

HI97115

# Marine Master Waterproof Wireless Multiparameter Photometer



### Backlit LCD

The 128 x 64 Pixel LCD allows for a simplified user interface.

### Method and Parameter

Chosen parameter and method used is displayed along with the reading.

### Battery status indicator and auto-shut off

The auto-off feature automatically shuts off the meter after 15 minutes of inactivity in order to conserve battery life.

### Large cuvette size

The sample cell of these photometers fits a round, glass cuvette with a 25 mm path length. The relatively long path length of the sample cuvette allows the light to pass through more of the sample solution, ensuring accurate measurements even in low absorbance samples. The cuvette holder features ridges to protect scratching of the optical path by the cuvette.

### Compact size

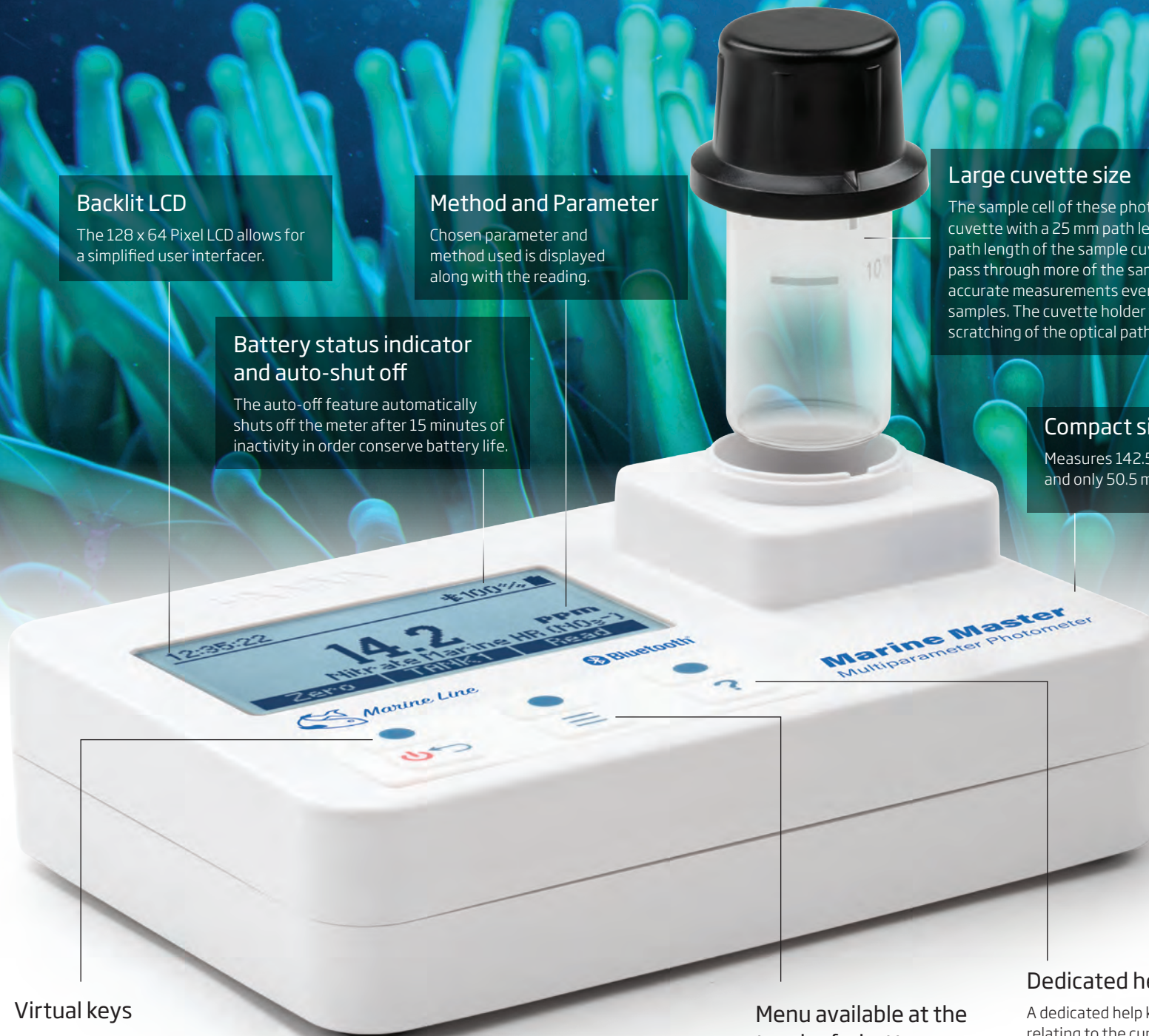
Measures 142.5 mm (5.6") x 102.5 mm (4") and only 50.5 mm (2") thick.

Virtual keys

Menu available at the touch of a button

### Dedicated help

A dedicated help key provides information relating to the current meter operation, and can be used at any stage in the setup or measurement process to show contextual help.





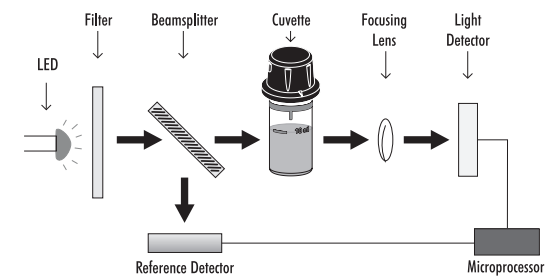
HI97115

## Marine Master Waterproof Wireless Multiparameter Photometer

pH, Alkalinity, Ammonia, Calcium, Magnesium, Nitrate Low Range, Nitrate High Range, Nitrite Ultra Low Range, Phosphate Ultra Low Range

The HI97115 is a compact and versatile Marine multiparameter photometer designed to accurately determine pH, Alkalinity, Ammonia, Calcium, Magnesium, Nitrate, Nitrite, and Phosphate levels in aquariums and marine biology applications. The HI97115 is suitable for field and bench measurements.

The HI97115 can be used as a stand-alone photometer or can be connected to the Hanna Lab App with a compatible smart device via the integrated Bluetooth module. When connected, Hanna Lab App functions include measurement with the ability to add notes, data logging with extended storage capacity, data sharing, and the ability to create and save method groups.



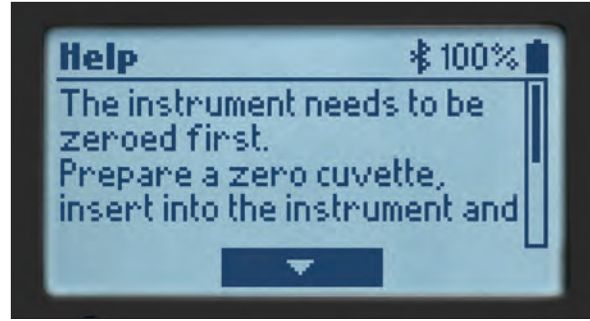
### Precise and advanced LED optical system

Innovative optical design that utilizes a reference detector and focusing lens to eliminate errors from changes in the light source and from imperfections in the glass cuvette.

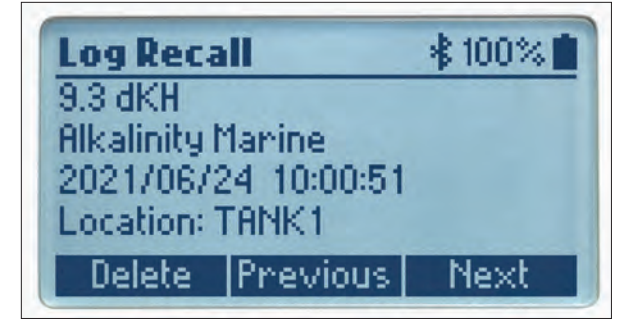
LEDs have a much higher luminous efficiency, providing more light while using less power. They also produce little heat, which could otherwise affect electronic stability.



Waterproof and floating IP67 meter design



Backlit LCD and on-screen help to guide users



Includes auto-data logging features to easily record water testing results

The instrument features a data autolog function to help users keep track of all measurements. Every time a measurement is made the data is automatically saved.

The data log can hold 200 individual measurements. When the data log is full (200 data points), the meter will rewrite the oldest data point.



Option to select measurement location for better tracking consistency



Built-in reaction timer that ensures consistency between tests.



CAL Check™ validation and calibration

Validate instrument performance at any time using CAL Check cuvettes made with NIST traceable standards. The CAL Check screen guides the user step-by-step through the validation process and user calibration. GLP data displays the last calibration date.



On-screen tutorial mode with animations

The built-in tutorial mode guides users step-by-step through the measurement process. It includes all steps required for sample preparation, the required reagents and quantities.

Tutorial mode can be easily enabled or disabled from the setup menu.



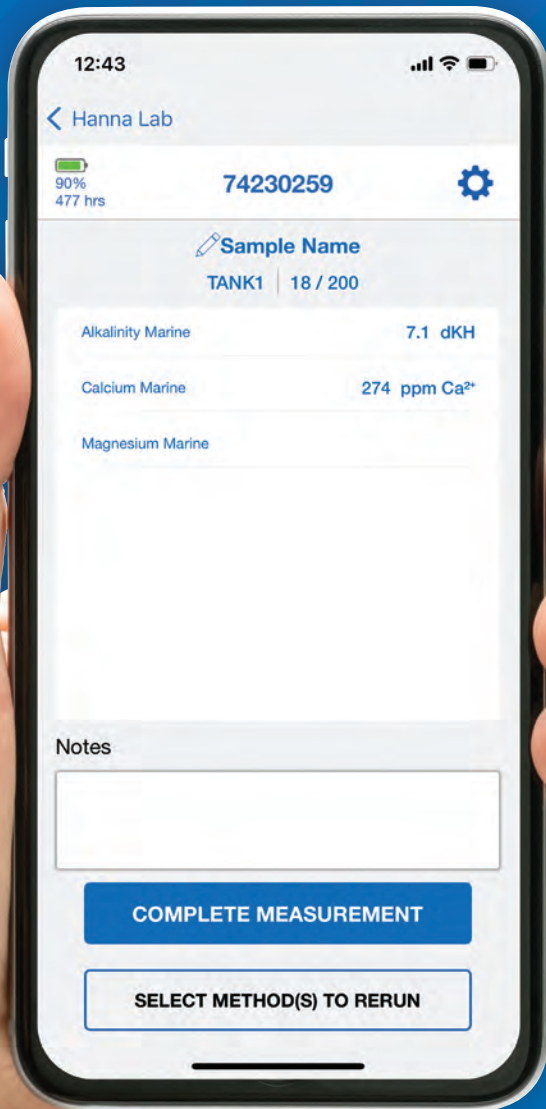
Positive locking system

The Hanna positive-locking system ensures cuvettes are placed into the holder in the same position every time.

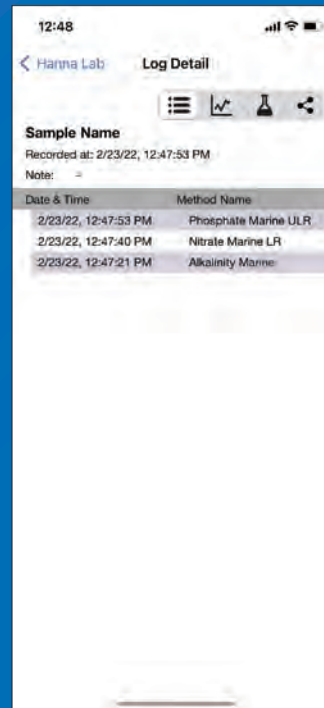


## Hanna Lab App

When used with the HI97115, the Hanna Lab App adds an enhanced user experience to a compatible smart device. Features include: measurement with the ability add notes, data logging with extended storage capacity, data sharing, and the ability to create and save method groups..



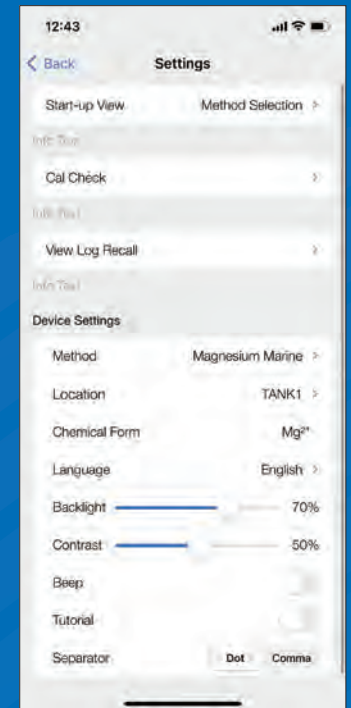
Samples can be named along with annotations



View logged detail with date and time



Share logged data in various formats



Control meter settings within the Hanna Lab App

## Specifications

Marine pH	Range	6.3 to 8.6 pH
	Resolution	0.1 pH
	Accuracy	±0.2 pH of reading at 25 °C
	Method	Colorimetric Adaptation of the Phenol Red Method
	LED	525 nm
Marine Alkalinity	Range	0.0 to 20.0 dKH
	Resolution	0.1 dKH
	Accuracy	±0.3 dKH ±5 % of reading at 25 °C
	Method	Colorimetric Method
	LED	610 nm
Marine Ammonia	Range	0.00 to 2.50 ppm (as NH <sub>3</sub> )
	Resolution	0.01 ppm
	Accuracy	±0.05 ppm ±5% of reading at 25 °C
	Method	Adaptation of the Salicylate Method
	LED	610 nm
Marine Calcium	Range	200 to 600 ppm
	Resolution	1 ppm
	Accuracy	±6% of reading at 25 °C
	Method	Adaptation of the Zincon Method
	LED	610 nm
Marine Magnesium	Range	1000 to 1800 ppm (as Mg <sup>2+</sup> )
	Resolution	5 ppm
	Accuracy	±5% of reading at 25 °C
	Method	Adaptation of the Colorimetric EDTA Method using calmagite indicator
	LED	610 nm
Marine Nitrate LR	Range	0.00 to 5.00 ppm (as NO <sub>3</sub> <sup>-</sup> )
	Resolution	0.01 ppm
	Accuracy	±0.25 ppm ±2% of reading at 25 °C
	Method	Zinc Reduction Method
	LED	525 nm
Marine Nitrate HR	Range	0.0 to 75.0 ppm (as NO <sub>3</sub> <sup>-</sup> )
	Resolution	0.1 ppm
	Accuracy	±2.0 ppm ±5% of reading at 25 °C
	Method	Zinc Reduction Method
	LED	525 nm
Marine Nitrite ULR	Range	0 to 200 ppb (as NO <sub>2</sub> <sup>-</sup> -N)
	Resolution	1 ppb
	Accuracy	±10 ppb ±4% of reading at 25 °C
	Method	Adaptation of the EPA Diazotization Method 354.1
	LED	525 nm

Marine Phosphate ULR	Range	0.00 to 0.90 ppm
	Resolution	0.01 ppm
	Accuracy	±0.02 ppm ±5% of reading at 25 °C
	Method	Adaptation of Standard Methods for the Examination of Water and Wastewater, 20th Edition, Ascorbic Acid Method
	LED	610 nm
Measurement system	Light source	LED
	Bandpass filter	wavelength 525 nm & 610 nm bandwidth 8 nm wavelength accuracy ±1.0 nm
	Light detector	silicon photocell
	Cuvette Type	round 24.6 mm diameter (22 mm inside diameter)
	Additional Specifications	Auto logging 200 readings
	Display	128 x 64 pixel B/W LCD with backlight
	Auto-off	after 15 minutes of inactivity (30 minutes before a READ measurement)
	Battery type / Life	alkaline 1.5 V AA (3) / > 800 measurements (without backlight)
	Environment	0 to 50 °C (32 to 122 °F); 0 to 100% RH, non-serviceable
	Dimensions	142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")
	Weight	380 g (13.4 oz.); with batteries
	Casing	IP67 rating, floating
Ordering Information	<p><b>HI97115</b> is supplied with sample cuvette (2 pcs.), sample cuvette cap (2 pcs.), 1.5V AA alkaline batteries (3 pcs.), instrument quality certificate, and quick reference guide with QR code for instruction manual download.</p> <p>CAL Check standards and testing reagents sold separately</p> <p><b>HI97115C*</b> is delivered in a rugged carrying case and is supplied with sample cuvette (2 pcs.), sample cuvette cap (2 pcs.), marine pH reagent, 30 mL dropper (1 pc.), Marine Alkalinity reagent, 30 mL bottle (1 pc.), Marine Ammonia starter kit - reagent A and C, 30 mL dropper (2 pcs., 1 of each), reagent B (reagent for 25 tests), Marine Calcium starter kit - reagent A, 30 mL bottle (1 pc.), reagent B (reagent for 25 tests), Marine Magnesium starter kit - reagent A, 120 mL bottle (1 pc.), reagent B, 30 mL bottle (1 pc.), Marine Nitrate High Range reagent (reagent for 25 tests), Marine Nitrite Ultra Low Range reagent (reagent for 25 tests), Marine Phosphate Ultra Low Range reagent (reagent for 25 tests), 1 mL graduated syringe with tip (3 pcs.), minipipette with tip (1 pc.), 3 mL Pasteur pipette (2 pcs.), 5 mL syringe (black printing) and tip (1 pc.), 5 mL syringe (blue printing) and tip (1 pc.), 1.5V AA Alkaline batteries (3 pcs.), cloth for wiping cuvettes, scissors, instrument quality certificate, and quick reference guide with QR code for instruction manual download.</p> <p>CAL Check standards sold separately. Nitrate LR testing reagent not included.</p> <p>*HI97115UC is ordering code for USA</p>	

Reagents and Standards	<b>HI97105-11</b> CAL Check™ standards for HI97115 - cuvette kit
	<b>HI758-26</b> marine calcium reagent - 25 tests
	<b>HI758U-26</b> marine calcium reagent - 25 tests (ordering code in the USA)
	<b>HI764-25</b> marine nitrite ULR reagent - 25 tests
	<b>HI772-26</b> marine alkalinity reagent - 25 tests
	<b>HI774-25</b> marine phosphate ULR reagent - 25 tests
	<b>HI780-25</b> marine pH Reagent - approx. 100 tests
	<b>HI740273</b> marine nitrate LR measurement kit (1 pc.)
	<b>HI781-25</b> marine nitrate LR Reagent - 25 tests
	<b>HI782-25</b> marine nitrate HR reagent - 25 tests
Accessories	<b>HI783-25</b> marine magnesium reagent - 25 tests
	<b>HI784-25</b> marine ammonia reagent - 25 tests
	<b>HI70436M</b> Deionized water (230 mL)
	<b>HI7101419</b> Blue carrying case for Marine Master photometer
	<b>HI731318</b> Cloth for wiping cuvettes (4 pcs.)
	<b>HI731360</b> Glass cuvette with cap (2 pcs.)
	<b>HI731339P</b> 0.1 mL minipipette
	<b>HI731349P</b> Tip for 0.1 mL minipipette (10 pcs.)
	<b>HI740142P</b> 1 mL graduated syringe (10 pcs.)
	<b>HI740143</b> 1 mL graduated syringe (6 pcs.)
<b>HI740144P</b> Plastic tip for 5 mL syringe (10 pcs.)	
<b>HI740157P</b> Plastic refilling pipette (20 pcs.)	
<b>HI740226</b> 5 mL graduated syringe with black printing (1 pc.)	
<b>HI740237</b> 5 mL graduated syringe with blue printing (1 pc.)	
<b>HI740228</b> Filter disc (25 pcs.)	
<b>HI740270</b> 10 mL syringe with Luer Lock (1 pc.)	
<b>HI740271</b> Filter holder with Luer Lock (1 pc.)	
<b>HI740272</b> 16 gauge blunt needle (6 pcs.)	
<b>HI740273</b> Marine Nitrate LR measurement kit (1 pc.)	
<b>HI93703-50</b> Cuvette cleaning solution (230 mL)	

[www.hannainst.com](http://www.hannainst.com)