# GC MAINTENANCE Replacing the Column Oven Fan Motor

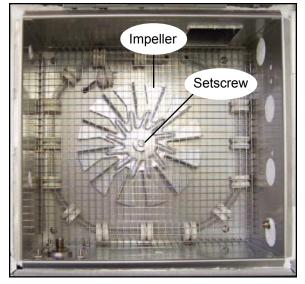
If the column oven fan motor stops turning or begins to make noise, then either the bearings or the entire motor need to be replaced. A wobbly fan or noisy operation are indications that you need to replace the bearings. In most cases, you can swap out the bearings without having to replace the entire oven fan motor. You must first obtain a replacement motor and fan (impeller) from SRI: 8670-6501 for 8610 GCs, and 8670-6502 for 310 and 410 GCs; add a "-1" to the part number for 120VAC, or a "-2" for 220VAC.

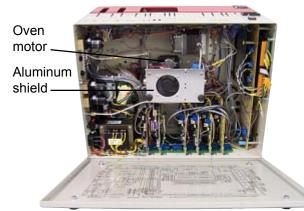
#### **Replacing the Fan Motor Bearings**

- 1. Remove the screen covering the fan (impeller) and heating elements by pulling it straight upward. If you need to bend it a little to remove it, that's OK, you can reshape it before you replace it.
- 2. The fan (impeller) is delicate and will likely sustain damage from this procedure; therefore, you should not attempt this procedure without a replacement impeller. Squirt some WD-40 on the fan motor shaft near the impeller and let it soak in for 30 seconds. Use an allen wrench (3/32) to unscrew the setscrew that secures the impeller to the oven motor shaft, then pull the impeller up and off of the shaft.

IF YOU ARE SURE YOU MUST REPLACE THE ENTIRE MOTOR, SKIP AHEAD TO "REPLACING THE ENTIRE OVEN MOTOR."

- 3. To access the GC interior, unscrew the six phillip's head screws that secure the bottom panel to the GC. Rock the GC onto it's back and pull the bottom cover off toward you, as shown. The oven motor is behind an aluminum plate near the center of the GC chassis interior.
- 4. Unplug the fan, and unscrew the four screws to remove the aluminum plate.

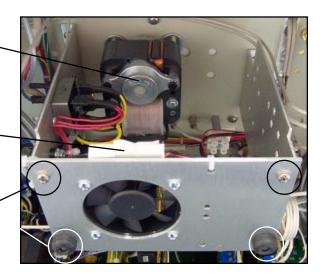




Oven motor bearing cap.

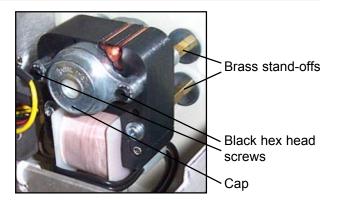
Unplug the fan here -

Unscrew the four phillips head screws to remove the aluminum plate



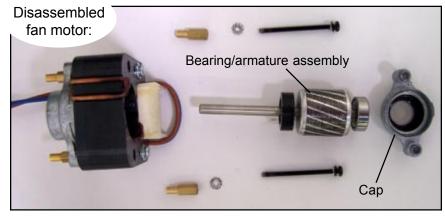
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5. The oven motor is secured to the chassis with four brass stand-offs. The bearing/armature assembly is secured to the oven motor by two black hex head screws through a cap. Use a 1/4" wrench to hold the stand-offs while unscrewing the black hex head screws to remove the bearing/armature assembly. Take care not to break or twist the screws. Once the screws are loose enough, the cap comes off and you can see the bearing/armature assembly.

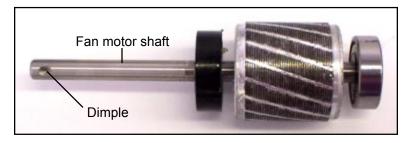




6. Use your SRI screwdriver to pry the bearing/armature assembly from the fan motor.



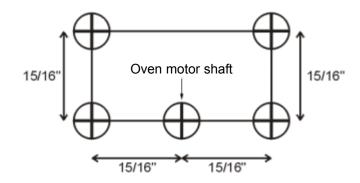
- 7. Remove the new bearing/armature assembly from the new motor. Insert it into the center of the existing motor and press it into place. Replace the cap and tighten the two black screws.
- 8. Replace the aluminum plate and plug in the fan.
- 9. Replace the GC bottom cover and rock the GC up onto its base. Secure the bottom panel with its six screws.



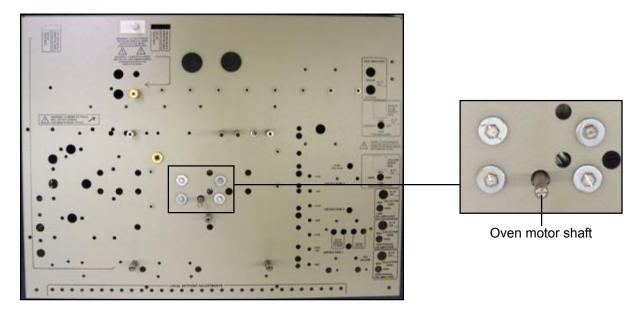
10. Lubricate the new fan impeller and setscrew with anti-seize compound. Attach the new impeller to the motor shaft protruding through the oven floor. When the setcrew is tightened, it locks into a dimple on the shaft. Replace the screen, reshaping it if necessary.

### **Replacing the Entire Oven Motor**

- 1. Complete steps 1 and 2 on page 1.
- 2. You must drill 4 holes into the bottom of the oven. Measure 15/16" from the center of the oven motor shaft on each side, as shown in the diagram at right, then 15/16" up from the outer end of each horizontal segment. Or, you can use the diagram as a template; just center the bottom middle circle over the oven motor shaft. The picture below shows what the fan motor looks like underneath the column oven.



The following picture shows an SRI GC chassis in production with the fan motor installed:



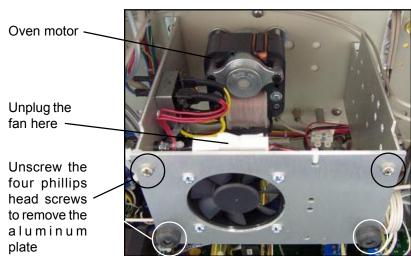
- 3. Use a little oil on the drill bit because the oven is constructed of stainless steel. Drill 1/16" starter holes in the center of each of the four corner circles. Gradually increase the drill bit size to 3/8".
- 4. Insert a flat blade scewdriver through each of the corner holes and loosen the screws holding the oven fan motor to the chassis.

## GC MAINTENANCE Replacing the Column Fan Oven Motor

5. You must access the GC interior to remove the old oven motor and replace it with the new one. Unscrew the six phillip's head screws that secure the bottom panel to the GC. Rock the GC onto it's back and pull the bottom cover off toward you, as shown. The oven motor is behind an aluminum plate near the center of the GC chassis interior.



6. Unplug the fan, and unscrew the four screws to remove the aluminum shield so you can pull out the old fan motor (leave the black rubber grommets in the GC chassis). Cut the two black wires that provide power to the motor (crimp connectors are provided to connect the new motor to the black power wires).



- 7. Install the new oven motor in place with the four brass stand-offs and stainless steel washers. Tighten the screws to center the fan shaft perpendicular to the oven floor, so that the fan can spin freely. Trim the new fan motor power wires, and connect them to the existing black power wires with the provided crimp connectors.
- 8. Replace the aluminum plate and plug in the fan.
- 9. Replace the GC bottom cover and rock the GC back onto its base. Secure the bottom cover with the six screws.



- 10. Lubricate the new fan impeller and setscrew with anti-seize compound. Attach the new impeller to the motor shaft protruding through the oven floor. When the setcrew is tightened, it locks into a dimple on the fan motor shaft. Replace the screen, reshaping it if necessary.
- 11. Fill the four holes you drilled in the oven floor with insulation (you can harvest some from another part of the oven; it doesn't take much).