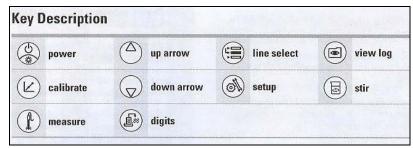
SOP: SP023.1

Modified: 3/5/18 by MCL

Operation of (SympHony) pH meter

Materials and Reagents:

- 1. pH meter
- 2. Sample to be analyzed
- 3. Magnetic stir plate
- 4. Magnetic stir bar
- 5. Appropriate acid or base to adjust pH
- 6. pH 4, 7, 10 calibration buffers (Beckman 582517, 582521 and, 582525 respectively)
- 7. ddH₂0 water bottle
- 8. Discard beaker
- 9. 3M KCl probe storage buffer (Corning 47706)



Protocol:

1	Droce Down	button (once o	n the Down	button toggles	LCD backlight	on/off
1.	Press Powe	er button (once o	on, the Powe i	r putton toggies	LCD packingnt	on/orr

^		C 111 4
'	Press	Calibrate

- 3._____ Select two appropriate calibration buffers to bracket expected sample pH.
- 4._____ Thoroughly rinse probe with ddH₂O, place in the first calibration buffer.
- 5. When the **pH** icon stops flashing, press **Calibrate** to confirm (note 1).
- 6.____ Thoroughly rinse probe with ddH_2O , place in the second calibration buffer.
- 7.____ When the **pH** icon stops flashing, press **Measure** to save and end calibration (note 2).
- 8.____ Thoroughly rinse probe with ddH_2O and place in stirring sample to be analyzed. The **pH** icon will stop flashing when the reading is stable (note 3).
- 9.____ Adjust sample pH to desired point with appropriate acid or base.
- 10._____ Thoroughly rinse probe with ddH₂O and place in probe storage buffer (note 4).
- 11._____ Press and hold the **Power** button to turn off (note 5).

Notes:

- 1. If calibration is not accurate, use the Up and Down keys to set proper pH (use Digit key to correct each digit).
- 2. The pH meter will briefly display the slope value of the calibration. The slope value should be greater than 95%. If the slope is less, the calibrations buffers may need to be replaced.
- 3. If the pH meter is in AUTO-READ measurement mode (AR icon appears on the screen), the display will freeze and the **Measure** button must be pressed again to continue reading.
- 4. pH probe must be stored submerged in storage buffer when not in use.
- 5. The meter will shut off automatically after 20 minutes without a keypress.