

Waccamaw River Volunteer Monitors' Standard Operating Procedure:

Conductivity (using Sension5 meter)

1. Fill out # 1-5 on the Conductivity field data sheet first and # 6 onwards as you follow the following guidelines.
2. For using the procedure on this page your meter model number should be Sension5.
3. DO NOT attempt to recalibrate. If you accidentally hit the 'cal' key (or any other key that you are not supposed to touch), press the power/exit key to turn the meter off and on again and thus return to the measurement mode.

Calibration Check

1. Press the power/exit key to turn the meter on.
2. The units of $\mu\text{S}/\text{cm}$ (microSiemens) will be displayed. Press the 'cond' key to switch the meter to conductivity mode if these units are not seen on the screen.
3. Rinse the probe with DI water and wipe the excess water with a tissue wipe. Insert the probe into the Lab control sample (LCS) solution. Agitate the probe vertically to make sure air bubbles are not entrapped near the sensor. Press READ.
4. **Stabilizing...** will appear. Allow the reading to stabilize. The display lock will "lock in" the reading once it stabilizes. In case the display lock was off i.e. the reading doesn't stabilize, follow step # 5 otherwise go to step # 6.
5. *Press the SETUP key. Use the up and down arrow keys to scroll to setup 1 (as displayed on the right hand top corner of the screen). A lock icon will appear on the lower left corner of the screen. If you see '(off)' next to the lock icon that means the display lock was off. Use the READ/enter key to turn the display lock on. If the '(off)' is not seen next to the lock icon the display lock was on. READ/enter key could be used to toggle between on and off of display lock.*
6. If the measurement of the Lab control sample (LCS) is found to be outside of the acceptance range (i.e., more than $\pm 5 \mu\text{S}$ off of the LCS label value), agitate the probe more and see if the reading changes and falls within the range. If it again doesn't fall in the acceptance range go ahead and record the reading as such and make a note in the comments section on the conductivity field data sheet. Also, let the lab personnel know about it as soon as possible.
7. Remove the probe from the LCS. Rinse the probe thoroughly with deionized water and blot dry.

Sample Measurement

1. Rinse the probe thoroughly with deionized water and blot dry. Dip the probe into the sample.

2. Press the power/exit key if the meter was not on.
3. Press READ. **Stabilizing...** will appear on the screen. Allow the reading to stabilize. The display lock function would lock in the stable reading and produce a beep. Record the reading now. Also, record the temperature.
4. Press 'TDS' key to get the corresponding Total Dissolved Solids (TDS) reading.
5. To record three measurements press READ/enter again, let it stabilize, and record the locked reading on the Conductivity Field data sheet. Press 'cond' key to get back to the Conductivity reading. Follow step #4 after recording every conductivity reading.
6. Rinse the probe well with the DI water. Wipe the water off with a tissue wipe before storage.
7. Turn the meter off.
8. Make sure the Conductivity Field Data sheet is completely filled.