

Thermo Scientific Orion Double Junction Frit Reference Electrodes

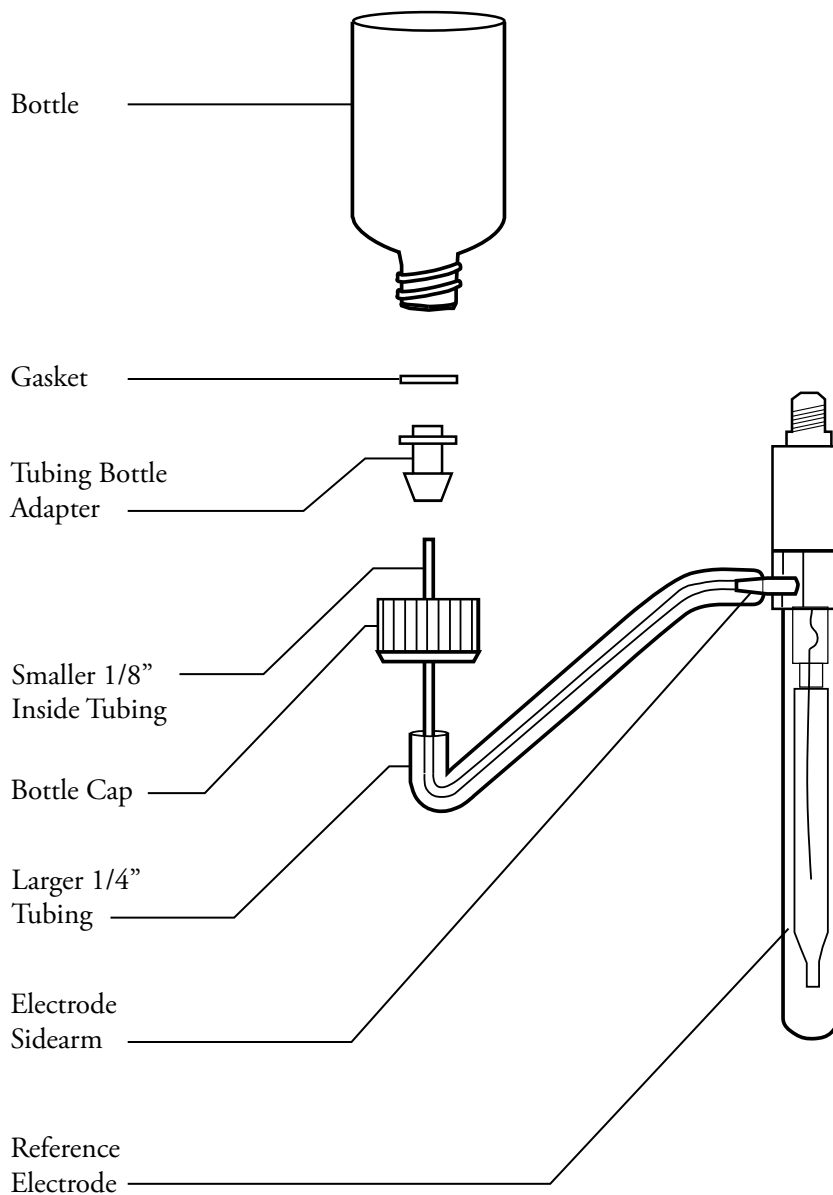
Cat. No. 100056 double junction frit reference electrode is used on the 2109XP and 1809A0 fluoride monitors, 2118XP and 1818A0 oxygen scavenger monitors, 2120XP and 1820A0 calcium hardness monitors, 1810A0 ammonia monitor and 1811A0 cation sodium monitor. This reference electrode requires Cat. No. 181073 filling solution, which is orange in color.

Cat. No. 100058 double junction frit reference electrode is used on the 1811EL and 1811LL low-level sodium monitors. This reference electrode requires Cat. No. 150072 filling solution, which is clear in color. The 100058 reference electrode must be used with the 100048 sodium sensing electrode.

Installation Procedure

1. Unpack the reference electrode and tubing assembly from the shipping box. Carefully remove the protective caps from the bottom and sidearm of electrode. Save the caps for future storage of the electrode. Inspect the internal chamber of the electrode. Verify that the internal chamber is at least half full with the internal fill solution. If the internal chamber is not at least half full, replace the electrode.
2. Shake out as much of the electrode filling solution as possible through the electrode sidearm into a sink or other drain.
3. Pass the 1/8-inch tubing into the electrode sidearm and 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 seal from the electrode filling solution bottle. Hold the bottle in the upright position. Check that the rubber gasket is properly aligned and then connect the cap end of the tubing assembly to the bottle. The 1/8-inch tubing should extend into the bottle.
5. Hold the reservoir bottle above the electrode with the bottle cap end down. The electrode should be horizontal with the sidearm pointing up. Gently shake the electrode to allow any trapped air bubbles to rise into the bottle as the electrode fills with solution.
6. Dry off the ceramic frit on base of the electrode with tissue paper. Squeeze the electrode filling solution bottle for a few seconds. A small amount of filling solution should bead up on frit surface, which indicates good electrolyte flow. If no moisture is visible, the electrode is clogged and should be cleaned or replaced.
7. Invert the electrode filling solution bottle and snap it into the clip. Use the supplied push pin to puncture three air vents on bottom of bottle. Caution: Failure to vent the electrode filling solution bottle will lead to noisy and drifty output signals.

8. Connect the electrode to the electronic chassis with the cable that is labelled Ref. Elect. Insert the electrode into the reference hole in the flow cell cap.
9. Mark the level of solution in the electrode filling solution bottle and note the date. The solution level should be checked monthly and refilled as required. The solution level should drop at least 1/8-inch per month or erratic monitor readings may result. Replace the reference electrode filling solution bottle as necessary.



Environmental Instruments
Water Analysis Instruments

166 Cummings Center
 Beverly, MA 01915 USA

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Toll Free: 1-800-225-1480
 Tel: 1-978-232-6000
 Dom. Fax: 1-978-232-6015
 Int'l Fax: 978-232-6031
 email: info.water@thermofisher.com
 www.thermo.com/water
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