

Q 1293A

Professional Non Contact Thermal Imaging Camera

Operating Instructions



This thermal imaging camera combines the functions of surface temperature measurement and real time thermal imaging. From the built in camera it provides both thermal 'rainbow' style images and normal camera viewing with an adjustable thermal overlay. Screenshots can be saved to an SD card for later review. Emissivity may be adjusted to combat the irradiated IR emitted from differing materials. This device is ideal for diagnosing problems with equipment whilst it is in operation. Ideal for use in electronics servicing to identify faults in regulators, FETs, caps etc. Includes carry case and charger.

Specifications

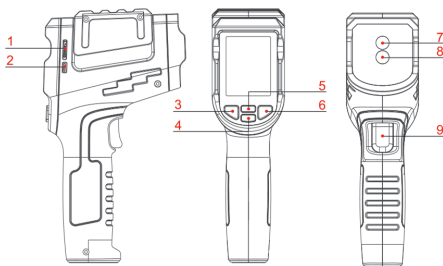
Thermal Imaging Specifications	
Thermal Imaging Resolution	32*32 (1024 pixels)
Electronic Shutter	No
Visible Light Camera	2 Megapixels
Display	Thermal imaging, thermal mixing, digital camera
Colour	Red, dark grey
Infrared Spectral Bandwidth	8~14μm
FOV	33° Horizontal
IFOV	18 mrad
Thermal Imaging Sensitivity	150mk
Frame Rate	≤9Hz
Image Format	BPM

Infrared Temperature Measurement Specifications	
Temperature Measurement Range	-20°C to +400°C
Accuracy	0°C to 400°C Accuracy: ±1.8% or 1.8°C -20°C to -0.9°C Accuracy: ±3°C
Ambient Temperature	25 ± 2°C
Emissivity	Adjustable 0.1 ~ 0.99
Test Conditions Emissivity	0.95
Response Time	150ms
Spectral Band	8~14μm

General Parameters	
Monitor	2.4 inch TFT LCD
Display Resolution	320*240 Pixels
Battery	3.7V/2600mAh
Automatic Shutdown Function	Yes
SD Card	16GB Micro SD Card
Working Temperature	-10°C ~ +45°C / 14°F ~ 113°F
Certification	CE

Note: when the measured temperature is not accurate, you can try moving the device and changing the distance from the target to get a close temperature value.

Product Overview

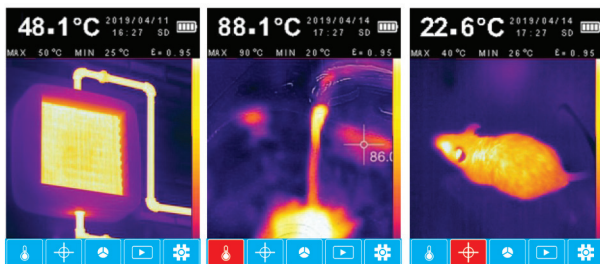


1	SD card slot	2	USB interface
3	Return key	4	Down key
5	UP key	6	OK&Menu key
7	Thermometer lens	8	Infrared camera
9	Trigger		

Application

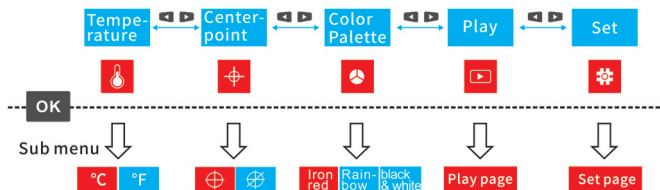
- Installation and maintenance of floor heating, radiator and water heater.
- Wireless probe. It accurately locates hidden blockages clogging the inside of the pipe and alerts you with a buzzing sound.
- Property maintenance such as air and thermal leakages.
- Residential office and production electricity maintenance.
- Small animal search and investigation in buildings (including termite control).
- Car repair and maintenance inspection.
- Fire and rescue situation investigation.
- Inspection and maintenance of old buildings.

Menu Description



1. Thermal imaging page, ratio 4:3
2. Press to pop-up, Press to hidden
3. Press & to choose, Press to hidden

Menu

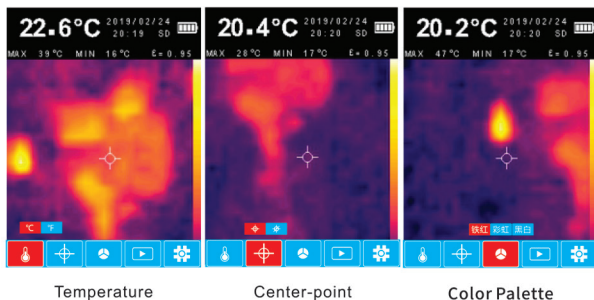


3.1. Set temperature unit / center point / palettes:

Main interface (after booting) Press the to display the main menu.

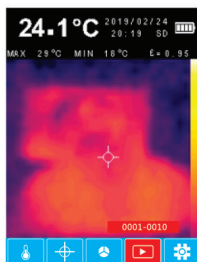
Press the & to select the menu to be set, and press to confirm. Press the & to select various options item, and press to confirm and exit.

Menu Description



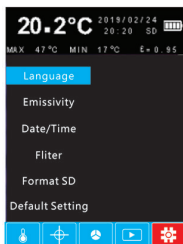
3.2. View photo pictures:

Interface (after booting) Press the to display the main menu, press & and move the cursor to play icon, then press to confirm, the icon will shows the picture number and the total number of pictures. Press the & to select the picture you want to view, and press the to exit.



Play page

Settings



Set

3.3.1-Language

Moving the cursor to the system setting icon by press the ▲ & ▼ in the Main menu, then press ⌂ to enter the setting menu, and press the ▲ & ▼ to select the language menu, press ⌂ to enter the language selection, then press ⌂/⏏ to save/exit.

3.3.2-Emissivity

Press the ▲ & ▼ in the main menu to move the cursor to the system setting, press ⌂ to enter the setting menu, press the ▲ & ▼ to select the emissivity menu, press ⌂ to enter the emissivity, press the ▲ & ▼ to increase or decrease, press ⌂/⏏ to save/exit .

Settings

3.3.3- Date & Time

In the setup menu, press the ▲ & ▼ to select the date and time menu, press Ⓞ to enter and modify, select 00/01/01 00:00 12 (year/month/day hour: minute 12 or 24 hour system), and press the ▲ & ▼ to adjust according your demands, then press Ⓞ to confirm and go to the next item. After all settings are completed. press Ⓞ/Ⓢ to save/exit.

3.3.4- Filter

In the setup menu, press the ▲ & ▼ to select the filter menu, then press the Ⓞ enter, and press the ▲ & ▼ to select ON/OFF, press Ⓞ/Ⓢ to save/exit.

3.3.5- Format SD

In the setup menu, press the ▲ & ▼ to select the format SD menu. Press the Ⓞ enter, and press the ▲ & ▼ to select ON/OFF, select ON and press Ⓞ, the SD card will be formatted and exited.


3.3.6- Factory setting

In the setup menu, press the ▲ & ▼ to select the factory setting menu. Press the Ⓞ enter, and press the ▲ & ▼ keys to select ON/OFF, select ON and press Ⓞ, the meter will return to the factory settings and exit.

Operating Instructions

4.1. Power on/off

In the off state, press the  to turn on.

When the power is on, long press the  until the screen is dark and then release. Complete the turn off.

4.2. Hot keys

 button control display mode. Following is the shows,



Pure thermal imaging display



Contour and thermal imaging fusion



Visible light and thermal image fusion



Pure visible light

 button control switch switching. Following is the shows,

Operating Instructions



Iron red



rainbow



black & white

4.3. Thermal imaging measurement

In the power-on state, use the center-point of the screen to aim at the measured object, and the top left of the screen is displayed the surface temperature at that location.

Two points that jump on the screen, one is the maximum temperature point and the other is the minimum temperature point, these two points are automatically captured by the meter. The top position on the screen shows the MAX and MIN temperature value.

4.4. Take a photo

A storage prompt will appear at the bottom of the screen after press the trigger. Optional from MENU to store & RETURN to abandon. The picture is stored in the TF card.

4.5. Read the picture in the TF card

The PC will display a removable storage disk when connected into the device USB port by one Android cable, open the removable disk, you can edit the pictures on the device and saved.

Charging

The battery symbol in the upper right corner of the screen shows the current battery level. When the battery is exhausted, it will automatically shut down. Use Android's USB charging cable when charging, plug in the 5V output USB charger. And there is a charging display when charging.

Application Instructions

Starting from the main gate of the hot water pipe, select the iron red test mode.



The red color in the display is the position and orientation of the hot water pipe.



Look along the red direction. If the red area disappears, it means that it is blocked. If the red area are diffused , it means that the water leaks here.



Precautions

- This power system has a built-in lithium battery.
- Please do not place the device in a location that is dusty, humid, or hot (above 40° C).
- Please use a battery that meets the specifications, otherwise the device may be damaged.
- Please do not disassemble the device. Repair and maintenance should be done by a professional.
- When not using the device for a long time, please remove the battery inside the test terminal to prevent the battery liquid from leaking out.
- Please do not use this device to detect live power lines (such as 220V power supply lines). The device may be damaged and personal safety may be compromised.
- Please do not operate this device during thunderstorms and/or lightning strikes.