

American Marine is proud to introduce *PINPOINT*® *Salinity Monitor*, the only truly accurate and affordable Salinity measurement system. A 9-volt battery should be used for intermittent or field use while a *PINPOINT* AC Adapter Kit can also be installed. Battery replacement is visually indicated on the display as "LOBAT".

**NOTE:** The Salinity 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 Salinity Monitor Unit. Remove the battery cover on the back of the monitor and install a 9-volt battery or the *PINPOINT* AC Adapter Kit. Activate the unit by setting the power switch to the ON position. Use the pop-up stand on back and place meter on any flat, dry surface. Velcro can be used to mount the meter onto a vertical surface.

Your *PINPOINT* Salinity Monitor® is now ready for calibration.

#### • Calibration Procedure

**Note:** The meter should be calibrated immediately before use. The calibration should be checked occasionally to verify your readings. The precise measurement of Salt by electronic conductive means has long been considered to be the most accurate method, especially when compared to Specific Gravity / Density (hydrometers) and refractometers.

Marine environments should use the calibration fluid labeled 53.0mS. Empty the 53.0mS into a small, clean cup and swirl the probe in the fluid making sure that no air bubbles have accumulated under the probe. Wait 1-2 minutes to allow for the temperature thermistor inside the probe tip to properly compensate for any temperature differences between the fluid and the probe. Using a miniature screwdriver, turn screw #3 (see diagram) until the display matches the 53.0mS fluid ( $\pm 0.5$ ). The calibration adjustment screw #3 is located inside the battery compartment most toward the center of the meter. Note that the enclosed chart will convert the display readings to either ppt (‰ Salt) and/or SG (Specific Gravity). An expanded range *PINPOINT* Salinity chart can be downloaded from our website at: [www.americanmarineusa.com](http://www.americanmarineusa.com)

Koi and Freshwater Systems benefit greatly from a small but precise level of added salt. Typically, a 0.3% level is considered optimum. These low levels can only be accurately measured with a *PINPOINT* Salinity Monitor. Hydrometers and refractometers are generally impossible to use at these low salt levels. The *PINPOINT* Salinity Monitor should first be calibrated with a 0.3% salt fluid. Prepare this fluid by mixing 11.4 grams of pure uniodized table salt (Kosher Salt) with 3,785mL (1 gallon) of distilled or deionized water. Perhaps your neighborhood pharmacist can help measure the 11.4 grams of salt. Submerge the probe into this 0.3% calibration fluid and calibrate the *PINPOINT* Salinity Monitor to display 5.5mS by adjusting screw #3. Your *PINPOINT* Salinity Monitor is now calibrated to read the low salt levels of a Koi pond, etc. It is important to take into account the existing salt level in a pond before adding any additional salt.

Salinity is a complex subject and one must be sure of the target specific gravity or ppt Salt has been properly selected in advance. The *PINPOINT* Salinity Monitor is automatically temperature compensated therefore the displayed values are already compensated and corrected.

**NOTE:** Do not adjust screw #4 since this is used to set frequency and requires specialized equipment for adjustment. Screw #4 has been set at the factory and does not require further adjustment. A small amount of glue has been placed on screw #4 to prevent accidental adjustment.

Please read "Important Points to Remember" printed on back

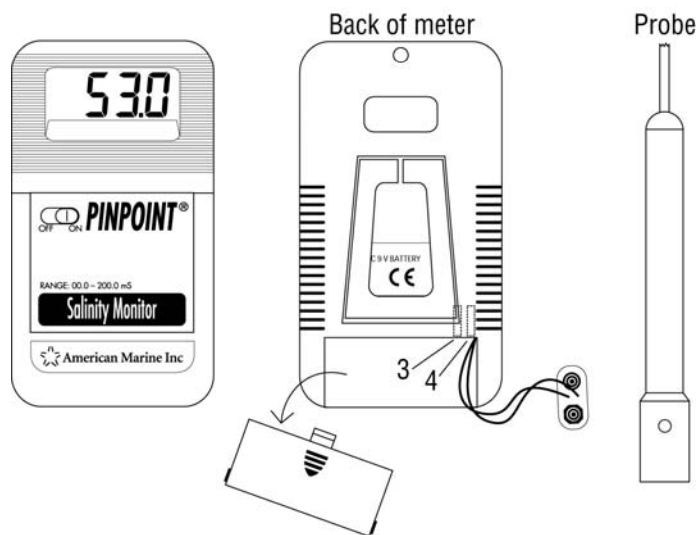
# *PINPOINT*® Salinity Monitor

\*includes 53.0 mS Calibration Fluid

## User's Guide

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Also available:

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

## IMPORTANT POINTS TO REMEMBER

- The *PINPOINT Salinity Meter* is NOT waterproof and must be operated on a dry surface. Any liquid contact on the printed circuit board will cause corrosion and void warranty.
- It is important to "swirl" the probe so as to eliminate any air bubbles that may accumulate under the probe before taking a measurement.
- The probe is epoxy sealed and can be totally submerged.
- The electrode should be cleaned every few months with a mild solution of water (16 oz.) and dishwashing detergent (1/2 teaspoon). Rinse the electrode well with fresh water.
- The *PINPOINT Salinity Monitor* is automatically compensated throughout the temperature range 32°F to 122°F (0° to 50°C).
- Calibrate the monitor with the appropriate fluid before use.
- Check the calibration occasionally. Calibration fluid can be re-used if uncontaminated by other fluids and kept in a tightly capped container.
- Reference Chart Sources:
  1. Zerbe and Taylor (1953)
  2. Cox R.A., The Physical Properties of Seawater, Chemical Oceanography Vol. 1, Riley, J.P. and Skirrow, G. Eds., Academic Press, London, 1965.

### Warranty

*PINPOINT® Salinity 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 be returned 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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