

### Preparation of the Electrode for Initial Use

1. Remove the protective bottle or cover from the electrode and thoroughly rinse the electrode with distilled water. Wipe carefully with a clean lab wipe.
2. It may be useful to condition the electrode reference junction by soaking the electrode in warm water for a few hours prior to use.

### In-Line Standardizing the Electrode with Controller

1. Connect your electrode to the input connector on the controller. Ensure that the electrode BNC and solution reference connections are secure.
2. Install the electrode in the sample line and turn flow on. The tip of the electrode must be pointed down no more than 40° from vertical. Wait 20-30 minutes for the sensor to acclimate to the solution.
3. While the reading is stabilizing navigate to the controller's calibration menu and reset to factory defaults if available.
4. If the reading is stable the value displayed will be the mV value of the solution.

### Standardizing the Electrode to Solutions

1. Connect your electrode to the input connector on the controller. Ensure that the electrode BNC is secure.
2. Place the electrode into a beaker containing a known mV value buffer and stir. While reading is stabilizing navigate to the 1 Point Calibration menu of controller, if available.
3. When the reading is stable, adjust the controller to read the value of the buffer.

### Storing the Electrode

#### Short Term

Between measurements, store the electrode in a beaker containing pH 4.01 buffer or a solution containing 3-4M Potassium Chloride (e.g. electrode storage solution).

#### Long Term

When storing for longer periods, store the electrode in the storage bottle or the protective boot which came with the electrode. Ensure that the foam in the storage bottle or the cotton ball in the protective boot is totally wetted with DI water to keep a moist environment around the electrode tip. Maintain the moist environment in the storage bottle or in the protective boot during storage.

Storing electrodes for more than 2-3 months, dry, or at extreme temperatures will shorten expected operational life.

### Electrode Cleaning

Contamination of the sensing element often results in slow response and inaccurate readings. Clean the element by one of the following procedures:

1. Inorganic Deposits: Immerse electrode tip in 0.1 N HCl for 10 minutes. Wash the tip with distilled water.
2. Organic Oil and Grease Films: Wash electrode tip in a liquid detergent and water.
3. After above treatment, soak the electrode tip in alcohol for 5 minutes and wipe dry, then, soak in quinhydrone saturated pH 4.01 for 15 minutes; rinse with distilled water afterwards.

NOTE: DO NOT ATTEMPT TO SAND OR POLISH THE SENSING ELEMENT WITH SAND PAPER OR OTHER POLISHING MATERIAL!

### Electrode Expected Service Life

1. Always store the electrode with a protective boot and wet foam/sponge/cotton ball. If the reference junction dries out completely, the electrolyte can crystallize in the reference pores making it necessary to condition the electrode in warm water to restore the junction performance.
2. Harsh and dirty water will shorten the life expectancy of the electrode.

### Warnings

1. The electrode tip must be kept wet at all times. If it is allowed to dry out, damage can occur requiring replacement.
2. If the reference band becomes too fouled the electrode will not work properly.

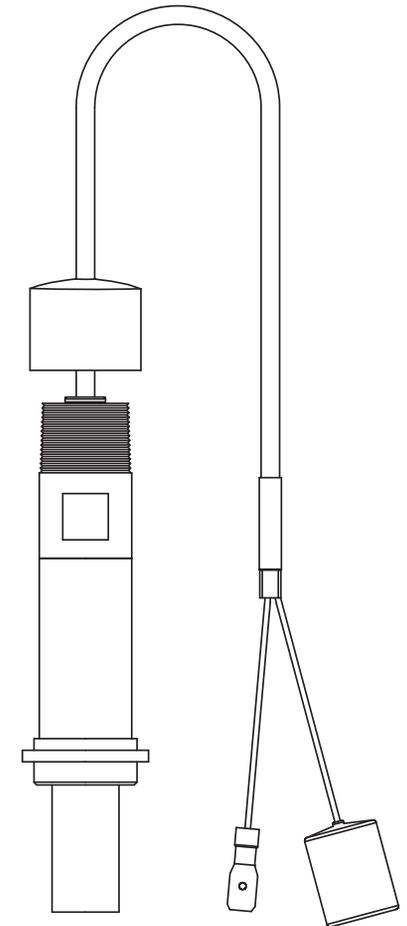
## pH/ORP Electrode Products Warranty

This product designed and sold for use in circulating water applications is warranted to be free from defects in materials and workmanship for a period of six (6) months, provided that the product is used in accordance with the instructions provided and that the product has not been subjected to breakage, alteration, misuse, abuse or used in an application not normally intended for the product. In the event of a warranted failure within the warranty period, contact your representative during regular business hours, and ask for customer service.

Please be prepared to discuss the details of the difficulty. If necessary, a Return Materials Authorization (RMA) number will be issued. Materials or goods returned without an RMA will not be accepted. Return the product freight prepaid.

The warranty described above is exclusive and in lieu of all other warranties whether statutory, express or implied including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose and all warranties arising from the course of dealing or usage of trade. The buyer's sole and exclusive remedy is for repair or replacement of the non-conforming product or part thereof, but in no event shall dealers or agents of any tier be liable to the buyer or any person for any special, indirect, incidental or consequential damages whether the claims are based in contract in tort (including negligence) or otherwise with respect to or arising out of the product furnished hereunder.

No other representations of warranty made by any person, including dealers, employees or agents shall be binding.



## OE-21 ORP Probe Instructions

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918-686-6211