

Digital Multi-Day Max/Min Thermometer Sensor Calibration

Field Guide

Task

Calculate the air and soil sensor correction offsets used to adjust for instrument accuracy errors.

What You Need

- Calibration thermometer that has been checked following the instructions in the *Thermometer Calibration Lab Guide*
- Digital Max/Min Thermometer Calibration and Reset Data Sheet*

Note: If you are only recalibrating the air sensor, skip the portions of this field guide that pertain to the soil sensor.

In the Field

1. Open the door to the instrument shelter and hang the calibration thermometer and the two probes, both air and soil, in the instrument shelter so that they have air flow all around them and do not contact the sides of the shelter. Close the door to the instrument shelter.
2. Wait at least an hour and then open the door to the instrument shelter. Read the temperature from the calibration thermometer and record it to the nearest 0.5° C on your *Digital Max/Min Thermometer Calibration and Reset Data Sheet*.
3. Turn on the air temperature display of the digital multi-day max/min thermometer by pressing the air sensor ON button (upper left in button cluster). Read and record the current air temperature.
4. Turn on the soil temperature display of the digital multi-day max/min thermometer by pressing the soil sensor ON button (upper right in button cluster). Read and record the current soil temperature.
5. Close the cover flap of the digital thermometer and the door of the instrument shelter.
6. Repeat steps 2 to 5 four more times, waiting at least one hour between each set of readings. Try to space out the five sets of readings over as much of a day as possible.
7. Report your calibration data to GLOBE.