

## When to replace:

VistaLab Technologies suggests that the Ovation pipette's seals be replaced annually, or if any of the following symptoms are evident:

- Accuracy and precision claims cannot be achieved (*not the result of technique or method*)
- The pipette does not aspirate or dispense (*even after the nozzle with filter has been replaced*)
- The pipette leaks (*when using the recommended Ovation tips*)

## Replacement Seal Kit includes:

- Inner seal
- Oval seal
- Lubricant
- Allen wrench (5/16")
- Instructions



Refer to the chart below to determine the appropriate seal kit.

Description	Catalog No.
Standard Seal Kit for models dispensing 1-4 $\mu$ L	9057-1001
Standard Seal Kit for models dispensing 5-10 $\mu$ L	9057-1002
Standard Seal Kit for models dispensing 11-20 $\mu$ L	9057-1003
Standard Seal Kit for models dispensing 21-100 $\mu$ L	9057-2004
VITON* Seal Kit for models dispensing 21-100 $\mu$ L	9057-2034
Standard Seal Kit for models dispensing 101-200 $\mu$ L	9057-2005
VITON* Seal Kit for models dispensing 101-200 $\mu$ L	9057-2035
Standard Seal Kit for models dispensing 201-1000 $\mu$ L	9057-3006
VITON* Seal Kit for models dispensing 201-1000 $\mu$ L	9057-3036

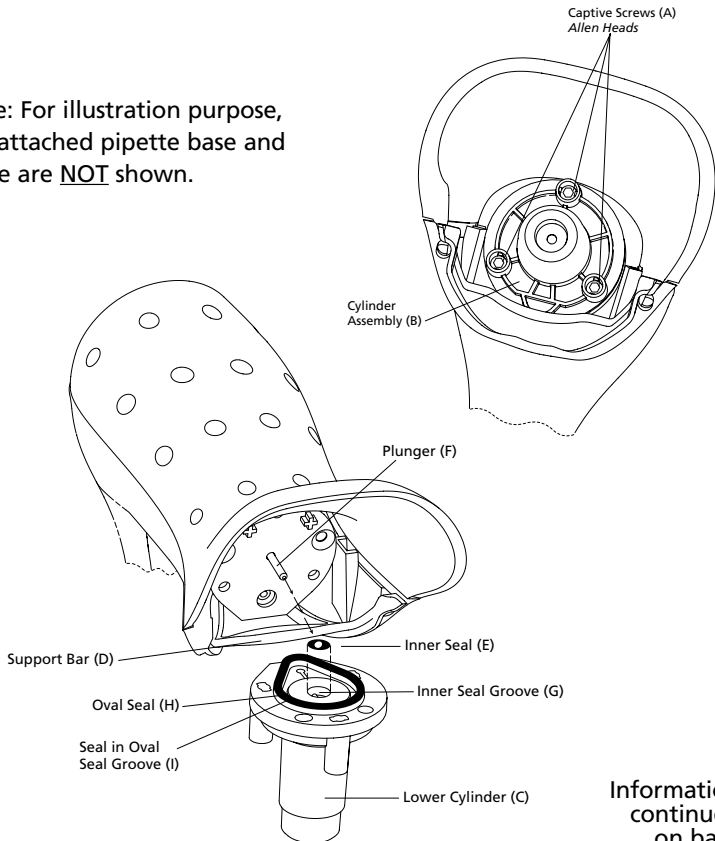
\* Recommended when organic or volatile solutions are routinely used. See [www.vistalab.com](http://www.vistalab.com) for chemical compatibility chart.

## Replacing the Seals:

1. Set the Ovation pipette at the maximum volume setting. Depress the plunger to the first stop and hold until three “beeps” are heard.
2. Loosen the captive screw on the base of the pipette and gently lower the base from the body, being careful not to stretch, loosen or disconnect the cable from the circuit board.
3. Using the enclosed allen wrench, loosen three *captive screws* (A) located on the bottom side of the *cylinder assembly* (B). Continue to loosen screws until the *lower cylinder* (C) is free.
4. Remove lower cylinder by lifting it up so its edge is free from the *support bar* (D).
5. Using fingers, carefully remove *inner seal* (E) from *plunger* (F) or *inner seal groove* (G).
6. Coat new inner seal with lubricant (included with kit), then position seal in inner seal groove.
7. Remove the *oval seal* (H) from the *oval seal groove* (I).
8. Place the new oval seal in oval seal groove. Ensure that the oval seal is fully seated in groove.
9. Replace the lower cylinder by sliding its edge under the support bar, and then seat it into place.
- 10 Using the allen wrench, firmly tighten the three captive screws. There should be no gap around the edge where the lower and upper cylinders meet.
11. Carefully fit the base back onto the body of the pipette and tighten the captive screw. Do not overtighten.
12. Press and release the plunger to check for smooth movement.

13. Home the pipette by simultaneously pressing and holding the up  and down  buttons until CAL appears on the LCD. Depress the plunger to the first stop, and release it. Then depress the plunger to the first stop again and hold until three "beeps" are heard.

Note: For illustration purpose, the attached pipette base and cable are NOT shown.



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### ***Verify Pipette Performance:***

After a seal change, confirm that the pipette aspirates and dispenses properly. If it does not, check that the inner and oval seals are in place, and that the cylinder assembly is properly tightened to prevent any air leaks.

Calibration should be verified.



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