LaMotte Dissolved Oxygen Titration Kit

1. Fill sample bottle-check for no air bubbles.
2. Add 8 drops manganous sulfate and 8 drops alkaline potassium iodide.
3. Shake gently, wait for precipitate to settle below the shoulder of the bottle-repeat this process.
4. Add 8 drops sulfuric acid, shake gently until precipitate is completely dissolved.
5. Fill titrator syringe to 1.0 milliliter with sodium thiosulfate.
6. Fill titration tube to 20 ml line with fixed sample from step 4.
7. Add drops of thiosulfate and mix gently until sample turns pale yellow in color (compare to sample bottle).
8. Add 8 drops of starch indicator to titration tube. Watch sample turn blue.
9. Continue adding thiosulfate until sample turns clear. Record how much thiosulfate was used from the titrator syringe.

LaMotte Chloride Kit

1. Fill vial to 15 mL line with sample water.
2. Add one drop of *Phenolphthalein Indicator, 1%. If solution remains colorless, proceed to Step 3. If solution turns a pink color, add Sulfuric Acid, 0.5N one drop at a time, mixing after each drop, until pink color disappears.
3. Add three drops of Chloride Reagent #1. Cap and swirl to mix. Solution will turn yellow.
4. Fill Direct Reading titrator with Chloride Reagent #2. Insert titrator in center hole of test tube cap.
5. While gently swirling tube, slowly press plunger to add Chloride Reagent #2, one drop at a time, until yellow color changes to orange-brown.
6. Read test result directly from the scale where the large ring on the titrator meets the titrator barrel. Record as ppm Chloride. EXAMPLE: Plunger tip is 3 minor division below line 100. Test result is 100 plus (3 division x 4) equals 112 ppm.
7. If plunger tip reaches bottom line on titrator scale (200 ppm) before endpoint color change occurs, refill titrator and continue titration. When recording test result, be sure to include the original amount of reagent dispensed (200 ppm).

Oakton ECTestr for low (0-1990 µs/cm)

1. Open the battery compartment lid. The two white buttons are increment (INC) and decrement (DEC) calibration keys (figure 1).
2. Rinse the electrode in distilled water, then dip it into a container of calibration standard.
3. Switch the unit on. Wait several minutes for the display to stabilize.
4. Press the INC or DEC keys to adjust reading to match the calibration standard value.
5. After 3 seconds without a key press, the display flashes 3 times, and then shows “ENT”. The tester accepts calibration value; returns to measurement mode.
6. Replace the battery cap.
7. Dip electrode into test solution. Make sure sensor is fully covered.
8. Wait for reading to stabilize. Note reading.
9. Turn tester off and replace electrode cap.

Oakton ECO Testr EC Low (0-1990 µs/cm)

1. Turn on meter, dip sensor into calibration solution and wait for the value to stabilize.
2. Press the “cal” button to begin the calibration. Display shows CAL momentarily and blinks the default reading.
3. Press the “hold/ent” button until the blinking value matches the value of your calibration standard at 25º C. Note: To set a calibration standard that is lower than the blinking value, continue to press “hold/ent” past the maximum value to continue with the lowest adjustable value.
4. Release “hold/ent” to accept the calibration value. After a few seconds, (Ent) is shown and measurement is resumed.
5. To abort calibration, press “cal” to escape (ESC).
6. Place in sample and note measured value.
7. To hold reading, press “hold/ent”. Screen flashes H0 once, and then displays measurement with blinking unit (µS) to indicate that tester is in the hold mode. Press “hold/ent” again to cancel hold mode (HC).

Oakton ECO Testr CTS (Conductivity, turbidity, Salinity)

1. After turning on, the meter will begin in the measurement mode that was used when it was last powered off.
2. To change the measurement mode, press the menu button, the letters PArA will display
3. Press the left arrow button and the letters PArA Cond will display.
4. Press the left arrow button to accept and the display will read donE.
5. Dip the sensor in at least 30 mm of calibration standard.
6. Stir gently and press the cal/esc button
7. The display will show CAL followed by the default value
8. An icon in the image of a clock timer will stop blinking when the reading is stable and a check mark icon will display.
9. Press the menu button to manually adjust the reading to the desired value. The adjustment will decrease only, however the adjustment will eventually cycle back to the highest value.
10. Press the left arrow button to accept the desired calibration value when finished. The display will show donE to confirm the manual calibration.
11. Place sensor in sample to measure the conductivity.
12. Rinse the probe in distilled water and replace the cap.

Oakton ECO Testr CTS1 (Conductivity, total dissolved solids, Salinity)

1. Short press the top button to turn on.
2. Conductivity mode should appear. Press the CAL/MODE button to switch to conductivity mode if needed.
3. Remove sensor cap. Rinse probe in distilled water and shake off excess.
4. Long press the CAL/MODE button to enter calibration mode.
5. Dip the probe into 1413 µS/cm calibration solution. Stir gently, leave it to stand. Wait for the measurement stability icon (☺) to appear and stay on the display, then short press the CAL/MODE button to complete the calibration. Tester returns to measurement mode and calibration icon "**M**" appears on the bottom left side of the display.
6. Stir the probe in the sample solution gently, leave it to stand. Wait for the stability icon (☺) to stay on screen, then take the reading.
7. Rinse off the probe thoroughly in distilled water.

Thermo Scientific A329 Handheld Meter

1. Swap calibration chamber for probe guard on DO sensor.
2. Turn on power.
3. Change channel setting to show Conductivity (Cond) and DO (RDO) if needed.
4. Place probe in sample (bucket), stir briefly.
5. Let probes sit and wait until both sensors show ***Ready*** on the display
6. Record DO, conductivity and temperature (from DO channel).
7. Turn off meter.
8. Swap probe guard with calibration chamber for DO sensor.