Waccamaw River Volunteer Monitors' Standard Operating Procedure:

Dissolved Oxygen (DO) (using Sension**156** meter)

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1. Fill out # 1-5 on the Dissolved Oxygen 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 Sension156.
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. Remove the cap from the bottom of the rubber probe calibration and storage chamber. Saturate the sponge with water (from the DI water bottle provided). Squeeze the excess liquid from the sponge (with water dripping out of the cap end) Reattach the cap to the bottom of the calibration and storage chamber, and the membrane end of probe should be in the other end of chamber.
2. Allow a minimum of **ten minutes** for the atmosphere in the chamber to reach a steady state.

3. Turn power on by pushing the blue power/exit key. And press the DO% key to put the meter in the Dissolved Oxygen (DO) reading mode. Allow the reading to stabilize (**Stabilizing….** will appear on the screen). 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 # 4 otherwise go to step # 5.

4. *Press the SETUP key. Use the up and down arrow keys to scroll to setup 5 (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 that means the display lock was on. READ/enter key could be used to switch between on and off of display lock.*

5. Record the locked (stabilized) reading on the DO field data sheet. Record the temperature and both DO mg/L and DO % concentration values (switch between the DO modes by pushing the DO % key). For an acceptable calibration check % DO must be between 90% and 110%. If calibration check is not acceptable, correct any obvious problems and repeat calibration check. If the readings are still out of the acceptance range, record the readings as such and report the problem in the comments section on the DO field data sheet. Also, let the lab personnel know about it as soon as possible.

6. To get three readings Press READ/enter and follow steps 3 to 5 and record the measurement on the data sheet.

7. After measurement, rinse the probe with deionized water and shake the excess water off. DO NOT TOUCH THE MEMBRANE AT THE TIP OF THE PROBE.

Sample Measurements

1. If meter power is off, turn power on by pushing the blue power/exit key. And press the DO% key to put the meter in the Dissolved Oxygen (DO) reading mode.
2. Remove the probe from the storage chamber. Place the probe into the sample to be measured. Agitate gently for a few seconds.
3. Allow the reading to stabilize (**Stabilizing….** will appear on the screen). The display lock will "lock in" the reading once it stabilizes.
4. Record on "Dissolved Oxygen Field data sheet" the temperature and both DO mg/L and DO % concentration values (switch between modes by pushing the DO % key).
5. To get three readings Press READ/enter and follow steps 3 and 4 and record the measurement on the data sheet.
6. After measurement, rinse the probe with deionized water and shake the excess water off. DO NOT TOUCH THE MEMBRANE AT THE TIP OF THE PROBE.

7. Insert the DO probe tip into the storage chamber and turn the power off by pressing the blue power/exit key.

8. Make sure that the Dissolved Oxygen Field Data sheet is completely filled.