

American Marine is proud to introduce **PINPOINT REDOX/ORP Monitor™**, the only truly accurate and affordable continuous monitoring ORP (REDOX) system. Every **PINPOINT REDOX/ORP Electrode** features a 10-foot high suppression cable, BNC Connector as well as a 99.9% platinum sensor tip. A **PINPOINT AC Adapter Kit** is recommended since ORP values are most important when continuously monitored. Standard 9-volt battery can be used and should be replaced every few months when visually indicated on the display as "LOBAT".

NOTE: The REDOX/ORP Monitor unit is NOT waterproof and must be operated on a dry surface. Liquid contact on the printed circuit board will cause corrosion and void warranty.

• Set-up

Unwrap the protective plastic packaging from the **PINPOINT REDOX/ORP Monitor** unit. Remove the battery cover on the back of the monitor and install a new 9-volt battery or the **PINPOINT AC Adapter Kit**. Use the pop-up stand on back and place meter on a flat, dry surface. Velcro can be used to mount the meter onto a vertical surface. Carefully remove the plastic storage container installed on the end of the electrode. A small amount of storage fluid may be expelled this is normal. SAVE the plastic storage container for future use. Rinse the end of the electrode briefly under lukewarm water. Place the electrode tip into the fluid to be measured using the suction cup probe holder if desired. Attach the BNC Connector from the electrode onto the BNC input of the ORP Monitor. Turn the connector _ turn clockwise to lock the connector. Activate the unit by setting the power switch to the ON position. Your **PINPOINT REDOX/ORP Monitor** is now ready for calibration.

As with any lab quality REDOX/ORP Electrode it is important to wait the full 24-36 hours before recording ORP values when continuously monitoring. During this period the electrode should "settle in" to the new environment.

The **PINPOINT REDOX/ORP Electrode** is widely considered to be a superior grade and should be precisely calibrated to the **PINPOINT ORP/REDOX Meter** before initial installation. Place the tip of the REDOX/ORP Electrode into the **REDOX 400 Calibration Fluid** and wait a minute or so for the measurement to settle in. Adjust the calibration screw on the front of the monitor to read 400mV. Calibration should be checked monthly for maximum precision. Do not reuse the calibration fluid.

Clean the electrode occasionally (every 3-4 weeks) using a wet soft toothbrush with long bristles. Gently push the electrode tip down into the wet bristles and rotate the probe 3-4 times. This will clean the inner surfaces of the electrode as well as the platinum pin and reference junctions. **REDOX 400 Calibration Fluid** also performs a thorough chemical cleaning of the platinum tip and the reference junctions during the calibration process. Typical readings in established, well-maintained saltwater systems should be in the 350-450mV range. Maintenance should be increased if the range would fall to 225-275mV. Drinking water is considered sterilized at REDOX/ORP values of 700-800mV. Artificial oxidation agents like potassium permanganate or ozone gas must be monitored with a **PINPOINT REDOX/ORP Monitor™** to prevent overdose. Danger levels will vary according to the livestock however readings in the 500mV range should be examined closely.

PINPOINT REDOX/ORP Electrode life is 18 months at which time the probe should be replaced. While calibration may be possible on an old probe, the probe's ability to react to changes in REDOX/ORP value will be severely limited and therefore not adequate for measurement.

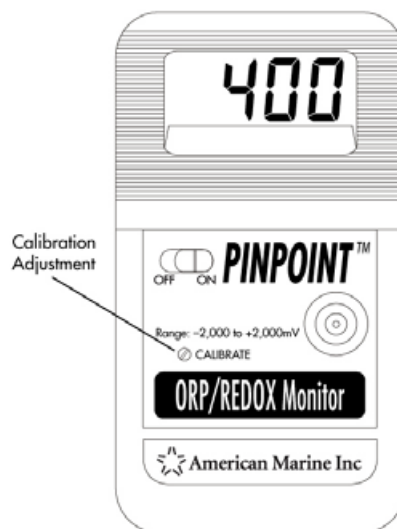
Please read "Important Points to Remember" printed on back

PINPOINT™ REDOX/ORP Monitor (Oxidation Reduction Potential)

User's Guide

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Also available:

- **PINPOINT pH Monitor**
- **PINPOINT Wireless Thermometer**
- **PINPOINT Conductivity Monitor**
- **PINPOINT pH, ORP, Oxygen Electrodes**
- **High Precision pH Calibrating Fluids #4.00, #7.00, 10.00**
- **PINPOINT II Dissolved Oxygen Monitor**
- **4 meter Oxygen Probe Extension Cable**
- **PINPOINT Salinity Monitor**
- **110VAC Adapter Kit** for most **PINPOINT** models
- **PINPOINT pH Controller**
- **PINPOINT ORP (REDOX) Controller**
- **PINPOINT Calcium Monitor**

Important Points to Remember

- **PINPOINT ORP Monitor** has been designed as a continuous monitor. The AC Adapter Kit is recommended however a regular 9-volt battery can be successfully used until "LOBAT" is indicated on the display.
- **PINPOINT ORP meter** is NOT waterproof and must be operated on a dry surface. Liquid contact with the printed circuit board will cause corrosion and void warranty.
- The plastic storage container must be removed from the tip of the probe so that REDOX/ORP values can be measured.
- Calibrate the REDOX/ORP probe to the PINPOINT Monitor by using **PINPOINT REDOX/ORP 400 Calibration Fluid**. For best accuracy the calibration should be checked monthly with new 400mV fluid.
- If the probe is to be transported or stored, the plastic container should be filled with storage solution (4.00 calibration fluid + potassium chloride crystals) or 4.00 calibration fluid prior to being installed onto the probe. Do not use deionized or reverse osmosis water as storage fluid.
- Probe should be inserted about 1 inch into the liquid to be measured. Probe may be totally submerged if desired.
- If several probes are used (i.e., pH and ORP, several pH, etc.) space the probes 3-4 inches apart so that the probes will not react with each other and yield erroneous readings.
- Clean the sensing glass, platinum tip and reference junctions of the probe every few weeks by using a wet toothbrush or soaking the tip in **PINPOINT REDOX/ORP 400 Calibration Fluid**.
- Replace the probe every 18 months for optimum performance.
- The PINPOINT ORP Electrode should be mounted vertically +/- 45 degrees.
- Do not allow air bubbles to accumulate under a vertically installed electrode.

Warranty

PINPOINT ORP Monitor™ by American Marine Inc. is warranted to be free of defects in material and workmanship for a period of 2 years from date of sale. Positive proof of purchase is required for warranty claim.

Removal or alteration of the serial number will void warranty.

American Marine Inc. will not be liable for any costs of removal, installation, transportation charges, or any other charges, which may result in connection with a warranty claim.

American Marine Inc. will not be liable for any damage or wear to products or livestock caused by abnormal operating conditions, water damage, abuse, misuse, unauthorized alternation or repair or if the product was not installed in accordance with the printed operating instructions.

Any defective product to must be sent freight prepaid with appropriate documentation supporting the warranty claim. Replacement or repair will be at the discretion of American Marine Inc. Typical turnaround time within 48 hours. Overnight delivery available.

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