



**ECO&ECO-V**




Thermal Camera  
User Manual



Contact Us

# SAFETY INSTRUCTION

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

<i>Symbol</i>	<i>Description</i>
 <b>Danger</b>	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
 <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>Note</b>	Provides additional information to emphasize or supplement important points of the main text.

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss. Please read all the safety information carefully before using.

## 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

- ◆ Input voltage should meet the Limited Power Source (5 VDC, 2 A) according to the IEC62368 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.
- ◆ Use the power adapter provided by a qualified manufacturer. Refer to the product specification for detailed power requirements.

## 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 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.
- ◆ 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.
- ◆ 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 battery is full, the time settings can be kept for 60 days.
- ◆ The standard adapter power supply is 5 V.

## 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.
- ◆ 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.
- ◆ Your camera will periodically perform a self-calibration to optimize image quality and measurement accuracy. In this process, the image will pause briefly and you will hear a “click” as a shutter moves in front of the detector. The self-calibration will be more frequent during start up or in very cold or hot environments. This is a normal part of operation to ensure optimum performance for your camera.

## Calibration Service

- ◆ We recommend you send the device back for calibration once a year, and please contact the local dealer for the information on maintenance points. For more detailed calibration services, please refer to <https://www.hikmicrotech.com/en/calibrationservices/2>.

## Using Environment

- ◆ Make sure the running environment meets the requirement of the device. The operating temperature shall be -10 °C to 50 °C (14 °F to 122 °F), and the operating humidity shall be 95% or less.
- ◆ This device can only be safely used in the region below 2000 meters above the sea level.
- ◆ 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.
- ◆ DO NOT aim the lens at the sun or any other bright light.
- ◆ The device is suitable for indoor and outdoor uses, but do not expose it in wet conditions.
- ◆ The level of protection is IP 54.
- ◆ The pollution degree is 2.

## Technical Support

The <https://www.hikmicrotech.com/en/contact-us.html> portal 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.

## Laser Light Supplement Warning



Warning: The laser radiation emitted from the device can cause eye injuries, burning of skin or inflammable substances. Prevent eyes from direct laser. Before enabling the Light Supplement function, make sure no human or inflammable substances are in front of the laser lens. The wave length is 650 nm, and the power is less than 1 mW. The laser meets the IEC60825-1:2014 standard.

**Laser maintenance:** It is not necessary to maintain the laser regularly. If the laser does not work, the laser assembly needs to be replaced in the factory under warranty. Keep the device power off when replacing laser assembly. Caution-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous

radiation exposure.

### **Manufacture Address**

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

Hangzhou Microimage Software Co., Ltd.

### **COMPLIANCE NOTICE**

The thermal series products might be subject to export controls in various countries or regions, including without limitation, the United States, European Union, United Kingdom and/or other member countries of the Wassenaar Arrangement. Please consult your professional legal or compliance expert or local government authorities for any necessary export license requirements if you intend to transfer, export, re-export the thermal series products between different countries.

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# CHAPTER 1 INTRODUCTION

## 1.1 Important Notice to User

This manual describes and explains the features for multiple camera models. Because the camera models of a series have different features, this manual may contain descriptions and explanations that do not apply to your particular camera model.

Not all the camera models of a series support the mobile applications, software, and all their functions mentioned (or not mentioned) in this manual. Please refer to the user manuals of the application and software for more detailed information.

This manual is updated on a regular basis. It means that this manual may not contain the information about the new features of the latest firmware, mobile clients, and software.

## 1.2 Main Function

### *Temperature Measurement*

Device detects the real-time temperature, and displays it on the screen.

### *Palettes*

Device supports multiple palettes, and you can choose different palettes for vivid image.

### *SuperIR*

Device supports **SuperIR** to enhance the object outlines for better image display.

### *Client Software Connection*



**HIKMICRO Analyzer**

Download HIKMICRO Analyzer (<https://www.hikmicrotech.com/en/industrial-products/hikmicro-analyzer-software.html>) to analyze pictures.

**UVC Alarm Client**

Download the UVC alarm client (<https://www.hikmicrotech.com/en/industrial-products/uvc-client/>) to cast the real-time live view of the camera.



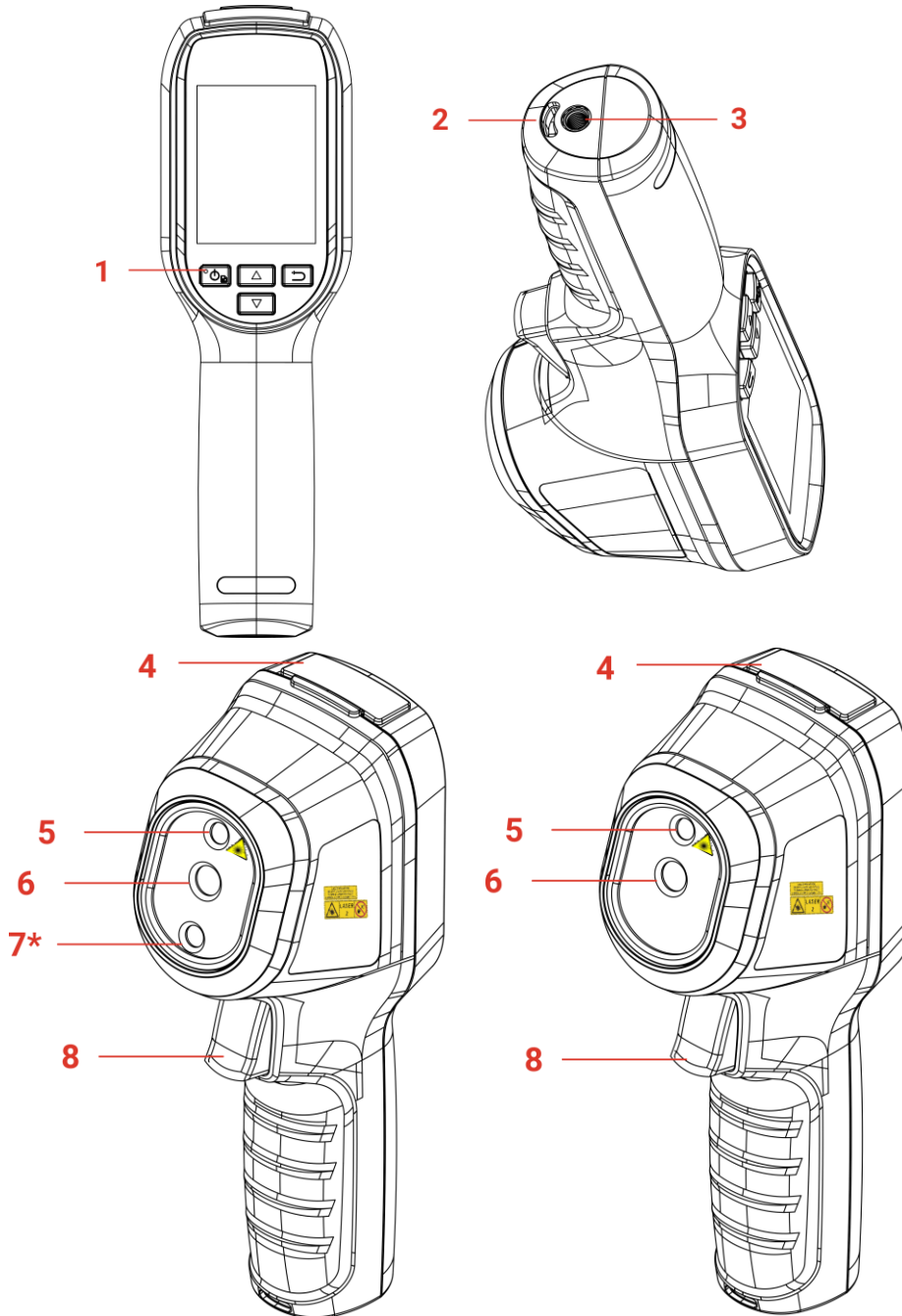
#### **NOTE**

Not all the camera models of this series support the mobile applications, software, and all their functions mentioned (or not mentioned) in this manual. Please refer to the user manuals of the application and software for more detailed information.











### 1.3 Appearance


The appearances and components of camera models might be different. Please refer to the actual products.



No.	Component	Function
1	Charging Indicator	<ul style="list-style-type: none"> <li>◆ Solid Red: Charging.</li> <li>◆ Solid Green: Fully charged.</li> </ul>
2	Wrist Strap Hole	Mount the wrist strap.
3	Tripod Mount	Connect to UNC 1/4"-20 tripod.

4	Type-C Interface	Charge the battery or export files.
5	Laser	Locate the target position with laser light.
6	Thermal Lens	View the thermal image.
7*	Visual Lens*	View the visual image (only supported by certain models).
		In live view:
8	Trigger	<ul style="list-style-type: none"> <li>◆ Press: Capture snapshots.</li> <li>◆ Hold: Locate the target with laser light, and release to capture snapshots.</li> </ul> In menu mode, press the trigger to go back to live view.

Button	Function
	<ul style="list-style-type: none"> <li>◆ Hold: Power On/Off</li> <li>◆ Press: Display menu or confirm operation.</li> </ul>
	Exit the menu or return to previous menu.
	In menu mode: Press  and  to select parameters.
	In live view mode: Press  to switch image modes (only supported by certain models). Press  to switch palettes.

 <b>NOTE</b>	<ul style="list-style-type: none"> <li>◆ The appearance and button functions vary according to different models.</li> <li>◆ The visual lens is only supported by certain models. Please refer to the actual device or datasheet.</li> <li>◆ The warning sign is beside the laser and on the left side of the device.</li> </ul>
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### Warning:

The laser radiation emitted from the device can cause eye injuries, burning of skin or inflammable substances. Prevent eyes from direct laser. Before enabling the Light Supplement function, make sure no human or inflammable substances are in front of the laser lens. The wave length is 650 nm, and the power is less than 1 mW. The laser meets the IEC60825-1:2014 standard.

## CHAPTER 2 PREPARATION

### 2.1 Charge Device

Plug in the included USB cable, and connect the device to the power supply via a power adapter to charge the device. Do not use the USB-C to USB-C cable of other manufacturers.

The power adapter (not included) should meet the following standards:

- ◆ Output Voltage/Current: 5 VDC/2 A
- ◆ Minimum Power Output: 10 W

Check the power indicator for the charging status:


- ◆ Solid red: charging normally
- ◆ Flashing red: charging exception
- ◆ Solid green: fully charged

**NOTE**

- ◆ The device is equipped with the built-in battery. For the first charge, charge the device for more than 3 hours when the device is turned on.
- ◆ If the camera is not in use for an extended period and is over-discharged, it is recommended to charge for at least 30 min before powering it on.
- ◆ It is recommended to use the USB cable included in the package for both charging and data transfer.

### 2.2 Power On/Off

#### Power On

Hold  for over six seconds to turn on the device. You can observe the target when the interface of the device is stable.


**NOTE**

- ◆ It may take at least 30 s until the device is ready for using after you power on it.


#### Power Off

When the device is turned on, hold  for about six seconds to power off the device.

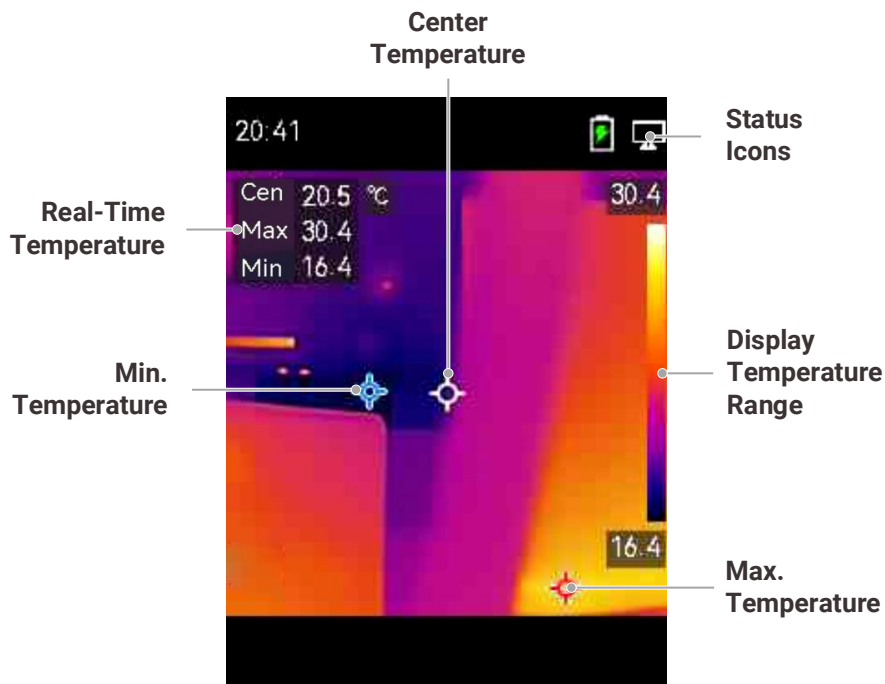
#### 2.2.1 Set Auto Power-Off

In the live view interface, press , and go to **More Settings > Auto Power-off** to set the automatic shutdown time for device as required.

## 2.2.2 Set Auto Sleep

In live view interface, press , and go to **More Settings > Auto Sleep** to set the waiting time before auto sleep. When there is no button pressing on the device for more than the set waiting time, the device enters sleep mode automatically. Press a button to wake the device up.

## 2.3 Live View



### NOTE


- ◆ Because this manual is updated on a regular basis, the live view might be slightly different from the version of your particular camera model. Please refer to the actual camera.
- ◆ Your camera will periodically perform a self-calibration to optimize image quality and measurement accuracy. In this process, the image will pause briefly and you'll hear a "click" as a shutter moves in front of the detector. The prompt "Image Calibrating ..." appears in the upper center of the screen as the device is calibrating itself. The self-calibration will be more frequent during start up or in very cold or hot environments.

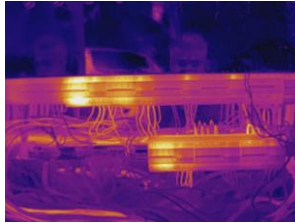
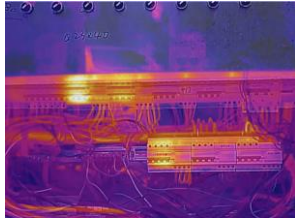
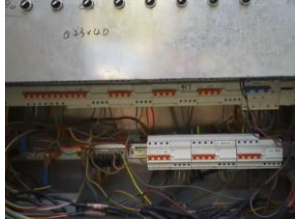
## CHAPTER 3 DISPLAY SETTINGS


### 3.1 Set Image Modes

You can set image modes of the device. **Image Mode** is only supported by certain models. Please refer to the actual device or the datasheet.

1. Select an image mode by the following ways:


- ◆ Go to **Settings > Image Settings > Image Mode**, and select a preferred image mode.
- ◆ Press  in live view to switch image modes.

<i>Image Mode</i>	<i>Description</i>	<i>Example</i>
<b>Thermal</b>	In thermal mode, the device displays the thermal view.	
<b>Fusion</b>	Thermal object image with visual outlines. This function is only supported by the models with visual lens.	
<b>Visual</b>	Visual object image only. This function is only supported by the models with visual lens.	

2. When selecting the fusion mode, you need to select the distance in **Image Settings > Parallax Correction** according to the distance to the target, so as to better overlap the thermal and visual images.
3. Press  to save and exit.

### 3.2 Set Palettes

The palettes allow you to select the desired colors. You can switch palettes by the following ways:

- ◆ Go to **Settings > Palettes** to select a preferred palette, and press  to save and exit.

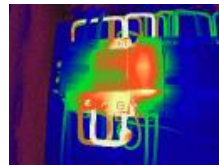
- ◆ Press  in live view to switch palettes.



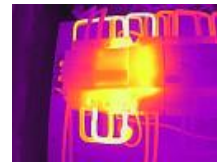
Black Hot



White Hot



Rainbow



Ironbow













Fusion



Red Hot

### 3.3 Set Level & Span

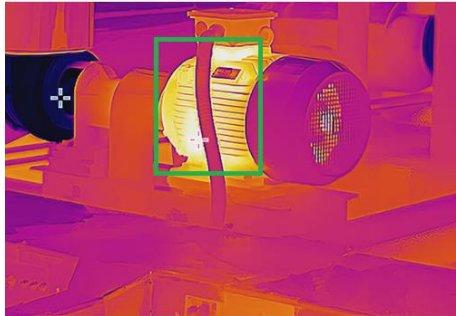
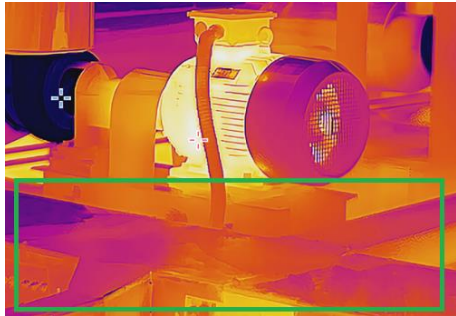
Set a display temperature range and palette only works for targets within the temperature range. You can get better image contrast by adjusting the level & span parameters.

1. In the live view interface, press  to show the menu.
2. Press  and , and select **Level & Span**.
3. Select **Setting Mode**, and press  to switch auto and manual adjustment.
  - ◆ In **Auto** mode, the device adjusts display temperature range automatically.
  - ◆ In **Manual** mode, select **Parameters** to enter the setting interface. Press  to lock or unlock the max. temperature and min. temperature, and press  and  to adjust unlocked value. Or, unlock the max. temperature and min. temperature, and press  and  to increase or decrease the individual values while remaining the same temperature range.
4. Press  to save and exit.

### 3.4 Color Distribution

Color distribution function provides different image display effects in auto level & span. Linear and histogram color distribution modes can be selected for different application scenes.

1. Go to **Image Settings > Color Distribution**.
2. Select a color distribution mode.

Mode	Description	Example
Linear	Linear mode is used to detect small high temperature targets in low temperature background. Linear color distribution enhances and displays more details of high temperature targets, which is good for checking small high temperature defective areas such as cable connectors.	
Histogram	Histogram mode is used to detect temperature distribution in large areas. Histogram color distribution enhances high temperature targets and remains some details of low temperature objects in the area, which is good for discovering small low temperature targets such as cracks.	

**NOTE**

This function is only supported in auto level & span.

### 3.5 Display On-Screen Info

Go to **Settings > Display Settings** to turn on/off the information on-screen display.






- ◆ **Parameters:** Temperature measurement parameters, for example, target emissivity, temperature unit, etc.
- ◆ **Brand Logo:** The brand logo is a manufacturer logo displayed at the middle bottom of the screen.

## CHAPTER 4 TEMPERATURE MEASUREMENT

The temperature measurement function provides the real-time temperature of the scene. The device displays the measurement results on the left of your screen. This function is turned on by default.





### 4.1 Set Temperature Measurement Parameters

You can set temperature measurement parameters to improve the accuracy of temperature measurement.

1. In the live view interface, press  to show the menu.
2. Press  to select desired parameters.
  - ◆ **Temperature Range:** Select the temperature measurement range. The device can detect the temperature and switch temperature measurement range automatically in Auto Switch mode.
  - ◆ **Emissivity:** Enable **Custom**, and select **Emissivity** to set the emissivity of the target as the effectiveness in emitting energy as thermal radiation by pressing . Or you can select a preset emissivity.
  - ◆ **Distance:** Set the distance between the target and the device.
  - ◆ **Unit:** Go to **Display Settings** > **Unit**, and press  to set the temperature unit.
3. Press  to save and exit.

### 4.2 Set Measurement Tools

Device measures the temperature of the whole scene and can be managed to display the center, hot, and cold spot in the scene.

1. In the live view interface, press  to show the menu.
2. Press  to select **Display Settings**.
3. Select the desired spots to show their temperatures, and press  to enable them.
  - ◆ **Hot:** Display the hot spot in the scene and show the max. temperature.
  - ◆ **Cold:** Display the cold spot in the scene and show the min. temperature.
  - ◆ **Center:** Display the center spot in the scene and show the center temperature.
4. Press  to save and exit.





#### **Result**

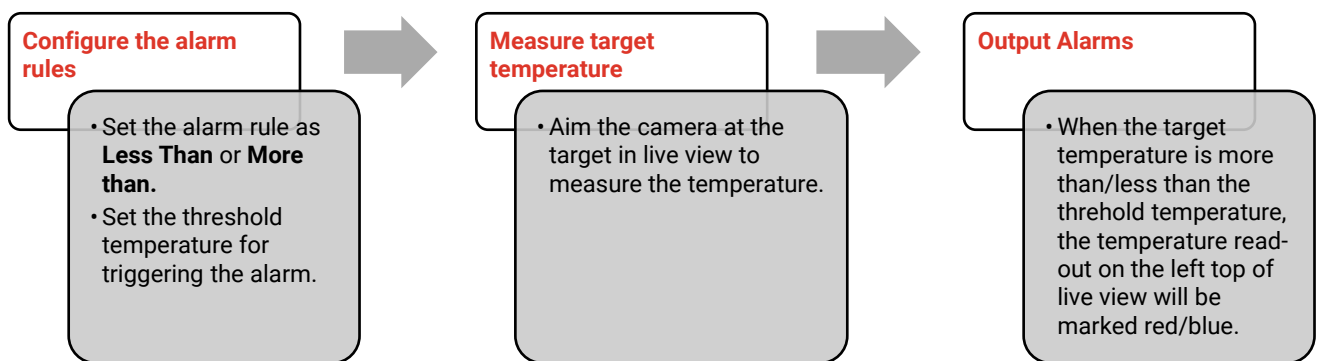
The device shows the real-time temperature on the upper left side of live view interface.



## 4.3 Set Temperature Alarm

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

1. In the live view interface, press  to show the menu.
2. Press , and select **Alarm**.
3. Press  to enable the function.
4. Select **Measurement** to set the alarm rule. Select **Alarm Threshold** to set the threshold temperature.
5. Press  to save and exit.



# CHAPTER 5 CAPTURE AND MANAGE SNAPSHOTS

## 5.1 Capture Snapshots

You can capture snapshots in live view. The snapshot will be automatically saved in the albums.








1. In the live view interface, you can capture snapshots by the following ways:
  - ◆ Press the trigger in live view to capture snapshots.
  - ◆ Hold the trigger in live view to locate the target with laser light, and release the trigger to capture snapshots.

**NOTE**

- ◆ Go to **More Settings > Laser** to turn on/off laser light.
- ◆ You cannot capture snapshots when the device is connected with PC.

2. **Optional:** Go to **Settings > SuperIR**, and enable **SuperIR** in the menu before capturing to enhance the object outlines on snapshots.
3. **Optional:** If a visual image is needed to be saved separately, enable **Save Visual Image** in **Settings > Capture Settings** (only supported by the models with visual lens).

## 5.2 View Snapshots

1. In the live view interface, press  to show the menu.
2. Press  to enter the album.
3. Press  to select the picture, and press  to view it.
4. **Optional:** Press  to delete picture in picture view interface. Press  to switch the picture.
5. Press  to exit.

## 5.3 Export Snapshots

1. Connect the device to your PC with the supplied USB cable, and select **USB Drive** mode in the prompt on device.
2. Open the detected disk, copy and paste the files to PC to view the files.
3. Disconnect the device from your PC.

**NOTE**

For the first connection, the driver will be installed automatically.


## CHAPTER 6 CAST DEVICE SCREEN TO PC

The device supports casting screen to PC by UVC protocol-based client software or player. You can connect the device to your PC via the included USB cable, and cast the real-time live view of the device to your PC.

1. Download the UVC protocol-based client software from our official website:  
<https://www.hikmicrotech.com/en/industrial-products/uvc-client/>
2. Connect the device to your PC via the included USB cable, and select **USB Cast Screen** in the prompt on the device as the USB mode. Exporting files via USB connection is not allowed when you are casting the screen.
3. Open UVC Alarm Client on your PC

## CHAPTER 7 MAINTENANCE

### 7.1 Set Time and Date

In the live view interface, press  and go to **Display Settings > Time and Date** to set the information.

### 7.2 Set Language



Go to **More Settings > Language** to select a required language.

### 7.3 Save Operation logs

The device can collect its operation logs and save in the storage only for troubleshooting. You can turn on/off this function in **Settings > More Settings > Save Logs**.

You can connect the camera to PC using the supplied USB cable, and select **USB Drive** as the USB mode on camera to export the operation logs in the root directory of the camera, if necessary.

### 7.4 Format Storage

1. In the live view interface, press  and go to **More Settings > Format Storage**.
2. Press  and select **OK** to start formatting storage.



**NOTE** Format storage before first use.

### 7.5 View Device Information

Go to **More Settings > About** to view the detailed information of the camera, such as firmware version, serial number, etc.

### 7.6 Upgrade

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


Download the upgrade file from the official website first.

1. Connect the device to your PC via the included USB cable, and select **USB Drive** as the USB mode in the prompt on the device.
2. Copy the upgrade file and replace 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.

**NOTE**

After the upgrading, the device automatically reboot. You can view the current version in More **Settings** > **About**.

## 7.7 Restore Device

In the live view interface, press  and go to **More Settings** > **Restore Device** to initialize the device and restore default settings.

## CHAPTER 8 **FAQ**

### 8.1 Frequently Asked Questions (FAQ)

Scan the following QR code to get device common FAQ.



# LEGAL INFORMATION

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## About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the HIKMICRO website (<http://www.hikmicrotech.com>).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATTER PREVAILS.



## REGULATORY INFORMATION

**These clauses apply only to the products bearing the corresponding mark or information.**

### EU Conformity Statement



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) and Directive 2011/65/EU (RoHS).

Note: The products with the input voltage of within 50 to 1000 VAC or 75 to 1500 VDC comply with Directive 2014/35/EU (LVD), and the rest products comply with Directive 2001/95/EC (GPSD). Please check the specific power supply information for reference.

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.

For the device without a supplied battery, 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](http://www.recyclethis.info)



Directive 2006/66/EC and its amendment 2013/56/EU (Battery Directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: [www.recyclethis.info](http://www.recyclethis.info)

### Industry Canada ICES-003 Compliance

This device meets the CAN ICES-003 (B)/NMB-003 (B) standards requirements.

### Conformité Industrie Canada ICES-003

Cet appareil répond aux exigences des normes CAN ICES-003 (B)/NMB-003 (B).

## KC

B급 기기: 이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

## INFORMATIONEN FÜR PRIVATE HAUSHALTE

### 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.

### 2. Batterien und Akkus sowie Lampen:

Besitzer von Altgeräten haben Altbatterien und Altakkumulatoren, die nicht vom Altgerät umschlossen sind, die zerstörungsfrei aus dem Altgerät entnommen werden können, im Regelfall vor der Abgabe an einer Erfassungsstelle vom Altgerät zu trennen. Dies gilt nicht, soweit Altgeräte einer Vorbereitung zur Wiederverwendung unter Beteiligung eines öffentlich-rechtlichen Entsorgungsträgers zugeführt werden.

### 3. Möglichkeiten der Rückgabe von Altgeräten:

Besitzer von Altgeräten aus privaten Haushalten können diese bei den Sammelstellen der öffentlich-rechtlichen Entsorgungsträger oder bei den von Herstellern oder Vertreibern im Sinne des ElektroG eingerichteten Rücknahmestellen unentgeltlich abgeben.

Rücknahmepflichtig sind Geschäfte mit einer Verkaufsfläche von mindestens 400 m<sup>2</sup> für Elektro- und Elektronikgeräte sowie diejenigen Lebensmittelgeschäfte mit einer Gesamtverkaufsfläche von mindestens 800 m<sup>2</sup>, die mehrmals pro Jahr oder dauerhaft Elektro- und Elektronikgeräte anbieten und auf dem Markt bereitstellen. Dies gilt auch bei Vertrieb unter Verwendung von Fernkommunikationsmitteln, wenn die Lager- und Versandflächen für Elektro- und Elektronikgeräte mindestens 400 m<sup>2</sup> betragen oder die gesamten Lager- und Versandflächen mindestens 800 m<sup>2</sup> betragen. Vertreter haben die Rücknahme grundsätzlich durch geeignete Rückgabemöglichkeiten in zumutbarer Entfernung zum jeweiligen Endnutzer zu gewährleisten. Die Möglichkeit der unentgeltlichen Rückgabe eines Altgerätes besteht bei rücknahmepflichtigen Vertreibern unter anderem dann, wenn ein neues gleichartiges Gerät, das im Wesentlichen die gleichen Funktionen erfüllt, an einen Endnutzer abgegeben wird.

### 4. Datenschutz-Hinweis:

Altgeräte enthalten häufig sensible personenbezogene Daten. Dies gilt insbesondere für Geräte der Informations- und Telekommunikationstechnik wie Computer und Smartphones. Bitte beachten Sie in Ihrem eigenen Interesse, dass für die Löschung der Daten auf den zu entsorgenden Altgeräten jeder Endnutzer selbst verantwortlich ist.


### 5. Bedeutung des Symbols „durchgestrichene Mülltonne“:



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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