elektro- und Elektronikgeräte, die zu Abfall geworden sind, werden als Altgeräte bezeichnet. Besitzer von Altgeräten haben diese einer vom unsortierten Siedlungsabfall getrennten Erfassung zuzuführen. Altgeräte gehören insbesondere nicht in den Hausmüll, sondern in spezielle Sammel- und Rückgabesysteme.

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Das auf Elektro- und Elektronikgeräten regelmäßig abgebildete Symbol einer durchgestrichenen Mülltonne weist darauf hin, dass das jeweilige Gerät am Ende seiner Lebensdauer getrennt vom unsortierten Siedlungsabfall zu erfassen ist.

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## Symbol Conventions

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

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

## Safety Instructions

Please read all the safety information carefully before using. 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

- The input voltage should meet the limited energy circuit (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**

- **CAUTION:** Risk of explosion if the battery is replaced by an incorrect type. Replace with the same or equivalent type only. Dispose of used batteries in conformance with the instructions provided by the battery manufacturer.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.
- Dispose of used batteries according to the instructions.
- This device is not suitable for use in locations where children are likely to be present.
- Use the battery provided by a qualified manufacturer. Refer to the product specification for detailed battery requirements.
- **DO NOT** charge other battery types with the supplied charger. Confirm there is no flammable material within 2 m of the charger during charging.
- When the device is powered off and the RTC battery is full, the time settings can be kept for 6 months.
- Improper use or replacement of the battery may result in explosion hazard. Replace with the same or equivalent type only. The battery type is HM-AHB02-3754. Dispose of used batteries in conformance with the instructions provided by the battery manufacturer.
- For long-term storage of the battery, make sure it is fully charged every 3 months to ensure the battery quality. Otherwise, damage may occur.
- When the device is powered off and the RTC battery is full, the time settings can be kept for 90 days.
- The battery voltage is 3.7 V, and the battery capacity is 5400 mAh.

### **Maintenance**

- **DO NOT** maintain the camera when it is powered on, or it may cause electric shock! 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.
- Wipe the device gently with a clean cloth and a small quantity of ethanol, if necessary.
- If the device is used in a manner not specified by the manufacturer, the protection provided by the device may be impaired.

- 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 60 °C (-4 °F to 140 °F), and the operating humidity shall be 95% or less.
- Place the device in a dry and well-ventilated environment.
- 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.
- When any laser equipment is in use, make sure that the device lens is not exposed to the laser beam, or it may burn out.
- The device is suitable for indoor conditions.
- The protection level is IP67.

### Calibration Service

Please contact the local dealer for the information on maintenance points. For more detailed calibration services, please visit <https://www.hikmicrotech.com/en/support/calibration-service.html>.

### Technical Support

<https://www.hikmicrotech.com/en/contact-us.html> will help you as a HIKMICRO customer to get the most out of your HIKMICRO products. The portal gives you access to our support team, software and documentation, service contacts, etc.

### Emergency

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

### Limited Warranty

Scan the QR code for the product warranty policy.



### Manufacture Address

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

Hangzhou Microimage Software Co., Ltd.

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# 1 Overview

## 1.1 Introduction

The professional firefighting thermal camera is a product designed for firefighting and life rescue. It is easy to operate even with gloves. It supports multiple display modes for different on-site purposes, for example firefighting, hidden fire point searching, life rescue, building analysis, etc. These modes can help fire and rescue personnel detect and understand the temperature status of the scene and detect life signs more efficiently.

## 1.2 Main Function

### ***Multiple Palette Modes***

The imager supports multiple palette modes suitable for different scenes and targets. It helps quickly distinguish targets from rest of the objects. Some palette modes also offer image temperature for reference.

### ***Target Zooming***

The camera supports 3 zoom ratios for users to check on details from a distance.

### ***On-site Image Capture and Record***

The imager supports image capture, video recording and storage.

### ***Hotspot***

The camera provides hotspot function for connecting to mobile device for data transmission.

### ***Client Software Connection***

Mobile Device: Use HIKMICRO Viewer to view live image, capture snapshots, and record videos on your phone. You can also, analyze pictures offline, generate and share a report via the app.

## 1.3 Appearance

### 1.3.1 Component Description

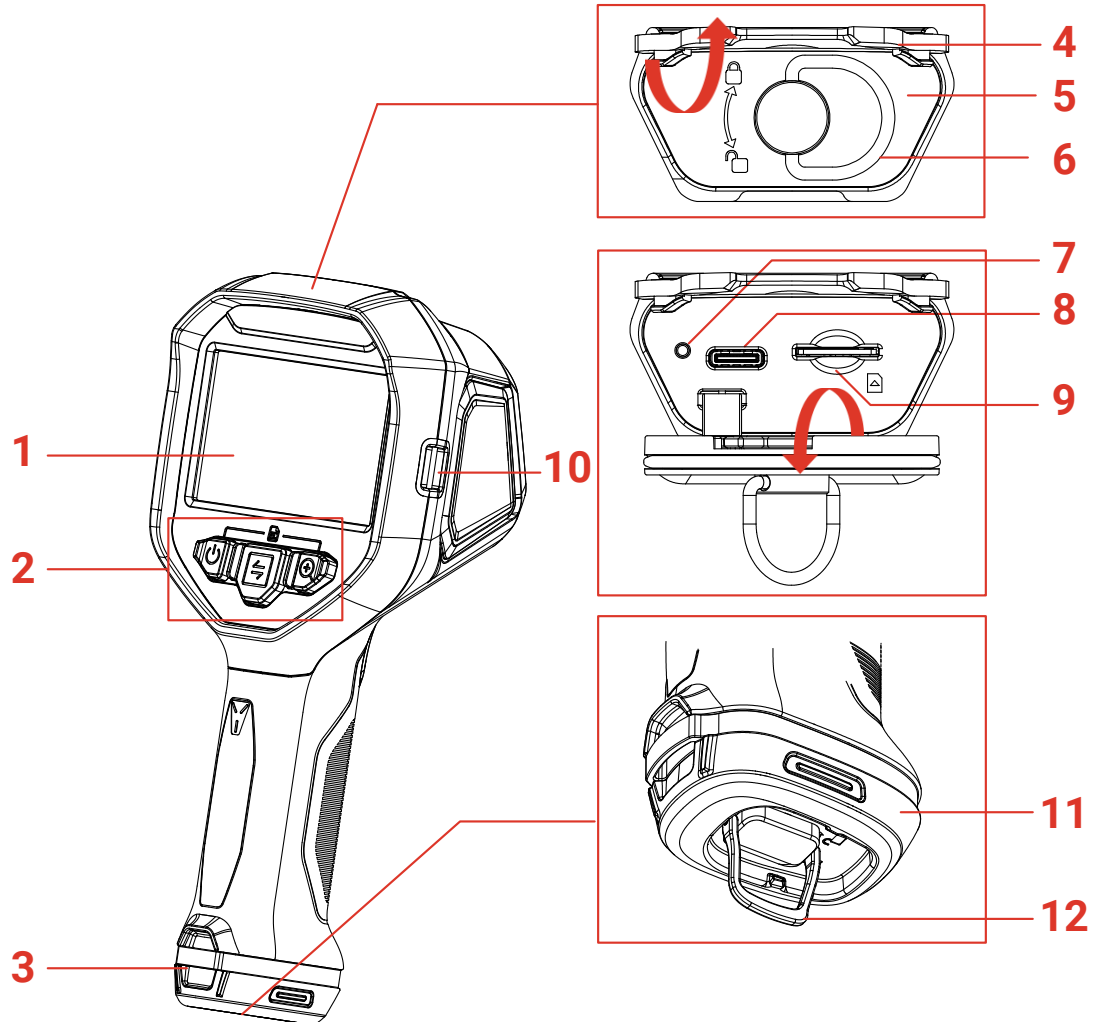


Figure 1-1 Appearance (Front View)

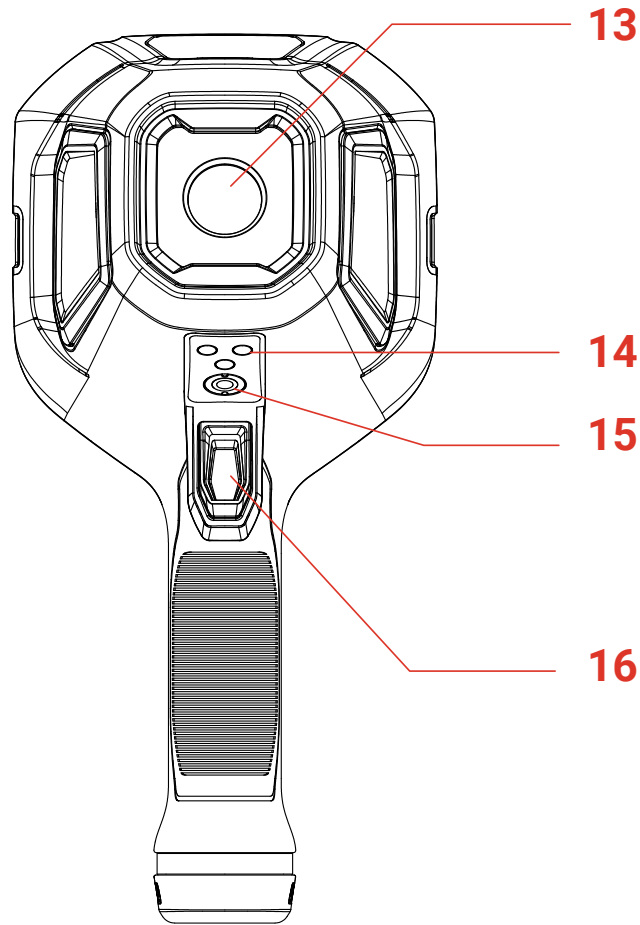


Figure 1-2 Appearance (Rear View)

Table 1-1 Appearance Description

No.	Part Name	Description
1	Screen	Display view and operation menu.
2	Buttons	Operate the camera. See <b>1.3.2 Button Operation</b> for detailed instructions.
3	Lanyard Mounting Point	Mount lanyard for easy carrying. See <b>1.4.2 Install Lanyards</b> for lanyard mounting guide.
4	Rubber Cover	Cover interfaces.
5	Interface Cover	Protect interfaces.
6	Ring-Pull Handle for Interface	Turn the ring-pull handle to unlock and lock the cover. After unlocking, pull to open the cover.
7	Charging Indicator	<ul style="list-style-type: none"> <li>● Solid Red: The battery is charging normally.</li> <li>● Solid Green: The battery is fully charged.</li> </ul>

		● Red and Green Flash: Battery charging exception.
8	USB Type-C Interface	Charge the device or export files with USB-A to USB-C cable.
9	SIM Card Slot	Reserved.
10	Neck Strap Mounting Point	Mount the neck strap. See <b>1.4.1 Mount Neck Strap</b> for neck strap mounting guide.
11	Battery	Supply power to the device.
12	Ring-Pull Handle for Battery	Turn the ring-pull handle to unlock and lock the battery. Pull the battery out when the battery is unlocked.
13	Thermal Lens	View the thermal image.
14	Charging Contacts	For charging the camera via the in-truck charger (not included).
15	Tripod Mount	Mount the tripod.
16	Trigger	In live view: pull the trigger to capture snapshots, or hold to record a video/freeze the image and pull to stop recording. In menu: pull the trigger to browse options or reduce value when setting parameters. See <b>1.3.2 Button Operation</b> for detailed instructions.

### 1.3.2 Button Operation

Button and trigger function are different in live view interface or in menu interface.

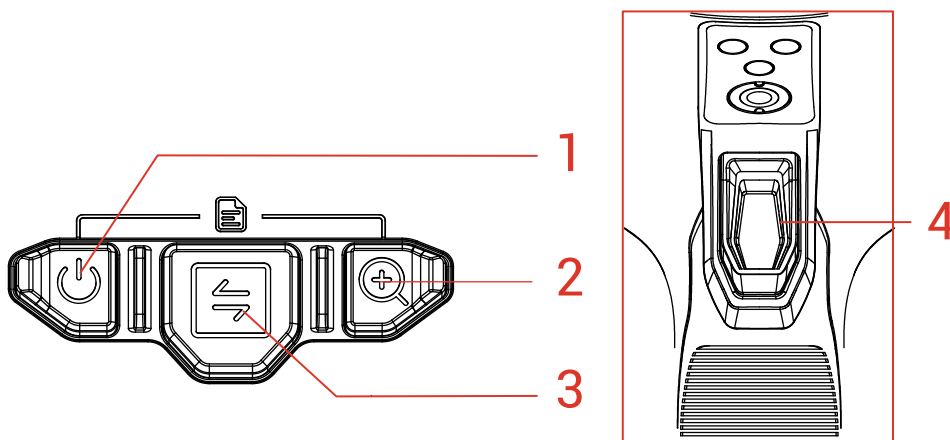










Figure 1-3 Buttons and Trigger

## Live View Interface

Button and trigger functions in live view are shown in the following table.





Table 1-2 Buttons and Trigger Operation in Live View










Button	Description
1	Power button. See <b>3.2 Power On/Off and Sleep Mode</b> for detailed instructions. <ul style="list-style-type: none"> <li>● Press or hold  to power on the camera. When the camera is on, hold  for over 6 s to power off the camera.</li> <li>● In live view, press  to quickly switch to the basic mode.</li> <li>● In live view, hold  for 3 s to 6 s to put the camera into sleep mode.</li> </ul>
2	Zoom-in button. Press to switch among the 3 zoom-in ratios.
3	Mode button. Press to switch among palette modes. See <b>4.1 Switch Palette Mode</b> for the introduction of the palette modes.
4	Trigger. You can customize the function of holding trigger in live view. See <b>1.3.3 Customize Trigger Function</b> for instructions. In live view: <ul style="list-style-type: none"> <li>● Capture and Record: pull the trigger to capture snapshot, or hold the trigger to start recording a video and pull again to stop recording.</li> <li>● Hold to freeze image (Optional): hold the trigger to freeze the live image, and release to resume to live view.</li> </ul> In menu interface: Browse options from bottom to top or reduce value when setting a parameter.
1+2	Enter the menu by the following ways: <ul style="list-style-type: none"> <li>● Press  and  at the same time to enter menu.</li> <li>● Hold  and press  later to enter menu.</li> </ul>

## Menu Interface

After entering the menu interface, you can operate 3 buttons (power button, zoom-in button, and mode button) according to the function icons on the lower side of the screen. The icons and functions displayed in the screen are shown in the table below.

Table 1-3 Icons in Menu Interface




Screen Display Icon	Description	Screen Display Icon	Description
	Go back to the live view interface.		Back to previous menu.
	Enter album.		Delete.

Screen Display Icon	Description	Screen Display Icon	Description
	Enter system menu.		Cancel.
	<ul style="list-style-type: none"> <li>● Press: Next.</li> <li>● Hold: Fast switch.</li> </ul>		Confirm.
	<ul style="list-style-type: none"> <li>● Press: Next.</li> <li>● Hold: Fast switch.</li> </ul>		Pause the video.
	Next.		Hold to play the video.
	Stop the video.		

In addition, when browsing menu or adjusting parameters, pull the trigger to select item from bottom to top or reduce value.

### 1.3.3 Customize Trigger Function

Follow this procedure to customize the function of holding the trigger in live view.

1. In live view, press  and  to enter menu.
2. Go to **Settings > More Settings > Trigger Settings**.
3. Press  to set the function in live view.
  - **Record:** Hold the trigger in live view to start recording a video.
  - **Hold to freeze image:** Hold the trigger in live view to freeze the image, and release to resume live view.

## 1.4 Mount Neck Strap and Lanyards

The camera is equipped with a neck strap and lanyards for convenient carrying and preventing from accidental falling.

### 1.4.1 Mount Neck Strap

Install neck strap in the way as shown in the figure below.

1. Fold one end of the neck strap through the neck strap point (③) on one side of the camera, and thread it back through the slide buckle (①) and the fastening collar (②).
2. Repeat step 1 to install the other end of the strap.

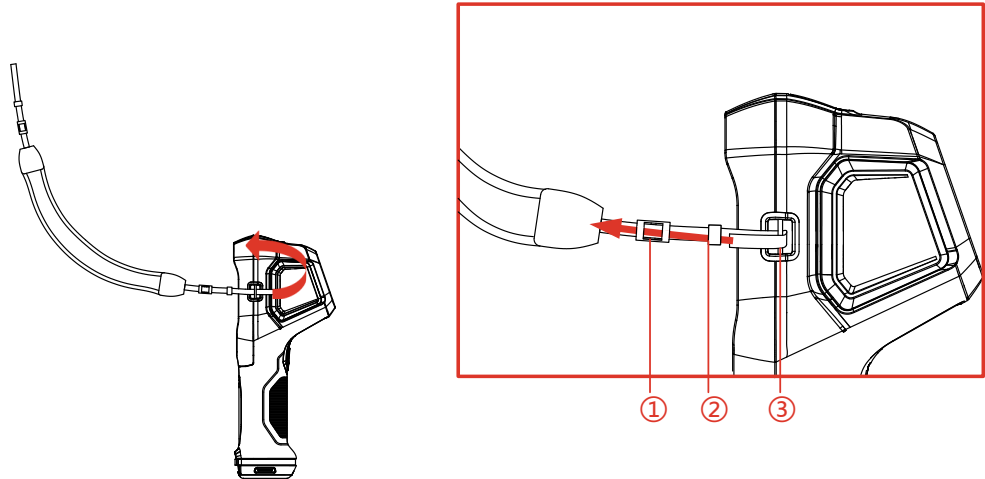


Figure 1-4 Install Neck Strap

### 1.4.2 Install Lanyards

Install the lanyard to the lanyard hole first, then install the retractable lanyard to the first lanyard.

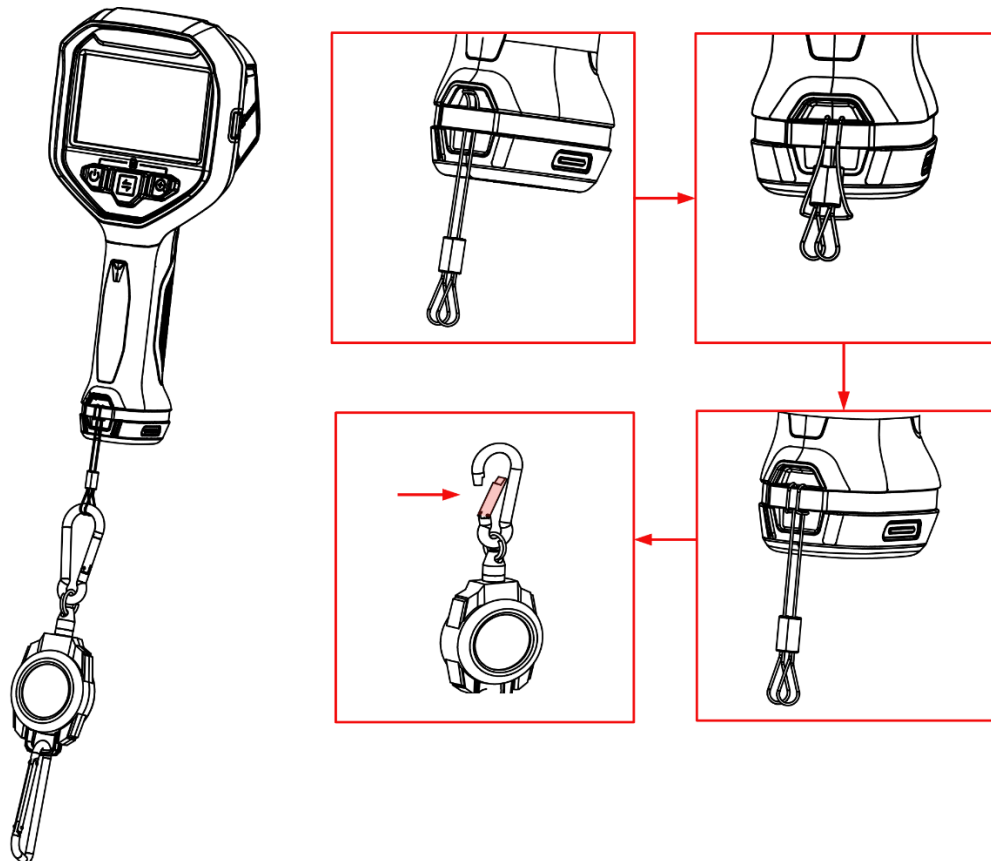




Figure 1-5 Install Lanyards

## 2 Quick Use Process

You can follow the steps to quickly use the camera.

1. For the first time using, please fully charge the camera or install a fully-charged battery. See **3.1 Charge the Camera** for charging guide.
2. Press  to start the camera.
3. Hold and aim the camera to target for temperature measurement or observation.
4. Press  to switch palette mode. See **4.1 Switch Palette Mode** for the introduction of the palette modes.
5. Pull the trigger to capture snapshots, or hold the trigger to start recording and pull again to stop recording.
6. View the saved files in the local albums. See **5.1.1 Album and Files Management** for instructions.
7. Export the files for analysis. See **5.1.3 Export Files** for the exporting instructions.







## 3 Preparations

### 3.1 Charge the Camera

For the first time using or when the battery is insufficient, please charge the camera or replace a battery.

You can see the battery status by checking the battery icon in the status bar.

Table 3-1 Charging Status Description

Icon	Description
	Charging.
	Fully charged.
	75% of charge.
	50% of charge.
	25% of charge. If it flashes, please charge your camera, otherwise the camera will automatically shut down soon.
	Battery exception.



**Note**

Please charge the camera with the cable and charging base provided by the manufacturer.

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#### 3.1.2 Charge Battery via Charging Base

Use charging base provided by the manufacturer to charge the batteries.

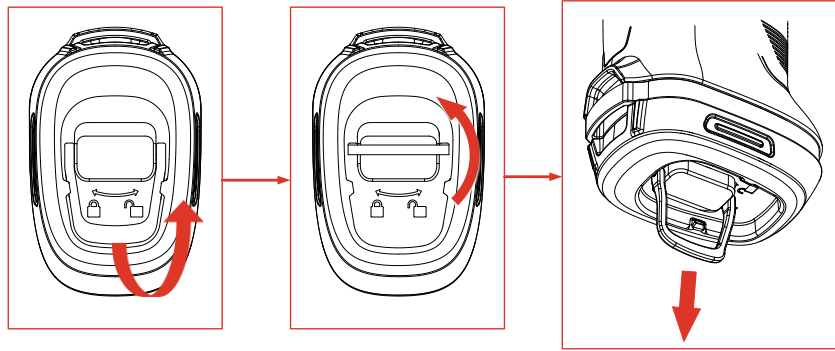


Figure 3-1 Removing Battery

1. Pull out the ring on battery and turn it 90° to unlock the battery.
2. Pull the battery out.
3. Insert the battery to the charging base.
4. Checking the indicator for charging status.



### Note

- Solid Red: Charging normally.
  - Solid Green: Fully charged.
- 

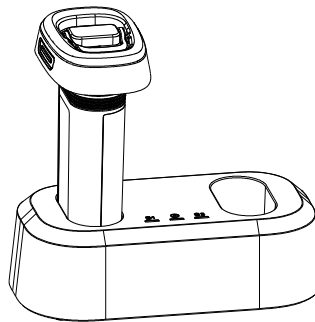


Figure 3-2 Charge Battery

5. When the battery is fully charged, remove it from the base.
6. Align the battery with battery compartment, push it to the end and turn the ring 90° to lock the battery.

### 3.1.3 Charge Camera via USB Cable

The camera can also be charged via the USB Type-C cable.

#### ***Before You Start***

Battery should be installed if you charge the device with a USB cable.

1. Open the rubber cover and interface cover on top of the camera to show the USB Type-C interface (②).

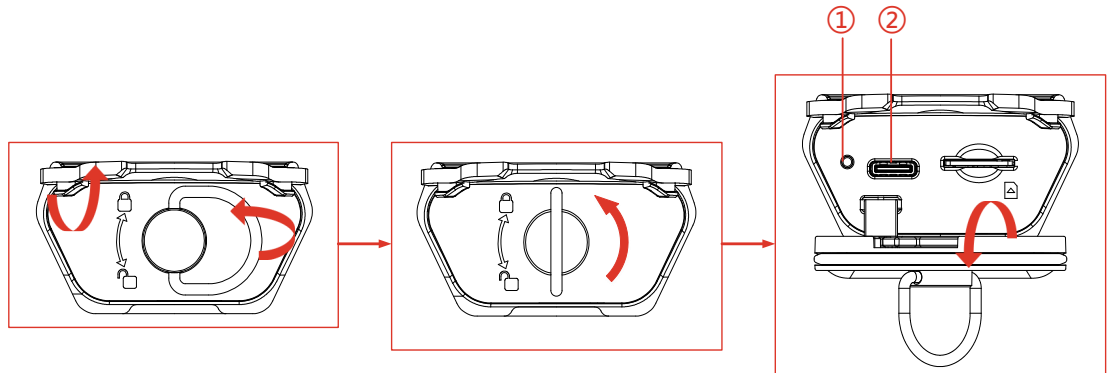


Figure 3-3 Show Type-C Interface

2. Connect the camera to a USB Charger (should be prepared by user) or your PC with the provided USB-A to USB-C cable.
3. Checking the charging status via the indicator (①) near the type-C interface.



### Note






- Solid Red: Charging normally.
  - Solid Green: Fully charged.
  - Flashing Red and Green: Charging exception.
- 

4. When charging completes, disconnect the cable.
5. Lock the interface cover and put the rubber cover in place.

## 3.2 Power On/Off and Sleep Mode

You can power on/off the camera or put the camera into sleep mode. Follow the pop-up instructions or refer to the table below for detailed instructions.

Table 3-2 Power on/off and Sleep Mode Instructions

Task	Operation	Result
Power on	Press or hold (subject to your particular camera model)  to power on the camera.	The camera enters live view interface after starting-up.
Power off	Hold  for over 6 seconds to shut down.	The camera is turned off to conserve battery power.
Manual Sleep	<ul style="list-style-type: none"> <li>● Enable sleep mode: Hold  for 3 to 6 seconds to enter sleep mode and turn off the screen display.</li> <li>● Cancel sleep mode before countdown: Press any button to cancel entering sleep mode in live view interface.</li> <li>● Wake up from sleep mode: Press  to wake up the camera.</li> </ul>	The camera's screen is off, and the camera is still running and calibrating.
Auto Sleep	<ul style="list-style-type: none"> <li>● Enable sleep mode: Go to <b>Settings &gt; More Settings &gt; Auto Sleep</b>. Set the time of auto sleep, the imager will enter sleep mode automatically to save power.</li> <li>● Cancel sleep mode before countdown: Press any button to cancel entering sleep mode in live view interface.</li> <li>● Wake up from sleep mode: Press  to wake up the camera.</li> </ul>	The imager's screen is off, and the imager is still running and calibrating.

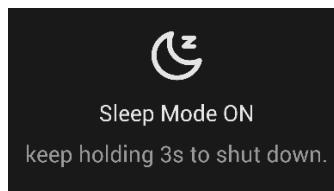


Figure 3-4 Pop-up Instructions

### 3.3 Read Screen Information

The camera screen has live view interface and menu interface serving different purposes.

#### Live View Interface

The live view interface is for user to view thermal image and target temperature. Understanding the icons and figures in advance is helpful for first-time using.

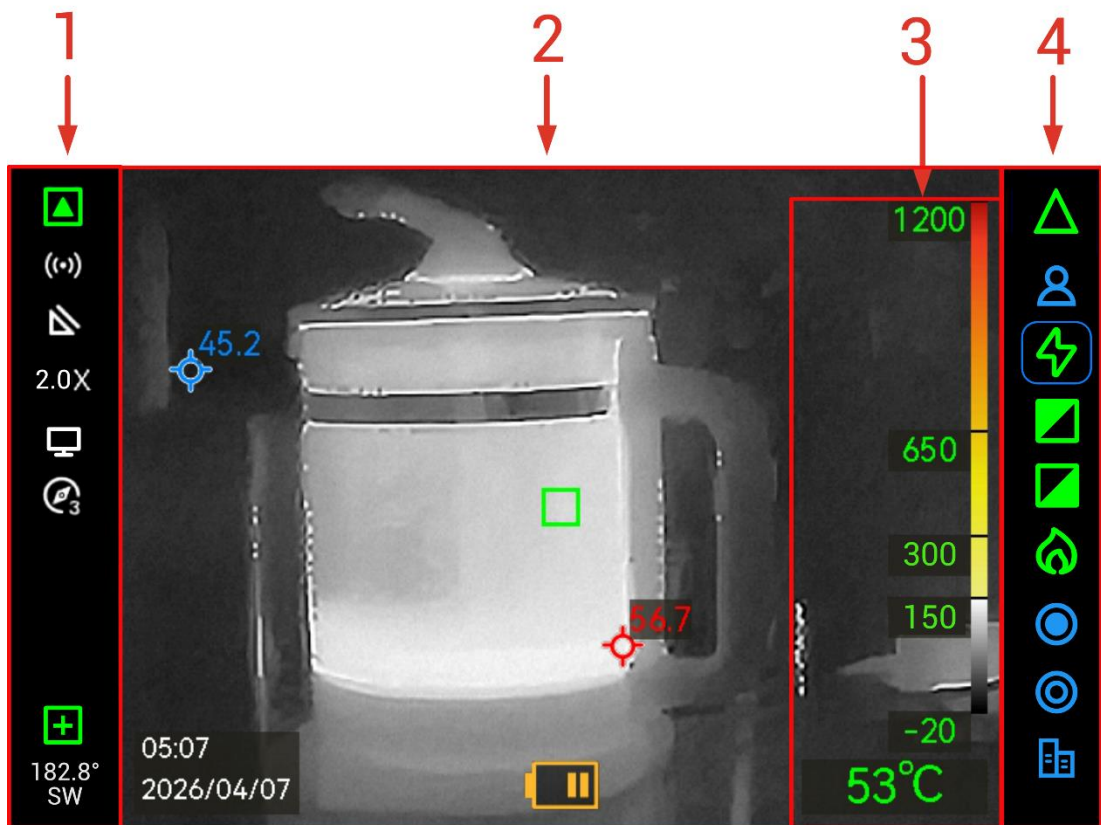


















Figure 3-5 Live View Interface

Table 3-3 Icon Descriptions

No.	Description
1	<p>Status Bar. Icons in this bar show device hardware status, including:</p> <ul style="list-style-type: none"> <li>●  Low sensitivity mode indicator.</li> </ul> <p>It indicates that the imager is currently in a low sensitivity mode like basic, smooth, white hot, black hot and fire detection mode. This mode improves thermal imaging display for extreme heat sources, with increased noise visibility in cooler regions.</p> <p>High temperature modes: basic, smooth, white hot, black hot</p>

	<p>and fire detection modes.                      Low temperature modes: rescue, hot area, cold area, and building modes.</p> <ul style="list-style-type: none"> <li>●  Hotspot is enabled. For hotspot connection, see <b>5.4 Connect to Mobile Application and PC Software</b> for instructions.</li> <li>●  Object Details Enhancement (ODE) is enabled. For more information about ODE, refer to <b>4.3 Object Details Enhancement (ODE)</b>.</li> <li>● Zooming ratio (1.0X, 2.0X, 4.0X). For the zooming operation, see <b>4.4 Zooming in Interested Objects</b>.</li> <li>●  USB cast screen is enabled. For more screen casting instructions, refer to <b>5.4.2 UVC Cast Screen</b>.</li> <li>●  Compass is on. The number stands for the calibration level. Numbers smaller than 3 mean that the compass is not properly calibrated and the direction displayed might not be correct.</li> <li>●  TI BASIC PLUS mode indicator. It indicates that the camera is currently not in the basic mode.</li> </ul>
2	<p>Live image area.</p> <ul style="list-style-type: none"> <li>● Battery and charging status. For example,  means fully charged.</li> <li>●  marks the center point of the live scene.  marks the highest temperature point and  the lowest temperature point in the scene. You can turn on/off of the highest and lowest, and the center temperature point display. Refer to <b>5.2 Display Real-time Temperature Points</b> for instructions.</li> </ul>
3	<p>Thermal readout area.</p> <p>There are 3 types of thermal readout style available. Refer to <b>4.2 Adjust Thermal Readout</b> for details of the 3 display style and settings.</p>
4	<p>Palette Mode Bar.</p> <p>Available palette modes are listed in this bar. The mode with blue box is the mode currently in use. Mode description and switching operation are explained in <b>4.1 Switch Palette Mode</b>.</p>

## Menu Interface

In live view interface, press  and  together to enter camera menu to check system information of the camera. Then, press  to select  and enter local albums, or press  to select  and enter system setting menu.

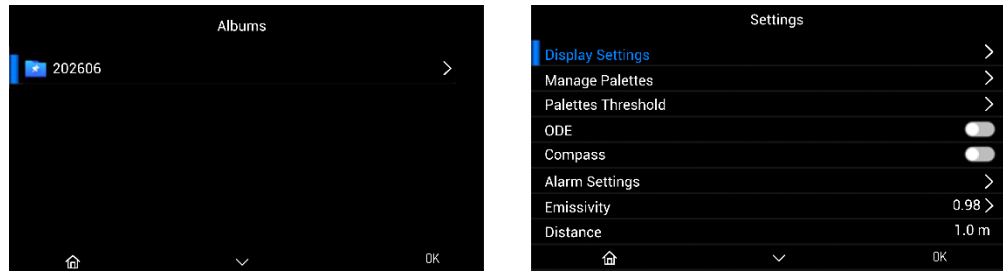


Figure 3-6 Albums and System Settings







- For viewing snapshots and exporting files, refer to **5.1.1 Album and Files Management** and **5.1.3 Export Files**.
- For local album management, refer to **5.1.1 Album and Files Management**.
- For system settings, refer to **6 More Settings**.

## 4 Commonly Used Functions

### 4.1 Switch Palette Mode

**Before you start**

Before using the device, users need to set the palette modes first so that you can switch them in the live view interface.


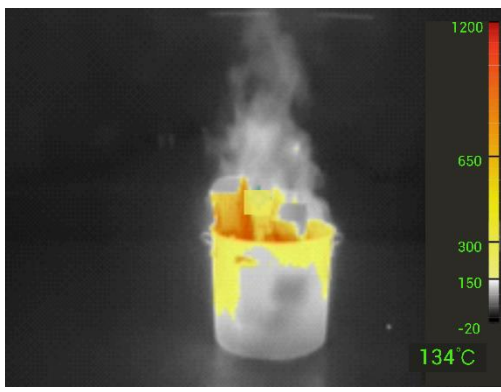
1. In live view interface, press  and  together to enter settings menu.
2. Go to **Settings > Manage Palettes**.
3. Press  to select your preferred palette mode from the multi-selection list.
4. Optional: Go to **Settings > Palette Threshold**. Palettes Threshold of basic mode and smooth mode can be set. The palettes threshold is a temperature value to control the range of palette display. When the surface temperature of the target reaches or exceeds the set threshold, the thermal imager will enable palettes for the corresponding area, while areas below the threshold are typically displayed in gray.
5. Press  to save and exit.
  - In live view, press  to switch palette modes. The camera supports multiple modes suitable for different scenes and objects.
  - In live view, press  to quickly switch to the basic mode.


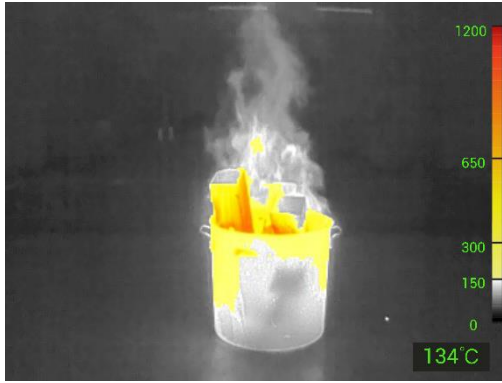





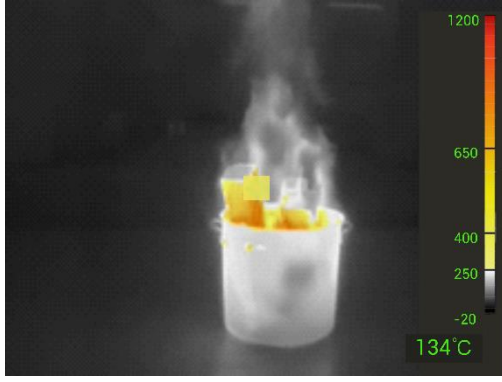



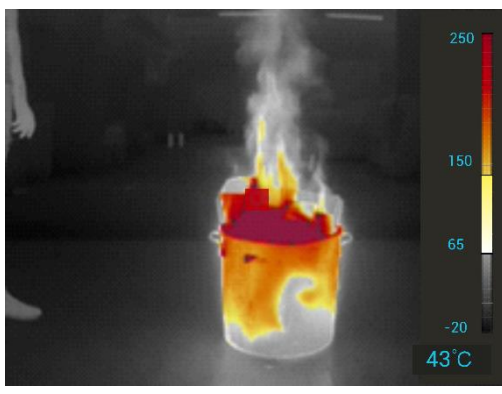

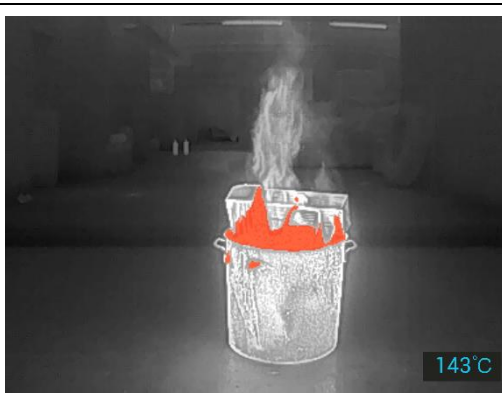




**Note**

Besides basic mode (default), users can select all palettes modes or none.

Table 4-1 Palette Modes Description




Mode	Mode Description	Example Snapshot
	<p>Basic mode (default). It is applicable to firefighting, and life searching and rescue.</p> <p>The real-time temperature is marked with the corresponding colors in the color-temperature scale.</p>	

	<p>Smooth mode</p> <p>It is applicable to firefighting, and life searching and rescue. The advantage of this mode is that it can display the moving picture more smoothly when the target frequently changes. However, the image effect of Basic Mode in high temperature may be better than that in Smooth Mode.</p>	
	<p>White hot mode.</p> <p>It is applicable to firefighting and life searching and rescue scenarios.</p> <p>Black and white image. Temperature of white areas is higher.</p>	
	<p>Black hot mode.</p> <p>It is applicable to firefighting and life searching and rescue scenarios.</p> <p>Black and white image. Temperature of darker areas is higher.</p>	
	<p>Fire detection mode.</p> <p>It is applicable to scenes with many open fires and high background temperature.</p> <p>The display effect is similar to the basic mode. Only that the start temperature of red and yellow marking is higher.</p>	

	<p><b>Rescue mode</b>                  The mode is suitable for locating non visible hazardous issues with a temperature over 65°C.                  The display effect is similar to the basic mode. Only that the start temperature for red and yellow marking is lower.</p>	
	<p><b>Hot area mode.</b>                  This mode detects high temperature targets of the scene and mark them in red.                  This mode is applicable to search remaining fire during overhaul after fire is basically out, people in water or field, etc.</p>	
	<p><b>Cold area mode.</b>                  This mode detects low temperature targets of the scene and mark them in blue.                  This mode is used to search cold spots in fire scenes, such as gas streams that may provide oxygen or fuel for burning.</p>	
	<p><b>Building mode.</b>                  Applicable to analysis and detection of building-related exceptions. Thermal images can provide information about structure, machinery, pipe, and electrical system.</p>	

## 4.2 Adjust Thermal Readout

Thermal readout refers to the referential palette color bar, temperature scale and image center temperature that help user to know temperature condition of target scene. There are 3 types of readout available.

1. In live view interface, press  and  together to enter menu.
2. Go to **Settings > Display Settings > Thermal Readout**.
3. Select Thermal Readout, and press  to switch readout style.
  - Temperature Bar ①: Show temperature scale (④), center point temperature bar (⑤), and center point temperature value (⑥).
  - Digital Readout Only ②: Show center point temperature value only.
  - Temperature Scale ③: Show temperature scale and center point temperature value.

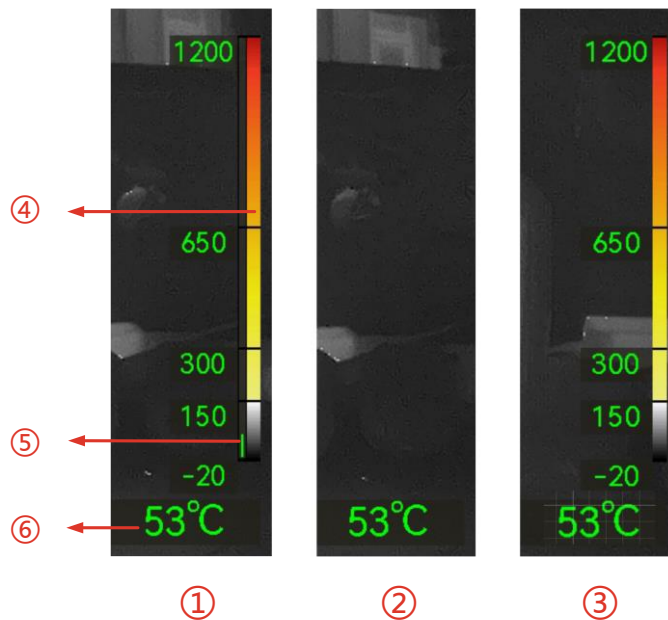



Figure 4-1 Thermal Readout

4. Press  to save and exit.



### Note

- Thermal readout of different palette modes are different. The figure above is an example for reference.
- The center temperature point is enabled by default. If the center temperature point is turned off and the thermal readout is adjusted to

Digital Readout, the center temperature value will not be displayed on the live-view interface.

---

### 4.3 Object Details Enhancement (ODE)

Object Details Enhancement (ODE) is used to enhance outline of certain targets. With this function enabled, target outline will be clearer, but noise of the image will be increased accordingly.

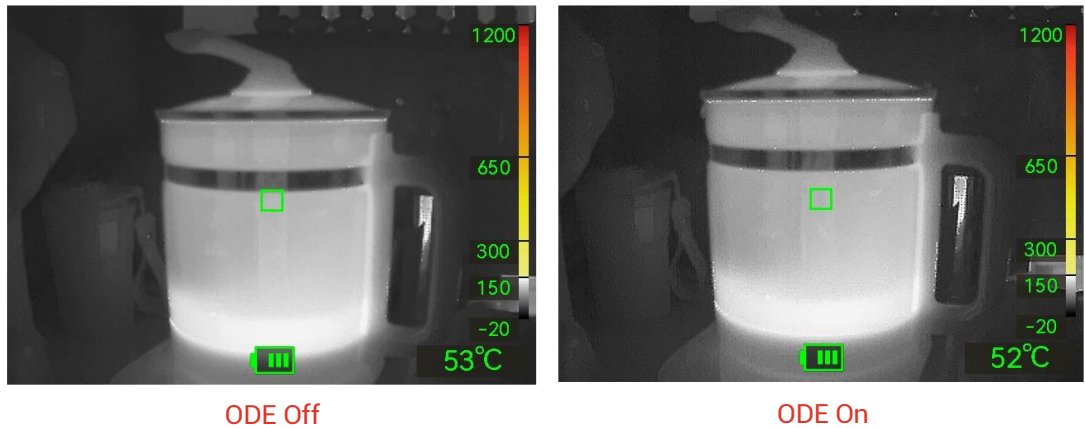


Figure 4-2 Image Example of ODE On and Off

1. In live view interface, press and together to enter camera menu.
2. Go to **Settings > ODE**.
3. Press to select **ODE**, and press to enable the function.
4. Press to save and exit.

### 4.4 Zooming in Interested Objects

In live view interface, aim the camera to a target and press to switch zoom ratio. The camera supports 3 zoom ratios, 1.0X, 2.0X, and 4.0X. You can check current zoom ratio from the status bar.

## 5 Optional Operations


### 5.1 Capture Snapshots and Record Videos

In live view interface, aim the camera to a target, and pull the trigger to capture a snapshot, or hold the trigger to start recording a video and pull again to stop (go to **Settings** > **More Settings** > **Trigger Settings** to set the trigger function as **Record** beforehand). Snapshots and videos are saved in local albums.

#### 5.1.1 Album and Files Management





##### Naming Rule of Album Folder and File

The naming of album folders and files depends on the system date and time. Please set the system date and time correctly before taking snapshots or videos, otherwise you may find it difficult to locate a snapshot or video.








- File name of a file is the saving date and time.
- Files are saved in monthly named album folders according to the saving time. The folder name is 6-digit number of the year and month. For example, "202606" means June, 2026.
- A new snapshot or video is automatically saved in the auto-generated album .





##### Set File Naming Rule



You can customize the naming rule of files.

1. In live view interface, press  and  together to enter menu.
2. Go to **Settings** > **More Settings** > **File Naming**.
3. Press  to select **File Naming**, and press  to select a naming rule. **Time Stamp** and **Numbering** are selectable.

#### 5.1.2 View Files in Albums

1. In live view interface, press  and  to enter menu interface.
2. Select  to enter albums.
3. Press  to select an album folder and press  to enter.
4. Press  to browse files and press  to view the details.

5. Press  to view the next or previous file.
6. Optional: Playback recorded video on camera.
  - Hold  to play the video.
  - When playing the video, press  to pause or resume.
  - When playing the video, press  to stop and return to the album.
7. Optional: Delete a file.

Snapshots and videos saved in local albums can be deleted. Pull the trigger or press  to delete the file.
8. Press  to go back to upper-level menu.


### 5.1.3 Export Files

#### Export files via HIKMICRO Viewer



1. Launch HIKMICRO Viewer and add the camera. Refer to **5.4.1 Mobile Application HIKMICRO Viewer**.
2. Select **On-Device Files** on the app to access the on-device albums.
3. Select a file, and tap **Download** to save to your local albums.



#### Export files to PC




Connect the camera and PC via the provided USB cable to export snapshots and videos, and view them on PC.

1. Connect the camera to PC with a USB-A to USB-C cable. See the interface in Figure 3-3 for instructions.
2. Press  to select **USB Drive** on the camera. The camera storage appears in the PC as a removable disk.
3. Open the detected disk and enter the album folder.
4. Copy files and paste them to your PC.
5. Disconnect the USB cable and lock the interface cover.

## 5.2 Display Real-time Temperature Points

The camera supports displaying the highest (Max) and lowest (Min) and center temperature points in the live view. After enabling the function, the highest temperature point is marked with  and the lowest temperature point is marked with . Real-time temperatures are displayed next to the marks.

1. In live view interface, press  and  together to enter menu.

2. Go to **Settings > Display Settings > Max/ Min/ Cen.**
3. Press  to select **Max/ Min/ Cen**, and press  to enable the spot.
4. Press  to save and exit.

## 5.3 Set Center Temperature Alarm






Set the alarm rules and the device will alarm when the center temperature triggers the rule.



### Note

The center temperature point is enabled by default. If the center temperature point is turned off, it must be enabled again to use the alarm function.

---

1. In live view interface, press  and  together to enter menu.
2. Go to **Settings > Alarm Settings.**
3. Press  to enable the alarm.
4. Select **Alarm Threshold** to set the threshold temperature.
5. Press  to save and exit.
6. Press  to return to the live-view interface. When the center temperature exceeds the alarm temperature, the temperature value in the lower right corner turns red.

## 5.4 Connect to Mobile Application and PC Software

### 5.4.1 Mobile Application HIKMICRO Viewer

HIKMICRO Viewer is a mobile application for users to view live image.

#### ***Before you Start***

1. Download and install the latest HIKMICRO Viewer to your mobile device.



Android










iOS

2. Go to **Settings > More Settings > Network Access** to turn on **Network Access** on your device.

### Connect via Hotspot

The camera supports hotspot for wireless connection.

1. Turn on the camera's hotspot.
  - 1) In live view, press  and  together to enter menu.
  - 2) Go to **Settings > More Settings > Hotspot**.
  - 3) Press  to select **Hotspot**, and press  to enable hotspot.
  - 4) Press  to move the box to QR Code, and press  to show the code.
2. Connect the camera to HIKMICRO Viewer.
  - 1) On mobile device, enter HIKMICRO Viewer and tap "+" in the upper right corner.
  - 2) Select "Scan QR Code" and aim the camera of your mobile device to the QR Code. Then the app starts to add your thermal camera.
  - 3) Confirm the connection authentication. When a pop-up window for connection authentication is displayed, press  to confirm the connection authentication.
  - 4) You can see camera live image via the APP after adding process finishes.



#### Note


For more using guide of the app, please check its embedded user manual from **Settings > User Manual**.

---

### 5.4.2

#### UVC Cast Screen

The camera supports casting screen to PC. Connect the camera to your PC via the included USB cable, and cast the real-time live view of the camera to your PC.






1. Download a UVC protocol-based software.
2. Connect the camera to the PC with a USB cable. Press  to select **USB Cast Screen** on the camera.
3. Open the UVC protocol-based software on your PC.
4. The live image of the camera then displays on your PC.

## 6 More Settings

### 6.1 Temperature Measurement Settings



#### 6.1.1 Change Temperature Unit

The camera supports 3 temperature units: degree Celsius (°C), degree Fahrenheit °F (°F), and Kelvin (K). The temperature unit is displayed in the lower right corner of the live view interface.




1. In live view interface, press  and  together to enter menu.
2. Go to **Settings > More Settings > Unit**.
3. Press  to select Unit, and press  to switch among the three units.
4. Press  to save and exit.

#### 6.1.2 Set Temperature measurement parameters



Users should set temperature measurement parameters before measuring temperature.

1. In live view interface, press  and  together to enter menu.
2. Go to **Settings**.

**Emissivity: Set the emissivity of the target.**

1. Go to Emissivity settings.
2. Press  to select an emissivity based on the scenario.
3. Optional: Select **Custom** to set the emissivity value, press or hold  to increase the value.
4. Press  to save and exit.





**Distance: Set the distance between the target and the device.**

1. Go to select Distance settings.
2. Press or hold  to increase the value.
3. Press  to save and exit.

## 6.2 Direction Display

Equipped with a compass, the camera is able to display its direction on the live image and in the captured images. You can follow the pop-up instructions to calibrate the compass.

Compass calibration is a must for correct direction display. You need to calibrate the compass when you enable the function for the first time.

1. In live view interface, press  and  together to enter camera menu.
2. Go to **Settings > Compass**.
3. Press  to select Compass, and press  to enable.
4. Follow the screen instructions to move and rotate the camera.

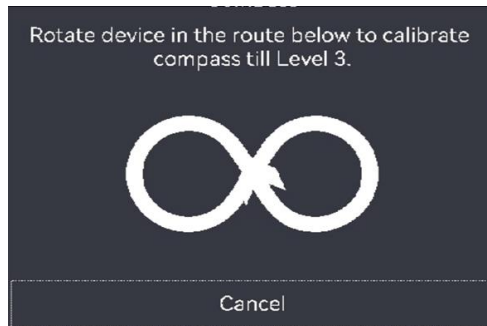


Figure 6-1 Rotate the Camera




### Note

- During calibration, keep moving and rotating the camera to make sure that the camera faces every possible directions.
- Turn on the **Status Icons** to check the level.

5. Stop moving the camera when calibration success message pops up.


### Result

The status bar in the live view interface shows  after successful calibration. If the number in this icon is smaller than 3, it means that the compass is not properly calibrated and the direction displayed might not be correct.






## 6.3 Set Time and Date

The system date and time affect snapshots and local album folders. When you power on the imager for the first time, follow the instructions to set the date and time.






1. In live view interface, press  and  together to enter camera menu.

2. Go to **Settings > Display Settings > Time and Date.**
3. Press  to show or hide **Time and Date.**






### 6.3.2 Set Date

1. In live view interface, press  and  together to enter camera menu.
2. Go to **Settings > Display Settings > Date.**
3. Press  to switch from setting year, month and date. The parameter in adjustment is displayed with a blue box.
4. Press  to increase the value, and pull the trigger to reduce the value.
5. Press  to save and exit.

### 6.3.3 Set Time



1. In live view interface, press  and  together to enter camera menu.
2. Go to **Settings > Display Settings > Time.**
3. Press  to switch from setting time format, hour and minute. The parameter in adjustment is displayed with a blue box.
4. Press  to increase the value, and pull the trigger to reduce the value.
5. Press  to save and exit.



## 6.4 Set Language

1. In live view interface, press  and  together to enter camera menu.
2. Go to **Settings > More Settings > Language.**
3. Press  to switch **Language**, and press  to select a language.
4. Press  to save and exit.

## 6.5 Set Icon Displaying

Users can choose to hide certain icons on the live view interface, such as the hotspot icon and ODE icon.

1. In live view interface, press  and  together to enter camera menu.
2. Go to **Settings > Display Settings > Status Icons.**

3. Press  to show or hide the icon display.
4. Press  to save and exit.

## 6.6 Screen Lock

### 6.6.1 Set and Change Password

Users can use screen lock to protect information security. When enabled, users can configure and modify a 4-digit screen lock password (number only). The password must be entered every time the device starts up or wakes from sleep mode.

Go to **Settings > More Settings > Screen Lock** and turn on the button.



#### Note

After the device screen turns off, the screen lock activates. Users can choose to have the screen lock take effect after sleep mode or after restarting the device.

---


### 6.6.2 Change Password

Users can choose to change password. Go to **Settings > More Settings > Screen Lock > Change Password**.

### 6.6.3 Reset Password

If the password is forgotten, it can be reset, but this action will erase all stored data and user configurations. Proceed with caution.

#### Steps

In live view interface, hold  to confirm format storage and restore device to factory settings.



#### Note

Device storage media cannot be accessed via PC when the device is charged via a USB cable in power-off state, or the device is in locked state.

---

## 6.7 Settings Lock

### 6.7.1 Set and Change Password

After configuring preferred settings, users can enable the settings lock to prevent changes caused by accidental touches or other reasons. When enabled, users can configure and modify a 4-digit settings lock password (number only). The password is required to enter the settings menu each time.

Go to **Settings > More Settings > Settings Lock** and turn on the button.


### 6.7.2 Change Password

Users can choose to change password. Go to **Settings > More Settings > Settings Lock > Change Password**.

### 6.7.3 Reset Password

If the password is forgotten, it can be reset, but this action will erase all user configurations. Proceed with caution.




#### Steps

In settings interface, hold  to confirm restore device to factory settings.

## 7 Maintenance





### 7.1 Upgrade Firmware

#### *Before You Start*

- Please download the upgrade file from the official website <http://www.hikmicrotech.com> or contact the custom service and technical support to get the upgrade file first.
  - Make sure that the camera battery is fully charged.
1. Connect the camera to PC with a USB-A to USB-C cable. See the interface in Figure 3-3.
  2. Press  to select **USB Drive** on the camera. The camera storage appears in the PC as a removable disk.
  3. Unzip the upgrade file, copy and paste it to the root directory of the camera.
  4. Disconnect the camera from your PC.
  5. Reboot the camera and then it will upgrade automatically. The upgrading process will be displayed in the main interface.
  6. After upgrading, you can check the version information by pressing  and  together in live view interface.





### 7.2 Save Operation logs

The camera can collect its operation logs and save in the storage only for troubleshooting.

1. Start or stop saving operation logs.
  - 1) In live view interface, press  and  together to enter menu.
  - 2) Go to **Settings > More Settings > Save Logs**.
  - 3) Press  to turn on/off this function.
2. Export the operation logs to your PC.
  - 1) Connect the camera to PC with a USB-A to USB-C cable. See the interface in Figure 3-3.
  - 2) Press  to select **USB Drive** on the camera. The camera storage appears in the PC as a removable disk.
  - 3) Open the detected disk and enter the log folder.
  - 4) Copy the .log files and paste them to your PC.





## 7.3 Format Storage

Storage initialization. Use this function with caution.

1. In live view interface, press  and  together to enter menu.
2. Go to **Settings > More Settings > Format Storage**.
3. Press  to start formatting storage or  to cancel.

## 7.4 Restore Camera

Restore the camera to the factory settings. Use this function with caution.

1. In live view interface, press  and  together to enter menu.
2. Go to **Settings > More Settings > Restore Device**.
3. Press  to start restoring or  to cancel.

## Appendix A Frequently Asked Questions (FAQ)

Scan the following QR code to get camera common FAQ.





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