

# **ACD** Advanced Calibration Designs, Inc.

## **INSTRUCTION FOR MAINTAINING CLO<sub>2</sub> CELLS FOR THE CAL 2000**

To ensure the highest accuracy calibration of your CIO<sub>2</sub> gas sensors with the Cal 2000 gas generator, ACD recommends changing the electrolyte every month (if not more frequently.) Based on our tests, the CIO<sub>2</sub> electrolyte tends to decay over time when in a liquid form. Because of this, we recommend that you mix the electrolyte and add it to the cell just prior to starting your calibration. In addition, if a cell is to be stored for any extended period of time it is recommended that the electrolyte be emptied out of the cell before storage. When it is time to use the cell again, fill it with a freshly made batch of electrolyte.

Powdered chlorine dioxide electrolyte is now available in pre-measured vials containing enough electrolyte to fill one cell. A vial of the correct amount of de-ionized water for one usage will also be provided. When you are ready to start your calibration, follow the steps below to change out the electrolyte.

1. Open the vial of powdered electrolyte and the vial of deionized water (sold as part number 193-0101-01).
2. Using the plastic transfer pipette provided, add the deionized water to the vial of CIO<sub>2</sub> Powder.
3. Reseal the vial of combined water and powder electrolyte and shake vigorously until all the powder is dissolved.
4. Gently remove the cell from the Cal 2000 instrument by pushing on the plastic window. (While holding the instrument take both thumbs and push down on the window.)
5. Remove both filler caps on the top of cell. *NOTE: An "O" ring in the cap must remain in the cap.*
6. Empty all the old electrolyte from the cell.
7. Add the fresh electrolyte with the pipette and replace the caps with the "O" ring.
8. Gently replace the cell in the bottom of the unit. Be cautious not to bend the pins on the cell for the interconnect.

If you have any questions please contact the factory at (520) 290-2855.

In addition to refilling your CIO<sub>2</sub> cell, you should read your Cal 2000 operator's manual for more instructions on how to properly maintain your Cal 2000 instrument and CIO<sub>2</sub> cell.