

# Thermal Leak Detector User Manual



**Please read this manual before switching the unit on.  
Important safety information inside.**

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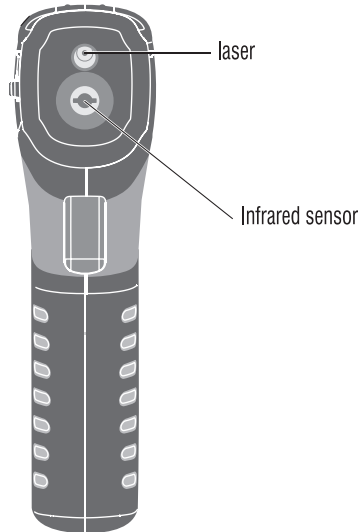
## **1. Description**

The Thermal Leak Detector uses an infrared sensor to find leaks along walls, molding, ductwork and more. The auto color change feature provides quick, intuitive feedback, showing you where to caulk, insulate, etc.

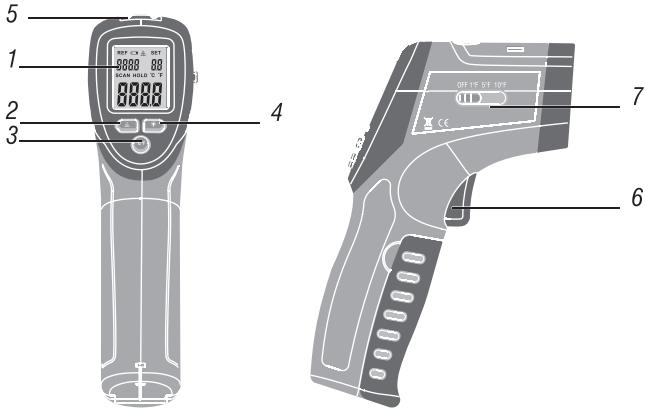
## **2. Safety Instructions**

- Do not operate the Thermal Leak Detector in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- Use only with the specifically designated battery (9V). Use of any other battery may create a risk of fire.

## **3. Operation Instruction**

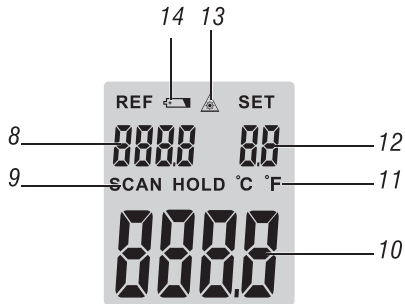


## Thermal Leak Detector User Manual



- 1-LCD display
- 2-Laser key
- 3-°C/°F key
- 4-Backlight key
- 5-LED indication  
(Red Green Blue)
- 6-On/Off key
- 7-Threshold selection  
(Off/1°F/5°F/10°F)

- 8-Reference Temperature
- 9-Scan/Hold symbol
- 10-Measure temperature
- 11-°C/°F symbol
- 12-Set temperature(1/5/10°F)
- 13-Laser symbol
- 14-Low battery symbol



#### 4. How to use

- 1- Hold the unit near the location you want to scan for a draft or thermal leak.  
This initial aim point will be your reference target.
- 2- Turn on the power.
- 3- Keep the unit aimed at the reference target until the green light shines on the target and a reference temperature appears on the screen.
- 4- Slowly scan the Temperature Finder across the area of interest, if the scanned temperature is hotter than the reference temperature by more than the threshold, the light will turn from green to red, and buzzer will quickly ring. If the scanned temperature is colder than the reference temperature by more than the threshold, the light will turn from green to blue, and buzzer will slow ring.
- 5- Setting threshold for color change
  - For detecting small temperature changes of 1°F(0,5°C), move the slider to the 1°F mark on the right panel.
  - For detecting medium temperature changes of 5°F(2,8°C), move the slider to the 5°F mark on the right panel.
  - For detecting large temperature changes of 10°F(5,5°C), move the slider to the 10°F mark on the right panel.

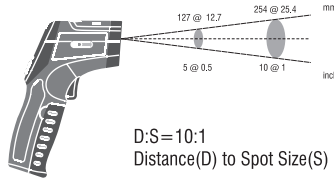
**For example:**

After switch on, measured reference temperature is 77°F, threshold is 5°F	
Green light	Scanned temperature is between 72---82°F
Blue light	Scanned temperature below the 72°F
Red light	Scanned temperature above the 82°F

## 5. Field of View

The diameter of the measured area is 1/10 the distance from the Temperature Finder.

If you are just looking for hot and cold areas, it's ok if the scanned area is larger than your target, However if you want to accurately measure the temperature of an object, Please refer to the figure.



D:S=10:1  
Distance(D) to Spot Size(S)

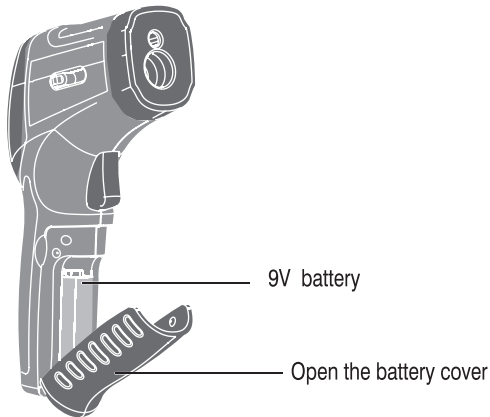
## 6. Specification

<b>Temperature Range</b>	(-50 to 380)°C/(-58 to 716)°F
<b>D:S</b>	10:1
<b>Temperature accuracy</b>	±2°C or ±2% of reading(when T>0°C) ±3°C of reading(when T<=0°C)
<b>Repeatability</b>	0.5°C
<b>Response Wavelength range</b>	8-14um
<b>Resolution</b>	0.1
<b>Emissivity</b>	Fixed at 0.95
<b>Response Time</b>	< 500us
<b>Laser wavelength</b>	630-660nm
<b>Laser class</b>	Class II
<b>Data hold</b>	Yes
<b>°C/°F Switchable</b>	Yes
<b>Low power indication</b>	Yes
<b>Auto-set base temperature for reference</b>	Yes
<b>Auto turn off</b>	15 sec. when hold About 10 min. when scan

<b>Threshold for light color transition</b>	Adjustable between 4 settings: (Off, 1°F, 5°F, 10°F)
<b>Operating temp.</b>	0 to 50°C(32 to 122°F)
<b>Storage temp.</b>	-10 to 60°C (-4 to 140°F)
<b>Relative humidity</b>	10%~90%RH operating, <80%RH storage
<b>Power supply</b>	9V battery, NEDA 1604A or IEC 6LR61, or equivalent
<b>Weight</b>	About 220g
<b>Size</b>	183.4mm*131.3mm*37mm(H*L*W)

## 7. Battery replacement

Open the battery cover, remove the battery, put in the new 9V battery, and then close the battery cover.



*Rev. 180328*

