

General:

The Peristaltic Pump should be replaced every 1-2 years.

Equipment and Materials

- Peristaltic Pump Kit
- #2 Phillips Screwdriver
- #0 Phillips Screwdriver
- 7mm Nut Driver
- Small Slotted Screwdriver
- 5/64" Allen Wrench

Replacement Parts

- **URG-9000-05**, Peristaltic Pump Kit for Ambient Ion Monitor, Includes Gear Motor, Mounting Assembly and Peristaltic Pump Control Board

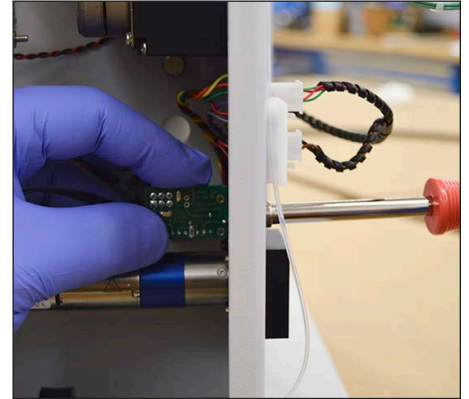
Instructions for Peristaltic Pump Removal:

CAUTION Power switch **MUST** be switched off and the power cord **MUST** be removed before starting the below procedure.

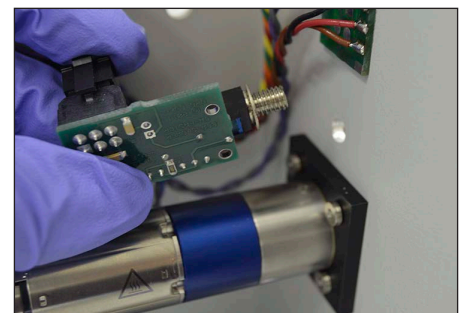
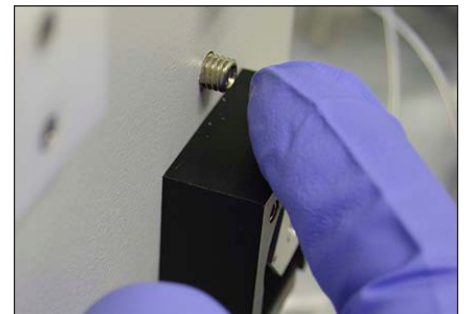
1. Using a Phillips head screwdriver, remove the (3) enclosure screws on front of the valve tower and carefully swing the door out to expose the internal electronics components.



- Using the 7mm nut driver, carefully loosen and remove the potentiometer nut that is above the black Peristaltic Pump Frame.

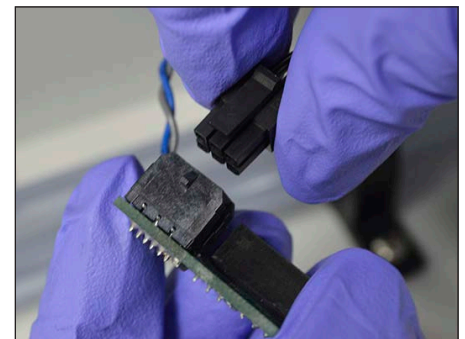


- Holding onto the Peristaltic Pump Control Board, gently push the threaded trimmer shaft into the enclosure and pull the board out.

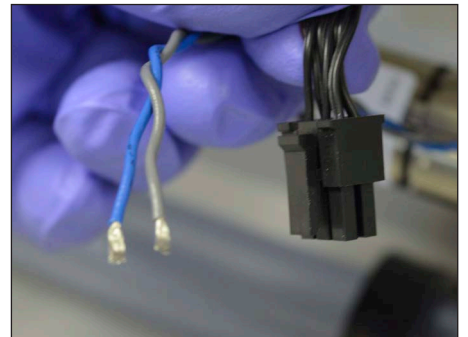
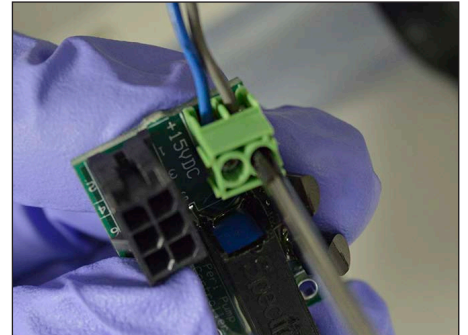


- Carefully remove the lock washer from the trimmer shaft and set aside.

5. While holding the Peristaltic Pump Control Board, release the connector latch on the motor plug by pressing down with your finger and pulling apart from the Peristaltic Pump Control Board's header.

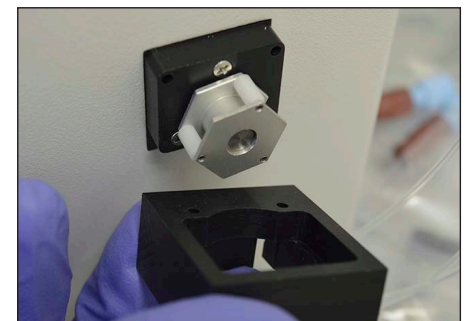
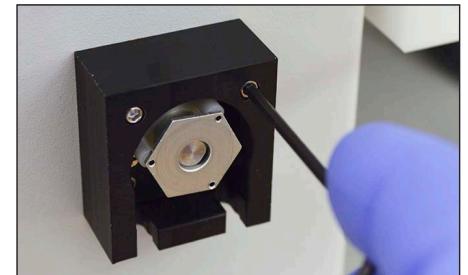


- Using the #0 Phillips screwdriver, loosen the screws on top of the green terminal block and disconnect the twisted blue and gray wires.

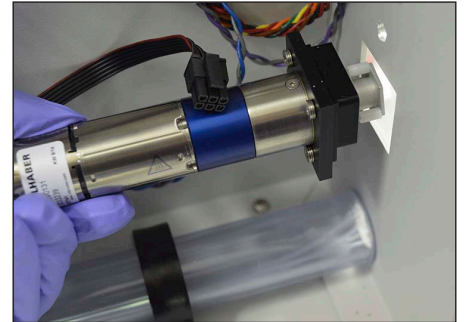


- Discard the used Peristaltic Pump Control Board.

- While holding the Gear Motor inside of the electronics enclosure, use the 5/64" Allen wrench to slowly loosen all (4) cap screws attaching the Front Mounting Frame to the Rear Mounting Plate a few turns at a time. Repeat until all (4) screws are evenly loosened and discard the Front Mounting Frame.



9. Remove and discard the used Gear Motor.

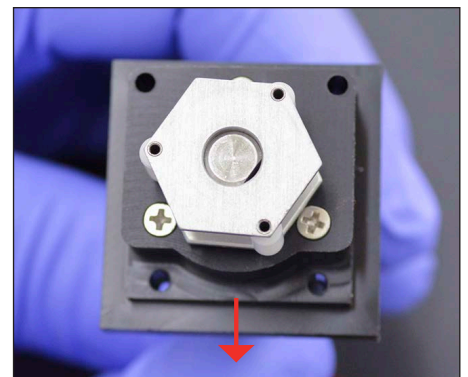


Instructions for Peristaltic Pump Installation:

1. Insert the new Gear Motor into the square hole from inside the enclosure. Make sure that all wiring is clear of the hole so that it does not get pinched during installation.



NOTE Make sure the rounded edge of the Rear Mounting Plate is pointed down towards the floor.



2. Place the Front Mounting Frame onto the Rear Mounting Plate, which is now located on the front of the enclosure.
3. Place the (2) 7/8" cap screws, through the upper holes of the Front Mounting Frame and screw them into the threaded inserts in the Rear Mounting Plate.

NOTE Do not tighten the screws fully at this time.

4. Place the (2) 1/2" cap screws through the lower holes of the Front Mounting Frame and screw them into the fixed threaded inserts located on the Rear Mounting Plate.

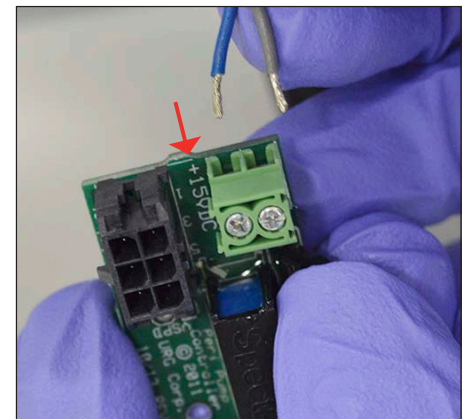
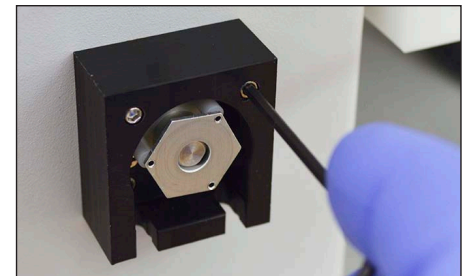
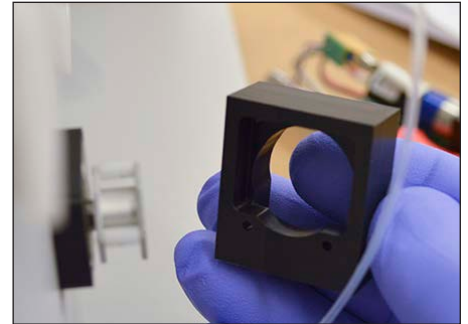
NOTE Do not tighten the screws fully at this time.

5. Hold the Gear Motor and ensure that the Rear Mounting Plate is positioned correctly in the panel opening. Use the 5/64" Allen wrench to slowly tighten all (4) cap screws a few turns at a time. Repeat until all (4) screws are evenly secured. The Rear Mounting Plate and Front Mounting Frame should be flush with panel's interior and exterior surfaces when installation is complete.

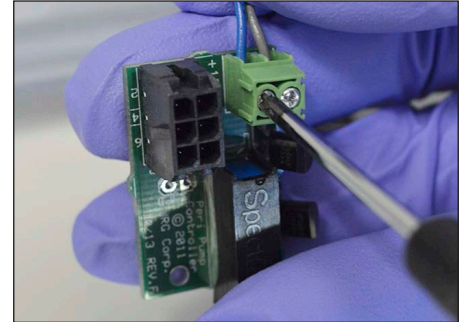
6. Locate the free ends of the blue and gray wire inside of the enclosure and insert them into the green terminal block on the Peristaltic Pump Control Board at their correct locations as shown to the right.

CAUTION For proper installation, the blue wire **MUST** be placed in the terminal block enclosure next to "+15VDC" on the Peristaltic Pump Control Board.

NOTE The ends of the wires may need to be twisted to ensure that no loose strands short out the adjacent connector positions.

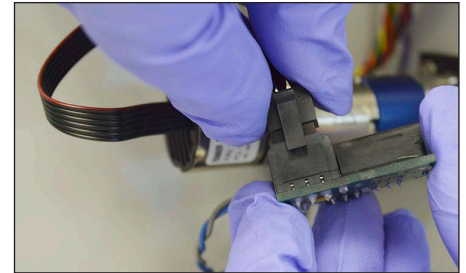


7. Tighten the screws in the terminal block using a #0 Phillips screwdriver and gently pull on both of the wires to make sure they are secure.



8. While holding the Peristaltic Pump Control Board, plug the connector from the Gear Motor Plug into the header on the Peristaltic Pump Control Board.

NOTE Do not twist or stretch the cable, especially near the plug to avoid breaking any connections.



9. Place the lock washer onto the trimmer potentiometer shaft of the Peristaltic Pump Control Board and into the round hole above the motor.



11. Add the 7mm nut onto the trimmer potentiometer shaft, which is now on the front side of the enclosure, and tighten using the 7mm nut driver while holding the Peristaltic Pump Control Board.

NOTE The Peristaltic Pump Control Board is factory set to a nominal value, approximately 12 rev/min. The speed can be adjusted by rotating the trimmer potentiometer shaft using a small slotted screwdriver. Rotating the trimmer potentiometer shaft clockwise will increase the speed, counterclockwise will reduce the speed.

