

Installation Guide

Thermo Scientific Orion ROSS Ultra[®] Reference Electrode with Screw Cap

Important Note

The Thermo Scientific Orion ROSS Ultra reference electrode, Cat. No. 210058, is designed for use with Thermo Scientific Orion online instruments. The ROSS Ultra reference electrode requires Cat. No. 150072 filling solution, which is clear in color.

Procedure

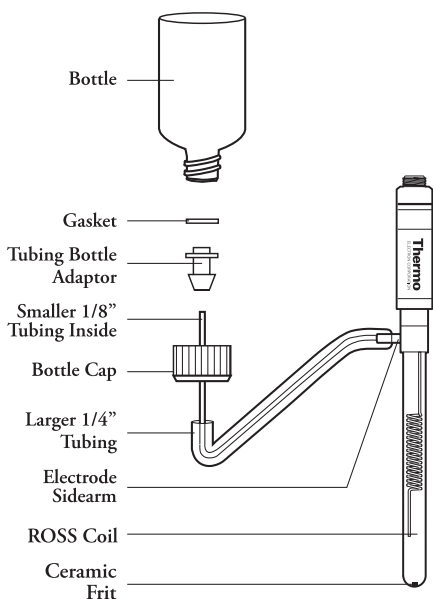
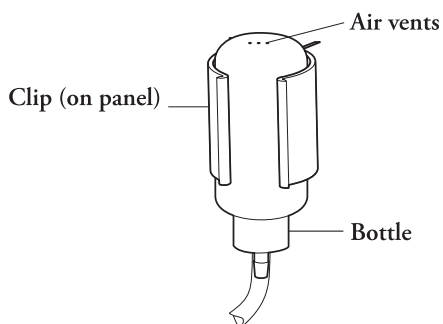


Diagram of Assembled Electrode



Electrolyte Bottle Installation

1. Unpack the reference electrode and tubing assembly from the shipping box. Carefully remove the protective caps from the bottom and sidearm of the electrode. Save the caps for future storage of the electrode.
2. Through the sidearm, shake out as much of the filling solution as possible into a sink or other drain.
3. While passing the 1/8-inch tubing into the electrode sidearm, slide the 1/4-inch tubing over the sidearm. The outside tubing should extend 3/8-1/2-inch over the sidearm.
4. Remove the cap and fluid seal from the filling solution bottle. Hold the bottle in the upright position. Check that rubber gasket is properly aligned, then connect the cap end of tubing assembly to the bottle. The 1/8-inch tubing should extend into the bottle.
5. Hold the bottle above the electrode with the bottle cap end down. The electrode should be horizontal with the sidearm pointing up. Gentle shake the electrode to allow any air bubbles to rise into the bottle as the electrode fills with solution.
6. Immerse the tip of the electrode into deionized water for 10 minutes. Take the electrode out and dry off the ceramic frit on the base of the electrode with tissue paper. Squeeze the bottle for a few seconds. A small amount of filling solution should bead up on frit surface, indicating good electrolyte flow.
7. Invert the electrolyte bottle and snap into the clip (on fluidics panel). Use the push pin supplied to puncture three air vents on the bottom of the bottle. Caution: Failure to vent the bottle will lead to noisy and drifty output signals.
8. Connect the electrode to the electronic chassis by the "keeper cable" labeled Reference Electrode. Insert the electrode into the reference hole in the flow cell cap.
9. Mark the level of solution in the bottle and note the date. The solution level should be checked monthly and refilled as required. The level should be checked weekly on Orion process monitors, which use a pressurized reference assembly. The level of solution should drop at least 1/8-inch per month or erratic monitor reading may result. Replace the electrode filling solution bottle as necessary.

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255054-001 Rev A 12/07

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