

# Sony Vaio Pro 13 CPU Fan Replacement

Replacing a failed or noisy CPU fan.

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## **TOOLS:**

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- Phillips #00 Screwdriver (1)
- iFixit Opening Tools (1)
- Phillips #0 Screwdriver (1)
- ESD Safe Tweezers Blunt Nose (1)

#### Step 1 — Bottom Cover



- Remove cover for the extended battery connector. Use your finger nail or a plastic opening tool to remove it.
- Remove the two rubber feet at the back of the computer, these can be removed in the same way.

### Step 2



- Remove the four 5.6mm Philips #00 screws located at the top of the computer.
- Remove the eight 3.6mm Philips #00 screws on the base of the computer.

#### Step 3



- Using a plastic opening tool, pry the plastic casing away from the base of the computer, the remaining clips around the edges can be released using your hands.
- (i) Leave the side with the USB and audio port until last, then slide the case out and off, so the audio port doesn't get caught.

#### Step 4 — Prepare to remove the old fan and heatsink



 Remove the two screws indicated in the red circles. Loosen the three captive screws indicated in the green circles.

#### Step 5 — Disconnect thermal sensor and power cables



• Watch out for these two ridiculously fine wires. Carefully disconnect these with a pair of tweezers. Don't pull on the wires to remove these.

#### Step 6 — Remove the fan and heatsink



- Undo three bits of black tape holding down various wires connected to the fan and heatsink. Lift up the corner of the battery next to the outside of the case. Lift the corner of the fan so it's above the corner of the battery (or you can just remove the battery altogether; that might be easier).
- Carefully wiggle the heatsink out from under the taped wires. Remove the whole unit from the computer.

#### Step 7 — Replacing the fan



- If you have ordered a completely new fan and heatsink, go directly to step 8.
- The fan I ordered came without a heat sink, and contained the parts shown: fan body, thermal paste, screwdriver and a bit of foil tape.

#### Step 8 — Replacing the fan (cont'd)



- In my case the new fan (right) had a bit of white adhesive tape here not good that's going to collect every bit of dirt that goes through this fan!
- So I snipped off some of the foil tape, and covered up the adhesive side of the white tape. Problem solved.

#### Step 9 — Replacing the fan (cont'd)



• Affix the new fan housing to the assembly using the 3 screws from the old fan (marked with red circles).

#### Step 10 — Preparing to install the new fan assembly



• Thoroughly clean off the old thermal paste from the CPU and the heat sink. Apply a small amount of paste to the processor in the two spots that contact the heat sink.

#### Step 11 — Installing the fan and heat sink assembly



 Reverse the procedure you used to remove the fan and heat sink. The thermal and power cables only go in one way. To avoid breaking these wires, I used tweezers to insert these connectors.

#### Step 12 — Last steps



- Tighten the screws to affix the heat sink to CPU, and install the two screws that connect the fan to the case.
- Put the case back together, power up and test. (I started a half dozen apps and within a half a
  minute the fan started up). I wasn't completely happy with the new fan, as it isn't completely silent
  but it was waaaay better than the old one.

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