Thermometer Calibration

Ice Point Method

Fill an insulated container, such as a wide mouth “thermos” bottle with a mixture of potable crushed ice and water.

- The container must have crushed ice throughout to provide an environment of 32°F, so you may have to pack more ice into the container during the process.

- When the mixture of the water has stabilized after four or five minutes, insert the thermometer to be calibrated to the appropriate immersion depth. (note: from tip of thermometer to the dimple on stem is the sensing portion)

- Be sure to hold the stem of the instrument away from the bottom and sides of the container (preferably one inch) to avoid error. Wait until the thermometer stabilizes before adjusting the thermometer.

- If your thermometer is not accurate within +/- 2°F of 32°F, adjust the thermometer accordingly. The ice point method permits calibration to within 0.1°F.

Boiling Point Method

- After the water in the container has reached a complete “rolling” boil, insert the instrument to the appropriate immersion depth. The boiling point in Indiana is 212°F.

- Be sure there is at least a two-inch clearance between the stem or sensing element and the bottom and sides of the container.

- If your thermometer is not accurate within +/- 2°F of 212°F, adjust thermometer accordingly. The boiling point method permits calibration to within 1.0°F.

Remember:

Sanitize thermometers before use and in between uses, and…
...calibrate thermometers frequently!