

UT306A

Mini Infrared Thermometer User Manual

I. Introduction

UT306A is a mini infrared thermometer, that is able to determine the temperature of an object's by measuring the radiated infrared energy from its surface.

II. Safety information

Warnings:

To avoid injury and damage, please read the following information before use.

- Do not point laser directly at persons or animals or indirectly off reflective surfaces.
- Do not look directly into the laser with optical tools (for example, telescopes, microscopes). Optical tools can focus the laser and be dangerous to the eyes.
- If low power indicator flashes on the screen, please replace the battery.
- Before using the product, please check it, if damaged, the surface cracks or the lack of plastic parts, do not use
- See emissivity information for actual temperature. Reflective objects result in lower than actual temperature measurements. These objects pose a burn hazard.
- Do not use the device if explosive gas, steam, moist surrounding.
- To ensure accuracy, place the device at current environment for over 30 mins.
- Avoid staying beside object with high temperature for long time.

III. Specifications

Range	-35℃~300℃ (-31℉~572℉)
Accuracy	≥0℃:±2.0℃ or ±2% of reading, whichever greater
Calibrated ambient temperature:	<0℃:±(2.0℃+0.1℃/℃)
21℃~25℃(70℉~77℉)	≥32℉:±4.0℉ or ±2% of reading, whichever greater
	<32℉:±(4.0℉+0.1℉/℉)
Temperature coefficient	0.1℃/℃(0.1℉/℉) or ±0.1% of reading per degree, whichever greater
Optical resolution	6:1(calculated when energy is 90%)
Emissivity	0.95

Response time	250ms(95% of reading)
Spectral response	8um ~ 14um
Display resolution	0.1℃(0.1℉)
Repeatability	±1.0℃(2.0℉) or ±0.1% of reading, whichever greater
Laser	IEC60825-1:2014 CLASS II, λ=630nm~670nm, <1mW
Battery type	AAA 1.5V*3
Battery life	≥20H(Work continuously with laser&backlight on)
Dimension	120mm*53mm*28mm
Weight	120g
Working temperature	0℃~50℃ (32℉~104℉)
Storage temperature	-20℃~60℃ (-4℉~140℉)
Working humidity	<Rh90% (non-condensation)
Working altitude	≤2000 meters
Storage altitude	12000m
Drop test	1 m

IV. Safety standard

CE: EN61326-1: 2013 EN61326-2-2: 2013

Laser safety standard: EN60825-1: 2014

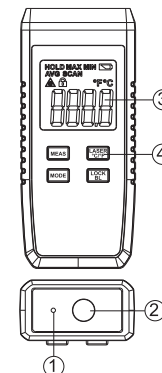
V. Features

- Laser aiming
- Backlight
- Auto measurement
- MAX/MIN/AVG temperature measurement.
- Selectable temperature units
- Low power indication
- Data hold
- Auto power off
- Auto recording

VI. Product description

Structure

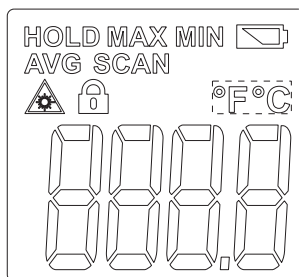
- 1.Laser emission spot
- 2.Infrared signal receiving terminal
- 3.Display screen
- 4.Buttons



Buttons

- MEAS** : Power ON&Measurement
- LASER** : Laser ON/OFF or Temperature unit switch
- MODE** : Select MAX/MIN/AVG or real-time measurement
- LOCK** : Measurement lock or backlight ON/OFF

Symbols



HOLD	Data hold
MAX	Maximum value
MIN	Minimum value
	Low power
AVG	Average value
SCAN	Scan measurement
	Laser ON
	Auto measurement
°F/°C	Temperature unit
8888	Reading

VII. Operation instructions

Power on

Short press **MEAS** to switch on the device and record from last shutdown is displayed.

Temperature measurement

Press **MEAS** and hold, thermometer start scanning, SCAN symbol flashes on the screen. Laser is for aiming object being measured. Release **MEAS** button to stop measurement. HOLD symbol appears while SCAN symbol disappears and laser is off. Result is displayed on the screen.

Auto Measurement

After turn on the device, short press **LOCK** button to activate measurement lock function. symbol appears on the screen. Thermometer will conduct auto and continuous measurement without any operation. Short press LOCK/BL again to unlock the auto measurement. symbol disappears and return to HOLD mode.

Auto power off

The thermometer will automatically power off if without operation for 8 seconds.

Laser ON/OFF

Turn on the thermometer, short press **LASER** to switch ON/OFF the laser. When laser is ON, symbol appears.

Temperature unit

Turn on the thermometer, long press **LASER** to switch temperature unit.

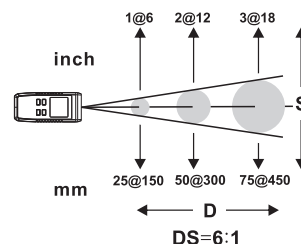
Backlight

Turn on the thermometer, long press **LOCK** to turn ON/OFF the backlight.

Measurement modes

Turn on the thermometer, short press **MODE** to cycle switch between MAX, MIN, AVG, real-time measurement modes. Corresponding symbols appear to indicate the current measurement mode. MAX/MIN/AVG symbols disappear when measuring real-time temperature.

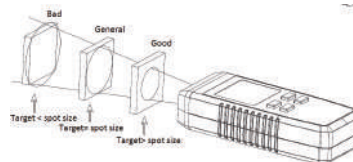
Distance and spot size



Field of view

Make sure the target is larger than the spot size.

The smaller the target the closer measure distance. Suggest distance ≤ (15cm/6 inch).



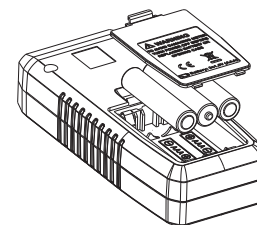
VIII. Maintenance

Clean

- Lens cleaning: blow off loose particles using clean compressed air. Gently brush remaining debris away with a moist cotton cloth.
- Case cleaning: clean the case with a damp cloth and mild soap.

Battery replacement

Replace the battery as the below shown



UNI-T
UNI-TREND TECHNOLOGY (CHINA) CO., LTD.
 No.6, Gong Ye Bei 1st Road,
 Songshan Lake National High-Tech Industrial
 Development Zone, Dongguan City,
 Guangdong Province, China
 Tel: (86-769) 8572 3888
<http://www.uni-trend.com>