



HYGROMETERS

Hygrometers measure relative humidity and are commonly used by cigar smokers within their humidors to verify that the proper humidity level is maintained.

Both mechanical and electronic hygrometers are available. Typically, the mechanical ones are more attractive, while the electronic ones tend to be more accurate. But this is not always the case. Sadly, many hygrometers, both mechanical and electronic, are grossly inaccurate and require either adjustment or replacement. One of the easiest methods of verifying the accuracy of your hygrometer is to perform a "Salt Calibration Test."

Without boring you with the chemistry of why, let me simply state that this test will always result in achieving the exact relative humidity level of 75%.

SALT CALIBRATION TEST

Materials required:

- Tablespoon of plain Table Salt (NaCl - like Mortons)
- Empty Wide-Mouth Jar with lid (like an old Mayo jar)
 - Bottle Cap (like those on a Snapple bottle)
- Coffee Stirrer (or another thin object with which to stir)
 - Distilled Water
 - Your Hygrometer



Place the tablespoon of salt within the bottle cap. Slowly add distilled water to the salt while stirring with the coffee stirrer. You want to add just enough water to moisten the salt so that it becomes a thick paste. Do not add enough water to dissolve the salt! Place the bottle cap with salt gently into your wide-mouth jar then add your hygrometer. Make certain that the sensor is exposed and not being blocked by the sides of the jar. Seal the jar - this test will not work if there are any leaks. Then put the jar in a place out of direct sunlight and with a stable temperature. Leave undisturbed for a minimum of 8 hours. Check the reading on the hygrometer through the glass jar. It should read on or near 75% RH. Due to the salt paste reacting with the confined air the ambient RH within the jar will be exactly 75% RH. Most inexpensive hygrometers are only accurate to within 3% of 75% RH, so do not be surprised if yours reads 72% or 78% RH. Whatever it reads plus or minus from the 75% benchmark is the amount of error of your hygrometer. What you do about an error depends on the circumstances. If your hygrometer has an adjustment potentiometer, then try to tweak it to exactly 75%. You should repeat the Salt Calibration Test after making any adjustments. If your hygrometer can't be adjusted but the reading is close, then I suggest you don't worry about it; just remember that your hygrometer is X% off - either high or low. If the reading is grossly in error and you are unable to adjust it, I suggest you replace it. And finally, let me say that hygrometers are not necessary. You will find, over time, that you can judge the relative humidity within your humidor by simply touching and smoking your cigars.