



Restoration Procedure for YSI Membrane Covered Dissolved Oxygen Probes Exposed to H₂S or SO₂

Not applicable to ROX® or ODO™ optical sensors

When YSI membrane covered dissolved oxygen probes are exposed to hydrogen sulfide (H₂S) or sulphur dioxide (SO₂) for extended periods they will cease operating in a normal manner. Output current will decrease and calibration may become unstable. Visual symptoms include blackening of the silver anode and/or a purplish-brown discoloration of the gold cathode. Probes exposed to high concentrations of hydrogen sulfide or sulphur dioxide should be flushed and refilled with fresh KCl solution after every use, then a new membrane applied.

The cathode discoloration caused by the H₂S or SO₂ contamination usually cannot be removed with the lint-free cloth or hard paper as suggested in the probe instructions, but must be removed by abrasive refinishing of the cathode surface. Complete instructions for this refinishing procedure are included in the YSI 5680 Probe Reconditioning Kit which is available from YSI Customer Service.

Caution: Use of ammonia on the following probes will cause damage and may render the probes unusable:

- YSI 6562 Rapid Pulse™ DO Probe for 6-Series Sondes
- 600R and 600QS sondes
- 6030 probe for the 6000

If sanded according to the instructions, sulfide contamination will be removed without the use of ammonia.

To restore the silver anode, first try soaking in a 14% solution of ammonia for 2 to 3 minutes, or soak overnight in a 3% ammonia solution. Immediately after soaking, rinse well with deionized water, then with fresh KCl solution. Refill with KCl solution and apply a new membrane.

If the probe still fails to calibrate correctly, contact YSI Technical Support.

Following the restoration procedure described above, the silver anode will become smaller, but this should not affect the probe's performance as long as the reduction in size is minimal. However, it should be noted that if contamination of the silver is severe, resulting in a large reduction in anode size on cleaning, the probe may have to be replaced.

For additional information please contact

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