

# **INFRARED 8:1 THERMOMETER**

# **OWNER'S MANUAL**





Read carefully and understand all **OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item# 38993

Thank you very much for choosing a IRONTON product! For future reference, please complete the owner's record below:

Model: \_\_\_\_\_ Purchase Date: \_\_\_\_\_ Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This machine is designed for certain applications only. The distributor cannot be responsible for issues arising from modification. We strongly recommend this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted the distributor to determine if it can or should be performed on the product.

For technical questions please call **1-800-222-5381**.

#### INTENDED USE

This infrared thermometer is compact, rugged and easy to use. Just aim and push the button, read current surface temperatures in less than a second. It safely measures surface temperatures of hot or hard to reach objects.

### **HOW IT WORKS**

Any object radiates infrared energy if its temperature is above absolute zero. This energy travels at the speed of light in all directions. An infrared thermometer lens collects and focuses the infrared energy onto a sensor. The sensor produces a small voltage output, proportional to the target temperature, which is processed and displayed.

#### **TECHNICAL SPECIFICATIONS**

Item	Description
Temperature Range	-4°to 968°F
	-20°to 520°C
Accuracy	±2°(±3°F) or 2% reading
Repeatability	2% or 3°F
Response Time	500mSec, 95%
Spectral Response	7-18 um
Emissivity	0.95
Ambient Operating Range	32°- 105°F
Relative Humidity	10-95% R H noncondensing
	<b>@</b> up to 86°F
Storage Temp	-4°to 150°F
	without battery
Construction	Durable plastic
Weight	.33 lb
Dimensions	6.3 x 3.54 x 1.7"
Power	9V battery (included)
Battery Life	12 hrs.
Distance to Spot	8:1

## **GENERAL SAFETY RULES**

WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in serious injury.

CAUTION: Do not allow persons to operate or assemble this Infrared 8:1 Thermometer until they have read this manual and have developed a thorough understanding of how the hand truck works.

WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

### SAVE THESE INSTRUCTIONS

#### **IMPORTANT SAFETY CONSIDERATIONS**



## **INFRARED 8:1 THERMOMETER USE AND CARE**

**Do not modify the Infrared 8:1 Thermometer in any way.** Unauthorized modification may impair the function and/or safety and could affect the life of the equipment. There are specific applications for which the **Infrared 8:1 Thermometer** was designed.

Always check of damaged or worn out parts before using the Infrared 8:1 Thermometer. Broken parts will affect the Infrared 8:1 Thermometer operation. Replace or repair damaged or worn parts immediately.

**Store idle Infrared 8:1 Thermometer.** When **Infrared 8:1 Thermometer** is not in use, store it in a secure place out of the reach of children. Inspect it for good working condition prior to storage and before re-use.

The Infrared 8:1 Thermometer should be protected from the following:

- 1. Electromagnetic fields (created by arc welders, induction heaters and similar items.)
- 2. Thermal shock (caused by large or abrupt ambient temperature changes. Allow 30 minutes for unit to stabilize before use.)
- 3. Do not leave the unit on or near objects of high temperature.

## **OPERATION**

- 1) Pull and hold trigger (laser pointer is on as default setting) to turn on LCD display reading & battery icon. Release the trigger and the reading will hold for approx. 15 secs.
- 2) Locating a hot spot: Aim the thermometer outside the area of interest. Scan across the area in an up and down motion unit the hot spot is located while holding the activation trigger. The thermometer will continue to read the surface temperature while the activation trigger is depressed.

#### Note

Holding the trigger should last about 1 second at least.



- 3) Fahrenheit & Celsius Conversion: Press the °F/°C button to switch from Fahrenheit to Celsius readings.
- 4) Press the Laser ON/OFF button to turn the laser pointer on or off.
- 5) The object being tested should be larger than the spot size calculated by the field of view diagram printed in this manual or on the unit itself.

#### Field of View

The farther the thermometer is from the target, the larger the target area will be. This relationship between distance and target size is normally expressed as the distance to spot, or D:S ratio, at a distance of 8 feet, the "target" spot would be 1 foot in diameter. The thermometer will display the average temperature across the target area.



Distance to Spot size = 8:1

#### Emissivity

Most organic materials and painted or oxidized surfaces have an emissivity of 0.95. This unit is preset at 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 area has reached the same temperature as the material underneath.

#### MAINTENANCE

- Maintain your Infrared 8:1 Thermometer. It is recommended that the general condition of any Infrared 8:1 Thermometer be examined before it is used. Keep your Infrared 8:1 Thermometer in good repair by adopting a program of conscientious repair and maintenance. Have necessary repairs made by qualified service personnel.
- To clean the lens: Blow off loose particles using clean compressed air. Gently brush remaining debris away with a moist cotton cloth.
- Do not use solvents to clean the lens.
- Do not submerge the unit under water.
  - 1. Be sure to consider distance to spot size ratio and field of view when using this unit.
  - 2. Always wear eye protection when using tool.
  - 3. Do not operate the thermometer around
    - explosive gas, vapor, or dust.

### **DISPOSAL OF THIS ITEM**

If you at some point intend to dispose of this article, then please keep in mind that many of its components consist of valuable materials that can be recycled. Please do not throw it away, but check with your local municipality for recycling facilities in your area.



#### **DIAGRAM & PARTS LIST**



For replacement parts and technical questions, please call 1-800-222-5381.

#### WARRANTY

#### 3 month parts / no labor



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