

MILESEEY®

TR256 Handheld Infrared Thermal Imager



User's Guide



Product Overview

Thank you for purchasing the handheld infrared thermal imager of Mileseeey. Please read the user guide carefully before using it.

TR256 is a handheld infrared thermal imager.

TR256 has 3.5 inch HD large screen, can show larger display range, more helpful to check the fault area.

Personalized setting of emissivity makes the detection data more accurate.

TR256 can capture pictures and save them, it is also very convenient and fast to export pictures through a USB cable or SD card, which can be used as a basis for maintenance. TR256 is an ideal choice for maintenance and testing.

TR256 has a built-in 5000mA lithium battery and TYPE-C charging interface, which is very convenient to use and environmental protection.

TR256 can automatically track cold and hot spots, and automatically lock the lowest and highest temperature points, also can set high and low temperature alarm points individually. Detect and provide more accurate temperature data in real time, and assist various temperature detection work effectively.

Besides, TR256 is equipped with a 3W white LED light to help users see the detection area clearly in dark environment, which is convenient for night work and ensures personnel safety.

It's IP65 protection level can protect the device from dust and humid environment, and prolong its service life.

Safety Instructions



● To ensure accurate measurement results and safety, please use this product in accordance with the user manual, otherwise free warranty will not be provided if the product is damaged.



● Please use the damp cloth or weak soap liquid to clean the housing. Do not use abrasives, isopropyl alcohol or solvents to clean the instrument shell, lens and windows.



● Please do not use this product in flammable, explosive, steamy, humid or corrosive environments.



● Please stop using the product if it is damaged, dropped or modified to avoid inaccurate measurement results.



● Please use the correct emissivity to obtain accurate temperature readouts.

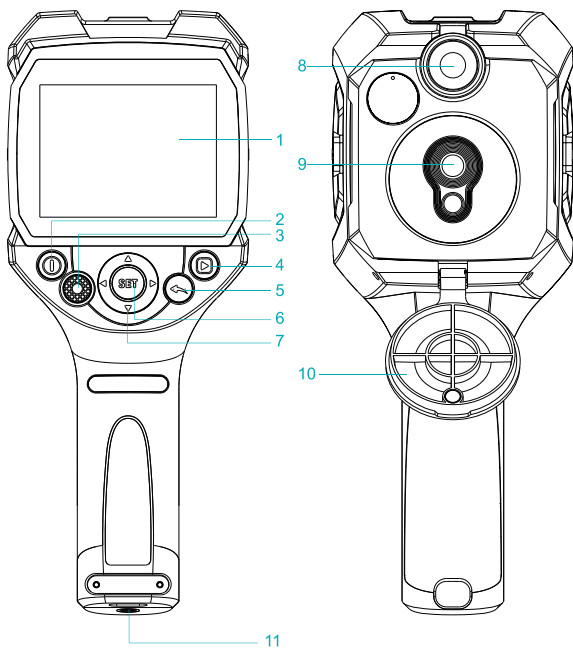


● When being charged, the internal temperature of product will rise, which will lead to inaccurate temperature measurement. It is not recommended to take measurements during or right after charging.



● Because the power consumption may cause the internal temperature of product rise. To ensure the measurement accuracy, please warm it up for 2 minutes before measuring if the product has not been used for a long time.

Appearance



1、3.5 inch HD Large Screen**2、On/Off Button**

Long press to power On/Off

3、LED Light Button

Short press to turn on, short press again to switch 1 gear / 2 gears / OFF.

4、Picture Memory Records

Short press to picture memory mode, press the SET button to delete all/one picture.

5、Return

Short press to return.

6、Set Button

Short press to the setting menu or data setting.

7、Up/Down/Left/Right button

To switch the options and view the picture records.

8、LED Light**9、Infrared Camera****10、Camera Cover****11、Tripod Screw Hole****12、Shoot Button**

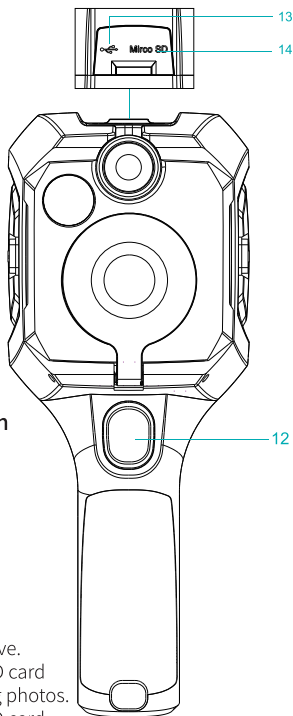
Short press to shoot picture and save.

Note:1. Please ensure there is an SD card inside the machine before shooting photos.

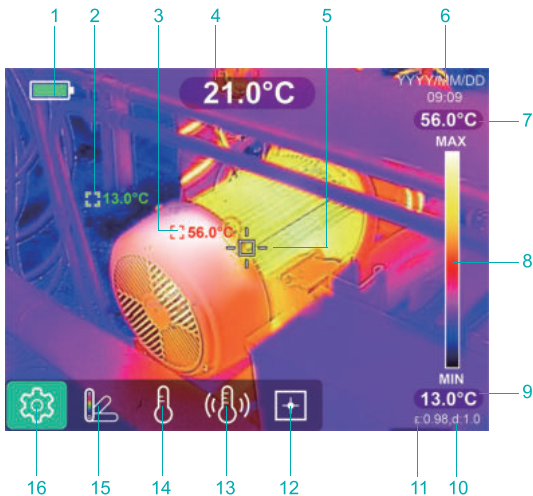
2. The photos would save on the SD card only, the photos cannot be saved in the machine without SD card.

13、USB Port

Warning: Please DO NOT use the adapter above 5V 2A to charge, otherwise it may cause machine damage.

14、Mirco SD

Display icon



- 1、Battery status
- 2、Minimum temperature and position in current screen.
- 3、Maximum temperature and position in current screen.
- 4、Center point temperature
- 5、Center point
- 6、Current date & time
- 7、Maximum temperature of current area
- 8、Color bar
- 9、Minimum temperature of current area
- 10、Currently set detection distance
- 11、Currently set emissivity

12. Cursor options

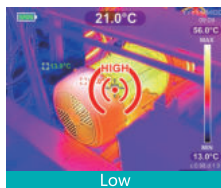
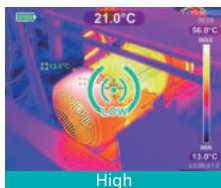
Press ▲ / ▼ button to switch, press **SET** button to turn on/off.



13. Alarm temperature setting

Press ▲ / ▼ button to switch, press **SET** button to turn on/off.





14. Temperature unit options

Press ▲/▼ button to switch °C and °F.

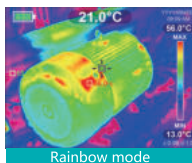
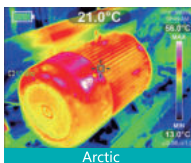
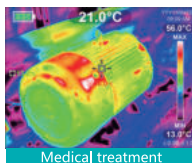
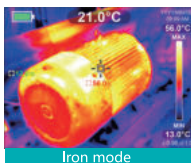


15. Palette options

Press ▲ / ▼ button to switch six colors and imaging modes.



Six colors and imaging modes



16. Setting Menu

Short press **SET** button to the setting menu.

Setting menu instruction

Instructions:

① Press **SET** button to enter the setting menu, can switch the setting area and value.

② Press **▲/▼** button to switch the menu options, press **SET** button to enter the setting interface, press **▲/▼** button to set the value.

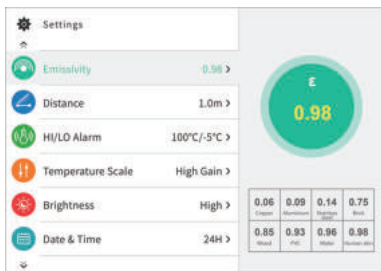
③ Press **SET/▶** button to enter the setting interface, and switch the setting area.

④ Press **◀** button to return to the main menu of setting.

Emissivity

Selecting correct emissivity is very important for accuracy of temperature measurement, as emissivity has a significant impact on the measured surface temperature.

Press **SET/▶** button to set emissivity value, the value in the emissivity setting box turns blue, press the **▲/▼** button to adjust the emissivity value, after setting is completed, press the **◀** button to return to the left setting main menu.



Tip: The emissivity can be set in the range of 0.01-0.99. For the emissivity of common objects, please refer to the table in the appendix.

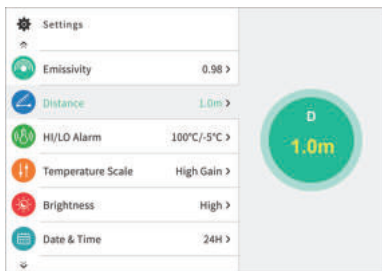
Emissivity of common objects

Materials	Emissivity	Materials	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
Adhesive tape	0.96	Cast iron	0.81
Aluminium 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 plastic	0.93		

Distance setting

Setting the distance information before detecting can ensure more accurate temperature detection.

Select the distance option, press the **SET** / ► button to enter the value setting interface. Press the ▲ / ▼ button to set the distance value (0~3m). After setting is completed, press the ◀ button to the left main setting menu.

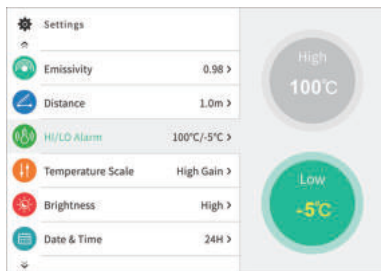


Alarm temperature setting

Select the high/low temperature setting option, press the **SET** / ► button to enter the value setting interface. Press the **SET** / ► button again to switch the setting items, press the ▲ / ▼ button to set the temperature value and “on/off”. After setting is completed, press the ◀ button to the left main setting menu.

High temperature setting range: 40°C~ 550°C

Low temperature setting range: -20°C~ 40°C



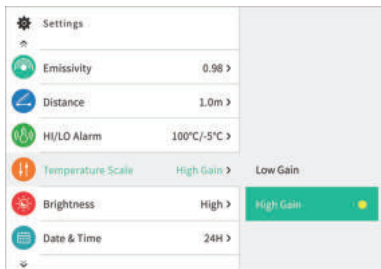
Temperature Scale

Select the temperature option, press the **SET** / ► button to enter the setting, press the ▲ / ▼ button to switch the low gain/high gain options, press the **SET** button to confirm, then press and hold the ◀ button to the left main setting menu.

Temperature range of low gain: -20°C~150°C

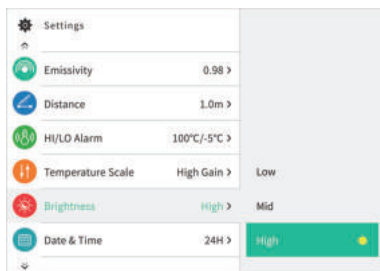
Temperature range of high gain:150°C~550°C

! Note:It takes over 10s to switch gain.Please wait the machine steadied after switching,then performing other operations or temperature measurement.



Display brightness

Select the display brightness option, press the **SET** / ► button to enter the setting, press the ▲ / ▼ button to switch the low/middle/high options, press the **SET** button to confirm, then press the ◀ button to the left main setting menu.



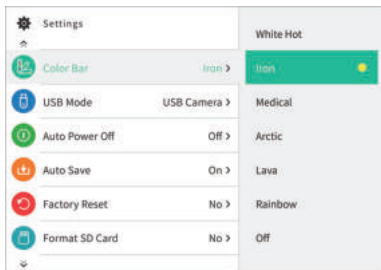
Date and time setting

Select the date & time option, press the **SET** / ► button to enter the setting, press the **SET** / ► button again to switch the setting items, press the ▲ / ▼ button to set the value. Then press the ◀ button to the left main setting menu.



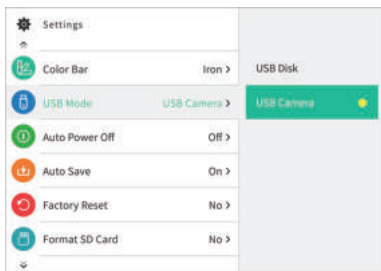
Color bar setting

Select the color bar option, press the **SET**/**▶** button to enter the setting, press the **▲**/**▼** button to switch “on/off”, press the **SET** button to confirm. Then press the **◀** button to the left main setting menu.



USB Mode

Select the USB mode option, press the **SET** / ► button to enter the setting, press the ▲ / ▼ button to switch “USB disk/USB camera”, press the **SET** button to confirm. Then press the ◀ button to the left main setting menu.



1. Contact us via(service@mileseey.com) to download the PC software and complete the installation to browse images and screen projection function of real-time images Screencasting function.

2. When the USB mode is set to USB Disk, can be browsing pictures and analyzing data on PC software by connecting the USB cable to the computer.

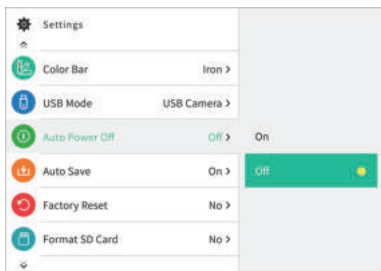
- ! Note: 1) To switch to U-Disk mode, you need to restart the thermal imager, and then plug in the USB cable to apply the U-disk mode.
2) Please do not change the Image folder name and image name, otherwise there will be a reading error.

3. When the USB mode is set to USB camera, connect the USB data cable to the computer, the projection function of real-time image can be realized on the PC software.

- ! Note: 1) To switch to USB camera mode, you need to turn off the thermal imager, then plug in the USB cable, the device will automatically start to apply the USB camera mode
2) Please do NOT unplug the USB cable during the computer screen projection process; Please close the projection software first, then unplug the USB cable, If you use complete.

Auto power off

Select the auto power off option, press the **SET/▶** button to enter the setting, press the **▲/▼** button to switch the time options, press the **SET** button to confirm, then press the **◀** button to the left main setting menu.



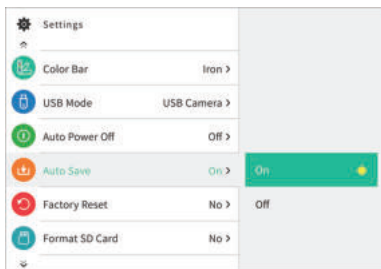
Auto save

Select the auto save option, press the **SET/▶** button to enter the setting, press the **▲/▼** button to switch the “on/off” options, press the **SET** button to confirm, then press the **◀** button to the left main setting menu.

Select the “on” option, means device will save every picture automatically that users take .

Select the “off” option, means users need to confirm whether to save after taking the pictures.

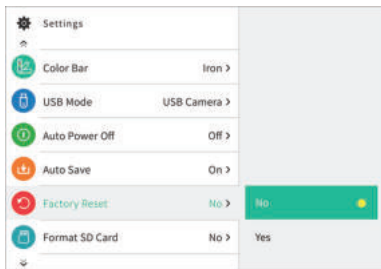
! Note: It is recommended to save no more than 2000 pictures, avoid to affect the reaction speed of the device. When the number of pictures exceeds 2000, please clean up the SD card in time.



Factory reset

Select the factory reset option, press the **SET** / ► button to enter the setting, press the ▲ / ▼ button to switch the “ Yes/No ” options, press the **SET** button to confirm, then press the ◀ button to the left main setting menu.

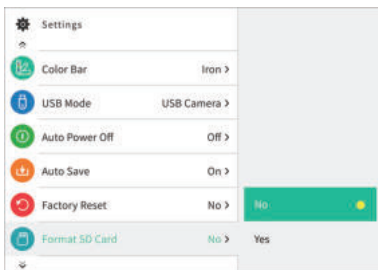
! Note: please use the Factory Reset function prudently, once reset confirmed, all information in the device will be lost.








Format SD card

Select the Format SD card option, press the **SET** / ► button to enter the setting, press the ▲ / ▼ button to switch the “Yes/No” options, press the **SET** button to confirm, then press the ◀ button to the left main setting menu.

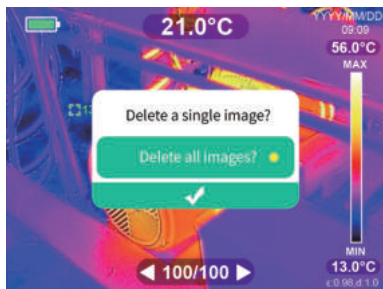
! Note: Please use the Format SD card function prudently, once format confirmed, all the information in SD card will be lost.



Browse Image

Short press the  button to enter Image browsing interface, press  /  to select different Image, press the **SET** button to enter the delete Image option, press the  /  button to select to Delete a single image or Delete all images, then press the **SET** button confirm deletion

 **Note:** Please do not move the SD card while browsing images, otherwise all the image in SD card will be lost.



LED light

To avoid the long-time LED lighting causing the temperature of the device increase and affect the measurement accuracy, the LED light will turn off automatically after 5 minutes of continuous lighting, If you need to use it, please turn it on again.

Specifications

Model	TR256
Thermal imaging pixels	256*192
Spectral response band	8~14um
HFOV	55.6°±2.8°
Pixel size	12um
Output frame rate	≤20Hz
Thermal sensitivity	≤50mK@f/1,300K,30Hz
Working environment temperature	0°C~35°C
Temperature range	-20°C~550°C
Accuracy	±3°C/±3%(Take the Maximum Value)
Measurable distance range	0.5m~1.2m
Color palette	Six
High/low temperature alarm	√
SENSOR non-uniformity	<5%
Size	3.5 inch
Display resolution	640*480
Visible light resolution	2 megapixels
Storage	External 8G MicroSD card
Storage memory	eMMC(8GB eMMC5.1 SanDisk)
Communication Interface	USB2.0(HS) *480M
Video output	Can be chosen
Power	5000mAh/3.7V
Light	High-power white LED
Protection class	IP65
Operating temperature	-20°C~60°C
Storage temperature	-40°C~70°C
Drop resistance	1.5m
Dimension	238*95*85.5mm
Weight(W/I battery)	540g

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MILESEEEY has started researching and development manufacturer of quality optical products including laser level, laser measure device, Golf rangefinder, and binoculars since 2009. Focus on the development, researching, and manufacturing for over 12 years.

We strive to provide you with premium qualified products and satisfying customer service to make your life easier and smarter.

Warranty

30-Day return and refund guarantee, 12-Month warranty, lifetime technique support by MILESEEEY.

Please feel free to reach us with any concerns,

Email: service@mileseeey.com.

We strive to reply to you within 24hours.



MILESEEY®

