



Single Channel Pipettes

Cat. No. B250, B251, B252, B253



User Manual

Please read this user manual carefully before use.

Introduction

Thank you for choosing **abm**'s Single Channel Pipettes. Our air-displacement pipettes provide high precision and accuracy, combined with a lightweight design that offers superior control and comfort. **abm**'s pipettes are available in four models (P2, P20, P200, and P1000) that can easily pipette small volumes, as low as 0.1 μl , to higher volumes, such as 1000 μl .

Items Included

When opening the product box, check that the following items are included:

- 1 **abm** Single Channel Pipette
- 1 Calibration Tool
- 1 Bag of Sample Pipette Tips

Parts of the Pipette



How to Use

1. Secure the tip to the pipette's tip holder to form a firm seal. If handling the pipette with one hand, insert the tip holder directly into the tips sitting in your tip box.
2. Hold the pipette vertically. Depress the push button to the first stop, then immerse the tip in the solution. The recommended immersion depth of the tip is:
 - 0.20 – 10 μl \leq 1 mm
 - 20 – 100 μl \leq 2 – 3 mm
 - 200 – 1000 μl \leq 2 – 4 mm

Release the push button slowly and let it revert to its original position. Wait 2 to 3 seconds before removing the pipette from the solution.

3. Place the tip of the pipette against the inner wall of the receiving container. To discharge the solution completely from the tip, press the push button past the first stop until you reach the second stop. Maintain button at the second stop position as you move the tip up along the inner wall of the container and remove the pipette completely from the container.
4. Release the push button. Press the tip ejector button to eject the tip from the pipette.

Technical Specifications

Model	Volume Setting, μl	Accuracy, % (Systematic Error)	Precision, % (Random Error)
P2 (Cat. No. B250)	0.2	± 15.0	≤ 8.00
	1	± 2.5	≤ 2.00
	2	± 1.8	≤ 1.00
P20 (Cat. No. B251)	2	± 6.0	≤ 2.00
	10	± 1.5	≤ 0.60
	20	± 1.2	≤ 0.40
P200 (Cat. No. B252)	20	± 2.0	≤ 0.60
	100	± 0.8	≤ 0.30
	200	± 0.8	≤ 0.20
P1000 (Cat. No. B253)	100	± 1.8	≤ 0.40
	500	± 0.8	≤ 0.30
	1000	± 0.8	≤ 0.20

To check that optimal performance of the pipette is maintained, routinely take six measurements for each volume setting as listed in the table above.

How to Set the Volume

Refer to the volume display diagrams below and turn the volume adjustment wheel to set the volume.

P2	P20	P200	P1000												
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2.00 µl	20.0 µl	200 µl	1000 µl												



How to Use the Calibration Tool

1. Remove the small screw located above the circular top face of the volume adjustment wheel.
2. Turn the volume adjustment wheel all the way up counterclockwise. Slide in and align the provided calibration tool to the six grooves on the top face of the volume adjustment wheel. The calibration tool should snap in place with a gentle push.
3. To adjust, turn the calibration tool counterclockwise to increase the volume dispensed, and clockwise to decrease the volume dispensed.
4. Fasten the screw removed in Step 1 back on the pipette.



Notes

1. As the pipette is a precision instrument, you should set the volume adjustment wheel to the required volume before operation.
2. In order to obtain maximum precision, make sure the tip is immersed in the solution before releasing the push button to draw up the solution.
3. Do not disassemble or tamper with the pipette.
4. Optimal operating ambient temperature: 20°C ± 5°C.
5. This pipette is compatible with universal pipette tips.
6. Warranty: 1 year.

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