

3M™ Electronic Pipettor II – 5 mL

CARE AND MAINTENANCE

The 3M™ Electronic Pipettor II -5 mL requires regular cleaning to ensure trouble-free operation. Use a soft cloth lightly moistened with a mild non-abrasive detergent to clean the outer surface of the pipettor. DO NOT AUTOCLAVE.

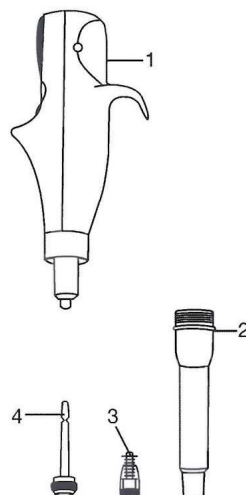
RECOMMENDED CARE & MAINTENANCE SCHEDULE

Procedure	Recommended Schedule
Clean Tip Cone	Weekly; more frequently with heavy use* Note: Clean immediately if liquid enters the shaft.
Replace Filter	Weekly; more frequently with heavy use* Note: replace if pipettor is not performing due to a clogged filter, or if sample fluid has contaminated the filter. (3M part #78-0070-0559-4)
Clean & Grease Piston	Weekly; more frequently with heavy use* Note: if liquid enters the shaft, clean and grease the piston using the recommended grease. (3M part #78-0070-0544-6).
4-Sample Calibration Check	Monthly; more frequently with heavy use*
10-Sample Calibration Check	Quarterly; more frequently with heavy use*
Replace Battery	Replace within one year, more frequently with heavy use* Use the 3M recommended battery (3M part #78-0070-0508-1)
	*Heavy use is six or more hours of continuous use daily.

CLEANING/GREASING PROCEDURE

Routine cleaning of the tip cone is recommended. However, with heavy use, clean more frequently. If liquid enters the shaft, clean the tip cone immediately.

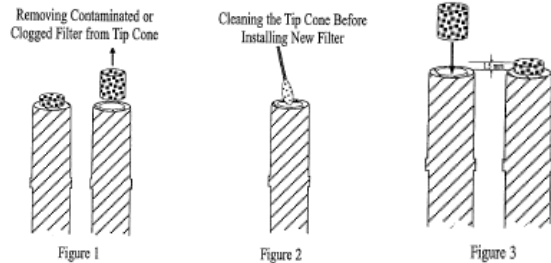
1. Remove the battery pack (1).
2. Unscrew the tip ejector collar (2) counter-clockwise and remove it.
3. Unscrew the black tip ejector assembly (3) counter-clockwise and remove it.
4. Unscrew the exposed piston (4) counter-clockwise and remove it.
5. Moisten a soft, lint-free wipe with 70% ethanol and gently clean the exposed parts. The interior of the tip ejector collar and tip cone can be cleaned with cotton swab.
6. Let the parts dry.
7. Apply a thin layer of grease to the surface of the piston (4) on the black seal at the lower part of the piston. NOTE: Use only the piston grease specially recommended by your 3M Microbiology representative. Other types of grease can permanently damage the piston. The grease used on the older red & white pipettors cannot be used on the new green & white pipettors.
8. Attach the piston (4) by screwing it clockwise.



9. Attach the black tip ejector assembly(3). Replace the tip cone filter.
10. Attach the tip ejector collar (2) by screwing it clockwise.
11. Replace the battery pack (1). Reset the pipettor and press the start button in the P5 mode at least five times to test the movement and distribute the grease evenly. Test the tip ejector operation. Perform a calibration check.

FILTER REPLACEMENT

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



1. Remove the contaminated or clogged filter by pulling it straight out of the end of the tip cone
2. Clean the outer and inner surface of the steel tip using a swab moistened with 70% ethanol. ALLOW TO DRY.
3. Using dry, clean, gloved hands, place a new filter into the tip cone (see Figure 3).

LOOSE PISTON DURING DISASSEMBLY

When disassembling a 5 mL Electronic Pipettor II for cleaning the tip cone, the piston might become loosened and it could become partially or completely unscrewed from the pipettor. If the piston (4) becomes completely unscrewed, it may remain inside the tip ejector collar (2) when the tip ejector collar is removed. This can occur because the piston can adhere to the inside of the tip ejector collar while the tip ejector collar is being unscrewed causing the piston to also be unscrewed.

If this occurs, the piston must be removed from the tip ejector collar using a tool to reach into tip ejector collar and extract the piston. The piston can then be screwed back onto the pipettor. This should not affect the accuracy or precision of the pipettor. The piston is held tightly when in operation, and it only becomes loosened when the tip cone is unscrewed. There is no risk of the piston coming off when tightening the tip cone, since this action only screws the piston more tightly.

3M

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