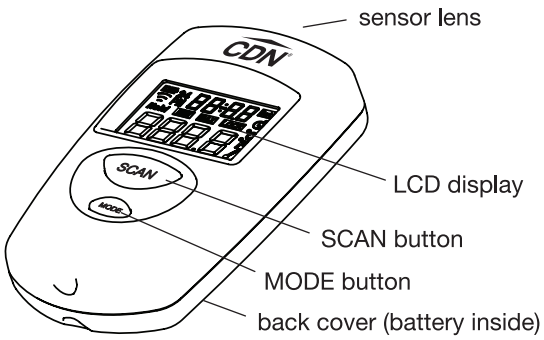
CDN®
Kitchen Measurement Tools

INFRARED THERMOMETER, TIMER & CLOCK

-67 to 482°F/-55 to +250°C; 24 hours by hr/min/sec

FOR NON-CONTACT SURFACE TEMPERATURES

- 1-second response
- Maximum, minimum and lock for continuous scanning
- Distance:Spot = 5:1
- ±3.6°F/2°C accuracy
- Stopwatch timer
- Clock
- Ambient temperature in standby mode
- Data-hold
- One-button operation
- Battery status indication
- Food-safe ABS plastic
- Auto-off
- 2-way mounting: stand/loop
- 3V Button IEC CR2032 Lithium (included)



Simply point toward the target and press the scan button to get a quick reading of surface temperatures.

Note: Remove label from display before initial use.

Note: In the following instructions, names of the control buttons are shown in CAPS. Function information that appears on the display is shown in **BOLD CAPS**.

BATTERY INSTALLATION

Power off the unit before installing the battery. A malfunction may occur if the power is on when the battery is installed. If a malfunction occurs, restart the device.

1. Turn the battery cover at the back of the unit clockwise and lift off.
2. Install one 3V IEC CR2032 lithium button battery with positive (+) side up by hooking it into the battery housing. Press the battery down until it clicks.
3. Replace the battery cover by turning it counter clockwise until it clicks shut.

OPERATING INSTRUCTIONS

A. On/Off

1. Press the SCAN button to turn the thermometer on.

B. Auto Off

The thermometer automatically turns off after 15 seconds of inactivity when the clock is not set.
Note: Auto-off is disabled when the clock has been set.

C. Set Clock

Once the clock is set, the time and ambient temperature appear on the display when the thermometer is not in use.
Note: Auto-off is disabled when the clock has been set.

1. Press the SCAN button to turn the thermometer on.
2. Press the MODE button seven times to enter Set Clock mode. The **SET** icon (Set) flashes in the upper right corner of the display.

3. Press the SCAN button to choose between 12-hour and 24-hour display. **24** flashes on the display. Press the SCAN button again to change between 12-hour and 24-hour display.
4. Press the MODE button to confirm the time format and set the hour. The hour digits flash.
5. While the hour digits are flashing, press the SCAN button to enter the correct time.

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6. Press the MODE button to confirm time and set the minutes. The minute digits flash.
7. While the minute digits are flashing, press the SCAN button to enter the correct time.
8. Press the MODE button to confirm time and exit Set Clock mode.

D. Count Up Timer

1. Press the SCAN button to turn the thermometer on.
2. Press the MODE button four times to enter the Timer mode. The **Timer** icon (⏱) flashes in the upper right corner of the display.
3. Press SCAN button to begin the count up to 24 hours.
   a. For times less than 30 minutes, minutes:seconds are displayed above the milliseconds. (ex. 01:28 & 0.75 seconds).

   b. For times greater than 30 minutes, hours:minutes are displayed above the seconds. (ex. 01:28:47.5 seconds).

4. Press SCAN button to interrupt the count. Press SCAN button again to resume the count.
5. Press MODE button to clear count up time. The timer will reset to **00:00** and exit the Timer mode.
6. Press MODE button to exit the Timer mode.

E. Temperature Scale

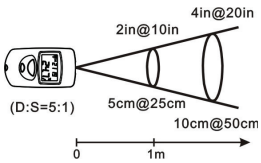
To select temperature reading in Fahrenheit or Celsius:

1. Press the SCAN button to turn the thermometer on.
2. Press the MODE button five times. The **°F** or **°C** symbol flashes on the display.
3. Press the SCAN button to change the scale.

F. Infrared Thermometer

1. Infrared Scanning

a. Press the SCAN button to turn the thermometer on.
b. **Distance:Spot = 5:1**
For example, if the surface area being measured is 2" in diameter, then the thermometer must be within 10" of the target for an accurate reading.



c. Aim the thermometer at the target and press the SCAN button to display the surface temperature. Hold the SCAN button to continuously update the measurement reading.

2. Minimum Mode

a. Press the SCAN button to turn the thermometer on.
b. Press the MODE button once.
The **MIN** icon flashes on the display.
c. Press and hold the SCAN button to confirm the Minimum Mode and display the lowest temperature among multiple targets.

3. Maximum Mode

a. Press the SCAN button to turn the thermometer on.
b. Press the MODE button twice.
The **MAX** icon flashes on the display.
c. Press and hold the SCAN button to confirm the Maximum Mode and display the highest temperature among multiple targets.

4. Lock Mode

This is particularly useful for continuous temperature monitoring.

a. Press the SCAN button to turn the thermometer on.
b. Press the MODE button three times.
The **LOCK** icon flashes on the display.
c. Press the SCAN button to confirm the Lock Mode. The IN482 will continuously display the temperature for up to 60 minutes or until the SCAN button is pressed again.

5. Emissivity

Everything gives off a certain amount of radiation. Emissivity is the measure of this thermal radiation. The infrared thermometer is supplied with a default emissivity of 0.95, which standard for most uses. The emissivity of the thermometer can be changed from 0.05 (5E) to 1 (100E). **Only experienced personnel should attempt to make changes.** For information relating to the emissivity of specific materials, please contact CDN.

a. Press the SCAN button to turn the thermometer on.
b. Press the MODE button six times to enter Emissivity Mode. **95E** flashes on the display.
c. Press the SCAN button to adjust the emissivity value in 0.01 (1E) increments.
d. Press the MODE button again to exit Emissivity Mode.
Note: Infrared thermometers are not recommended for use in measuring the temperature of shiny or polished metals.

6. Error Messages

The IN482 incorporates visual diagnostic messages as follows:

a. **Hi** or **Lo** is displayed when the temperature being measured is outside of the range of the thermometer.
   1.) **Hi** indicates that the temperature is higher than 482°F/250°C.

   2.) **Lo** indicates that the temperature is lower than -67°F/–55°C.

b. Allow a minimum 30 minutes for the thermometer to stabilize to the working/room temperature.

1.) **Er2** is displayed when the thermometer is exposed to rapid changes in the ambient temperature. 

2.) **Er3** is displayed when the ambient temperature exceeds 14°F/-10°C OR +122°F/+50°C. 

c. For all other error messages it is necessary to reset the IN482. 

1.) Wait for the thermometer to power off.

2.) Remove the battery and wait for a minimum of one minute.

3.) Reinstall the battery (see ***Battery Installation***).

4.) Press the SCAN button to turn the thermometer on.

5.) If the error message remains, please contact CDN for further assistance.

G. Battery Status

The thermometer incorporates visual battery status indication:

1. **Battery OK:** measurements are possible
2. **Battery Low:** replace battery with a CR2032 lithium cell; measurements are possible
3. **Battery Exhausted:** replace battery; measurements are not possible

CARE OF YOUR PRODUCT

- The sensor lens is the most delicate part of the thermometer and should be kept clean at all times. Take care when cleaning the lens. Use only a soft cloth or cotton swab with water or rubbing alcohol. Allow the lens to fully dry before using the thermometer.
- Do not submerge any part of the thermometer in water. Wipe clean with a damp cloth.
- Store the thermometer at room temperature between -4 to +149°F/–20 to +65°C.

PRECAUTIONS

- Dispose of used battery promptly and keep away from children.
- Do not clean the case with abrasive or corrosive compound, which may scratch the plastic and corrode the electronic circuits.
- Do not subject the unit to excessive force shock, dust, temperature or humidity, which may result in malfunction, shorter electronic life span, damaged battery and distorted parts.
- Do not tamper with the unit's internal components. Doing so will invalidate the warranty on the unit and may cause unnecessary battery damage and distorted parts.
- Do not subject the unit to excessive exposure to direct sunlight. **The unit is not waterproof** — do not immerse it into water or expose to heavy rain.
- To avoid deformation, do not place the unit in extreme temperatures.
- Always read the users manual thoroughly before operating.

SPECIFICATIONS

Measurement Range	-67 to +482°F/-55 to +250°C
Unit of Measure	°F/°C
Resolution	-9.9 to +199.9°F/°C: 0.1°F/0.1°C, otherwise 1°F/1°C; Timer: 0.01 sec
Operating Range	14 to +122°F/-10 to +50°C
Response Time	1 second
Accuracy	-55~0°C: ±(2+0.05/deg)°C; above 32°F/0°C: ±2% of reading or 4°F/2°C, whichever is greater
Distance:Spot	5:1 optics ratio
Emissivity Range	0.95 default; adjustable 0.05 to 1, step .01
Battery Life	Typ. 40 hr, (auto power off after 15 seconds)
Power Supply	One CR2032 lithium battery
Product Dimensions	1.65 W x 2.94 H x 0.79 D (in)/ 4.2 W x 7.473 H x 2.012 D (cm)
Weight	1.0 oz / 28 g (including battery)

EMC/RFI

Readings may be affected if the unit is operated within a radio frequency electromagnetic field strength of approximately 3 volts per meter, but the performance of the instrument will not be permanently affected.

CAUTION: Avoid keeping the thermometer too close to objects that continuously generate high heat for long periods (i.e., hot plate). This can cause the thermometer to overheat.

CE Note: This device could be sensitive to electrostatic discharge. If electrostatic discharge or malfunctioning occurs, please re-install the battery to reset this unit.

1-Year Limited Warranty: Any instrument that proves to be defective in material or workmanship (excluding batteries) within one year of original purchase will be repaired or replaced without charge upon receipt of the unit prepaid at: CDN, PO Box 10947, Portland, OR 97296-0947 USA. This warranty does not cover damage in shipment or failure caused by failure to adhere to the accompanying instructions, inadequate maintenance, normal wear and tear, tampering, accident, misuse, unauthorized modification, obvious carelessness or abuse. CDN shall not be liable for any consequential or incidental damages whatsoever.

For more detailed information on our products, please visit CDNkitchen.com or call 800-338-5594.