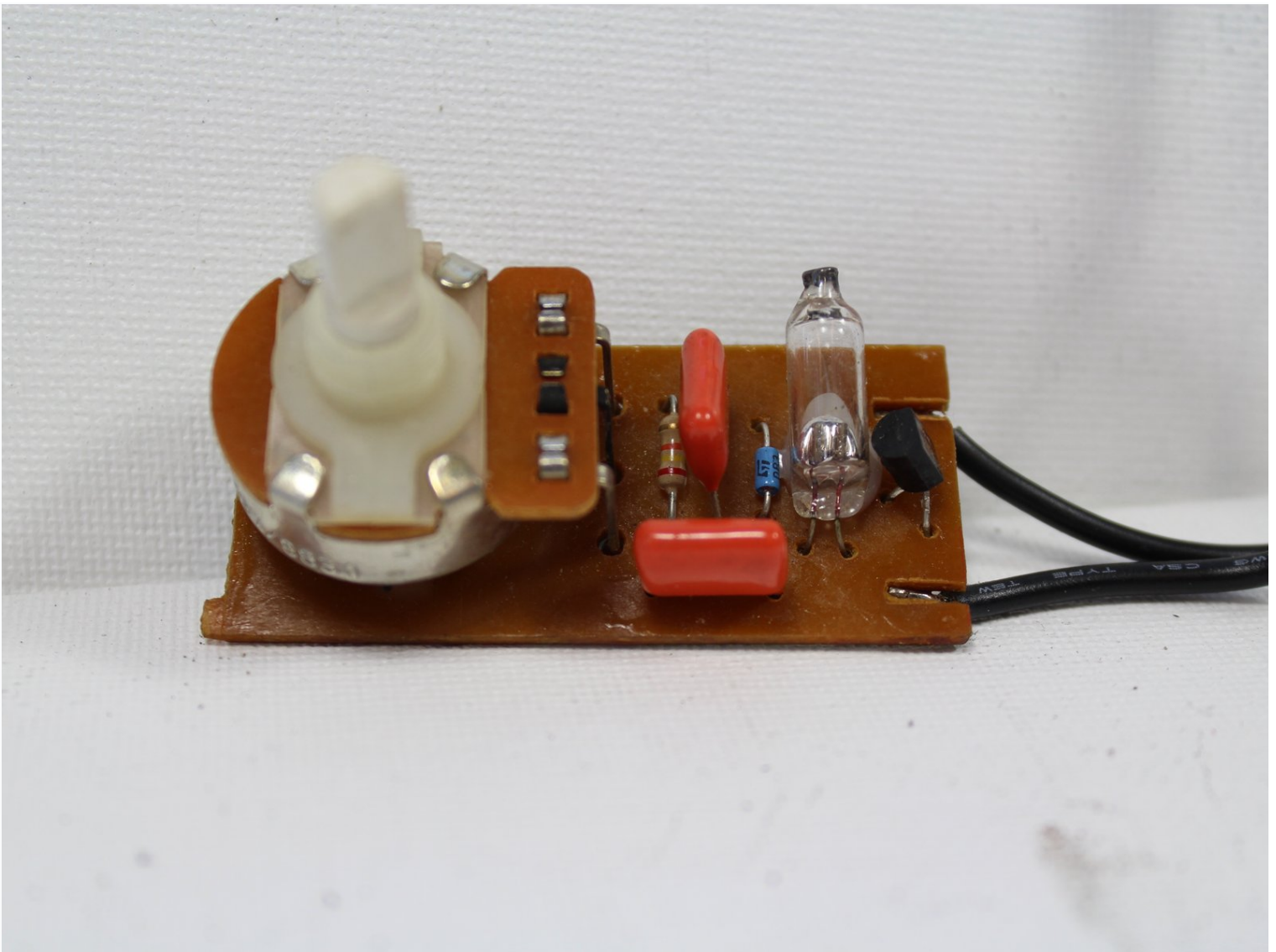




Royal Heat RS-100 Tip Switch Replacement

The tip switch is a bulb filled with mercury...

Written By: Luke Nora



INTRODUCTION

The tip switch is a bulb filled with mercury that turns a heater off if the device were to tip over. This function is to prevent fires and if the heater continues to run even when tipped over then replace the tip switch.

TOOLS:

Phillips #2 Screwdriver (1)

Soldering Iron 60w Hakko 503F (1)

1/4" Flathead Screwdriver (1)

Step 1 — Panel



 **Unplug the power cord.**

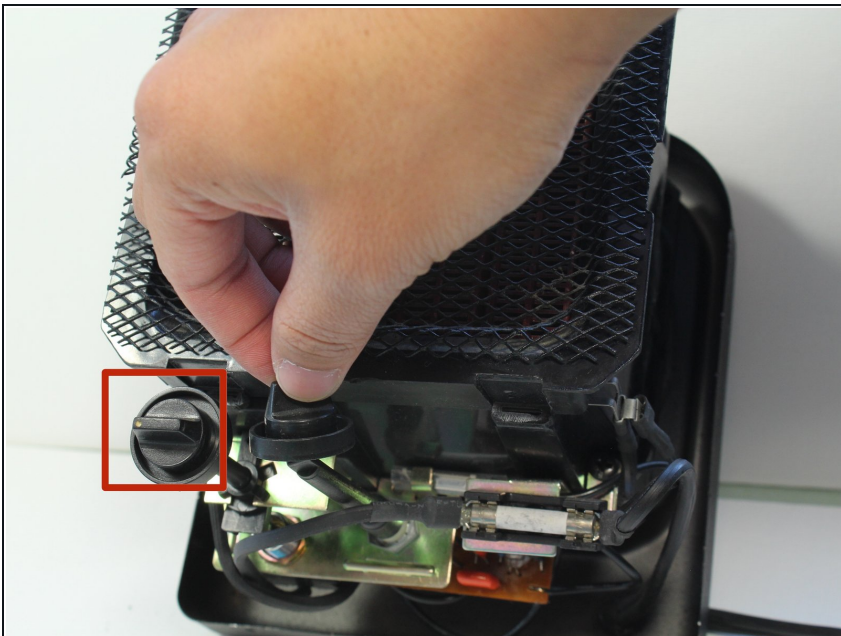
- Flip the device over so the bottom is facing up.
- Remove the two 10mm screws holding the back panel using a Phillips #2 screwdriver.

Step 2



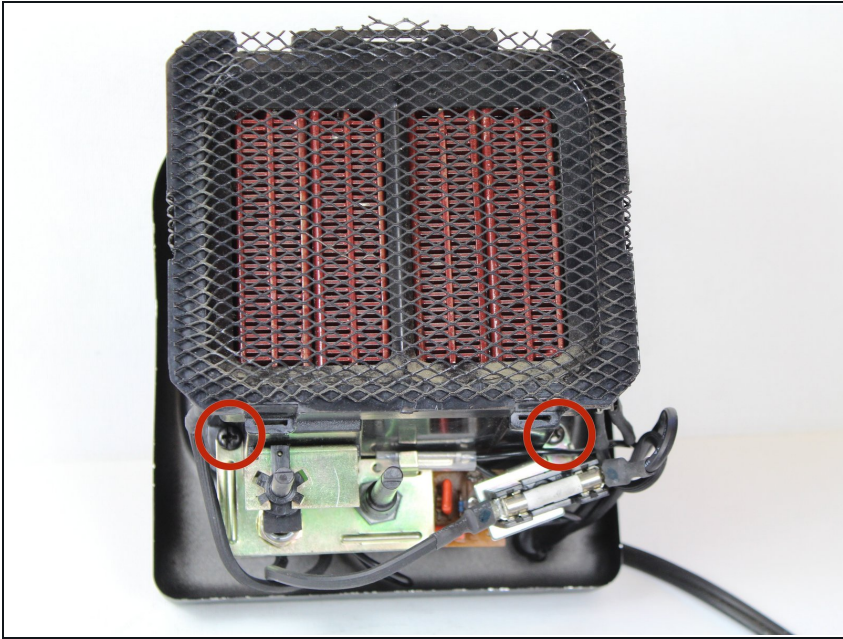
- Place the Flathead Screw driver parallel with the gap between the back and the heater body, then twist until the two parts of panel are separated. You may have to do this on four sides of the panel.
- Remove the front panel by pulling them apart. The front panel should come out easily.

Step 3



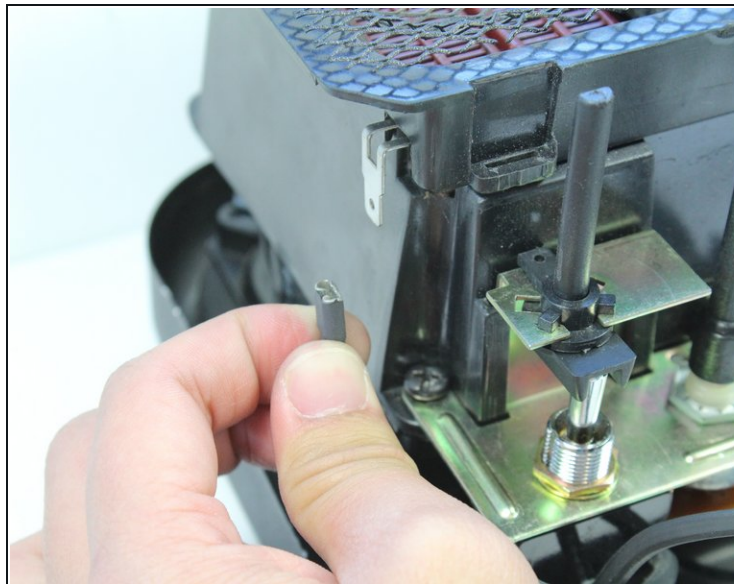
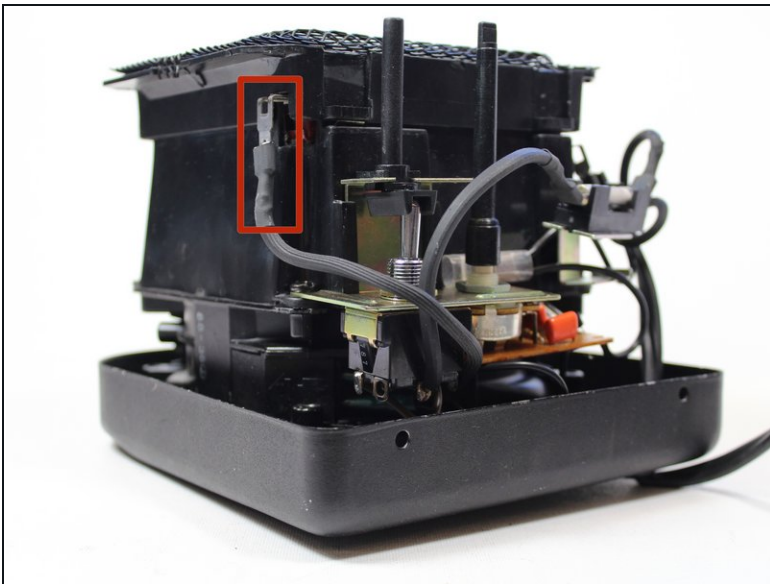
- Remove the two dial caps from the two switches by lifting them up.

Step 4 — Switch and Circuit Board Assembly



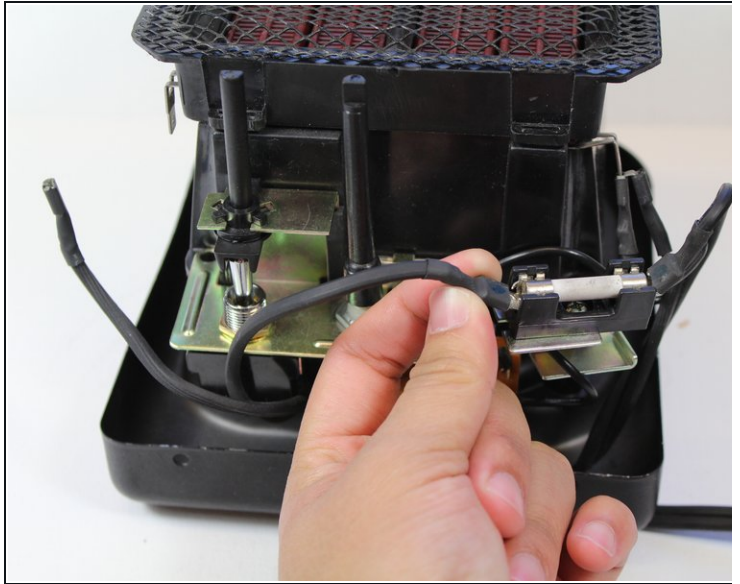
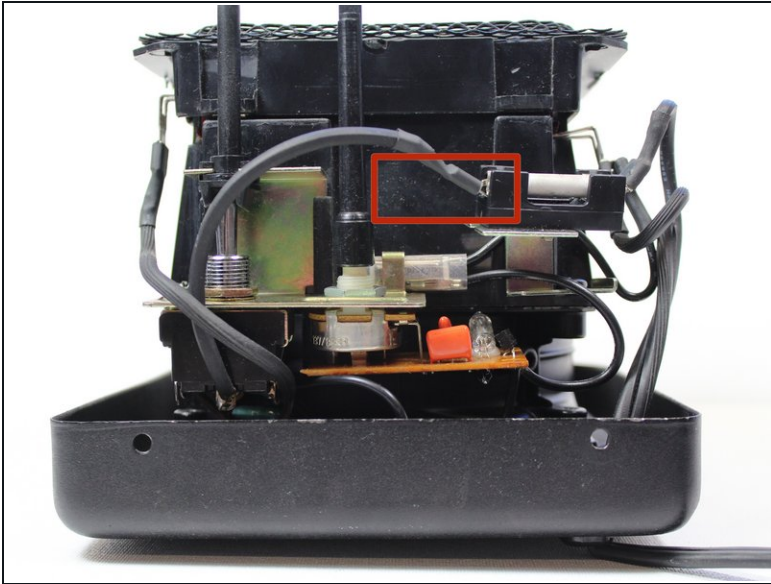
- Remove the two 10 mm Phillips screws using a #2 Phillips screw driver. One attaches the gold metal bracket to the heater coil housing and the other attaches the fuse holder to heater coil housing.

Step 5



- ① Make note of where you disconnect the wires from so you can properly connect them when re-assembling heater.
- Unplug the wire that goes from the bottom of the power switch to the heater coils. To unplug pull down on the wire until it breaks free.

Step 6



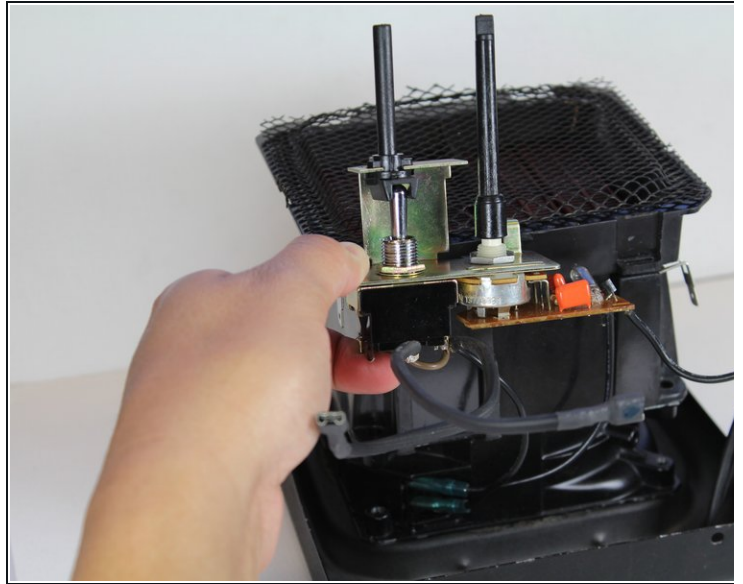
- ① Make note of where you disconnect the wires from so you can properly connect them when re-assembling heater.
- Unplug the wire that goes from the bottom of the power switch to the fuse holder. To unplug the wire, pull the wire away from the fuse holder.

Step 7



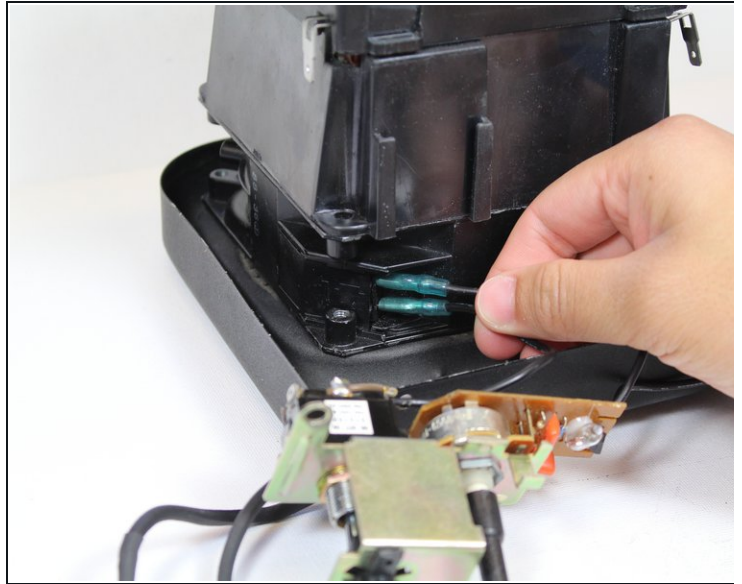
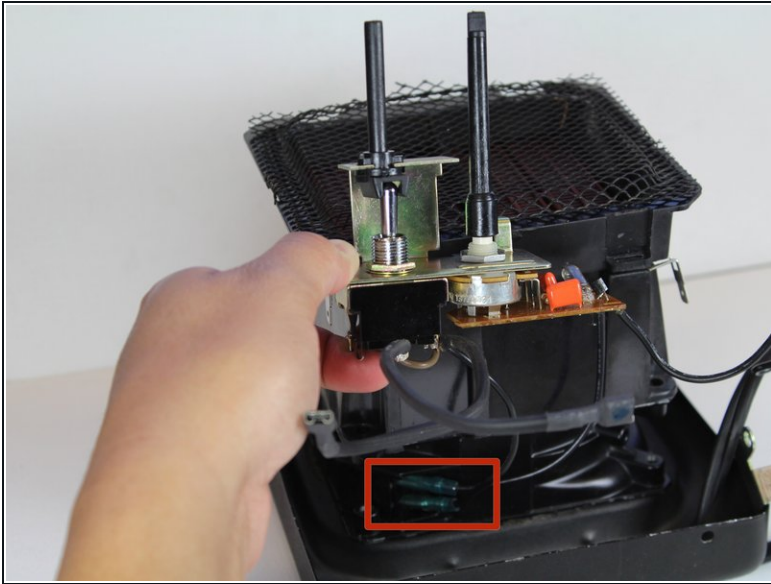
- ① Make note of where you disconnect the wires from so you can properly connect them when re-assembling heater.
- Unplug the wires located on the right side of the heat coil housing. Both plugs will come off together. To unplug the wires, pull down on the wire until it breaks free.

Step 8



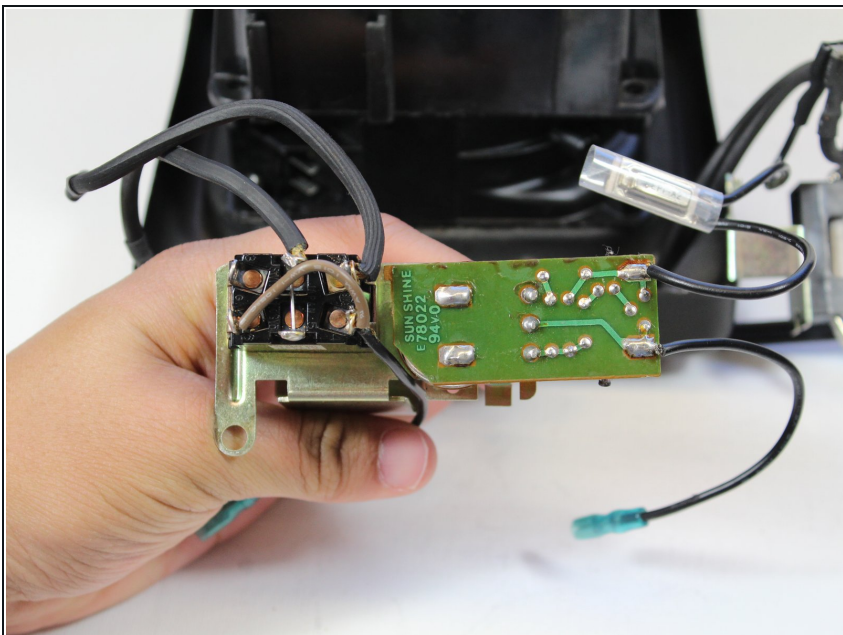
- Grab the Switch and Circuit Board Assembly with one hand and slide it up. You will need to wiggle it to break it loose. While wiggling it, slide it up until it is clear of the plastic rails.

Step 9



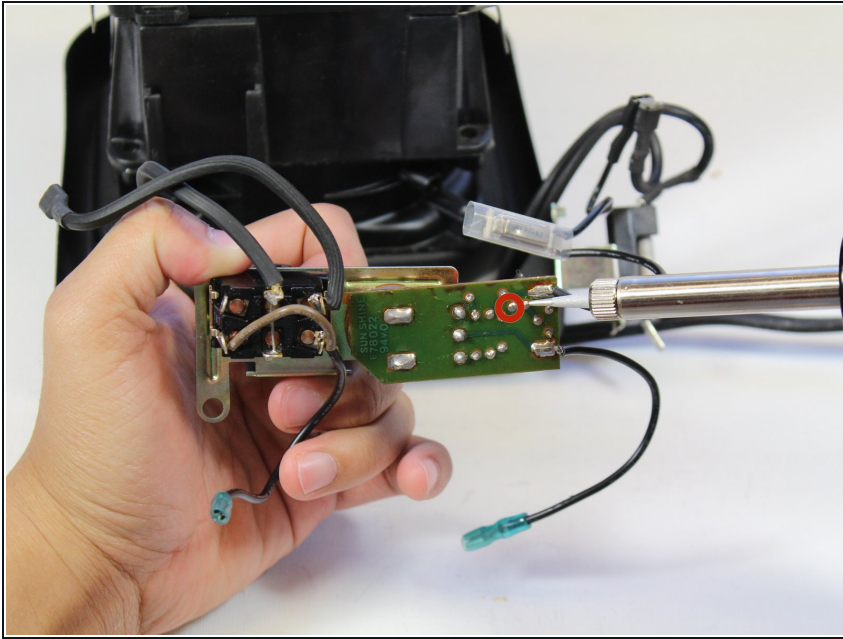
- ① Make note of where you disconnect the wires from so you can properly connect them when re-assembling heater.
- Unplug the two wires, with blue ends, that go from the Power/Fan switch and from the bottom of the Circuit Board to the fan. To unplug the wires, pull them away from the fan assembly until they break free.

Step 10 — Tip Switch



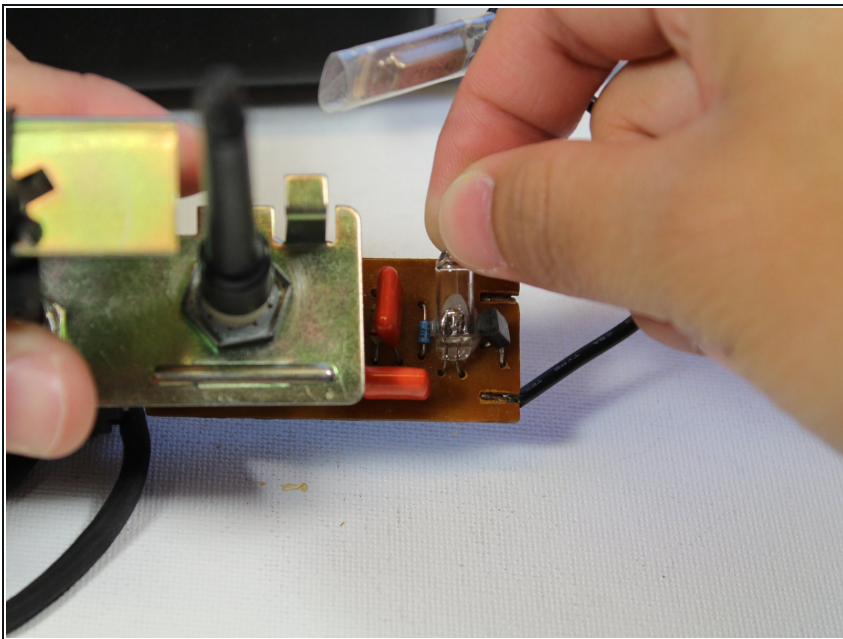
- Flip over switch/ circuit board assembly

Step 11



- Remove solder from the two terminals of the tip switch using the soldering iron.

Step 12



- Remove the tip switch from the circuit board by pulling it away.

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