YOUR NEW SEALPETTE

Your new Sealpette Variable hand held digital pipettor is an adjustable volume, general purpose micro-pipettor for the accurate sampling and dispensing of liquids.

All Sealpette Variable volume pipettors operate on the air displacement principle. There are a range of five models available to you…

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Volume Increments</th>
</tr>
</thead>
<tbody>
<tr>
<td>480-000</td>
<td>0.5-10µl</td>
</tr>
<tr>
<td>480-001</td>
<td>5-50µl</td>
</tr>
<tr>
<td>480-002</td>
<td>50-200µl</td>
</tr>
<tr>
<td>480-003</td>
<td>200-1000µl</td>
</tr>
<tr>
<td>480-004</td>
<td>1000-5000µl</td>
</tr>
</tbody>
</table>

**Tips**

A full range of Sealtips are recommended for use with Sealpette pipettors. These detachable, disposable tips are available as single tips, tips with filter, tip racks or individually packed sterile tips.

The full range of Sealtips is described in Jencons Sealpette leaflet or the Jencons Directory No.8.

**PIPETTOR OPERATION**

**Delivery Volume Setting**

The delivery volume is set using the thumb button at the top of the pipettor. To increase the volume turn the thumb button anti-clockwise. To decrease turn it clockwise. Note that the desired volume locks firmly into place and that the volume digits are completely visible through the handle grip window.

The Sealpette is a scientific instrument and force should not be used to set volumes outside of the pipettor’s specific volume range.

**PIPETTING TECHNIQUES**

**Forward Technique**

Before fitting a tip make sure that the pipettor tip cone is clean before firmly pushing the tip into position.

For best results the thumb button should be operated slowly and smoothly at all times, particularly with high viscosity liquids.

Hold the Sealpette vertically during the liquid intake. Make sure that the reagent and reagent reservoir is clean.

**Holding the Sealpette firmly**

1. Depress the operating button to the first stop.
2. Place the tip just under the surface of the reagent liquid in the reservoir and smoothly release the operating button. Carefully withdraw tip from the liquid, touching against the edge of the reservoir to remove excess liquid.
3. Liquid is dispensed by gently depressing the thumb button to the first stop. After a short delay, continue to depress the thumb button to the second stop. This procedure will empty the tip and ensure an accurate delivery.
4. Release the thumb button to the ready position. If necessary change the tip and continue with pipetting.

**Reverse Technique**

The reverse technique is suitable for dispensing liquids that have a tendency to foam or have a high viscosity. The technique is also used for dispensing very small volumes when it is recommended that the tip is first primed with the liquid before pipetting. This is achieved by filling and emptying the tip.

**Tip Ejection**

Your Sealpette is fitted with a tip ejector to help eliminate the safety hazards associated with contamination.

The tip ejector needs to be pressed firmly to ensure proper tip ejection. Make sure that the tip is dispatched into a suitable waste container.

**STORAGE**

When not in use it is recommended that your Sealpette is stored in a vertical position. See Accessory List for available stands.
MAINTENANCE
To maintain the best results from your Sealpette each pipettor should be checked every day for cleanliness of the outside surfaces. Particular attention should be paid to the tip cones.

It is recommended that a qualified person carries out the service of your pipettors. Please return your pipettor to your local stockists for repair or calibration.

Before returning please make sure that it is free from all contamination and advise our Service Representative of any hazardous materials which may have been used with your pipettor.

Note: Always check the performance of your Sealpette after in-house service or maintenance. Pipette calibration has been factory checked and certified at +22°C using distilled water.

Calibration Volumes

<table>
<thead>
<tr>
<th>Size volume (µl) range (µl)</th>
<th>Set volume (µl)</th>
<th>Calibration Volume range (µl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 – 10µl</td>
<td>5</td>
<td>4.7 – 5.3</td>
</tr>
<tr>
<td>5 – 50µl</td>
<td>20</td>
<td>19.7 – 20.3</td>
</tr>
<tr>
<td>50 – 200µl</td>
<td>50</td>
<td>49.2 – 50.8</td>
</tr>
<tr>
<td>200 – 1000µl</td>
<td>200</td>
<td>198 – 202</td>
</tr>
<tr>
<td>1 – 5ml</td>
<td>1000</td>
<td>990 – 1010</td>
</tr>
</tbody>
</table>

SELF CALIBRATION
1. Carefully fit tip onto the tip cone.
2. Flush tip with distilled water by pipetting the adjusted volume at least 3 – 4 times.
3. Carefully aspirate liquid, keeping the pipettor vertical.
4. Pipette the set volume of distilled water into a tared container and read the weight in mgs.
   Repeat at least five times and record each result. Use an analytical balance with a readability of 0.1mgs.
5. Compare the results with the corresponding calibration volume range (see above).
   If mean value of 5 readings fall within the range the pipettor is ready for use. If any of the results fall below or above the given range go to calibration procedure.

Note: Calibration should be carried out at 22°C using distilled water at the same temperature. Conversion factor from mg to µl is 1.0032.

Calibration Procedure

Place the calibration tool into the holes of the calibration adjustment lock (under the thumb button) and according to the results turn the adjustment lock anti-clockwise to decrease and clockwise to increase the volume.

Repeat procedure from Step 1 until the pipetting results are correct.

CLEANING YOUR PIPETTOR
To clean your pipettor use ethanol and a soft cloth or lint-free tissue.

It is recommended to clean the tip cone regularly with ethanol and a napless cloth.

In-House Maintenance
1. Hold down the tip ejector.
2. Place the tooth of the opening tool between the tip ejector and tip ejector collar to release the locking mechanism. (Figure A, next page)
3. Carefully release the tip ejector and remove ejector collar.
4. Place the wrench end of the opening tool over tip cone, turning it anti-clockwise. Carefully remove tip cone. (See Figure B, next page)
5. Before replacing tip cone it is recommended to grease the piston slightly using silicone grease provided.

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