

*Conductivity Calibration
and Measurement*

(Hach SensionTM 5 conductivity meter)

PRE-CALIBRATION

Rinse the probe thoroughly, blot dry and put it in the LCS conductivity standard. Record the reading when it is stabilized.

CALIBRATION

- Keeping the probe in the conductivity standard that is in the expected range of the samples.
- Press CAL. **If the meter has been calibrated the last calibration value will appear. The numeric keypad will become active.**
- **If using a standard with different value, use the number keys to enter the standard conductivity at 25°C, then press ENTER.** The meter will automatically correct the calibration measurement to 25°C using the NaCl-based, non-linear temperature coefficient.
- If the standard has a value at 25°C in the $\mu\text{S}/\text{cm}$ range, enter the value when 104 $\mu\text{S}/\text{cm}$ is displayed or when the value of the calibration standard last used in this range is displayed. If number entry error occurs, start over by pressing SETUP key.
- When the reading is stable, the calibration is automatically stored and the instrument returns to reading mode.
- Record the conductivity and temperature readings of the standard on the Conductivity calibration datasheet.

Waccamaw River Volunteer Monitors' Standard Operating Procedure: KCH 011009

SETUP

- To access the setup menu, press the setup key. The arrow icons will be displayed, indicating that additional options are available within the menu. Press the up or down arrow key to scroll the desired option, then press ENTER.
- The number in the upper right corner would show which setup option is being changed.
- *Setup number 1 is the display lock option.* When this feature is not used, the measurement value may continue to fluctuate and **Stabilizing...** will be displayed.
- After the setup key has been pressed, the Setup icon and the number 1 (flashing) will be displayed. Press ENTER to toggle the setting between on and off. When the setting is disabled, the Display Lock icon and off are displayed. When the lock is enabled, the Display Lock icon is displayed without off.
- When the desired option is selected, press EXIT to return to the reading mode or an arrow key to scroll to other setups.
- *Setup number 2 is the temperature units.* Default is °C. Use the ENTER key to toggle between °C and °F. And use EXIT key to return to the reading mode or an arrow key to scroll to other setups.
- *Setup number 3 turns Temperature Correction on or off.* Toggle between the on and off option as mentioned in earlier steps. When the feature is enabled the thermometer icon is displayed without an off icon and vice versa. Press EXIT or the arrow key to go to the reading mode or to the other setups respectively.
- *Setup number 4 helps to enter a temperature compensation value.* The manufacturer has determined a non-linear coefficient from measurements using aqueous NaCl solutions. Use ENTER to toggle between linear function and NaCl option. Select NaCl option. And use EXIT key to return to the reading mode or an arrow key to scroll to other setups.
- *Set up number 5 relates to Total Dissolved Solids.* Skip this one.
- *Set up 6 is used to set the reference temperature.* Use ENTER to toggle between 20°C and 25°C. And use EXIT key to return to the reading mode or an arrow key to scroll to other setups.
- *Setup 7, 8 and 9 could be used to set Time, Date and Year.* And use EXIT key to return to the reading mode or an arrow key to scroll to other setups.