

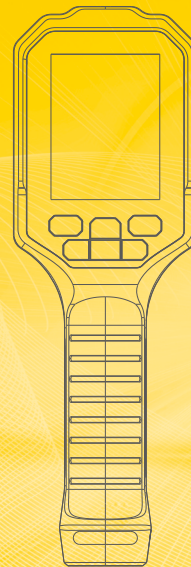


*Your excellent helper in cable test!*



# Thermal Imager

## User Manual



VER:V1


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## 1. Product Description

This device is a multi-functional infrared thermal imager, designed with both thermal image camera function and also thermometer function, it can meet both single point temperature taking and also area temperature inspection.

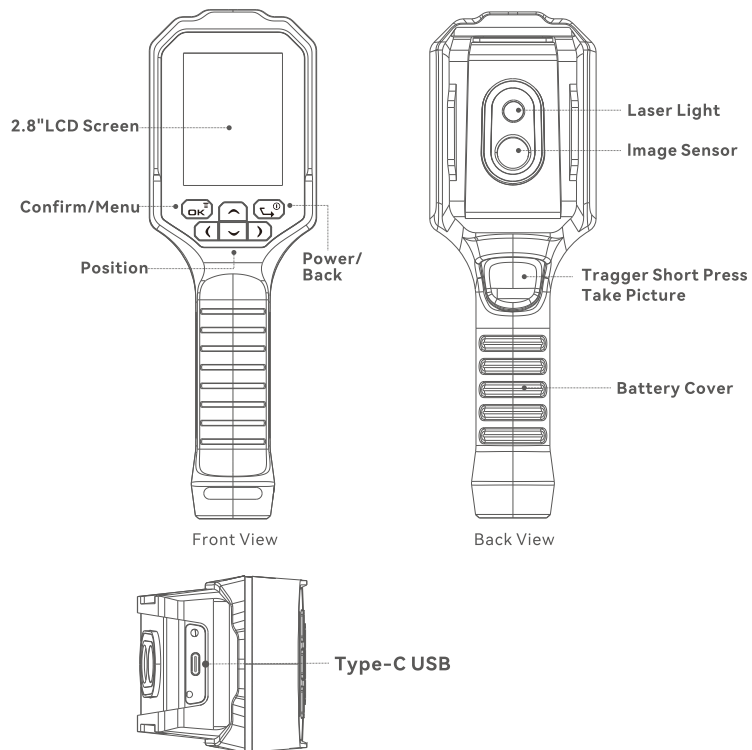
### Battery Recharge Instruction

- USE Type-C USB charging cable to recharge the battery
- Built-in Rechargeable Lithium Battery
- There will be a sign “ ” on the right top of the screen when the battery capacity is low, users were suggested use the Type-C charging cable to recharge the device (Off Status).
- Remove the charging cable once the battery is full.

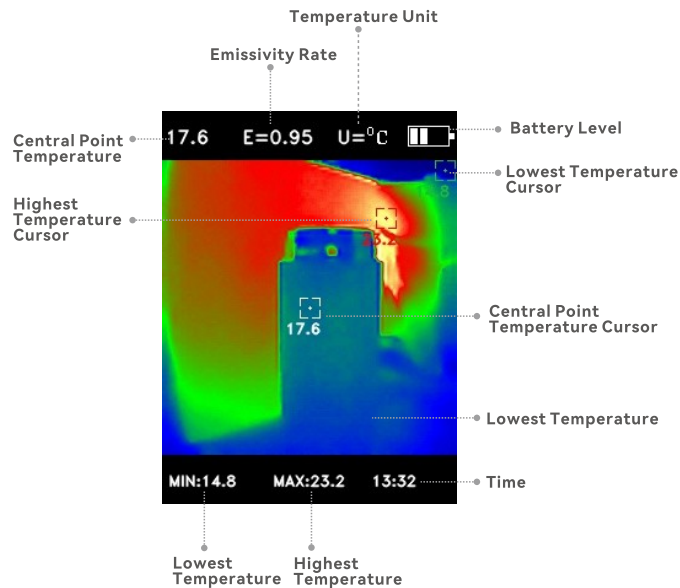
### To protect the battery lifespan and functionality

- Avoid over recharge, Less than 8 hours
- Recharge at least 2 hours every 3 months
- Avoid recharge the device in a low temperature environment.

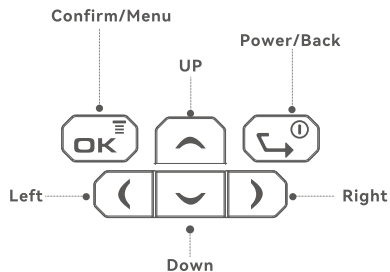
## 2. Button Function Introduction



## 3. Screen Display Content



## 4. Operation Instruction



### 4.1 Turn On/Off

Press power button for 3s to turn on/off the device

### 4.2 Take pictures

Short Press trigger to take pictures, there will be a save the picture notice in the screen, press OK to save, use “▲” “▼” to switch to No option then press OK to choose to abandon the picture.

### 4.3 Read Images

Open Type-C cover to connect the device to the computer, to read or save the images to the computer.

Support winxp,win7,win8,win10,Apple System.

### Notice

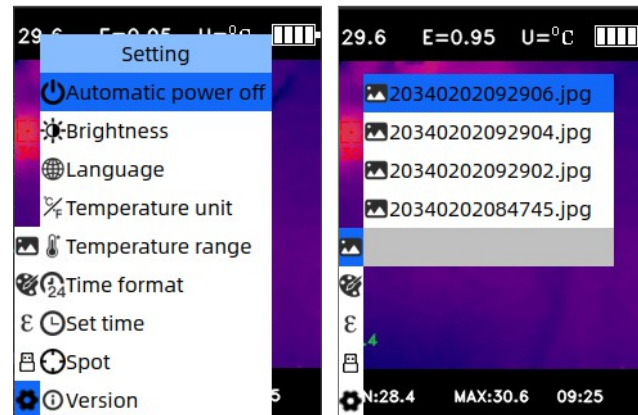
When exit the connect, pls choose “Safety Ejection Device” then disconnect, to avoid the damage to the system files, if any storage issue happens, pls repair the hard-drive.

## 5. Menu Set

Press OK button to enter the set function, the menu set function option will appear in the left side of the screen, including image, palettes, emissivity rate, USB mode, set.

### 5.1 View/ Delete The Image

Press OK to enter the menu, use “▲” “▼” to choose image “”, repress OK to enter the image list then press OK to view the image.



When viewing the image long press “▲”, there is a notice “Delete?” appearing in the screen, press OK to delete the image, otherwise use “▲” “▼” to change to “NO” then press OK to keep the image.

## 5.2 Palettes Set

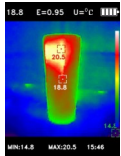
### Palettes

Platters were used to display the fake color on the screen from the infrared image, the device designed with Rainbow / Iron Red / Red Hot / White Hot / Black Hot platters to choose.

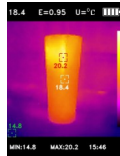
Choose suitable palettes to more detail display on the object.

Rainbow/ Iron Red / Red Hot platters focus more on colors, suitable for big temperature gap situation, while White Hot / Black Hot were more suitable for the even color situation.

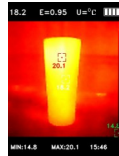
Following images are the pictures from the same item with different palettes.



Rainbow



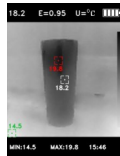
White Hot



Black Hot

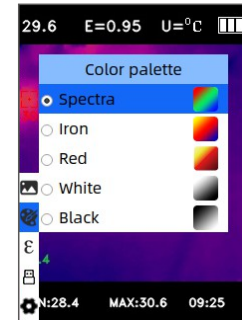


Iron Red



Red Hot

Press "OK" button to enter the menu, use direction buttons to choose "☛" menu, repress "OK" to enter the sub-menu as following picture.



Press "▲" "▼" to choose the right palette then press OK to confirm, press back to return.

## 5.3 Emissivity Rate Set

Users can choose one from the following 4 Emissivity Rates.

- Rough Object
- Semi-matte object
- Semi-glossy object
- Glossy object

Users can set emissivity rate by using customize function (Emissivity Rate Values Of General Materials Table for reference) .

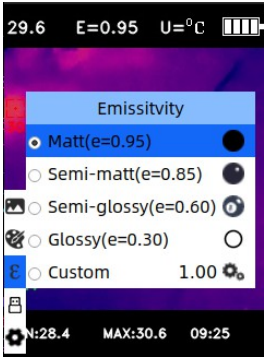
5.4 Emissivity Rate Values Of General Materials Table.

Substance	Heat radiation	Substance	Heat radiation
Bitumen	0.90-0.98	Black cloth	0.98
Concrete	0.94	Human skin	0.98
Cement	0.96	Foam	0.75-0.80
Sand	0.90	Charcoal powder	0.96
Earth	0.92-0.96	Paint	0.80-0.95
Water	0.92-0.96	Matte paint	0.97
Ice	0.96-0.98	Black rubber	0.94
Snow	0.83	Plastics	0.85-0.95
Glass	0.90-0.95	Wood	0.90
Ceramics	0.90-0.94	Paper	0.70-0.94
Marble	0.94	Chromium oxide	0.81
Gypsum	0.80-0.90	Copper oxide	0.78
Mortar	0.89-0.91	Iron oxide	0.78-0.82
Bricks	0.93-0.96	Textile	0.90

Operation Steps

Press OK to enter the main menu, choose “E” press OK to enter the sub-menu as below:

Emissivity Rate  
Customize

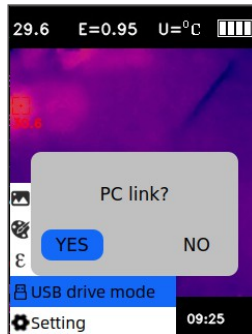


Customize Emissivity Rate

Press OK to enter edit, press “▲” “▼” to adjust the value (Long Press to accelerate the value), repress OK to confirm the set, press back to return.

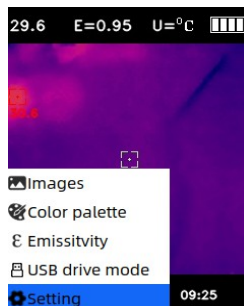
## 5.5 USB Mode Set

Once connected with computer, there will be a notice on the screen, Use “▲” “▼” button to choose the function, Press OK to choose USB mode.



## 5.6 USB menu set

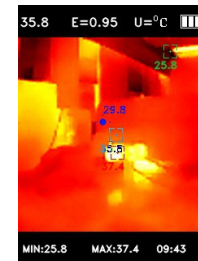
Press OK to enter the main set menu use direction button to choose “⚙️” then repress OK to enter the sub menu.



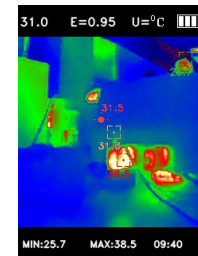
# 6. Laser Temperature Function

## 6.1 Built-in temperature measuring function

Can take the temperature of the measured spot, also can check the temperature of a whole area, users can long press the trigger for 2s to turn the function on or off.



## 6.2 Temperature Cursor illustration



White Cursor ---Central Point Temperature  
Red Cursor -----Highest Temperature  
Green Cursor ---Lowest Temperature  
Circle Cursor ---Laser Point Temperature

## 7. Product Parameter

Screen Size	2.8"
Sensor	Vox
IR Resolution	96*96 (IRS:240*240)
Wave Range	8~14 $\mu\text{m}$
Sensor Pixel	12 $\mu\text{m}$
NETD	$\leq 60\text{mK @}25^{\circ}\text{C}, @\text{F}/1.0$
Focal Length	1.35mm
View Angle	50*50°
Focus Mode	Fixed Focus
Temperature Range	-20~+150°C(-4°F~302°F) 100~+550°C (212°F~1022°F)
Temperature Accuracy	$\pm 2^{\circ}\text{C}$ (35.6°F) or $\pm 2\%$
Temperature Resolution	0.1°C
Temperature Mode	Central Point/Max/Min/Laser spot
Palettes	Rainbow/ Iron Red/Red Hot/ White Hot/ Black Hot
Emmisivity Range	0.01~1.00
Frame Rate	$\leq 25\text{ Hz}$
Storage	128M (50M Available)
Image Format	JPG
Export Channel	USB to PC
Language	English/Chinese/Italian/German/Japanese /Spanish/ French/Arabic/Korean
Battery	1000mAh, Rechargeable Lithium Battery (18650)
Auto- Off	5m/50m/ Stay On
Weight	249g
Size	220*72*70mm

## 8. After-Sales Service

- Under normal usage, if this product occurs quality issues, it will be covered by free warranty repair within one year, and paid repairs (only parts cost will be charged) will be available within three years.
- The warranty period is calculated from the date of purchase
- Please present the warranty card and invoice or other valid proof of purchase when requesting repairs. Otherwise, the warranty period will be determined based on the manufacturing date.
- The product casing, user manual, packaging, battery, and other accessories are not covered under warranty.
- Repair fees may apply under the following cases:
  - A. Absence of a warranty card or valid proof of purchase, or expiration of the warranty period.
  - B. Improper operation or failure to follow the user manual's instructions for use and maintenance.
  - C. Damage caused by unauthorized disassembly, modification, or repair.
  - D. Natural wear and tear of components.





深圳市诺方舟电子有限公司

编号	201	202	301	302	303	304	305	比例:	1:1	品号:	
类目	塑胶件	五金类	镜片	PVC贴纸	不干胶贴	说明书	包装盒	单位:	mm		
选择						√		设计	HZL	品名:	NF-522说明书英文-V1 20250819
306	307	308	309	310	311	312	313	核准			
彩卡	吸塑	工具包	PE袋	纸箱	宣传单	合格证	打印标签	标准:	√	文件类型:	做货文件
								定制:			
制作日期	2025.08.19			样式	骑马订		印刷材质		128g双铜纸		
印刷要求	彩色			页码	16P		变更记录				
尺寸大小	105*140mm			版本	V1						