

# **Draft Inducer Motor Replacement**

Replace a failing draft inducer motor in your Carrier gas furnace using this step-by-step guide.

Written By: Craig Lloyd



#### INTRODUCTION

In a gas furnace, the draft inducer is responsible for expelling combustion gas out of the furnace and venting it to the outside. It's one of the most important components in a furnace, and it's the first thing that turns on when a heating cycle begins. It also stays running during a heating cycle to provide a steady and even flow of oxygen to the burners.

When a draft inducer motor stops working, the entire gas furnace will cease operation, so it's important that you replace it as soon as possible. A loud whining noise is characteristic of a failing draft inducer motor, as the bearings inside are wearing out.

This replacement guide uses a Carrier WeatherMaker 8000TS furnace from 1999. The draft inducer motor and assembly may differ on your specific furnace model.



# **TOOLS:**

- 3/8" Drive Ratchet (1)
- 1/4" Socket (1)
- 6-in-1 Screwdriver (1)
- 1/8" Hex Key (1)
- Penetrating Lubricant (1)



#### **PARTS:**

• Draft Inducer Motor (1)

## **Step 1 — Draft Inducer Motor**



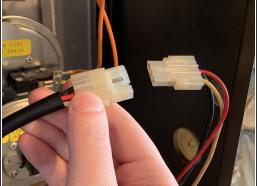


- Start by turning off the flow of gas to your furnace, as well as cutting power to the whole furnace by flipping the service switch to the "Off" position.
- if your furnace doesn't have a service switch nearby, you'll need to cut power to it at the breaker box.



 Grab the handle on the front panel marked "Lift" and push up to release the panel. Place it off to the side.



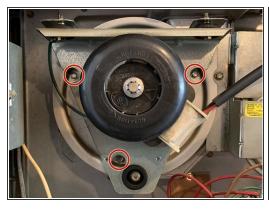


- (i) The draft inducer is located in the upper-left area of the furnace chamber.
- Unplug the motor's Molex connector.
- Your specific furnace model may use a draft inducer with two small connectors on the motor itself, rather than a single Molex connector.





- Use a flathead screwdriver or a 1/4-inch socket to remove the two screws holding the shield plate to the draft inducer assembly.
- Remove the plate and set it off to the side.
- (i) Be sure to keep track of all the screws and bolts!







- Use a 1/4-inch socket to remove the three mounting bolts securing the draft inducer assembly to the furnace.
- Support the motor and assembly from the bottom and slowly remove it from the furnace.





 Use a flathead screwdriver or a small pry tool to carefully pry off the circular clip from the cooling fan.

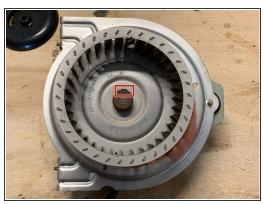
Be careful not to apply a lot of pressure on the fan itself, since it's made of plastic and will break with enough force.







- Remove the cooling fan from the motor's driveshaft.
- (i) You may need to apply a decent amount of pressure and wiggle the fan in order to knock it loose.







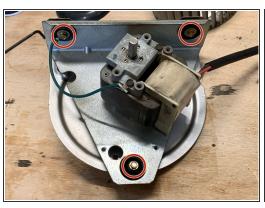
- Flip the assembly over and use a 1/8-inch hex key to loosen the set screw securing the blower fan to the motor's driveshaft.
- (i) More than likely, the fan and set screw will be rusted and seized to the driveshaft. A few sprays of penetrating oil will help loosen it up.



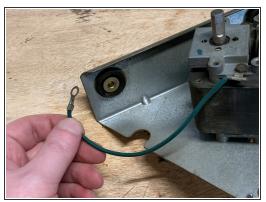




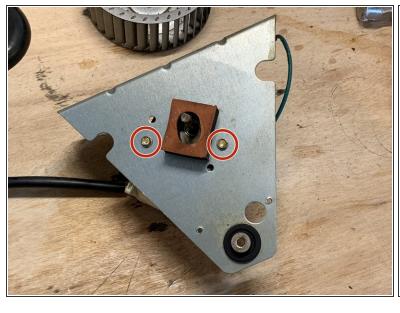
- Remove the blower fan from the motor's driveshaft.
- As with the cooling fan, you may need to apply a decent amount of pressure and wiggle the blower fan in order to remove it.





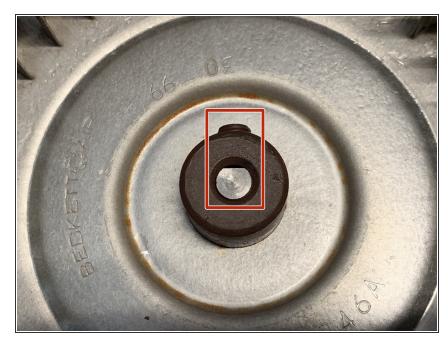


- Flip over the assembly and use a 1/4-inch socket to remove the three bolts securing the motor bracket to the motor plate.
- Once the bolts are removed, flip the assembly back over and remove the motor bracket.
- Once removed, take note of the motor's ground wire, which connects to one of the bracket bolts. Be sure to reconnect it during reassembly.





- Use a 1/4-inch socket to remove the two bolts securing the motor to the motor plate.
- Remove the motor bracket.



(i) When installing the blower fan onto the new motor, be sure that the set screw on the blower fan lines up with the flat edge of the motor's driveshaft.

To reassemble your device, follow these instructions in reverse order.