



## TEXAS STREAM TEAM

### TEXAS STREAM TEAM STANDARD CORE MAINTENANCE GUIDE

The following guide describes the maintenance tasks that must be conducted for Standard Core equipment. Please keep in mind that the frequencies included are considered the minimum and tasks may be done at a greater frequency if needed.

MONITORING SUPPLY	FREQUENCY	MAINTENANCE
<b>ALL STANDARD CORE</b>		
<b>Standard Core Kit</b>	Daily	<ul style="list-style-type: none"><li>• Store kit and reagents at room temperature (60°-80°F) away from extreme elements (direct sunlight, humidity, rain, etc.)</li><li>• Store items in the proper location in the kit and store the kit flat.</li><li>• Store reagents with lids/caps tightly closed.</li></ul>
<b>Tubes, Bottles, and Beakers</b>	Before each use	<ul style="list-style-type: none"><li>• Inspect tubes, bottles, and beakers for chips, cracks, or any other signs of breakage.</li></ul>
<b>Reagents</b>	Before each use	<ul style="list-style-type: none"><li>• Check all reagent expiration dates and replace expired reagents when needed.</li><li>• Gently invert the reagent bottle several times to dissolve any crystals.</li></ul>
<b>Reagents</b>	After each use	<ul style="list-style-type: none"><li>• Do not interchange caps from containers. Caps and bottles can be numbered with permanent black marker to prevent mixing, as well as sequencing use (ex: 1 = Manganous Sulfate Solution, 2 = Alkaline Potassium Iodide w/ Azide, 3 = Sulfuric Acid).</li><li>• Tightly close all containers immediately after use. Do not leave reagents uncapped for extended periods.</li><li>• Wipe down the sides of reagent bottles/caps to remove any spilled liquid.</li></ul>
<b>Tubes, Bottles, and Beakers</b>	After each use	<ul style="list-style-type: none"><li>• Thoroughly rinse all tubes, bottles, beakers, and caps twice with DI water only after each monitoring event and place upside down to dry before returning to kit.</li></ul>
<b>Thermometer</b>	After each use	<ul style="list-style-type: none"><li>• Rinse the thermometer twice with DI water.</li><li>• To prevent column fluid separation, always store thermometers upright when not in use (thermometer may need to be stored outside the kit).</li></ul>
<b>Titration</b>	After each use	<ul style="list-style-type: none"><li>• Rinse the outside of the titration tip with DI water only.</li></ul>

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		<ul style="list-style-type: none"> <li>Do NOT rinse the inside of the titrator UNLESS expired Sodium Thiosulfate was introduced OR if you think the titrator may have become contaminated. In these cases, rinse or flush the titrator twice with a small amount of Sodium Thiosulfate, making sure to not remove the plunger. Dispose of the rinse directly into a waste container.</li> </ul>
<u>Secchi Disk</u>	After each use	<ul style="list-style-type: none"> <li>Allow the Secchi Disk rope to air dry before returning to the kit.</li> </ul>
<u>Secchi Disk</u>	Quarterly	<ul style="list-style-type: none"> <li>Rinse the Secchi disk twice with tap water every quarter. Allow the disk and rope to air dry.</li> </ul>
<b>Octa-Slide Viewer and Octa-Slides</b>	Quarterly	<ul style="list-style-type: none"> <li>Clean with DI water and a paper or cloth towel.</li> </ul>
<u>Secchi Disk</u>	Annually	<p>Check to see if the Secchi disk rope has stretched over time by taking a comparative measurement. Make sure the rope is marked every ½-meter, 1 meter, and 5 meters. If the markings are incorrect or have faded:</p> <ol style="list-style-type: none"> <li>Bleach the rope to remove markings.</li> <li>Allow the rope to dry.</li> <li>Once dry, ensure the rope is attached to the disk and hold the rope straight against a meter stick.</li> <li>Place a black mark on the line 1/2 meter from the top of the disk.</li> <li>Continue placing a black mark every 1/2 meter, a red mark every meter, and a yellow mark every 5 meters.</li> </ol> <p>Check line measurements annually for inaccuracy due to stretching.</p>

### INLAND (CONDUCTIVITY METER)

<u>Conductivity Meter</u>	During each use	<ul style="list-style-type: none"> <li>Only turn the meter on when submerged in liquid.</li> <li>Do not immerse meter in liquid above the indicator water line.</li> <li>Do not touch the surface of the electrode.</li> <li>Do not leave the meter in liquids for longer than necessary to prevent drifting.</li> </ul>
<u>Conductivity Meter</u>	After each use	<ul style="list-style-type: none"> <li>Rinse meter with DI water twice and allow to fully dry before replacing cap and storing.</li> <li>Take out batteries when the conductivity meter is not in use to prevent corrosion of the meter.</li> </ul>
<u>Conductivity Meter</u>	“BAT” icon appears on display	<ol style="list-style-type: none"> <li>Unscrew the top battery compartment and pull out the battery carrier using the tabs.</li> <li>Remove the old batteries and replace them with new ones, ensuring the polarity is correct.</li> <li>Screw the battery compartment back on.</li> </ol>

<u>Conductivity Meter</u>	Electrode is contaminated	<ol style="list-style-type: none"> <li>1. Clean the electrode <ol style="list-style-type: none"> <li>a. Contaminated with water soluble substance – Scrub the electrode with a soft brush and DI water.</li> <li>b. Contaminated with grease/oil – Scrub the electrode with a soft brush and a solution of warm water and mild detergent for no more than 10 minutes.</li> <li>c. Contaminated with heavy levels of grease/oil – Soak the electrode in rubbing alcohol for no more than 5 minutes and scrub with a soft brush.</li> <li>d. Contaminated by lime or hydroxide coatings – Soak in 10% acetic acid until coating is dissolved for a maximum of 5 minutes.</li> </ol> </li> <li>2. Rinse thoroughly with DI water.</li> <li>3. Soak in pH buffer 4 or 7 for 1 hour to recondition.</li> </ol>
<u>Conductivity Meter</u>	Calibration fails repeatedly or meter is not responding	<p>Reset the calibration data:</p> <ol style="list-style-type: none"> <li>1. Turn off the meter.</li> <li>2. Press and hold the “CAL” and “MODE” buttons.</li> <li>3. Press the “ON/OFF” button until the display comes on and then release all three buttons.</li> <li>4. The display will show “dFLt rSt”.</li> </ol> <p>If the reset does not resolve the issue, switch out the electrode:</p> <ol style="list-style-type: none"> <li>1. Unscrew and completely remove the electrode collar by turning it counterclockwise.</li> <li>2. Gently rock the electrode from side to side, pulling it downwards, until it disconnects from the meter.</li> <li>3. Carefully plug the new electrode into the probe socket and tighten the electrode collar to make sure it’s sealed properly. CAUTION: Take care to align pins carefully. Bent or broken pins will cause the meter to malfunction.</li> </ol>
<b>COASTAL (REFRACTOMETER)</b>		
<u>Refractometer</u>	After each use	<ul style="list-style-type: none"> <li>• Rinse the prism with DI water.</li> <li>• Allow the prism to dry before replacing the daylight plate.</li> </ul>