

Changing motor brushes on the Diamond Jet

Please refer this process only to a trained motor technician. Watch the video online at <http://youtu.be/aF6Z-cuD8Ww>

Step 1:

Disconnect power from the machine, and remove the top cover. If a baffle is present, remove the baffle. Disconnect all motor power plugs. Use a screwdriver to remove the clip that holds the brush assembly in place (Photo 1). Pull the brush assembly out & disconnect the wire (Photo 2). Inspect the armature for excessive wear and burnt areas. Some slight wear is acceptable but excessive wear or burnt stops mean the motor is unusable. Attach the wire to the new brush assembly. Install the new brush assembly and make sure the wire is not near the armature by pulling wire away from center, and lock it in place with the clip. Repeat for the rest of the brushes.

Step 2:

After installing brushes, fuses must be installed on the power leads to each motor. (Please note: all machines & motors sold after 7/20/2015 already have fuses installed. You can tell by the bulge at the end of the wire where it connects to the plug (Photo 3). If your motors already have fuses, skip to step 3.) With the motor still unplugged, cut both the black & white wires about 1" back from connector, and strip the insulation back about ¼" (Photo 4). Slide the heat shrink tubing over the wire, and install the fuses using the crimp connectors already installed on them (Photo 5). Slide the heat shrink tubing over the fuse & crimps, and shrink it with a heat gun. Make sure it fully covers the connection and you have no exposed wires (Photo 6). ALL MOTORS SHOULD HAVE FUSES INSTALLED, EVEN IF YOU DON'T REPLACE THE BRUSHES.

Step 3:

Plug 1 motor in, leaving the other 3 motors (1 motor on the 600 system) disconnected from their power plugs. This will allow only one motor to be run at a time. Next, use a narrow brush stone (DJ08S) to seat the brushes. With the motor running, insert the stone through each of the 4 large slots on the top of the motor and touch the spinning armature. This will seat the brushes. If the armature has excessive arcing after 3 applications of the stone, this motor cannot be used and must be replaced. DO NOT ATTEMPT TO USE AN ARCING MOTOR.

Repeat the above steps for the other motors, always running only one motor at a time. We recommend that if one or more motors are bad, either replace them with a good, tested used motor or replace all 4 motors with new vacuum motors. Save the good used motors for future use.

In order to receive replacement brushes, the owner or repair technician must certify by his signature below that he has read and understood these directions and that the procedure outlined above will be performed by a qualified motor technician.

Motor brushes are sold in a kit that includes 2 brushes, 2 fuses and heat shrink tubing. You will also need a small commutator stone (DJ05).

Name _____

Signature _____ Date _____

I am (please check one):

Machine Owner Motor Technician

Fax to US Sander (518) 875-9942 or email to sales@ussander.com

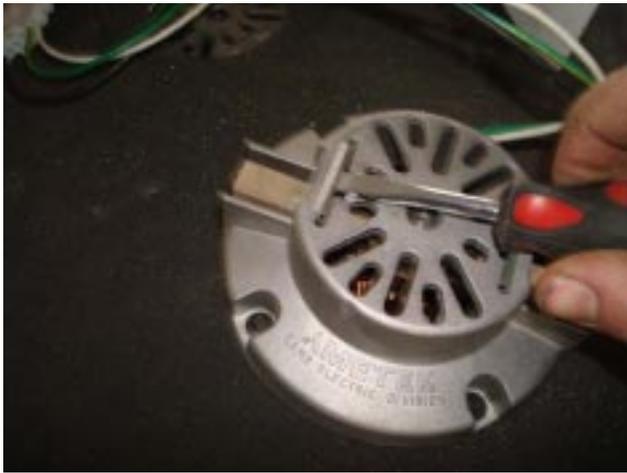


Photo 1
Remove brush clip with screwdriver



Photo 2
Attach wire to new brush

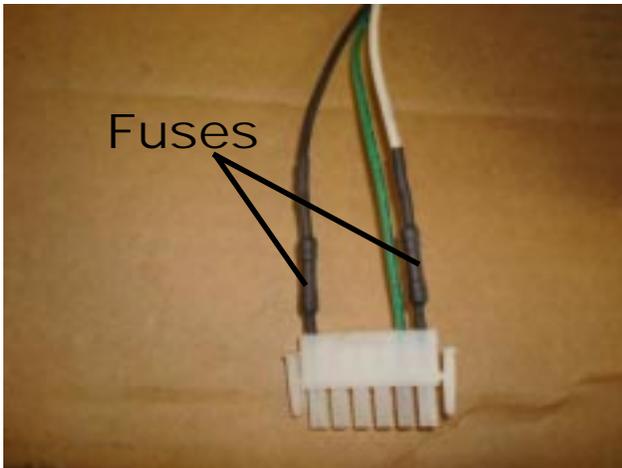


Photo 3
Motors sold after 7/20/15 have fuses installed



Photo 4
Cut & strip wires



Photo 5
Install fuses with crimp connectors



Photo 6
Shrink insulation to protect wires