



# B89055 Vitruvian Infiltration Pump

Service Manual

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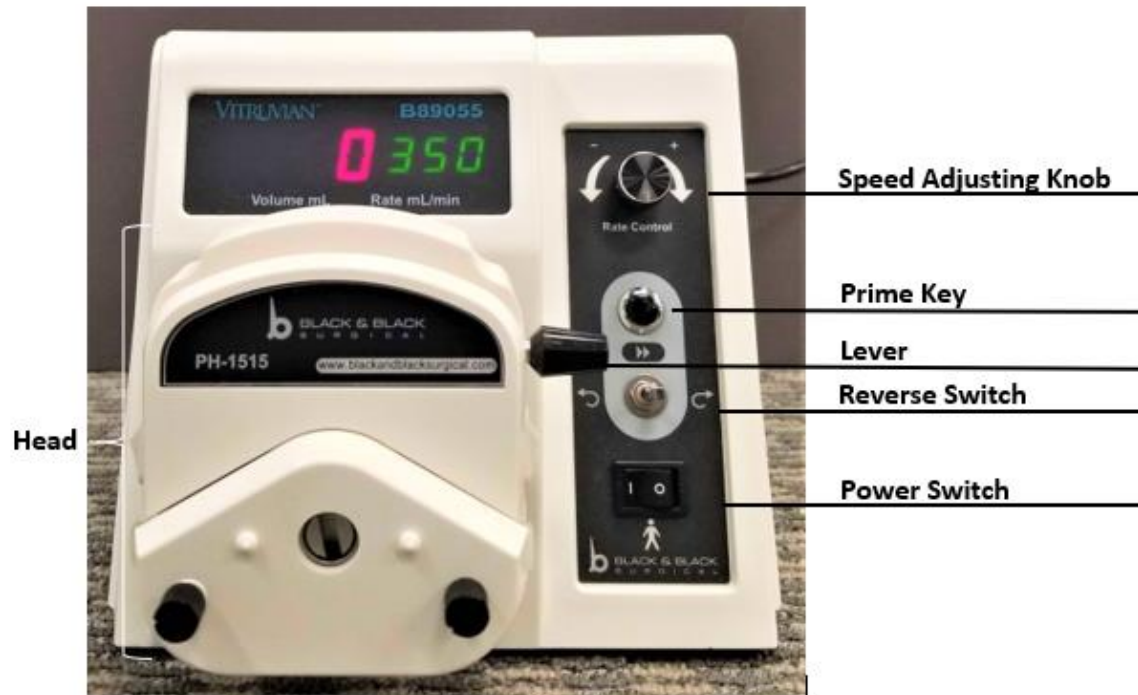
# Servicing Your Pump

Before servicing your pump, please call Black & Black to help troubleshoot your issue and decide, if necessary, what replacement parts you may need. Please have your pump serial number on hand when you call in. It is located on the back lower right corner of the pump and starts with “P1xxx”. If there are ever any questions about how to service / repair your pump – please call customer service!

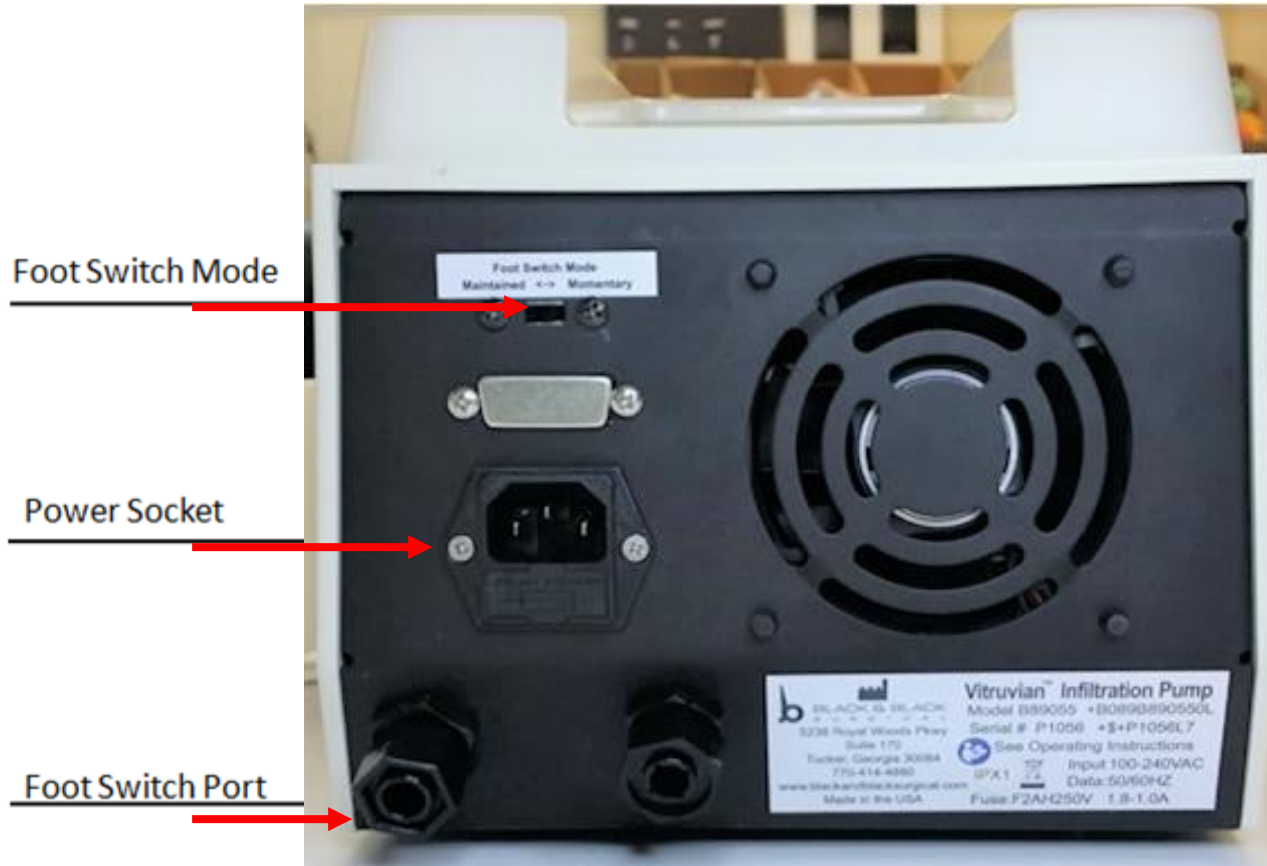
770-414-4880

If any electrical parts inside of the pump are replaced at your facility, electrical safety tests must be performed after servicing/repairing and prior to being used in surgery. Safety Tester must comply with IEC 60601-1 standards. If you are unable to perform an electrical safety tests at your facility, please send your pump back to Black & Black Surgical for repair and safety testing.

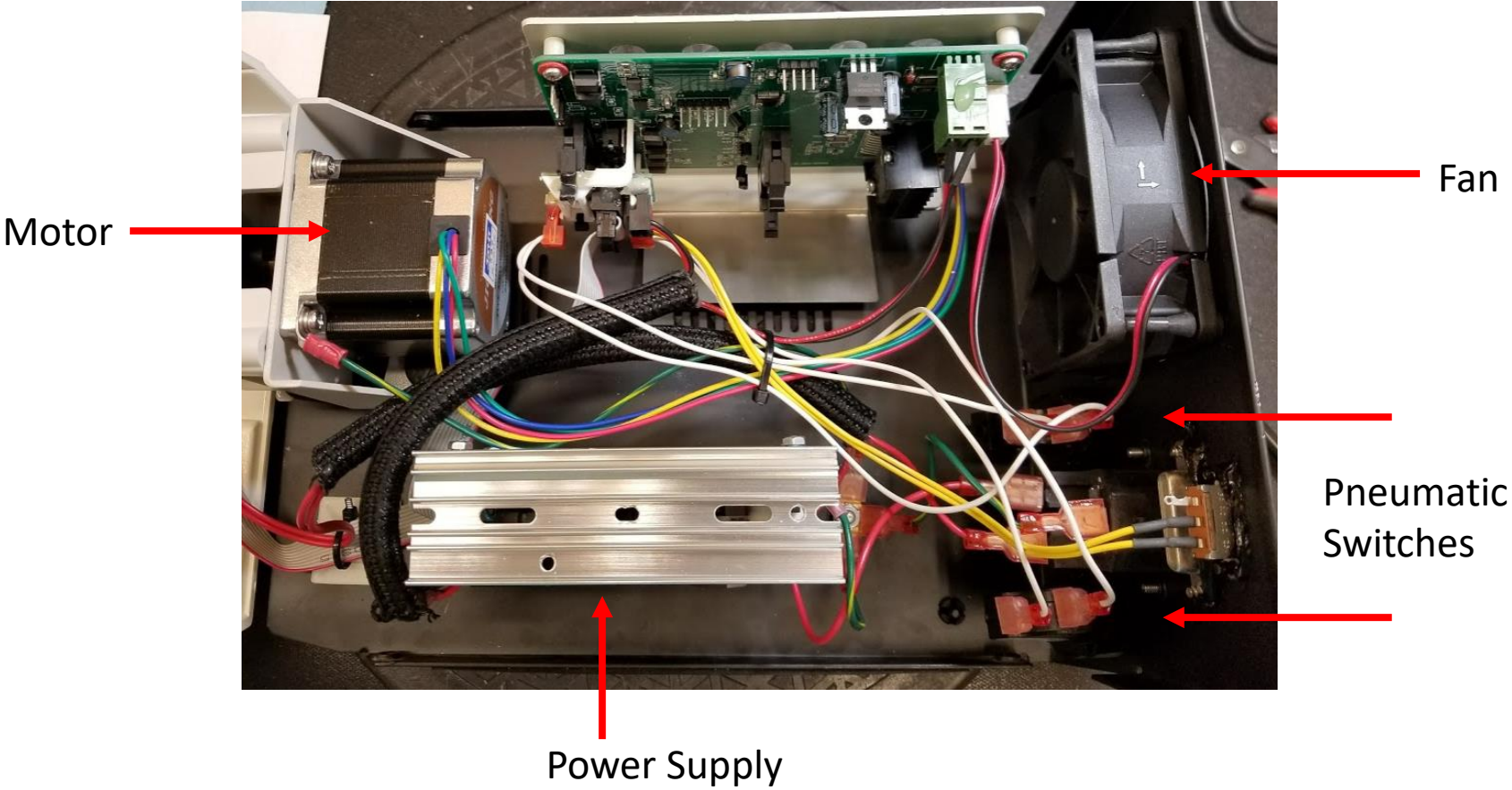
# Front of Pump



# Back of Pump

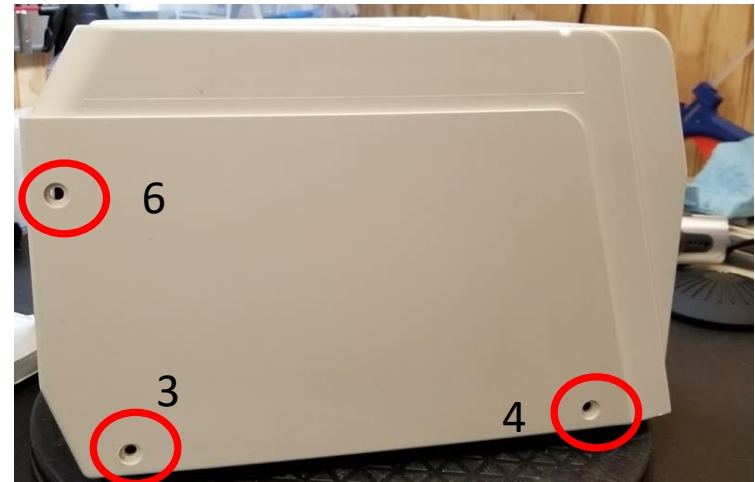
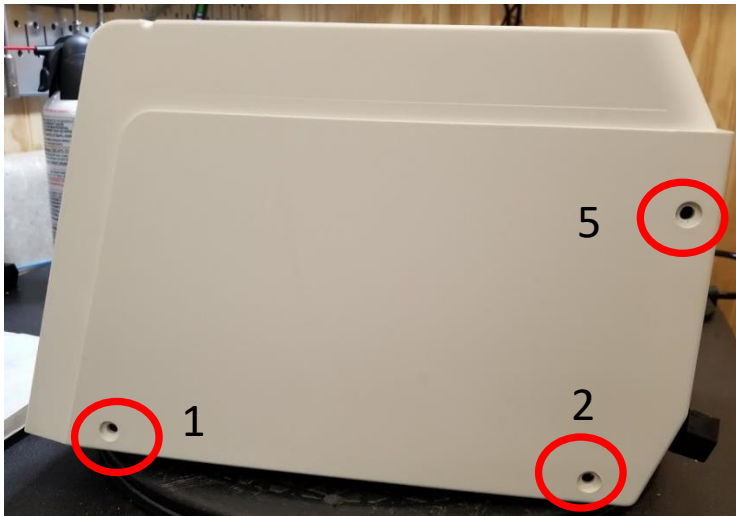


# Inside of Pump



# Opening Pump Case

To service parts inside the pump, follow the instructions on page 9 to remove the pump head. Then remove 6 screws from the outside of the case as shown below and lift the cover away from the base of the pump. Use caution as a ribbon cable connects from the base to the display PCB on the inside of the cover.



# Troubleshooting Guide

Problem	Possible Causes	Solution
Pump head not rotating	Damaged Pump Head	Replace Pump head (pg 9 )
No Display	Display board damaged	Replace Display Board (pg 10 )
	Ribbon cable disconnected from display board	Plug ribbon cable back into display board (pg 10 )
No Power	Power cord not plugged in	Connect power cord
	Fuse damaged	Replace fuse (pg 11 )
	Power supply damaged	Replace power supply (return to Black & Black)
Foot Pedal Not Working	Damaged Foot Pedal Tubing	Replace Foot Pedal
	Damaged Pneumatic Switch	Replace Pneumatic Switch (pg12- 14)



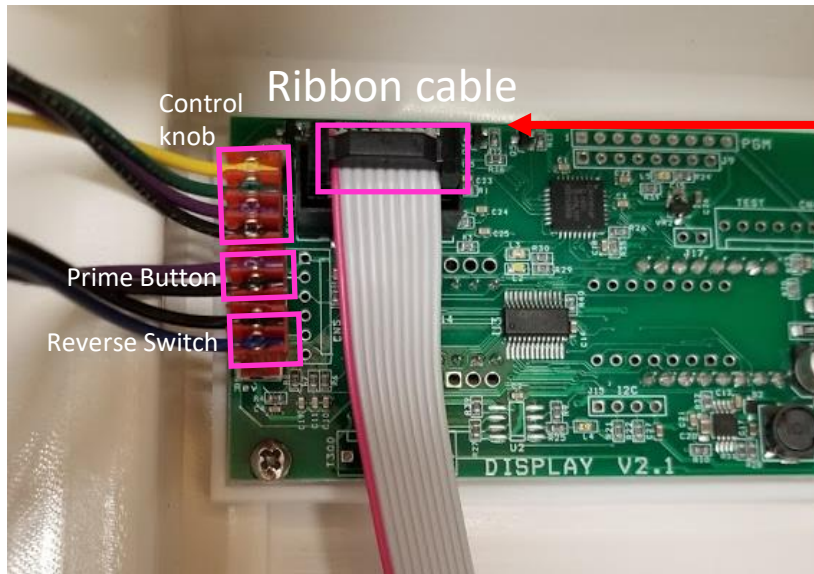
# Pump Head Replacement

To replace the pump head – Remove old pump head by unscrewing the 2 tightening screws shown below and pulling the pump head horizontally towards you to remove.



To install new pump head, line up pump head notch with grommet on motor inside of pump and carefully push in. Secure head by tightening the 2 tightening screws.

# Display Board Replacement



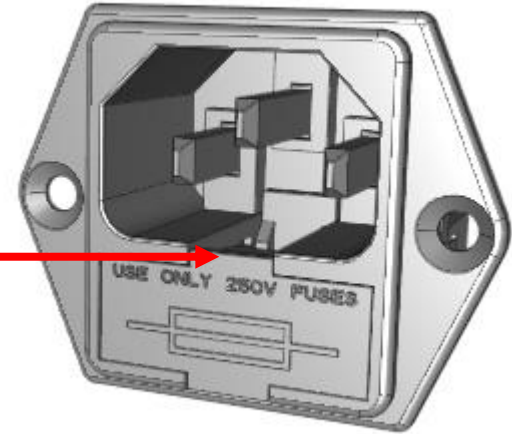
Remove 4 sets of cables from display board

Remove 4 screws from display board.  
Install new display board, secure 4 screws  
back on board, plug 4 sets of cables back on  
board according to picture above.



# Fuse Replacement

Open fuse slot by pulling on tab on top of slot



Remove damaged fuse, and replace with good fuse.

# Pneumatic Switch Replacement

Disconnect wires from damaged pneumatic switch.

Remove  
tightening nut



Remove lock nut



Remove  
damaged switch



# Pneumatic Switch Replacement cont.

Insert new switch



Secure lock nut

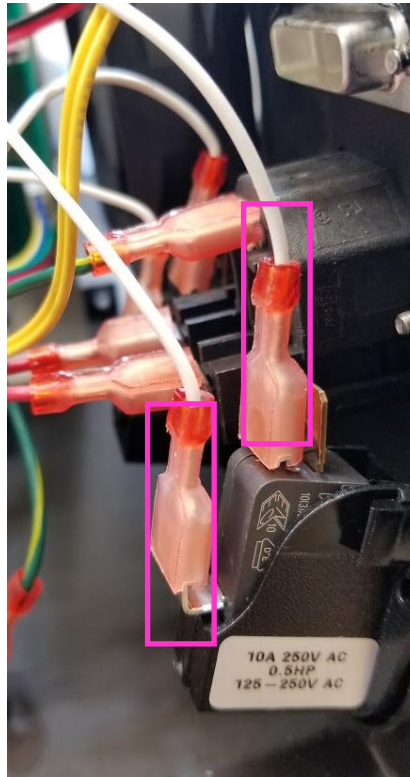


Secure tightening nut



# Pneumatic Switch Replacement

Connect wires  
back to new  
switch



# Replacement Parts List

Part Number	Description
58-9056A	LED/Display Board
58-9026P	MOMENTARY AIR SWITCH
89026P	HARD FOOT PEDAL, 10FT TUBING
89032	HOSPITAL GRADE POWER CORD (18/3 10 FT)
58-9055Q	POWER SUPPLY
58-9055U	CERAMIC FUSE

# Contact us

Please contact Black & Black Surgical with any questions!

Email: [info@blackandblacksurgical.com](mailto:info@blackandblacksurgical.com)

Phone: 770-414-4880