

OPERATION MANUAL

STICK INFRARED THERMOMETER



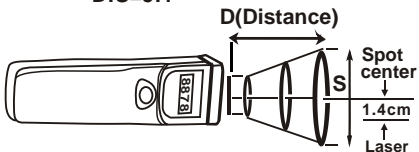
Model: ■ 8878
: ■ 8879

Congratulations on your purchase of the Infrared Thermometer.

The compact size lets you get into tight places while its convenient laser targeting and high distance to-spot ratio gives you accurate readings on distant targets.

- ◆ Precise non-contact Measurements
- ◆ Switchable °C/°F Temperature units
- ◆ Automatic Data Hold

D	70	250	500 mm
S	$\phi 14$	$\phi 50$	$\phi 100$ mm
D:S=5:1			

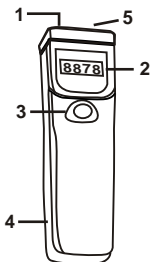


- ◆ The meter provides a simple one hand operation ,time saving to the temperature measurement.
Be sure the measured object fills the "spot" seen by the aperture.
- ◆ There will be a delay of approximately one-second between the time you initially press the button and the time the display comes on.
- ◆ Not recommended for use in any measuring shiny surfaces , and measure the object the smaller the target , the closer should be to it.
To avoid thermal shock and do not store the meter below freezing.

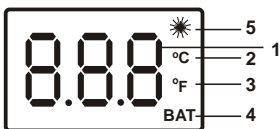
- ◆ The meter is pre-set to measure objects with an emissivity of 0.95. This will accommodate the majority of items measured without compensating for higher or lower value. In most cases there will be little difference in measurements , even if an object's emissivity is higher or lower than this pre-set value. Compare and confirm with known values if in doubt.

FRONT PANEL DESCRIPTION

1. IR sensor
2. LCD Display
3. Measure key
4. Battery compartment (rear side)
5. Laser



INDICATOR



1. Digital readout
2. °C . Celsius
3. °F . Fahrenheit
4. BAT. Battery indicator.
5. ☀ . Laser on annunciator.

LASER SAFETY (Model 8879)

- ◆ Do not point the laser toward the eyes or face of a person or animal. Laser light can cause eye injury, if the beam makes direct eye contact.
- ◆ Reflected Laser light can also cause damage, if a mirror or a glass-like surface reflects the beam directly into the eye. Laser's potential to cause damage is retained for hundreds of feet.
- ◆ The meter complies with FDA radiation performance standard 21CFR Subchapter J , is CLASS II laser product , less than 1mW output at 675nm wavelength .

LASER SPLASH: ☼

Indicates the use of laser equipment and the category of laser used.

CAUTION

Do not point the laser at the eyes or face of any human or animal. Eye damage may result from direct exposure to laser light. Press button, a ☼ is shown on the right top of the screen.

Reflected laser light, from mirrors, glass, etc. can also cause eye damage. Laser is effective for hundreds of feet. Be aware of what or who is in your line of sight.

Keep this device away from children, except under direct adult supervision. To toggle the laser targeting feature on, or off depress the button.

The laser remainson for approximately 1/2 second after the laser button is released.

GENERAL SPECIFICATIONS

Display	LCD display
Measurement Ranges	-4°C to 600°F (-20 to 320°C)
Sample rate	1 sec. Approx.
Power off	Automatic shut off after 4 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	150g approx.
Size	170 x 33 x 40 mm

Resolution	1°C/°F
Ranges	-4° to 600°F (-20 to 320°C)
Accuracy	± 3% of reading or 2°C whichever is greater (-20°C~100°C), others ± 4% or 3°C.
Accuracy notes	1. Accuracy specified is for ambient temperature 2. Accuracy specified is for emissivity of 0.95
Emissivity	0.95 fixed
Distance Factor	D : S = Approx. 5:1 (D=distance, S=spot)
Laser pointer	Model 8879 only

NON-CONTACT IR MEASUREMENT OPERATION

A. POWER ON/OFF

The meter automatically powers when the **MEAS** key is pressed. Press the **MEAS** key to take a reading. Read the measured temperature on the LCD. The meter powers OFF automatically approximately 4 seconds after the **MEAS** key is released.

B. DATA HOLD

This meter automatically holds the last temperature reading on the LCD for 4-5 seconds after the **MEAS** key is released.

No extra key presses are necessary to freeze the displayed reading.

C. 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

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.

TROUBLESHOOTING

? No display or erratic display:

Check the battery for proper voltage and tight contact at the battery clip.

Ensure the unit is at the specified operating temperature.

Constant or spurious over-load (OL) display: Check battery voltage. Check for electromagnetic interference (EMI). To check for EMI, move the unit to an open area, away from high voltage and radio or radar transmitting sources.

? Meter does not turn on.

Check voltage and replace low battery. Or check time delay which is allowed 1 second for data to appear on-screen.

? Data flashing .

Check battery voltage and then replace low battery.

? Dashes appear on-screen.

Check extreme temperature , measure surrounding area to see if the target exceeds the limit.

- ? **E4** . Need re-calibrate ,please return to the store or authorized lab.
- ? **E6**. Part damaged , return the unit to the store you purchased for repairing.

MAINTENANCE

CASE CLEANING :

Use caution with a damp cloth to clean the exterior housing , ensure no water or soap is allowed inside the meter ,or on the infrared lens.

LENS CLEANING :

WARNING : Recommend to clean the lens after a time of period using the meter and make sure the lens is clean enough to ensure the reading accuracy. By using low pressure compressed air to remove any particles on the lens ,if the contamination can not be removed with air, use a soft cotton swab. Any swab should be slightly damp, and very light pressure should be applied to the lens. Do not use solvents to clean the lens.

MATERIAL SUPPLIED

This Standard Package Contains:

1. The meter x 1
2. Battery x 1 (9.0 volt)
3. Operation manual x 1
4. White box x 1

WARRANTY

The meter is warranted to be free from defects in material and workmanship for a period of one year from the date of purchase. This warranty covers normal operation and does not cover battery , misuse , abuse , alteration , tampering , neglect , improper maintenance , or damage resulting from leaking batteries.

Proof of purchase is required for warranty repairs. Warranty is void if the meter has been opened.

RETURN AUTHORIZATION

Authorization must be obtained from the supplier before returning items for any reason.

When requiring a RA (Return Authorization) , please include data regarding the defective reason, the meters are to be returned along with good packing to prevent any damage in shipment and insured against possible damage or loss.

CE CERTIFICATION

The meter conforms to the following standards:

* **EN 50081-1/1992** : EN 55022

* **EN 50082-1/1997** : EN 55024

(EN 61000-4-2/-3/-8,ENV 50204)

, the meter complies with the essential protection requirements of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.



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- ▲ Air Flow meter
- ▲ Infrared Thermometer
- ▲ K type Thermometer
- ▲ K.J.T. type Thermometer
- ▲ K.J.T.R.S.E. type Thermometer
- ▲ pH Meter
- ▲ Conductivity Meter
- ▲ T.D.S. Meter
- ▲ D.O. Meter
- ▲ Saccharimeter
- ▲ Manometer
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