



Infrared Thermal Camera Instruction Manual



HT-175



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Overview

Welcome to purchase HT-175 Infrared thermal camera. In order to use the product in an even better fashion, we remind you to read the instruction for use carefully before use.

The industrial thermal camera features portable design and simple operation and is widely used in many fields such as fire fighting, archaeology, traffic, agriculture, geology, energy, smelting, electronic manufacture, etc. It is the ideal selection for electrician and maintenance personnel and technicians and can be used to find the problem area quickly.

Considerations

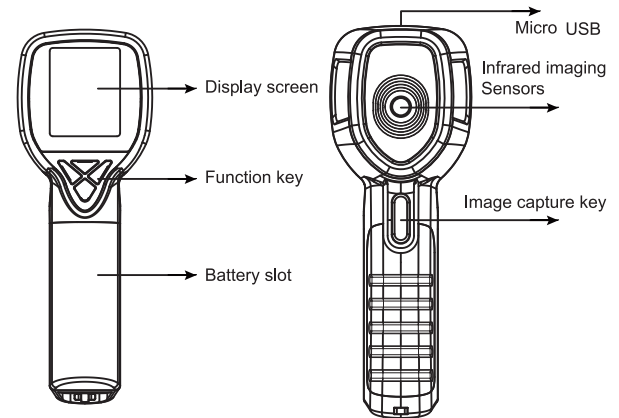
- ★ Please take out the battery if the instrument is not used for a long time.
- ★ Don't dismantle and remodel the product without permission.
- ★ Don't use the instrument in explosive, flammable, damp or corrosive environment.
- ★ The product belongs to precision electronic and sensitive optical devices. Don't impact and drop it to avoid damage.
- ★ Please use alcohol or weak soap to clean the enclosure of the device. Don't use abrasant, isopropanol or solvent to clean. Special optical lens cleaner is used to clean the screen.

Measurement principle

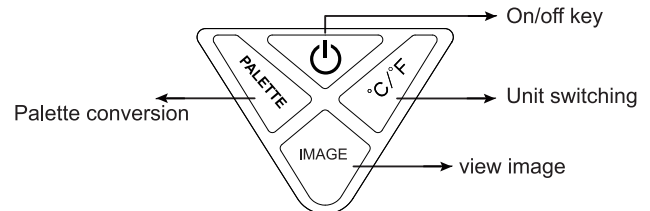
In the nature, when temperature of the object is higher than absolute zero (-273°C), it will radiate electromagnetic wave to surrounding environment constantly due to internal thermal motion, in which infrared ray is included. The optical elements of infrared temperature instrument can convert the infrared energy emitted,

reflected and transmitted by the object to temperature reading. The instrument measures the infrared ray difference between the object itself and the background and obtains different images and converts it into standard video format and display.

Product description



Key description



Operating description

1. Power on/off

Hold down  key to power on/off.

2. Color palette description

The product provides two types of color palettes: iron oxide red and white glow. Press PALETTE key to switch the color palette. Suitable selection of color palette can display details of the target objective better. Iron oxide red color palettes focus on display of color. This color palette is very suitable for high heat contrast and used to improve the color contrast between high temperature and low temperature. But the white glow color palette provides even linear color.

3. Photographing

Press the trigger key to make photos. The image will stay for several seconds at the same times.

4. View images

Press "IMAGE" key to open the image. Press "°C/°F" key to view the next image. Press "PALETTE" key to view previous image. Press "IMAGE" again to exit from the image interface.

5. Delete images

The product does not support to delete single image temporarily (restore factory setting may delete all images) and can be connected with a computer to delete images on the computer.

6. Switching unit

Hold down "°C/°F" key to switch temperature unit °C or °F at the measurement interface.

7. Restore factory set




Hold down the trigger key and not release it. Then hold down the power key to power on. The screen displays "Init system..." at the time of starting. After factory setting is restored, the temperature unit and color palette is restored to initial setting. The saving space is also formatted at the same time. All photos will be deleted.


Measurement

Aim the infrared sensor at the measured objects. Adjust the angle to make the measured objects at "+" position in the screen center.

The temperature at the central point is displayed on top left corner of the screen (position of "+" symbol). The lowest temperature is displayed at the bottom left corner and the highest temperature is displayed on bottom right corner.

Charging

1. When the low battery level symbol " "displays at top right corner, please use original adapter of the factory to charge the instrument.
2. It suggests to charge at power-off state. Press " " key to check the charging state.
3. When pressing " " key at power off state, if charging is made and not full, the screen will display dynamic charging icon.

4. When pressing “  ” key at power off state, if charging is made and full, the screen will display static full battery icon.

5. If charging is not made, press the power key and nothing will be displayed.

6. Suggest pulling off the USB line after fully charging.

Note: Charging should be conducted once every three months at least if the device is not used for a long time to prolong the battery's life to the utmost extent.

Product parameters

Display: 2.0 color screen

Measuring range: -20 ~ 300 °C

Measurement accuracy: $\pm 2\% / \pm 2^{\circ}\text{C}$

Field of view: 33°x33°

Focusing mode: fixed

Frame rate: 5Hz ~ 6Hz

Wavelength range: 8-14um

Infrared image resolution: 32 × 32

Photo resolution: 176x220

Photo format: bmp

Storage space: 16MB

Palette: iron red, white hot

Battery model: 18500

Working voltage: 3.4 ~ 4.2V

Working temperature: 0 ~ 50 °C

Storage temperature: -10 °C ~ 50 °C

Humidity: <85% RH

Size: 165mm × 69mm × 60mm

Accessories: adapter, USB cable