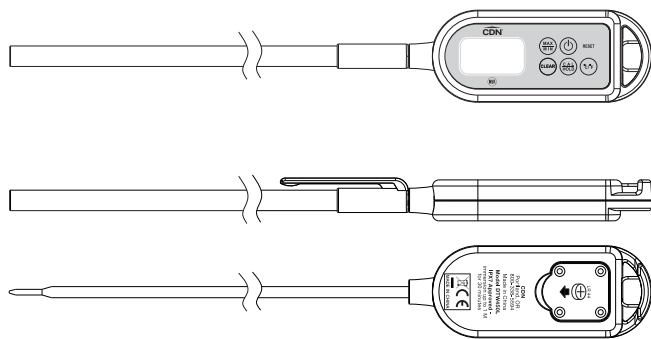


## WATERPROOF THERMOMETER – LONG STEM

-40 to +450°F/-40 to +230°C

### FOR CANDY, DEEP FRY AND GENERAL PURPOSE COOKING

- NSF<sup>®</sup> Certified
- 6-second response
- Waterproof (IPX7)
- One-button field calibration
- 2.5 mm reduced tip
- Accuracy:  $\pm 1.8^{\circ}\text{F}$  ( $1^{\circ}\text{C}$ )
- Hold
- Max/min
- Shatterproof
- On/off button
- Auto-off
- Selectable units
- BioCote<sup>®</sup> antimicrobial
- Temperature guide
- Heat shield
- Adjustable stainless steel clip
- 8.25" (21.0 cm) stem
- 2-way mounting: pocket clip, hook
- Battery & instructions included



**Note:** Remove label from display before initial use.

Pro  
**Accurate**<sup>®</sup> NSF BioCote  
Quick-Read<sup>®</sup>

**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

The battery is installed. Replace battery when LCD becomes dim.

1. Remove battery cover on the back with a small Phillips screwdriver.
2. Install one LR44 battery with positive (+) side up.
3. Replace the battery cover.

### WARNING

- **INGESTION HAZARD: DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- KEEP new and used batteries **OUT OF REACH OF CHILDREN**
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.
- For treatment information call: [phone number for the National Battery Ingestion Hotline, currently 1-(800) 498-8666].



- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- The compatible battery type is LR44.
- The nominal battery voltage of the LR44 is 1.5V.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above 104°F (40°C) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Always completely secure the battery



compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

## OPERATING INSTRUCTIONS

### A. On/Off

1. Press the POWER (ÉNERGIE) button to turn the DTW450L on.
2. After use, press the POWER button to turn the DTW450L off and conserve battery life.

### B. Auto-off

The DTW450L will automatically turn off after 15 minutes of inactivity.

### C. Temperature Scale

Press the °C/°F button to select temperature reading in Fahrenheit or Celsius.

### D. Heat Shield

Insert the stem through the hole in the heat shield (open side up), and slide it up to the bottom of the display.

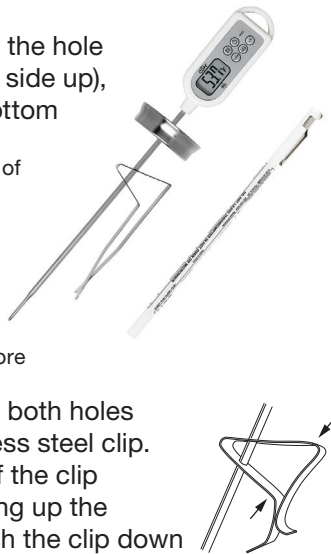
**CAUTION:** Initial positioning of the heat shield may require more force. **Be careful of the pointed tip.**

### E. Adjustable

#### Stainless Steel Clip

**CAUTION:** Always position the DTW450L on the pot before filling it and/or applying heat.

Insert the stem through both holes in the adjustable stainless steel clip. Press the top portion of the clip together for easier sliding up the thermometer stem. Push the clip down onto the side of the pot and position it until the stem tip is just above the bottom of the pot.



### F. Temperature Measurement

The temperature sensor is located in the lower 0.25" (0.6 cm) of the stem. Insert the stem at least 0.5" (1.3 cm) into the food to assure an accurate reading.

### G. Hold

Before withdrawing the DTW450L from the food, press the HOLD button. This will "hold" the reading until pressed again. **H** appears in the upper right corner of the display.

### H. Max/Min

Max/Min mode is always working behind the scenes, continually storing the highest and lowest temperatures.

1. **Before using Max/Min mode clear the stored Max/Min values by pressing the CLEAR button while in the Max or Min mode.**
2. Press the MAX/MIN button to display the highest temperature. **MAX** appears on the display.
3. Press the MAX/MIN button twice to display the lowest temperature. **MIN** appears on the display.
4. The display automatically returns to the temperature mode after a few seconds.
5. Press the CLEAR button in Max or Min mode to clear the respective stored Max or Min value.

### I. Field Calibration

1. Fill a 1 cup measuring container with a slurry of ice water using 3 parts crushed ice to 1 part water.

**Note:** It is very difficult to get a 32°F (0°C) ice water temperature. It will probably be closer to 34°F (1°C).

2. Allow to stand for 3-5 minutes.
3. Immerse the stem into the middle of the ice slurry to a depth of at least 2 inches (5 cm). **Do not let the stem touch the bottom of container.**
4. Press the CAL button for 2 seconds. The display will be blank for 2 seconds.
5. Release the CAL button and **32.0°F (0°C)** appears.

**Note:** To avoid accidental recalibration, this function only works when the water temperature is 30 to 34°F (-1 to +1°C). **Err** will appear for 2 seconds if the water is not within this range and then return to the temperature display mode.

**Important: KEEP STEM AWAY FROM DIRECT HEAT OF THE COOKTOP BURNER.**

**Important: DO NOT LEAVE IN HOT OVEN OR MICROWAVE.**

**Note:** Clean the thermometer stem before each use.

**Note:** For use in commercial dishwashers only.

**Note for Induction Cooktops:** Sometimes, the induction cooktop magnetic field may interfere with digital thermometers. If there is interference, briefly turn off the induction cooktop to get a digital thermometer reading or use a dial thermometer.

**Tip:** Meat should be allowed to "rest" for 10 to 15 minutes after it is removed from oven. This allows time for the meat's internal temperature to stabilize and the juices to redistribute. This will result in a roast that is both juicier and easier to carve.

## CARE OF YOUR PRODUCT

- Wipe display clean with a damp cloth.
- Clean stem, shield and clip with soap and water.
- Store the thermometer at room temperature between -4 to +149°F/-20 to +65°C.

## PRECAUTIONS

- Always wear a heat resistant glove to touch the stainless steel stem during or just after cooking.  
**Do not touch with bare hands.**
- Keep the battery and thermometer away from children.
- Clean the stem and dry thoroughly after use.
- Do not clean the unit 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.
- To avoid deformation, do not place the unit in extreme temperatures. Never burn the stem directly over the fire. Do not use the probe when the temperature is above 450°F (230°C). Doing so will deteriorate the wire.
- Do not use the thermometer in a microwave oven.
- Always read the user manual thoroughly before operating.

## SPECIFICATIONS

<b>Measurement Range</b>	-40 to +450°F/-40 to +230°C
<b>Unit of Measure</b>	°F (°C)
<b>Resolution</b>	0.1°F (0.1°C)
<b>Operating Range</b>	32 to 104°F (0 to 40°C), ≤90% RH
<b>Water Resilience</b>	IPX7 – protected from water up to 3 feet (1 meter) for 30 minutes
<b>Accuracy</b>	-40 to -2°F (-40 to -19°C): ±3.6°F (2°C); -1 to +212°F (-18 to +100°C): ±1.8°F (1°C); 213 to 392°F (101 to 200°C): ±3.6°F (2°C); 393 to 450°F (201 to 230°C): ±7.2°F (4°C)
<b>Power Supply</b>	One LR44 alkaline button battery included
<b>Product Dimensions</b>	1.375 W x 11.75 H x 0.625 D in (3.5 W x 29.8 H x 1.6 D cm)
<b>Weight</b>	1.7 oz (49 g) (including battery)

## USDA SAFE FOOD TEMPERATURES

* Beef, Veal, Lamb – well . . . . .	160°F . . . 71°C
* Beef, Veal, Lamb – medium. . . . .	145°F . . . 63°C
* Beef, Veal, Lamb – rare . . . . .	140°F . . . 60°C
Poultry . . . . .	165°F . . . 74°C
* Pork/Ham – pre-cooked . . . . .	145°F . . . 63°C
Ground Meat . . . . .	160°F . . . 71°C

\* 3 minutes rest time

## CANDY TEMPERATURE GUIDE

Jelly . . . . .	220°F . . . 104°C
Thread . . . . .	230–234°F . . . 110–112°C
Soft Ball . . . . .	234–240°F . . . 112–115°C
Firm Ball . . . . .	244–248°F . . . 118–120°C
Hard Ball . . . . .	250–266°F . . . 121–130°C
Soft Crack . . . . .	270–290°F . . . 132–143°C
Hard Crack . . . . .	300–310°F . . . 149–154°C
Caramelize . . . . .	316–338°F . . . 158–170°C

## HIGH ALTITUDE ADJUSTMENT FOR CANDY-MAKING

STAGE	2,000 feet	5,000 feet	7,500 feet
Soft Ball	230–236°F	224–230°F	219–225°F
Firm Ball	238–244°F	232–238°F	227–233°F
Hard Ball	246–264°F	240–258°F	235–253°F
Soft Crack	266–286°F	260–286°F	255–275°F
Hard Crack	296–306°F	290–300°F	285–295°F

## OIL TEMPERATURE GUIDE

325–375°F/163–190°C is the normal desired temperature for deep fry cooking.

**Note:** When food is added to hot oil, the temperature of the oil immediately drops at least 50°F/28°C. You will need to bring the oil temperature back to the desired cooking temperature. Frying at lower temperatures results in lighter color, less flavor development and increased oil absorption.

## DEEP FRY TEMPERATURE GUIDE

Deep Fry Lo . . . . .	325–340°F . . . 163–170°C
Deep Fry Hi . . . . .	340–365°F . . . 170–185°C
Shrimp . . . . .	350°F . . . 177°C
Chicken . . . . .	355°F . . . 180°C
Onions . . . . .	370°F . . . 188°C
Fish . . . . .	375°F . . . 191°C
Doughnuts/Fritters . . . . .	375°F . . . 191°C
French Fries . . . . .	380°F . . . 193°C

**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.



Antimicrobial properties are built-in to inhibit the growth of bacteria that may affect this product. According to EPA guidelines we cannot claim that the antimicrobial properties in this product protect users or others against bacteria, viruses, germs, or other disease organisms.

This product does not protect users or others against food-borne bacteria. Always clean and wash this product thoroughly before and after each use.

The information in this document has been reviewed and is believed to be accurate. However, neither the manufacturer nor its affiliates assume any responsibility for inaccuracies, errors or omissions that may be contained herein. In no event will the manufacturer or its affiliates be liable for direct, indirect, special, incidental or consequential damages arisen by using this product or resulting from any defect/omission in this document, even if advised of the possibility of such damages. The manufacturer and its affiliates reserve the right to make improvements or changes to this document and the products and services described at any time, without notice or obligation.



**5-Year Limited Warranty:** Any instrument that proves to be defective in material or workmanship (excluding batteries) within five years 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 [CDNmeasurement.com](http://CDNmeasurement.com) or call 800-338-5594.

