

Artist Unknown 100-500ul (0.5mL) EA1

Transferpettor 100-500µL (0.5mL) EA1 User Manual

Comprehensive guide for the safe and effective use of your Artist Unknown Transferpettor.

1. INTRODUCTION

This user manual provides detailed instructions for the proper operation, maintenance, and troubleshooting of the Artist Unknown Transferpettor 100-500µL (0.5mL) EA1. To ensure accurate and reliable performance, and for your safety, please read this manual thoroughly before using the instrument. Keep this manual accessible for future reference.

The Transferpettor is a precision instrument designed for accurate and reproducible pipetting of liquids in laboratory settings. It is suitable for a wide range of applications, including molecular biology, microbiology, and analytical chemistry.

2. SAFETY INFORMATION

Always adhere to standard laboratory safety practices when using the Transferpettor. Failure to follow these guidelines may result in injury or damage to the instrument.

- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including lab coats, safety glasses, and gloves, when handling chemicals or biological samples.
- **Chemical Compatibility:** Ensure that the liquids being pipetted are compatible with the materials of the pipette tips and the Transferpettor itself. Refer to chemical compatibility charts if unsure.
- **Biohazard Safety:** When working with biohazardous materials, follow all institutional guidelines for containment, decontamination, and disposal.
- **Proper Disposal:** Dispose of contaminated tips and waste liquids according to local and institutional regulations.
- **Calibration:** Regular calibration is crucial for accurate results. Do not use the instrument if you suspect it is out of calibration.
- **Handling:** Handle the Transferpettor with care. Avoid dropping or subjecting it to excessive force, which can affect its calibration and performance.

3. PRODUCT OVERVIEW

The Artist Unknown Transferpettor 100-500 μ L (0.5mL) EA1 is a variable volume pipette designed for precise liquid handling. Its ergonomic design ensures comfortable use during extended pipetting sessions.



Image 3.1: Front view of the Artist Unknown Transferpettor 100-500 μ L (0.5mL) EA1. The image shows the main body of the pipette, the volume display, the plunger button, and the tip ejector button. A clear pipette tip is attached to the bottom.

3.1 Components

- **Plunger Button:** Used for aspiration and dispensing. Features two stops for precise operation.
- **Volume Adjustment Knob:** Rotates to set the desired volume.
- **Volume Display:** Digital display showing the set volume.
- **Tip Ejector Button:** Releases the pipette tip.
- **Tip Cone:** Where the disposable pipette tip is attached.
- **Main Body:** The ergonomic handle of the pipette.

4. SETUP

4.1 Unpacking

1. Carefully remove the Transferpettor from its packaging.
2. Check for any visible damage that may have occurred during shipping.
3. Verify that all components listed in the packing slip are present.

4.2 Initial Inspection

1. Inspect the tip cone for any deformities or blockages.
2. Ensure the plunger moves smoothly through both stops.
3. Check that the volume display is clear and changes correctly when the adjustment knob is turned.

5. OPERATING INSTRUCTIONS

5.1 Setting the Volume

1. Rotate the volume adjustment knob until the desired volume is displayed in the volume window.
2. Ensure the volume is set within the pipette's specified range (100-500 μ L).
3. For maximum accuracy, always approach the desired volume from a higher setting by turning the knob clockwise. If you overshoot, turn counter-clockwise past the desired volume and then clockwise again to the

correct setting.

5.2 Attaching a Tip

1. Select a high-quality, compatible pipette tip.
2. Firmly press the tip cone into the opening of the tip box. Do not twist. A secure seal is essential for accurate pipetting.

5.3 Aspiration (Forward Pipetting)

1. Press the plunger button down to the **first stop**.
2. Immerse the tip into the liquid to be aspirated. The immersion depth depends on the tip size and volume, typically 1-3 mm for small volumes and 3-6 mm for larger volumes.
3. Slowly release the plunger button to allow the liquid to be drawn into the tip. Wait 1-2 seconds for the liquid to fully enter the tip.
4. Remove the tip from the liquid, touching it against the edge of the container to remove any excess droplets.

5.4 Dispensing (Forward Pipetting)

1. Place the tip against the inner wall of the receiving vessel at a slight angle.
2. Press the plunger button down slowly and smoothly to the **first stop** to dispense the main volume.
3. Continue pressing the plunger button down to the **second stop** (blow-out) to expel any remaining liquid from the tip.
4. While holding the plunger at the second stop, withdraw the tip from the vessel.
5. Release the plunger button.
6. Press the tip ejector button to discard the used tip into an appropriate waste container.

6. MAINTENANCE

6.1 Cleaning

1. Regularly clean the exterior of the Transferpettor with a soft cloth dampened with 70% ethanol or a mild detergent solution.
2. Do not immerse the entire pipette in liquid.
3. For internal cleaning (if contamination is suspected), refer to the detailed disassembly instructions in the service manual or contact authorized service personnel.

6.2 Calibration

1. The Transferpettor should be calibrated regularly, typically every 6-12 months, or more frequently depending on usage and laboratory quality standards.
2. Calibration should be performed by trained personnel using gravimetric methods (weighing distilled water) or by an accredited calibration service.
3. Do not attempt to recalibrate the instrument yourself unless you are properly trained and have the necessary equipment.

6.3 Storage

1. Store the Transferpettor vertically in a pipette stand to prevent contamination and damage to the tip cone.

2. Store in a clean, dry environment, away from direct sunlight and extreme temperatures.

7. TROUBLESHOOTING

This section provides solutions to common issues encountered during the use of the Transferpettor. If the problem persists, contact technical support.

Problem	Possible Cause	Solution
Inaccurate pipetting / Inconsistent volumes	<ul style="list-style-type: none">◦ Loose or incompatible tip◦ Pipette out of calibration◦ Incorrect pipetting technique◦ Contamination in tip cone	<ul style="list-style-type: none">◦ Ensure tip is firmly seated and compatible.◦ Calibrate the pipette or send for service.◦ Review operating instructions (Section 5).◦ Clean the tip cone.
Liquid dripping from tip	<ul style="list-style-type: none">◦ Damaged tip or poor tip seal◦ Plunger not fully released◦ Viscous liquid or temperature difference	<ul style="list-style-type: none">◦ Replace tip; ensure firm attachment.◦ Ensure plunger returns to rest position.◦ Allow liquids to equilibrate to room temperature. Consider reverse pipetting for viscous liquids.
Plunger stiff or sticky	<ul style="list-style-type: none">◦ Contamination or lack of lubrication◦ Internal damage	<ul style="list-style-type: none">◦ Contact authorized service for cleaning and lubrication.◦ Send for repair.

8. SPECIFICATIONS

The Artist Unknown Transferpettor 100-500µL (0.5mL) EA1 is designed to meet high standards of precision and accuracy.

- **Volume Range:** 100 - 500 microliters (0.1 - 0.5 mL)
- **Operating Principle:** Air displacement
- **Manufacturer:** Brandtech Scientific, Inc.
- **ASIN:** B0728LC35L
- **Date First Available:** April 27, 2017
- **Accuracy:** Typically $\pm 0.6\%$ at 500µL (varies with volume and liquid properties)
- **Precision (CV):** Typically $\leq 0.2\%$ at 500µL (varies with volume and liquid properties)
- **Tip Compatibility:** Universal pipette tips suitable for 100-1000µL pipettes.

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The Artist Unknown Transferpettor 100-500 μ L (0.5mL) EA1 comes with a standard manufacturer's warranty covering defects in materials and workmanship under normal use. Please refer to the warranty card included with your product for specific terms, conditions, and duration. Keep your proof of purchase for warranty claims.

9.2 Technical Support

For technical assistance, service, or spare parts, please contact your local Artist Unknown distributor or Brandtech Scientific, Inc. customer service. When contacting support, please have your product model number (100-500 μ L EA1) and ASIN (B0728LC35L) ready.

Contact Information:

Manufacturer: Brandtech Scientific, Inc.

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