



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:

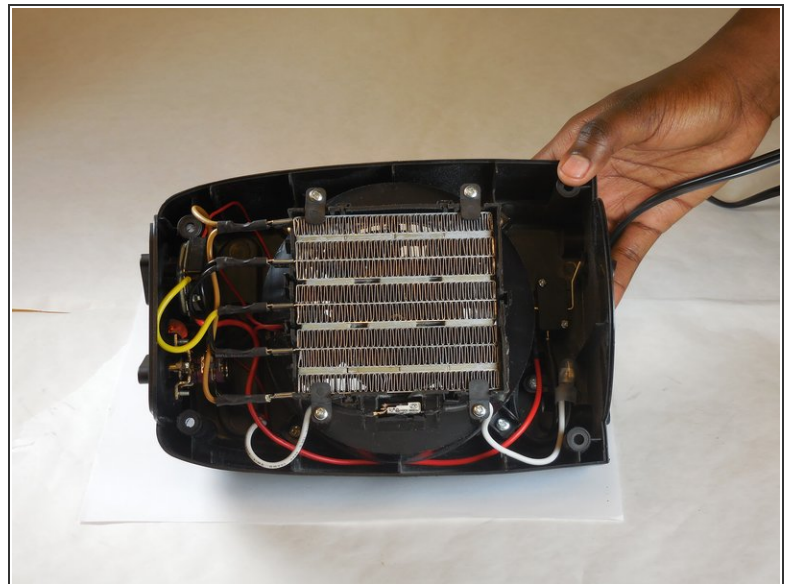
- [Slip Joint Pliers](#) (1)
 - [Phillips #1 Screwdriver](#) (1)
 - [Leather Work Gloves](#) (1)
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Step 1 — How to Realign the Motor in a Space Heater



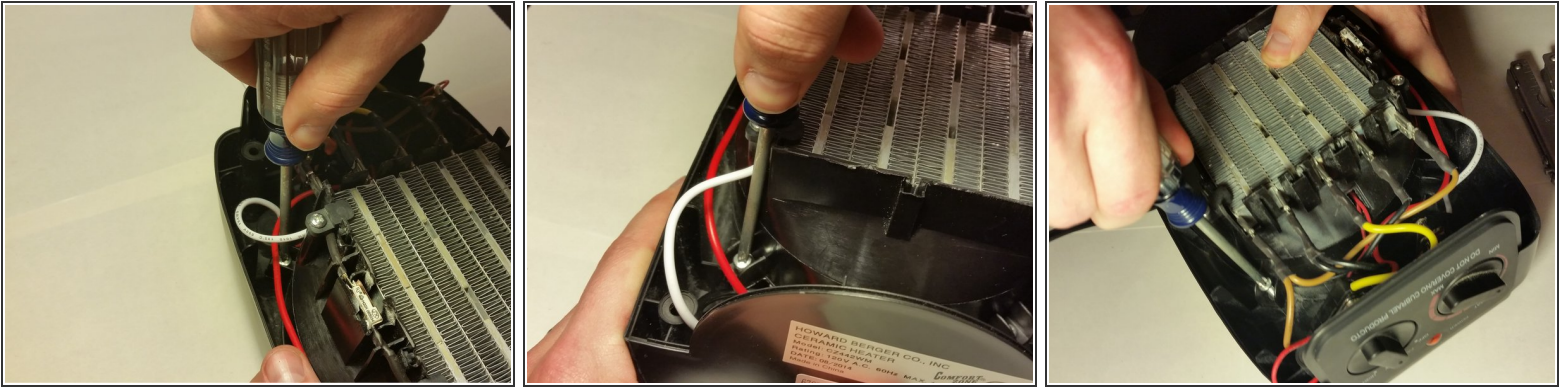
- ⓘ Before you begin, unplug the heater from the outlet.
- Remove the four rear Phillips screws. Apply firm pressure when removing all screws to prevent stripping.

Step 2



- Carefully remove the front heater panel.

Step 3



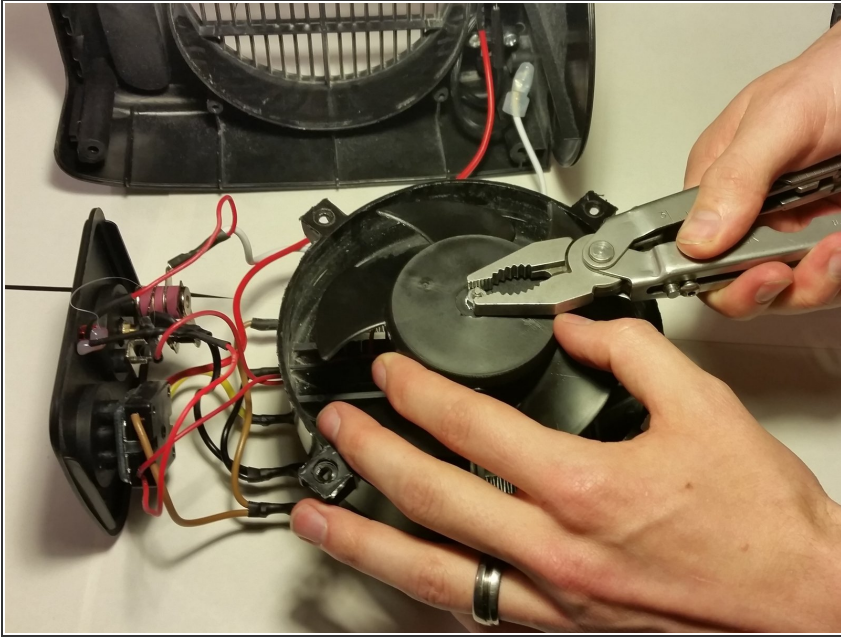
- Remove the four Phillips mounting screws from the heater assembly.

Step 4



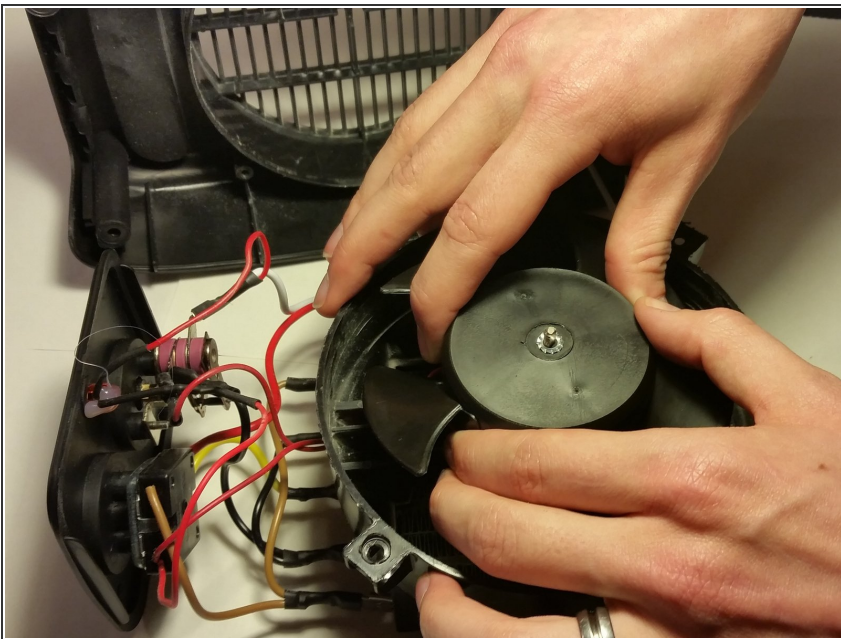
- Slide the top control switch panel out. Be careful not to pull, or apply excess pressure to, any of the wires.

Step 5



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

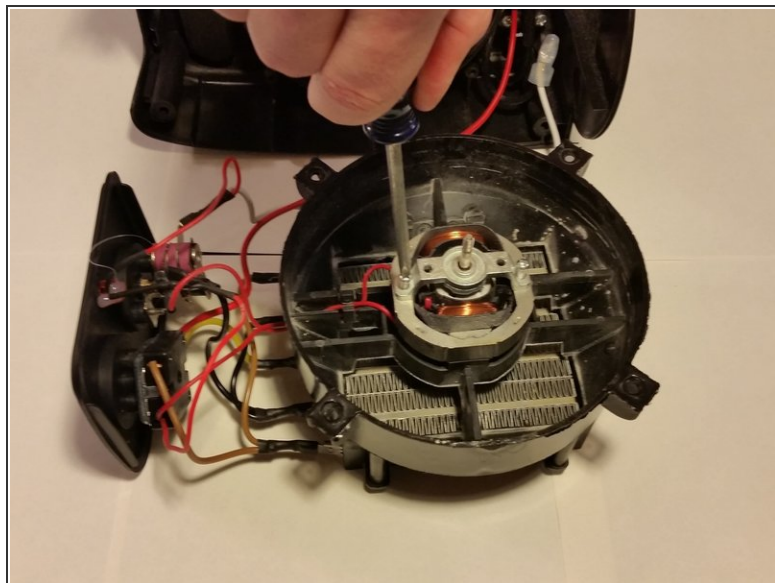
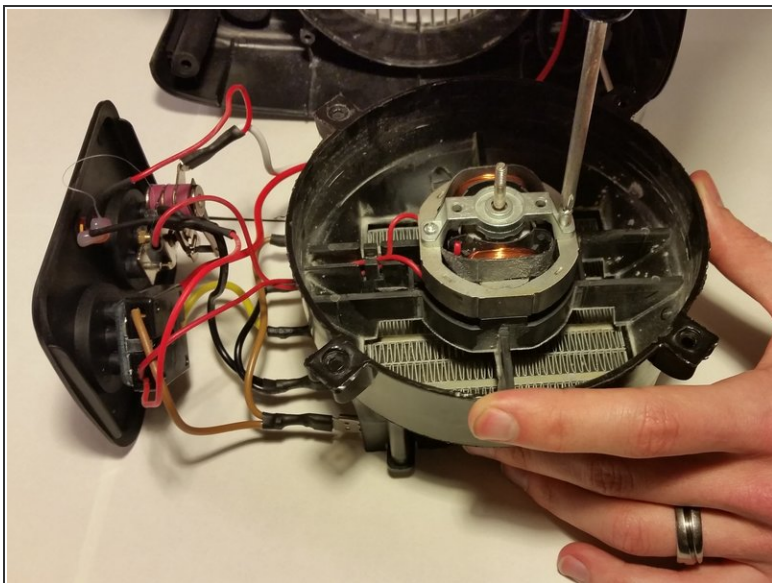
Step 6



- Pull firmly to remove the fan from the motor.

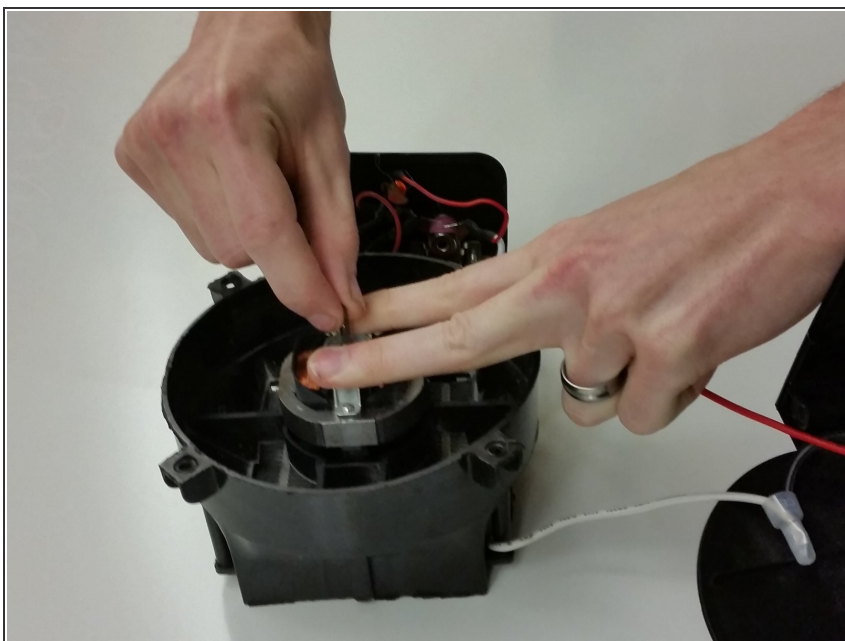
⚠ Pull from the center of the fan. Do not pull on the fan blades.

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."

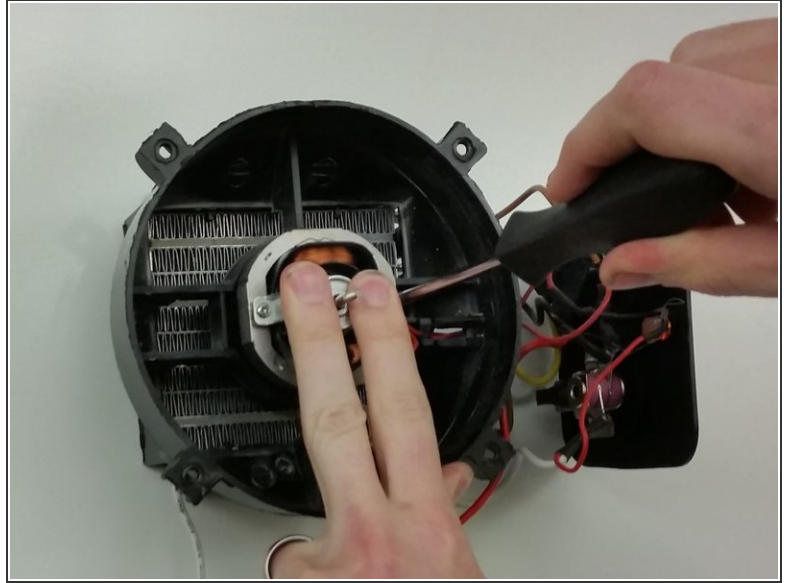
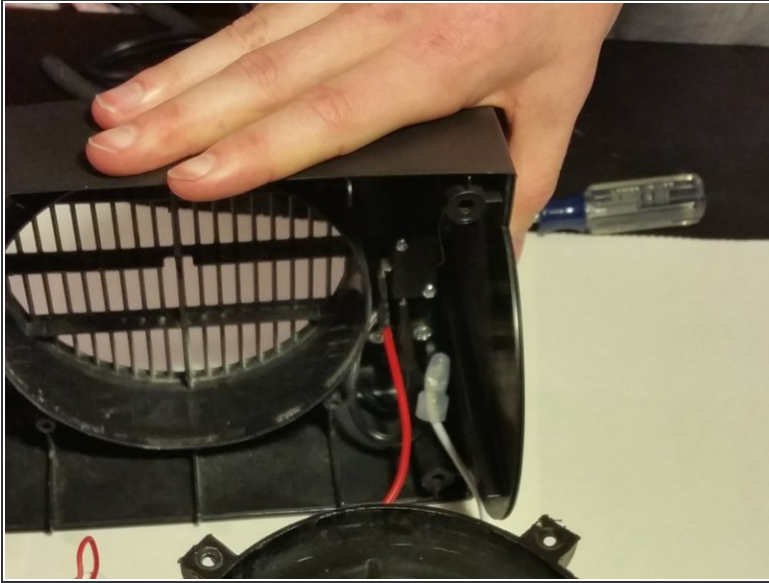
⚠ Make sure that the heater selector is clearly turned to the "Fan" setting. Any other setting could cause burns, fire, or electric shock.

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.

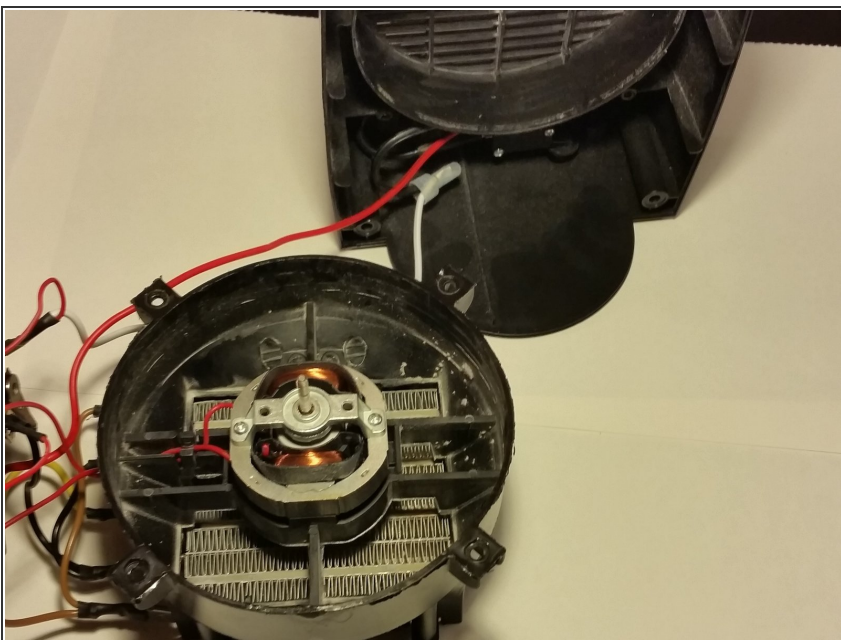
Step 11



- 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



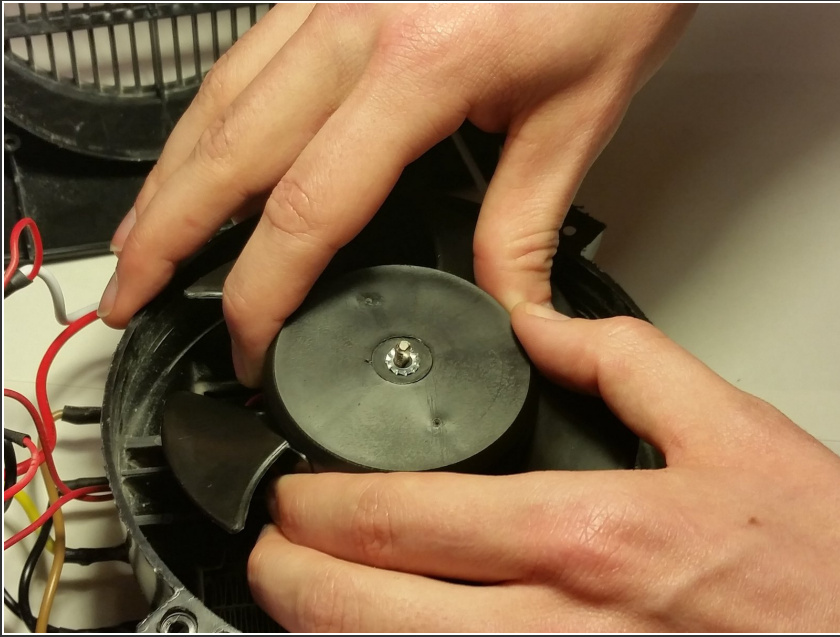
- While the motor is running, slowly tighten the retainer screws until the motor runs smoothly and quietly.
- ⓘ If the screws are too loose, the motor will rattle or screech. If the screws are too tight, the motor cannot turn.

Step 14



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

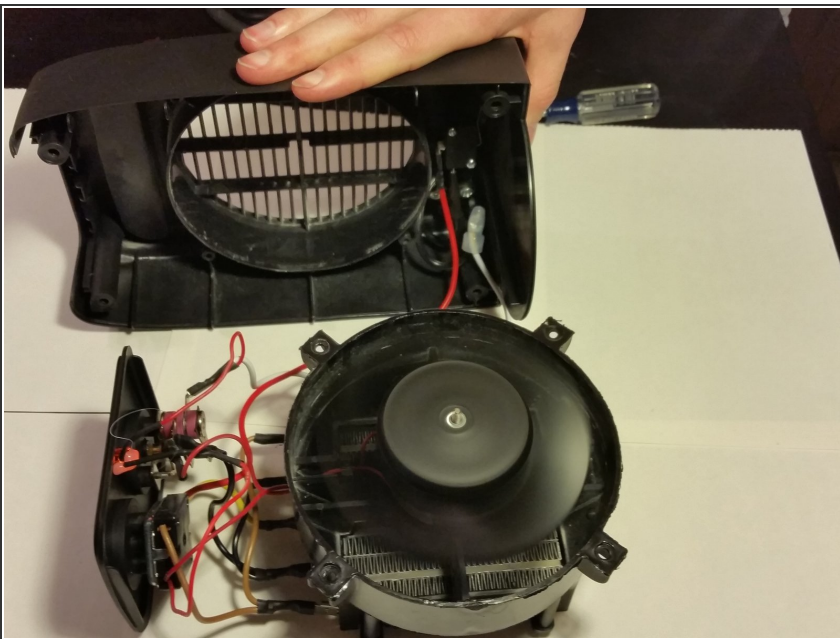
Step 15



- 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.

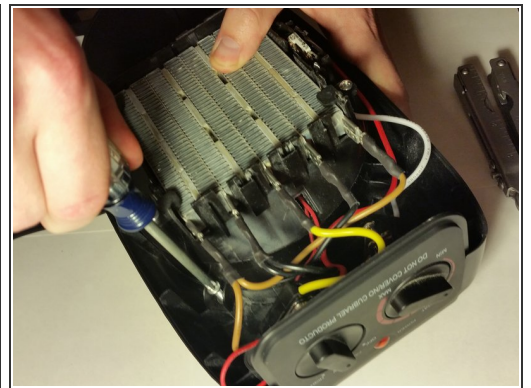
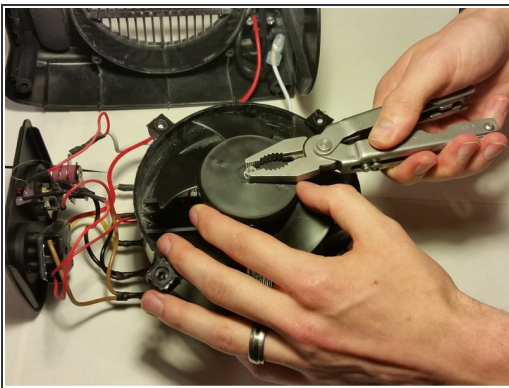
⚠ Make sure your hands and other objects are clear of the fan

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