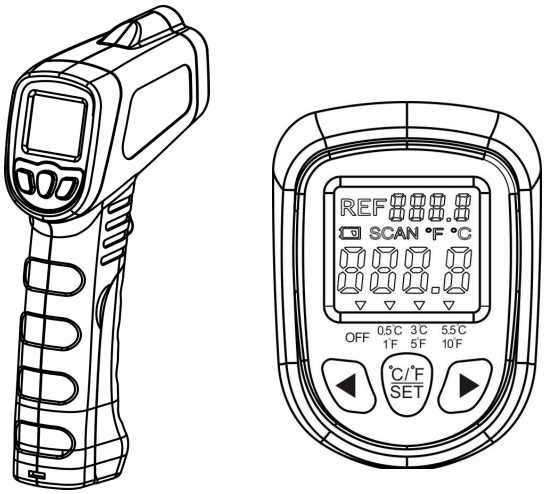
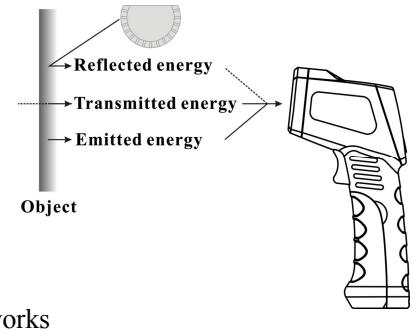
HOLDPEAK 981D
Non-contact infrared thermometer
Instruction manual



1、Introduction

Compact, rugged and easy to use. Just aim and push the button, read current surface temperatures in less than a second. Safely measure surface temperatures of hot, hazardous or hard-to-reach objects without contact.



How it works

Infrared thermometer measures the surface temperature of an object. The unit's optics sense emitted, reflected, and transmitted energy which is collect and focused onto a detector. The unit's electronics transmitted energy which is display on the unit. For increased ease and accuracy the laser pointer makes aiming even more precise.

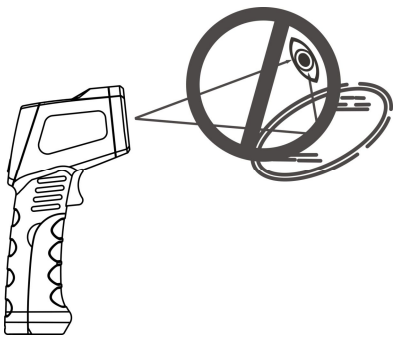
Cautions

Infrared thermometer should be protected for the following:

--EMF(electro-magnetic fields) from arc welders, induction heaters.

--Thermal shock(cause by large or abrupt ambient temperature changes allow 1 hours for unit to stabilize before use).

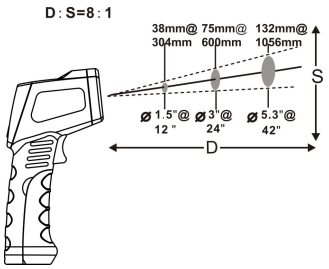
--Do not leave the unit on or near objects of high temperature.



Warning

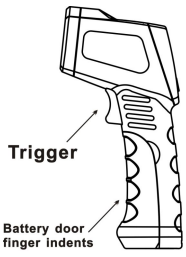
Do not point laser at eye or indirectly off reflective surfaces.

1. When take measurement, point thermometer toward the object to be measured and hold the yellow trigger. The object under test should be large than the spot size calculated by the field of view diagram.
2. Distance & spot size: As the distance from the object increase, the spot size of measuring area becomes large.

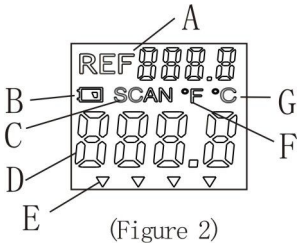


3. Field of view: Make sure the target is larger than the unit's spot size. The smaller the target the close measure distance. When accuracy is critical, make sure the target is at least twice as large as the spot size.
4. Emissivity: Most organic materials and painted or oxidized surfaces have an emissivity of 0.95. Inaccurate readings will result from measuring shiny or polished metal surfaces. To compensate, cover the surface to be measured with masking tape or flat black paint. Measure the tape or painted surface when the tape or painted reach the same temperature as the material underneath.

2、Quick start instruction



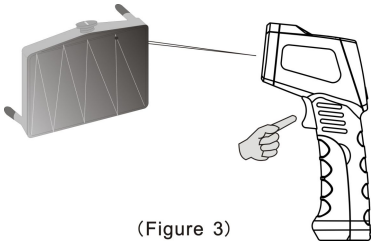
(Figure 1)



(Figure 2)

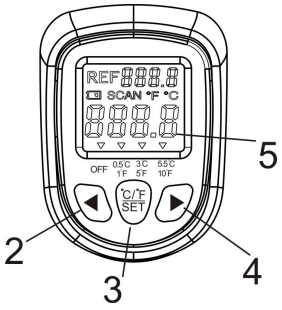
1. Press battery door clip, install battery correctly.
2. LCD display:

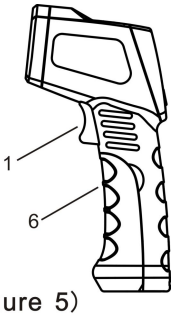
A Selection of the Temperature
B Low-voltage
C Measure prompt
D Measure result
E Set the temperature indicating section
F Fahrenheit symbol
G Temperature symbol



(Figure 3)

3. Locating a hot spot aim the thermometer outside the area of interest, then scan across with up and down motions until you locate the hot spot.





(Figure 5)

4. Diagram description

(1) Press the measuring button （1） to switch the applicance on. The display （5） lights up and a brief signal tone is heard. Press the button ° C/° F/SET （3） for approx.3 seconds to switch the applicance off.Two breif signal tones will be heard. If the applicance is not currently in use,the back light of the display （3） switches off after approx.15 seconds.After approx 60 seconds the applicance switches off automatically,two short signal tones notify this.

(2) Button to the left（2）Button to the right（4）。On the applicance you can now set at which temperature difference (△T)the color display and the acoustic signal should respond. Press ,while the reference value is being shown in the display （5）,the button ▶（4） or the button ◀（2） to set the desired temperature difference(△ T). Press ,while the reference value is being shown in the display （5）,the button ▶（4） or the button ◀（2） to set the desired temperature difference(△T).

(3) ℃/ ^{0}F button：press it for ℃, press again for ^{0}F. Press the measuring button （1） and point the laser dot on the spot to be referenced.The temperature is shown in the display. Now press,while holding the measuring button 8,the button ° C/° F/SET5 to accept the temperature values as a reference value.The reference temperature temperature is shown in the display 3 next to the indicator REF

(4) A temoerature deviation is the difference between a predetermined reference value and a measured temperature.The deviations are shown as figures and by using colored indicator on the display .In addition,they will also be pointed out by an acoustic signal.

OFF	0.5 °C	3 °C	5.5 °C
	1 °F	5 °F	10 °F

Lower temperature threshold=Reference temperature-△T.

Upper temperature threshold= Reference temperature+△T

(5) Scanning a temperatur deviation

Colour display	Signal tone	Result
Red	Fast	Upper temperature threshold exceeded
Green	Not available	Within the temperature threshold
Blue	Slow	Lower temperature Threshold not reached

3、Note:

1) Do not measure in dusty,smoky or streamy atomospheres,Do not measure through transparent materials,such as glass or plastics..
2) In the event of extrema temperature fluctions allow the applicance to adjust to the ambient climatic condictions for about 30 minutes before measuring.
3) The target object must be graeter than the measuring surface of the applicance.The smaller the target objects is,the less the distance between applicance and the target object must be。
4) Aim the applicance as perpendicularly as possible to the surface being measured.
5) Do not use solvent to clean lens.
6) Do not submerge the unit in water.

4、specifications

Temperature range	-50℃ to 550℃(-58 to 1022^{0}F)
Accuracy	±3% of rdg or ±3℃,-50℃ to 0℃(-58 to 32^{0}F) ±2% of rdg or ±2℃, 0℃ to 100℃(32 to 212^{0}F) ±3% of rdg or ±3℃, ≥100℃(212^{0}F)
Repeatability	1%of reading or 1℃
Response time	500msec, 95%response
Spectral response	8-14um
Emissivity	0.95
Ambient operating range	0℃ to ~60℃(32 to 140^{0}F)
Relative humidity	10-95% RH noncondensing
Storage temperature	-20~60℃(-4~140^{0}F) without battery
Weight/dimensions	155g;165×72×41mm
Power	9V battery ,6F22 or NEDA 1604
Battery life	Laser models:12hrs
distance spot ratio	8:1

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