**Equipment Precautions and Maintenance:**

**Hot Training Tips PASEC**

The accuracy and reliability of our measurements rely on our test equipment's condition and calibration. The instruments should be treated as a fine watch. These suggestions should be considered as a checklist to follow before each stream visit. Here are some things to look for:

**YSI 550A Dissolved oxygen meter: Replacement cost $1200**

- Calibrate before use. Assure the sponge is damp.
- Set the altitude for each site the team visits and ignore the salinity setting. None of our fresh water streams exceed the minimum value.
- Inspect the probe. You should see that it is clean and the round gold electrode is not discolored.
- Gently lower the probe in the stream for the measurement.
- A very small amount of oxygen dissolved in the sample is consumed during probe operation. **It is therefore essential that the sample be continuously stirred.** If stagnation occurs, measurements will appear artificially low.
- After you have completed your survey please rinse the probe with cold tap water because it may have picked up some contaminates in the stream. **Do not attempt to clean the tip** because you may damage the probe.
- **Always store the probe in the calibration/storage chamber with the moistened sponge.** When the user is reinserting the probe into the YSI meter it should be carefully inserted until the red "O" ring is just inside the chamber. Pushing the probe too deep will cause the rubber lid on the other side to pop open. When this happens the sponge inside this rubber lid dries out and it may delay the process when the meter is used next.
- Remember to turn the unit OFF.
- Report any doubts you may have about the functioning or condition of the instrument immediately to our supplies chairman.

**Oakton 35 pH and conductivity: Replacement cost $150 (discontinued)**

- Inspect the probe, the glass bulb should be clean, the fluid level visible and the two electrodes free of debris.
- Calibrate less than 24 hours before use.
- pH and conductivity calibrations are temperature dependent. The pH meters are compensated but the calibration setting you enter for conductivity should be set at the temperature value shown on the standard bottle label.

- Please remember to turn the unit OFF. (We have set most of them for automatic turn-off but please verify that it shut down to conserve battery life.)
- Use the potassium chloride solution to prolong the life of the probe. See our supplies chairman for the solution.
- The chemical in the probe will eventually be consumed and a new probe will be needed. The availability of Oakton 25 meters and probes are limited.
- Report any doubts you may have about the functioning or condition of the instrument immediately to our supplies chairman.

**Flow meter: Replacement cost $450 - $500**

- Calibration is not needed; assure the hand set it is set for "Average" and "cm/second". Setup instructions should be in the instrument case.
- Please do not disconnect the cable from the hand unit.
- The turbine (looks like a little fan) needs to be pushed completely onto the wand tip.
- Inspect the turbine. It should spin easily with just a breath of air. All four of the blades must appear to be uniform in shape and pitch (the angle they are set at).
- Please remember to turn the unit OFF.

**Colorimeter Replacement cost $1200 (but our model is discontinued)**

- Inspect the sample cell cavity and clean with distilled water or alcohol dampened cotton swab.
- Assure the sample cells and lids have been cleaned and that they are labeled appropriately for the test. Do not mix the cells or lids.
- Verify that you have chosen the correct test program and units of measure (the CONC (6) button will switch units).
- Please remember to turn the unit OFF.
- Report any doubts you may have about the functioning or condition of the instrument immediately to our supplies chairman.