



# How to Realign the Motor in a Space Heater

This guide covers the partial disassembly of the space heater, realignment of the fan motor, and reassembly.

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## INTRODUCTION

The Comfort Zone CZ442 will produce a loud screeching noise if the motor is jolted out of alignment. Left in this state, the motor may eventually burn out completely. This guide covers the realignment of the motor.



### TOOLS:

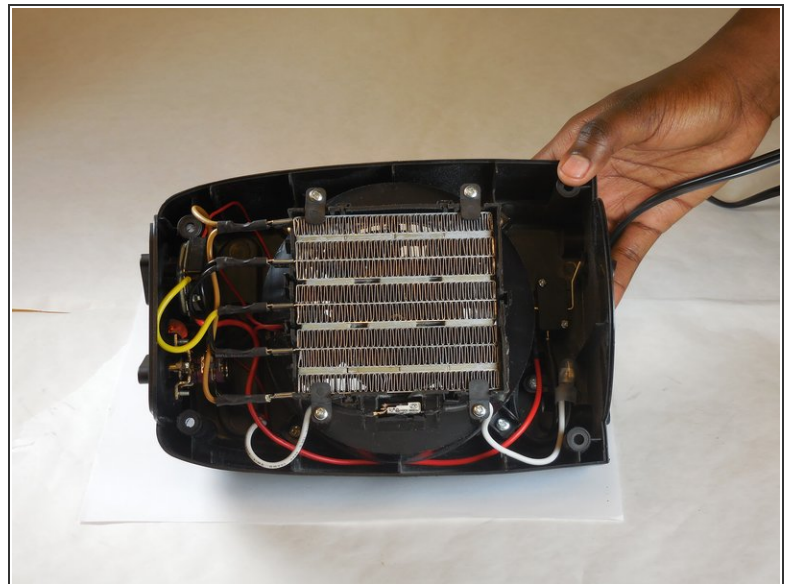
- [Slip Joint Pliers](#) (1)
  - [Phillips #1 Screwdriver](#) (1)
  - [Leather Work Gloves](#) (1)
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## Step 1 — How to Realign the Motor in a Space Heater



- ❗ Before you begin, unplug the heater from the outlet.
- Remove the four rear Phillips screws. Apply firm pressure when removing all screws to prevent stripping.

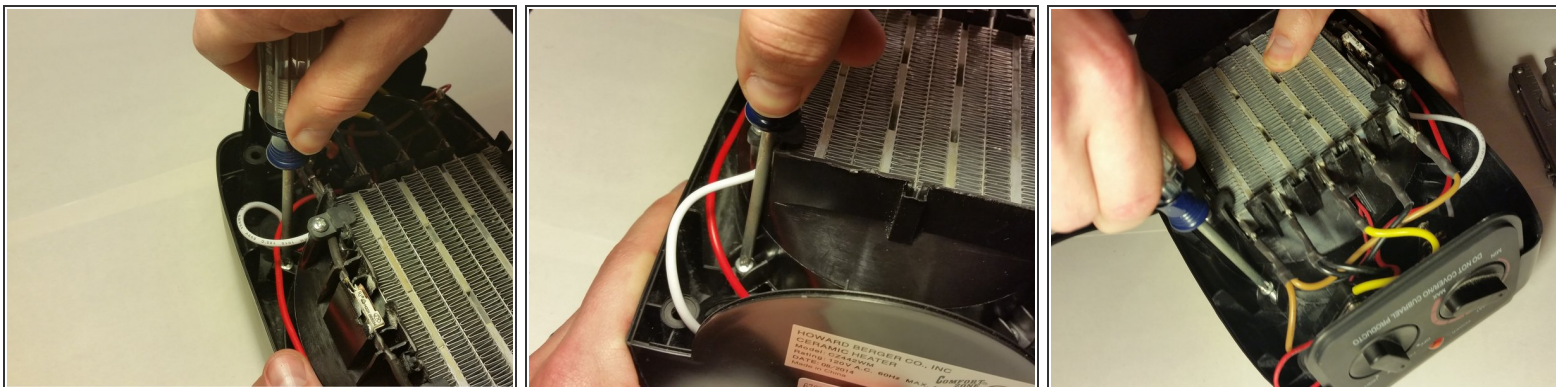
## Step 2



- Carefully remove the front heater panel.



## Step 3



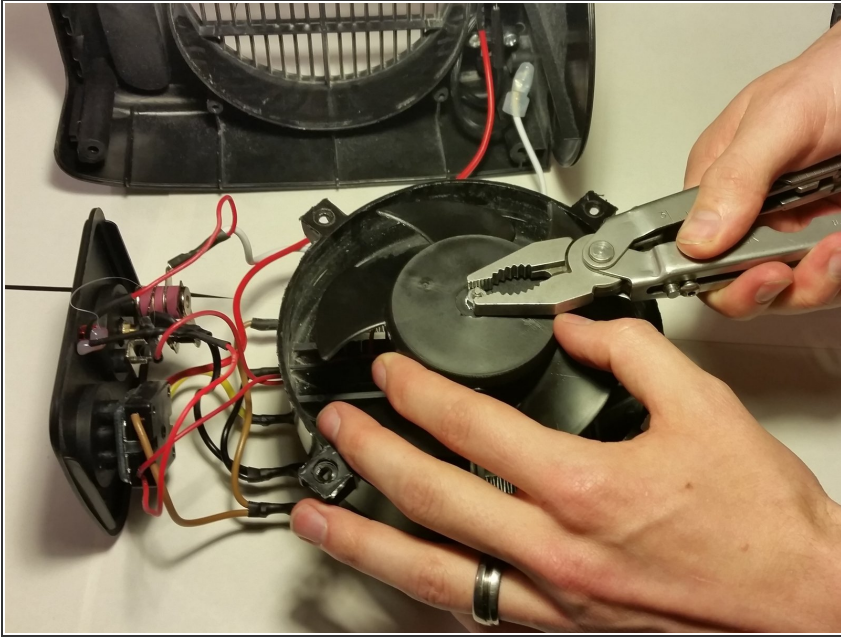
- Remove the four Phillips mounting screws from the heater assembly.

## Step 4



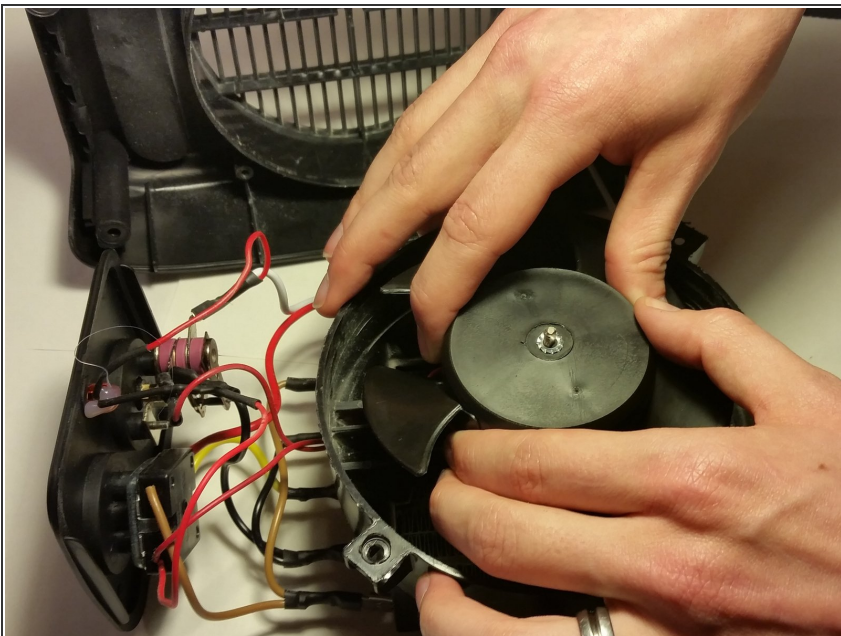
- Slide the top control switch panel out. Be careful not to pull, or apply excess pressure to, any of the wires.

## Step 5



- Using pliers, remove the fan's center mounting nut.

## Step 6

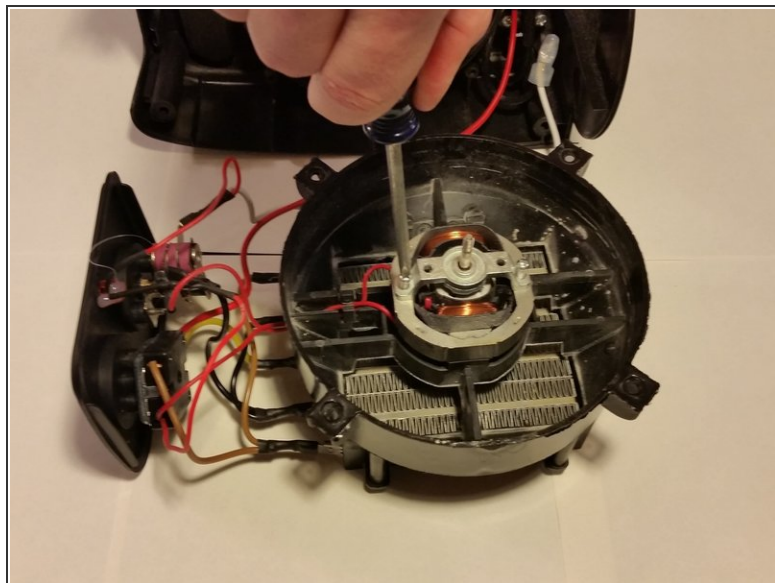
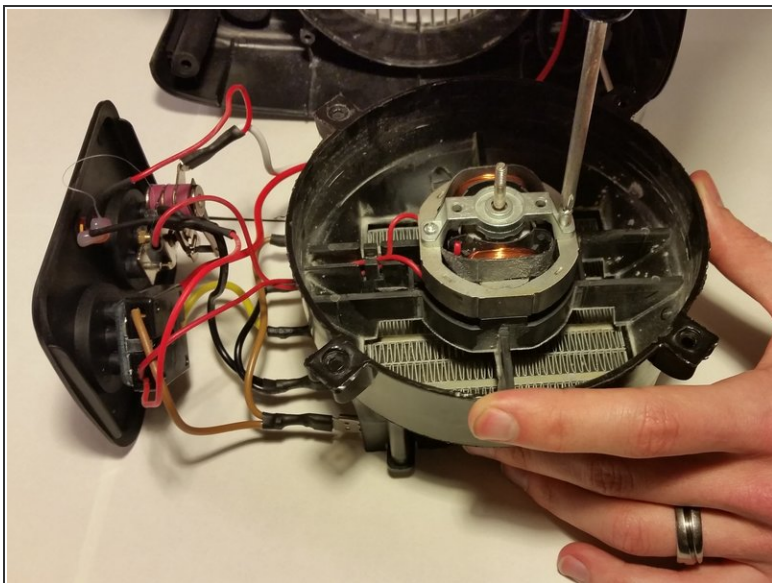


- Pull firmly to remove the fan from the motor.

⚠ Pull from the center of the fan. Do not pull on the fan blades.

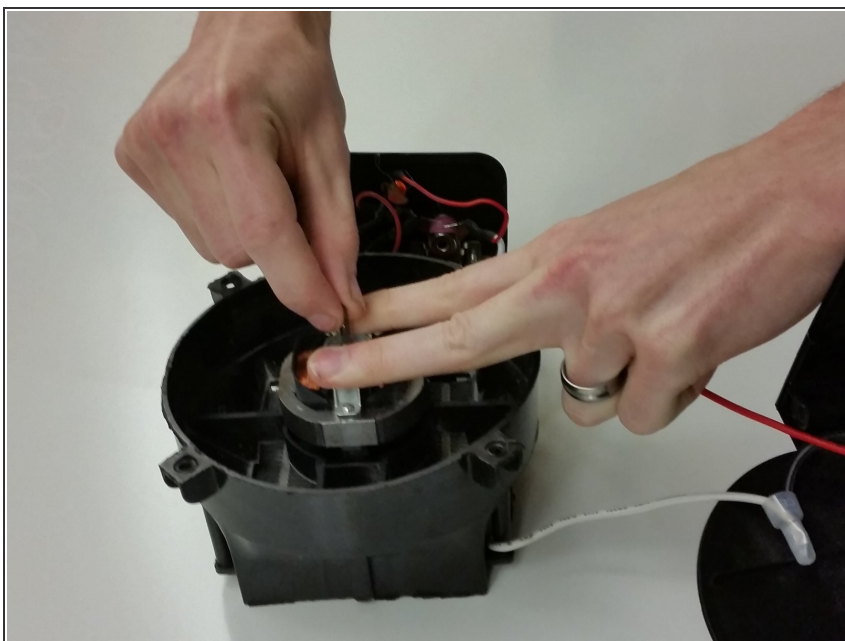


## Step 7



- Slightly loosen both of the motor retainer screws about one full rotation.

## Step 8



- Push down on the motor bracket and adjust the motor by hand so it spins freely and does not scrape.

## Step 9



- Turn the thermostat selector fully clockwise, and the heater selector to "Fan."

⚠ Make sure that the heater selector is clearly turned to the "Fan" setting. Any other setting could cause burns, fire, or electric shock.

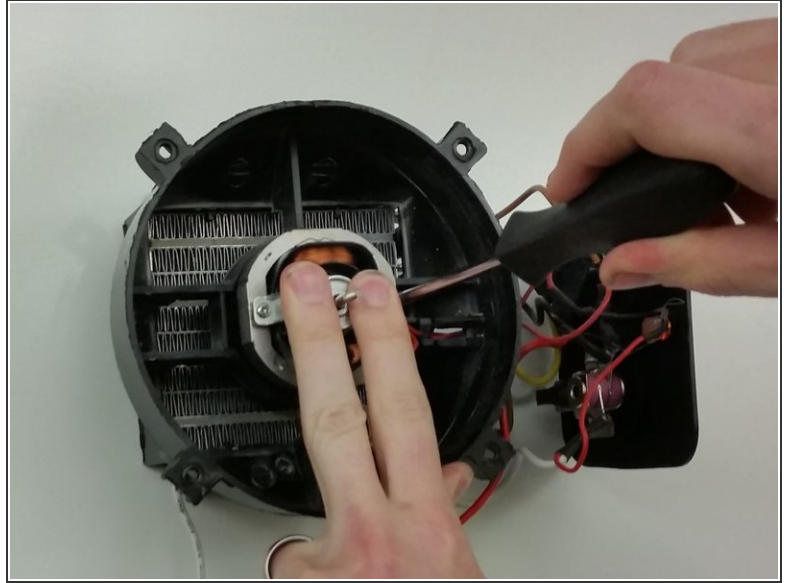
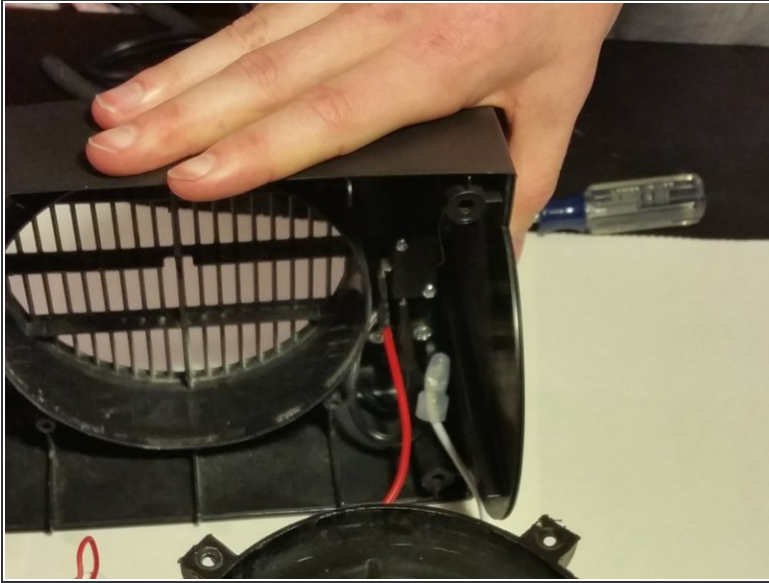
## Step 10




- Make sure the safety switch on the bottom of the heater is not being pressed. Wear the leather gloves, and plug in the heater.
- ⓘ The safety switch's normal function is to turn off the heater automatically if it tips over. Here, however, we can use it as a button to test the fan.



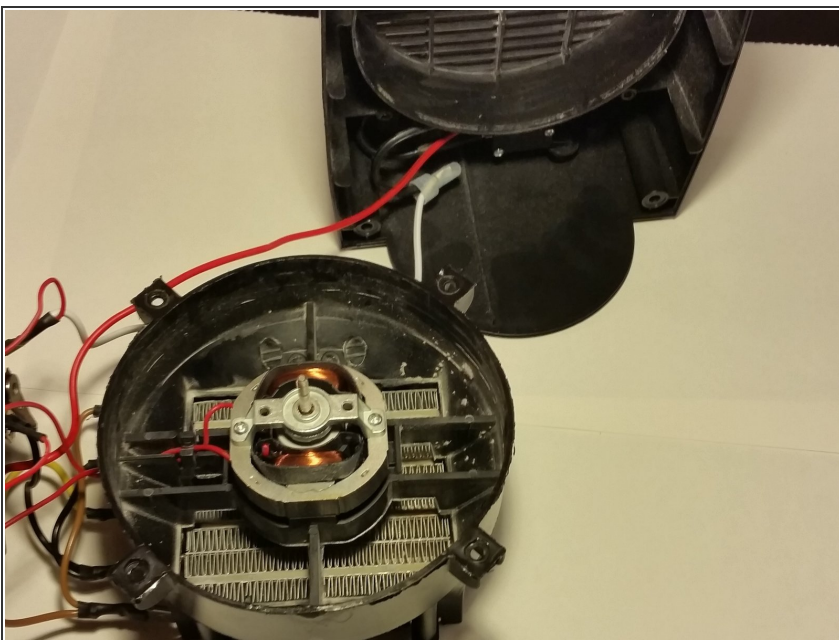
## Step 11



- Press the safety switch briefly to confirm that the motor can spin. Slightly tighten the screws and adjust the motor's alignment by hand until it can spin freely. A light rattling or noise is fine and will be fixed later.

 Keep your fingers clear of the motor while it is spinning.

## Step 12



- Stand the heater case up, so the safety switch is pressed, and the motor is on.

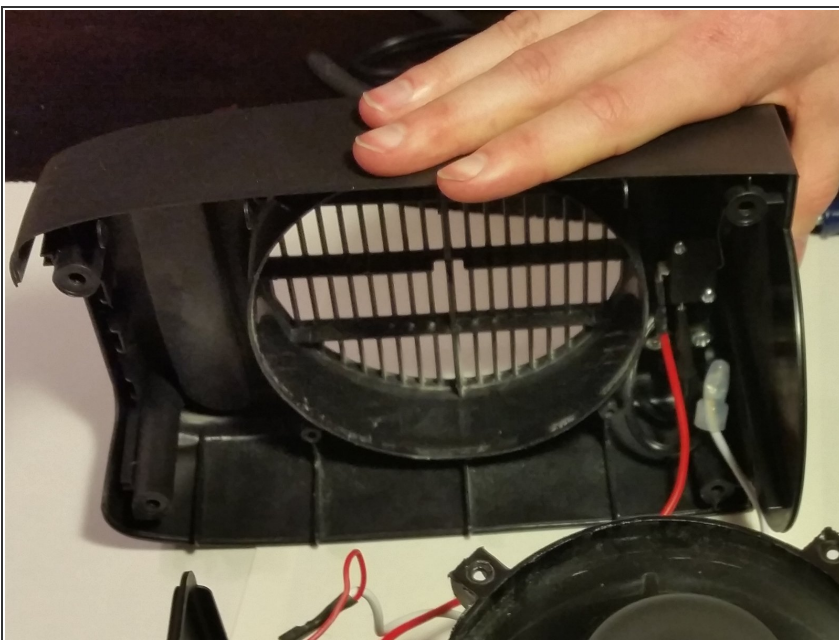


## Step 13



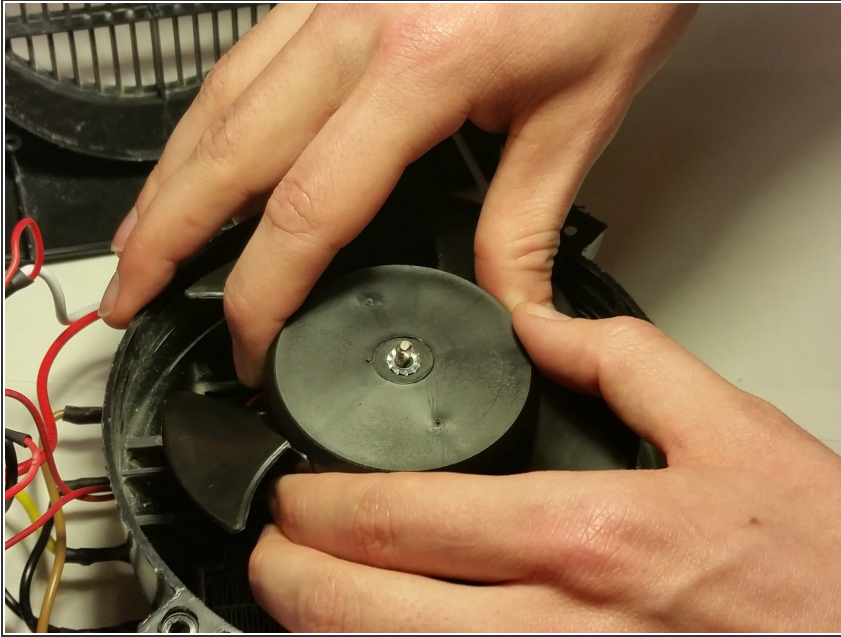
- While the motor is running, slowly tighten the retainer screws until the motor runs smoothly and quietly.
- ⓘ If the screws are too loose, the motor will rattle or screech. If the screws are too tight, the motor cannot turn.

## Step 14



- Set the case back on its side, so the safety switch is no longer pressed, and the motor turns off.

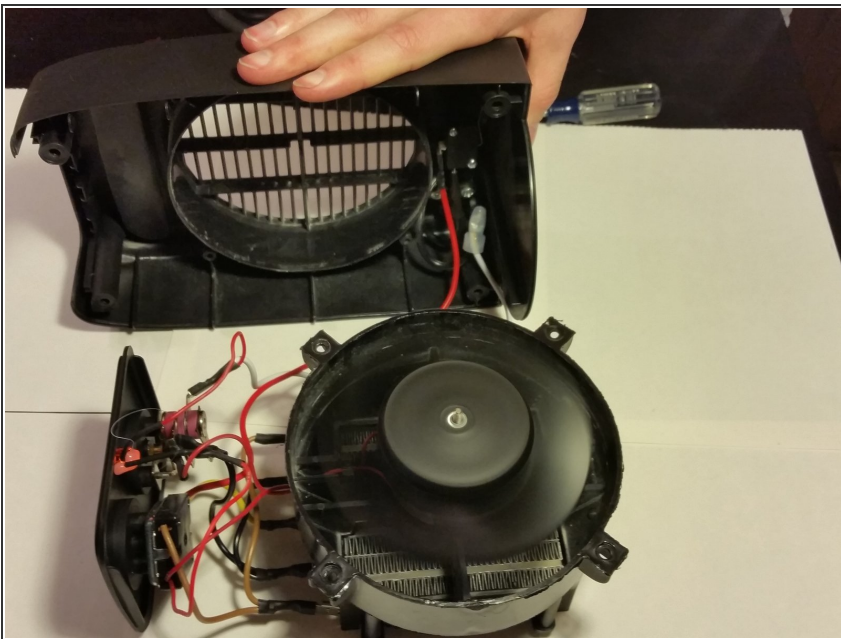
## Step 15



- Align the fan to the motor axle, and press firmly to reattach it.

⚠ Press on the center of the fan only. Do not push on the fan blades.

## Step 16



- Briefly press the bottom safety switch to verify that the fan runs smoothly and quietly. If it does not, return to step 6.

⚠ Make sure your hands and other objects are clear of the fan

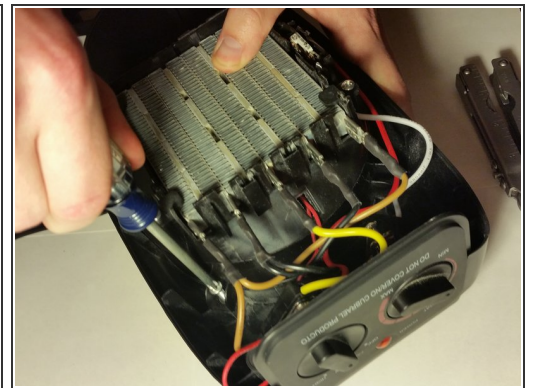
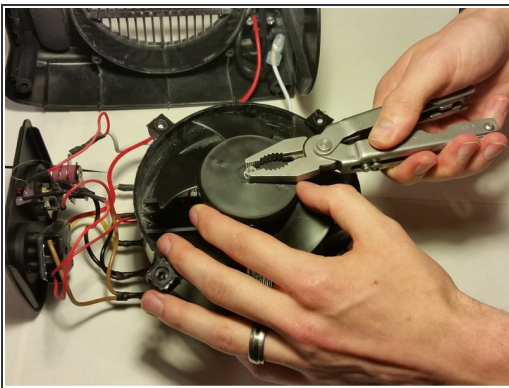


## Step 17



- Unplug the heater.

## Step 18



- Reverse steps one through five to reassemble the heater.

## Step 19



- Test the heater to verify that everything is working quietly and properly