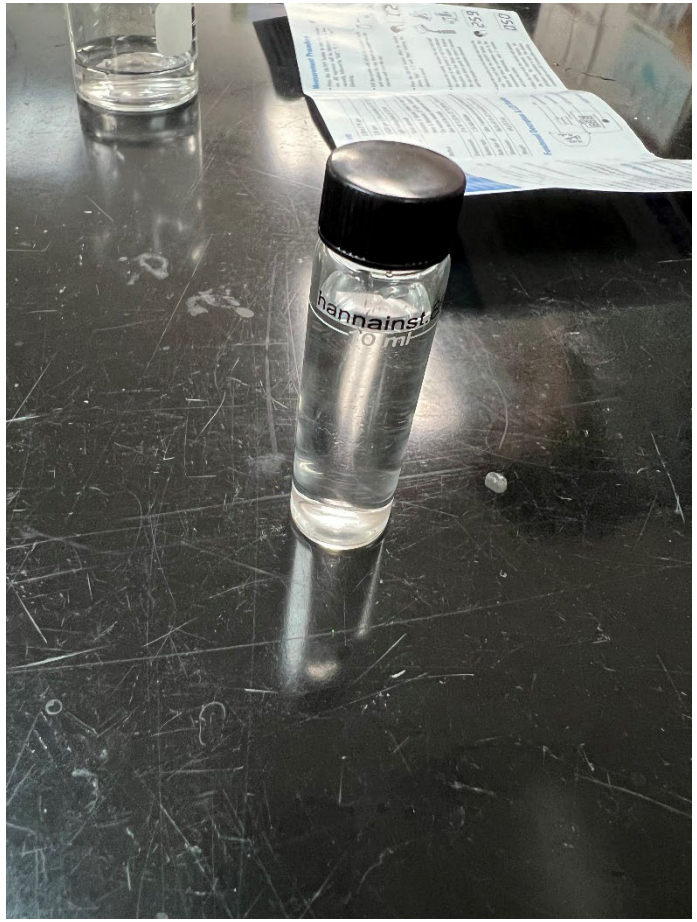
How to use the **Alkalinity** Hanna meter

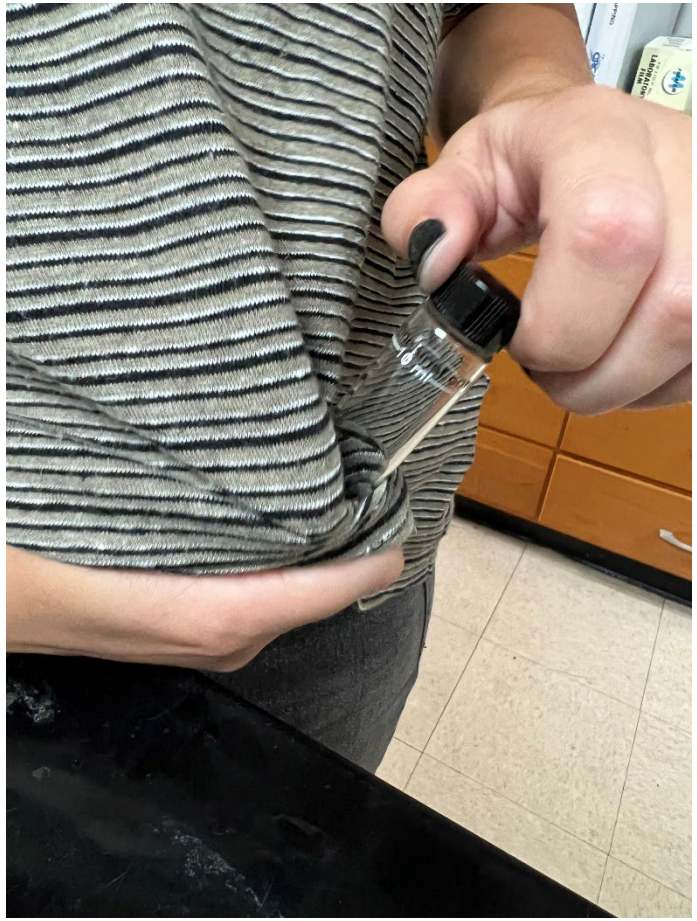
Step 1: **Tap** the on/off button to turn the checker on

Note: All segments will be displayed for a few seconds, followed by “ADD”, “C1”, with “Press” blinking

Step 2: Fill the cuvette with **10ml of sample** and replace the cap



Step 3: **Wipe off the cuvette**. Make sure there are no droplets on the outside of the cuvette



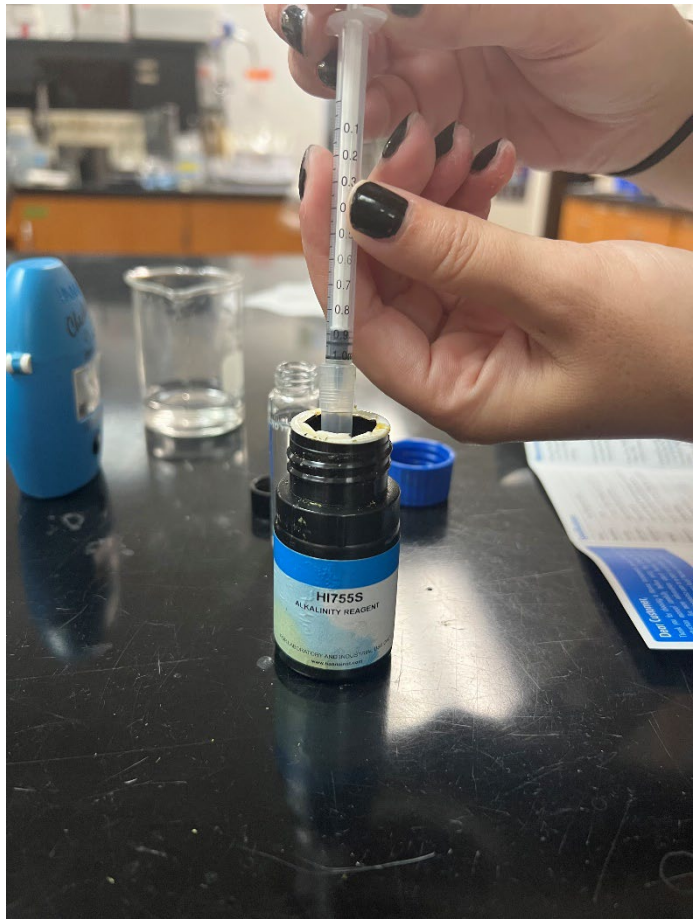
Step 4: Insert the cuvette into the checker and close lid

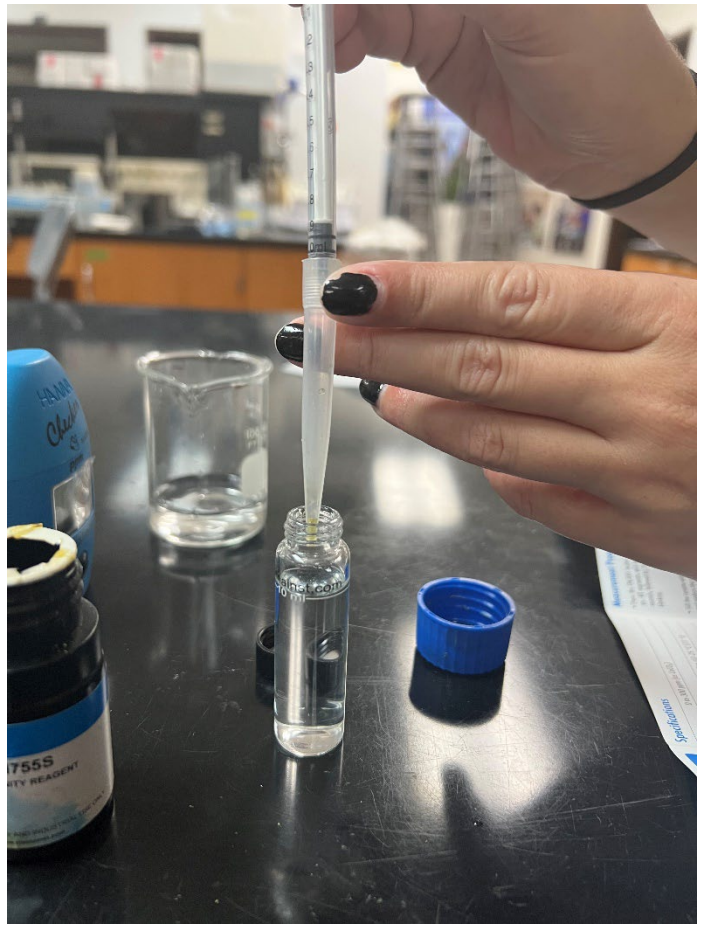
Step 5: **Tap** the on/off button
When the display shows “ADD”, “C.2”, with “Press” blinking, the checker is zeroed

Step 6: Remove the cuvette, **Invert** 5 times and unscrew the top

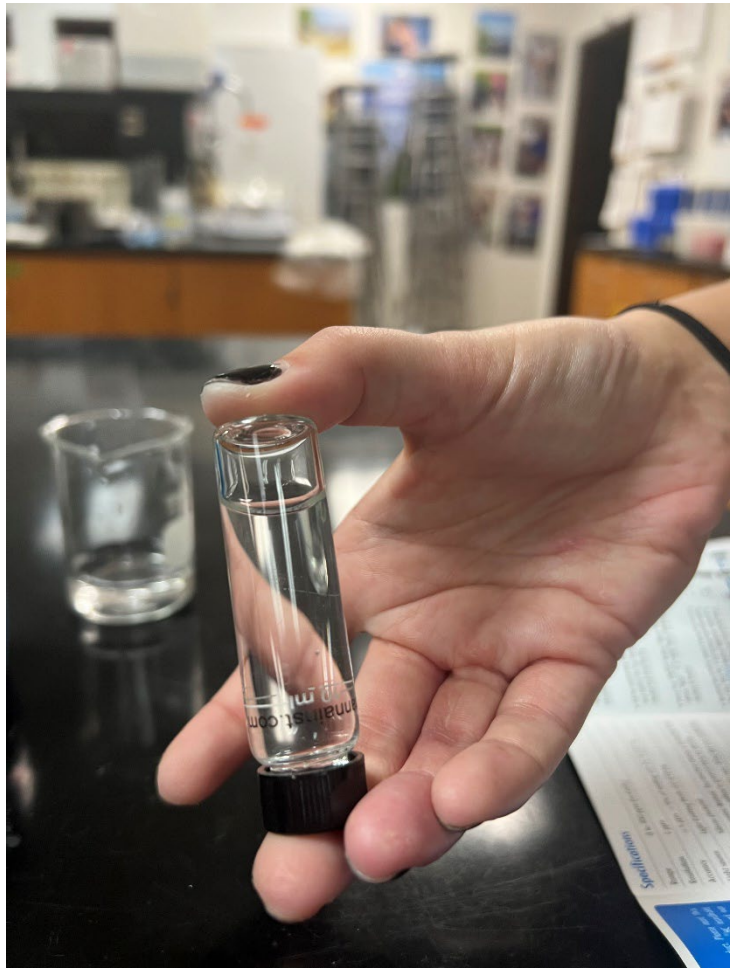
Step 7: Use 1 ml syringe and add exactly 1 ml of HI755S Marine Alkalinity reagent to the sample.

Note: 1 ml is at the bottom of the plunger





Step 8: Replace the cap and **gently** invert 5 times



Step 9: Insert the cuvette into the checker and close the cap

Step 10: Press the on/off button. The instrument display the alkalinity concentration in ppm.

The buffering effect of alkalinity exerts a major influence on pH, and pH directly affects aquatic organisms and the toxic characteristics of certain pollutants that these organisms may encounter. Alkalinity also protects aquatic life against dramatic changes in pH; these changes are difficult for living organisms to adapt to and can severely stress and even kill sensitive species. Thus it is crucial that surface waters exhibit a minimal level of alkalinity to restrict dramatic pH swings.

Measured in mg/l

Percentile	Blackwater	Coastal	Estuary
10	0.30	0.00	50.17
20	0.80	29.19	66.31
30	1.00	55.44	83.05
40	2.00	94.40	97.00
50	6.00	114.00	108.00
60	10.00	118.00	114.11
70	10.00	121.00	121.80
80	23.00	126.00	133.00
90	44.00	133.00	160.00

1mg/l = 1ppm: A reading of 108 ppm is a median reading in a Florida estuary.

Water Test Error Code Cheat Sheet:

Error Code	Meaning
L.Hi	Too much light hitting detector, check preparation of zero cuvette.
L.Lo	Not enough light hitting detector, check preparation of zero cuvette.
lnu	Sample and zero cuvettes inverted. Swap and repeat measurements.
0 (blinking)	Under range (sample absorbed less light than zero).
300 (blinking)	Over range (Measured value outside limits of checker device). Make sure there is no debris in sample and dilute/repeat.
bAt	Replace battery.
bAd	Replace battery.

Indian River Lagoon Water Quality Parameter Cheat Sheet:

Water Quality Test	Average Range in IRL	Unit
Temperature	75-85	Degrees Fahrenheit
PH	6-8	No unit
Salinity	15-25	PPT (parts per thousand)
Nitrates	0.01-0.10	PPM (parts per million)
Nitrites	0.00-0.02	PPB (parts per billion)
Phosphates	0.02-0.22	PPM (parts per million)
Alkalinity	66-133	PPM (parts per million)
Turbidity	0-100 JTU 0-450 cm	JTU (Jackson Turbidity Unit) if using LaMotte kit or cm (centimeters) if using secchi disk- probes may have different units
DO	0-5	PPM (parts per million)