

1 General Information

Valid for:	M. Braun, Inc. Standard Glove Boxes
Review:	Working Instruction: Filter Column Unloading and Loading Procedure
Responsible:	Service Department
Applies to:	Unilab, 20/200G Purifier Carts

2 Notes:

Although every effort has been made to ensure the accuracy of this manual, the manufacturer cannot accept liability for the information contained therein. The M. Braun Company reserves the right for making technical, visual and functional changes on the systems or system components described herein. Any reproduction of this technical documentation - even in excerpts only by expressed permission and preceding information of the manufacturer.

3 Steps:

Items you will need prior to starting the swap:

Respirator with appropriate filter cartages.

Philips Screwdriver.

Small Flathead Screwdriver.

6mm Allen Key.

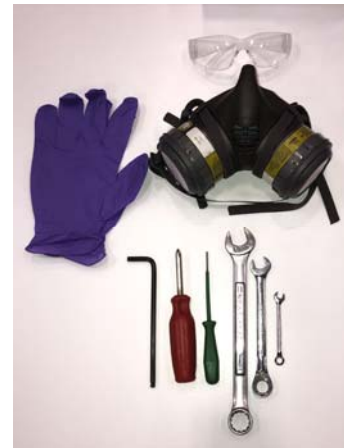
19mm open end wrench.

13mm open end wrench.

7mm open end wrench.

Gloves.

Safety Glasses.



Turn the Q1 Main Power switch to the Off position. Once the system has powered down and follow all LOTO protocols your site may have.



Using the Philips head screwdriver remove the side panel of the Purifier cart to expose the Filter Column.



Disconnect the Grounding connection at the bottom of the panel before removing it completely.



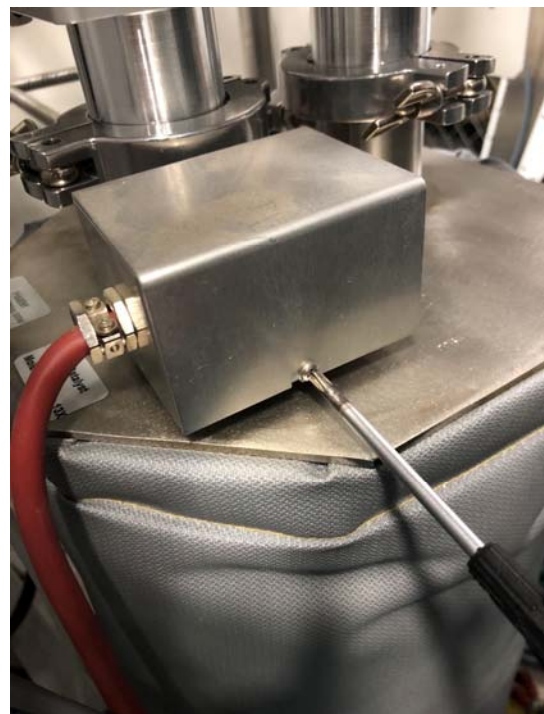
With the side panel removed the filter column will be accessible.



Using the small flat head screwdriver pull/pry outward on the grey tab to release the plug from the electrical housing on the top of the filter column.



Older systems will be hard wired to the filter column which will require the removal of the cover to expose the 3 wires needing to be removed.



Using the 7mm open end wrench remove the two nuts holding the brown and blue wires onto the heating element posts.

Using the 13mm open end wrench remove the nut holding the green and yellow grounding wire onto the grounding post.

With the three nuts removed the electrical box can be removed from the filter column.



Using the 6mm Allen key unscrew the 4 M8 hex head bolts that hold the filter column to the purifier cart.



Using the 19mm open end wrench unscrew the two 10mm fittings.



Unscrew the two KF-40 Clamps that hold VHA and VHE onto the filter column.



Remove the two screened KF-40 centering rings. With the o-rings removed it is a good idea to check for dry rot and replace as needed. While inspecting the o-rings also ensure the screens are not dirty or obstructed.



Tilt the filter column out and lift upward to remove the filter column from the purifier cart.

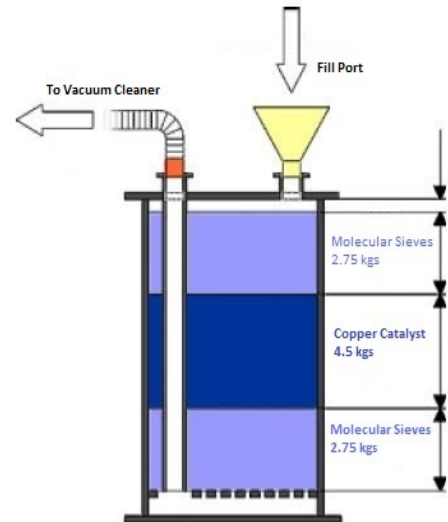


Drain the contents of the filter column into a waste container and mark as hazardous waste if needed.



Refill the filter column with first roughly half of the Molecular Sieves followed by all of the Copper Catalyst, then add the remaining Molecular Sieves. The last of the Molecular Sieves will require multiple pours and for the media to be settled between each pour.

Note: The Column must be shook or tapped with a rubber mallet to help distribute the media. There may be some molecular sieves left over. Do not fill above the neck of the KF-40 port.



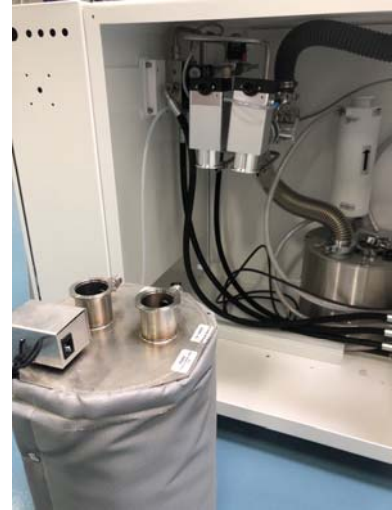
Copper Catalyst



Molecular Sieves

Once filled clean all of the sealing surfaces and the two KF-40 screened centering rings. Place the bottom of the filter column into the purifier cart first then slowly lean the top into place.

When leaning the top into place be prepared to adjust the two circulation valves VHA and VHE so they are not pushed by the columns movement inward, also be cautious of the two 10mm lines for the same reason.



Once in place shift the filter column so the two 10mm lines are back in their respective locations and tighten the two nuts back on finger tight only.



With the filter column in place install the centering rings.



Install the two KF-40 clamps, center the clamp around the flange by tapping on the back side of the clamp. Tighten the wing nuts until tight.



Using the 19mm Open end wrench finish tightening the two 10mm fittings. Approximately 1/8-1/4 turn past finger tight is all that is needed.



Plug the electrical cable back in. It only goes in one way.



Attach the blue, brown and Green and yellow wires back to their original locations and tighten down the nuts to hold the wires in place.

Note: The brown and blue wires locations are interchangeable.



Install the electrical box cover.



Install all 4 of the M8 hex head bolts before tightening them down to firmly hold the filter column in place.



Working Instruction

<p>Remove all LOTO if necessary and turn the system back on. Once powered on initiate a regeneration.</p>	
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