LaMotte

COMBINATION OUTFIT

FOR GENERAL WATER ANALYSIS

INSTRUCTION MANUAL

MODEL AR-02 · CODE 4783-02
MODEL AR-42 · CODE 3590-02

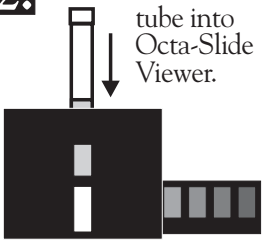
USE OF THE OCTA-SLIDE COMPARATOR

The Octa-Slide Viewer should be held so non-direct light enters through the back of the comparator. With sample tube inserted at top, slide the Octa-Slide bar through the viewer and match with color standard.

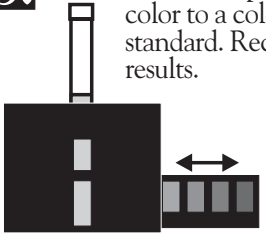
To Use:

1. Insert the Octa-Slide Bar into the Octa-Slide Viewer (1100).

2. Insert test tube into Octa-Slide Viewer.



3. Match sample color to a color standard. Record results.



COMBINATION WATER OUTFIT

MODEL AR-02 • CODE 4783-02
MODEL AR-42 • CODE 3590-02

QUANTITY	CONTENTS	CODE
15 mL	*Hardness Reagent #5	*4483-E
100	Hardness Reagent #6 Tablets	4484-J
60 mL	Hardness Reagent #7	4487WT-H
30 mL	*Iron Reagent #1	*4450-G
4.5 g	*Iron Reagent #2 Powder	*4451-S
30 mL	*Wide Range Indicator	*2218-G
30 mL	*Sulfide Reagent A	*4458-G†
15 mL	*Sulfide Reagent B	*4459-E†
60 mL	Sulfide Reagent C	4460-H†
1	Test Tube, w/cap	4488
1	Spoon, 0.05 g, plastic	0696
4 (6†)	Test Tubes, plastic, 2.5-5-10 mL, w/caps	0106
1	Pipet, 1.0 mL, plastic	0354
1	Iron Octa-Slide Bar, 0.5-10.0 ppm	3411
1	Wide Range pH Octa-Slide Bar, 5.0-10.0 ppm	3483
1	Sulfide Octa-Slide Bar, 0.2-20 ppm	3414†
1	Octa Slide Viewer	1100

***WARNING:** Reagents marked with a * are considered to be potential health hazards. To view or print a Material Safety Data Sheet (MSDS) for these reagents see MSDS CD or www.lamotte.com. To obtain a printed copy, contact LaMotte by e-mail, phone or fax.

To order individual reagents or test kit components, use the specified code number.

†*Model AR-42 Only*

TOTAL HARDNESS TEST PROCEDURE

1. 

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

upper line: 1 drop = 10 ppm $CaCO_3$
middle line: 1 drop = 1 gpg $CaCO_3$
lower line: 1 drop = 20 ppm $CaCO_3$.

2. 

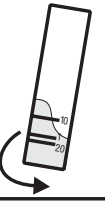
Add 5 drops of *Hardness Reagent #5 (4483).

3. 

Swirl to mix.

4. 

Add 1 Hardness Reagent #6 Tablet (4484).

5. 

Swirl until tablet has disintegrated. Solution will turn red.

6. 

While gently swirling the tube, add Hardness Reagent #7 (4487WT) one drop at a time until the red color changes to blue. Hold bottle vertically. Count the number of drops added.

7. Multiply the number of drops used in Step 6 as follows:

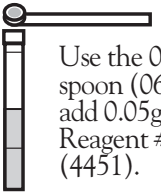
upper line: multiply by 10 = ppm Hardness as $CaCO_3$
middle line: multiply by 1 = gpg Hardness as $CaCO_3$
lower line: multiply by 20 = ppm Hardness as $CaCO_3$

IRON TEST PROCEDURE

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

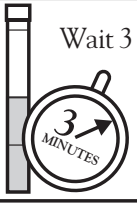
2. Add 5 drops of *Iron Reagent #1 (4450). Cap and mix.

3. Use the 0.05g spoon (0696) to add 0.05g of *Iron Reagent #2 Powder (4451).



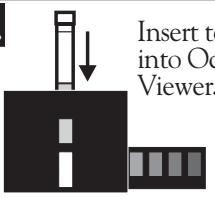
4. Cap and gently shake until powder dissolves.

5. Wait 3 minutes.

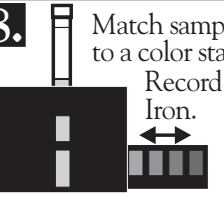


6. Insert Iron Octa-Slide Bar (3411) into the Octa-Slide Viewer (1100).

7. Insert test tube into Octa-Slide Viewer.



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

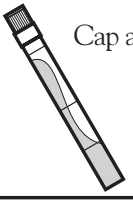


pH TEST PROCEDURE

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

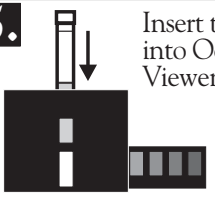
2. Add 10 drops of *Wide Range Indicator (2218).

3. Cap and mix.

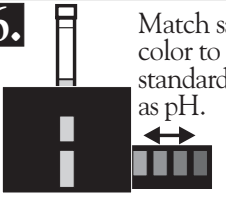


4. Insert Wide Range pH Octa-Slide Bar (3483) into the Octa-Slide Viewer (1100).

5. Insert test tube into Octa-Slide Viewer.



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



TOTAL SULFIDE TEST PROCEDURE†

†*Supplied only with Model AR-42 • Code 3590-02*

NOTE: Collect sample with a minimum of aeration and analyze promptly.

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

2. Add 15 drops of *Sulfide Reagent A (4458). Cap and gently invert to mix.

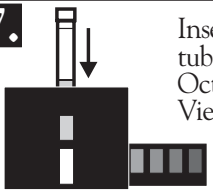
3. Add 3 drops of *Sulfide Reagent B (4459). Cap and mix.

4. Wait 1 minute.

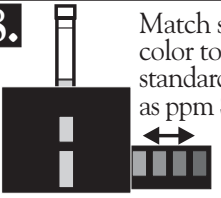
5. Use the pipet (0354) to add 1.0 mL of Sulfide Reagent C (4460). Cap and mix.

6. Insert Sulfide Octa-Slide Bar (3414) into the Octa-Slide Viewer (1100).

7. Insert test tube into Octa-Slide Viewer.



8. Match sample color to a color standard. Record as ppm Sulfide.



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