

**COLOR COMPARISON TEST**  
**FREE, COMBINED & TOTAL CHLORINE (0.1-2.0 ppm)**  
**pH (6.8-8.2)**

**COMPONENTS:**

**Chlorine**

- 1 x R-0001-A DPD Reagent #1, .75 oz, DB
- 1 x R-0002-A DPD Reagent #2, .75 oz, DB
- 1 x R-0003-A DPD Reagent #3, .75 oz, DB

**pH**

- 1 x 4028 Pipet, Calibrated (0.5 mL) w/ cap, plastic
- 1 x R-1003J-A pH Indicator Solution (Phenol Red), .75 oz

**APPARATUS:**

- 1 x 3243 Cap, Test Cell (11.5 mL), plastic
- 1 x 4024 Test Cell, Calibrated (11.5 mL), plastic
- 1 x 5147 Instruction
- 1 x 6002 Brush, Test Cell
- 1 x 9053 Midget Comparator, pH, Phenol Red, 6.8-8.2
- 1 x 9241 Midget Comparator, Chlorine (free/total), DPD, 0.1-2.0 ppm

**TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE**  
**800-TEST KIT (800-837-8548).**

**PROCEDURE:**

**CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS.**  
**KEEP REAGENTS AWAY FROM CHILDREN.**

NOTE: When dispensing reagents from dropper bottles, **always** hold bottle in a vertical position.

**Free, Combined & Total Chlorine Test**

1. Rinse and fill 11.5 mL test cell (#4024) to mark with water to be tested.
2. Add 5 drops R-0001 DPD Reagent #1 and 5 drops R-0002 DPD Reagent #2. Cap and mix.
3. Wipe dry and place in comparator (#9241) WITH FROSTED SIDE FACING OPERATOR.

**Instr. #5147**

4. Match color in test cell with a color standard. Record as parts per million (ppm) free chlorine ( $Cl_2$ ).
5. Add 5 drops R-0003 DPD Reagent #3. Cap and mix.
6. Wipe dry and place in comparator WITH FROSTED SIDE FACING OPERATOR.
7. Match color. Record as parts per million (ppm) total chlorine ( $Cl_2$ ).
8. Subtract free chlorine (FC) from total chlorine (TC). Record as parts per million (ppm) combined chlorine (CC) as  $Cl_2$ .  
Formula:  $TC - FC = CC$

**pH Test**

1. Rinse and fill 11.5 mL test cell (#4024) to 11.5 mL mark with water to be tested.
2. Using 0.5 mL pipet (#4028), add 0.5 mL R-1003J pH Indicator. Cap and mix.
3. Wipe dry and place in comparator (#9053) WITH FROSTED SIDE FACING OPERATOR.
4. Match color in test cell with a color standard. Record as pH units.

NOTE: If sample color is between two values, pH is average of the two.

NOTE: If determining Acid or Base Demand, save sample and proceed as directed on separate instruction.



31 Loveton Circle, Sparks, MD 21152 USA  
800-TEST KIT (837-8548) • 410-472-4340

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