

## 5. Maintenance

### 5.1 Replacing the Dionex EGC III or Dionex EGC 500 Cartridge

The Dionex EGC III or Dionex EGC 500 must be replaced when the cartridge is expended, when it leaks, or in order to switch between anion and cation separations with a single Dionex Eluent Generator (EG) Module.



#### NOTE

*When switching between anion and cation separations on the same system, flush the entire system (excluding the Dionex EGC, column, and suppressor, but including the high pressure degas tubing assembly) with 5 to 10 mL of DI water at 1.0 or 2.0 mL/min before connecting the new cartridge, column, and suppressor.*

To remove the old cartridge:

- A. Turn off the pump flow either manually or via direct control in the Dionex PeakNet or Dionex Chromeleon software. The power to the Dionex EGC III, Dionex EGC 500, Dionex CR-TC 500, Dionex EPM 500 and Dionex ERS suppressor will automatically shut off.
- B. The electrical connector cable for the cartridge is plugged into a connector. Unscrew the plug counter clockwise and pull it straight out of the connector.
- C. Unscrew the Luer lock from the Luer adaptor at the top corner of the Dionex EGC III or top of the Dionex EGC 500 and detach the gas vent line.
- D. Install the plastic plug in the gas vent port. Use the plug removed from the port during initial installation of the Dionex EGC.
- E. With the eluent lines still attached, and the electrical contacts facing you, lift the Dionex EGC from the shelf and turn it so that the electrolysis chamber and liquid line fittings are upward.
- F. Unscrew the cartridge inlet line from the Dionex EGC INLET fitting. This line leads to the pump transducer (or to the anion trap column, if present). Unscrew the cartridge outlet line from the OUTLET fitting on the Dionex EGC.
- G. Prepare an expended Dionex EGC III or Dionex EGC Capillary cartridge for disposal by completing the following:
  - i. Hold the cartridge with the generator chamber upward.
  - ii. Unscrew the eluent generation chamber from the electrolyte reservoir.
  - iii. Pour the remaining electrolyte solution into an appropriate hazardous waste container.



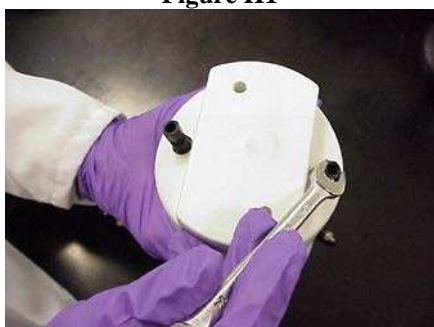
#### NOTE

*Refer to the Material Safety Data Sheet (MSDS) shipped with the Dionex EGC III or Dionex EGC 500 for the chemical description.*

- iv. Rinse the electrolyte reservoir and membranes with DI water three times.

- H. Prepare an expended Dionex EGC 500 cartridge for disposal by completing the following:
- Wear protective laboratory gloves and remove two 10-32 fittings from eluent inlet and outlet ports as shown in Figure H1.
  - Use a Philips screwdriver to remove the two screws used to attach the Dionex EGC pod cover to the Dionex EGC reservoir as shown in Figure H2. Detach the pod cover from the reservoir.
  - Use a Philips screwdriver to detach the Dionex EGC cable clamp from the reservoir as shown in Figure H3.
  - Use a Philips screwdriver to remove the three screws used to attach one of the pods to the reservoir in Figure H4 and Figure H5. Either pod can be removed.
  - Detach the pod from the reservoir as shown in Figure H6. Dispose of the electrolyte solution into an appropriate hazardous waste container following the local hazard material disposable procedures

**Figure H1**



**Figure H2**



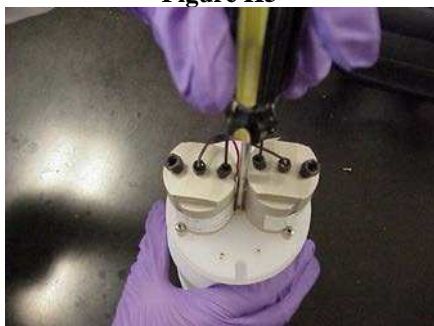
**Figure H3**



**Figure H4**



**Figure H5**



**Figure H6**

