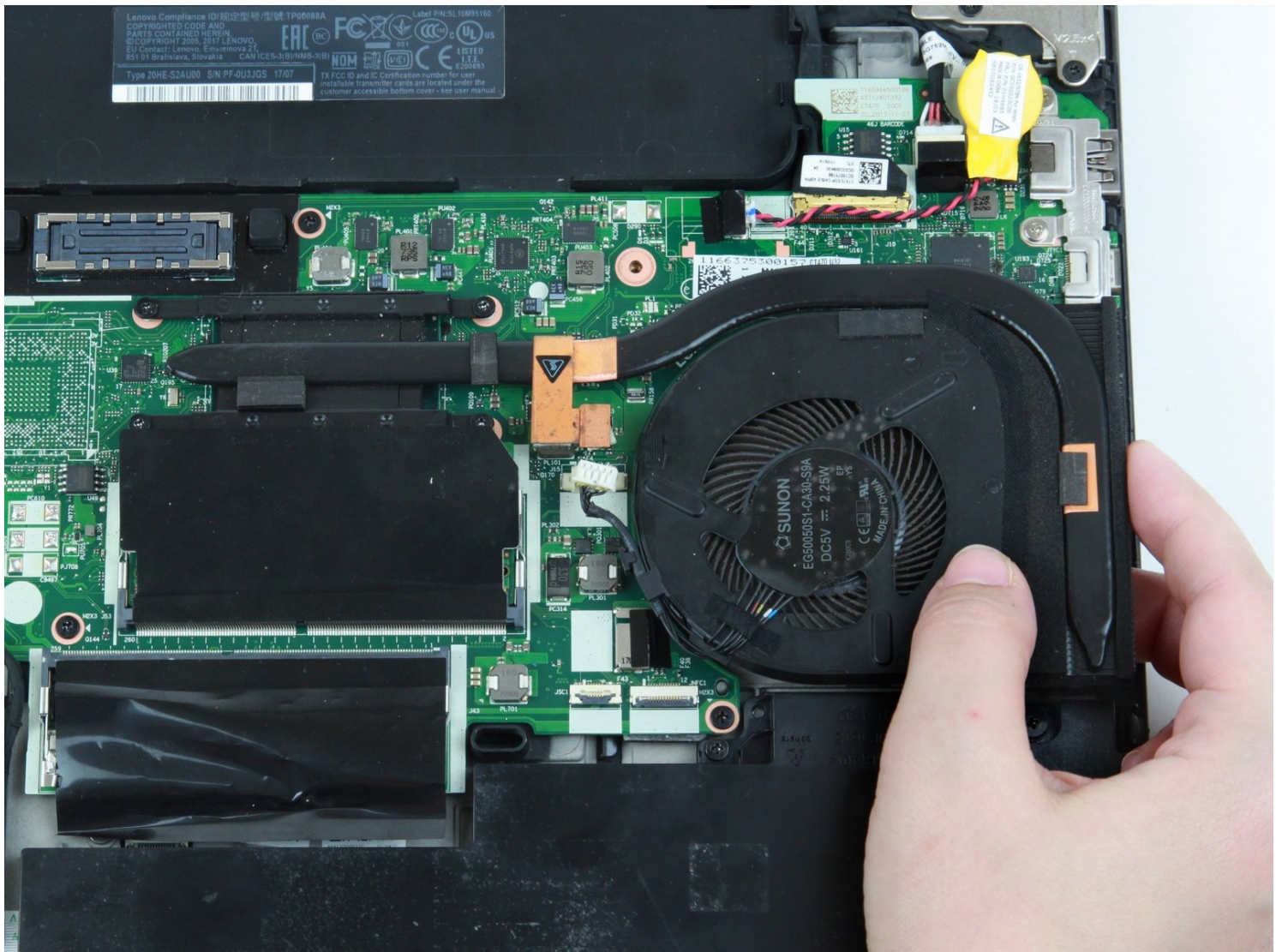




# Lenovo ThinkPad T470 Fan and Heat Sink Replacement

Use this guide to replace the fan and heat sink...

Written By: Kristen Gismondi



# INTRODUCTION

Use this guide to replace the fan and heat sink in a Lenovo ThinkPad T470 laptop.

The heat sink transfers heat from the laptop's CPU to the fan, which redirects the heat away from the laptop's internal components. The fan and heat sink work together to prevent the laptop from overheating, which can cause damage to the device.

Some signs that your fan and heat sink may be faulty include audible humming, rattling, or overheating. Before attempting to replace the fan and heat sink, see if you can [troubleshoot](#) any fan and heat sink issues. Always clean the thermal paste when separating the heatsink and CPU and [reapply fresh paste](#) before reassembling.

Before beginning this guide, make sure to [disable the internal battery](#), power down your device, and disconnect from any external power sources.

---

## TOOLS:

[Phillips #1 Screwdriver](#) (1)  
[ESD Safe Blunt Nose Tweezers](#) (1)


## PARTS:

[Lenovo ThinkPad T470 Fan and Heat Sink Assembly](#) (1)

---

## Step 1 — External Battery



 Before you begin this guide, make sure to [disable the internal battery](#), power down your device, and disconnect from any external power sources.

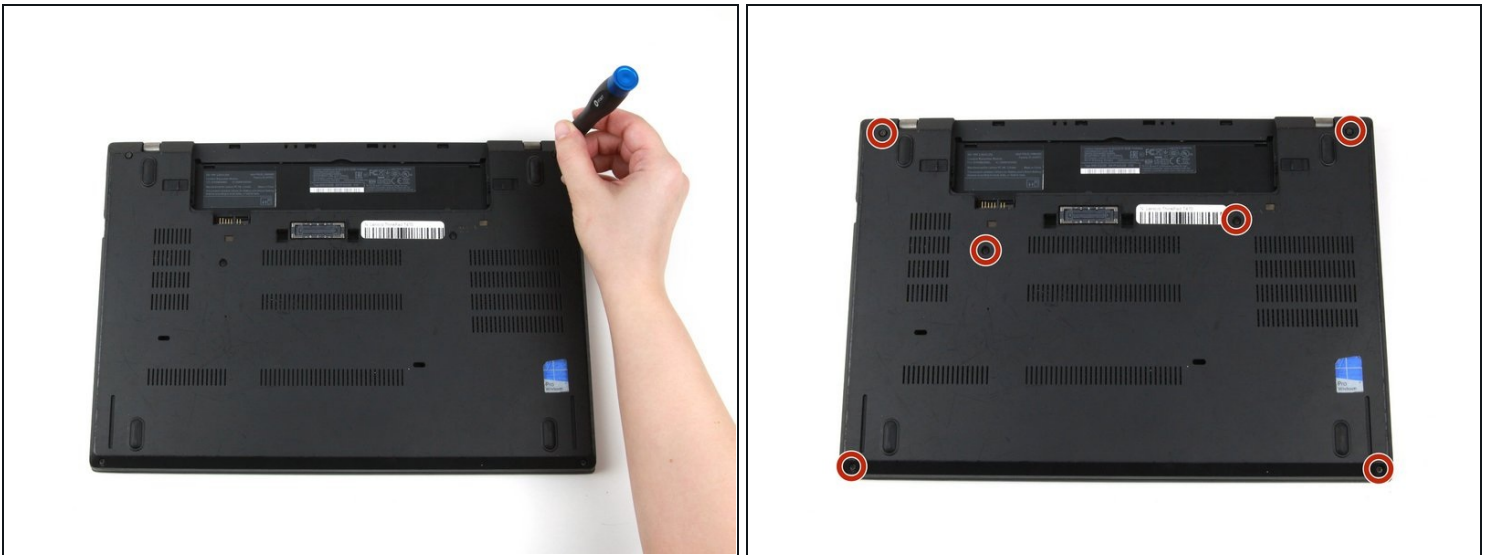
- Place the laptop so that the bottom is facing upwards.
- Slide the latch on the left side of the battery to the left until it clicks in place.

## Step 2



- Slide the latch on the right side of the battery to the right and hold it in place with your thumb.
- Use your other hand to slide the battery towards the back of the laptop.
- Lift the battery up and away from the laptop.

## Step 3 — Bottom Cover



- Use a Phillips #1 screwdriver to loosen the six captive screws on the bottom cover of the laptop.



## Step 4



- Use your hands to pull up on the back cover and release the plastic clips starting on the bottom side of the battery compartment.

**⚠ Potential for device damage:** Be sure to detach the plastic clips in this area first. You risk cracking the bottom cover if you attempt to detach it from around the edges of the laptop first.

- Use your hands to pull up on the right side of the bottom cover to release the plastic clips.
- Use your hands to pull up on the left side of the bottom cover to release the plastic clips.

## Step 5



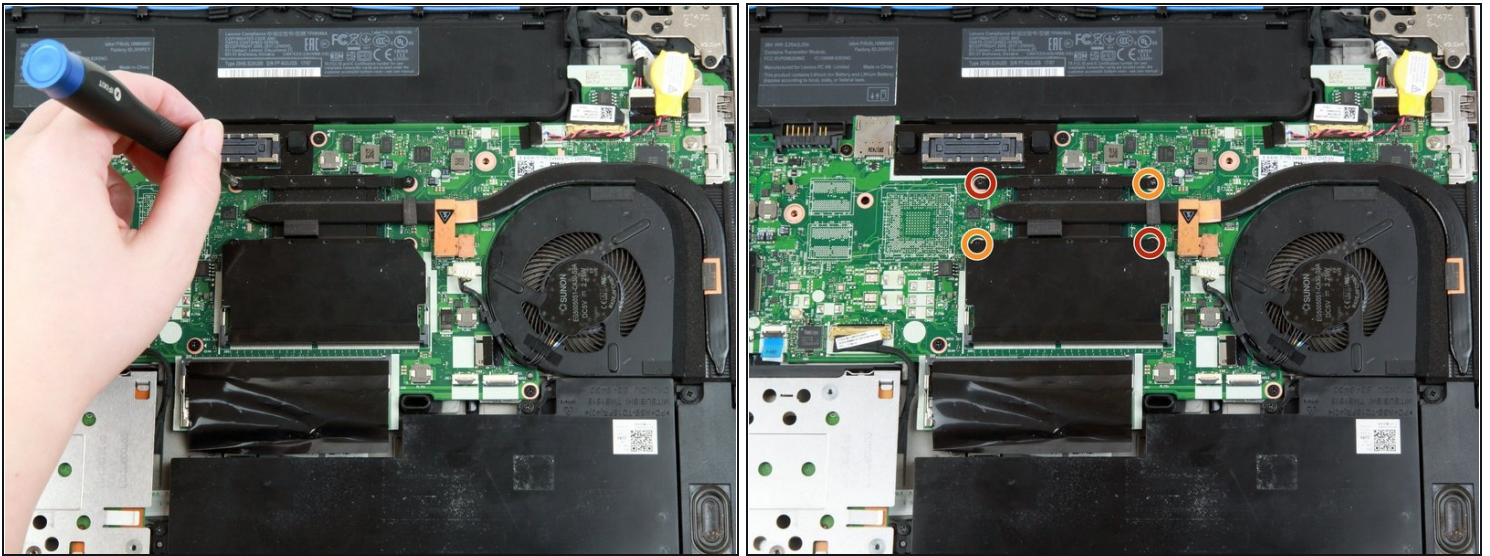
- Remove the bottom cover from the laptop.
- ✦ Disconnect the battery from the board before continuing.

## Step 6 — Fan and Heat Sink



- Use a pair of blunt nose tweezers to pull the white fan connector out of its socket on the motherboard.

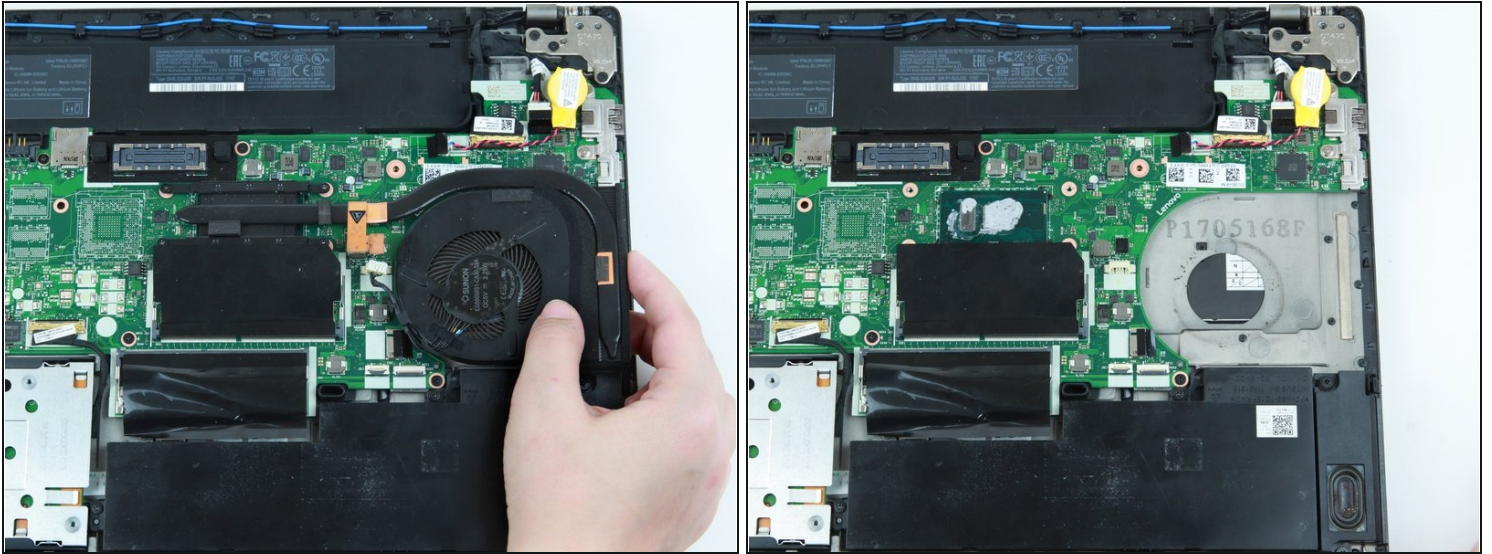
## Step 7



- Use a Phillips #1 screwdriver to loosen the first pair of captive screws on the fan and heat sink assembly in a crosswise pattern.
- Use a Phillips #1 screwdriver to loosen the second pair of captive screws on the fan and heat sink assembly in a crosswise pattern.
- ☑ Secure the screws using the same cross-pattern when reassembling the heatsink and fan.



## Step 8



- Use your hand to pull the fan and heat sink assembly up and away from the laptop.
- ☑ Clean the thermal paste from the heatsink and CPU and [reapply fresh paste](#) before reassembling.

---

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

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

Repair didn't go as planned? Try some [basic troubleshooting](#), or ask our [Answers community](#) for help.