

## Instructions - La Motte Tracer Pocketester

### Equipment

Distilled Water

KCl Standard Solutions (1413 EC's).

### Method

1. Remove the cap from the bottom of the TRACER to expose the electrode.
2. Fill a sample cap to the 20 ml line with the test sample (depth must be >3 cm).
3. Immerse the TRACER electrode in the sample.
4. Press the ON/OFF button.
5. Slowly stir the sample with the TRACER to remove air bubbles.
6. The meter will autorange to the required range and the reading will be displayed. (The display flashes "0000" while autoranging)
7. Record EC value on the result sheet.
8. Rinse the electrode in distilled water and replace the cap.

### Calibration

The meter must be in conductivity mode to perform the calibration. The meter can perform a calibration for each of three ranges – low, medium and high. The automatic calibration recognition procedure recognises conductivity standards of 84  $\mu\text{S}$  (Low), 1413  $\mu\text{S}$  (Medium) and 12880  $\mu\text{S}$  (High). Always calibrate in the range closest to expected measurement.

1. Fill a sample cup with conductivity standard.
2. Insert the electrode into the standard. Press the ON/OFF button.
3. Press and hold the CAL button for about 5 seconds until the display begins to flash.
4. The meter will automatically recognise and calibrate to the conductivity standard
5. The display will briefly indicate "SA", END and then return to the measurement mode.

### Notes:

- SA will not appear if the calibration fails.
- The conductivity meter will require calibration less frequently if the conductivity probe is kept clean, so rinse well after use with distilled water or tank water.
- Do not touch the electrodes. Touching can damage the electrodes and reduce the life of the electrodes.
- To replace the batteries, twist the battery compartment cap and replace the four SR-44 button batteries. Ensure that polarities are observed. If the batteries are removed, stored readings are lost but the calibration data is retained.

## ***Maintenance:***

To store, rinse the electrode in distilled or deionised water

Store the electrode dry with the cap on.

## ***Checklist***

- Sea water is approximately 50,000 EC's
- Taste salt in water at 1,500 to 2,000 EC's
- Be attentive to the units that your meter reads. As the conductivity of the solution rises past 2,000 EC's, the meter automatically changes to reading milli-siemens per cm rather than micro-siemens (Electroconductivity units or EC's).
- One milli siemens per cm equals 1,000 micro siemens or EC's.
- Normal reporting of conductivity is in EC's so to be consistent, you should encourage reporting by monitors in micro-siemens per cm or EC's.
- Normally, conductivity meters will stay calibrated for some time. Calibrate weekly until you are sure that the meter is stable. Recalibrate more often if your meter is heavily used.
- Rinse the electrode well with clean water after each test.
- Use a standard solution that is close to the level of conductivity in the sample solution being tested.

