

# Air Tube Cleaning Instructions

Ovation QS



## When to use:

VistaLab Technologies recommends the use of the Air Tube Cleaning Kit for the Ovation QS pipette if the following symptoms are occurring:

- Stiff plunger action (not due to a clogged nozzle)
- Air Tube blockage / contamination

## Air Tube Cleaning Kit includes:

(Cat No. 9070-4020)

- Air Tube Cleaner Syringe
- Air Tube Cleaner Nozzle
- Cleaning Solution (99% Isopropanol)
- Silicone Sleeve
- 5/64" Allen Key

## To unblock and clean out air tube:

1. Set the pipette to its maximum volume setting.
2. Loosen the captive Base Screw on the bottom surface of the pipette base using a small coin. This should take approximately 5 full turns. Pull the base from the rest of the body, taking care to not remove the ribbon cable from the circuit board in the pipette's Base; it is okay to let the Base hang off of the Pipette Body by the ribbon cable.



*Figure 1: Captive screw being loosened*



*Figure 2: Pulling base from body*

- Loosen the three captive screws on the underside of the pipette using the provided 5/64" Allen Key. Remove the Cylinder Assembly to expose the bottom end of the air tube. (see Figures 3 & 4)
- Remove the white Ejector Sleeve from the pipette by firmly pulling it outward. (see Figure 5)



*Figure 3: Loosen 3 captive screws*

- Remove the Nozzle by unscrewing it counterclockwise from the extension tube. You can slide the provided silicone sleeve over the nozzle for better grip and leverage. (see Figure 6)



*Figure 4: Remove cylinder assembly*

- Attach the Air Tube Cleaner Nozzle by screwing the threaded end of the nozzle onto the nozzle extension tube with the aid of the same silicone sleeve if needed. (see Figure 7)

Tighten until the nozzle sits flush with the extension tube. Remove the silicone sleeve when finished.

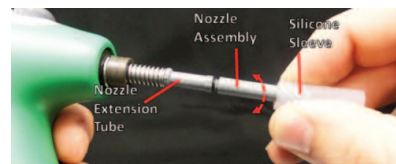


Wear Safety Glasses when performing the next steps.

- Aspirate approximately 1 mL of warm water into the provided syringe. Attach the syringe to the Air Tube Cleaner Nozzle by inserting the syringe into the open end of the nozzle and pushing firmly to seal. (see Figure 8).



*Figure 5: Remove Ejector Sleeve*



*Figure 6: Remove Nozzle Assembly*

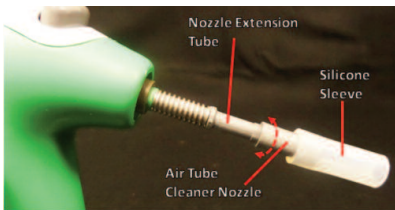


Figure 7: Attach Air Tube Cleaner Nozzle

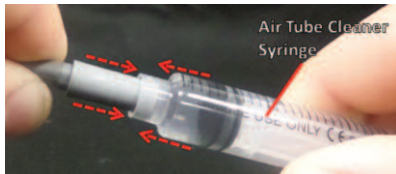


Figure 8: Air tube cleaner nozzle and syringe connection



Figure 9: Air tube cleaner syringe expel



Figure 10: Unscrewing nozzle assembly from extension tube

8. With the open end of the air tube over a liquid receptacle or a sink and the Base held out of the way, **slowly** force the warm water into the pipette. It may take up to a minute of firm pressure to clear out the blockage in the Air Tube. (see Figure 9)

9. When the syringe is empty, pump the syringe plunger all the way out and then all the way in about 10 times to remove any residual liquid. (see Figure 10)

10. Detach the syringe, fill syringe with the cleaning solution, and re-attach it.

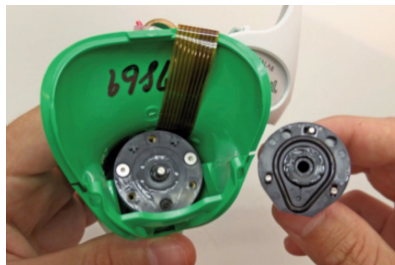
With the open end of the air tube over a liquid receptacle or a sink and the Base held out of the way, **slowly** force the cleaning solution into the pipette.

When the syringe is empty, pump the syringe plunger all the way out and then all the way in about 10 times to remove any residual liquid. (see Figure 10)

Allow the unit to air dry for 30 minutes before re-assembly

(continued)

10. After the 30 minute drying period, screw the original Nozzle (or new Nozzle) back onto the pipette.
11. Reattach the ejector sleeve by sliding it over the nozzle extension tube and pressing firmly until a click is heard. When properly installed, the sleeve should remain attached to the pipette when the ejector button is pressed. If it comes off, you may need to press harder to engage the snap ring.
12. Replace the Cylinder Assembly over the exposed Plunger and Air Tube opening. Make sure that the teardrop shaped seal has not popped out of its groove. Hand-tighten the three captive screws with the provided Allen Key. Avoid over-tightening by not using the short end of the Allen Key. (see Figures 11 & 12).
13. Put the Base back onto the pipette, aligning the pins and tabs with their respective holes, and secure in place by tightening the plastic Base Screw with a small coin.
14. Verify pipette performance.



*Figure 11. Replace Cylinder Assembly*



*Figure 12: Tighten captive screws*



*Figure 13: Put the base back onto the pipette*