

The left side of the image features a light gray background with several water droplets of various sizes scattered across it. The droplets are rendered with soft shadows and highlights, giving them a three-dimensional appearance. The text is centered on this background.

COLLECTING DATA ON WATER CHEMISTRY

DAVID SCHUTZ





FIELD WORK



Depth



Transparency



Physical
Properties

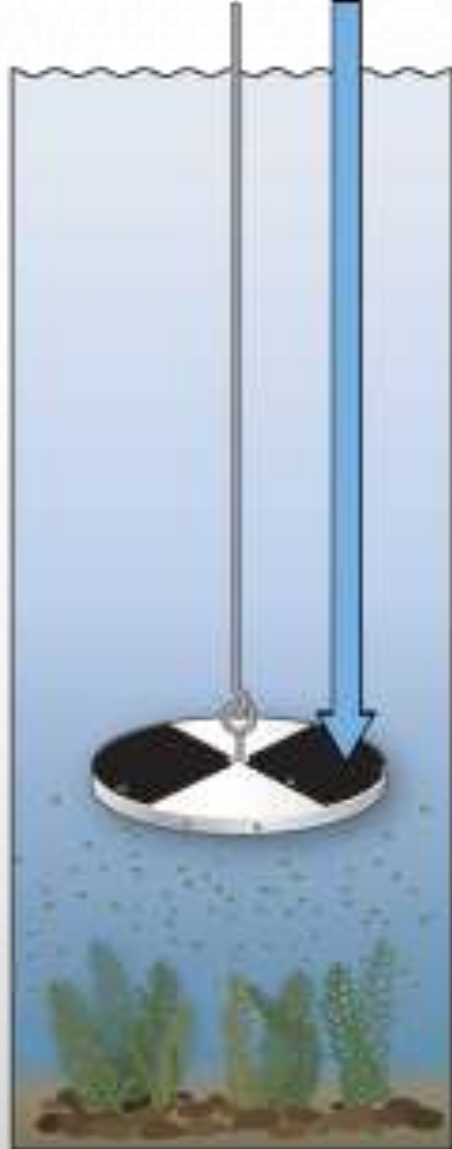
FISH FINDER

Water Depth
Temperature
Fish Depth
Fish Icon
Bottom Contour

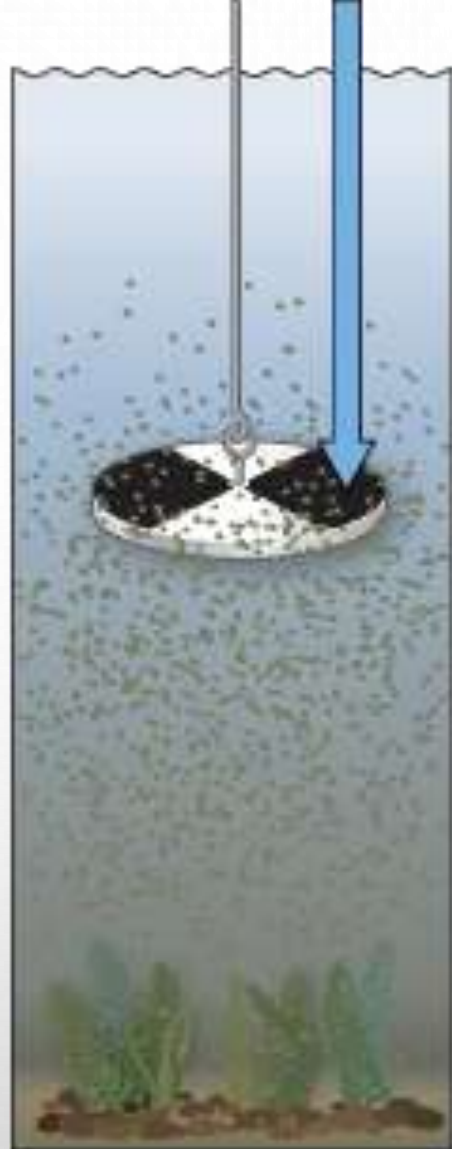


Simulation Mode
Receiver Battery Indicator
Transducer Battery Indicator
Depth Scale
Depth Range

Secchi disk



clear water



cloudy water





HID5134
MULTI-METER

- ESC
- HELP
- 1 μ
- 2 mV
- 3 mV
- 4 Ω
- 5 μ
- 6 mV
- 7 pps
- 8 Hz
- Diode
- 0
- .





Lab Work Nutrients and Turbidity



FIELD WORK



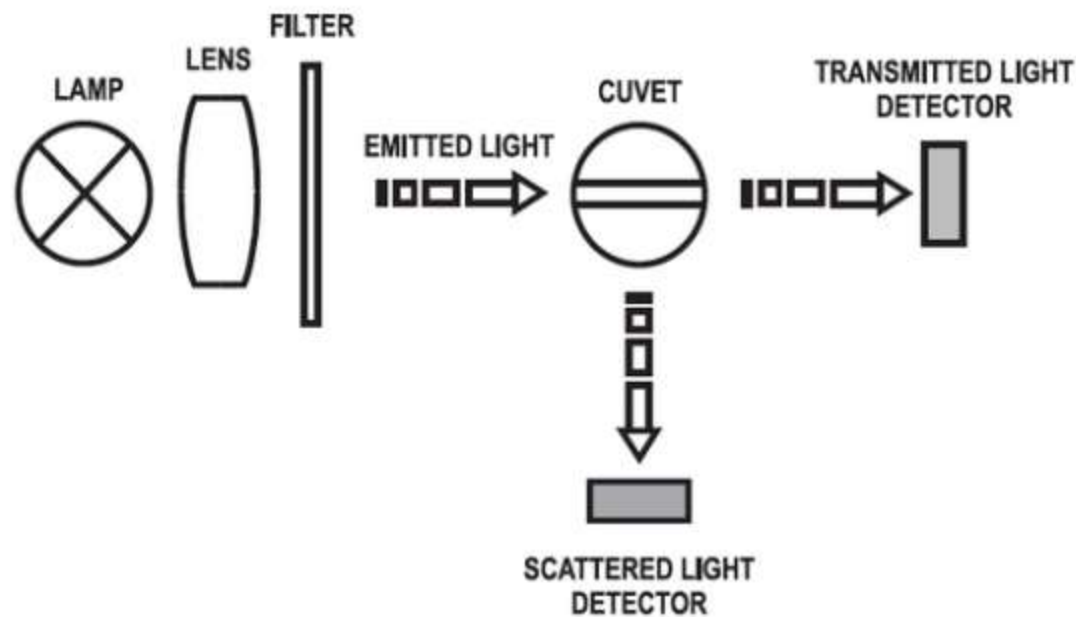
Phosphate



Nitrogen as
Ammonia



Turbidity



Principle of Operation

The light beam that passes through the sample is scattered in all directions. The intensity and pattern of the scattered light is affected by many variables, such as wavelength of the incident light, particle size and shape, refractive index, and color. The optical system of the HI98703 includes a tungsten filament lamp, a scattered light detector (90°) and a transmitted light detector (180°).

In the ratio turbidimeter range, the microprocessor of the instrument calculates the NTU value from the signals that reach the two detectors by using an effective algorithm that corrects and compensates for interferences of color. The optical system and measuring technique also compensate for fluctuations in lamp intensity, minimizing the need for frequent calibration.

In the non-ratio turbidimeter range, the NTU value is calculated from the signal on the scattered light detector (90°). This method offers a high linearity on the low range but is more sensitive to lamp intensity fluctuations. The lower detection limit of a turbidimeter is determined by stray light that is detected by the sensors but not caused by light scattering from suspended particles. The optical system of the HI98703 is designed to have very low stray light, providing highly accurate results for low turbidity samples.



Measurement Procedure

- Press the ON/OFF button to turn the checker on. All segments will be displayed for a few seconds, followed by "Add", "C1" with "Press" blinking.



- Fill the cuvette with 10 mL of unreacted sample and replace the cap. Insert the cuvette into the checker and close the cap.



- Press the ON/OFF button. When the display shows "Add", "C2" with "Press" blinking, the checker is zeroed.



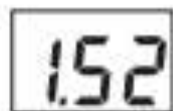
- Remove the cuvette, unscrew the cap and add the content of one packet of HI713-0 Phosphate Low Range reagent. Replace the cap and shake gently for 2 minutes until the powder is completely dissolved.



- Insert the cuvette into the checker and close the cap. Press and hold the ON/OFF button. The display will show the countdown prior to the measurement. Alternatively, wait 3 minutes and press the button.



- When the timer ends the checker will perform the reading. The instrument displays the phosphate concentration in ppm. The checker automatically turns off 2 minutes after reading.

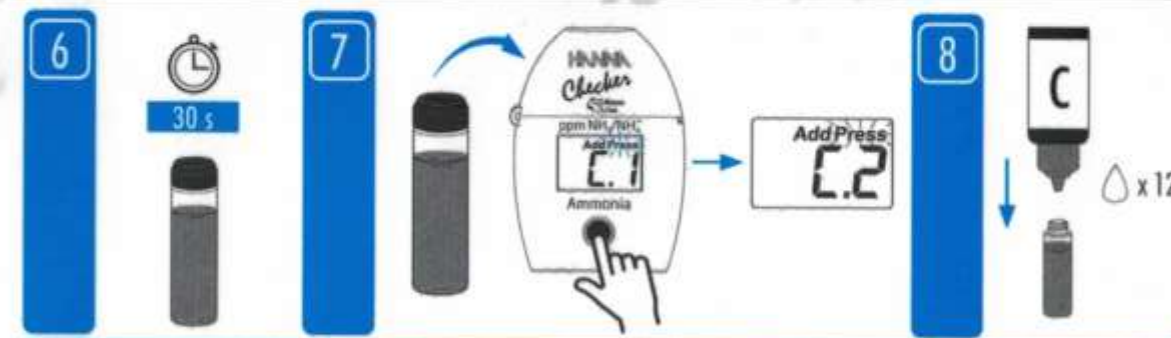
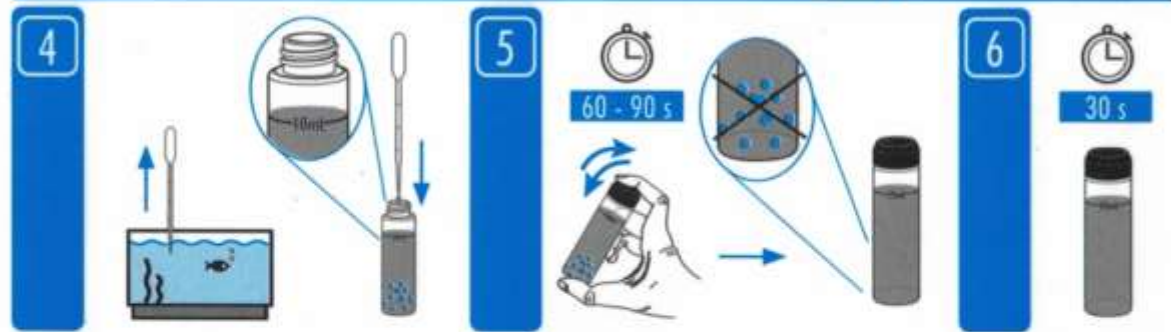
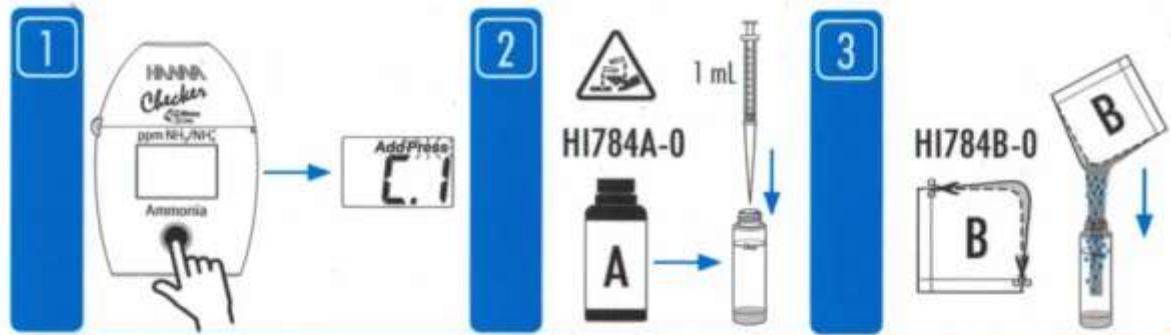


How to Use



The HI784
Marine
Ammonia
Checker®











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