

## **PREFACE**

Thank you for purchasing the new UTi260A thermal imager. In order to use this product safely and correctly, please read this manual thoroughly, especially the Safety Instructions part.

After reading this manual, it is recommended to keep the manual at an easily accessible place, preferably close to the device, for future reference.

## **LIMITED WARRANTY AND LIABILITY**

Uni-Trend guarantees that the product is free from any defect in material and workmanship within one year from the purchase date. This warranty does not apply to damages caused by accident, negligence, misuse, modification, contamination and improper handling. The dealer shall not be entitled to give any other warranty on behalf of Uni-Trend. If you need warranty service within the warranty period, please contact your seller directly.

This warranty is the only compensation you can obtain. Uni-Trend will not be responsible for any special, indirect, incidental or subsequent damage or loss caused by any reason or speculation. As some areas or countries do not allow limitations on implied warranties and incidental or subsequent damage, the above limitation of liability and stipulation may not apply to you.

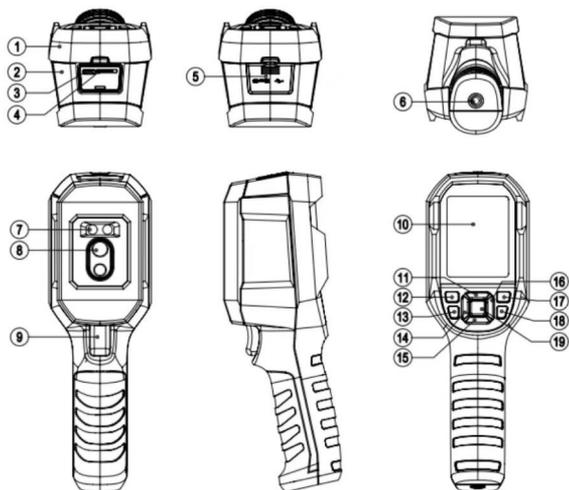
## TABLE OF CONTENTS

1. Specifications	24
2. Product Structure	25
3. LCD Indicators/Icons	26
4. Power on/off	26
5. Measurement	27
6. Palette	27
7. Point Temperature	28
8. Settings	28
8.1 Language	28
8.2 Date and Time	29
8.3 Temperature Unit	29
8.4 HI/LO Alert	29
8.5 Temperature Scale	30
8.6 Display Brightness	30
8.7 Auto Power Off	31
8.8 USB Mode	31
8.9 Measurements	32
8.10 System Settings	32
9. Temperature Compensation and Calibration	34
10. Image Viewing	34
11. Image Capture	35
12. Flashlight	35
13. USB Communication and Image Projection	35
14. SD Card	35
15. Charging	35
16. Maintenance	36
17. Safety Instructions	36
18. Notice for Use	36
19. Common Emissivity	36

## 1. Specifications

Sensor	Uncooled vanadium oxide
Range	-20°C~400°C (-4°F~752°F)
Emissivity	0.95 (default) 0.01~1.00
Accuracy	Range: -10°C~400°C, ±2°C/±2% (whichever is greater)
Response time	≤500ms
IR resolution	256*192 (49152)
Pixel size	12μm
Palettes	Iron, Rainbow, White Hot, Red Hot, Black Hot, Lava, Rainbow HC
Infrared spectral bandwidth	8~14μm
Field of view (FOV)	56°*42.2°
Instantaneous field of view (IFOV)	3.8mrad
Thermal sensitivity	<50mK @25°C
Frame rate	<25Hz
Temperature display	Center point temperature, high/low temperature tracking (default), ROI
Image format	BMP
Temperature measuring point	Besides the center point, 3 points can be added
PC analysis software	√
Real-time image transmission	√ (real-time image, photo download and analysis)
Data communication	Type-C USB
Product size	236mm*75.5mm*86mm
Display	2.8" TFT LCD
Display resolution	320*240
Battery	5000mAh(18Wh)
Auto power off	5 minutes/10 minutes/30 minutes (default)/Off
Operating time	7-9hrs
Charging time	<5hrs
Charging voltage/current	5V/2A
Image storage	Micro SD card
Storage temperature	-20°C~60°C (-4°F~140°F)
Operating temperature	-10°C~50°C (14°F~122°F)
Operating humidity	10%~95%Rh (non-condensing)
IP rating	IP54
Drop proof	2m
Certificates	CE FCC
Accessories	User manual, Type-C USB cable, 32GB TF card

## 2. Product Structure

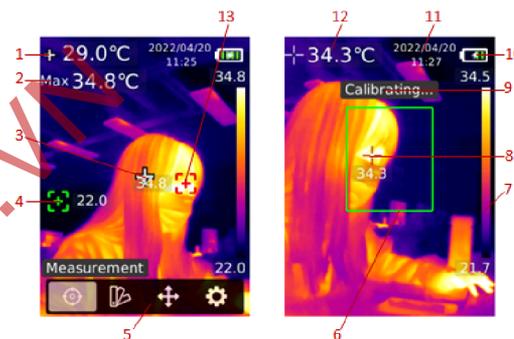


NO.	Description	NO.	Description
1	Upper casing	11	Up
2	Lower casing	12	Power
3	USB Type-C interface	13	Flashlight button
4	SD card slot	14	Left
5	Interface cover	15	Down
6	Tripod mounting hole	16	Right
7	Flashlight	17	Image viewing
8	Infrared camera lens	18	Return
9	Trigger	19	SET
10	LCD		

## 3. LCD Indicators/Icons

Display size: 2.8"

Display resolution: 320 (vertical) × 240 (horizontal)



NO.	Description	NO.	Description
1	Center point temperature	8	Highest temperature spot in ROI
2	Highest temperature	9	Calibrating
3	Center point	10	Battery status
4	Lowest temperature spot	11	Date and time
5	Menu	12	Highest temperature in ROI
6	ROI	13	Highest temperature spot
7	Range bar		

## 4. Power on/off

Long press the Power button for 3s to turn on/off the product. If the product has not been used for a long time or the measurement environment has changed, please turn on the product and leave it for 20 minutes before measuring.

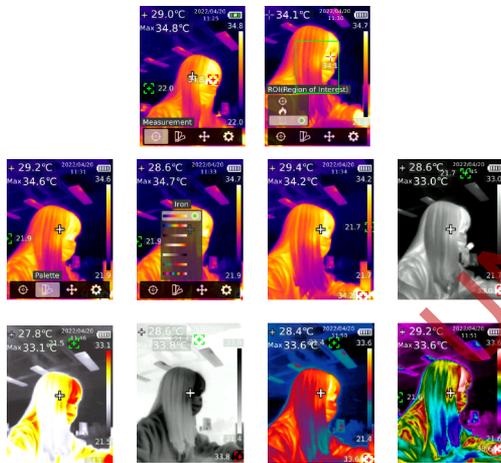
**Note:** It will take 5 to 6s for the product to power off. Please do not turn it on and off repeatedly.

### 5. Measurement



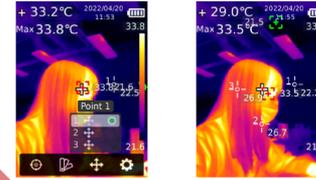
In the main interface, press the SET button to open the main menu. Press the Left/ Right button to select "Measurement", and press the SET button to open its submenu. Press the Up/Down button to select Center spot/Hi/Lo spot/ROI. Press the Return button to return to the previous interface.

### 6. Palette



In the main interface, press the SET button to open the main menu. Press the Left/ Right button to select "Palette", and press the SET button to open its submenu. Press the Up/ Down button to select a palette. Press the SET button to use the selected palette. Press the Return button to return to the previous interface.

### 7. Point Temperature



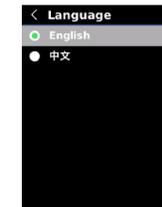
In the main interface, press the SET button to open the main menu. Press the Left/ Right button to select "Point temperature", and press the SET button to open its submenu. Press the Up/Down button to select a point, and press the SET button to add the point to the main interface. Press the Left/ Right/Up/Down button to move the point, and press the SET button to confirm. The point temperature will show on the screen. Press the SET button again to close the point. Press the Return button to return to the previous interface.

### 8. Settings



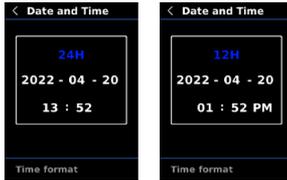
In the main interface, press the SET button to open the main menu. Press the Left/ Right button to select "Settings", and press the SET button to open its submenu. Press the Up/ Down button to select an option in the submenu, and press the SET button to enter its setting interface. Press the Return button to return to the previous interface.

#### 8.1 Language



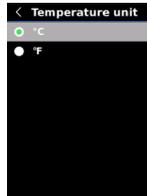
In the Settings interface, press the Up/Down button to select "Language", and press the SET button to enter the language interface. Press the Up/Down button to select English/ Chinese, and press the SET button to confirm. Press the Return button to return to the previous interface.

### 8.2 Date and Time



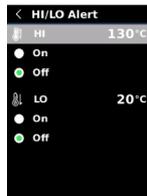
In the Settings interface, press the Up/Down button to select "Date and time", and press the SET button to enter its setting interface. Press the Left/Right button to select time format/year/month/day/hour/minute, and press the SET button to set the selected value. Press the Up/Down button to add/subtract, and press the SET button to save the modified value. Press the Return button to return to the previous interface.

### 8.3 Temperature Unit



In the Settings interface, press the Up/Down button to select "Temperature unit", and press the SET button to enter the unit setting interface. Press the Up/Down button to select °C/°F, and press the SET button to confirm. Press the Return button to return to the previous interface.

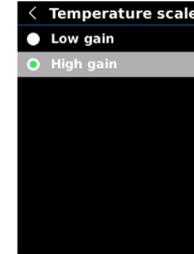
### 8.4 HI/LO Alert



In the Settings interface, press the Up/Down button to select "HI/LO alert", and press the SET button to enter the alert setting interface. Press the Up/Down button to select On/Off. Press the SET button to set the alert value. Press the Up/Down button to add/subtract. Press the Return button to return to the previous interface.

When the HI/LO alert function is turned on, the alert will be issued when the temperature exceeds the set range.

### 8.5 Temperature Scale

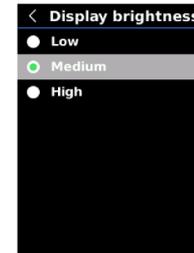


In the Settings interface, press the Up/Down button to select "Temperature scale", and press the SET button to enter the scale setting interface. Press the Up/Down button to select Low gain/High gain, and press the SET button to confirm. Press the Return button to return to the previous interface.

High gain range: -15°C~150°C  
Low gain range: 150°C~550°C

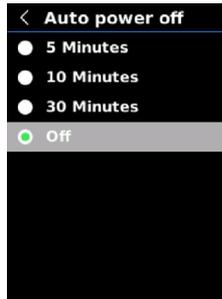
Note: It will take 30s to 40s to switch between low gain and high gain.

### 8.6 Display Brightness



In the Settings interface, press the Up/Down button to select "Display brightness", and press the SET button to enter the brightness setting interface. Press the Up/Down button to select Low/Medium/High, and press the SET button to confirm. Press the Return button to return to the previous interface.

## 8.7 Auto Power Off



In the Settings interface, press the Up/Down button to select "Auto power off", and press the SET button to enter its setting interface. Press the Up/Down button to select 5 minutes /10 minutes/30 minutes/Off, and press the SET button to confirm. Press the Return button to return to the previous interface.

## 8.8 USB Mode

In the Settings interface, press the Up/Down button to select "USB mode", and press the SET button to enter its setting interface. Press the Up/Down button to select USB disk/USB camera, and press the SET button to confirm. Press the Return button to return to the previous interface.

USB disk: Connect the product to the PC to view images and analyze data;  
 USB camera: Connect the product to the PC for real-time image projection.



## 8.9 Measurements



In the Settings interface, press the Up/Down button to select "Measurements", and press the SET button to enter its setting interface. Press the Up/Down button to select Emissivity /Ambient temp/Distance, and press the SET button to set the selected parameter. Press the Up/Down button to add/subtract the value, and press the SET button to confirm. Press the Return button to return to the previous interface.

**Note:** For the emissivity of common objects, please refer to the table in appendix.

## 8.10 System Settings



In the Settings interface, press the Up/Down button to select "System settings", and press the SET button to enter its setting interface. Press the Up/Down button to select Device information/Factory reset/Format SD card/Auto save, and press the SET button to enter the submenu. Press the Return button to return to the previous interface.

### 8.10.1 Device Information



In the system settings interface, press the Up/Down button to select "Device information", and press the SET button to enter its submenu. The Model version/ Capacity/Free can be viewed. Press the Return button to return to the previous interface.

### 8.10.2 Factory Reset



In the system settings interface, press the Up/Down button to select "Factory reset", and press the SET button to enter its submenu. Press the Up/Down button to select Yes/No, and press the SET button to confirm. Press the Return button to return to the previous interface.

**Note:** Do not perform other operations when restoring factory settings.

### 8.10.3 Format SD Card



In the system settings interface, press the Up/Down button to select "Format SD card", and press the SET button to enter its submenu. Press the Up/Down button to select Yes/No, and press the SET button to confirm. Press the Return button to return to the previous interface.

**Note:** When formatting an SD card, do not remove it or perform other operations.

### 8.10.4 Auto Save



In the system settings interface, press the Up/Down button to select "Auto save", and press the SET button to enter its submenu. Press the Up/Down button to select Yes/No, and press the SET button to confirm. Press the Return button to return to the previous interface.

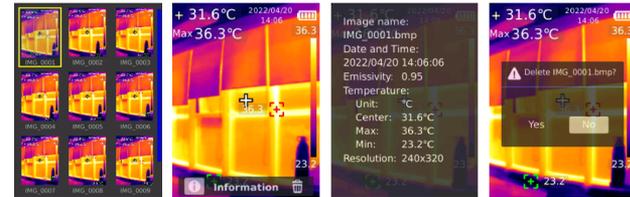
**Note:** Do not remove or insert the SD card when saving or viewing images. The number of saved images should not exceed 1000. Clean up the SD card if there are more than 1000 images.

## 9. Temperature Compensation and Calibration

To adapt to different environments and places, temperature compensation is available. For the specific setting method, please refer to Chapter 8.9 Measurements.

To improve the measurement stability, manual calibration can be performed. Press the Return button in the main interface to calibrate.

## 10. Image Viewing



Press the Image Viewing button to view the images. Press the Up/Down/Left/Right to select an image, and press the SET button to view the image. Press the SET button again to view the image information and delete images.

**Note:** Do not remove or insert the SD card when viewing images.

## 11. Image Capture



Press the trigger to capture an image. Press the Left/Right button to save it or not, and press the SET button to confirm or the Return button to cancel. In the auto save mode, the images will be automatically saved to the SD card.

**Note:** Images can only be saved if an SD card is inserted.

## 12. Flashlight

Long press the Flashlight button for 3s to turn on/off the flashlight. When the temperature alert is on and the measured temperature exceeds the set range, the LED light will flash.

**Note:** When the LED light is on, please do not point it at eyes of people or animals.

## 13. USB Communication and Image Projection

1. Download and install the UTi-Live Screen software and real-time image projection upper computer software.
2. Refer to Chapter 8.8 USB Mode to select USB disk. Connect the product to the PC. In the PC software, users can view images and analyze data.
3. Refer to Chapter 8.8 USB Mode to select USB camera. Connect the product to the PC. In the real-time image projection software, the real-time image projection function can be enabled.
4. Regarding the operation of the PC software, retrieve the Software User Manual from the Help option in the main interface.

**Note:** Please do not unplug the USB cable during image projection. After use, please close the PC software before unplugging the USB cable.

## 14. SD Card

This product supports Micro SD card (TF card) to store images. To avoid affecting the operating speed, please copy the backup data regularly and clean up the SD card in time. To avoid causing abnormal data on the SD card, do not insert or remove the SD card repeatedly.

## 15. Charging

Please use a safety-certified 5V/1A or 5V/2A power adapter for charging.

**Note:** Do not turn off the product during charging. If shutdown or restart is needed, please unplug the Type-C power cord and disconnect the power supply first.

35

## 16. Maintenance

Use a wet cloth or weak soap solution to clean the outer shell of the device.

Do not use abrasives, isopropyl alcohol or solvents to clean the outer shell, lens or windows.

## 17. Safety Instructions

To ensure the accuracy, please read the instructions carefully before using. Please do not use the product in flammable, explosive, steamy, wet or corrosive environments. Stop using the product if it was damaged, drop or modified to avoid inaccurate measurement results.

## 18. Notice for Use

Please use the correct emissivity to obtain accurate temperature readouts.

To ensure accuracy of the product, please warm it up for 20 minutes before measuring if it has not been used for a long time.

When being charged, the internal temperature of the product rises, which will lead to inaccurate temperature measurement. So, it is not recommended to take measurements during or right after charging the product.

The product has a self-calibration function. If the reading jumps quickly, please read the temperature after it gets steady.

## 19. Common Emissivity

Material	Emissivity	Material	Emissivity
Wood	0.85	Black paper	0.86
Water	0.96	Polycarbonate	0.8
Brick	0.75	Concrete	0.97
Stainless steel	0.14	Copper oxide	0.78
Tape	0.96	Cast iron	0.81
Aluminum plate	0.09	Rust	0.8
Copper plate	0.06	Gypsum	0.75
Black aluminum	0.95	Paint	0.9
Human skin	0.98	Rubber	0.95
Asphalt	0.96	Soil	0.93
PVC	0.93		

**Note:** This user manual can be downloaded from the official website of Uni-Trend.

36

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This manual is subject to change without prior notice.

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