REED

Model R2002

Infrared Thermometer

Instruction Manual

www.reedinstruments

Table of Contents

For service on this or any other REED product or information on other REED products, contact REED Instruments at info@reedinstruments.com

Safety

- Do not let the laser beam enter your eye, another person's eye or the eye of an animal
- Do not shine the laser beam off of a reflective surface into your eye
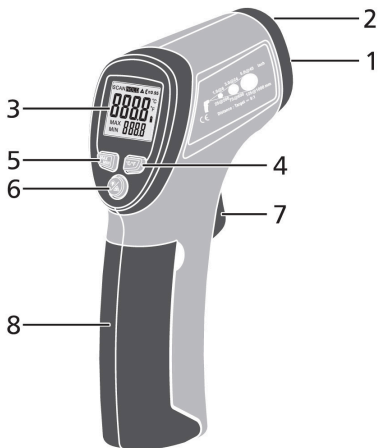- Do not direct the laser beam towards any gas that can explode

Features

- Precise non-contact temperature measurements
- Built-in laser pointer identifies target area
- 8:1 Distance to Spot Size ratio
- Fixed emissivity covers 90% of all applications
- Automatic ambient temperature compensation
- Max/Min temperature display
- User selectable °F or °C
- Display backlight
- Automatic Data hold
- Trigger lock
- Low battery indication with auto shut off

Specifications

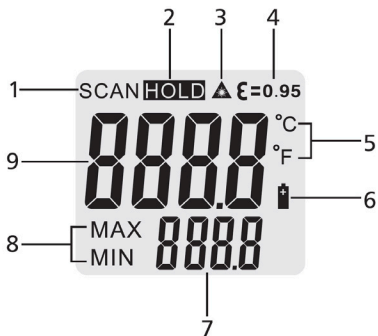|	
Temperature Range:	-58 to 932°F (-50 to 500°C)
Resolution:	0.1°
Accuracy:	±2% of reading or ±2°C (±4°F)
Sample Rate:	< 1 sec.
Emissivity:	0.95 fixed value
Field of View:	Approx 8:1 distance to spot ratio with 90% encircled energy at focal point
Diode Laser:	Output <1mW, Wavelength 630~670nm, class 2 (II) Laser product
Spectral Response:	6~14um
Power Off:	8 seconds of inactivity
Operating Temperature:	0 to 50ºC (32 to 122°F)
Operating Humidity:	10 to 90% RH
Storage Temperature:	-20 to 60ºC (-4 to 140°F)
Storage Humidity:	<80% RH
Power Supply:	One 9V battery
Weight:	130g
Size:	131 x 82 x 35mm
Includes:	Battery and carrying case
Optional Accessories:	Accredited Calibration Certificate (CERTIIR1)

Instrument Description

1. IR Sensor
2. Laser Pointer
3. LCD Display
4. °C/°F Button
5. Max/Min Button
6. Laser & Backlight Button
7. Trigger
8. Battery Cover

Display Description

1. Measuring Indicator
2. Data Hold
3. Laser Pointer
4. Fixed Emissivity Symbol
5. Temperature Unit
6. Low Battery Indicator
7. Max/Min Readout
8. Max/Min Symbol
9. Digital Readout

Operating Instructions

1. Hold the meter and point it toward the surface to be measured
2. Pull and hold the Trigger to turn the meter on and begin measuring, which is indicated by the SCAN icon on the LCD screen
3. Release the Trigger and the HOLD display icon will appear on the LCD indicating that the current measurement is being held on the screen
4. The meter will automatically power down after approximately 8 seconds of inactivity
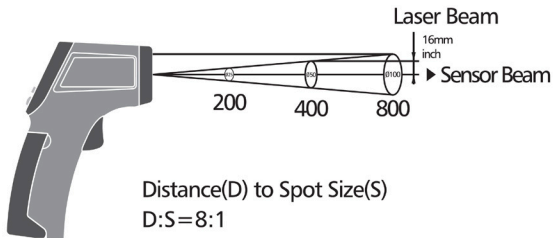
Notes:

- The meter will take up to 30 minutes to adjust from high ambient temperatures to low ambient temperatures
- Not recommended for measuring shiny or polished metal surfaces (stainless steel, aluminum, etc)
- This meter cannot measure through transparent surfaces, it will measure the surface temperature
- Steam, dust, and smoke can prevent accurate measurement by obstructing the unit's optics

Laser Pointer and Backlight

1. While taking a measurement, press the Laser & Backlight Button once to turn on the laser pointer. The Laser icon will appear on the display screen.
2. Press the Laser & Backlight Button twice to turn the display Backlight
3. Press the Laser & Backlight Button three times to turn the laser off
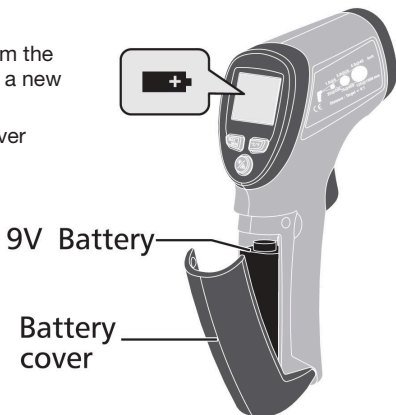4. Press the Laser & Backlight Button four times to turn both the laser and backlight off

Field of View

This meter's field of view is 8:1, meaning that if the meter is 8 inches from the target the diameter of the object under test must be at least 1 inch in size. The target needs to be 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. See below for more information, or refer to the side of your meter for the same diagram.

Distance(D) to Spot Size(S)
D:S=8:1

Battery Replacement

1. Open battery cover
2. Remove the battery from the meter and replace with a new 9-Volt battery
3. Replace the battery cover

9V Battery

Battery cover

Notes

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____