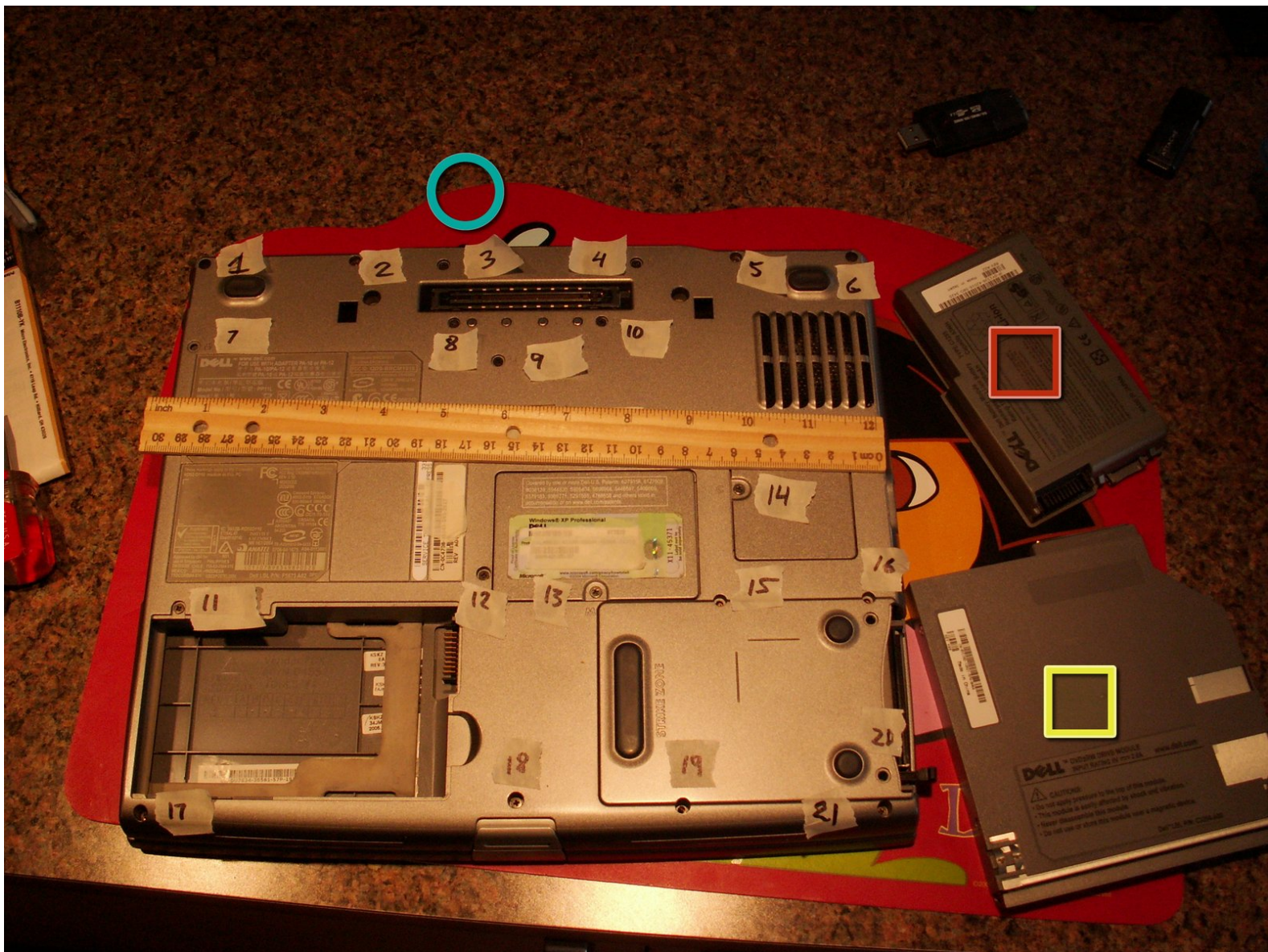




Dell Precision M20 Lower Case Replacement

About a dozen Philips Head screws, and molded-in case clips hold the lower case together on the M20 notebook.

Written By: BRUCE



INTRODUCTION

Why Fix a 2005 Laptop?

With a [Pentium M 750 1.8 GHz and a 14" screen](#) this makes a great "netbook" when running Linux Mint or Ubuntu.

Accessible Parts and Modules

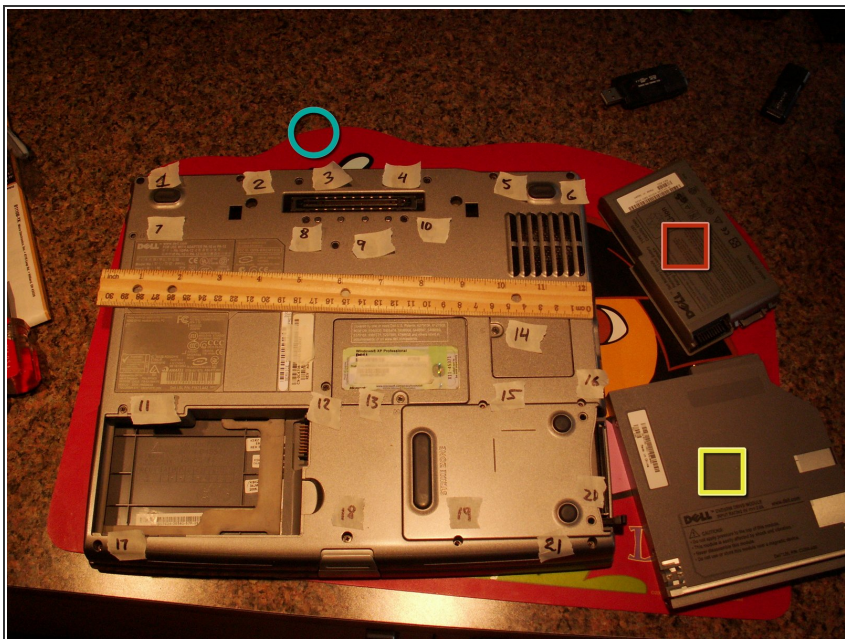
This guide will explain how to remove the main logic board from the lower case and gain access to the second RAM slot, modem jack, wifi card, keyboard, LCD display connections, bezel switch module, cooling fan, speaker assembly, PCMCIA assembly, video, serial, parallel, power jack, ethernet jack, USB ports, touchpad assembly, and hinge knuckles.



TOOLS:

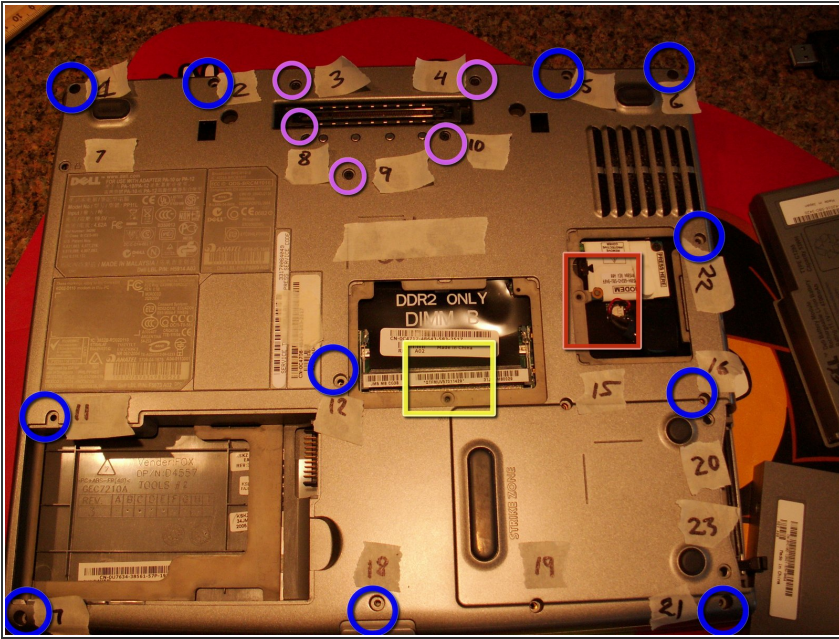
- [Metal Spudger Set](#) (1)
 - [Phillips #0 Screwdriver](#) (1)
 - [Phillips #1 Screwdriver](#) (1)
 - [iFixit 6 Inch Metal Ruler](#) (1)
 - [Anti-Static Project Tray](#) (1)
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Step 1 — Lower Case



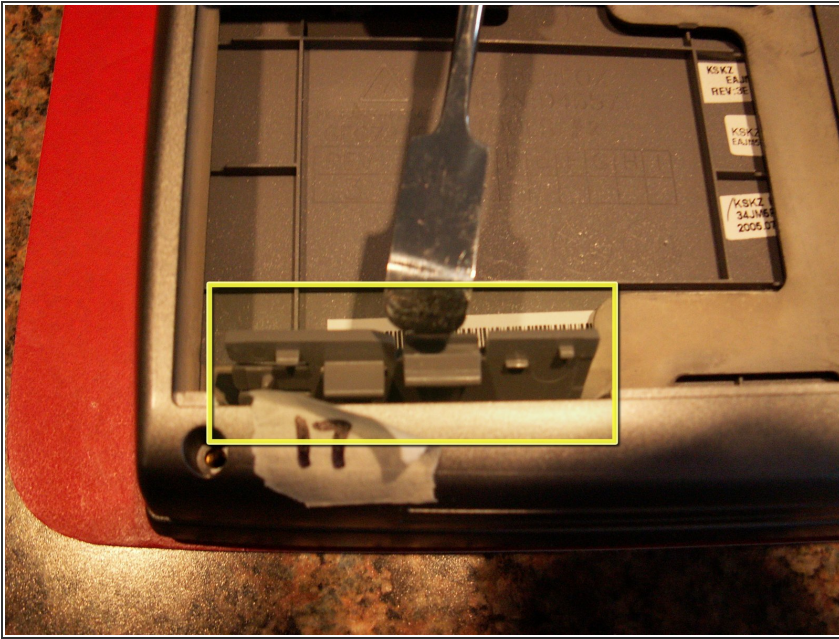
- Screw sizes are cross-point Phillips Head 0 and the slightly larger cross-point PH1
- Each machine screw (meaning not pointy) overall length, from the top of the flat head to the last thread, is given to the nearest millimeter (mm).
- All screws have a flat pan head, basically a low disc about 3mm dia.
- I use a padded mat to protect the laptop cover. Anti-static is best, but even child's placemat will do
- Remove the battery pack
- Remove the optical drive

Step 2



- Remove the cover for RAM slot B. It has a captive PH0 screw.
- Use an anti-static wrist strap and gently remove the memory DIMM by spreading the two steel clips and tilting the DIMM towards you.
- Remove the cover for the modem and the BIOS battery. It has a captive PH0 screw.
- Remove 5 screws around the docking connector. They are PH0, black, 4mm
- Remove 10 bronze 8mm case screws.
- Not shown: you may also have to remove case screws 7,15,16, and hard drive assembly screws 19, 20 and 23. These were already missing on this laptop.

Step 3



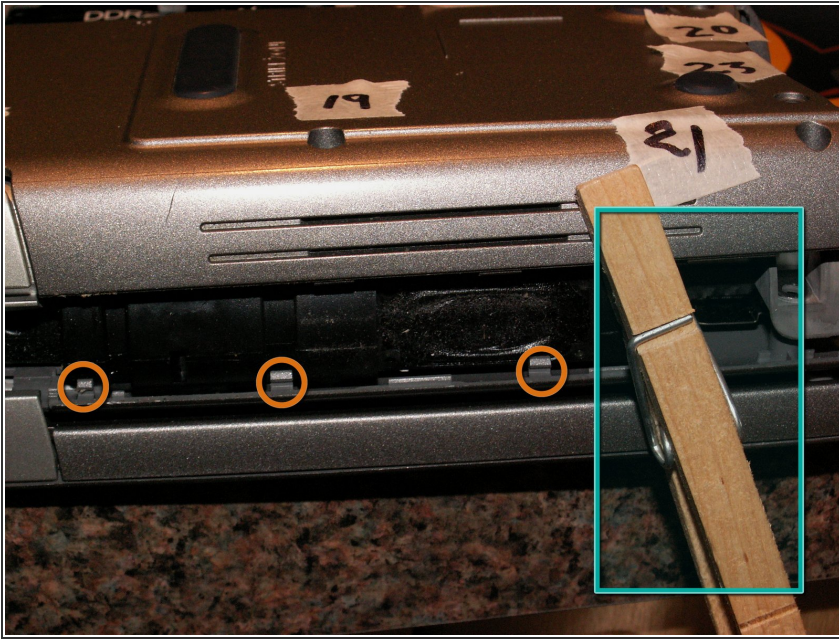
- Using a spudger, remove the small access plate near the lower left corner, by tilting it into the battery compartment.
- Look inside the corner where the access plate was and see the molded-in plastic clips which hold the bottom of the case to the keyboard bezel.
- You may even begin using your spudger from the inside corner to begin unclipping the case bottom.

Step 4



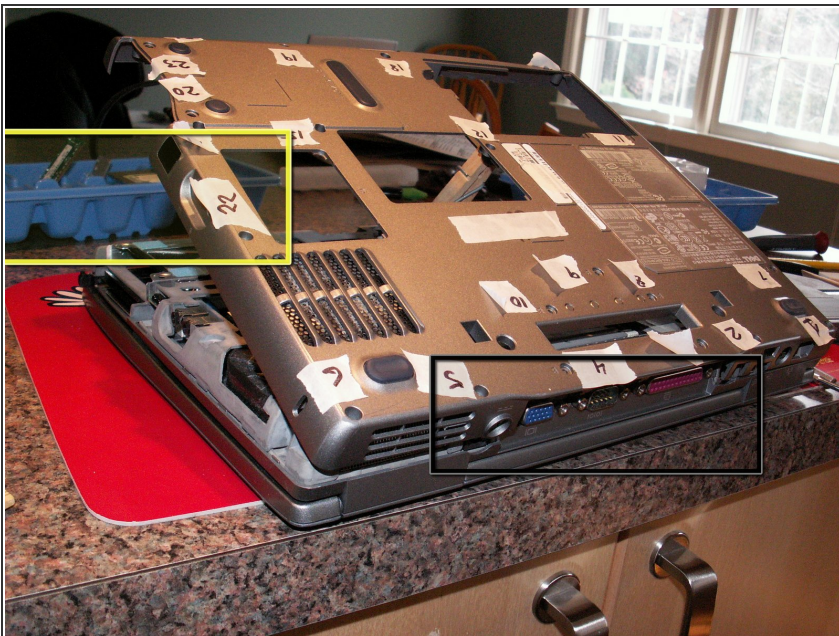
- Gently work the flat tip of the spudger into the widening gap on the outside of the case.
- You may prefer to use a plastic spudger or case opener, but if you are careful with the metal spudger, and work slowly, you will not break the clips, or scratch the case.

Step 5



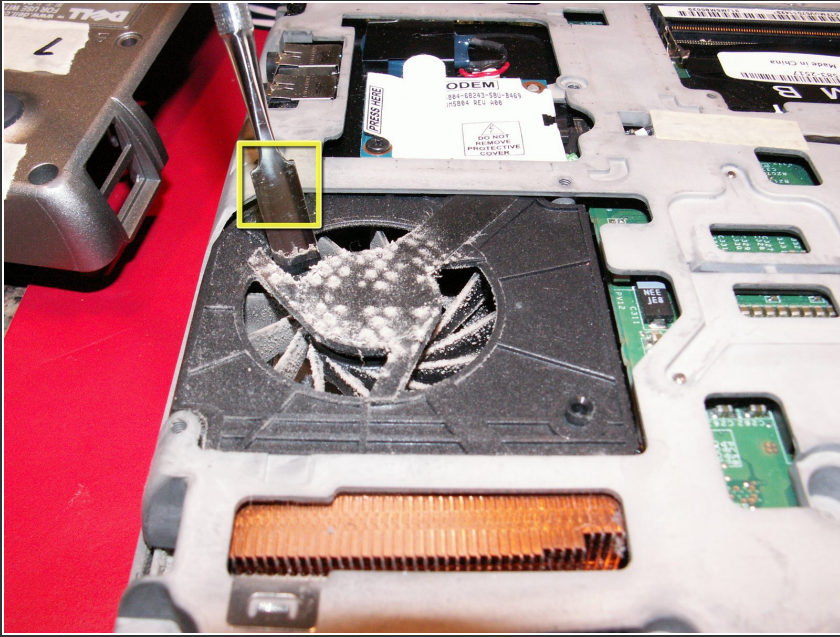
- Work your way with the spudger towards the right corner, gently prying the case open.
- You can use standard wooden clothespins to keep the case from snapping back together.
- Here are the molded in clips which you will be releasing with the spudger.

Step 6



- After working around the edges with the spudger, gently lift the bottom of the case, using the edge where all the ports are as the hinge.
- A plastic ice cube tray stuck to the counter with poster putty (Blu-Tack) is handy for holding screws and parts. The putty keeps the tray from being knocked over. You may prefer to use a pill box with individual day of the week snap covers for more security.

Step 7



- Set aside the bottom cover.
- Note that the cooling fan is probably dusty.
- ⚠ Do not use a can of compressed air to clean the fan. They can shoot cold liquid and crack fragile fan blades.
- Insert a spudger or screwdriver to keep the fan blades from turning. Use masking tape and soft old toothbrush to clean off the dust.

Step 8



- Remove the hard drive cage, shown here with clothespin for emphasis.

Step 9



- Begin prying up the power switch bezel at the right corner of the keyboard.
 - Use a clothespin to keep the bezel from snapping back.
- ⚠ Be extremely cautious when prying near the keyboard. You can easily damage the keyboard keycaps or switches.

Step 10



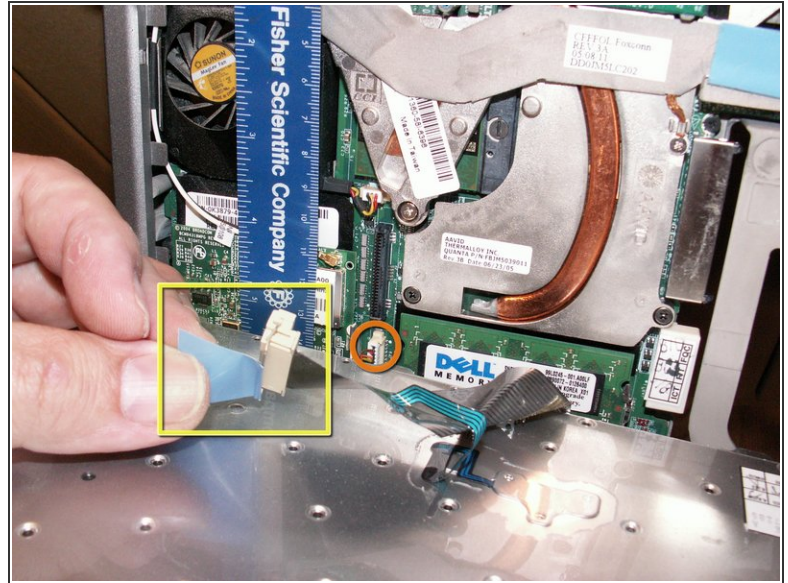
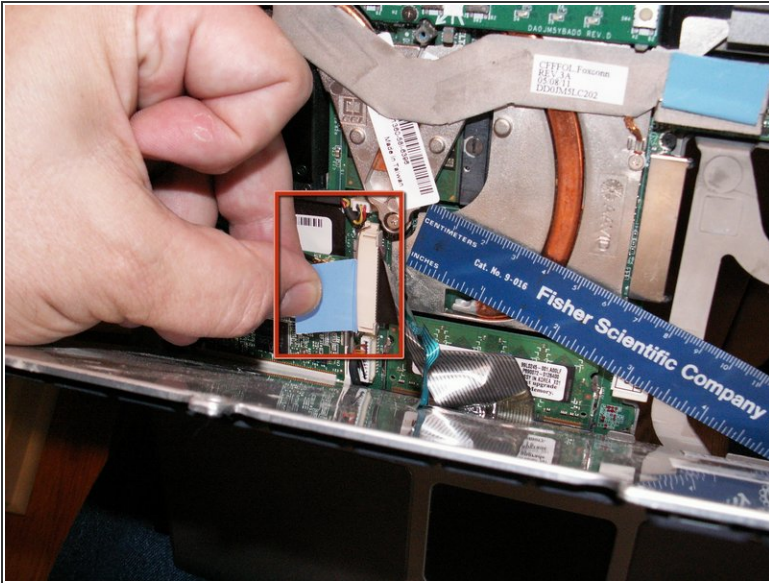
- Remove the switch bezel and set it aside.

Step 11



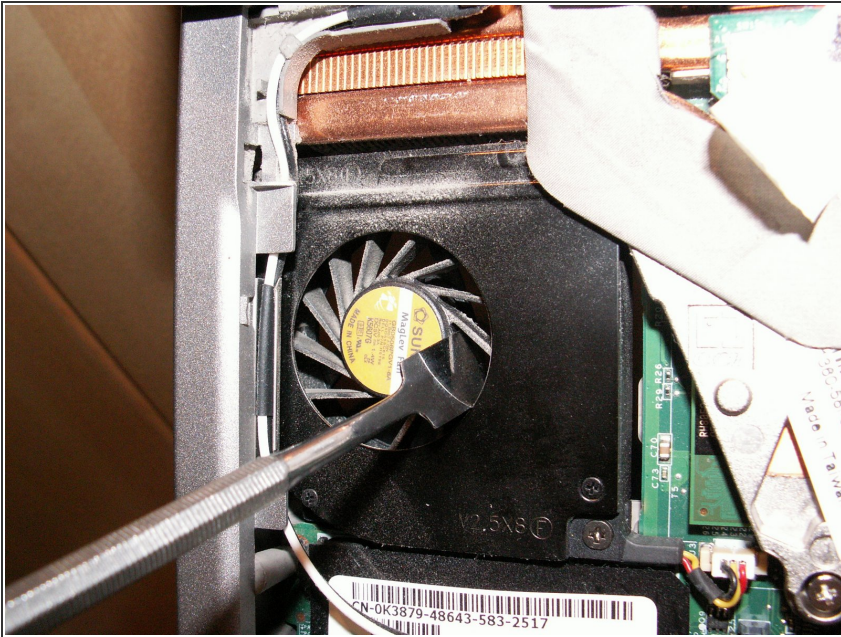
- Remove two PH1 (larger) 5mm black screws from the top edge of the keyboard. Only the right hand screw is shown in this photo.
 - Gently insert a spudger between the keyboard edge and the bezel to lift it partially up.
- ⚠ Do not lift the keyboard all the way as there connecting ribbon cables attaching it to the logic board underneath.

Step 12



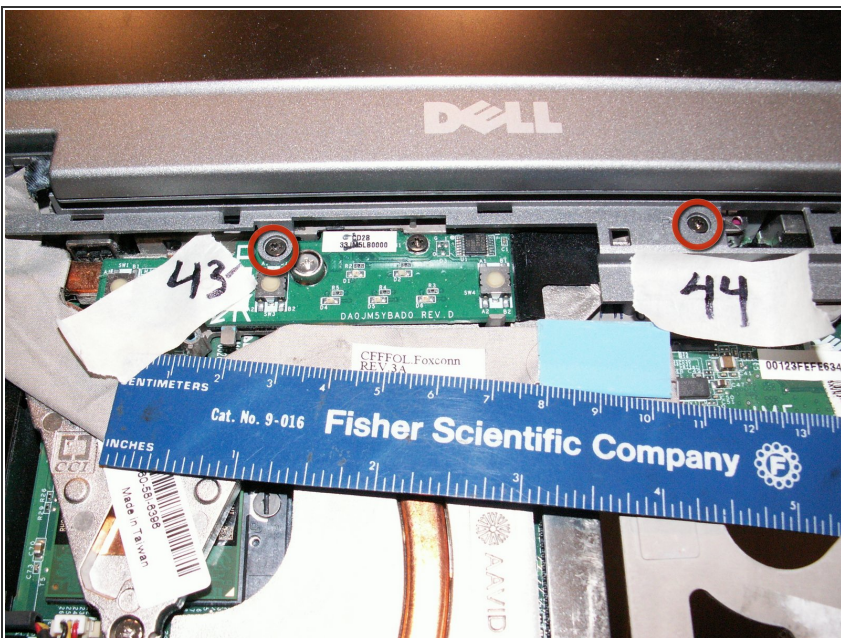
- Pull the plastic tab perpendicularly up from the logic board.
 - Pull evenly and steadily and the keyboard ribbon cable will disconnect from the logic board.
 - Gently remove the touch-pad assembly connector from the logic board.
- ⚠ Do **not** pull on the touch-pad cable. Use an IC puller or a pointed spudger to pry first one end of the connector and then the other.

Step 13



- Set the keyboard aside
- Gently clean the other side of the fan with a soft brush. Use a spudger or a screwdriver to keep the fan from turning.

Step 14



- Remove two PH1 5mm bronze screws near the hinge.

Step 15



- Use a spudger to gently pry the black and white wifi connectors off
- Release the spring clips and remove the wifi board.
- Release the memory clips and remove the second memory DIMM.

Step 16



- Remove the LCD ground cable by loosening the captive silver PH1 screw.
- Pull straight up on the plastic tab to remove the ribbon cable.

Step 17



- Here is the main logic board removed from the bottom case.
- Keyboard module.
- Bottom of the laptop.
- Memory module
- Keyboard bezel (top) still attached to the LCD screen.
- **'This concludes the Dell Precision M20 bottom case dissassembly guide.'** Scroll down for related information.

Small plastic zip bags are handy for holding sets of screws and other small parts. They can be labeled with a permanent marker or stapled to a paper note describing where they came from.

After the lower case is disassembled, you can clean or replace modules or parts as needed.

You can also move on to disassemble the LCD portion of the laptop.