

Seal Replacement Instructions

Introduction

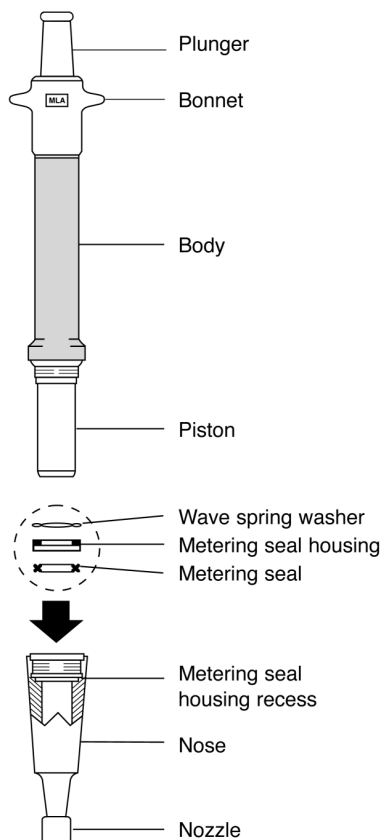
This document contains instructions for replacing seals on all MLA pipette models. Ensure you have the appropriate seal kit prior to beginning a replacement procedure.

Cat No. Pipette Model	Cat No. Pipette Model
9031 D-Tipper or Precision, 5–30 μ L	9075 Micro D-Tipper 2 μ L, 2 Stroke 1 μ L–3 μ L, Applicator 2 μ L–3 μ L
9032 D-Tipper or Precision, 31–120 μ L	9076 Micro D-Tipper 3–4 μ L, 2 Stroke 4 μ L, Applicator 4 μ L
9033 D-Tipper or Precision, 121–200 μ L	9077 Micro D-Tipper 5–10 μ L, Applicator 5–10 μ L
9034 D-Tipper or Precision, 201–350 μ L	9093 Macro 1–5mL, Macro Selectable 2/3/4/5
9035 D-Tipper or Precision, 351–1000 μ L	9095 Macro 6–10mL
9033 D-Tipper Selectable 50/100/200 μ L	
9091 Digital, 10–50 μ L	
9092 Digital, 50–200 μ L	
9094 Digital, 200–1000 μ L	

Note: Each seal kit contains pre-lubricated seal(s) for maintenance of one pipette. If additional lubricant is desired, order Cat No. 9030.

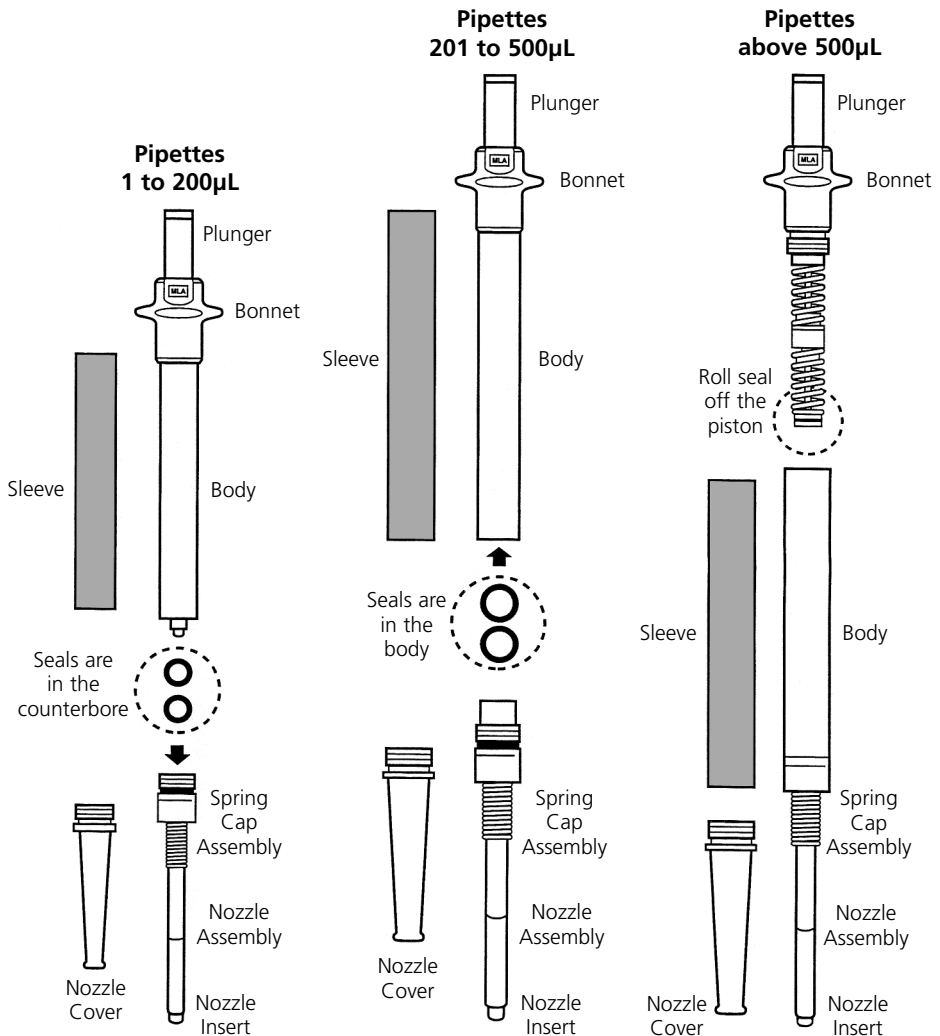
Replacement Procedure for 1–5mL Macro and Macro 2/3/4/5 Selectable Models:

1. Unscrew the nose from the body of the pipette.
2. Remove wave washer, metering seal housing and seal from inside of nose.
3. Remove seal from lower side of housing.
4. Install new pre-lubricated seal into housing.
5. Press down on plunger to expose inner plunger. Insert inner plunger into seal bag to coat and lubricate it. If applicable, do not plunge air inlet hole.
6. Reassemble the pipette and exercise the plunger several times.
7. Verify pipette performance.



Procedure for D-Tipper, Micro D-Tipper, 2 Stroke, Digital & Applicator Models:

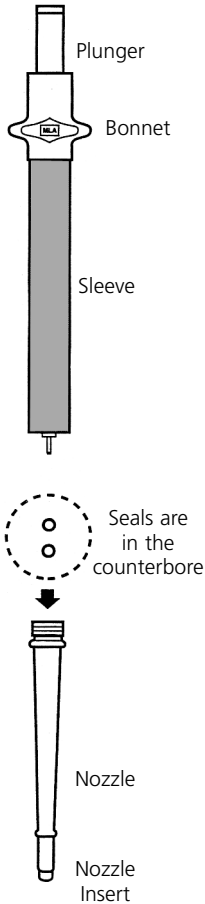
1. Locate your pipette in the appropriate diagram below.
2. Hold the pipette around the sleeve and with other hand, pull the nozzle cover away from the sleeve to expose the spring cap assembly.
3. While holding the exposed spring cap with thumb and forefinger, unscrew the nozzle cover. Remove the cover and sleeve.
4. Unscrew the pipette body from the spring cap assembly as indicated in the appropriate diagram.
5. Locate seals in pipette and remove.
6. Install new, pre-lubricated seals.
7. Press down on plunger to expose inner plunger. Insert inner plunger into seal bag to coat and lubricate it
8. Reassemble the pipette, exercise the plunger several times, and verify pipette performance.



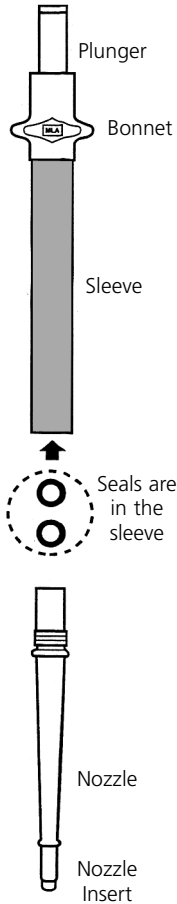
Procedure for Precision Models:

1. Locate your pipette in the appropriate diagram below.
2. Unscrew nozzle from body of pipette.
3. Locate seals in pipette and remove.
4. Install new, pre-lubricated seals.
5. Press down on plunger to expose inner plunger. Insert inner plunger into seal bag to coat and lubricate it
6. Reassemble the pipette, exercise the plunger several times.
7. Verify pipette performance.

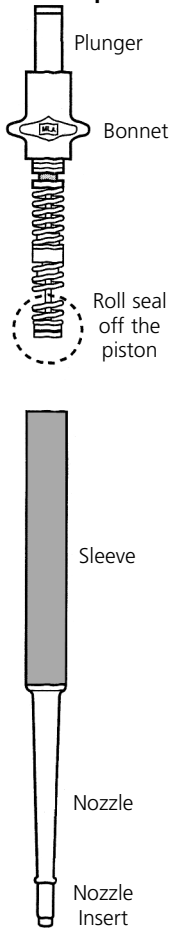
**Pipettes
1 to 200µL**



**Pipettes
201 to 500µL**

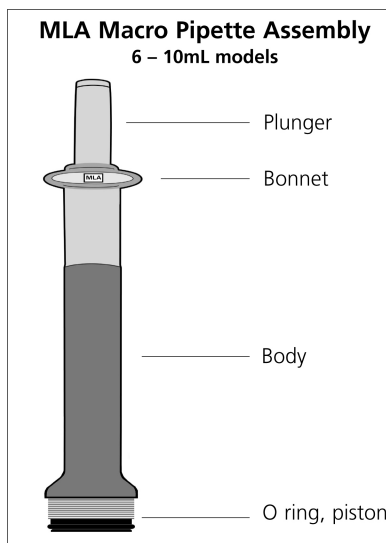


**Pipettes
above 500µL**



Replacement Procedure for 6-10mL Macro Models:

1. Unscrew the nose from the body of the pipette.
2. Remove the O ring from the edge of the piston.
3. Place a new O ring onto the edge of the piston.
Use finger tip to apply a small amount of the seal lubricant (Cat # 9030) to the O ring and the edges of the piston.
4. Install new pre-lubricated seal into housing.
5. Carefully insert the body into the nose and screw together to a firm stop.
6. Verify pipette performance.



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