



UTi160S Quick Start Guide of Handheld Thermal Imager

PREFACE

Thank you for purchasing the new UTi160S Handheld Thermal Imager. In order to use this product safely and correctly, please read this manual thoroughly, especially the Cautions 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.

Cautions

1. Use or store the product at specified operating or storage temperatures to avoid damage.
2. Do not aim the product at strong heat source, such as sun, laser device, spot-welder, etc.
3. Do not knock, toss, or shake the product and accessories.
4. Do not use dissolved or similar liquids on the product or cables.
5. Please follow the following instructions to wipe the device:
 - Non-optical surface: If necessary, use a clean and soft cloth to wipe the non-optical surface of the thermal imager.
 - Optical surface: Do not stain the optical surface of the lens when using the thermal imager. Especially not to touch lens with hands, cause it may erode the optical coating layer on the glass surface. When the optical surface is stained, wipe it carefully with a specific lens paper.
6. When using the device, please try to keep it stable and avoid violent shaking.
7. Please package device and its accessories into the carrying box if not needed.
8. Please do not disassemble the device avoiding product damage and loss of warranty rights.
9. Due to different batches, the materials and details of actual products may be slightly different from the graphic information. Please refer to the goods received.
10. The experimental data in the manual are theoretical values and all from Uni-Trend's internal laboratories, for reference only. Customers cannot use them as the bases for placing orders. If users have any questions, please contact customer service.
11. Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure

1. Product Introduction

UTi160S is a handheld thermal imager used in different occasions integrated imaging with temperature measurement, with light-weight and portable design, multiple functions, temperature measurement range of -20~550°C, center spot temperature measurement, and auto high/low spot tracking, equipped with LED light, laser pointer, high/low alarm, IP54, 2m drop-proof design, etc.

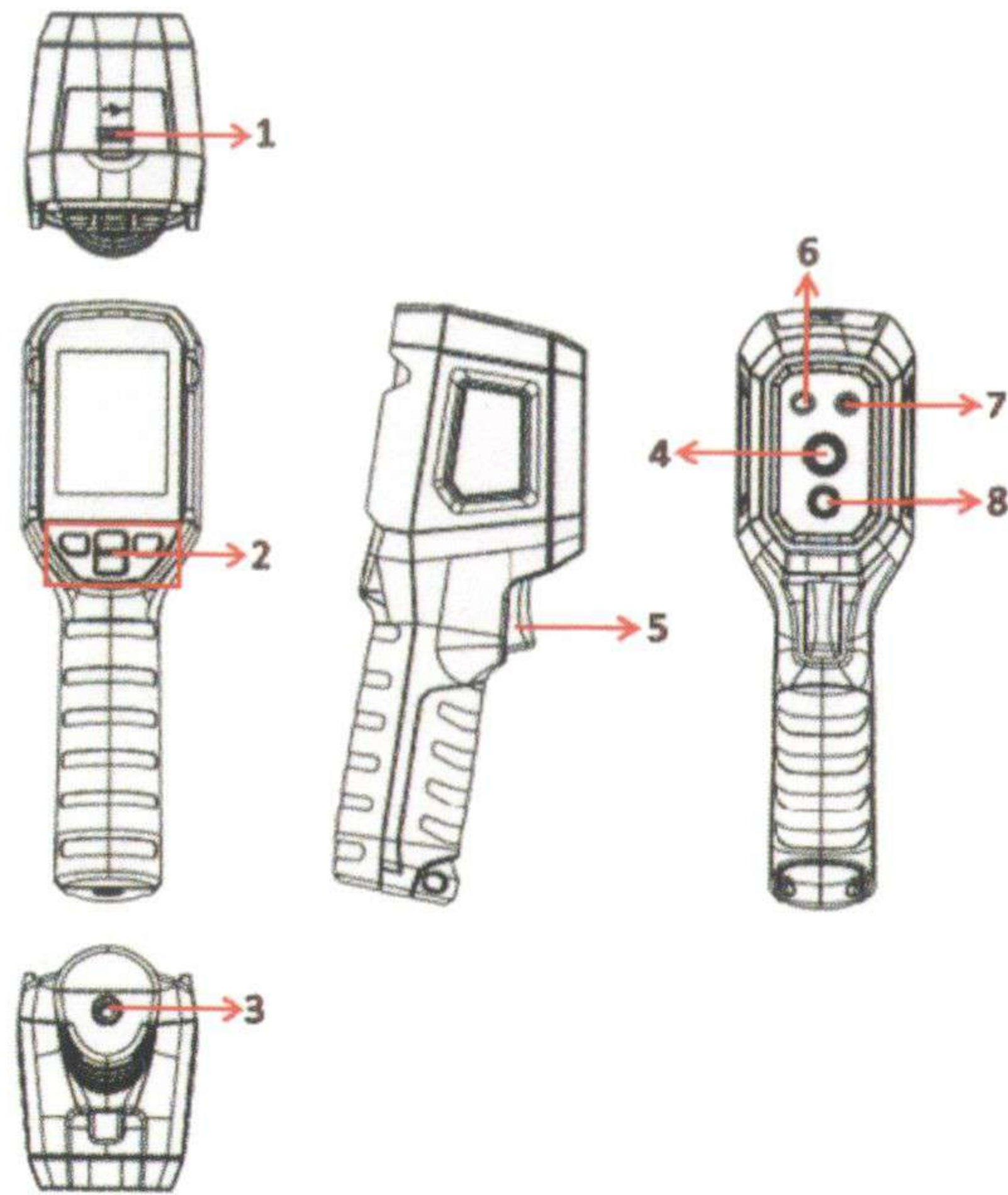
2. Product Features

- Temperature Measurement Range:-20°C~550°C
- IR Resolution: 160*120
- Super Resolution: 320*240
- High/Low Temperature Alarm
- LED light/Laser Pointer
- Rechargeable Li-ion Battery

3. Packing List

Items	Quantity
Infrared Thermal Imager	1
USB Cable	1
Quick Start Guide	1

4. Product Appearance

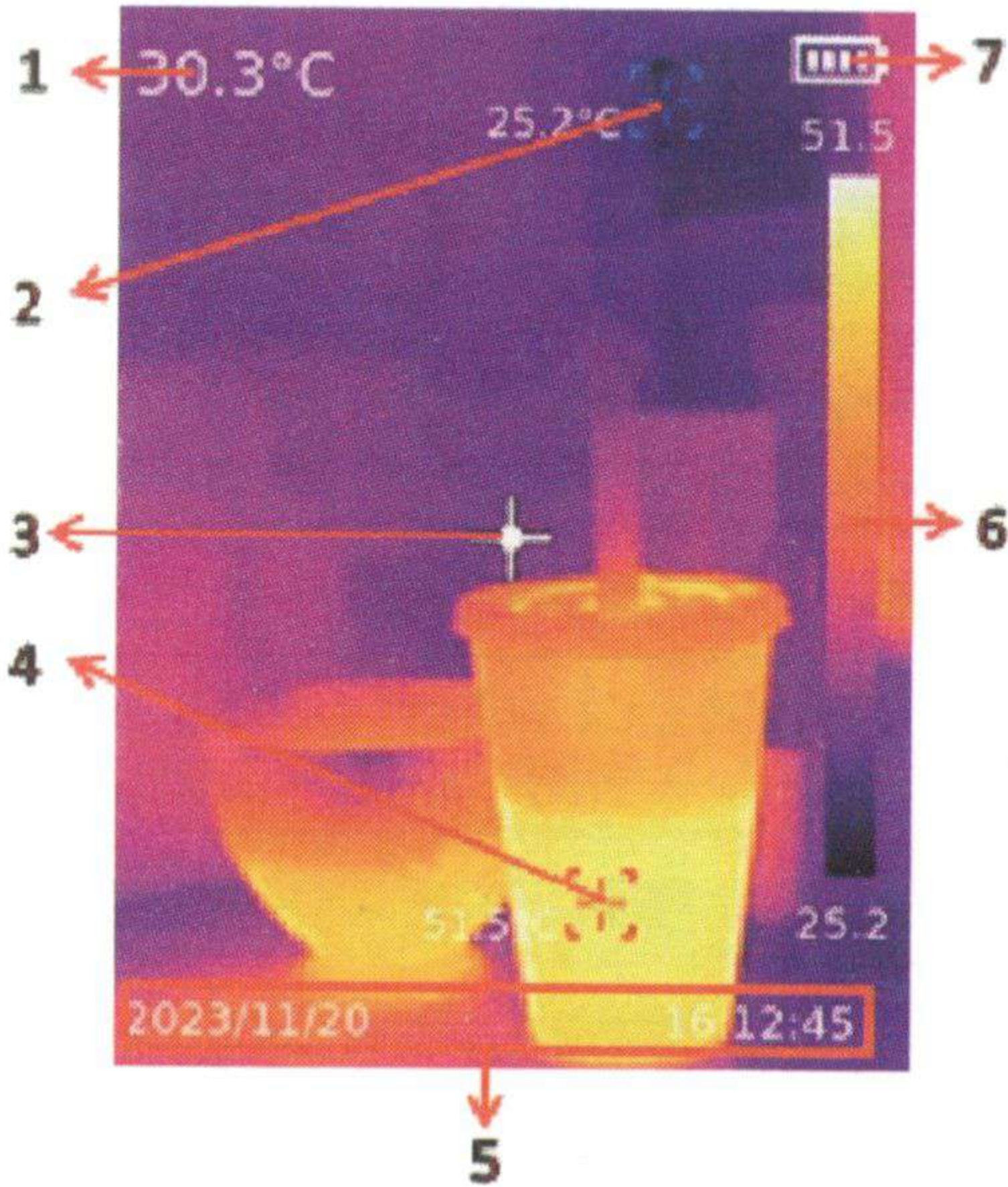


No.	Descriptions	No.	Descriptions
1	USB Type-C Interface	5	Trigger
2	Buttons	6	LED Light
3	Tripod Mount Hole	7	Laser Pointer
4	Infrared Camera Lens	8	Visual light camera lens

5. Buttons

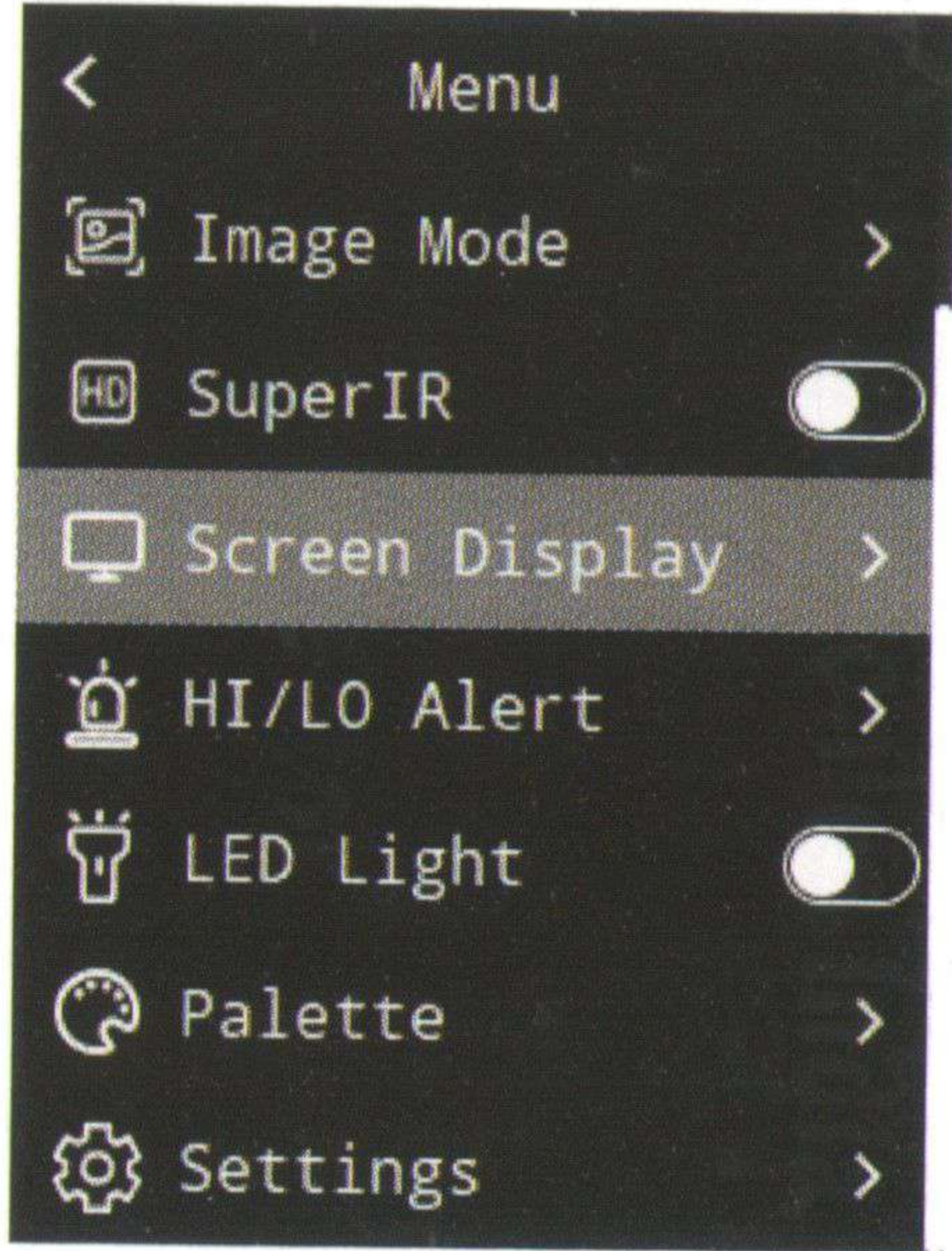
Buttons	Status	Short Press	Long Press
POWER	Power off	Power on	/
	Power on	Sleep	Power off
	Other interfaces	Return	/
OK	Main interface	Open the menu	/
	Photo viewing interface	Open the submenu	/
	Other interfaces	Confirm	/
UP	Any interface	Up	Up fast
DOWN	Main interface	Images Calibration	/
	Other interfaces	Down	Down fast

6. Display



No.	Descriptions	No.	Descriptions
1	Center spot temperature	5	Date & Time
2	Auto Lo spot tracking	6	Range bar
3	Center spot	7	Battery power
4	Auto Hi spot tracking		

7. Menu



ImageView	Enter it to check the image details or to delete.
Image mode	Switch Thermal/Digital/PIP /Fusion mode
Super IR	Open/Close the super-resolution function
On Screen Display	Display details of center spot, high/low spot, palettes, date and time in the main interface.
Hi/Lo Temperature Alarm	Turn on/off the temperature alarm/buzzer, and setup the high/low value of temperature alarm.
LED Light	Turn the light on/off
Palettes	Color change: Ironbow, Rainbow, Lava, Rainbow HC, Black Hot, White Hot, Red Hot, etc.
Settings	Languages: Chinese/English
	Temperature Units: °C/°F
	Adjustable Emissivity: 0.01~0.99
	Laser is shot out when press and hold the Trigger button in the main interface with laser function ON.
	Date & Time modification: time format, time, and date
	Screen Brightness changed: Low, Medium, High
	Auto Power Off time setup: 5 min, 10min, 30min, OFF.
	Auto Storage ON/OFF
	Data Clear
	Device Information: Model, Software, System, Firmware, Storage Capacity, Surplus Capacity, and SN.
	Factory Reset

8. USB Communication & PC Analysis Software

1. Refer to the Download Guide to download and install the PC software.
2. Connect the USB cable with computer to navigate images and analyze data via the PC software.
3. Refer to the Software User Manual in the Help option to get help about how to use the PC software.
4. Do not unplug the USB cable when in the USB communication before cutting off the connection between device and computer correctly (Cutting off the connection is in the lower right side of the computer).

9. FCC Compliance Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

“Please note that changes or modifications of this product is not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.”

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

10. Temperature Measurement Parameters

Emissivity:

The ratio of the measured object to the black body with the same temperature, which is an essential indicator to measure the radiant energy of the object. Its value ranges from 0.00 to 1.00.

Ambient Temperature:

The ambient temperature at which the thermal camera and the measured object are located.

Measurement Distance:

The distance between the thermal camera and the measured object.

Relative Humidity:

The percentage of water vapor content in the air during the transmission of radiant energy from the measured object.

Note:

1. The accurate setting of the above parameters has varying degrees of influence on the final temperature measurement results.
2. Recommended Values: In case of uncertainty regarding these parameter values, the following recommended values are generally suggested:

Emissivity	0.95
Ambient Temp.	25°C
Relative Humidity	55%RH
Distance	0.25m

3. Accuracy: $\pm 2^{\circ}\text{C}/\pm 2\%$ (whichever is greater, $-10^{\circ}\text{C}\sim 550^{\circ}\text{C}$, Room temperature: 25°C)

11. Product label



CAUTION – CLASS 2 LASER RADIATION WHEN OPEN DO NOT STARE INTO THE BEAM

The contents of this manual are subject to change without prior notice

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