



# Installation Instructions

<b>PART NUMBER</b>	<b>158-8407</b>	
<b>PART DESCRIPTION</b>	<b>24V VACUUM MOTOR</b>	
<b>REV DATE</b>	<b>4/21/2020</b>	
<b>MACHINE MODELS</b>	<b>ALL BATTERY-OPERATED MACHINES</b>	

TOOLS NEEDED		PARTS
Phillips Screwdriver	5/16" Nut Driver	
7/16" Wrench	Joint Crimper	
Wire Strippers		

### TECHNICAL NOTE

Please thoroughly read the instructions prior to performing the installation of this assembly. To avoid any potential problems, if at any time during the process you have a question, stop, and contact our Tech Support department at the numbers listed below.

## STEPS



Within USA - 1-800-280-2695  
 Outside USA - +1 863-734-0200  
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 E-Mail: [tech@kegel.net](mailto:tech@kegel.net)

Rev. 9/20



1. Disconnect power and lay machine down in the operating position.
2. Unplug the vacuum motor from the wiring harness.
3. Remove the two ¼-20 flat head bolts securing the vacuum motor housing to the frame compartment pane and remove the motor.
4. Remove the four screws that secure the motor into the housing.

***NOTE: Complete step # 5 ONLY if existing machine harness has a WHITE 3-pin Vacuum Motor connector plug. If the connector plug is BLACK, skip step #5***

5. Unplug the 154-8133V 18A Pin Adapter that is plugged into the replacement motor. Strip ½” of insulation off each adapter wire and cut the vacuum motor harness wires flush to the bottom of the existing vacuum motor harness plug. Strip ½” off each of these wires. Use (3) 153-1037 Wire Joints supplied with the new motor and crimp the adapter wires together with the harness wires. Be careful to properly match the wire colors up.
6. Install the new motor into the housing using the same four screws. The wires should be facing downward toward the floor plate when the housing gets installed back onto the frame panel. Re-install housing to the frame panel using the two ¼-20 flat head bolts. Tighten completely.
7. Plug the adapter harness into the vacuum motor plug.
8. Apply power to the machine and test motor operation using the appropriate output.

## 158-8407 MOTOR CLEANING INSTRUCTIONS

### TOOLS NEEDED:

1/2" Deep Socket  
Vise Grips or Pliers  
Rubber Mallet

1/8" T-Allen Wrench  
Flathead Screwdriver  
Permanent Marker

Hammer  
5/16" Socket  
7/16" Wrench

Disconnect power from the machine & lay machine down in the operating position. Unplug the motor from the machine harness wiring. Using, a flat head screw driver and a 7/16" wrench loosen & remove the motor housing from the frame panel it is bolted to. After taking the vacuum motor out of the machine, the vacuum will need to be removed from the aluminum vacuum motor housing using a 5/16" nut driver.

1. The first step in taking apart the vacuum motor is making some reference marks on the vacuum motor so it can be re-assembled correctly. The first marks that need to be made are on the inside of the vacuum inlet. When looking in the vacuum inlet there is a nut, washer, and a silver disk. Draw or scratch a line across the nut, washer, silver disk and the end of the shaft.



2. After marking everything inside the inlet, a reference mark will need to be put on the canister where it meets up with the plastic housing.

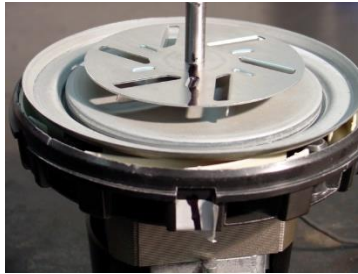


STEP 3

3. Now that the initial marks have been made, put the 1/2" socket on the nut and insert the 1/8" T-Allen through the socket into the shaft end. Hold the 1/8" T-Allen and turn the socket to break the nut loose.

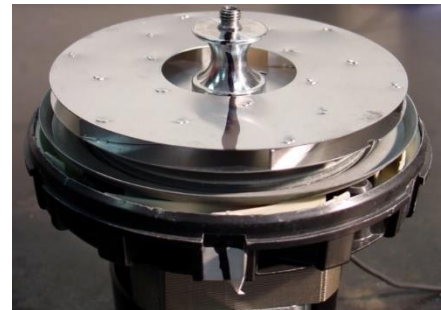


4. Now that everything is loose, the Gray canister will need to be taken off. Don't forget the reference marks. The canister is crimped onto the plastic housing in at least (3) areas. Take a screwdriver and pry the crimp out carefully in these sections so that the canister is no longer biting into the plastic housing.



5. After bending the crimps out, use the screwdriver to tap the canister off the plastic housing, alternating sides when doing this. Use caution when removing the canister to make sure the inner fan blades do not turn.

6. Now that the canister is off, locate the initial reference mark made on the motor shaft. Mark the top of the metal fan blade and the hub/spacer so that they line up with the reference mark (use a permanent marker or something metal to scratch the top of the surface). Now slide these two pieces off and there will be another smaller fan blade underneath these two pieces. This blade will need to be marked on top and taken off also. The phenolic spacer underneath these blades will need to be marked on top and taken off as well.



7. After the vacuum has been disassembled, clean the canister and blades. The blades should be scrubbed and the canister should soak in hot water. Hot water should remove the sludge from the blades and out of the canister. After cleaning the canister and blades, clean all the crevices and exhaust ports of the main vacuum motor.
8. After everything is clean and dry, reassemble the motor.
9. Take the black phenolic spacer and put it back on the shaft with ridged side facing down. Now take the small fan blade and slide it on the shaft, then put the bigger fan on and line up all reference marks. Now slide the hub on over both of the fan blades lining it up the same as everything else.
10. Now carefully tap the canister on and line up the fan blade inside the canister so that it is in-line with all the other reference marks, making certain the canister is seated on the plastic housing. Put the washer and nut back on and retighten with the T-Allen and socket. If everything is back on and lined up correctly take a screwdriver and re-crimp the canister back onto the plastic housing.
11. Secure the motor back onto the aluminum vacuum motor housing and reinstall in the machine. Go to test output and run the vacuum. **WARNING**, never run the vacuum without the plastic guard over the metal fan blades.