

Operating Instructions for Fisher Accumet Basic AB15 pH Meter

Set Up:

- (1) Make sure the DC power supply is connected to the pH meter and plugged in.
- (2) Press the “**stdby**” button to turn the pH meter on.

Calibration:

- (1) The electrode should be in a flask submerged in the yellow pH 7 buffer. (If it is not, obtain a storage flask from the stockroom or TA and rinse thoroughly as below before putting it into the storage solution.) The electrode can be easily slipped out of the bored cork to dip into other solutions.
- (2) Verify that end of the electrode is in the pH 7 calibration buffer and press the “**std**” button. The word **Standardize** will appear in the upper left hand corner of the display and the meter will indicate when the reading is stable.
- (3) Rinse the barrel and tip of the electrode with distilled water from a wash bottle into a waste beaker. Dry the barrel with a Kim-wipe and carefully and gently BLOT the electrode tip with the Kim-wipe. DON'T WIPE it because this may damage the surface and produce a static charge on it.
- (4) Dip the electrode into the second calibration buffer (pH 4 or 10 depending on the pH range you are working in) and gently swirl the container with the buffer. When the reading has stabilized, press the **std** button again, the display will change to a linearity reading (somewhat meaningless for two calibration points, but should be close to 100%) which will then disappear, replaced by the original display. The word **Measure** will appear in the upper left hand corner of the display and the current pH reading will be in the top right quadrant. The current temperature is displayed near the bottom of the display. You should record the temperature for all solutions (buffer and unknowns.) The meter does a temperature correction, but in the best case the temperatures of all solutions will be nearly the same.
- (5) Remove the electrode from the second buffer and wash as above. Place the electrode back in the pH 7 buffer and verify that it reads 7.00 (+/- 0.02) before measuring the unknowns.

Measurements:

- 1) Rinse the electrode and blot it dry carefully as above between each solution.

2) Dip the electrode into the sample to start taking measurements. Remember to record the pH and temperature for each solution. The pH result will stabilize more quickly if you swirl the solution gently.

Turn-off:

- 1) Rinse the electrode and dip in the storage solution.
- 2) Press the **“stdby”** button to put the pH meter into standby mode. (You needn't unplug it while others may be using it.)