

# REED

## Model FS-200

Infrared Food  
Thermometer



**Instruction  
Manual**

[www.reedinstruments.com](http://www.reedinstruments.com)

# Table of Contents

|                                  |     |
|----------------------------------|-----|
| Safety .....                     | 3   |
| Features.....                    | 3   |
| Specifications.....              | 4   |
| Instrument Description .....     | 5   |
| <i>Display Description</i> ..... | 5   |
| Operating Instructions.....      | 6-7 |
| <i>Field of View</i> .....       | 7   |
| <i>MODE functions</i> .....      | 7   |
| Battery Replacement.....         | 8   |

## Safety

- Do not let the beam enter your eye, another person's eye or the eye of an animal
- Do not shine the 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 measurements
- Built-in laser pointer
- Resolution to 0.1°
- Caution temperature setting button
- LED indicators for low and high temperatures
- Automatic Data Hold
- Auto power off
- Backlit LCD display
- Wide range of applications
- Field of View of 8:1

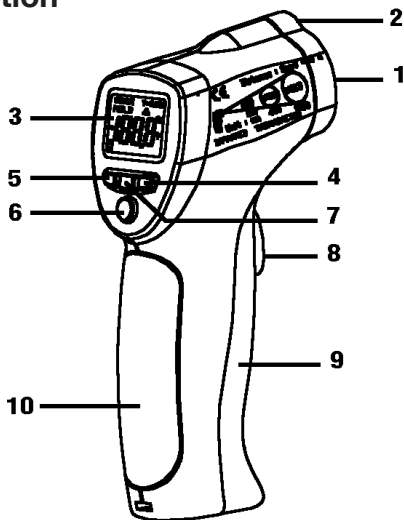
For service on this or any other REED product or information on other REED products, contact REED Instruments at [info@reedinstruments.com](mailto:info@reedinstruments.com)

## Specifications

|                        |   |
|------------------------|---|
| Display:               | 3 1/2 digit (1999count) LCD with backlighting   |
| Temperature Range:     | -50 to 200°C (-58 to 392°F)   |
| Resolution:            | 0.1°  |
| Accuracy:              | -50 to -20°C (-58 to -4°F): $\pm 5^{\circ}\text{C}$ ( $\pm 9^{\circ}\text{F}$ )<br>-20 to 200°C (-4 to 392°F):<br>$\pm 2\%$ of reading or $\pm 2^{\circ}\text{C}$ ( $\pm 4^{\circ}\text{C}$ ) |
| Sample Rate:           | 2.5/second  |
| Emissivity:            | 0.95 fixed value  |
| Field of View:         | Approx 8:1 distance to spot ratio with 90%<br>encircled energy at focal point   |
| Diode Laser:           | Output <1mW, Wavelength 630~670nm,<br>class 2 (II) Laser product  |
| Spectral Response:     | 6~14 $\mu\text{m}$  |
| Power Off:             | 7 seconds of inactivity   |
| Operating Temperature: | 0 to 50°C (32 to 122°F)   |
| Operating Humidity:    | 10 to 90% RH  |
| Storage Temperature:   | -20 to 60°C (-4 to 140°F)   |
| Storage Humidity:      | <80% RH   |
| Power Supply:          | One 9V battery  |
| Weight:                | 180g  |
| Size:                  | 82 x 41.8 x 60mm  |
| Includes:              | Battery and Carrying Case   |

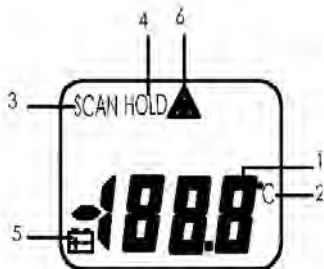
## Instrument Description

1. IR Sensor
2. Laser Pointer
3. LCD Display
4. Laser Button
5. Backlight Button
6. LED Temperature Range Indicator
7. MODE Button
8. Trigger
9. Battery Cover
10. Handle Grip



## Display Description

1. Digital Readout
2. Temperature Unit
3. Measuring Indicator
4. Data Hold Indicator
5. Low Battery Indicator
6. Laser Pointer Indicator



# Operating Instructions

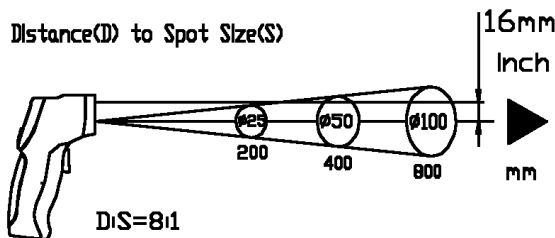
1. Hold the meter and point it toward the surface to be measured
2. Pull and hold the Trigger to turn the meter on and begin measuring, which is indicated by the SCAN icon on the LCD screen
3. Push the Laser Button and aim the laser approximately half an inch above the measuring point (pressing the Laser Button again turns the laser off)
4. Push the Backlight Button to turn on the LCD backlight
5. Release the Trigger and the HOLD display icon will appear on the LCD indicating that the current measurement is being held on the screen
6. The meter will automatically power down after approximately 7 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

## 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.



## MODE functions

1. Pull the trigger to turn the meter on
2. Press the MODE button once to switch the temperature unit from °C to °F, press the Backlight button or the Laser button to switch between the two
3. Press the MODE button a second time to set the High Alarm (HAL), and adjust the high temperature alarm by pressing the Backlight button to increase, and the Laser button to decrease (when the temperature is outside of the HAL, the red light will appear)
4. Press the MODE button a third time to set the Low Alarm (LAL), and adjust the low temperature alarm by pressing the Backlight button to increase, and the Laser button to decrease (when the temperature is outside of the LAL, the red light will appear)

# Battery Replacement

If you see the Low Battery Indicator on the LCD screen, you will need to change the battery.

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

## Notes

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