Instruction Manual

HI 3881/O
pH 6.0-8.5
Test Kit

HANNA instruments

www.hannainst.com

Dear Customer,

Thank you for choosing a Hanna Product.

Please read the instructions carefully before using the chemical test kit. It will provide you with the necessary information for a correct use of the kit.

Remove the chemical test kit from the packing material and examine it carefully to make sure that no damage has occurred during shipping. If there is any noticeable damage, notify your Dealer or the nearest Hanna office immediately.

Each kit is supplied with:

- HI 3881-0 pH 6.0-8.5 Reagent, 1 bottle with dropper (25 mL);
- Dechlorinating Reagent, 1 bottle with dropper (10 mL), to be used in presence of chlorine above 50 ppm;
- 1 color comparator cube.

Note: Any damaged or defective item must be returned in its original packing materials.

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SPECIFICATIONS

Range	6.0 to 8.5 as pH unit
Smallest Increment	0.5 as pH unit
Analysis Method	Colorimetric
Sample Size	5 mL
Number of Tests	100
Case Dimensions	115x102x82 mm (4.5x4.0x3.2")
Shipping Weight	150 g (5.3 oz.)

SIGNIFICANCE AND USE

pH represents acidity or alkalinity of an aqueous solution and is proportional to the hydrogen-ion concentration of the solution. Under neutral conditions water is dissociated into the OH^- and H^+ ions in equal ratio and hence it has a pH of 7. When bases or acids are added to a water solution they ionize, increasing the concentration of OH^- or H^+, respectively. Thus solutions with a pH of 1-3 contain strong acids, whereas those with a pH of 4-6 contain weak acids. Weak bases result in solutions of pH 8-10 and strong bases in pH of 11-13.

Examples of pH value for some liquids:

Liquid	pH Value
sea water	7.8-8.2
gastric juices	1.7
milk	6.5-7
soil	6-7 (optimum for crops)

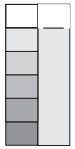
CHEMICAL REACTION

HI 3881-0 Hanna Reagent reacts in contact with the aqueous solution changing its color according to the hydrogen-ion concentration (pH) in the given range.

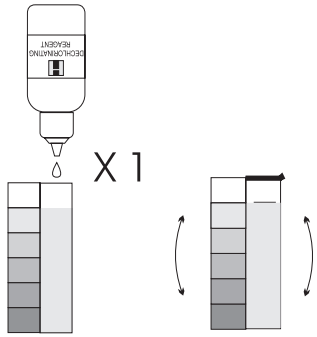
INSTRUCTIONS

READ THE ENTIRE INSTRUCTIONS BEFORE USING THE KIT

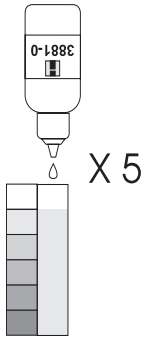
- **Note:** always shake the HI 3881-0 reagent bottle before use.
- Fill the color comparator cube with 5 mL of the sample.



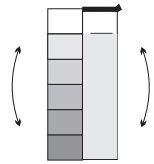
- In case of concentration of chlorine above 50 ppm, add one drop of **Dechlorinating Reagent** to the sample. Replace the cap and mix by inverting the cube several times.



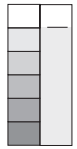
- Add 5 drops of reagent **HI 3881-0.**



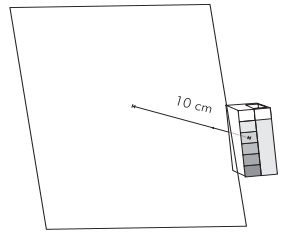
- Replace the cap and mix the solution by inverting the cube several times.



- Determine which color best matches the solution in the cube and record the result as pH unit.



- It is better to match the color with a white sheet at about 10 cm behind the color comparator cube.



Note: To measure pH in the 4.0-6.5 range use the **HI 3880** pH 4.0-6.5 Test Kit.

To measure pH in the 7.5-10.0 range use the **HI 3886** pH 7.5-10.0 Test Kit.

REFERENCES

Vogel's
Quantitative Chemical Analysis
5th Ed.
Longman Scientific & Technical.

HEALTH AND SAFETY

The chemicals contained in this kit may be hazardous if improperly handled. Read Health and Safety Data Sheet before performing this test.