

TROUBLESHOOTING

Troubleshooting Guide

Follow a systematic procedure to isolate the problem. The pH measuring system can be divided into four components for ease in troubleshooting: pH meter, electrodes, sample/application, and procedure.

pH Meter

The meter is the component which is easiest to eliminate as a possible cause of error. Orion pH Meters are provided with an instrument checkout procedure for convenience in troubleshooting. Consult your pH meter instruction manual for directions.

Electrodes

To test electrode operation:

1. Connect electrode to a working meter.
2. Set the meter to absolute mV mode.
3. Immerse electrode in fresh pH 7 buffer.
4. Displayed value should be approximately 0 ± 30 mV.
5. Rinse electrode with distilled water and immersion fresh pH 4 buffer or pH 10 buffer.
6. Displayed value should be approximately 160 to 180 mV greater than in step 4 (actual mV values may change as the electrode ages, but the difference will remain 160 to 180 mV).

If electrode fails this procedure, or if response is slow or drifting clean thoroughly as directed in **Electrode Maintenance**.

If cleaning and maintenance procedures fail to rejuvenate the electrode; replace the entire electrode.

Sample/Application

The electrode and meter may operate with buffers but not with your sample. In this case, check sample composition for interferences, incompatibilities, or temperature effects.

Call Thermo's Technical Service Chemists at 1-800-225-1480 for technical advice for any application issues.

Procedure Error

If trouble persists review operating procedures. Reread calibration and measurement sections, to be sure proper technique has been followed.

Assistance

After troubleshooting all components of your measurement system, contact The Technical EdgeSM for Orion products. Within the United States call 1.800.225.1480, outside the United States call 978.232.6000 or fax 978.232.6031. In Europe, the Middle East and Africa, contact your local authorized dealer. For the most current contact information, visit www.thermo.com.