ELaMotte

Water Quality AT 38/40 Demo Outfit

Instruction Mat for Demo Kits

Precipitation Demonstration

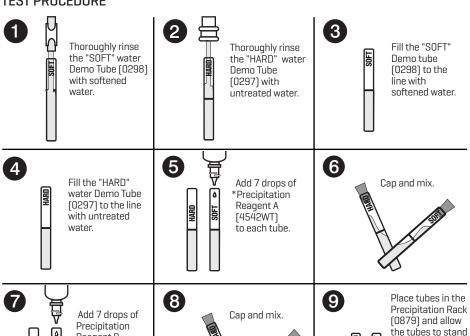
NOTE: This portion of the AT-38/40 Water Quality Demo Kit is ONLY a visual demonstration illustrating the removal of Calcium and Magnesium ions from tap water after treatment by the ion exchange process. The results should not be interpreted beyond the intent of the demonstration.

TEST PROCEDURE

Reagent B

(4543WT)

to each tube



Total Hardness

TEST PROCEDURE



Thoroughly rinse the sample tube (4488) with the water to he tested

Swirl to mix.

Counting the number of drops and

Reagent #7

clear blue.

swirling hetween

drops, add Hardness

(4487WT) one drop

red color changes to

at a time until the



5

Fill the sample tube (4488) to the desired line** with the sample water.

Add either 1

Reagent #6

or 5 drops of

*Hardness

Reagent #6

Tablet (4484A)

Hardness



Add 5 drops of *Hardness Reagent #5 (4483).



Solution will turn red if harness is present. If solution is blue. there is no measurable amount of hardness.

Multiply the number of drops used in Step 7 as follows:

Tube filled to middle line: each drop equals 1 gpg Hardness as

Tube filled to upper line: each drop equals 10 ppm Hardness as

Tube filled to lower line: each drop equals 20 ppm Hardness as

** When the tube is filled to upper line, each drop of Hardness Reagent #7 is equal to 10 ppm. When the tube is filled to middle line, each drop of Hardness Reagent #7 is equal to 1 gpg. When the Hardness level is over 200 ppm, fill to lower line. Each drop of Hardness Reagent #7 is egual to 20 ppm.

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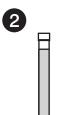
Ha

TEST PROCEDURE



for 5 minutes.

Heavy precipitate Insert Wide Range pH Octa-Slide 2 Bar (3483-01) into the Octa-Slide 2 Viewer (1101).



Fill a test tube (0106) to the 10 mL line with sample water.

the viewer so

light enters

through the

that non-direct



Add 8 drops of *Wide Range pH Indicator (2218).





Match sample color to a color standard. Record as pH.

Soap Demonstration

TEST PROCEDURE



Thoroughly rinse the "SOFT" water flask (0453) with softened water.



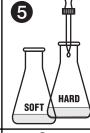
Thoroughly rinse the "HARD" water flask (0452) with untreated water



Fill the "HARD" flask (0452) with untreated water until the bottom surface is covered with a layer of water about 1/2" deep.



Fill the "SOFT" flask (0453) with softened water to the same level.



With the pipet (0392), add 4 drops of *Soap Reagent #4 (4767) to each flask





A thick lather will form in the softened water



HARD \

Continue to add *Soap Reagent #4 (4767), one drop at a time, to the untreated "HARD" water, shake periodically until a lather forms. Count the number of drops added.

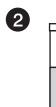


Iron

TEST PROCEDURE



Insert Iron Octa-Slide 2 Bar (4448-01) into the Octa-Ślide 2 Viewer (1101).



Fill a test tube (0106) to the 5 mL line with the water sample.



Add 5 drops of *Iron Reagent #1 [4450].

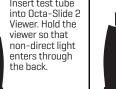


Use the 0.05a spoon (0696) to add 0.05q of *Iron Reagent #2 [4451].





Insert test tube



Match sample color to a color standard. Record as ppm Iron.





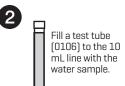
Optional Tests for Demo Kits

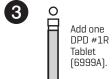


TEST PROCEDURE



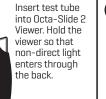
Insert DPD Octa-Slide 2 Bar (3401-01) into the Octa-Slide 2 Viewer (1101).











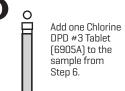
Match sample color to a color standard. Record as ppm Free Available Chlorine.



Retain this sample if Total Residual and Combined Chlorine are to be determined.



Insert DPD Octa-Slide 2 Bar (3401-01) into the Octa-Ślide 2 Viewer (1101).









Match sample color to a color standard. Record as ppm Total Residual Chlorine.

TDS

See TRACER Salt/EC/TDS PockeTester Manual (Code 1749).



*Reagent is a potential health hazard. READ SDS: lamotte.com **Emergency information:** Chem-Tel USA 1-800-255-3924 Int'l, call collect, 813-248-0585











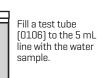
Nitrate Nitrogen

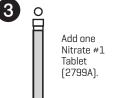
TEST PROCEDURE



Insert Nitrate-Nitrogen Octa-Slide 2 Bar (3494-01) into the Octa-Slide 2 Viewer (1101).



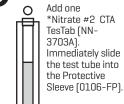




Match sample











Wait 5 minutes. Remove the tube from the Protective Sleeve.





Insert test tube into Octa-Slide 2 Viewer. Hold the viewer so that non-direct light enters through the back.



To convert to Nitrate, multiply results by 4.4. Record as ppm Nitrate. NOTE: Nitrate #2 CTA Tablets (NN-3703A) are sensitive to UV light. If testing indoors, there is no need to use the Protective Sleeve in this procedure.

