

Type 7835 384 and 7835 840 Hydrazine cell

1 Refurbishing the cell

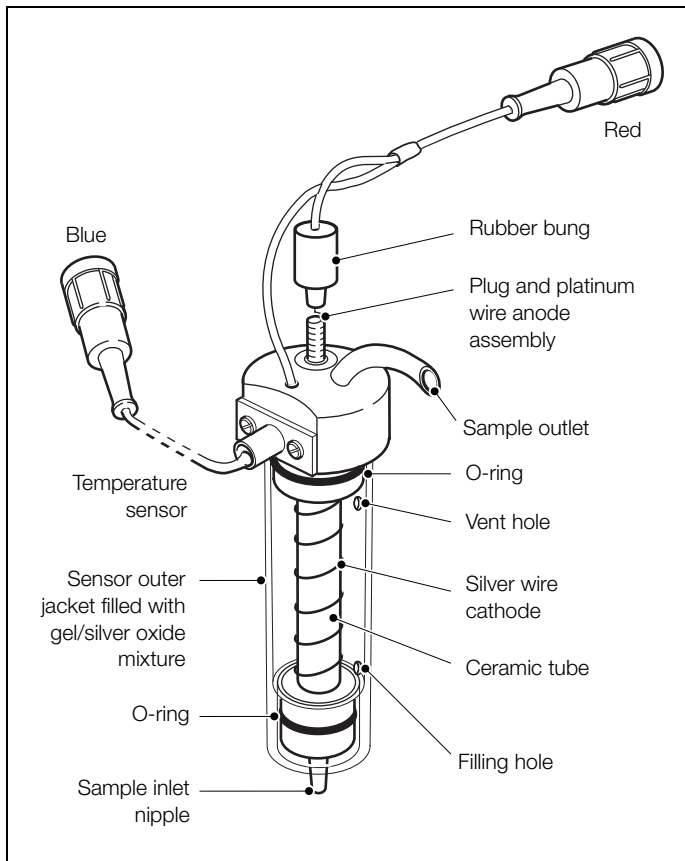


Fig. 1.1 Hydrazine cell assembly

1. Close the valve upstream of the monitor and allow the constant head unit to empty or pinch off the line from it to the sensor.
 2. Pull the hydrazine sensor out of its mounting clips on the sub-panel. Disconnect the electrical leads at the plug and socket.
 3. Holding the sensor over the drain tundish, pull off the sample inlet tube and let the tube and sensor cell drain. Leave the end of the inlet tube dipping into the tundish.
 4. Carefully pull the sensor apart and wash the components thoroughly to remove all traces of gel.
 5. Withdraw the platinum electrode, taking care not to damage the electrode or the electrical connection. Insert the brush supplied in the sensor kit down the bore of the ceramic tube; rotate gently and withdraw. Clean the platinum anode by immersing it in a test tube containing 50% nitric acid for a few minutes.
- Caution.** Do not let the acid touch the rubber bung.
6. If the silver cathode is tarnished or blackened, dip a cotton wool bud in 50% nitric acid and run this over the wire to restore it to a matt silver finish. Rinse thoroughly with high purity water.
 7. Assemble the sensor and fill with GEL as follows:
 - a. Holding the black closure cap tightly in place on the filling syringe, snap the syringe plunger into position and then remove the black closure cap.
 - b. Place the blue Luer fitting on the syringe nozzle.
 - c. Slowly inject the filling gel through the bottom hole in the outer jacket of the sensor until it reaches the top hole.
 - d. Remove the syringe and replace its closure cap.
 8. Push the sensor into the clips of the sub-panel – the clips incorporate small protrusions that cover the filling and exit holes in the outer jacket.
 9. Connect the tube from the mixing coil to the bottom of the sensor.
- Note.** Hold the sensor firmly at the top so that the centre portion is not pushed out when the tube is connected.
10. Plug the electrical connection into the socket at the top of the liquid handling panel.

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11. Fill the reagent and calibration solution containers with their respective solutions and open the valve on each reservoir by unscrewing two turns.

Warning. The sample is dosed with sodium hydroxide and the concentration, although small at first, increases if any spillage is left to evaporate. Dispose of the outflow safely.

12. Open the shutoff valve upstream of the sensor unit and adjust until sample is overflowing from the constant head unit but not fast enough to reach the emergency overflow.
13. Ensure that the flow through the sensor is at the correct rate (refer to the 7835 manual, [IM/7835](#)).
14. Close and lock the sensor unit door.
15. Perform a calibration sequence as described in the 7835 manual ([IM/7835](#)).

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