

## **IQ150 pH Probe: Care and Maintenance**

Please read this document before using your IQ150 pH probe. The probe comes with a 6 month warranty which covers manufacturing defects.

**The background information listed on page 2 will be required before any warranty return can be processed.**

### New probes and/or probes left in extended, dry storage

- **STIR** the probe in pH7 buffer solution to dislodge any bubbles. Probes should be soaked for, at least, 10 minutes.
- **CLEAN** any reference gel off the probe sensor and out of the rubber dust cap's inside surface.
- **CALIBRATE** the probe. Calibrate first with pH7 buffer, then with pH4 buffer.
- **CHECK** the calibration by placing the probe back in the pH buffer. If the reading is incorrect, the probe is not properly hydrated. Soak the probe in pH7 buffer for an additional 5 minutes and repeat the calibration.
- **STORE DRY** when not in use.

Note: New probes may have gel visible at the probe tip. This is normal. Remove gel by gently cleaning with a soft toothbrush and soapy water. Be sure to clean gel from inside the rubber cap before replacing. Gel may reappear for several days.

### Tips for cleaning and maximizing probe life

- **CLEAN SENSOR** with a soft toothbrush using soap and water.
- **RINSE** probe thoroughly after any calibration, measurement, and cleaning.
- **CAP** the probe prior to long-term storage.
- **USE** fresh buffers and rinse solution.
- **AVOID** applications that can damage the sensor (acetone, toluene, methylene chloride, xylene and other strong organic solvents).
- **AVOID** environments with static electricity. Electrostatic discharge (ESD) may permanently damage the probe.
- **AVOID** temperatures over 60°C (140°F). Thermal cycling will reduce the life of the probe.
- **DO NOT** allow oil, fat, food particles, starch, protein, or other materials to remain on the probe tip after use.
- **DO NOT** use a sharp object (needle, pin, etc.) to clean the sensor surface.
- **DO NOT** use the probe in environments that will damage the silicon chip sensor. This includes strong acids or abrasive samples

### Servicing a non-responsive probe

Soak the probe in a pH buffer. Sometimes soaking the probe for several hours, or even overnight will be helpful. The manufacturer recommends soaking in a pH 4 buffer that is warm (maybe 40°C) as that will help dissolve any crystals that may have come out of solution in the reference portion of the probe. If using warmed buffer, the probe should only need to be soaked for about 20 minutes.

If, after performing the above procedures, the probe cannot be calibrated or the meter gives an error message, the probe probably needs to be replaced. Keep in mind that it can take as many as 3 minutes for the probe to complete one of the calibration segments. Please answer the following questions so we can better determine whether a return authorization should be issued.

Background information

1. Serial number of the probe. The serial number is written on a label near the connector end of the probe.
2. What type of sample is being analyzed?
3. How frequently is the probe used?
4. Describe in detail how the probe failed and what was done to troubleshoot the probe.
5. How is the probe stored when not in use?
6. Describe exactly how the probe is cleaned? How often is the probe cleaned?
7. Are the buffer solutions fresh?
8. What mV reading does the probe give in fresh pH4 and pH7 buffer solutions? Voltage is one of the readout modes on the IQ 150 meter.