

Operating Instructions

STATLINE A.D.

Air-Displacement Pipettors

Adjustable Volume

INTRODUCTION

These pipettors are of the air displacement variety and are “to-deliver” devices, i.e.; they have fixed stroke and deliver the selected or stated volume when the plunger is depressed. All models are equipped with an internal tip ejector. Adjustable volume models are available which deliver volumes from 10uL to 5000uL (5mL).

TIPS

The 10-200uL pipettors are designed to use Eppendorf® brand 1-200uL tips or their generic equivalents. The 200-1000uL models are designed to use exclusively Eppendorf® brand 200-1000uL tips. The 1-5mL models are designed to use TriContinent brand tips.

SETTING THE VOLUME

(adjustable models) (See Figure 1)

1. Insert the hex wrench into the calibration port on the side of the pipettor, carefully engaging adjustment locking screw.
2. Turn 1/2 turn counterclockwise.
3. Adjust plunger knob to the desired volume setting, lining up the lower edge of the desired volume line with the reference edge. See Figure 1.
4. Re-tighten with wrench 1/2 turn clockwise.

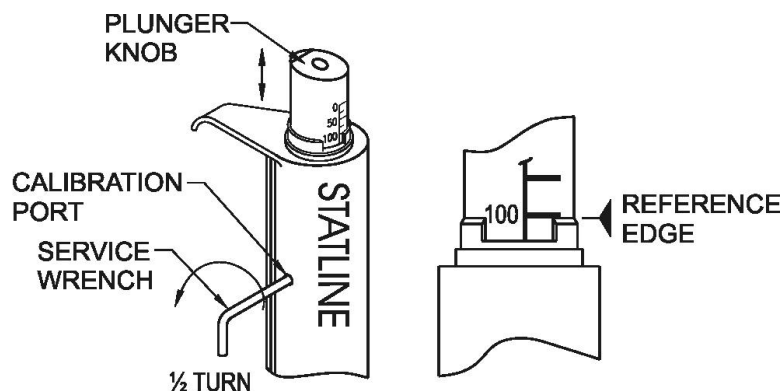


Figure 1

PIPETTING (refer to Figure 2)

1. Install the tip firmly on the pipettor.
2. Depress the plunger to the first stop (Step 1).
3. Immerse the tip approximately 1/8 inch (3mm) into the sample.
4. Smoothly return the plunger to the start position (Step 2).
5. Remove the tip from the sample.
6. Position the tip over the receiving vessel and depress the plunger to the first stop and hold it down (Step 3).
7. Hold the pipettor over a waste container and push the plunger to the bottom stop (Step 4) to eject the tip.

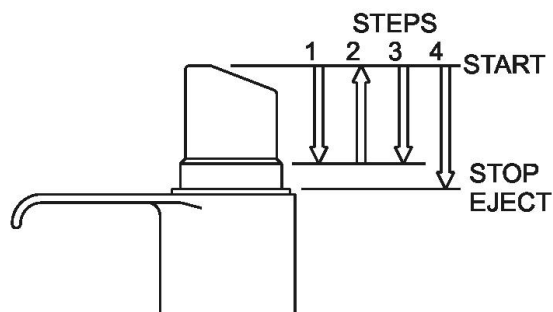


Figure 2

PIPETTING TECHNIQUES

1. Visually check the tip each time you pipette. If any bubbles are noticed, discard the sample and repeat the procedure. Depressing the plunger to the first stop before inserting the tip into the liquid will usually prevent bubbles.
2. Depress and return the plunger in a smooth consistent manner. Do not allow the plunger to SNAP back.
3. When you pipette viscous liquids, it is recommended you aspirate the sample, pipette it back and then aspirate again. This will “pre-wet” the interior of the tip and improve precision. Also, carefully wiping the outside of the tip with a tissue before dispensing will improve precision.

Calibration (See Figure 1)

All adjustable volume pipettors are factory calibrated.

CALIBRATION (continued)

After doing a gravimetric or other calibration procedure and you wish to change the calibration, follow these steps:

1. Insert the hex service wrench into the calibration port on side of the pipetter.
NOTE: Do not remove the hex wrench until steps 2 through 4 are completed.
2. Turn 1/2 turn counterclockwise.
3. To increase the volume, pull up the plunger very slightly. To decrease the volume, push down the plunger very slightly (approximately 1/32")
4. Re-tighten hex wrench 1/2 turn clockwise.
5. Repeat this calibration procedure if necessary.

MAINTENANCE

1. Normally these pipettors require no routine maintenance. However, if the pipetter is disassembled, lubricate the piston with silicone grease before reassembly.

WARRANTY

Two year, material and workmanship.



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