



THERMOMETER CALIBRATION LOG

State Form 54103 (9-09)

INDIANA STATE DEPARTMENT OF HEALTH LABORATORIES

Thermometers must be calibrated before use and annually against a NIST thermometer.

Test Thermometer Identification number:	
Location of Test Thermometer:	
Temperature Test Thermometer is used to record:	
Date Test Thermometer was put into use to record data (<i>month, day, year</i>):	
Date Test Thermometer was no longer used to record data (<i>month, day, year</i>):	
Reason Test Thermometer was no longer used to record data:	

Date of Calibration (<i>month, day, year</i>)	NIST Thermometer Identification Number	NIST Thermometer Reading	Test Thermometer Reading	Correction Factor	Analyst

The Correction Factor (CF) is the value that must be added to the Test Thermometer (T_{test}) reading to equal the NIST traceable thermometer (T_{NIST}) reading.

$$\text{Correction Factor} = T_{\text{NIST}} - T_{\text{test}}$$

To obtain the True temperature (T_{true}) of something that is being monitored by T_{test} , add the CF to the T_{test} value.

$$T_{\text{true}} = T_{\text{test}} + \text{CF}$$

Example: If $T_{\text{NIST}} = 4.0^{\circ}\text{C}$ and $T_{\text{test}} = 5.0^{\circ}\text{C}$, then the $\text{CF} = 4.0^{\circ}\text{C} - 5.0^{\circ}\text{C} = -1.0^{\circ}\text{C}$

If the T_{test} reads 5.5°C in a refrigerator, then the $T_{\text{true}} = 5.5^{\circ}\text{C} + (-1.0^{\circ}\text{C}) = 4.5^{\circ}\text{C}$