

# Food Safety Thermometer

**800115**

Instruction Manual

SPER  
SCIENTIFIC

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Environmental Measurement Instruments

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## INTRODUCTION

As the FDA's requirements for Hazard Analysis and Critical Control Point (HACCP) in food safety continue to become more stringent<sup>1</sup>, Sper Scientific has responded with the convenient Food Safety Thermometer (800115) offering both a penetration probe and an infrared thermometer in one portable convenient unit. With the single push of a button, the IR thermometer projects a bright white circle, helping to indicate the measuring area. When compliance to internal temperature regulations is needed, such as with prepared meats, fish or poultry, simply fold out the penetration probe and see the internal temperature displayed on the large backlit LCD display. The thermometer offers a flashlight feature, a probe that can extend to several operating angles, and quickly switches between IR and penetration. The programmable high and low alarms allow staff to successfully spot-check for food safety. The fully sealed IP65 waterproof housing stands up to the rigors of food handling, production, and service helping your establishment meet the FDA's Food Safety Requirements.

<sup>1</sup>: Referring to the Food Safety Modernization Act (FSMA) updated in January of 2018.

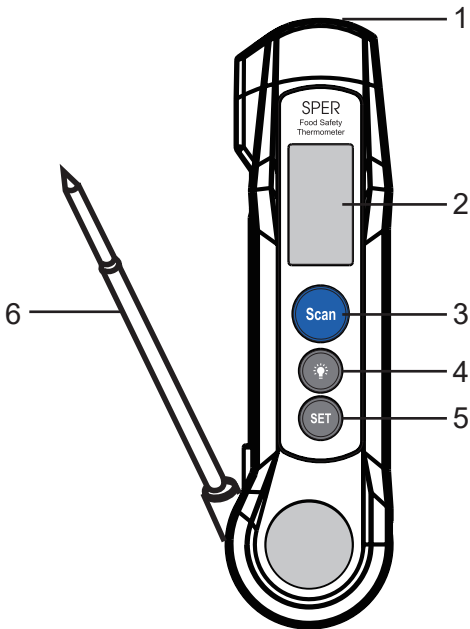
## **FEATURES**

- IP65 waterproof
- HACCP compliant
- High/Low alarm settings
- Flashlight
- Multi-position penetration probe
- Backlit LCD

## **MATERIALS SUPPLIED**

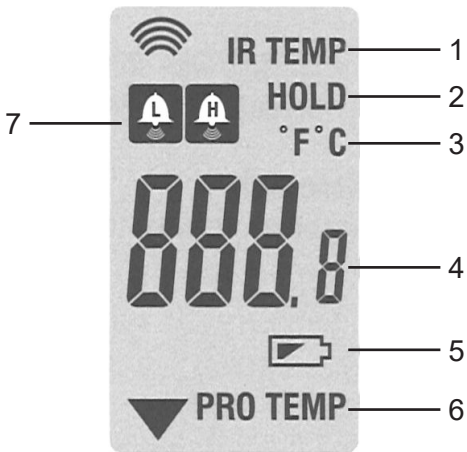
- Food Safety Thermometer
- 2 AAA batteries
- Instruction manual

## FRONT PANEL DESCRIPTION



1. Infrared sensor and flashlight
2. LCD screen
3. SCAN button
4. LIGHT/UNIT button
5. SET button
6. Penetration probe

## LCD DISPLAY



1. IR Temperature Active Indicator
2. Hold Function Indicator
3. Temperature Unit of Measure
4. Temperature Reading
5. Low Battery Indicator
6. Probe Temperature Active Indicator
7. Low or High Alarm Active

## **SET UP**

### Battery Installation

This thermometer uses 2 AAA batteries. To install the batteries before first use:

1. Unscrew the single screw on the back of the thermometer.
2. Remove the battery cover.
3. Insert two new AAA batteries, ensuring correct polarity.
4. Reinstall the batter cover.

Replace the batteries when the low-battery icon appears on the LCD.

### **Note...**

Before replacing the batteries, turn the thermometer off.

## Turning the Thermometer On and Off

There are two ways to turn the thermometer **on/off**.

### Method One:

1. Press **SCAN** to turn the thermometer **on**.
2. The thermometer will turn **off** automatically after 7 seconds of inactivity. This mode is useful for IR only measurements.

### Method Two:

1. Using the thumb notch, fold the penetrating probe out. This automatically turns the thermometer **on**.
2. Fold the penetration probe back in to turn it **off**.

## Changing the Unit of Measure:

1. Turn the thermometer **on**.
2. Press **SET** until °F or °C flashes on the LCD above the last recorded temperature.
3. Press **SCAN** to toggle between °F and °C.
4. Press **SET** to confirm. The thermometer will power off and retain your chosen unit of measure.





## Setting Audible Alarms



### LOW Alarm:

#### Note...

The LOW alarm activates when the temperature goes *below* the programmed temperature. The LOW alarm sound is different from the high alarm because it beeps slower. The LOW alarm occurs at one beep per second while the high alarm is two beeps per second.

1. Turn the thermometer **on**.
2. Press **SET** repeatedly until the  icon appears on the LCD with a number.
3. Adjust the LOW alarm value using the **SCAN** and **LIGHT** buttons.
4. Press **SET** to confirm.
5. The thermometer will power **off** and save the LOW alarm setting.
6. Press **SET** repeatedly until the  icon appears on the LCD with the word **on** or **off**.
7. Press **SCAN** to choose whether the audible alarm is **on** or **off**.
8. Press **SET** to confirm. The thermometer will power **off** and retain the setting.

## HIGH Alarm:

1. Turn the thermometer **on**.
2. Press **SET** repeatedly until the  icon appears on the LCD with a number.
3. Adjust the HIGH alarm value using the **SCAN** and **LIGHT** buttons.
4. Press **SET** to confirm.
5. The thermometer will power **off** and save the HIGH alarm setting.
6. Press **SET** repeatedly until the  icon appears on the LCD along with the word **on** or **off**.
7. Press **SCAN** to choose whether the audible alarm is active (On) or silent (Off).
8. Press **SET** to confirm. The thermometer will power **off** and retain the setting.

## Backlight

The backlight of this thermometer is always **on** when the power is **on**.

## Flashlight

Press the central **LIGHT** button to turn the Flashlight **on**.

**\*\*\*IMPORTANT:** The flashlight area does **not** represent the infrared measuring area. The white circle that appears in IR mode is for aiding visibility and does not represent the distance to spot ratio.

## MEASUREMENT PROCEDURES

### Penetration Probe

#### Note...

The penetration probe does not have to be fully extended to function. It will function from an angle of 30° to 180°.

1. Fold the penetration probe out using the thumb notch.
2. Insert the tapered end of the metal probe into food to at least 4mm.
3. The temperature is displayed on the screen.
4. “▼ PRO TEMP” appears on the screen whenever this probe is in use.

### Infrared Thermometer

#### Note...

Infrared mode works whether the penetration probe is folded closed or extended open. Be sure that ▼ PRO TEMP does not appear on the screen when taking infrared readings.

1. Aim the infrared sensor at the object to be measured.
2. Press and hold **SCAN**.

3. Release **SCAN** when you are perfectly centered on the object.\*
4. The LCD displays the temperature. "HOLD" also appears on the screen.
5. The LCD will display the last temperature on the screen for 6 seconds after the scan button is released.

The high and low alarms will only sound while the SCAN button is engaged. The alarm shuts off when you release the button.

**\*\*\*IMPORTANT SAFETY NOTE:**

The penetration probe is sharp. Be sure to keep your hand clear of the probe when using IR mode to avoid injury.

**\*NOTE:** The white lighted circle does **not** represent the measuring area. The measuring area has a

distance to spot ratio of 4:1.

## **CARE AND MAINTENANCE**

Wipe the thermometer with an HACCP approved disinfecting agent when necessary for food safety.

Store the thermometer with the temperature probe in the closed position.

Repairs or services not covered in this manual should be performed by qualified personnel only. Please contact Sper Scientific to speak with a technician.

## SPECIFICATIONS

|  | <b>Range</b>                   | <b>Resolution</b>        | <b>Accuracy</b>  |
|--|--------------------------------|--------------------------|--|
| <b>Penetrating Probe</b>               | -40 to 392°F<br>(-40 to 200°C) | 0.1°F/C                  | ±3.6°F (2°C)<br>below freezing<br><br>±1.8°F (1°C)<br>for all other<br>temperatures      |
| <b>Infrared Thermometer</b>            | -40 to 536°F<br>(-40 to 280°C) | 0.1°F/C                  | ±5.4°F (3°C)<br>from<br>-40 to 20°C<br><br>±1.8°F (1°C)<br>for all other<br>temperatures |
| <b>Infrared Distance to Spot Ratio</b> |                                | 4:1                      |  |
| <b>Waterproof Rating</b>               |                                | IP65                     |  |
| <b>Measurement Response Time</b>       |                                | 500mS                    |  |
| <b>Emissivity</b>                      |                                | Fixed at 0.95            |  |
| <b>Battery Type</b>                    |                                | 2 x AAA batteries (1.5V) |  |

## **WARRANTY**

Sper Scientific warrants this product against defects in materials and workmanship for a period of **five (5) years** from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover batteries, battery leakage, or damage resulting from accident, tampering, misuse, or abuse of the product. Opening the thermometer to expose its electronics will break the waterproof seal and void the warranty. To obtain warranty service, ship the unit postage prepaid to:

### **SPER SCIENTIFIC LTD.**

8281 E. Evans Rd., Suite #103

Scottsdale, AZ 85260

(480) 948-4448

The defective unit must be accompanied by a description of the problem and your return address. Register your product online at [www.sperwarranty.com](http://www.sperwarranty.com) within 10 days of purchase.