



Electronic Pipettor

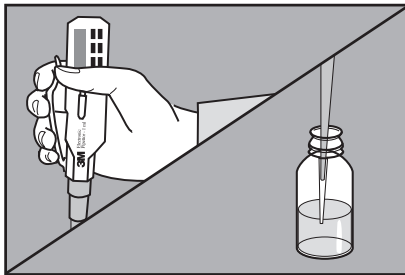
Instructions & Maintenance

For detailed Instructions for Use, Precautions, Care and Maintenance, and the Limited Warranty and Limited Remedies, see Product's package insert.

Instructions

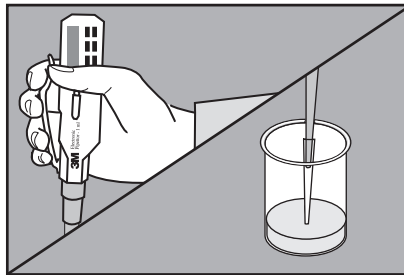
The 3M™ Electronic Pipettor — 1mL and Electronic Pipettor — 5mL are designed to make a 1:5, 1:10 or 1:20 dilution and can also be used to directly plate 1mL or 5mL of sample. **Please follow these instructions to ensure accuracy and avoid contamination.**

Aspiration of Diluent



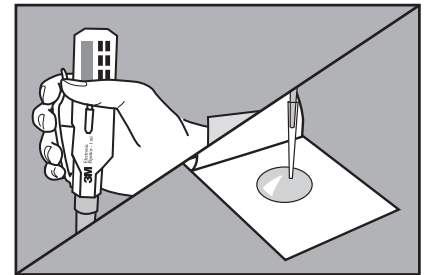
1. Firmly place disposable tip on the holder shaft of the pipettor.
2. While holding the pipettor vertically, immerse the tip 3 to 5mm into the diluent.
3. Depress the start button. Unit will aspirate the selected diluent volume.

Aspiration of Sample



1. While holding the pipettor vertically, immerse the tip 3 to 5mm into the sample.
2. Depress the start button. Unit will aspirate the selected sample volume.

Dispensing of Sample



1. Hold the pipette perpendicular to the 3M™ Petrifilm™ plate and at least 5mm above the plate. To avoid contamination, pipettor should not be held or placed horizontally.
2. Depress the start button. Unit will dispense the full amount from the tip.

For greater accuracy, the pipettor should never be tilted at an angle greater than 15° from vertical during aspiration.

Precautions

- Do not drop the pipettor, charging stand or AC adapter.
- Avoid contamination of the tip cone. Do not rest the pipettor on its side. Always place the pipettor in the charging stand when not in use.
- Ensure consistent technique to maintain precise results.
- Never strike the pipettor tip cone against the tip tray when mounting tips.
- Avoid exposing the unit to extreme temperature changes, humidity and dust.
- Avoid rough handling when using the unit. Moderate keystroke pressure is all that is required for all operating buttons.

Maintenance

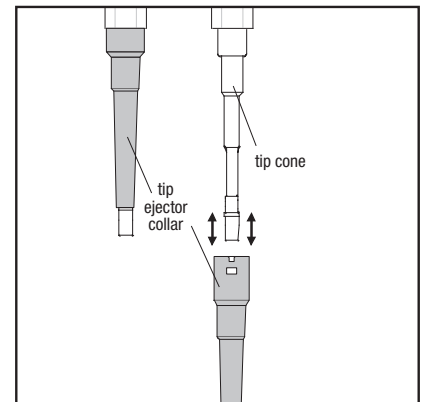
Daily Cleaning

The 3M Electronic Pipettors require regular cleaning to ensure trouble free operation. Use soft cloth and mild detergent to clean the outer surface of pipettor.

Periodic Cleaning

Monthly cleaning of the tip cone is recommended. However, with heavy use, clean more frequently. If liquid enters the shaft, perform decontamination procedure.

1. Switch the unit "OFF".
2. Remove the tip ejector collar by holding down the tip ejector lever and twisting off the tip ejector collar.
3. Use a soft, lint-free wipe, lightly moistened with 70% ethanol, to gently clean the tip cone.
4. Replace the tip ejector collar allowing the ejector handle connection to snap into the attachment notch of the ejector collar.



Decontamination

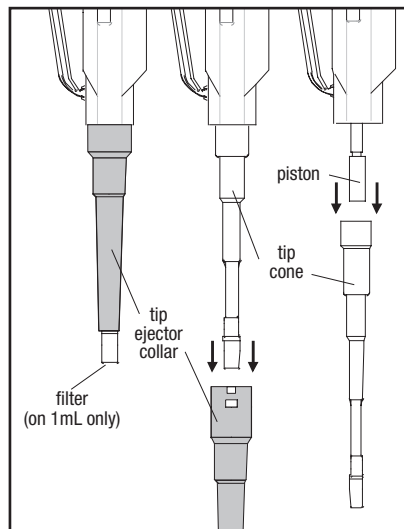
If liquid is aspirated beyond the tip cone, clean the tip cone and piston as follows.

1. Switch the unit "OFF".
2. Remove the tip ejector collar by holding down the tip ejector lever and twisting off the tip ejector collar.
3. Unscrew the tip cone from the control handle. Do not rest the pipettor on the lab bench. To avoid scratching or contamination do not touch the piston with any foreign objects.
4. Use 70% ethanol and a soft lint-free wipe to gently clean the piston and tip cone.

5. Apply a thin layer of grease to the piston seal.

NOTE: Use only the piston grease specifically recommended by your 3M representative. Other types of grease can permanently damage the piston.

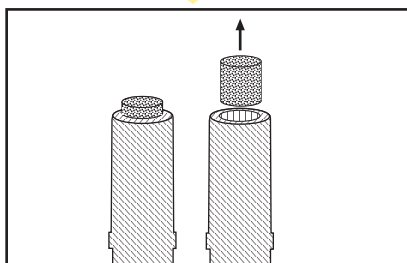
6. Reassemble the unit.
7. Perform a calibration check.
8. **For the 1mL pipettor only:** Replace filter (see "Filter Replacement") and perform a calibration check.



Filter Replacement for 1mL pipettor only

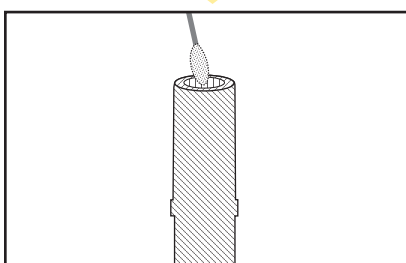
If the pipettor is not performing due to a clogged filter or if sample fluid has contaminated the filter, the filter should be replaced.

Removing Filter



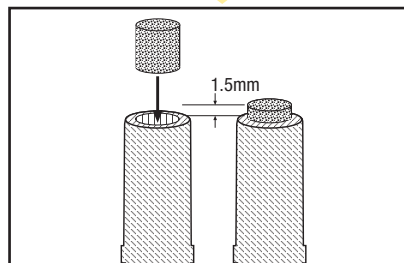
1. Remove the contaminated or clogged filter by simply pulling it straight out of the end of the steel tip cone.

Cleaning Tip Cone



2. Clean the outside surface and the inner filter placement surface of the steel tip cone using a swab moistened with 70% ethanol.
3. To allow the tip cone to dry, place the pipettor in the charging stand for at least 15 minutes before use.

Replacing Filter



4. Using dry, gloved hands, place a new filter into the tip cone.

Battery Replacement

If the battery does not hold a sufficient charge for proper operation of the pipettor, follow these steps for replacement of the battery.

1. Switch the unit "OFF".
2. Remove the top two screws on the back of the pipettor and remove the battery cover.
3. Carefully remove the battery by lifting it straight out of the holder.

4. Install the new battery by pressing the positive (+) end against the contact spring at the bottom of the holder. Guide the negative (-) end carefully into position.
5. Replace the cover and the screws. Do not overtighten the screws.

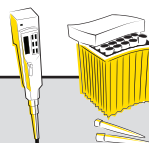
6. Dispose of the Nickel Metal Hydride (NiMH) battery appropriately.

Troubleshooting

Bubbles on 3M™ Petrifilm™ Plate

- The appearance of many small bubbles on the Petrifilm plate may indicate that the dispensing speed is too fast. Reset speed to a lower setting. See instruction manual “Speed Selection”.
- A single large bubble may form when pipetting viscous samples if the pipettor tip contacts the sample on the Petrifilm plate while dispensing. Position the pipettor tip at least 5mm above the Petrifilm plate while dispensing.

3M™ Electronic Pipettors and Tips



Catalog Number	Description	Quantity/Case
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Electronic Pipettors

The 3M Electronic Pipettors are pre-programmed to perform the most common dilutions used with Petrifilm plates.

6482	Electronic Pipettor — 1mL	1 pipettor/case
6483	Electronic Pipettor — 5mL	1 pipettor/case

Pipettor Tips

3M Pipettor Tips are strongly recommended for use with the 3M Electronic Pipettors. Other tips may adversely affect the accuracy of the instrument and may damage the tip cone and ejector mechanism.

6484	Pipettor Tips — 1mL wide bore, bulk	1000 tips/case
6485	Pipettor Tips — 1mL wide bore, racked	960 tips/case
6486	Pipettor Tips — 1mL wide bore, racked, pre-sterilized	960 tips/case
6487	Pipettor Tips — 5mL wide bore, bulk	250 tips/case
6488	Pipettor Tips — 5mL wide bore, racked	500 tips/case
6489	Pipettor Tips — 5mL wide bore, racked, pre-sterilized	500 tips/case

Parts for Electronic Pipettors

Battery, NiMH for 1mL/5mL Models	Each
Battery, Cover for 1mL/5mL Models	Each
Piston Assembly for 1mL Model	Each
Piston Assembly for 5mL Model	Each
Transformer for 1mL/5mL Models	Each
Charger Stand for 1mL/5mL Models	Each
Bottom Pads for Charger Stand, 4 bag	Each
Ejector Collar for 1mL Model	Each
Ejector Collar for 5mL Model	Each
Filters, 50 each for 1mL/5mL Models	Each
Silicone Grease, Dow Corning #3, 15mL volume for 1mL Model	Each
Silicone Grease, Rhodorsil, 15mL volume for 5mL Model	Each

Service Repair Policy

There is a minimum \$75.00 service charge for repair work completed on all 3M Electronic Pipettors (EP's) that are out of warranty. This \$75.00 fee covers the receipt, check-in and diagnostic work required to provide an estimate of the repair cost. The \$75.00 diagnostic fee is waived if you consent to have the 3M Health Care Service Center repair the EP per the repair estimate provided. A service repair estimate is available upon request or if the repair estimate exceeds \$200.00. EP loaner units are available at no cost for use during the repair process. Please call 1-800-328-6553 if you are experiencing problems with your EP.

Ordering Information and Additional Terms of Sale

Each order should include the following information:

- Purchase order number
- "Ship to" address
- "Bill to" address if different
- Quantity
- Catalog numbers and descriptions
- Mail to the address noted below, toll free phone or fax, or order on-line.

Order Entry:

Microbiology Customer Service
3M Center, Building 275-5W-05
St. Paul, MN 55144-1000
(800) 328-1671 (Toll Free)
(800) 972-9307 (Toll Free FAX)
www.3M.com/ordercenter (On-line Orders)

Terms:

- Minimum order \$100.00
- Net 30 days
- F.O.B. Point of Manufacture
- Prices and terms subject to change without notice.
- We accept Visa®, Mastercard® and American Express®.

Standing Order Programs

- Convenient cost effective method of ordering 3M Microbiology products
- Ensure prompt, accurate delivery of all of your product needs
- Reduce purchasing and freight costs
- Can be canceled at any time
- Orders can be easily altered up to three days prior to shipment
- Receive preferential order fulfillment in the event of a product backorder

Technical Assistance:

(800) 328-6553 (Toll Free)

Returns:

3M will accept any returned items only within 30 days after receipt of shipment. A charge of 15% will be assessed on all approved returns, plus all associated transportation costs.

Warranty, Limited Remedy and Limitation of Liability

LIMITATION OF WARRANTIES/ LIMITED REMEDY

EXCEPT AS EXPRESSLY STATED IN A LIMITED WARRANTY SECTION OF INDIVIDUAL PRODUCT PACKAGING, 3M DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.

If any 3M Microbiology Product is defective, 3M or its authorized distributor will, at its option, replace, repair or refund the purchase price of the product. These are your exclusive remedies. You must promptly notify 3M within sixty days of discovery of any suspected defects in product and return it to 3M. Please call Customer Service (1-800-328-1671 in the U.S.) or your official 3M Microbiology representative for a Returned Goods Authorization.

LIMITATION OF 3M LIABILITY

3M WILL NOT BE LIABLE FOR ANY LOSS OR DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS. In no event shall 3M's liability under any legal theory exceed the purchase price of the product alleged to be defective.

For detailed WARNINGS, CAUTIONS, STORAGE AND DISPOSAL information, and complete INSTRUCTIONS FOR USE see product's package insert.

3M

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