

INSTRUCTION MANUAL

Model 8859 Infrared Thermometer

- Precise non-contact Measurements
- Switchable C/F Temperature units
- Automatic Data Hold
- Laser target pointer

1. Safety

- ! 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 let the beam on a reflective surface strike your eye.
- ! Do not allow the laser light beam impinge on any gas which can explode.

2. General Specifications

Display	LCD display with backlighting
Measurement Ranges	0 to 788°F (-20 to 420°C)
Sample rate	1 sec. approx.
Power off	Automatic shutoff after 5 seconds
Operating Temperature	0 °C to 50 °C (32 °F to 122 °F).
Operating Humidity	Max. 80% RH.
Power Supply	9V battery
Power Current	Approx. 12 mA DC
Weight	200 g / 6.4 oz.
Size	6.7 x 1.7 x 1.6" (170 x 44 x 40 mm)

Range Specifications

Resolution/Ranges	1°C/F	0 to 788°F (-20 to 420°C)
Accuracy	± 2% of reading (-20~100C) ,±3% (100~420)	
Accuracy notes	1. Accuracy specified is for ambient temperature 2. Accuracy specified is for emissivity of 0.95	
Emissivity settings	0.95 fixed	
Distance Factor	D/S = Approx. 8:1 (D=distance, S=spot)	

3. Front Panel Description

1. Laser pointer beam
2. IR sensor
3. LCD display
4. F/C select key
5. Backlite select key
6. On/Hold Key
7. Laser Key
8. Battery compartment



4. Non-Contact IR Measurement Operation

a. Power ON/OFF

The meter automatically powers when the trigger button take a reading. Read the measured temperature on the LCD. The meter powers OFF automatically approximately 5 seconds after the trigger button is released.

b. Selecting Temperature units (C/F)

Select temperature units (degrees C or F) by first pressing the trigger button and then pressing the C/F key. The units will blink on the LCD. Press the C/F key until the desired units are shown on the LCD.

c. Data Hold

This meter automatically holds the last temperature reading on the LCD for five seconds after the trigger button is released. No extra key presses are necessary to freeze the displayed reading.

d. Backlite LCD

Select backlite by first pressing the trigger key and then pressing the BACKLITE key. Repeat the procedure to turn the backlight OFF

e. Laser Pointer

To turn the laser pointer ON, press the LASER key while pressing the trigger button. Repeat the procedure to turn the laser OFF.

f. Measurement Considerations

Holding the meter by its handle, point the IR Sensor toward the object whose temperature is to be measured.

The meter automatically compensates for temperature deviations from ambient temperature. Keep in mind that it will take up to 30 minutes to adjust to wide ambient temperature changes.

When low temperatures are to be measured followed by high temperature measurements, some time (several minutes) is required after the low (and before the high) temperature measurements are made. This is a result of the cooling process which must take place for the IR sensor

5. Battery Replacement

A flashing display is the indication that the battery voltage has fallen into the critical region (6.5 to 7.5 V). Reliable readings can be obtained for several hours after the first appearance of the low battery indication. Open the Battery Compartment and remove the battery, then install a new battery and replace the cover.