Quick Start Guide for Vinmetrica SC-300™ Kit

Set-Up:

For the first time set up, please see the 'Setting up the instrument' section of the manual provided.

Free SO_2 Test:

1. Select SO_2 mode and press ENTER. Attach SO_2 electrode. (**Figure 1**).

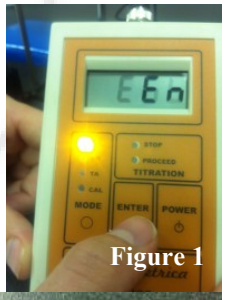

Figure 1

2. The value on the screen (current) should show a value less than 50 (usually 0.00) and the green PROCEED light should be illuminated.

3. Fill syringe with SO_2 titrant, set syringe to the 5.0 mL line. (**Figure 2**).


Figure 2

4. Draw up a 25mL sample of wine or must and dispense into the titration vessel. (**Figure 3**).

5. Using the transfer pipettes, add about 2mL Acid Solution and 2mL Reactant solution to the titration vessel.


Figure 3

6. Place SO2 electrode into the titration vessel. Stir or swirl constantly holding electrode in place. (**Figure 4**).

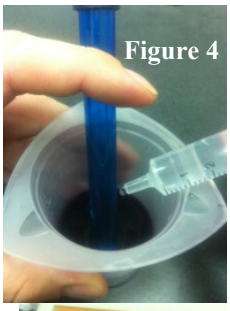
Figure 4

7. With a current less than 50 and the green PROCEED light lit, go to step 8. If the current is greater than 50 and/or the STOP light is illuminated, no need to proceed (you have less than 2ppm Free SO_2)

8. Titrate the sample by adding the SO_2 Titrant dropwise from the syringe; be sure to maintain constant, swirling motion.

9. Stop titrating when beeper sounds for 15 seconds (20 beeps), red "STOP" light is on and the current exceeds 50; maintain swirling motion throughout 20 beeps.(**Figure 5**).

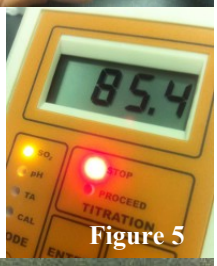

Figure 5


Figure 6

10. Calculate Free SO_2 **ppm SO_2 = 20 * V**, Where V is 5mL minus the endpoint on the syringe (mL). (e.g., **Figure 6** shows an endpoint of 1.0, so V is 5.0 - 1.0 = 4. So ppm is 4 * 20 = 80).

Cap and seal all reagents and store in a dark, cool location. When finished testing, rinse SO_2 electrode with DI water and allow to air dry. For "Total SO2" please refer to user manual.

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Calibration of pH:

1. With the pH electrode attached, select CAL mode by pressing the MODE button.

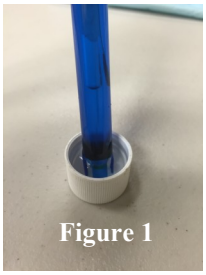
Figure 1

2. Unscrew the storage vial and rinse the pH electrode with distilled water. Insert into vessel containing either member of your pH calibration set (either pH 4 or pH 7 solution). (**Figure 1**)

3. The instrument will display the apparent pH value and the "CAL" LED flashes when calibration for this value is ready. Press ENTER to accept the calibration (**Figure 2**).


Figure 2

4. The display should read **'Good CAL'** and four beeps are rapidly sounded to indicate success. If an error occurs, the screen will read **'BAd CAL'** and a single beep will sound. The instrument will wait for a stable pH level. Repeat step 3.

5. Rinse the electrode and place it in the second member of the calibration set. Repeat the process until the **'Good CAL'** message displays.

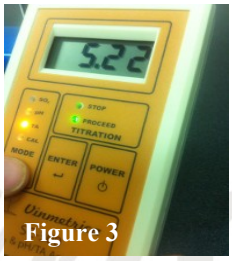
Figure 3

6. Navigate to either pH or TA using the MODE button (**Figure 3**).

Cap and seal all reagents and store in a dark, cool location. When finished testing, return pH electrode to pH storage solution vial and ensure vial is properly attached.

Measuring pH:

1. With the pH electrode attached, rinsed and the device properly calibrated (see "Calibration of pH), select pH mode using the MODE button.

2. Allow pH to stabilize approx 10-15 seconds and read the value.

Titratable Acidity (TA):

1. With the pH electrode attached and the device turned on and calibrated (see "Calibration of pH), select TA mode using the MODE button.

2. Fill syringe with TA titrant (0.133N NaOH) and set the plunger at 5.0mL.

3. Place 5mL wine in the titration vessel and add about 15mL DI water.

4. Rinse the electrode and place in the titration vessel. The pH should be 4.00 or less.

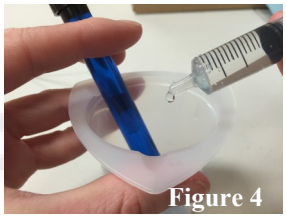
Figure 4

5. Titrate by adding the TA dropwise from the burette (**Figure 4**).

6. Stop when pH stays above 8.2 and the red light and beeper sound for longer than 20 seconds.

7. Calculate TA

TA (g/L tartaric) = 2 * V

Where **V** is 5mL minus the endpoint on the syringe (mL).

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