

Techmark, Inc.
SOP 203-1E Calibration of RH sensors on 755
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Principle:

How do I calibrate (wet/dry) an RH sensor on a 755? This involves calibrating the wet and dry bulb sensors to a common reading. If this is not performed on a regular basis, RH readings can become faulty. A reading of 100% or 101% RH can be caused by insufficient water on the wet bulb. When dry and wet bulb temperatures are the same, the RH% will be 100%. Follow the procedure to calibrate RH sensors for a 755.

Procedures to follow:

1. Remove the wick (white lace material) from the wet bulb, and wait for 30 minutes. At this point both the dry and wet bulb should be seeing the same temperatures. Make sure the RH fan is working and the door to the RH canister is closed.
2. Determine the **Dry** and **Wet** Analog Input numbers in the System menu of 755.
 - a) Press Button 22 **SYSTEM** key- Password is Button 10 and then **Edit** or **# Key**.
 - b) Press the right arrow key when the cursor is flashing on **INPUTS** to access the **INPUTS** menu.
 - c) Press the single down arrow key once, the cursor will move to **INSIDE CLIMATE**
 - d) Press the right arrow key into **INSIDE CLIMATE**.
 - e) The display will read **RH Plenum- Dry/Wet**. It will display a number behind the **RH-D** and **RH-W** assignments. Record these below.
 - i. RH-D _____ RH-W _____ Bin 1
RH-D _____ RH-W _____ Bin 2
RH-D _____ RH-W _____ Bin 3
RH-D _____ RH-W _____ Bin 4
 - ii. Note these for each of the bins on the 755 by pressing the tab buttons on the face of 755.
3. Adjust the sensor readings.
 - a) Back out of the **INSIDE CLIMATE** menu by pressing the left arrow key once, the display will return to the **INPUTS** menu.
 - b) Press the single down arrow key 3 times, the cursor will be flashing on 5 **ANALOG MEAS**.
 - c) Press the right arrow key into **ANALOG MEAS**
 - d) Note it will read **ANALOG MEAS_1** This means it is Analog Input 1.
 - e) Press the double up arrow key until the **RH-D** that was recorded in Step 2 is displayed.

- f) Press the down arrow key twice. The display will show the measured values of the **RH-D** sensor, ie. 221. Record the measured value _____.
 - g) Press the double up arrow key to display the RH-W input recorded above. Record the measured value _____.
 - h) These two measured values should be equal. If not, adjust the wet sensor by changing the value under the Zero setting.
 - i) Press the down arrow key 3 times to see the Zero and Span lines. Increase by 1 to increase the measured value by 1. **Do not change the Zero by more than 5 up(+) or down(-). If an adjustment of +/-5 is not sufficient, the sensor or wire will need to be replaced.**
 - j) **Do not change the RH-D!!**
 - k) Record the new **WET ZERO** _____ and **RH-W** measured value _____.
 - l) Record the current **RH-D** measured value (press the double up arrow to view this) _____.
 - m) These two values should now match.
4. Calibrate all **Dry** and **Wet** sensors for the remaining bins if needed.
 5. Place the wet bulb wick back on the wet bulb sensor.