

8-Channel Variable-Volume Micropipette

Operating Manual

Laboratory Equipment

Intended use

Manual air-displacement pipette for transferring the same liquid volume through 8 channels at once, mainly for work with 96-well microplates.

Intended users

Trained laboratory personnel; students under supervision.

Read this manual completely before first use and keep it with the product. This document provides general operating, care and safety guidance. Where the product is supplied with manufacturer labeling or instructions, those take precedence. For questions, a replacement copy, or a digital copy of this manual, email sales@scimedstore.com.

1. Safety

Safety warnings and cautions

- Never set the volume outside the range marked on the pipette.
- Do not lay the pipette down or hold it with tips pointing upward while tips contain liquid; liquid can run into the shaft.
- Always use tips; never draw liquid without tips fitted.
- Wear gloves, lab coat and eye protection appropriate to the samples and reagents.
- Treat used tips as contaminated and eject them directly into an appropriate waste container.
- Do not use with liquids that are incompatible with the pipette materials, or with highly volatile or corrosive liquids, without checking compatibility.
- Release the plunger slowly; letting it snap back can draw liquid into the pipette.

2. Specifications

Type	8-channel variable-volume air-displacement micropipette
Volume range	Varies by variant: 0.5-10 uL, 2-20 uL, 5-50 uL, 10-100 uL, 20-200 uL or 30-300 uL
Volume adjustment	Continuously adjustable, digital counter
Head	360-degree rotating
Accuracy	+/- 5.0% (low volume) to +/- 1.0% (high volume) across range
Precision (CV)	< 2.50% (low volume) to < 0.40% (high volume)
Tip ejector	Integrated
Tips	Disposable tips
Sterilization	Autoclavable at 121 C (per listing)

3. Unpacking and setup

- 1 Check the pipette for damage and make sure all 8 tip cones are intact.
- 2 Turn the volume adjuster to the required volume within the marked range, approaching the setting from a higher volume for best accuracy.
- 3 Press the tip cones firmly into a full row of tips in the rack, rocking gently to seat all 8 tips evenly.
- 4 Check that all tips are attached and aligned at the same height.
- 5 Rotate the head to a comfortable working angle.

4. Operation

Aspirating and dispensing (forward pipetting)

- 1 Hold the pipette vertically and press the plunger to the first stop.
- 2 Immerse the tips a few millimeters into the liquid, evenly across all channels.
- 3 Release the plunger slowly and smoothly to draw up the liquid. Wait a moment, then withdraw the tips.
- 4 Check that all 8 tips contain the same liquid level.

- 5 Place the tips against the inside wall of the wells at a slight angle.
- 6 Press the plunger slowly to the first stop, pause, then press to the second stop to expel the remaining liquid.
- 7 Keeping the plunger pressed, slide the tips up the well walls and remove them.
- 8 Release the plunger and eject the tips with the tip ejector into a waste container.

Good practice

- 1 Pre-rinse tips by aspirating and dispensing the liquid once or twice before the measured transfer.
- 2 Use fresh tips for each different sample or reagent.
- 3 Work at a consistent speed and immersion depth.
- 4 Allow pipette, tips and liquid to reach the same temperature before pipetting.

5. Cleaning and disinfection

- Wipe the outside of the pipette with a cloth dampened with mild detergent or 70% ethanol.
- If liquid has entered the tip cones, clean them per your laboratory procedure.
- The listing states the pipette is autoclavable at 121 C. Follow your laboratory's sterilization procedure and let the pipette cool and dry fully before use.
- Do not immerse the pipette in liquid.

6. Maintenance and storage

- Store the pipette upright in a pipette stand when not in use.
- Store with the volume set at the top of its range to relieve spring tension, unless your laboratory procedure states otherwise.
- Check accuracy and precision regularly by gravimetric testing, per your laboratory's quality procedures.
- Replace worn tip cones and seals when needed.
- Refer repairs and recalibration to qualified service personnel.

7. Troubleshooting

Problem	Likely cause	What to do
Liquid drips from tips	Tip not sealed or worn seal	Reseat tips; replace seals if the problem persists.
Uneven volumes across channels	Tips not seated evenly	Remove and refit tips, pressing evenly across all 8 cones.
Volume inaccurate	Pipette out of calibration or wrong technique	Check technique; recalibrate if needed.
Plunger sticks	Liquid or residue in shaft	Clean per laboratory procedure or send for service.
Tips fall off	Tips not compatible or not pressed firmly	Use compatible tips and seat them firmly.
Tips do not eject	Ejector blocked	Clean the ejector mechanism; do not force it.

8. Disposal

- Dispose of used tips as laboratory or biohazard waste according to the samples handled.
- Decontaminate the pipette before disposal and dispose of in accordance with local regulations.

9. Warranty and support

Products are covered by SciMed's standard warranty (12 months from purchase unless a different period is stated on your invoice). Warranty terms: scimedstore.com/pages/warranty.

Support, spare parts and additional copies of this manual: sales@scimedstore.com. Please include your order number and a photo of the product or issue.

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