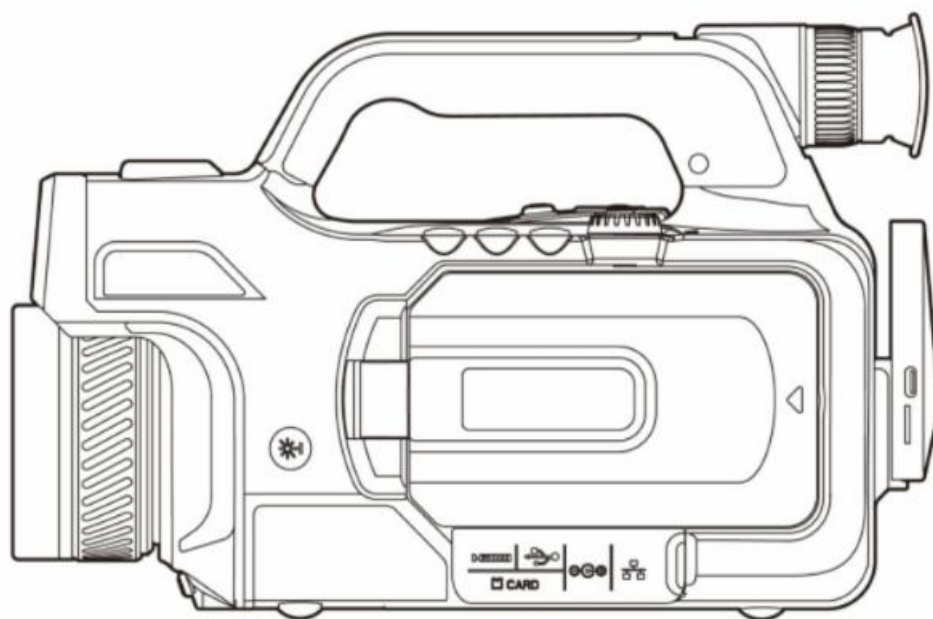


User's manual

OPTICAL GAS IMAGING CAMERA



Thank you for purchasing this product. Please read this manual before use. The images are for reference only, and the actual product shall prevail.

Head record

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Important Notes

This manual is a general manual for a series of products. This means that the specific model product you receive may be different from the pictures in the manual. Please refer to the actual product you receive. allow.

This user manual is compiled to facilitate users to use and understand our products. We will do our best to ensure the accuracy of the contents of this manual, but The completeness of the contents of this manual cannot be guaranteed, as our products have been continuously updated and upgraded. The company reserves the right to modify the contents at any time without prior notice. profit.

Precautions

Danger

- 1) Please charge the battery according to the method described in this manual and follow the charging steps and precautions. Improper charging may cause the battery to become hot and damaged. Even causing human injury.
- 2) Do not attempt to open or disassemble the battery at any time. If the battery leaks and liquid enters the eyes, rinse the eyes immediately with clean water. And receive medical care.

warn

- 1) Please keep the device as stable as possible when using it and avoid violent shaking.
- 2) Do not use or store the instrument in an environment that exceeds the permitted operating or storage temperature.
- 3) Do not point the device directly at high-intensity heat radiation sources, such as the sun, lasers, spot welders, etc.
- 4) Do not block the holes in the device.
- 5) Do not knock, throw or vibrate the instrument and accessories to avoid damage.
- 6) Do not disassemble the device by yourself, as this may cause damage to the device and void the warranty.
- 7) Do not use solvents or similar liquids on the device or cables, as this may cause damage to the device.
- 8) Please do not use the device in an environment that exceeds the operating temperature of the device, as this may cause damage to the device.
- 9) Please follow the following measures when wiping this device:
 - Non-optical surfaces: If necessary, the non-optical surfaces of the thermal imager can be wiped with a clean, soft cloth.
 - Optical surface: When using the thermal imager, please avoid dirtying the optical surface of the lens. In particular, avoid touching the lens with your hands, as sweat from your hands will stain the lens. Leave marks on the lens and may corrode the optical coating layer on the glass surface. When the optical lens surface is contaminated, use professional lens paper Wipe carefully.
- 10) Do not place the battery in a high temperature environment or near high temperature objects.
- 11) Do not short-circuit the positive and negative terminals of the battery.
- 12) Do not expose the battery to moisture or water.

Notice

- 1) Do not expose the device to dust or moisture. When using in a watery environment, avoid water splashing on the instrument. When not in use, Replace the lens cap.
- 2) When the device is not in use, please place the instrument and all accessories in the dedicated packaging box.
- 3) Avoid using the included SD card for other purposes.
- 4) Using the eyepiece for a long time will cause the eyepiece contrast to decrease and the image to become white. If this happens, you can switch to the LCD screen display and then switch to the LCD screen after a while. Eyepiece display.

Storage and transportation

Storage:

The packaged products should be stored in a well-ventilated and clean room with a temperature between -40°C and 70°C , a relative humidity not exceeding 95%, no condensation and no corrosive gases.

transportation:

During transportation, it should be protected from rain, water, and inversion. It should not be subjected to severe vibration and impact. It should be handled with care and is strictly prohibited to throw it.

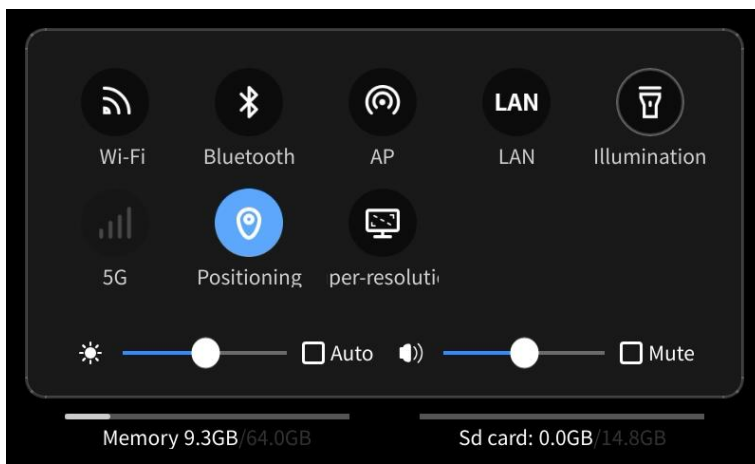
Operating Instructions

Real-time image interface



1. Status bar, including battery level, WiFi status , network status, positioning status, etc.
2. Temperature measurement range: displays the temperature measurement range in the current mode . Click to switch.
3. GDEM, image enhancement mode, can more clearly see the direction of gas flow when turned on.
4. Compass information, real-time interface by long pressing [] icon or go to Settings-Image Tag to turn it on or off.
5. Date and time: Enter Settings-General-Date and Time Settings to change the date and time.
6. Temperature measurement parameters, set the reflected temperature, atmospheric temperature, relative humidity, target distance, optical transmittance and other temperature measurement parameters, the temperature can be adjusted twice just.
7. Color palette, you can set the color band.
8. Analysis objects: set analysis objects such as points, lines, circles, rectangles, etc.
9. Isotherms include upper isotherm, lower isotherm, and interval isotherm .
10. Settings, make relevant system settings.
11. LevelSpan mode: switch between automatic, semi-automatic and manual modes through physical buttons or touch screen .
12. Click to switch the basic color band.
13. Emissivity: Set the emissivity value according to the target being measured.
14. Quick menu: On the main preview interface, touch the top of the screen and slide from top to bottom to enter the quick menu.

Quick Menu



In the real-time image interface, slide your finger downward from the top of the screen to pop up the shortcut menu to view the local memory or external SD card's storage capacity. You can also perform some quick operations, including: brightness, volume, Wi-Fi, Bluetooth, AP, LAN, lighting, Settings such as 5G, positioning, and super resolution.

Image observation

Image mode switching

Gas Mode (GAS)

Rotate the button to the "GAS" mark area, and the real-time preview screen switches to gas mode., for gas observation.

Enhancement switch (GDEM): Click  to turn on the image enhancement mode, at which time you can see the gas flow direction more clearly.



Visible light mode (VL)

Rotate the button to the "VL" mark area and the real-time preview screen will change to visible light mode.



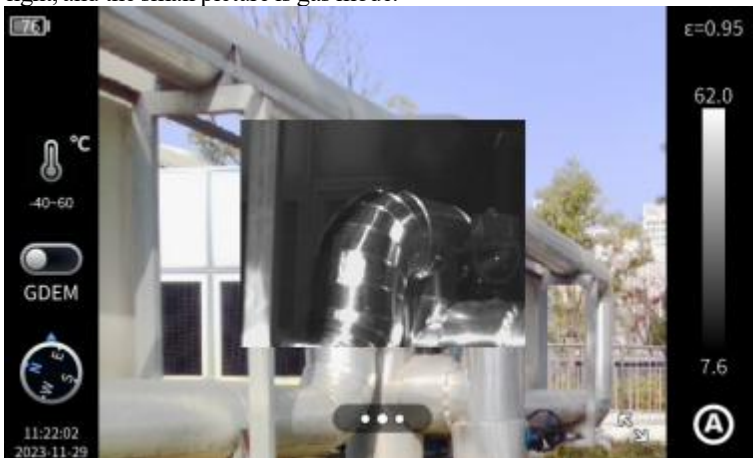
Fusion Mode (MIF)

Rotate the button to the "MIF" logo area, and the real-time preview screen switches to fusion mode; MIF mode mainly realizes the fusion of gas mode and visible light.



Picture-in-Picture mode (PIP)

Rotate the button to the "PIP" mark area , and the real-time preview screen will show the picture-in-picture effect; the picture-in-picture mainly realizes the picture-in-picture of gas mode and visible light, that is, the main The picture is visible light, and the small picture is gas mode.



Infrared mode (IR)

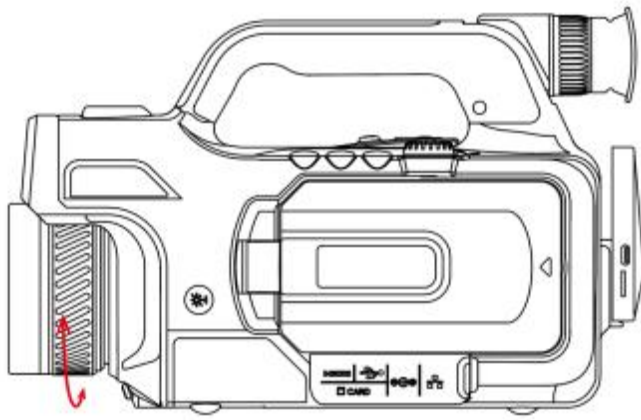
Rotate the button to the "IR" mark area , and the real-time preview screen will show the infrared effect.



Focus

Manual focus

Manually rotate the [focus ring] to perform manual focus.



Touch screen focus

In the live preview interface, double-click the screen to focus.

Autofocus

By pressing the [Focus Key], focus is turned on and the image becomes clear automatically.



Laser focus

When laser focus is selected, press the [Focus Key] in the real-time image interface. A laser point will be emitted to achieve quick focus.

This function is recommended for use in non-strong light environments, where the target can reflect light well (such as white paper, cables, indoor scene targets, etc.) , not recommended It is recommended to measure the distance to targets that cannot reflect light, directly absorb light, or weaken light (such as transparent glass, sky, etc.).

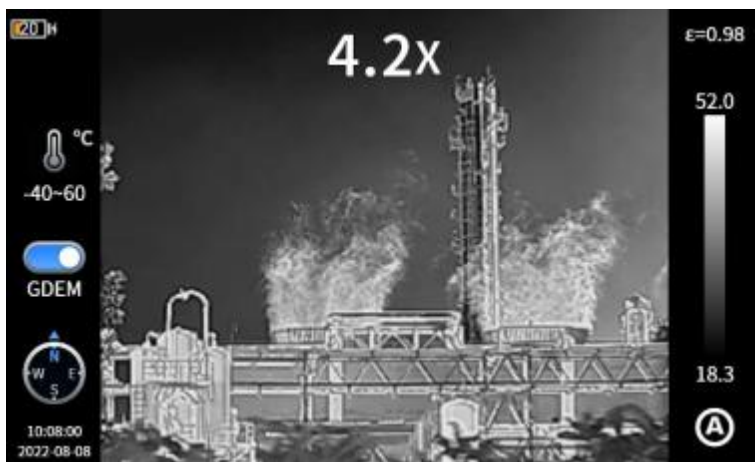
Image contrast focus

This function focuses on the target by comparing the brightness and contrast parameters of the image on the observation interface to keep the image on the observation interface clear.

Electronic zoom

Realize continuous electronic zoom of images, which helps to see the details of the image. You can use the physical button W/T or two-finger zoom now.

W/T button: W is for zooming in, T is for zooming out.



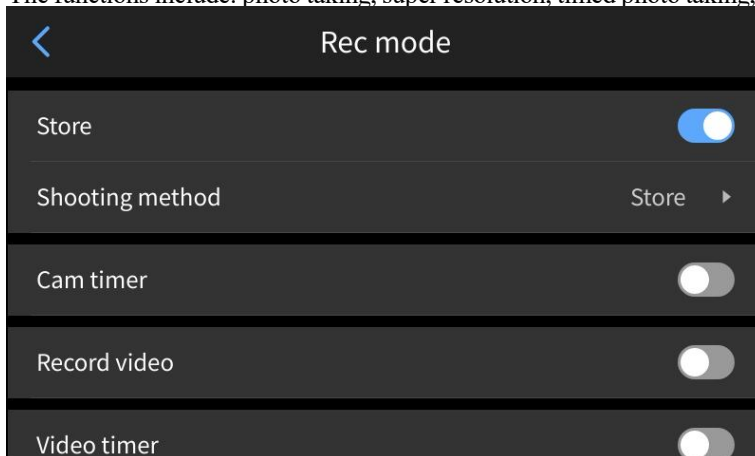
Calibration

The device supports two compensation methods: automatic calibration and manual calibration. The automatic compensation time interval is determined by the device performance.

In live image mode, double-click the screen to manually compensate, or use the "Button Assist" function to set a physical button for manual compensation.

Image capture

The functions include: photo taking, super resolution, timed photo taking, video recording , and timed video recording.



Photograph

Click [] to enter [Settings] - [Shooting Mode], click [Photo], select the corresponding shooting mode, return to the main interface, and adjust the image To the clearest state, press the [Photo Key] to save the photo of the target scene.



Super-resolution

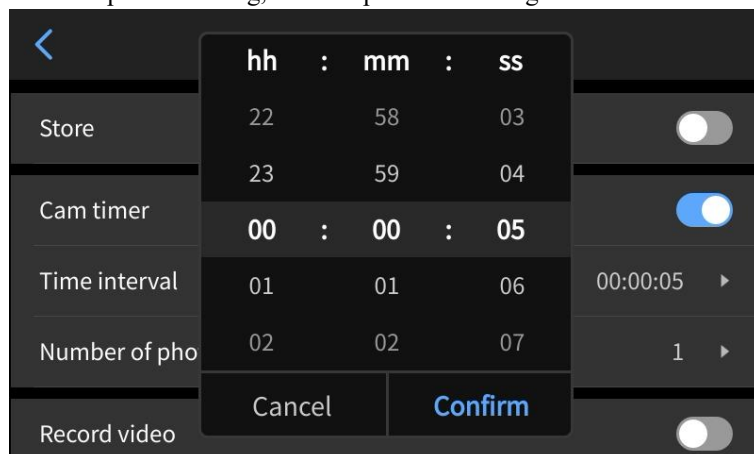
Super-resolution can expand infrared images by 4 times, making images clearer and temperature measurements more accurate.

In the real-time image interface, slide your finger down from the top of the screen to pop up the shortcut menu , click "Super Resolution" to enter the "Super Resolution" mode for shooting .



Timed photo taking

Enter the [Settings] interface, click [Shooting Mode], select [Timed Photo], set the time interval and total number of images, and press the back button to return to the real-time preview. Browse the page, press the [Photo button] to start the timer photo shooting, and take photos according to the set time interval and number of images.



Video

Enter the [Settings] interface, click [Shooting Mode], and turn on [Recording] by touching. Return to the live preview by pressing the Back button page, press the [Photo] button to record the current target scene, and press the [Photo] button again to end recording and save the recorded video.

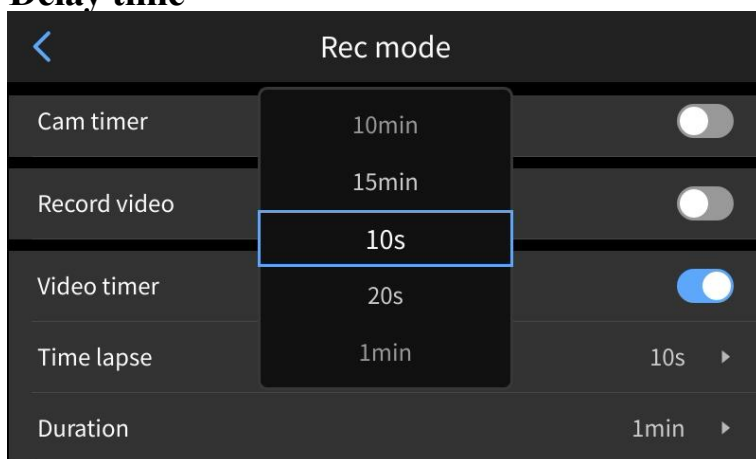


Timed recording

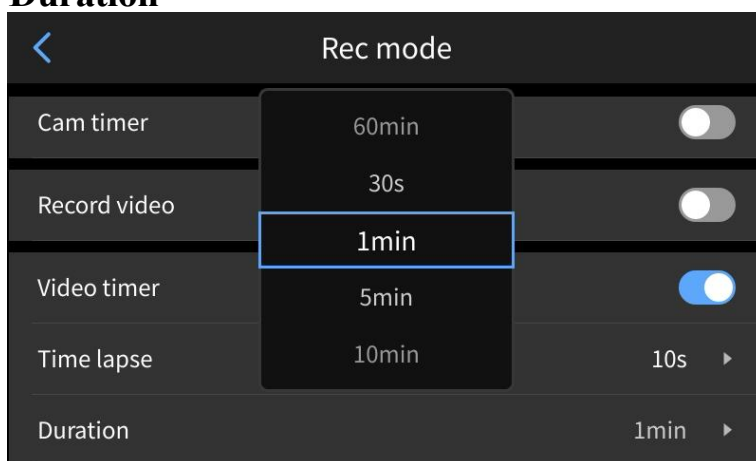
According to different needs and usage scenarios, set the corresponding delay and duration to record the video.

Enter the [Settings] interface, click [Shooting Mode], select [Timer Recording]. Set the delay time and duration, press the back key to return to Live preview page. Press the [Photo button] to start timer recording. Record according to the set delay time and duration. Continuous recording is supported until the memory capacity is filled.

Delay time



Duration

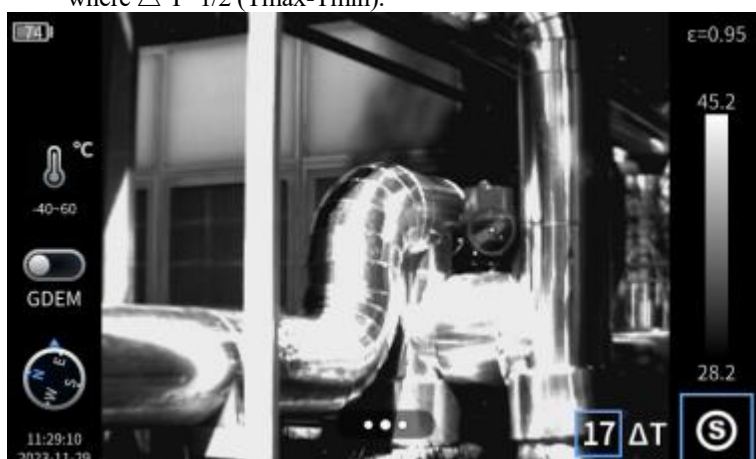


Analyze

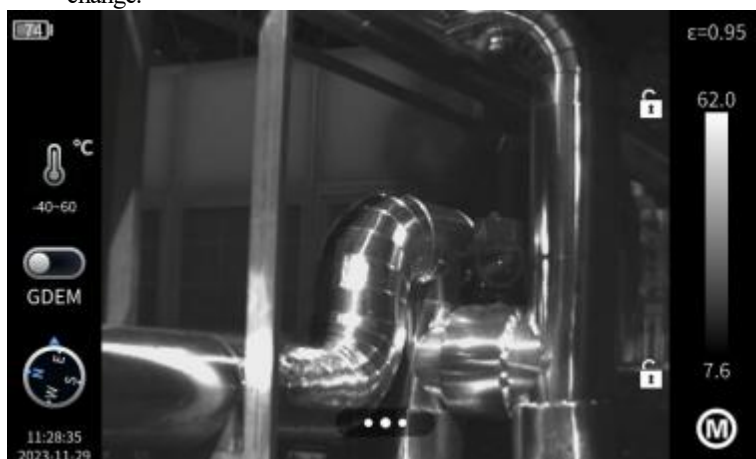
LevelSpan

Users can choose the corresponding dimming mode according to different lighting conditions to achieve the best shooting effect.

1. In the real-time preview, click the screen [A]/[S]/[M] icon, switch to semi-automatic mode 【S】、Manual mode 【M】、Automatic mode 【A】.
2. In semi-automatic mode, use the "up key" or "down key" on the five-way key to adjust the ΔT value to "increase" or "decrease", or touch the screen to slide to set the ΔT value, and the image dimming changes synchronously, where $\Delta T = 1/2 (T_{max} - T_{min})$.



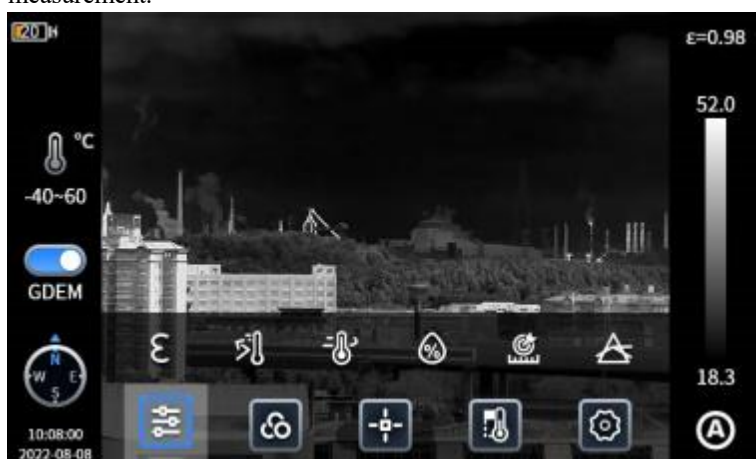
3. In manual mode, you can adjust the "level" by pressing the "up key" or "down key" on the five-way key. The "up key" increases Tmax, Tmin value, "down key" is used to reduce Tmax and Tmin values at the same time. During the adjustment process, the image dimming changes synchronously.
4. Click the highest or lowest temperature value on the color bar, and the corresponding value options will pop up. Select the appropriate high or low temperature value, and the image dimming will change synchronously.



Temperature measurement parameters

Includes: emissivity, reflected temperature, atmospheric temperature, relative humidity, target distance, and optical transmittance.

Touch [] on the real-time interface , or press the middle button on the five-way key to enter the menu., modify the corresponding parameters according to needs, setting these parameters is conducive to accurate temperature measurement.



Parameter Introduction

Emissivity: refers to the ratio of the energy radiated outward by the object being measured to the energy radiated by a black body at the same temperature and wavelength. The value is between 0.01 and 1.00 between. The default setting is 0.95. Users can modify the parameters according to actual conditions.

Reflected temperature: used to compensate or correct the thermal radiation reflected from the target. And the actual temperature is relative to its The temperature of the radiation source is much lower. Setting this parameter and compensating for the reflected temperature is beneficial for accurate temperature measurement. Users can modify the parameters according to actual conditions.

Atmospheric temperature: refers to the air temperature between the device lens and the target object. The atmospheric temperature value is usually the system default value. The parameter is only valid when the actual temperature of the target is set. Users can modify the parameter according to the actual situation .

Relative humidity: The relative humidity of the air has a local effect on the transfer of heat radiation. Set the relative humidity to the correct value. It is conducive to accurate temperature measurement. Under normal conditions of distance and humidity, the relative humidity is usually set to the default value of the device. Users can modify the parameters according to actual conditions.

Target distance: refers to the distance between the measured target and the device lens. This parameter is used to compensate for the following two situations:

1. The portion of thermal radiation from the target being measured that is absorbed by the atmosphere between the target and the device lens.
2. Thermal radiation from the atmosphere itself that is detected by the equipment.

In the case of short distance or less than the maximum accurate temperature measurement distance of the device, the measurement distance is usually set to the default value of the device. Users can adjust the parameters according to the actual situation. Modify the number.

Optical transmittance: refers to the transmittance of any external lens or infrared window used in front of the device lens. Users can modify the parameter based on actual conditions.

Color Palette

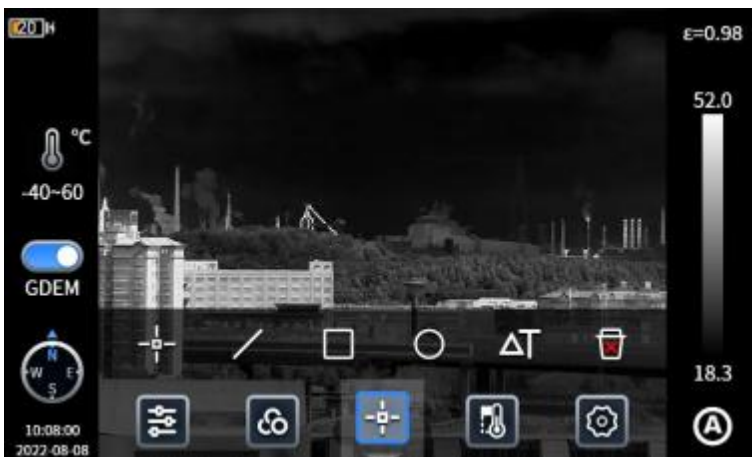


The color palette usually uses pseudo color display to represent different temperature areas with different colors. Users can choose different colors according to actual conditions. Mapping method to better display the temperature distribution of the target object.

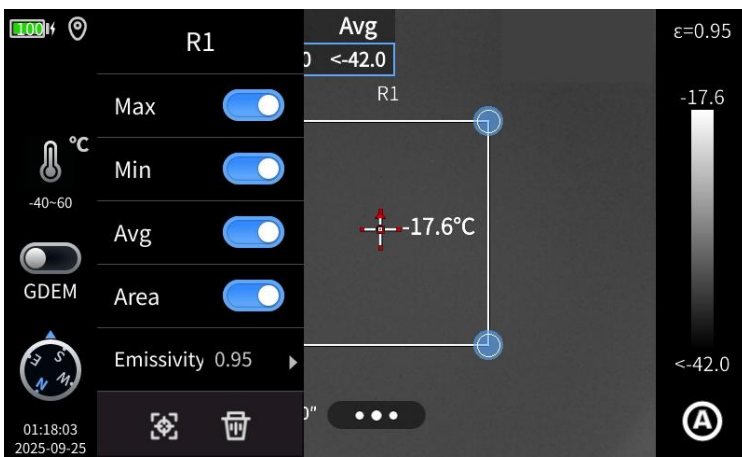
Object

Add/delete analysis objects

In the real-time image state, click [] below  to enter the menu interface for adding analysis objects .



1. This machine provides a variety of analysis objects, such as points, lines, rectangles, circles , and can also customize the display of maximum temperature, minimum temperature, and average temperature. wait.



2. Long press any analysis object on the touch screen and the system will automatically pop up the analysis object editing page.

Temperature markings: maximum temperature, minimum temperature, average temperature.

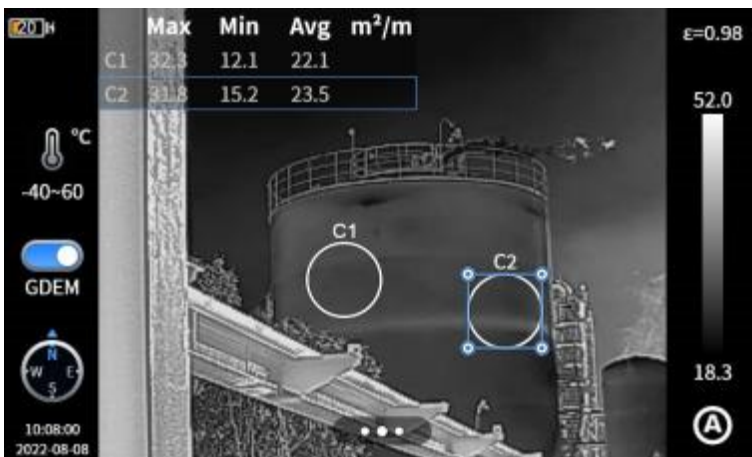
Emissivity: Analyzes the emissivity of the object.

Area/Length: After turning on the laser ranging function to obtain the target distance, the area /length of the analysis object can be measured. Center: Display the analysis object in the center.

Delete: Delete the current analysis object.

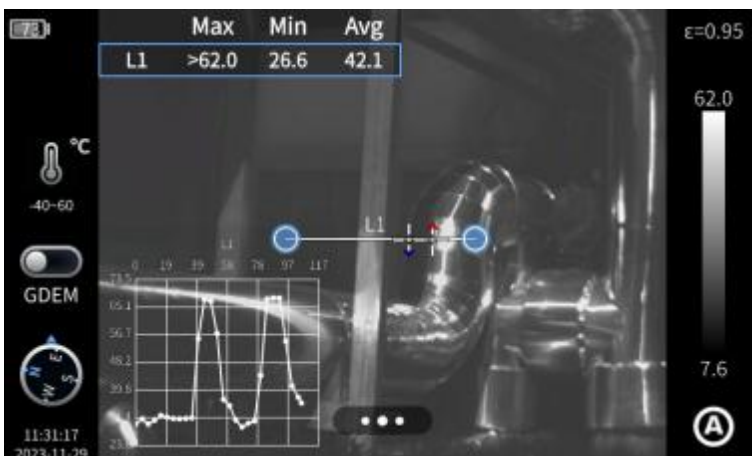
3. Touch and select the line, circle, or rectangle analysis object. All nodes are selected and marked in blue.

4. Drag any node to change the position and area of the analysis object.



Line analysis objects

Add a line analysis object and display the temperature trend table of the analysis object after selecting it.



Temperature difference analysis

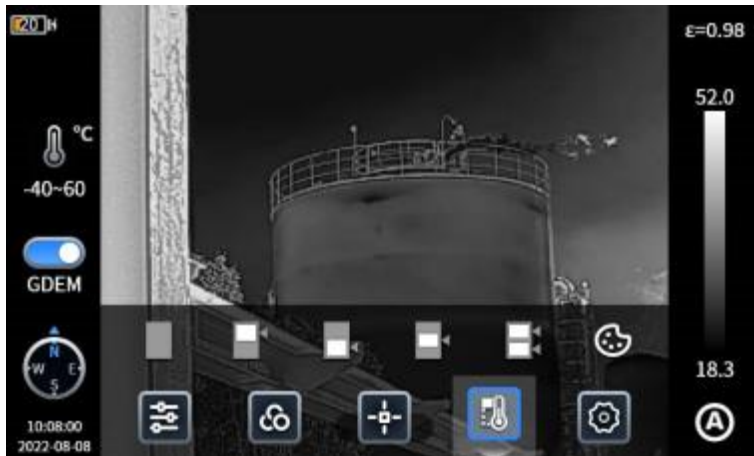
Add at least 2 analysis objects, click the " ΔT " icon, and select the same temperature data type (e.g. Max (maximum temperature) MIN (minimum temperature) Analyze objects for comparison.

Exit temperature difference analysis: Click the " ΔT " icon to exit temperature difference mode.



Isotherms

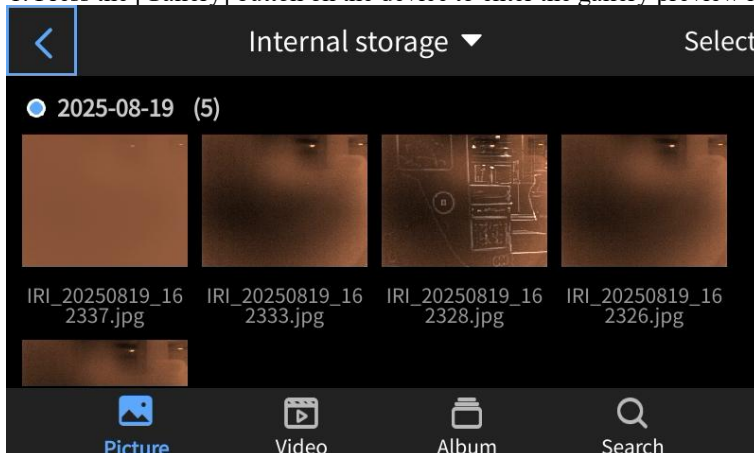
By setting "upper isotherm", "lower isotherm", "isotherm within the range", "isotherm outside the range", the target temperature area is aligned with the set. The high and low temperature values can be selected and moved to adjust, or they can be adjusted using the five-way key. The default is no isotherm state. The isotherm function is not supported when LevelSpan is in manual or semi-automatic mode.



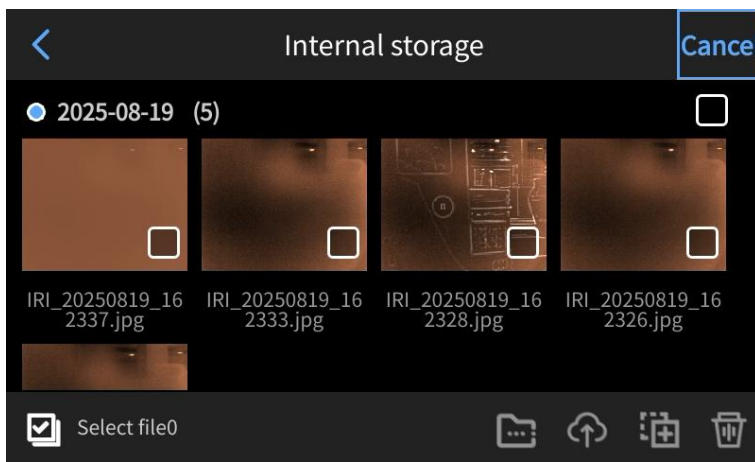
Gallery

Image Preview

1. Press the [Gallery] button on the device to enter the gallery preview interface.



2. Click on the "Select", after selecting the picture, you can perform operations such as Bluetooth transfer, uploading to cloud disk, adding to album, cutting, and deleting.



3. Click to select Local, SD Card (need to install SD, the device can recognize it), cloud disk (need to log in to display the cloud disk), and display the corresponding path files under the path.

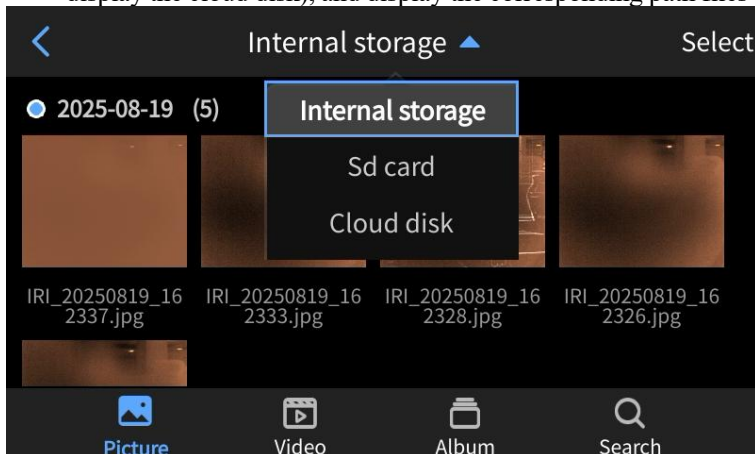


Image editing



1. In the image preview interface, click any image to enter the image editing interface. Click an area outside the menu to preview the current infrared image in full screen. piece.
2. Click [] to collect the current picture.
3. Click [] to modify the current picture name. This device supports three naming methods: text recognition naming, keyboard input naming, and voice naming.
4. Click [] to view the detailed information of the current picture.
5. Click [Back] to add text comments to the current picture.
6. Click [] to add a voice annotation to the current picture.
7. Click [] to add visible light annotation to the current image.
8. Click [] to add graffiti annotations to the current image.
9. Click [] to modify the analysis object, isotherm, and temperature difference between two points in the current image.
10. Click [] to transfer the current picture via Bluetooth.
11. Click [] to process the current picture. PDF report production.

12. Click [] to move the selected image file to the specified album folder.
13. Click [] in the lower right corner to upload the current image to the cloud server.
14. Click the [**Return**] , move the current picture to another storage path.
15. Click [] in the lower right corner to delete the current picture.
16. Click the visible light thumbnail in the lower right corner to preview the visible light image corresponding to the current infrared image on the large screen.
17. Click [] to add and modify analysis objects , modify isotherms, modify temperature differences, and modify temperature measurement parameters in the current image.

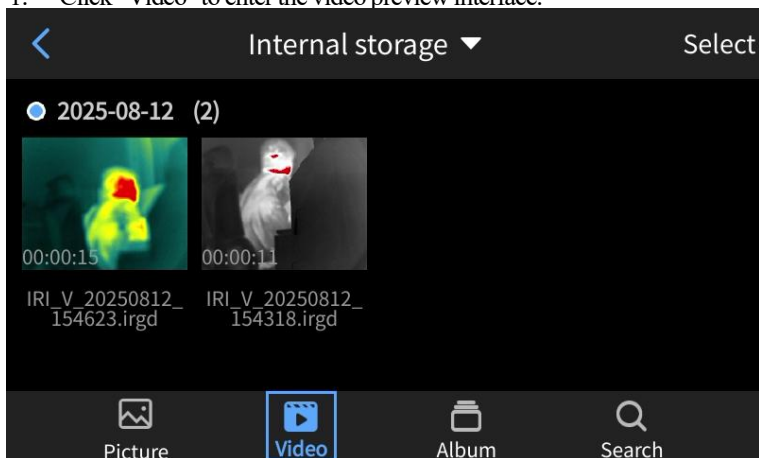


Zoom in and out of an image

In the picture editing mode, touch the screen with two fingers and spread the fingers to enlarge the image, and close the fingers to reduce the image. When the infrared image is enlarged, Slide a single finger on any area of the screen to move the infrared image.

Video Editing

1. Click "Video" to enter the video preview interface.



2. Click any video file to view the video details.

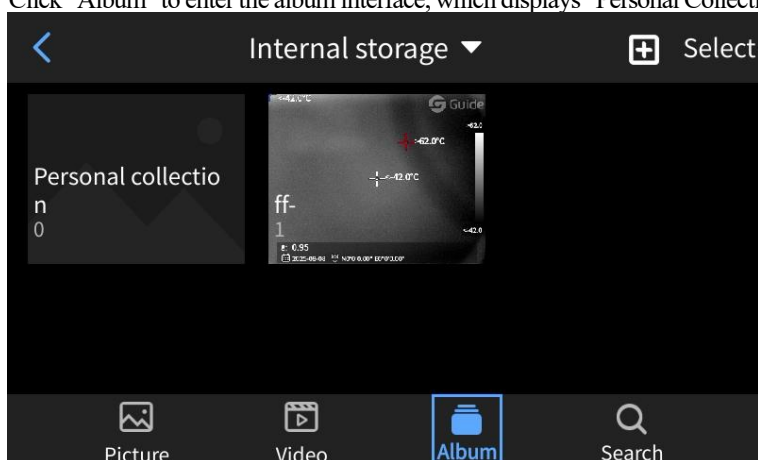


3. Click the [[Back](#)] button in the middle to play the video.
4. The analysis object, isotherm, temperature difference and temperature measurement parameters of the video can be modified (only supports videos in irgd format).



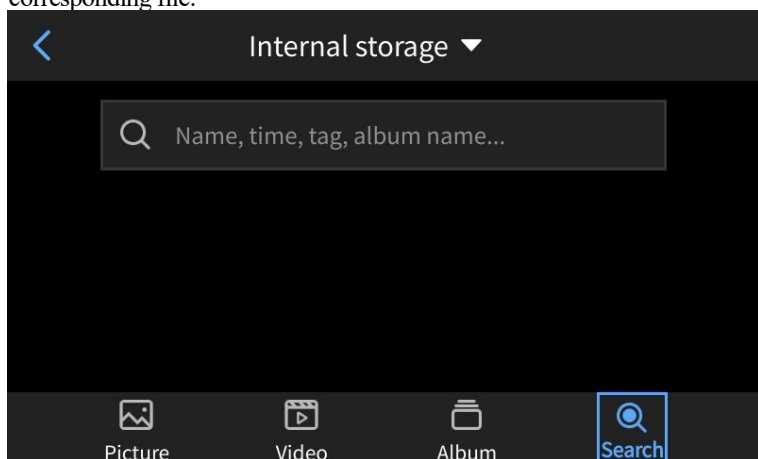
photo album

Click "Album" to enter the album interface, which displays "Personal Collection" and albums created by users.



Search

Click "Search" to enter the search interface, enter the picture name, time, label, album name and search for the corresponding file.

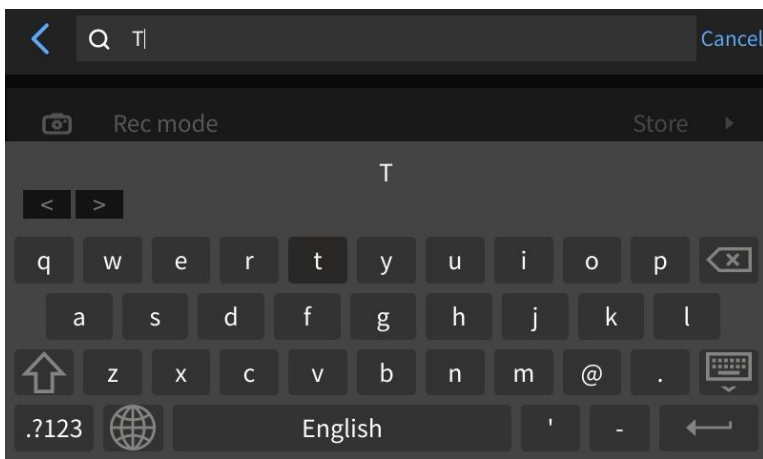


Global Settings

In the real-time preview interface, click [] below and click [] to enter the global settings interface.

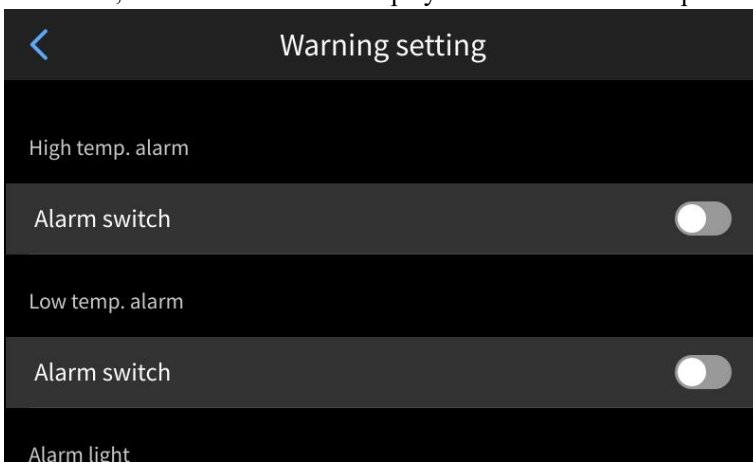
Search

Click the "Search Box" in the upper right corner to search for the function options you need to set by keyword.

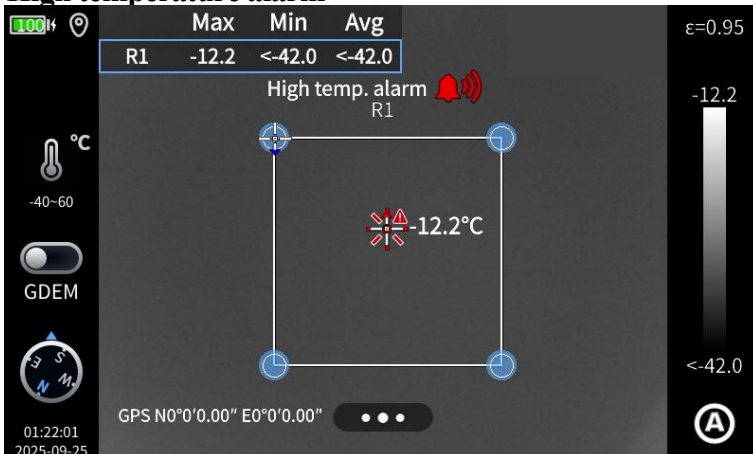


Temperature alarm

This device supports high temperature alarm, low temperature alarm and high and low temperature alarm. When you turn on the "alarm switch" and set the corresponding temperature threshold, it will return to the real-time The device will alarm after the interface is opened. The alarm mode supports sound alarm and light alarm. At the same time, an alarm icon will be displayed above the real-time preview screen .



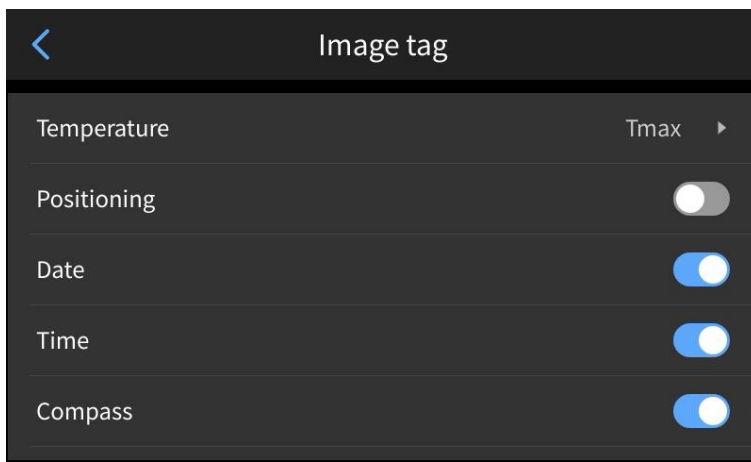
High temperature alarm



Click the alarm icon in the real-time preview interface to turn off the temperature alarm.

Image Tagging

1. Click on the image mark, the system provides temperature, unit, location, date, time, compass, logo, ribbon, center cursor; users can The demand is turned on and displayed on the live image.



2. Turn on the temperature display according to the selection of high temperature, low temperature and average temperature (Tmax is the highest temperature, Tmin is the lowest temperature, Tavg is the average temperature).

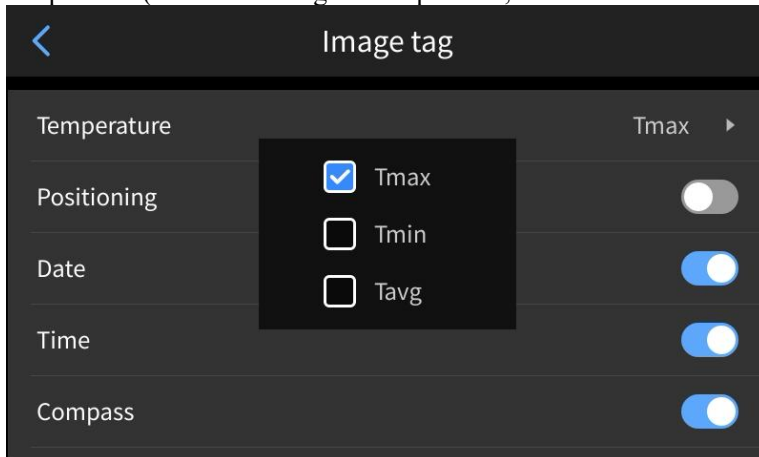
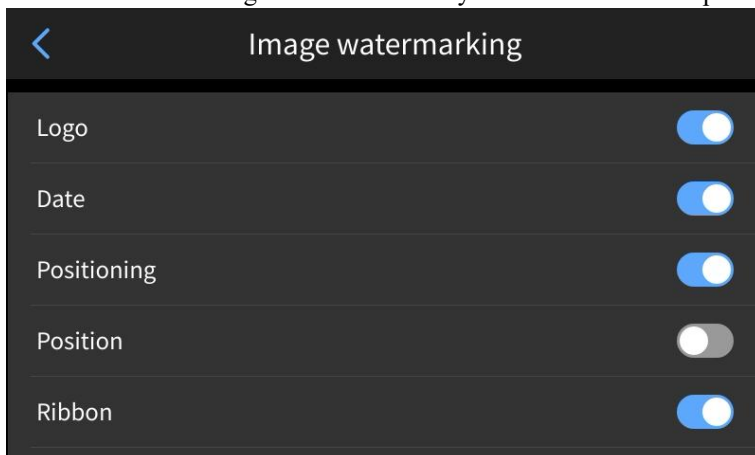
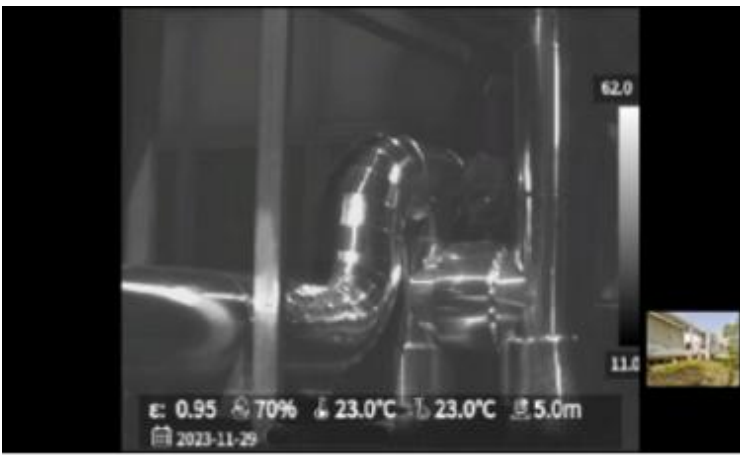


Image Watermark

1. Click on the image watermark, the system provides watermark options, including log , date, location, orientation, color band, emissivity, relative humidity, emission temperature, Users can enable atmospheric temperature and target distance according to their needs and synchronize them on the picture.

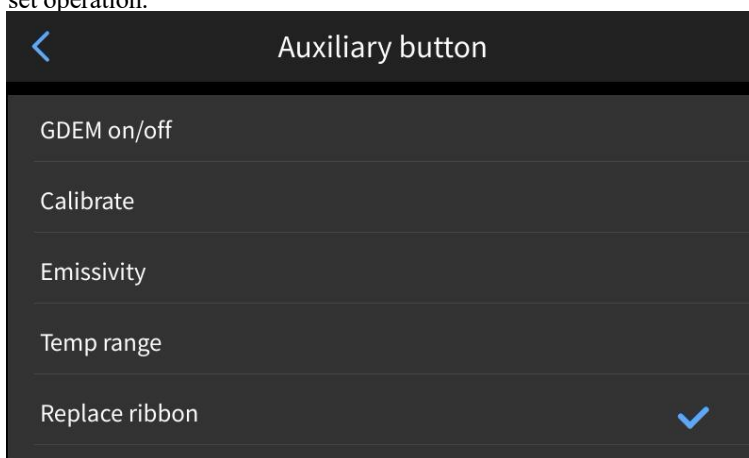


2. All enabled watermark information will be displayed at the bottom of the preview image .



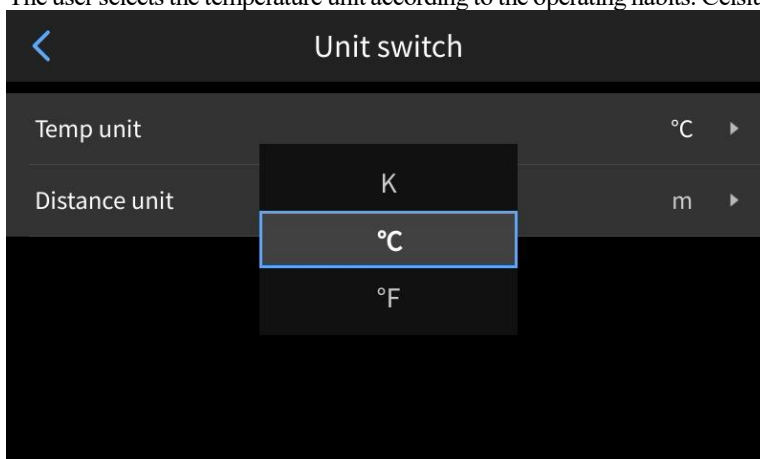
Assistive buttons

1. Set the shortcut operation of the fuselage "C" auxiliary key, including GDEM Switch, calibration, emissivity, temperature range, ribbon replacement, temperature measurement parameters, lighting Light, video, settings, AP switch, LAN switch.
2. After the settings are completed, return to the live image screen and press the auxiliary button to respond to the set operation.

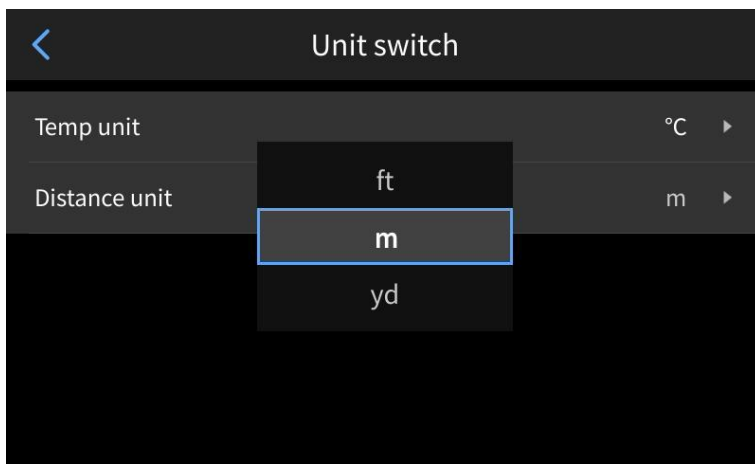


Unit Switching

The user selects the temperature unit according to the operating habits: Celsius (°C), Fahrenheit (°F), Kelvin (K).

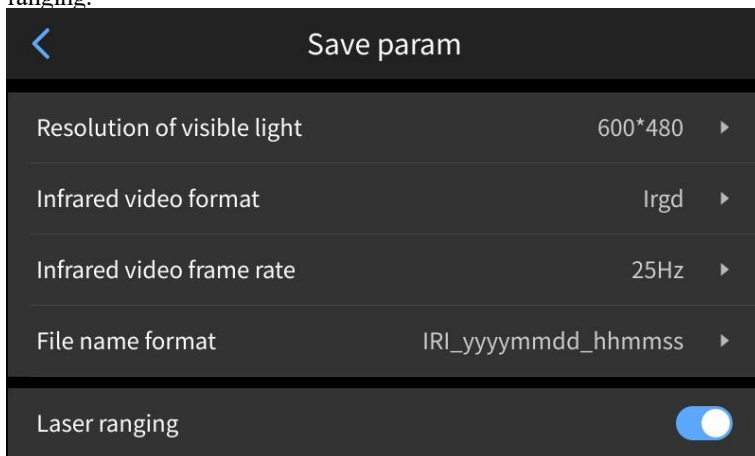


The user selects the distance unit according to the operating habits: meter (m), code (ft), feet (yd).



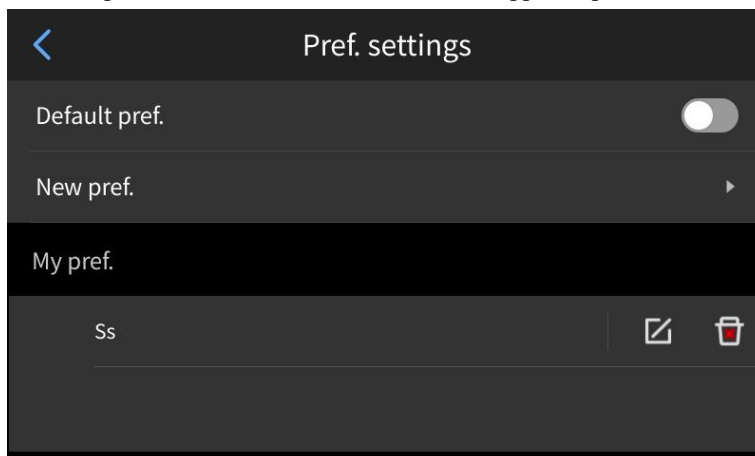
Save Parameters

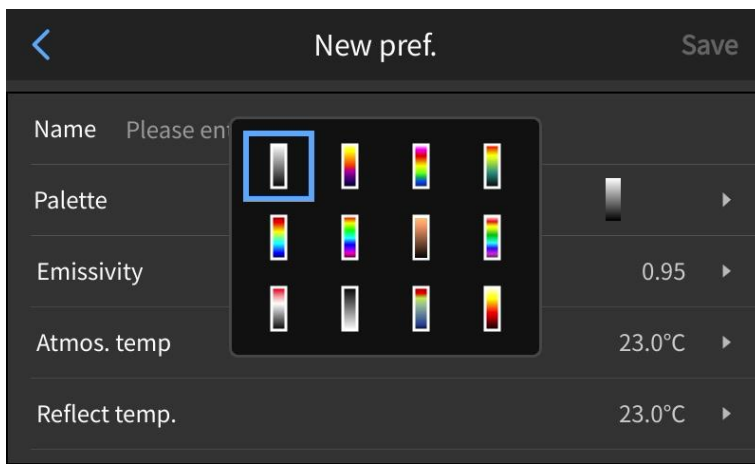
Parameter settings for this machine: visible light resolution, infrared video format, infrared video frame rate, laser ranging.



Preferences

Users set preferences based on their needs , and supports operations such as modification and deletion.

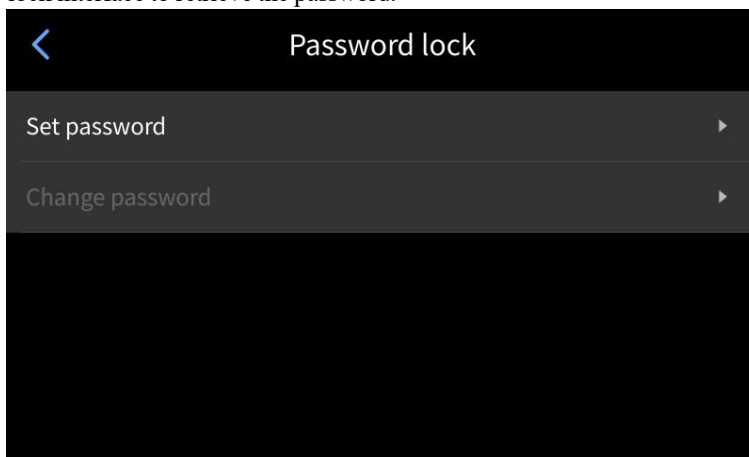




Password lock

The user can add a password protection function for device startup based on their needs. Only 6 digits are supported.

Forgot password: Click six times in a row on the password lock interface to retrieve the password.



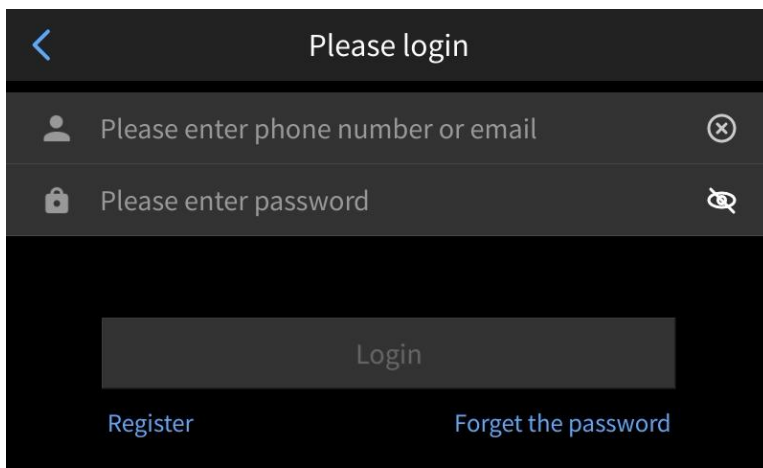
Shutdown and hibernation

Users can set the scheduled shutdown and sleep time according to their operating habits, including: never, 5min, 10min, 20min, 30min, 40min, 50min, 1h.



Cloud Services

Log in to the Alibaba Cloud server, upload the local image to the cloud server, then log in to the analysis software through the PC to download the device file, analyze and output the report.



Wi-Fi

1. Turn on the Wi-Fi switch and search for nearby networks.
2. Select the network you want to connect to, enter the password and connect.



Note : To ensure reliable Wi-Fi signal connection and stable data transmission, please try to ensure that the connection distance is within 10m and there are no obstacles. Physical barriers (such as partition walls, etc.)

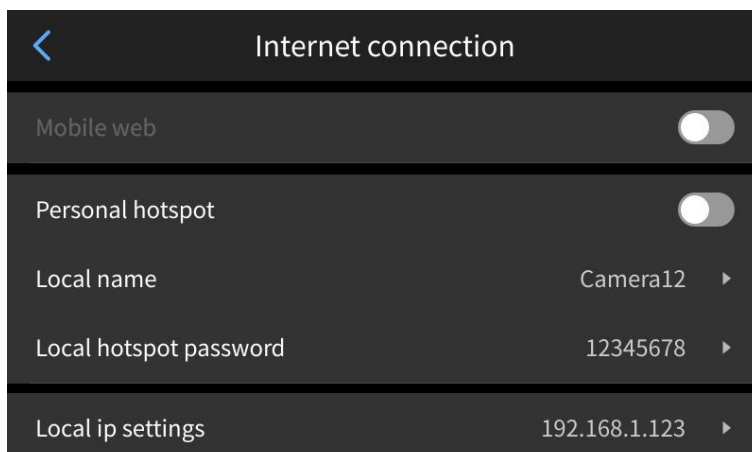
Network connection

Mobile Network

External mobile network (including China Mobile, China Unicom, and China Telecom).

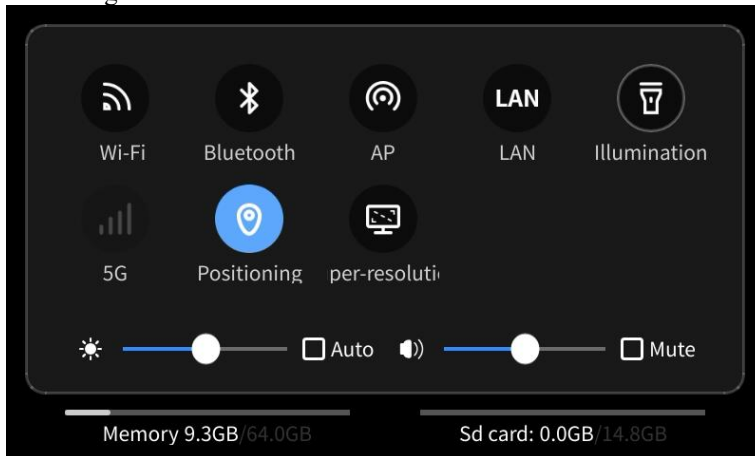
Find and click [Network Connection] on the settings interface, turn on the mobile network, and you can search for network signals.

After successfully connecting to the network, the device can upload images to the cloud service and ensure the normal use of the OCR function.



Personal Hotspot

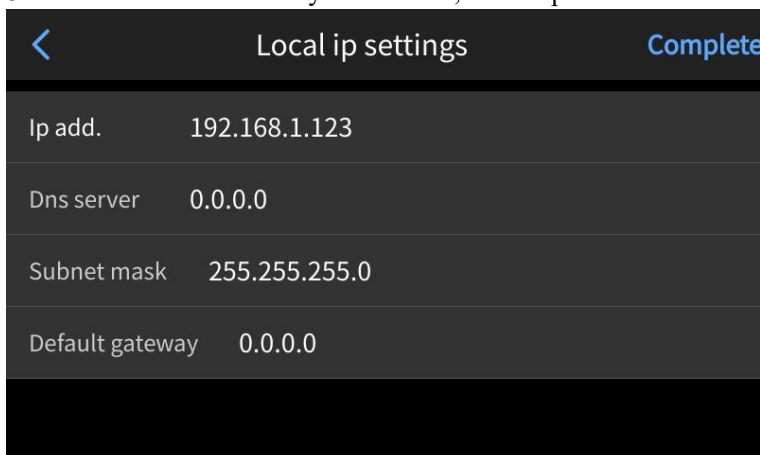
1. On the real-time screen main interface, pull down the screen to pop up the shortcut menu, turn on the AP function.
2. After the AP is successfully turned on, users can use their PC to connect to the device hotspot. After the connection is successful, open the analysis software to successfully connect the device and displays a live image.



The local hotspot name and password can be customized according to user habits ;

This machine IP : User can customize the settings IP address, DNS server address .

1. IP Address: Enter a valid IP Address, such as 192.168.1.123, DNS Server address (please select the server address based on the local area network of the user) Self-set IP address and DNS address).
2. Set up the host IP : Set up local connection of desktop computer The IP address is 192.168.1.100 .
3. Need to PC Infrared analysis software, mobile phone APP Use with



Bluetooth

Bluetooth headset

1. Turn on the Bluetooth headset and press and hold the call button for 3 seconds to enter pairing mode.
2. Turn on the Bluetooth switch, the system will automatically search for Bluetooth devices, and select the Bluetooth headset in the device list to pair.
3. Once pairing is complete, the headset will attempt to reconnect each time it is turned on.
4. Bluetooth image transmission
5. Turn on the Bluetooth switch of the target device;
6. Turn on the Bluetooth switch of the device, the system will automatically search for Bluetooth devices, and select the target Bluetooth name in the device list to pair;
7. After pairing is complete, you can transfer pictures (currently supports transferring pictures from the device gallery to Android Mobile phone or another device side).

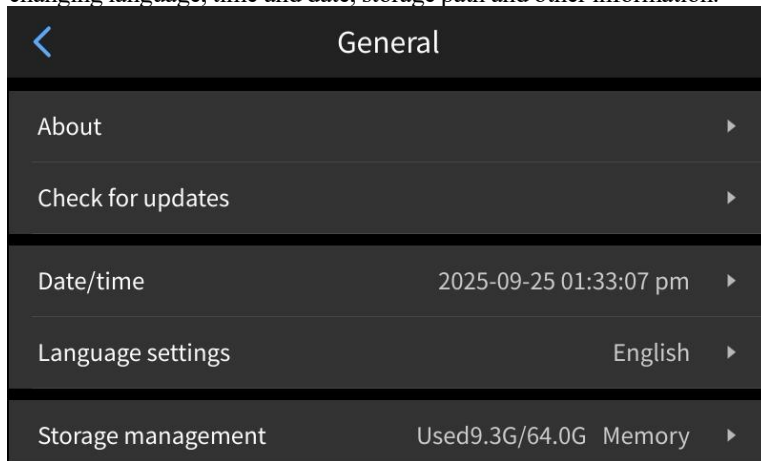


Kind tips: If the two devices are far apart, the Bluetooth search may fail. In this case, you can turn on the Bluetooth switch again.

General

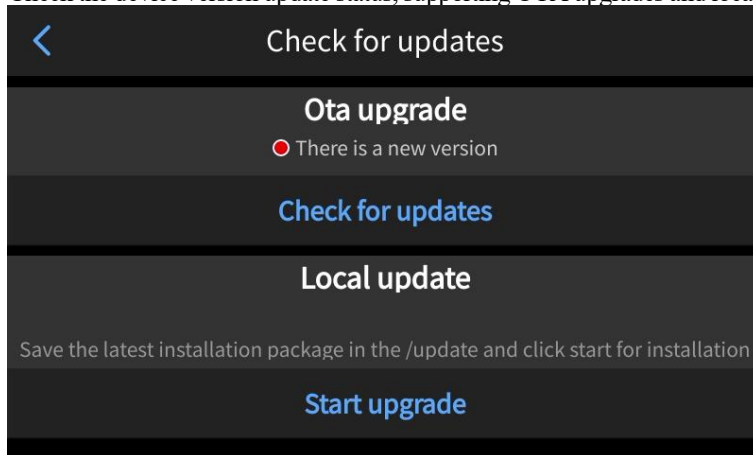
About this machine

Users can view the local software version, SN number and other information through Settings-General, and support changing language, time and date, storage path and other information.



Check for updates

Check the device version update status, supporting OTA upgrades and local upgrades.



OTA upgrade

After the device is connected to the Internet, click "Check for Updates" to detect the latest upgrade package, click "Start Upgrade", and after the upgrade is complete, restart the device to upgrade to the latest version. Version. Upgrade time: Affected by the network environment, the upgrade time is slightly different; the specific upgrade time is about 15 minutes to 20 minutes.

Local upgrade

Put the upgrade package in /GCamera/Update Under the directory , click "Local Upgrade". The latest upgrade package is detected, click "Start Upgrade", Lift After the upgrade is complete, restart the device to upgrade to the latest version.

Upgrade failed

If an abnormal upgrade failure occurs, the interface prompts "Upgrade failed, restarting soon". After restarting, the device will be restored to the version before the upgrade. In this case, you need to press and hold the power button for more than 30 seconds to restore the factory settings.

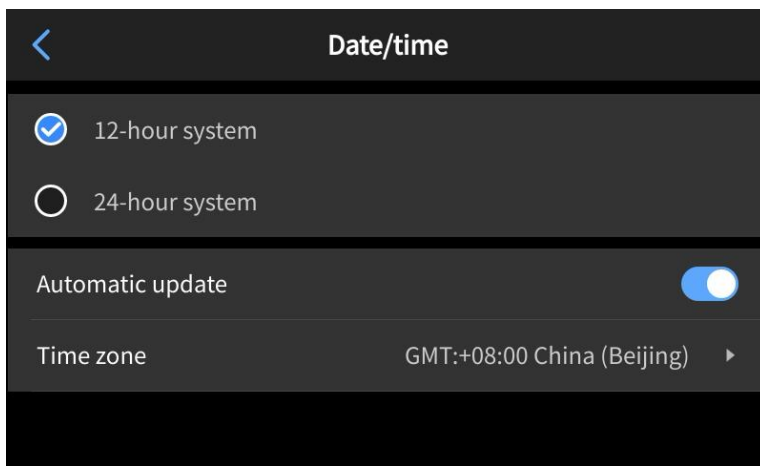


Note: OTA upgrades require an unobstructed network connection and sufficient battery life. If you have any questions during the upgrade, please contact the manufacturer immediately.

Date and Time

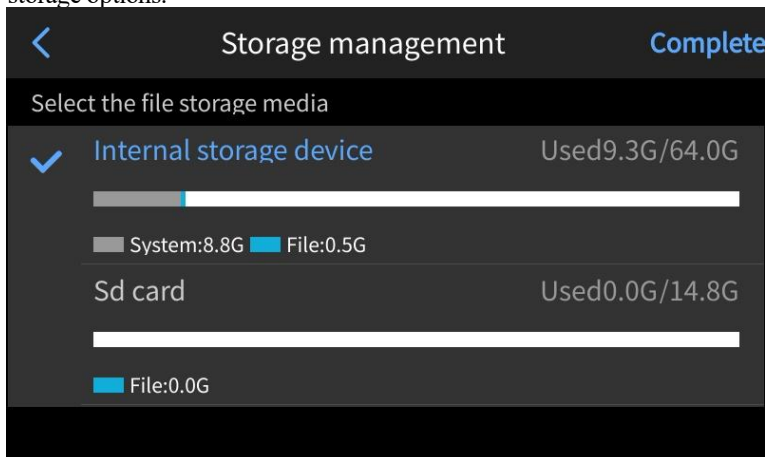
Manually set the system date and time.

Automatically setting the time requires an Internet connection for automatic synchronization.



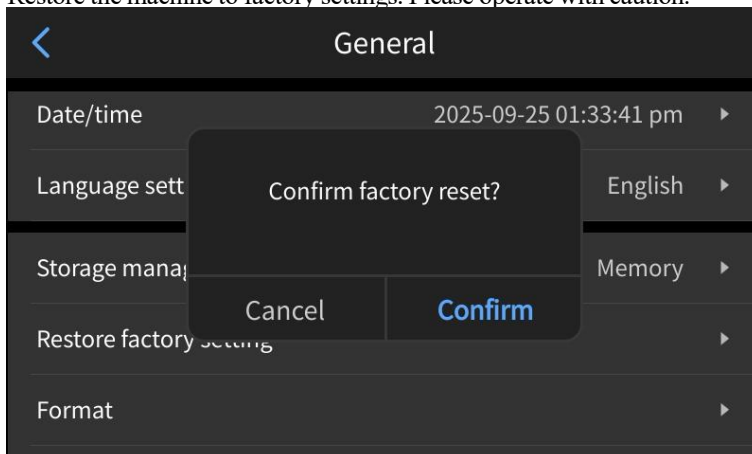
Storage Management

Displays the capacity of the internal storage device and the information of the external SD card. Users can customize the storage options.



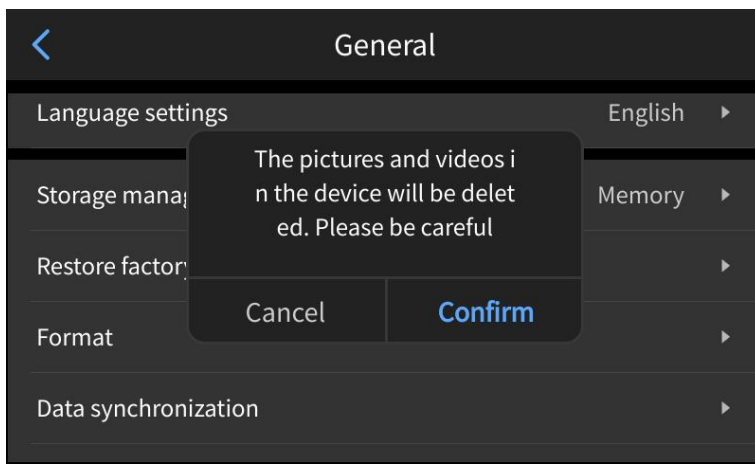
Factory Reset

Restore the machine to factory settings. Please operate with caution.



Format

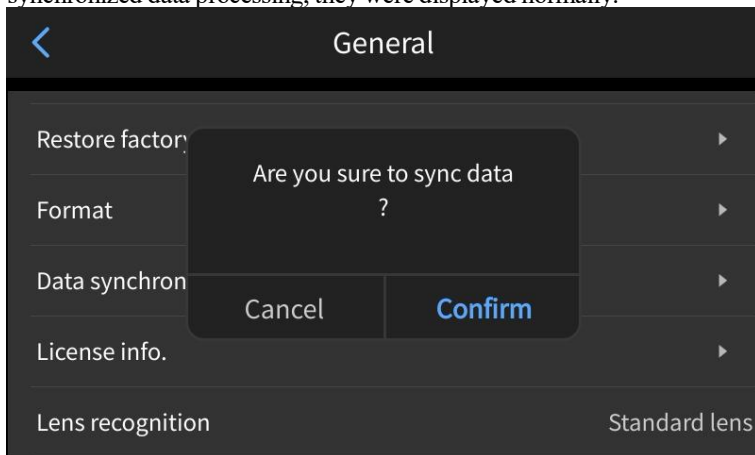
Delete all pictures, videos and other files, including folders, saved on the current device.



Note: Formatting will permanently delete all photos and other data. Before formatting, be sure to make backup copies as needed.

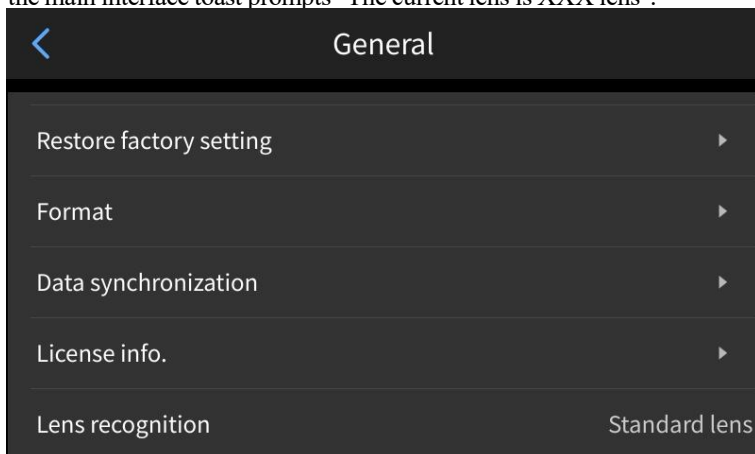
Synchronize Data

After replacing the SD card with another device, the files in the SD card were not displayed in the gallery. After using synchronized data processing, they were displayed normally.



Lens recognition

When changing the lens, the lens type can be automatically identified and displayed, and when the lens is recognized, the main interface toast prompts "The current lens is XXX lens".



Appendix

Table of Emissivity of Common Objects

Material	Emissivity
WoodWood	0.85

WaterWater	0.96
brick Brick	0.75
Stainless steel	0.14
Adhesive tape	0.96
Aluminum plate	0.09
Copper plate	0.06
Black aluminum	0.95
Human skin	0.98
Asphalt	0.96
Polyvinyl chloride (PVC)	0.93
Black Paper paper	0.86
Polycarbonate	0.8
Concrete	0.97
Copper oxide	0.78
Cast Iron iron	0.81
rust Rust	0.8
Plaster	0.75
paint Paint	0.9
Rubber	0.95
Soil	0.93

Common Troubleshooting Guide

FAQs

symptom	reason	measure
Unable to turn on	Low battery	Recharge the battery before using it
	Poor battery contact	Remove the battery, put it back into the battery compartment and install it in place
	The external power plug is not plugged in properly	Unplug the power cord, reinsert it and push it into place
Battery level indication and actual usage The deviation is large	Battery drain	Replace the battery with a fully charged one
	Battery life has expired	Replace the battery
Infrared images are not clear	Not focusing	Manual focus or auto focus to get a clear image
	The lens is covered with moisture or contaminated	Use professional equipment to clean the lens
Visible light images are not clear	The environment is too dark	Take appropriate lighting measures
	There is water vapor or contamination at the front of the visible light	Use professional equipment to clean the visible light front end
	No focus on target	Focus manually or automatically to make the image clear, then read Take temperature

Inaccurate temperature measurement	The temperature measurement related parameters are set incorrectly.	Change parameter settings, or restore default parameter values directly
	Non-uniformity correction has not been performed for a long time	Set the custom button to compensation in the menu, press Define the physical button, hear the shutter sound, and perform an uneven Uniformity correction
	Measure temperature immediately after power on	To ensure the accuracy of temperature measurement, we recommend that you turn on the thermal imager. After that, wait for 5~10 minutes before starting temperature measurement
	Long time without calibration	To obtain accurate temperature measurement results, we recommend that you The thermal imager is sent back for calibration
File cannot be saved	Insufficient remaining storage space	Delete pictures and video files from the gallery
	SD card corruption	Pull out SD Insert the card into the computer and format it or replace it with a new one. SD Card

Environmental protection and others

Names and contents of hazardous substances in products						
Part Name	Hazardous substances					
	lead (Pb)	mercury (Hg)	cadmium (Cd)	Hexavalent cadmium (Cr6+)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Lens protection window	○	○	○	○	○	○
Infrared module	○	○	○	○	○	○
shutter	○	○	○	○	○	○
PCBA	○	○	○	○	○	○
This form is prepared in accordance with the provisions of SJ/T11364 ○: Indicates that the content of the hazardous substance in all homogeneous materials of this component is below the limit required by GB/T 26572 . ×: Indicates that the content of the hazardous substance in at least one homogeneous material of the component exceeds the limit requirement specified in GB/T26572.						
 ☐Product name: Lens protection window ☐Product name: infrared module ☐Product name: Shutter ☐Product Name: PCBA ☐Environmental protection period: 10 years is only valid when the product is used normally according to the instructions for use .						

Special statement: The manual version will be updated after product technology is improved.