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**INSTRUCTION SHEET**  
**THE AMANI SERIES OF PLASTIC pH SENSORS**  
You DO NOT need external reference electrode!

Calibration:

The calibration procedure is similar to that of the glass electrode. The only difference is that an extra potential offset might be needed to display zero mV in pH 7.00 solution using a Potential Shifting Device (PSD), if the potential of the electrode, in pH 7.00, is more than  $\pm 60$  mV, depending on the model of the pH meter.

1. Connect the PSD through the BNC connector to the pH meter. Switch the pH meter to display mV.
2. Connect the electrode to the PSD.
3. Immerse the electrode in pH 7.00 solution and wait for a stable reading. Even though the electrode tip is 20 mm or longer, only, 1-2mm length is active. Consequently, there is no difference if 1 mm or the whole tip length is immersed in solution.
4. Adjust the mV reading to zero by adjusting the offset port of the PSD using a small screw driver. Next steps are similar to the glass electrode.
5. Switch the pH meter to display pH. Make sure the pH reading is 7.00. If not, adjust to pH 7.00 using pH adjustment of the pH meter.
6. Rinse the electrode with distilled water and immerse it in pH 4.00 or 10.00 buffer. Wait for a stable reading.
7. Adjust the pH meter to display the pH of the buffer (using slope adjustment.)
8. Rinse the electrode and immerse it back in pH 7.00 and make sure it reads 7.00 and zero mV. If not repeat the calibration.
9. After Calibration, the electrode should be kept in pH 7.00, ready to measure samples.
  - For maximum stability and reproducibility, we do not recommend keeping the electrode in a complex sample mixture for long time. Since the response time is only few seconds, it takes a maximum of 30 seconds to record the pH of the sample.
  - The temperature of the calibration buffer should be the same as the samples.

## SPECIFICATIONS

	AMANI-650	AMANI-1000	AMANI-1000-L
Tip diameter, micron	650	1000	1000
Tip length, mm	20	20	75
Construction	All plastic	All plastic	All plastic
Depth of immersion, micron	under 100	under 100	under 100
Minimum sample volume, nano-liter	250	500	500
Response time, 90% response	under 3 sec	Under 3 sec	Under 3 sec
Temperature range, C	0-100	0-100	0-100
Internal reference	Ag/AgCl	Ag/AgCl	Ag/AgCl
Slope	Nernstian	Nernstian	Nernstian
pH range	2-12	2-12	2-12
Storage	pH 7	pH 7	pH 7
Connector	BNC	BNC	BNC
Electrode holder OD/Length, mm	4.8/75	4.8/75	4.8/50
Cable length, FT	4	4	4