

# Phosphorus

## Handheld Colorimeters

- Easier to use and more accurate than chemical test kits
- Dedicated to a single parameter
- Small size, big convenience
- Ideal for aquaculture

Plants, algae and phytoplankton require phosphorus for nourishment and utilize phosphorous as a component of cell tissue. When organic matter such as plant tissue, dead fish, algae, or uneaten food breaks down aerobically (with oxygen), phosphate is produced. This results in rapid oxygen depletion of aquarium water, which in turn suffocates aquatic life and compounds the problem.

Phosphorus concentration in water is monitored because it causes corrosion when present in levels too high.

Both the Hanna HI736 and HI706 Checker®HC's bridge the gap between simple chemical test kits and professional instrumentation. The Hanna HI736 (for marine applications) and HI706 (for fresh water applications) are both accurate and affordable.

The HI736 Checker HC portable handheld colorimeter features a resolution of 1 ppb and  $\pm 5$  ppb  $\pm 5\%$  of reading accuracy and uses an adaptation of the Ascorbic Acid.



SPECIFICATIONS	HI736 (Marine ULR)	HI706 (HR)
Range	0 to 200 ppb (as P)	0.0 to 15.0 ppm (as P)
Resolution	1 ppb	0.1 ppm
Accuracy	$\pm 5$ ppb $\pm 5\%$ of reading @ 25 °C (77 °F)	$\pm 0.3$ ppm $\pm 5\%$ of reading @ 25 °C (77 °F)
Light Source	Light Emitting Diode @ 525 nm	
Light Detector	Silicon photocell	
Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 20th Edition, Ascorbic Acid Method. The reaction between phosphorus and the reagent causes a blue tint in the sample.	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th Edition, Heteropolymolybdenum Blue Method. The reaction between reactive phosphorus and the reagent causes a blue tint in the sample.
Environment	0 to 50 °C (32 to 122 °F); max. 95% RH non-condensing	
Battery Type	1.5V AAA Alkaline	
Auto-off	After 10 minutes of non-use and 2 minutes after reading	
Dimensions	86.0 x 61.0 x 37.5 mm (3.4 x 2.4 x 1.5")	
Weight	64 g (2.3 oz)	
ORDERING INFORMATION	<p><b>HI736</b> Checker®HC is supplied with sample cuvette and cap (2 pcs.), Marine Phosphorus Ultra Low Range reagent starter kit (reagents for 6 tests), 1.5V AAA Alkaline battery (1 pc.) and instruction manual.</p> <p><b>HI706</b> Checker®HC is supplied with sample cuvette and cap (2 pcs.), Phosphorus High Range reagent starter kit (reagents for 20 tests), 1.5V AAA Alkaline battery (1 pc.), and instruction manual.</p>	
Reagent Set	<b>HI736-25</b> Reagents for 25 Phosphorus Ultra Low Range tests	<b>HI706-25</b> Reagents for 40 Phosphorus High Range tests
Calibration Set	<b>HI736-11</b> Phosphorus Ultra Low Range certified standard kit	<b>HI706-11</b> Phosphorus High Range certified standard kit