

# Thermometer calibration

## Checking the thermometer

Thermometers must be checked at least every 12 weeks to make sure that they are providing accurate temperature readings, or whenever there is reason to think the thermometer is not working correctly.

**How to do the ice point check** – this check must be done if the thermometer is used for checking cold foods.

1. Half fill a glass with broken or shaved ice – you can scrape some ice from the side of a freezer.
2. Add a small amount of water until it is visible at the bottom of the glass.
3. Insert the thermometer into the mixture, leave until the temperature display is steady.
4. Do not let the thermometer touch the sides or bottom of the glass.
5. Record the result in the table below. If the result is outside the range, write down the action taken in the table.



The reading in iced water should be between  $-1^{\circ}\text{C}$  to  $+1^{\circ}\text{C}$ ; if outside this range, the unit should be replaced or returned to the supplier to be recalibrated.

**How to do the boiling point check** – to be done only if the thermometer is used for checking hot foods.\*

1. Boil unsalted water in a pot.
2. Once boiling, insert thermometer and leave it until the temperature display is steady.
3. Do not let the thermometer touch the sides or bottom of the pot.
4. Record the result in the table below. If the result is outside the stated range, write down the action taken in the table.



The reading in boiled water should be between  $99^{\circ}\text{C}$  to  $101^{\circ}\text{C}$ ; if outside this range, the unit should be replaced or returned to the supplier to be recalibrated.



The boiling point of water varies with altitude – at sea level (0 metres altitude) it is  $100^{\circ}\text{C}$ .

\* If you do not use the boiling point check you must use another validated method for calibrating a thermometer used for measuring hot foods.

## Calibration of Infra Red (IR) thermometers

Either follow the calibration instructions that come with the thermometer or ask the business you bought it from for advice on when it should be calibrated, how this should be done, and who should do it.

## Thermometer calibration record

Date of calibration	Thermometer	Reading in iced water $^{\circ}\text{C}$	Reading in boiled water $^{\circ}\text{C}$	Checked by	Action taken