

ADJUSTABLE-VOLUME PIPETTERS

300100—300106

Instruction Manual

SPER
SCIENTIFIC LTD.

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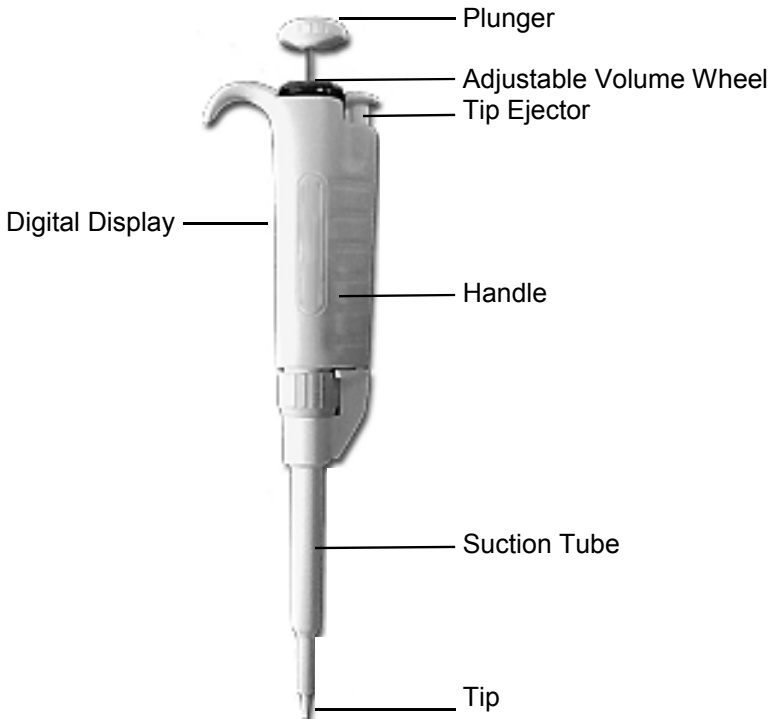
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I. INTRODUCTION

Your new air displacement pipettor is ergonomically designed, comfortable to hold and easy to operate. High-end features include:

- Entire unit (and not the tip cone and tip ejector only) is chemically resistant and fully autoclavable up to 8 times.
- Adjustable volume that can be locked in place
- Digital volume display
- Tip ejector
- Excellent accuracy

II. DESCRIPTION



III. MEASUREMENT PROCEDURES

1. Gently pull upwards on the **ADJUSTABLE VOLUME WHEEL** and turn it in either direction until the desired setting appears in the **DIGITAL DISPLAY** (see chart below).

DIGITAL DISPLAY Settings:

300100

1
2
5

1.25µl

300101

0
7
5

7.25µl

300102

1
2
5

12.5µl

300103

0
7
5

75µl

300104

1
2
5

125µl

300105

0
7
5

0.75ML

300106

0
2
5

2.5ML

2. To lock in your desired volume, push the **ADJUSTABLE VOLUME WHEEL** back down into the locked position. The small grooves in the bottom of the **WHEEL** align with the handle.
3. Secure a pipette tip to the **TIP** of the unit.
4. Holding the unit vertically, depress the **PLUNGER** to the first stop. Next fully immerse the **TIP** 2 to 4 mm into the solution.
5. Slowly release the **PLUNGER** until it returns to the original position.
6. Remove the unit from the solution after 1 to 2 seconds.
7. To discharge the solution from the pipette tip, place the **TIP** against the inside wall of the receptacle. Depress the **PLUNGER** to the first stop, then depress fully to completely blow out the solution from the **TIP**.
8. Next move the **TIP** up and along the inner wall of the receptacle several times.
9. You may now remove the unit and release the **PLUNGER**.
10. Depress the **TIP EJECTOR** to remove the pipette tip.
11. Clean the unit using an autoclave or ultrasonic cleaner as required by your application. The unit may be autoclaved for a maximum of 8 times, after which, the unit should be discarded. Calibration remains stable after occasional autoclaving. Annual recalibration by a professional service center is recommended to ensure accuracy.

Notes:

- Highly concentrated solutions may require increased or decreased **DIGITAL DISPLAY** settings. Make adjustments as needed.
- Inserting objects into the top of the tip assembly can damage the pipette seal.

Specifications

Product Number	Range (ul)	Accuracy (%)	Repeatability (%)
300100	0.2 ~ 2	$\pm 12 \sim 1.5$	$\leq 6 \sim 0.7$
300101	1 ~ 10	$\pm 2.5 \sim 1$	$\leq 1.25 \sim 0.4$
300102	2 ~ 20	$\pm 5 \sim 1$	$\leq 1.5 \sim 0.3$
300103	10 ~ 100	$\pm 2.0 \sim 0.8$	$\leq 0.5 \sim 0.15$
300105	100 ~ 1000	$\pm 1.5 \sim 0.8$	$\leq 0.3 \sim 0.15$
300106	1000 ~ 5000	$\pm 1.2 \sim 0.6$	$\leq 0.3 \sim 0.16$

TWO YEAR WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for a period of two years from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover damage resulting from accident, misuse, or abuse of the product. In order to obtain warranty service, simply ship the unit postage prepaid to:

SPER SCIENTIFIC LTD.
7720 East Redfield, Suite 7
Scottsdale, Arizona 85260
(480) 948-4448
www.sperscientific.com
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Please Note: The defective unit must be accompanied by a description of the problem and your return address. Register online or return your warranty card within 10 days of purchase.