FS-200

REED INSTRUMENTS

Food Service Infrared Thermometer

1 YEAR WARRANTY

Instruction Manual

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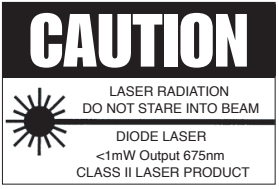
Introduction

Thank you for purchasing your REED FS-200 Food Service Infrared Thermometer. Please read the following instructions carefully before using your instrument. By following the steps outlined in this manual your meter will provide years of reliable service.

Product Quality

This product has been manufactured in an ISO9001 facility and has been calibrated during the manufacturing process to meet stated product specifications. If a certificate of calibration is required please contact the nearest authorized REED distributor or authorized Service Center. Please note an additional fee for this service will apply.



Safety

- Never attempt to repair or modify your instrument. Dismantling your product, other than for the purpose of replacing batteries, may cause damage that will not be covered under the manufacturer's warranty. Servicing should only be provided by an authorized service center.
- Use extreme caution when the laser beam is turned on.
- Do not let the beam enter your eye, another person's eye or the eye of an animal.
- Be careful not to point the beam off a reflective surface and strike your eye.
- Do not allow the laser light beam to impinge on any gas which can explode.

Features

- Specifically designed and calibrated to meet food service industry requirements
- 8:1 distance to spot size ratio
- Built-in laser pointer identifies target area
- User settable alarm, with audible/visual signals
- Green LED for normal temperature indication and red LED for high temperature indication
- Backlit LCD display
- User selectable °F or °C
- Fixed emissivity covers 90% of all applications
- Data hold, auto shut off and trigger lock

Included

- Battery
- Carrying Case

Specifications

Temperature Range:	-58 to 4°F (-50 to -20°C) 4 to 392°F (-20 to 200°C)
Accuracy:	-58 to 4°F (-50 to -20°C): ±9°F (±5°C) 4 to 392°F (-20 to 200°C): ±2% of reading or ±4°F (±2°C)
Resolution:	0.1°F (0.1°C)
Optical Resolution (D:S):	8:1
Spectral Response:	6 to 14µm
Emissivity:	0.95 (Fixed)
Response Time:	<1 second
Display Size/Type:	1.5" LCD
Backlit Display:	Yes

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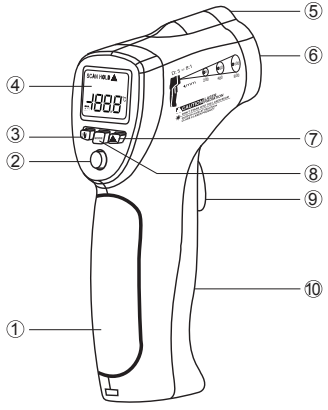
Display Hold:	Yes
High/Low Alarms:	Yes, (Audible (beep) and visual (red LED))
F/C Switchable:	Yes
Trigger Lock:	Yes
Auto Shut Off:	Yes (after 8 seconds)
Laser Class:	Class II
Low Battery Indicator:	Yes
Power Supply:	9V Battery
Product Certifications:	CE
Operating Temperature:	32 to 122°F (0 to 50°C)
Storage Temperature:	-4 to 140°F (-20 to 60°C)
Operating Humidity Range:	10 to 90%
Dimensions:	3.2 x 1.7 x 2.4" (82 x 42 x 60mm)
Weight:	6.4oz (180g)

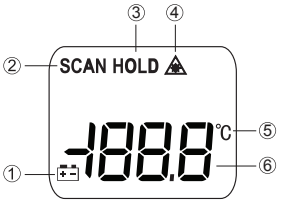
Instrument Description

1. Handle Grip
2. LED Alarm Indicator
3. BACKLIGHT Button
4. LCD Display
5. Laser Pointer Beam
6. IR Sensor
7. LASER Button
8. MODE Button
9. Trigger
10. Battery Cover



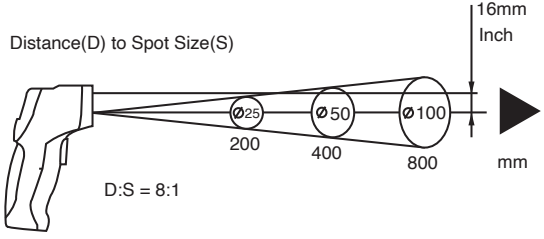
Display Description

1. Low Battery Indicator
2. Temperature Measurement Active
3. Data Hold Indicator
4. Laser Pointer Indicator
5. Temperature Measurement Value
6. Temperature Unit of Measure



Distance & Spot Size

This meter's distance to spot size 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.



Operating Instructions

Power ON and OFF

1. Gently pull the trigger to turn the thermometer on. The LCD display will turn on.
2. The thermometer will automatically shut off after approx. 7 seconds of inactivity.

Manual Measurement

1. Pull and hold the trigger after aiming at the target. The SCAN icon will flash, indicating that the target temperature is being measured.
2. When the trigger is released, the SCAN icon will disappear and the HOLD icon will appear indicating that measurement has stopped and the last measured temperature will remain on-screen until another measurement is taken or the unit turns off.

Measurement 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 only measure the surface temperature
- Steam, dust, and smoke can prevent accurate measurements by obstructing the unit's optics

Turn Laser Indicator ON and OFF

Press the **LASER** button to turn the laser on or off. When enabled, the  icon will appear on the LCD display indicating that the laser is on.

Turn Display Backlight ON and OFF

Press the **BACKLIGHT** button to turn to the LCD backlight on or off.

Switching the Unit of Measure (°F/°C)

1. Press the **MODE** button to enter the unit of measure setup.
2. The current selected unit of measure will begin to flash.

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3. Press the **BACKLIGHT** or the **LASER** buttons to switch between °F and °C.
4. Once the desired unit of measure has been selected, pull the trigger to confirm your selection and resume normal operation.

Setting the High/Low Temperature Alarms

1. Press the **MODE** button twice to set the High Alarm.
2. Press the **BACKLIGHT** button to increase the temperature value.
3. Press the **LASER** button to decrease the temperature value.
4. Once the desired high temperature value has been set, press the **MODE** button to confirm your selection and enter the low alarm setup screen.
5. Press the **BACKLIGHT** button to increase the temperature value.
6. Press the **LASER** button to decrease the temperature value.
7. Once the desired high temperature value has been set, pull the trigger to confirm your selection and resume normal operation.

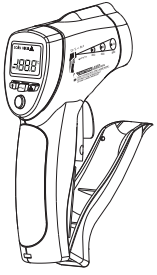
Note: If the higher or lower alarm values are exceeded while in normal operation, the red LED alarm indicator will turn on.

Trigger Lock Setup

1. Press the **MODE** button 4 four times to enter the lock measurement setup.
2. Use the **BACKLIGHT** and **LASER** buttons to turn the trigger lock setup on/off.
3. Pull the trigger to confirm your selection and resume normal operation.

Battery Replacement

1. The battery should be replaced when appears on the LCD display.
2. Open the battery cover.
3. Replace the 9V battery.
4. Close the battery cover.



Applications

- Verify proper temperatures of food products at the point of delivery as recommended HACCP programs
- Monitor hot and cold food holding operation
- Conduct daily food line inspections to ensure compliance with local food temperature monitoring requirements
- Verify proper operating temperature of coolers, freezers, grills, fryers, warmers, as well as hot and cold storage units to avoid inconsistent food service, costly spoilage and to allow quicker response, reducing equipment repair costs

Accessories and Replacement Parts

CA-05A Soft Carrying Case

R9990 Infrared Thermometer Soft Carrying Case

Don't see your part listed here? For a complete list of all accessories and replacement parts visit your product page on www.reedinstruments.com.

Product Care

To keep your instrument in good working order we recommend the following:

- Store your product in a clean, dry place.
- Change the battery as needed.
- If your instrument isn't being used for a period of one month or longer please remove the battery.
- Clean your product and accessories with biodegradable cleaner. Do not spray the cleaner directly on the instrument. Use on external parts only.

Product Warranty

REED Instruments guarantees this instrument to be free of defects in material or workmanship for a period of one (1) year from date of shipment. During the warranty period, REED Instruments will repair or replace, at no charge, products or parts of a product that proves to be defective because of improper material or workmanship, under normal use and maintenance. REED Instruments total liability is limited to repair or replacement of the product. REED Instruments shall not be liable for damages to goods, property, or persons due to improper use or through attempts to utilize the instrument under conditions which exceed the designed capabilities. In order to begin the warranty service process, please contact us by phone at 1-877-849-2127 or by email at info@reedinstruments.com to discuss the claim and determine the appropriate steps to process the warranty.

Product Disposal and Recycling

Please follow local laws and regulations when disposing or recycling your instrument. Your product contains electronic components and must be disposed of separately from standard waste products.

Product Support

If you have any questions on your product, please contact your authorized REED distributor or REED Instruments Customer Service by phone at 1-877-849-2127 or by email at info@reedinstruments.com.

Please visit **www.REEDINSTRUMENTS.com** for the most up-to-date manuals, datasheets, product guides and software.

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