

# Air Tube Cleaning Instructions

Ovation M



## When to use:

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

- Air Tube blockage
- Solidified liquid build up

## Air Tube Cleaning Kit includes: (Cat No. 9070-4020)

- Air Tube Cleaner Syringe
- Air Tube Cleaner Nozzle
- Cleaning Solution
- Silicone Sleeve
- 5/64" Allen Key

## To unblock and clean out air tube:

1. Loosen the two captive screws from the bottom surface of the pipette base, using a 5/64" Allen Key, until you can pull the base from the rest of the body. (see Figure 1)
2. Remove the air tube from the rubber air tube connector cap on the bottom of the cylinder by gently pulling it from the circular hole. (see Figure 2)
3. Place the exposed end of the air tube so that it can drain to a paper towel or some other liquid receptacle.

(continued)



Figure 1: Screws on base connecting to body



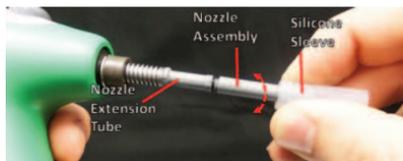
Figure 2: Air tube inserted into air tube connector cap

- Remove the white ejector sleeve from the pipette by pulling it outward (see Figure 3).
- Remove the nozzle assembly by sliding the provided silicone sleeve over the nozzle and then unscrewing the nozzle from the extension tube (see Figure 4).



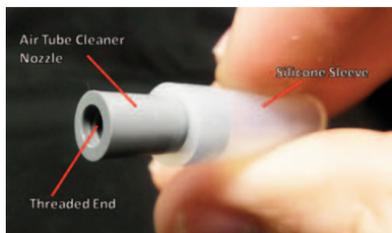
*Figure 3: Removing ejector sleeve*

- Attach the air tube cleaner nozzle by screwing the threaded end of the nozzle onto the nozzle extension tube using the same silicone sleeve. Tighten until the nozzle can no longer spin, and then remove the silicone sleeve (see Figure 5 and Figure 6).

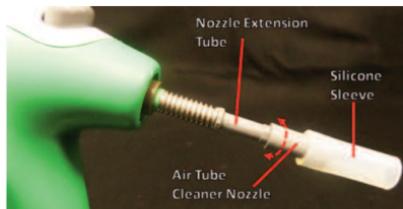


*Figure 4: Unscrewing nozzle assembly from extension tube*

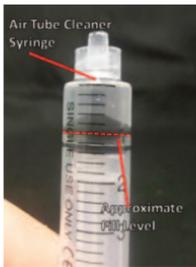
- Aspirate approximately 1 mL of warm water into the air tube cleaner syringe (see Figure 7).
- Attach the air tube cleaner syringe to the air tube cleaner nozzle by inserting the syringe into the open end of the nozzle and pushing firmly to seal (see Figure 8).
- With the detached end of the air tube over a liquid receptacle and with safety glasses on, slowly expel the warm water from the syringe into the air tube cleaner nozzle by pushing on the end of the syringe plunger (see Figure 9).



*Figure 5: Air tube cleaner nozzle and silicone sleeve*



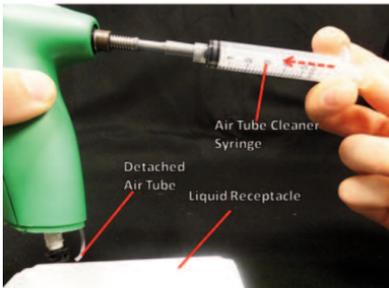
*Figure 6: Air tube cleaner nozzle attachment*



**Figure 7: Air tube cleaner syringe approximate liquid level**



**Figure 8: Air tube cleaner nozzle and syringe connection**



**Figure 9: Air tube cleaner syringe expel**



**Figure 10: Unscrewing nozzle assembly from extension tube**

10. Once the syringe is empty, pump the syringe plunger all the way out and all the way in. Repeat this 10 times to remove any residual liquid (See Figure 10).
11. Repeat steps 7 through 10 with the provided cleaning solution. (Note: If the blockage persists after repeating the cleaning procedure with the cleaning solution, send pipette in for service.)
12. With the air tube now cleaned, remove the syringe from the air tube cleaner nozzle by pulling it off.
13. Remove the air tube cleaner nozzle by unscrewing it from the nozzle extension tube (see Figure 6).
14. Let the pipette sit for 30 minutes to allow any residual cleaning solution to evaporate.
15. After 30 minutes, reattach the nozzle assembly using the silicone tube (see Figure 4).

(continued)

16. Reattach the ejector sleeve by sliding it over the nozzle extension tube and pressing firmly until a click is heard (see Figure 11).
17. Reinsert the exposed end of the air tube into the rubber air tube connector cap by pushing it inwards. You will feel two small “bumps” to indicate that it has been fully inserted (see Figure 12).
18. Reattach the base to the body. Join the base to the body so that the base fits neatly into the body and that the screws fit into the holes. Use the 5/64” Allen Key to drive the screws and connect the two halves. DO NOT over tighten the screws (see Figure 13).
19. Verify pipette performance.



*Figure 11 Ejector sleeve reattachment*



*Figure 12: Air tube inserted into air tube connector cap*



*Figure 13: Screws on base connecting to body*