

**Matala HAKKO LINEAR AIR PUMP DIAPHRAGM REBUILD INSTRUCTIONS**

Hakko 40, 60, 80 shown

Your new diaphragm kit includes two diaphragms. Each diaphragm consists of two halves. Also included is a bag with new nuts and washers.

Tools you will need:

- Flat head screw driver
- Phillips head screw driver
- Adjustable wrench.

- 1) Remove top filter cover and filter pad.



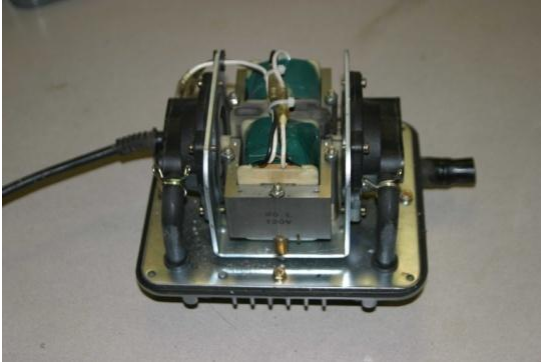
- 2) Turn pump over and unscrew the 4 screws which connect the body to the base.
- 3) Use a flat head screw driver to pry outer metal body away from the base.



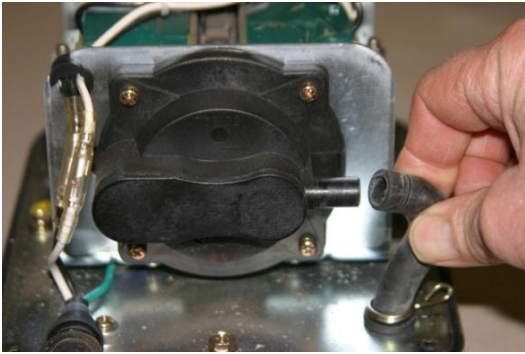
- 4) Remove body and white sound absorbing pad.



- 5) Inspect motor for burned wire, torn rubber hoses, fine metal dust. Clean gently with damp paper towel.



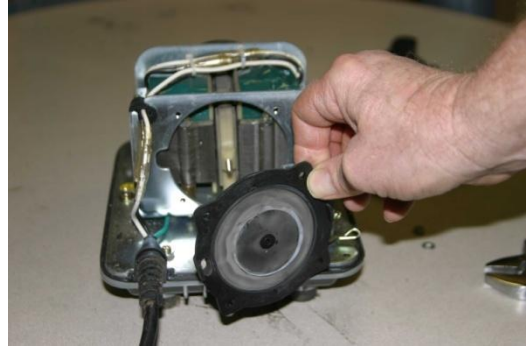
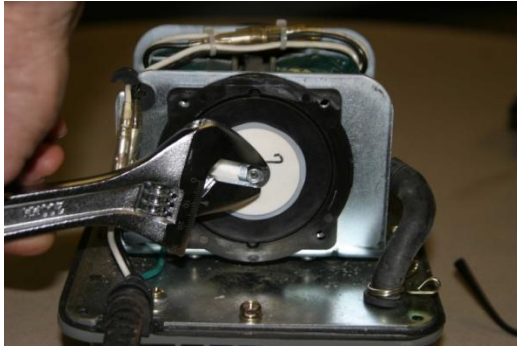
- 6) Repair only one diaphragm at a time. Remove the black J-tube from diaphragm outlet. Once removed, just push the top of tube to the side out of the way.



- 7) Use a Phillips screw driver and remove the 4 screws which connect the diaphragm to the motor plate. You might have to use a flat head screw driver to separate the two halves of the diaphragm.

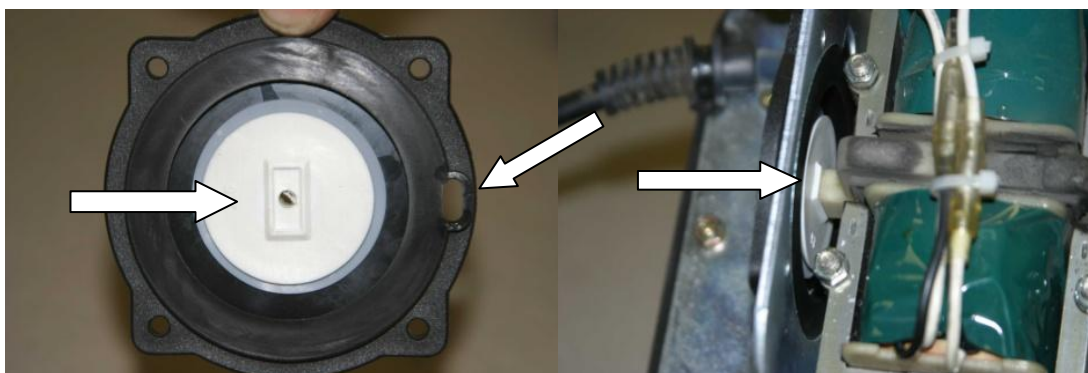


- 8) Use an adjustable wrench to remove the nut on the diaphragm. This will separate the diaphragm from the magnet.
- 9) Tap or push the center screw in order to separate the diaphragm from the magnet. You might need to use a flat head screw driver to separate the diaphragm from the motor plate.

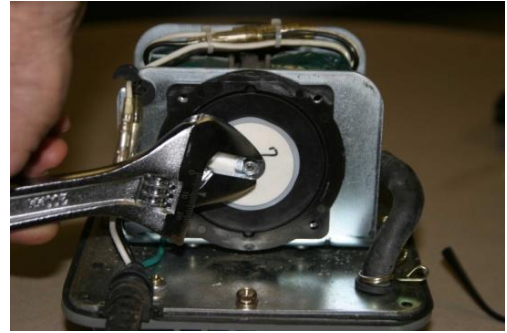
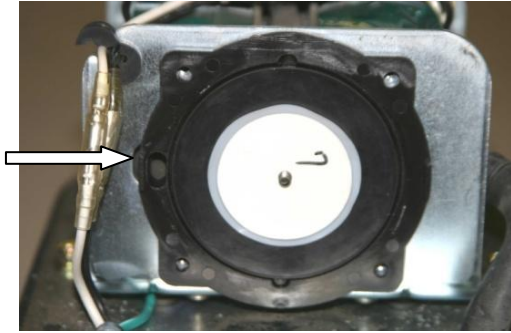


\*At this point you will have a better look at the magnet. The magnet rarely needs to be replaced. If there is a lot of fine metal dust in the motor area then the magnet may need to be replaced. Inspect the top and bottom part of the magnet. If it looks very worn or melted proceed to the optional section on "How to Replace the Magnet".

- 10) Inspect one new diaphragm. There are two halves for each diaphragm. Notice that the half with the round soft rubber looks different on each side. One side has a rectangular impression. This impression must line up with the magnet screw. There is also an oval peg on the hard black plastic part which must align properly with the motor plate.



- 11) Align the new half diaphragm properly with the magnet screw and the motor plate. Push the diaphragm completely until it touches the magnet screw. You might need to push the soft rubber from behind with your finger. Use the wrench to screw on the new washer and nut. Be sure the new nut is very tight. (You may also use a drop of removable "Lock-Tight" glue to secure the nut to the magnet.)



- 12) Again, properly align the hard plastic with the motor plate. Be sure it is set flush with the motor plate and the oval plug is aligned with hole in motor plate. Now, align the second outer half diaphragm with the first half screw holes. Squeeze both halves together with your fingers really hard. The two halves will not completely connect until you screw them together.



- 13) Screw the 4 screws in just a little at a time while gradually increasing the torque. Progress around the screws gradually tightening evenly until both halves are fully connected and tight with the motor plate.



14) Replace the black J-Tube over the diaphragm outlet. Use existing clip to secure tube to outlet.



Repeat these instructions for the second diaphragm starting at #6.

15) After both diaphragms have been replaced, put the white sound absorber back over the motor. Tap it clean if it is dusty. Do not wash.



16) Replace the outer metal housing onto the base and tighten the 4 screws. Wash the square air filter with tap water and shake dry. Reinstall into the top of metal housing and replace the filter cover. Congratulations, you've done it!

