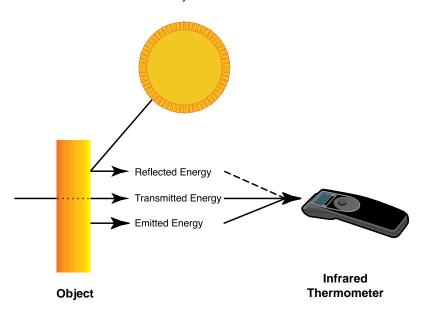
# **OAKION**<sup>®</sup> TempTestr<sup>®</sup> IR

# **NonContact Infrared Thermometer**

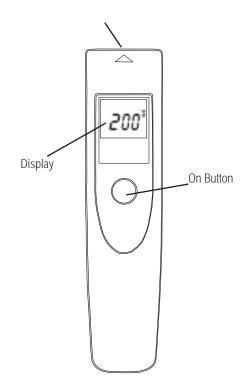
#### Introduction

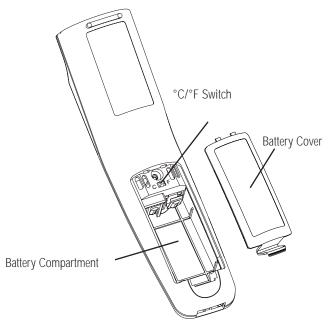
We are confident you will find many uses for your handheld noncontact thermometer. Compact, rugged, and easy to use—just aim, push the button, and read current surface temperatures in less than a second. You can safely measure surface temperatures of hot, hazardous, or hard-to-reach objects without contact.



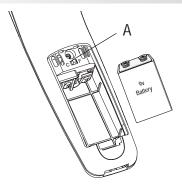
Infrared thermometers measure the surface temperature of an object. The unit's optics sense emitted, reflected, and transmitted energy, which is collected and focused onto a detector. The unit's electronics translate the information into a temperature reading which is displayed on the unit. In units with a laser, the laser is used for aiming purposes only.





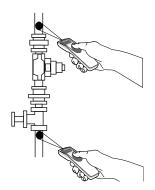


# **How to Operate the Unit**



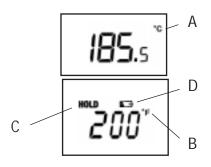
## °C/°F and Battery

To switch between Celsius or Fahrenheit, open the battery cover and push switch (A) to select C or F. When necessary, replace the 9v battery as shown in diagram.



# Operating the Unit

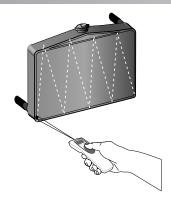
To measure a temperature, point unit at object and push button. Be sure to consider distance-to-spot size ratio and field of view. If the unit is equipped with a laser, use the laser only for aiming. See How to Accurately Measure Temperatures.



## **Display**

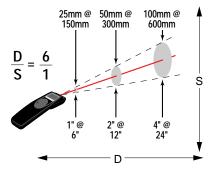
The LCD displays the current temperature in Celsius (A) or Fahrenheit (B). The unit will hold the reading for 7 seconds after button is released; the word HOLD appears (C). The presence of the battery icon indicates a low battery (D).

# **How to Accurately Measure Temperatures**



#### Locating a Hot Spot

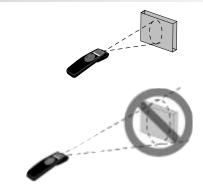
To find a hot spot aim the thermometer outside the area of interest, then scan across with an up and down motion until you locate the hot spot.



Nominal spot size at 90% energy

# Distance & Spot Size

As the distance (D) from the object increases, the spot size (S) of the area measured by the unit becomes larger.



#### Field of View

Make sure that the target is larger than the unit's spot size. The smaller the target, the closer you should be to it. When accuracy is critical, make sure the target is at least twice as large as the spot size.

# **Care and Maintenance**

#### Cautions

All models should be protected from the following:

- ▲ EMF (electro-magnetic fields) from arc welders, induction heaters
- ▲ Static electricity
- ▲ Thermal shock (caused by large or abrupt ambient temperature changes—allow 30 minutes for unit to stabilize before use)
- Do not leave the unit on or near objects of high temperature.



# Warning

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

### **Laser Warning Labels**

#### CLASS II (FDA)



#### CLASS II (IEC)



# Troubleshooting/Dépannage/Resolución de problemas

Code/Code/Código	Problem/Problème/Problema	Action/Action/Acción
(on display)	Target temperature is over or under range	Select target within specifications
Battery icon flashes	Low battery	Replace battery
Blank display	Dead battery	Replace battery
Laser doesn't work	Low or dead battery	Replace battery

#### Reminders

- Not recommended for use in measuring shiny or polished metal surfaces (stainless steel, aluminum, etc.). See Emissivity.
- The unit cannot measure through transparent surfaces such as glass. It will measure the surface temperature of the glass instead.
- Steam, dust, smoke, etc., can obstruct accurate measurement.

#### **Emissivity**

Most organic materials and painted or oxidized surfaces have an emissivity of 0.95 (pre-set in the unit). 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. Allow time for the tape to reach the same temperature as the the material underneath it. Measure the temperature of the tape or painted surface.

#### Maintenance

Lens Cleaning: Blow off loose particles using clean compressed air. Gently brush remaining debris away with a camel's hair brush. Carefully wipe the surface with a moist cotton swab. The swab may be moistened with water. NOTE: DO NOT use solvents to clean the plastic lens. Case Cleaning: Use soap and water on a damp sponge or soft cloth.

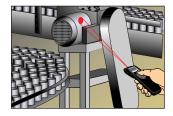
NOTE: DO NOT submerge the unit in water.

SPECIFICATIONS		
Temperature range	-18 to 260°C (0 to 500°F)	
Accuracy	±2% or ±2°C (±3°F) at 25°C (77°F)	
Repeatability	± 2% of reading, or ± 2°C (±3°F)	
Response time	500 mSec, 95% response	
Spectral response	8–18 μm	
Emissivity	pre-set 0.95	
Ambient operating range	0 to 50°C (32 to 120°F)	
Relative humidity	10–95% RH noncondensing, @ up to 30°C (86°F)	
Storage temperature	-25° to 65°C (-13° to 150°F) without battery	
Weight / Dimensions	227 g/0.5 lb; 184 x 45 x 38 mm (7.25 x 1.75 x 1.5 in)	
Power	9V Alkaline or NiCad battery	
Battery life (Alkaline)	All Models: 80 hrs Laser Models: 23 hrs @ 50% use with laser	
Distance to Spot Size	6:1	

Specifications subject to change without notice.

# **Uses for your Noncontact Infrared Thermometer**

#### Industrial/Electrical



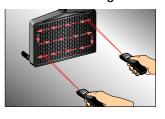
Check for hot spots in electrical panels and circuit breakers, generators and gearboxes

### Heating and Air Conditioning



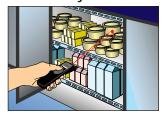
Check and monitor supply and return registers, air stratification and duct leakage

### **Automotive Diagnostics**



Check cylinder heads, heating & cooling systems, and scan radiators for blockage

#### Food Safety



 Monitor temperatures for HACCP requirements during receiving, storage and preparation

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#### **CE Certification**

This instrument conforms to the following standards:

- EN50081-1:1992, Electromagnetic Emissions
- EN50082-1:1992, Electromagnetic Susceptibility

Tests were conducted using a frequency range of 27-500 MHz with the instrument in three orientations. The average error for the three orientations is  $\pm 1.0^{\circ}$ C at 3 v/m throughout the spectrum. However, between 230 MHz and 500 MHz at 3 v/m, the instrument may not meet its stated accuracy.

### Warranty

We warrant this product to be free from significant deviations in material and workmanship for a period of one year from date of purchase. If repair or adjustment is necessary and has not been the result of abuse or misuse within the one year period, please return, freight prepaid, and correction will be made without charge. Out of warranty products will be repaired on a charge basis.

#### Return of Items

Authorization must be obtained from your OAKTON Distributor before returning items for any reason. When applying for authorization, please include data regarding the reason the items are to be returned. NOTE: We reserve the right to make improvements in design, construction, and appearance of products without notice.



Contact your OAKTON distributor for more information.