

# Digital Single-Day Max/Min Thermometer Sensor Calibration

## Field Guide

### **Task**

Calculate the air and soils sensor correction offset 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](#)

**Note:** If you plan on performing only air temperature measurements, or 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, the digital thermometer, and the soil sensor in the instrument shelter so that they have air flow all around them and do not contact the sides of the shelter.
2. Close the door to the instrument shelter.
3. Wait at least an hour and then open the door to the instrument shelter. Make sure that your digital thermometer is displaying the current temperature(s) (Neither 'MAX' or 'MIN' symbols should be displayed on the screen. If they are, press the MAX/MIN button until they disappear).
4. Read the temperatures reported by the air sensor and the soil sensor of the digital thermometer and record them on a sheet of paper.
5. Close 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.