PINPOINT® pH Monitor User's Guide

\ American Marine is proud to introduce <code>PINPOINT</code>®, the only truly accurate and affordable continuous pH monitoring system. Powered by a 9-volt battery (not included). <code>PINPOINT</code>® will continuously monitor and display pH for months before battery replacement is visually indicated on the display as "LOBAT."

NOTE: The pH 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 both the monitor and the blue epoxy probe. CAREFULLY remove the plastic storage cap installed over the end of the probe. A small amount of storage fluid may be expelled. SAVE the plastic storage cap for future use. Rinse the end of the probe briefly under the lukewarm tapwater. Remove the battery cover on the back of the monitor and install a 9-volt battery or the <code>PINPOINT®</code> AC Adapter Kit. Attach the BNC connector from the wire on the probe to the BNC input of the monitor. Turn the connector 1/4 turn clockwise to lock the connector. Activate the unit by setting the power switch to the ON position. Use the popup 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® pH Monitor is now ready for calibration.

Two Point Calibration (Use only high-quality, fresh calibration fluids)

For maximum performance the *PINPOINT®* **pH Monitor** should be calibrated immediately. Proper calibration requires the use of 2 different fluids; one of which must be #7.00. Any combination of either (#7.00 and #4.00) or (#7.00 and #10.00) will give equally excellent results.

All calibration fluids should be room temperature 68°-86°F (20°-30°C)

- With monitor turned "ON", place the end of the pH probe into calibration fluid #7.00 Using a miniature screwdriver, turn screw labeled #7 on the front panel of the meter (see diagram) until display reaches 7.00 exactly.
- 2. Rinse probe in room temperature tapwater.
- Place pH probe into calibration fluid #4.00 (or #10.00). Wait several seconds for reading to stabilize. If adjustment is necessary, turn screw labeled 4, 10 on the front panel of the meter (see diagram) until the reading reaches 4.00 (or 10.00) exactly.
- 4. RECALIBRATE with #7.00 calibration fluid as step 1.
- 5. Rinse probe with fresh room temperature water.
- 6. RECALIBRATE with #4.00 (or 10.00) calibration fluid as step 3.

Continue the calibration between both fluids. The two-point calibration is fully complete when monitor will display both calibration fluids correctly without any adjustment necessary.

Maintenance and Cleaning

Given proper care, the *PINPOINT*® pH Monitor should last a lifetime. Clean the probe tip gently every 3–4 weeks using a SOFT TOOTHBRUSH with LONG BRISTLES. Push the probe tip down into the wet bristles and rotate the probe 3–4 times. This will clean the inner surfaces of the probe as well as the sensing glass and reference junctions. No other cleaners are necessary or recommended. The LCD glass should be cleaned occasionally with a non-abrasive glass cleaner and a soft cloth. Replacement of the probe is necessary to maintain performance. The probe should be discarded and

replaced when it can no longer be calibrated with 2 different calibration fluids. The useful life of a *PINPOINT*® **pH Probe** is approximately 18 months of continuous duty.

Important Points to Remember

- PINPOINT® pH Monitor has been designed as a continuous monitor.
 However, if you wish to activate the unit ON and OFF as needed, this will lengthen the battery life from months to years.
- PINPOINT® pH meter is NOT waterproof and must be operated on a dry surface. Liquid contact with the printed circuit board may cause corrosion and void warranty.
- The clear plastic cap must be removed from the tip of the probe so that pH values can be measured. A small amount of storage fluid may be expelled; this is normal.
- There may be some white salt (potassium chloride crystals) residue around the clear plastic cap. This is normal and can be washed off with water.
- Keep the sensing surface of the probe WET at all times. If the probe
 is to be transported or stored, the plastic cap must be filled with
 storage solution (4.00 calibration fluid + potassium chloride crystals)
 or 4.00 calibration fluid prior to being installed onto the probe.
- 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 and reference junctions of the probe every few weeks by using only a wet toothbrush.
- Replace the probe every 18 months for optimum performance.
- Check the calibration monthly to verify your pH readings.
- If you note a pH reading on the display that you would like to verify as correct. Place the probe into 2 different calibration fluids (e.g. 7.00 & 10.00) to verify that it can read the 2 fluids correctly. Recalibrate the meter if either, or both, of the 2 calibration fluids are displayed incorrectly.
- Do not allow air bubbles to accumulate under a vertically installed electrode.

Warranty

PINPOINT® pH 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 is within 48 hours. Overnight delivery available.

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