DIRECT READING AUTOMATIC BURET ASSEMBLY

The Direct Reading Automatic Burets are calibrated to read the test result directly from the scale on the buret column. The complete assembly, including a 250 mL or a 500 mL bottle, is designed with flexibility to be used in any of three modes:

- Self-supported in a reagent tray
- Supported on a buret stand
- Mounted in a kit carrying case

DIRECTIONS FOR ASSEMBLY & USE

1. The automatic burets are packaged separately to provide protection during shipment. Carefully unpack each buret and prepare it for use as described below.

2. Wipe base end (portion that fits into the reagent bottle) of the buret clean to avoid contamination of the titration solution. Place appropriate screw cap on base end of buret.
   
   **NOTE:** Some automatic burets are supplied with two different size caps. Check the titration reagent bottle to see which cap is the proper size.

3. Remove the cap from the titration reagent bottle and insert the base end of the buret into the bottle. Securely tighten the screw cap to the bottle. If necessary, slide the buret down to position the base end within approximately 1/4 inch of the bottom of the reagent bottle.

4. The buret assembly may now be mounted in the tray, on the buret stand or in the carrying case.
5. To fill the buret with titrating solution, gently squeeze the reagent bottle, forcing the solution up into the barrel of the buret. Continue squeezing the bottle until the buret is filled just above the zero line at the top of the scale. Stop squeezing to release the pressure. The solution will automatically level at the zero line.

**CAUTION:** There is a hole in the bulb at the top of the buret. If too much pressure is applied when filling the buret, the titrating solution will be forced up into the bulb and out of the hole.

6. If the buret was completely empty, the air in the arm and valve dispenser must be displaced by priming with titrant. Release sufficient titrant to waste to fill the arm and eliminate any air bubbles. Refill to the zero line.

7. The titration solution is dispensed either by means of a rubber tube-glass bead assembly or a stopcock.

To use the glass bead dispenser, grasp the rubber tube between thumb and forefinger at the point where the glass bead is positioned in the tubing. Apply pressure by squeezing the bead. Best results are obtained when the bead is grasped and squeezed slightly off its center rather than directly across its center.

When using a stopcock dispenser, slowly turn the knob to control the flow of titrant into the test sample. By careful adjustment of the knob, the flow may be regulated for a steady stream or dropwise addition of the titrating solution.

8. Mix the sample during the titration by swirling the flask or using a magnetic stirrer. The titration solution is added to the sample until the appropriate color changes are observed (as described in the individual test instructions). After the color change has occurred, read the test result where the bottom of the meniscus (curved surface) meets the printed scale on the buret.