



CALIBRATION PROCEDURE - DeltaTRAK 11024, 11025 & 11026 **DIGITAL PROBE THERMOMETERS**

PLEASE NOTE: Performing this procedure voids all warranties regarding calibration and DeltaTRAK assumes no liability for the accuracy of products calibrated by the customer.

Tools Needed:

- 1) Small Phillips(+) screwdriver
 - 2) Small Flat Tip(-) screwdriver (shaft diameter and blade width 1/16" or less)
 - 3) 16 ounce cup (disposable plastic preferred)
 - 4) Crushed ice
 - 5) Calibrated NIST Traceable Reference Thermometer (If available)
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- 1) Remove the small screw from the center of the pocket clip on the back of the Digital Probe Thermometer. Be careful not to lose the rubber O-Ring which is needed to make the seal waterproof. The Temperature Adjustment Potentiometer is inside. The Flat Tip screwdriver size is critical—it must be small enough to fit in the hole but large enough to turn the adjustment potentiometer. It may be necessary to grind one slightly smaller than the size of the hole.
 - 2) Mix thoroughly crushed ice in water (60% ice and 40% water) in plastic cup. You can use the thermometer to be calibrated to do this and it will cool the metal tip faster. Mix for 1 minute and let sit for 5 minutes.
 - 3) Mix again with probe for 30 seconds. Insert Reference Thermometer, if available, and probe to be calibrated in water approximately 3" deep and allow to sit for 5 minutes. The pocket clip on the Digital Probe Thermometer can be clipped over the rim of the cup to hold it in place, See Fig 1 on reverse. Stir ice and water using probe(s), for 30 seconds. Note Reference Thermometer temperature reading.
 - 4) Using the Flat Tip screwdriver adjust the temperature through the hole of the probe to be calibrated until it matches the Reference Thermometer $\pm .1^{\circ}\text{F}$ or $^{\circ}\text{C}$. Remove the screwdriver, mix the ice and water with the probe to be calibrated for 30 seconds, and verify that the temperature still matches the Reference Thermometer reading $\pm .1^{\circ}\text{F}$ or $^{\circ}\text{C}$. If the reading is not the same, re-adjust the temperature reading of the probe and repeat verification, adjusting and mixing until the reading is the same.
 - 5) If no Reference Thermometer is available complete steps 1- 2. Mix the ice and water with the probe to be calibrated for 30 seconds. Insert the probe into the ice water approximately 3" and allow it to sit for 5 minutes. The pocket clip on the Digital Probe Thermometer can be clipped over the rim of the cup to hold it in place, see Fig. 1 on reverse. Stir the ice and water using the probe, for 30 seconds. Using the Flat Tip screwdriver, adjust the temperature reading of the probe to 32°F or $0^{\circ}\text{C} \pm .1^{\circ}\text{F}$ or $^{\circ}\text{C}$.

- 6) Remove the screwdriver, mix again for 30 seconds and verify that the reading is the same.
- 7) If the reading is not the same, re-adjust the temperature reading of the probe and repeat verification, adjusting and mixing until the reading is the same.
- 8) Replace the rubber O-Ring and then the screw.

DIGITAL PROBE CALIBRATION PROCEDURE FIGURE 1



THE DIGITAL PROBE CAN BE ATTACHED TO THE SIDE OF THE PLASTIC CUP DURING CALIBRATION BUT IT IS ALWAYS RECOMMENDED IT BE HELD WITH ONE HAND (NOT SHOWN) WHILE CALIBRATING TO PREVENT SPILLING THE CUP CONTENTS. THE METAL PART OF THE PROBE SHOULD NOT MAKE CONTACT WITH THE SIDES OR BOTTOM OF THE CUP.