American Marine is proud to introduce *PINPOINT®* ORP/REDOX Monitor, the only truly accurate and affordable monitoring ORP (REDOX) system. Every *PINPOINT®* ORP/REDOX Electrode features an UltraPure Platinum® tip with measurement range of +2,000 to -2,000. A *PINPOINT* AC Adapter Kit is recommended for Aquarium use while a standard 9 volt battery is most useful for ionized water negative ORP measurement. Battery should be replaced when visually indicated on the display as "LOBAT".

NOTE: The ORP/REDOX meter 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®* ORP/REDOX 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 bottle installed on the end of the electrode. Save the plastic storage bottle and fill halfway with only pH/ORP probe storage fluid for future use. Rinse the end of the electrode briefly under lukewarm water. Attach the BNC Connector from the electrode onto the BNC input of the ORP meter. Turn the connector ¼ turn clockwise to lock the connector. Activate the unit by setting the power switch to the ON position. Your *PINPOINT®* ORP/REDOX Monitor is now ready for calibration.

### •Calibration

Place the tip of the REDOX/ORP Electrode into the *PINPOINT®* ORP/REDOX 400 Calibration Fluid and wait a minute or so for the measurement to stabilize. Adjust the calibration screw on the front of the monitor to read +400mV. Calibration should be checked monthly or when an unusual reading is observed. Do not reuse the calibration fluid.

### Alkaline/Ionized/Kangen Water Measurement

High quality lonized/Alkaline/Kangen water typically has ORP measurements in the –300 to –700 range. The UltraPure Platinum <sup>@</sup> tip of the probe should be occasionally cleaned/polished with the *PINPOINT*<sup>®</sup> Polishing Strip for optimal negative ORP measurement.

#### •Aquarium/Aquaculture Use

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® ORP/REDOX Probe is widely considered to be superior lab grade and should be precisely calibrated to the PINPOINT ORP/REDOX Meter before initial installation. 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 to remove algae and other particulate. PINPOINT® 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 400-450mV range. Maintenance should be increased if the range would fall to 300-325mV. Artificial oxidation agents like potassium permanganate or ozone gas should be monitored with a PINPOINT ® **ORP/REDOX** Monitor to prevent overdose.

**PINPOINT® ORP/REDOX** Electrode life expectancy 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 quickly react to changes in ORP/REDOX value will be severely limited and therefore not adequate for measurement.

Please read "Important Points to Remember" printed on back

## PINPOINT ® ORP/REDOX Monitor (Oxidation Reduction Potential)

# For Alkaline/Ionized and Aquarium Water Measurement

### User's Guide

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Also available at www.alkalinewatertesting.com

- •PINPOINT® ORP Polishing Strip (reusable)
- PINPOINT® ORP/REDOX 400 Calibration Fluid
- •PINPOINT® pH/ORP Probe Storage Fluid
- ·PINPOINT® Replacement pH Electrode
- •PINPOINT® Armor Hard Carry Case
- •*PINPOINT*® ORP Electrode with UltraPure Platinum® tip •*PINPOINT*® pH Monitor
- •PINPOINT<sup>®</sup> Conductivity Monitor (freshwater hardness)
- •PINPOINT® II Dissolved Oxygen Monitor
- •PINPOINT®120VAC/230VAC Adapter Kit

### Important Points to Remember

- PINPOINT<sup>®</sup> ORP/REDOX Monitor can be used as a precision continuous monitor or as a spot measurement instrument. The AC Adapter Kit is recommended for continuous use however a regular 9-volt battery can be successfully used until "LOBAT" is indicated on the display.
- *PINPOINT®* **ORP/REDOX meter** is <u>NOT</u> 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 bottle <u>must</u> be removed from the tip of the probe so that REDOX/ORP values can be measured.
- Calibrate the *PINPOINT®* REDOX/ORP probe to the meter by using *PINPOINT®* REDOX/ORP 400 Calibration Fluid. For best accuracy the calibration should be checked monthly or whenever an unusual reading is observed. Always use new 400mV fluid.
- If the probe is to be transported or stored, the plastic storage bottle should be filled halfway with *PINPOINT*® pH/ORP storage fluid. It is available from American Marine Inc. Damage or shortened probe life will occur if deionized/reverse osmosis, low pH water or ORP 400 Calibration fluid is used as storage fluid.
- Probe should be inserted about 1 inch into the liquid to be measured. Probe may be totally submerged if desired.
- Alkaline water produced by high quality water ionizers typically has negative ORP measurements in the -300 to -700 range. The platinum tip of the electrode should be cleaned/polished occasionally with the ORP Polishing Strip to successfully measure low negative ORP values.
- Replace the probe every 18 months for optimum performance.
- The *PINPOINT*® **ORP Electrode** contains an internal glass rod and should be handled/transported with care. If the internal glass rod becomes damaged, a new replacement ORP electrode must be purchased.

### Warranty

**PINPOINT® ORP/REDOX 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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