How do I recondition my dissolved oxygen probe?

Lindsay Starke - 2026-04-02 - Comments (0) - Sensors and Modules

The Dissolved Oxygen probe requires reconditioning every 3-6 months, which is performed by rinsing out the accumulated white zinc oxide powder and refilling the probe with electrolyte solution. You should not go more than six months without reconditioning the probe, as failure to do so may cause it to fail prior to the full two year lifespan.

Tools needed:

- Syringe (3cc or 5cc work well)
- Luer tip 20 gauge flat (i.e. not beveled) 1.5"L needle like this one
- Distilled or deionized water
- DO buffer solution (buy online or make yourself by dissolving 1 g or more of sodium sulfite (Na_2SO_3) with 1 L of distilled or deionized (DI) water in a container)
- Container large enough to hold entire probe submerged

1. Attach the needle to the syringe. Fill the syringe with distilled water and then inject it through one of the four holes in the top of the probe so that the water comes out of the other three holes. Repeat the process with all four holes until there's no zinc oxide coming out of the probe.

2. Fill the syringe with air and inject it into each of the four holes to get as much water out as possible. Repeat until no more water comes out.

3. Submerge both the assembled DO probe membrane and cap and the clean, empty DO probe entirely in the DO buffer solution. The four holes on the probe should be facing up.

4. Fill the syringe with DO buffer solution and then inject it in through the holes until it comes out the other holes. Repeat for all four holes.

5. When there is no more air left in the probe, ensure the membrane and cap have no bubbles on them, and screw the cap and probe together while they are submerged in the buffer solution. There should be no visible bubbles or zinc oxide under the membrane of the probe after the cap is screwed on.

6. Check that you haven't trapped any air in the probe by positioning it with the membrane end facing up and letting it sit for 1 hour. After 1 hour, there should still be no visible bubbles or zinc oxide under the membrane, and you should be able to see the four holes in the probe.

7. Congratulations, your probe has been reconditioned and should be good for 3-6 months.

Note

You will need to recalibrate the sensor after reconditioning! Instructions for doing so are here: Dissolved Oxygen Setup and Calibration