MODEL 356 & 306-308 SERIES
START-UP & CALIBRATION PROCEDURE
(For span gas calibration)

Equipment: Digital multi-meter (DMM)

Gas: High purity grade nitrogen or better.
Certified span gas to be 70 to 99% of full-scale range oxygen in a balance of nitrogen or parent gas. (For example, in the 0-10 ppm range, O2 in N2, use a span gas certified in the range of 7.0 to 9.9 ppm O2 in N2.)

Electrolyte: Type A or Type C electrolyte

Procedure:

1. Connect the power cord as follow:
   HOT to terminal TS1-14
   NEUTRAL to terminal TS1-13
   GROUND to terminal TS1-12
2. Position ON/OFF switch to ON.
3. Connect DMM across HOT and NEUTRAL. The DMM reads 40 ±10 ohms (115 VAC), 160 ±30 ohms (220 VAC).
4. Connect DMM between HOT and GROUND. The DMM reads infinite.
5. Fill the reservoir with 1000 cc of distilled water.
6. Connect nitrogen to analyzer sample inlet.
7. Verify that the other port (vent) is open (unrestricted).
8. Close sample flow valve inside the analyzer. Do not over-tighten the valve.
9. Turn on the nitrogen. Adjust the sample flow valve until the ball in flow tube is in the target.
10. Follow instructions sent with electrolyte kit to mix the electrolyte.
11. Unpack the cell. Remove the cover (the cell is packed with water when it is shipped from the factory) and dump the water.
12. Pour electrolyte into the cell over the top of the screen. Shake the cell a bit and empty the cell. Slowly pour more electrolyte into the cell until the screen is immersed approximately 3/32 inch from the bottom.
13. Install the cell in the analyzer. Do not connect the cell cable at this time. Let the analyzer purge with nitrogen for at least 1 hour.
14. Position range switch to 3 (high range).
15. Connect the power cord to power source.
16. Connect cell wires, red lead to center post and black lead to outer post.
17. Lower the range as the reading goes below 10% of scale.
18. Wait until the reading drops below 1 ppm (or is stabilized if the nitrogen contains some oxygen).
19. Position range switch to the range that will best accommodate the span gas.
20. Remove zero gas and connect the span gas to the sample in port.
21. Verify that the flow indicator is in the target.
22. Allow span gas to flow through the unit.
23. As the reading starts to increase, wait until the reading is stabilized.
24. Adjust the span pot so that the analyzer meter reads the O2 level in the span gas.
25. Connect the sample gas and verify that the O2 reading goes down.
26. After initial start-up and calibration, re-check the span and adjust the span pot if needed

    NOTE: When measuring oxygen levels in samples other than nitrogen, the calibration gas should be representative of the sample gas