

# Thermometer Calibration

## Thermometer Calibration Procedure

**Food temperature measuring devices such as thermometers shall be accurate to  $\pm 2^{\circ}\text{F}$ . In order to ensure accuracy, food temperature measuring devices shall be calibrated regularly and in accordance with the manufacturer's recommendations.**

Thermometers intended for measuring hot temperature items shall be calibrated in boiling water, while those used for cold temperatures shall be calibrated in ice water. The following steps should be repeated routinely and especially after a thermometer is dropped or undergoes extreme temperature changes.

## Calibrating Thermometers Using Boiling Water



1. Fill a heat-safe container with water.
2. Heat water until it has reached a rolling boil.
3. Place thermometer in the boiling water so the sensing area is completely submerged.
4. Wait 30 seconds or until the readout is stable.
  - a. Keep the sensing area in the water and do not allow it to touch the bottom or sides of the container.
5. Verify that the temperature of the boiling water reads  $212^{\circ}\text{F}$ .
  - a. If the temperature is not  $212^{\circ}\text{F}$ , consult the manufacturer's instructions on how to adjust the thermometer readout.

## Calibrating Thermometers Using Ice Water



1. Fill a large container with crushed ice.
2. Add cold water to the container until the container is full.
3. Wait 5 minutes then stir well.
4. Place thermometer in the ice so the sensing area is completely submerged.
5. Wait 30 seconds or until the readout is stable.
  - a. Keep the sensing area in the water and do not allow it to touch the bottom or sides of the container.
6. Verify that the temperature of the ice water reads  $32^{\circ}\text{F}$ .

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- a. If the temperature does not read 32°F, consult the manufacturer’s instructions on how to adjust the thermometer readout.

Keep a thermometer calibration log to ensure a designated food worker records the calibration temperature and corrective action is taken each time a thermometer is calibrated. Follow the establishment’s procedures for how often to calibrate thermometers and how long to retain the thermometer calibration log.

# Thermometer Calibration Log

Table 1: Thermometer Calibration Log Example.

Date & Initials	Thermometer ID	Method Used (Ice or Boiling Water)	Thermometer Reading	Accurate (Yes or No)	Corrective Action	Verified by PIC (Initials)

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**Health Response and Licensure • Food and Lodging**  
1720 Burlington Drive, Suite A, Bismarck, ND 58504-7736  
Phone: (701) 328-1291 • Toll-free: 1 (800) 472-2927 • 711 (TTY)  
[hhs.nd.gov/foodandlodging](https://hhs.nd.gov/foodandlodging)

