





Checking Your Unit's Calibration

You should routinely check your unit's calibration, so that you can be sure you are getting the most accurate temperature measurement. The cold calibration method is more reliable because the cold water holds a more stable temperature. If you find that your noncontact thermometer is not measuring surface temperatures correctly. send your unit back to have it factory calibrated. Follow the instructions below to check the calibration.

Calibration Test Procedure **Cold Calibration Check**

1. Fill a large styroform cup (10 oz or larger) halfway to the surface with crushed ice. Add cold tap water to ½ to 1 inch below the rim of the cup.

Tip: Two cups one inside the other will provide better insulation and more stable temperatures throughout the test.

- 2. Immerse the tip of an accurately calibrated thermometer into the water, and vigorously stir the water's surface with the probe for one minute, or until contact probe temperature stabilizes.
- 3. When the probe temperature stabilizes, continue stirring the water with a plastic straw or swizzle, while taking simultaneous temperature measurement with the probe and noncontact thermometer. Hold the noncontact thermometer within 3 inches of the surface of the water for most accurate measurement.
- 4. Infrared temperate measurement should be within ± 3°C (± 6°F) of probe reading or ° C (32°F).

Calibration Test Procedure (continued) **Hot Calibration Check**

Use the same procedure as cold calibration, substituting hot water.

- 1. Fill a large styroform cup (10 oz or larger) up to ½ to 1 inch below the rim with hot water (>140°F/60°C). Hot tap water is adequate for the procedure.
- 2. Repeat steps 2 and 3 above.

Important: The surface of the water must be agitated while taking the IR temperature measurement.

3. Infrared measurement temperature should be within $\pm 5^{\circ}$ C ($\pm 8^{\circ}$ F) of the probe reading.

Cautions:

- Hold the infrared thermometer outside the rim of the cup, away from the steam, at approximately 3" from the surface of the water
- Avoid steam condensation on the IR thermometer's lens. If this should happen, do not wipe lens; let it dry at room temperature, then resume measurement.
- The hot verification should be used as a general check on the accuracy of the IR thermometer. Due to the varying emissivity of the water and the evaporative cooling of the IR thermometer to be accurately calibrated if the reading is within ±2°C (±3.5°F) of the probe reading