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## DIAGNOSING A BAD MOTOR

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1. Motor sounds noisy.
2. Motor stops running or runs intermittently and brushes are still good.

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## INSTALLATION INSTRUCTIONS

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1. Unplug power cord from the vacuum unit. Turn vacuum unit on its face so that it rests on the cover plate knobs.
2. Using a #2 phillips screwdriver, remove the (8) screws around the outside from the back cover. Gently prying with a blade screwdriver may be required to unstick the gasket. Disconnect the three wire nuts or quick connectors (depending on your model) that connect the motor wires to the unit's electrical system.
3. Inside the motor compartment, remove the four screws that hold the motor mounting plate in place. With the screws removed, pull the motor along with the motor mounting plate out of the unit completely. You may discard the motor and the old mounting plate appropriately.
4. Install the new motor (motor mounting plate should already be attached to the motor) by centering the motor's inlet with the motor gasket. Align the four mounting holes on the motor mounting plate with the four holes in the motor compartment, and secure the motor mounting plate with the four screws removed in step 3.
5. Reconnect the new motor wires by using either the wire nuts removed in step 2, or by connecting the male and female quick connectors of the motor and unit's electrical system. Ensure that you are matching the color wires of the unit to the same color wires of the motor.
6. Carefully replace the back cover, being sure all wires are not routed on top of motor or obstructing the case in any way. Replace and gently tighten all of the (8) screws in the back cover to secure.
7. Plug the unit back into the power source and turn the power switch on.