

ITEMS SUPPLIED

Pipette stand

Single channel manual pipettes – volumes 2 μ L, 10 or 20 μ L, 200 μ L and 1 mL

Multichannel pipette – 8 channel

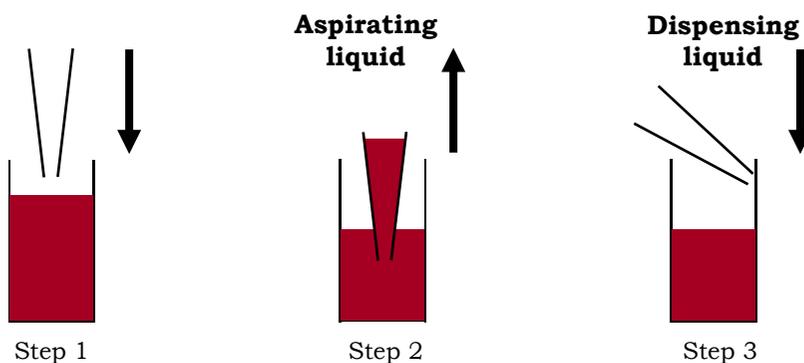
Pipette tips loose 10 μ L, 200 μ L, 1 mL

Pipette tips racked 10 μ L, 200 μ L, 1 mL

Note: 10 μ L tips may be used for 2 μ L, 10 μ L and 20 μ L pipettes



1. Correct pipetting:



1. Set the volume required.
2. Press down the plunger to the first stop (step 1). The pipette should be held vertically during aspiration.

3. When aspirating the liquid, the tip should only be immersed a few millimetres into the liquid; optimum immersion depth for a 10 μ L tip is 1 mm; for a 200 μ L tip it is 2 to 3 mm and for a 1 mL tip it's 2 to 4 mm. Release the plunger slowly and evenly. The tip will then fill up smoothly. If the solution is viscous, allow the pipette tip to fill to final volume before removing it from the solution. The filled tip should be moved up against the wall of the receptacle to avoid residues of liquid on the outside of the tip.
4. Dispense the liquid by pressing down the plunger to the first stop, then eject the remaining liquid by pressing the plunger down to the second stop. Move the tip against the wall of the vessel (step 3).
5. Remove the tip into a waste vessel by pressing down on the tip ejector.
6. Remember to change tips between solutions to avoid mixing or contaminating the solutions used.

2. Care of Pipettes:

1. Do not invert the pipette with solution in the tip – the liquid will contaminate and eventually damage the piston.
2. Clean your pipettes by wiping with a damp cloth.
3. Regularly check that the pipette is delivering the correct volume by pipetting a known volume of water and weighing the dispensed volume.
Useful online guide:
<https://bitesizebio.com/40766/performing-pipette-calibration-yourself/>
4. Pipettes require servicing and recalibration on a regular basis. Kirkhouse Trust has a system whereby the pipette set supplied and used in the lab can be exchanged for a recalibrated and serviced set of pipettes at the KT Annual Meeting or visit to your site.

ITEMS REQUIRED

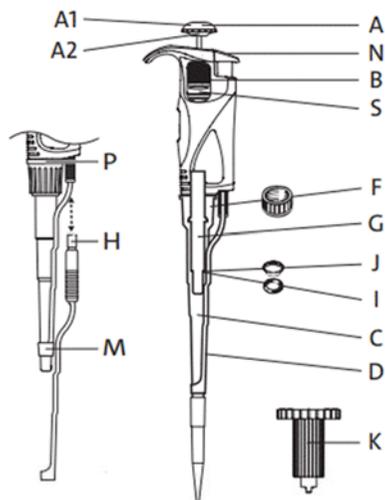
Pipette specific instruction manual

Pipette o-ring seals and grease (silicone)

Tray to hold parts and beaker for dipping parts in to clean

Lint free wipes

70% ethanol solution and water



Pipette exploded diagram (left).

Note: some pipettes are slightly different but most are assembled in a similar way.

Most pipettes are supplied with a small service kit including lubricant and spare O-rings. Spares can be requested with your KT lab consumables re-stock.

- A: Pipetting pushbutton A1: Pushbutton A2: Knob
- B: Adjustment knob
- C: Shaft
- D: Ejector
- F: Shaft nut
- G: Piston assembly
- H: Spacer
- I: O-ring
- J: Seal
- K: Calibration key
- M: Ejector cap
- N: Ejector pushbutton
- P: Identification ring
- S: Locking ring

3. Cleaning pipettes and performing a mini service

1. Always consult the user manual for your particular pipette because there's slight differences in how to partially disassemble, clean and reassemble different makes of pipette.
2. Unscrew the tip ejector collar and shaft (sometimes called cone) to expose the piston of the pipette. Take care that any springs and O-rings do not pop out and get lost! It is best to use a tray. It can also be helpful to take a photo as you disassemble the shaft, so you can see the order in which to reassemble parts.
3. The piston which is housed in the shaft (or cone) usually remains attached to the main part of the pipette. Inspect this and any O-rings present for dirt and wear. If soiled, you can place the lower parts of the pipette, including the piston, in a 70% ethanol solution to soak for a few minutes then remove it, rinse with distilled water and then wipe dry with a lint free cloth or tissue.

Keep the pipette upright so the cleaning solution does not get into the handle part of the pipette.

4. The clean piston shaft can be lightly greased using silicone grease.
5. Reassemble the parts as described in your pipette's instruction manual. Check the pipette is dispensing the correct amount by pipetting a known volume of water and weighing the dispensed volume.

Helpful video:

<https://www.youtube.com/watch?v=q0o-VBMVKio>

