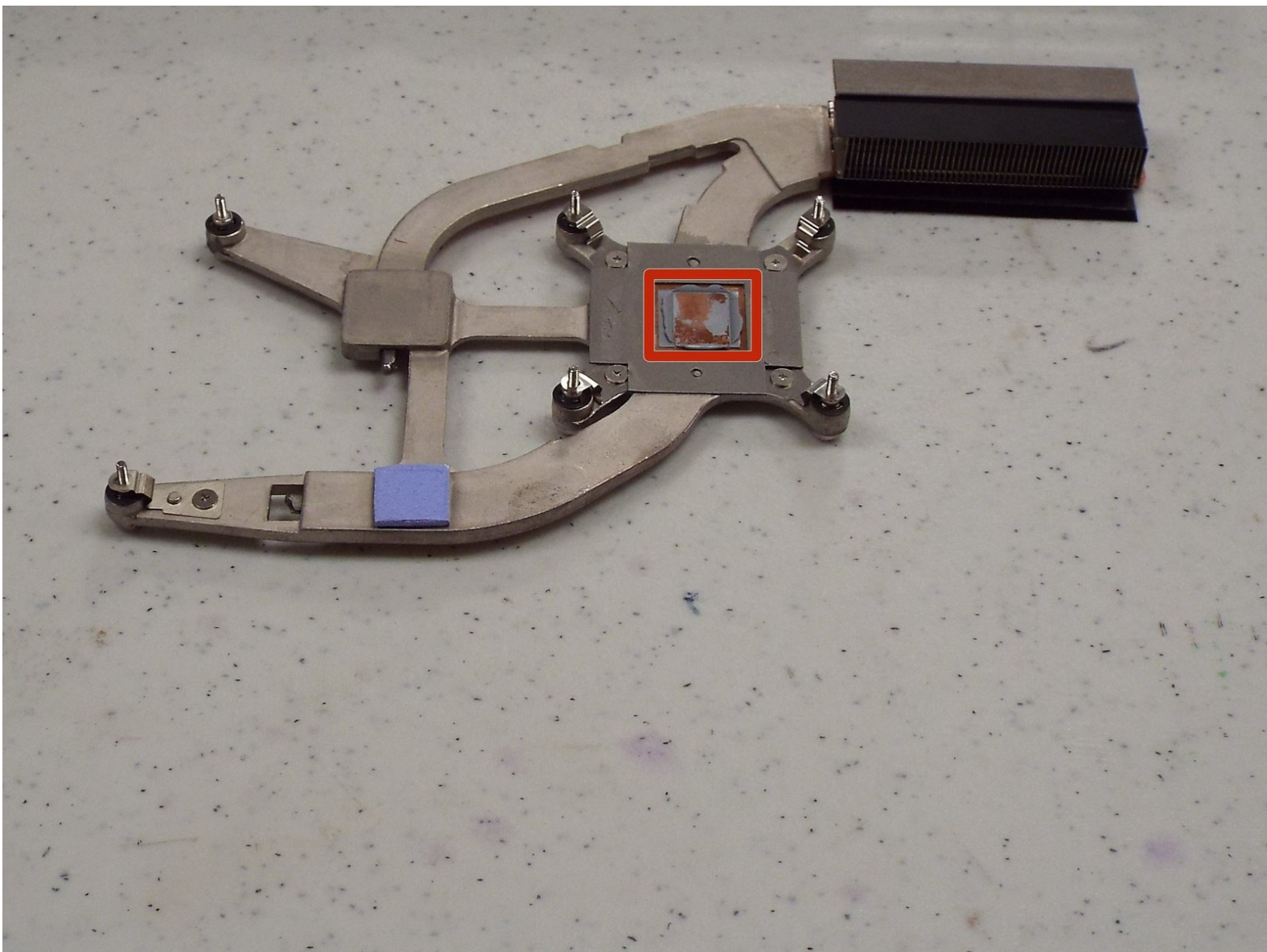




Dell Latitude D820 Thermal Paste Replacement

We are going to demonstrate how to disassemble and apply a new layer of paste (thermal paste) to the computers processor and heat sink.

Written By: Henry



INTRODUCTION

Follow the motherboard replacement guide to the point the heat sink is exposed. No need to remove the motherboard.



TOOLS:

- [Spudger](#) (1)
- [ArctiClean Thermal Cleaner](#) (1)
- [Lint-Free Cloth](#) (1)
- [Finger Stalls](#) (1)



PARTS:

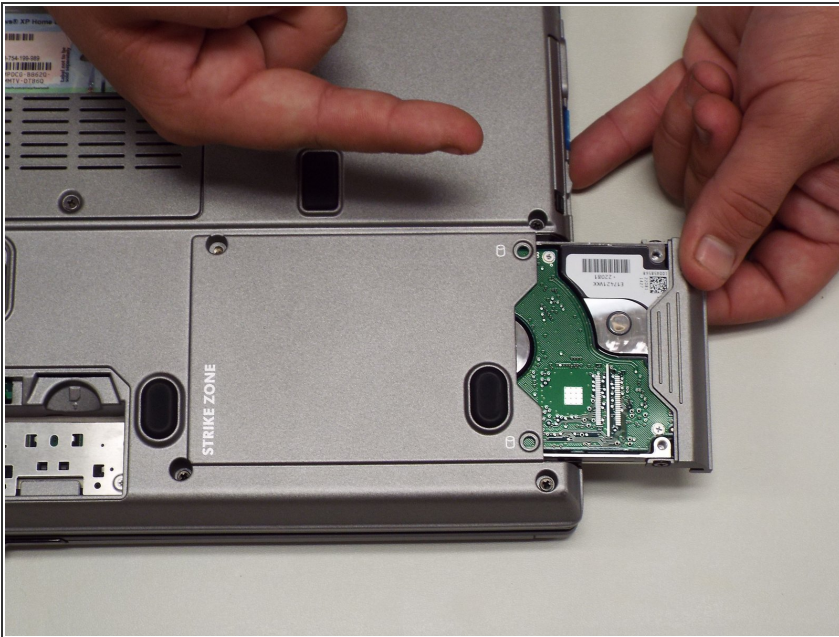
- [Arctic Silver Thermal Paste](#) (1)

Step 1 — Motherboard



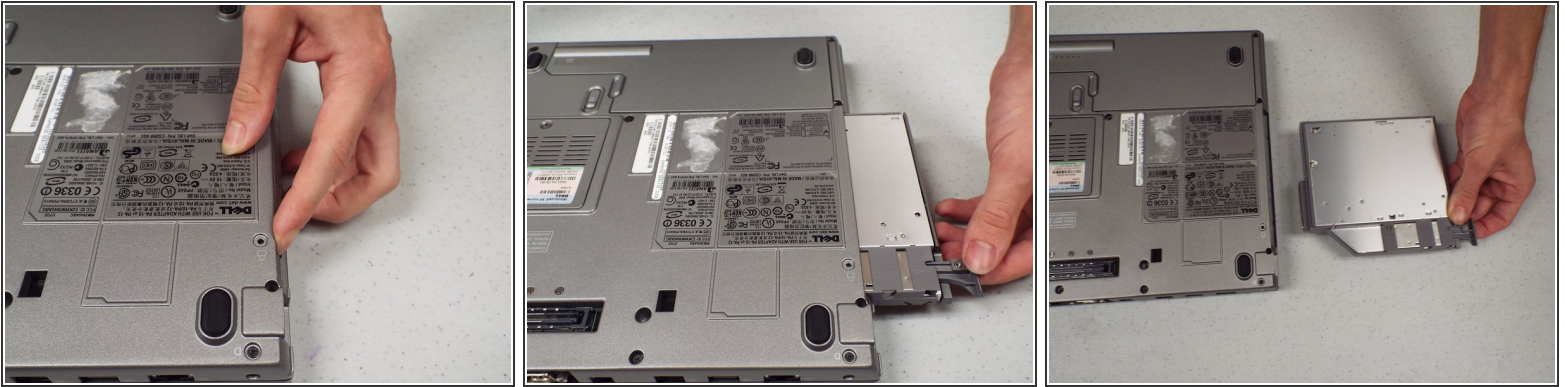
- Perform a complete system backup and shutdown the computer.
- Unplug the charger and remove the battery.
- Remove the battery by sliding the lock tab (outlined in red) and use the other hand to remove the battery.

Step 2



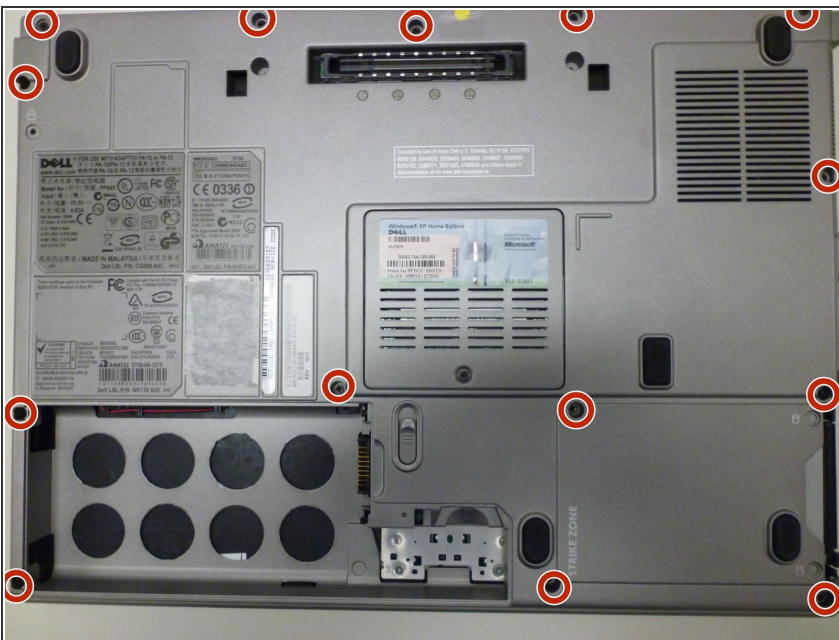
- Remove the hard drive
- Locate and remove three phillips head screws. These screws measure 3.55mm in length and 2.93mm in width with a fine thread.
- Remove the hard drive and set it aside trying not to touch anything but the grey plastic grip pad. Doing so may cause damage to your hard drive.

Step 3



- Remove the CD/DVD Drive by pushing on the button under the drive.
- There may be a little resistance pulling it out.

Step 4



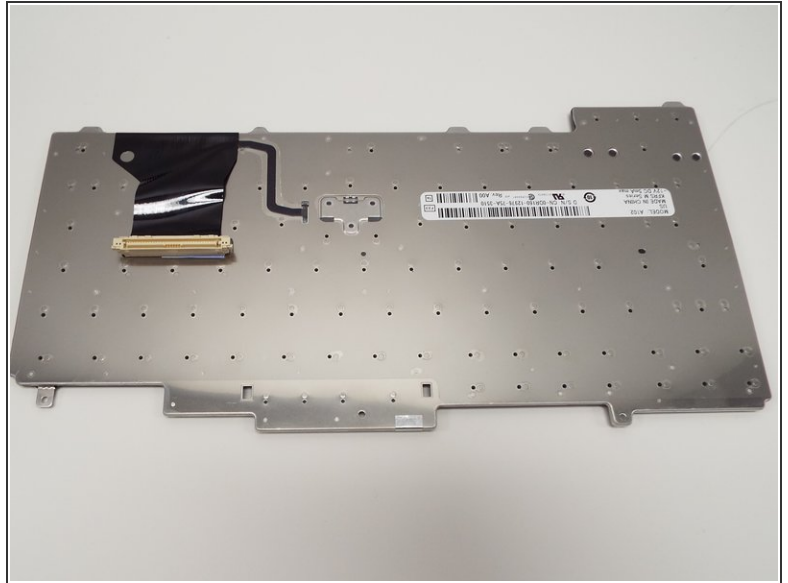
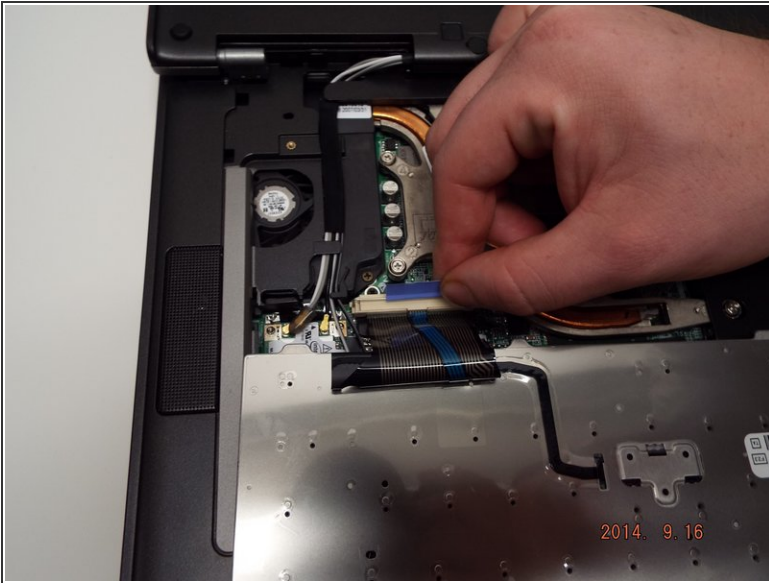
- Remove the 14 Phillips screws from the bottom of the laptop.

Step 5



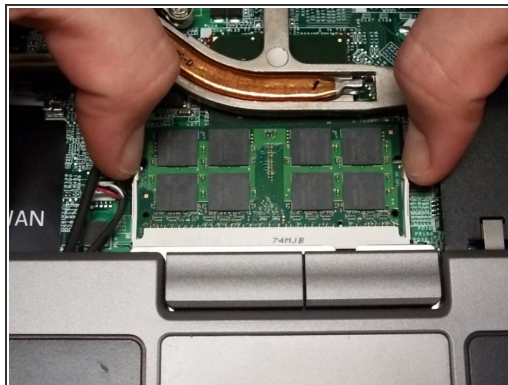
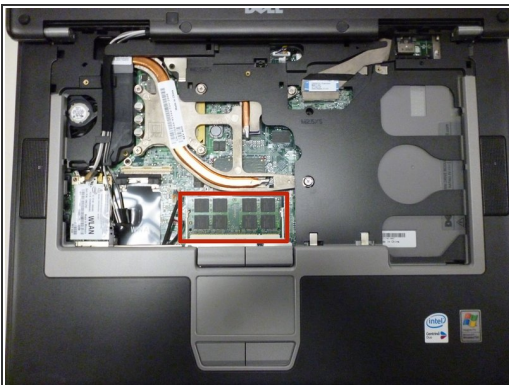
- Flip the laptop face up making sure the screen is opened all the way and is flat as shown in the first picture.
- Using a Plastic Pry tool carefully pry off the keyboard bezel keeping in mind **wires are attached** so do not pull too far or hard.

Step 6



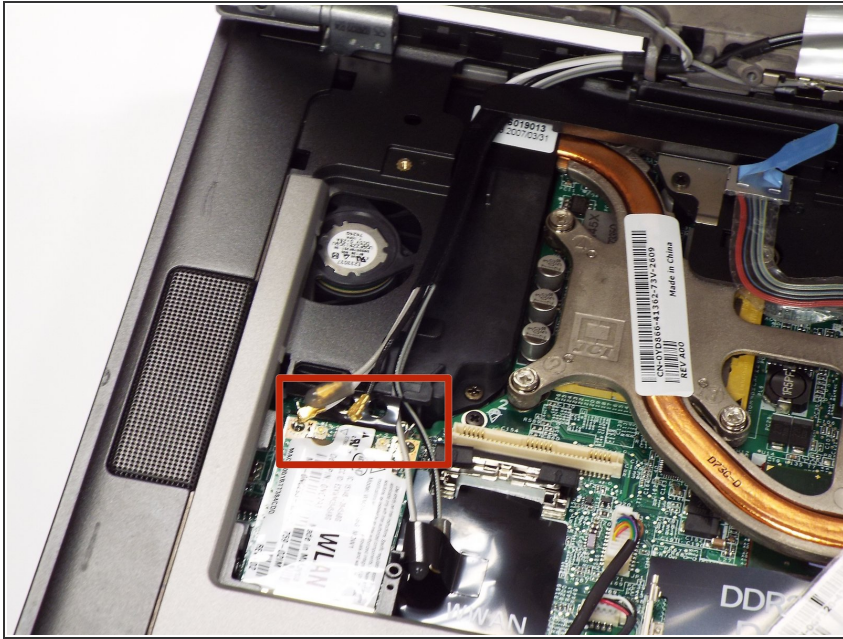
- Now, remove the keyboard screws then the keyboard. There is a ribbon cable (wires) attached to bottom, be careful not to tear it.
- Remove the ribbon from the laptop motherboard, this will allow you to set the keyboard aside.

Step 7



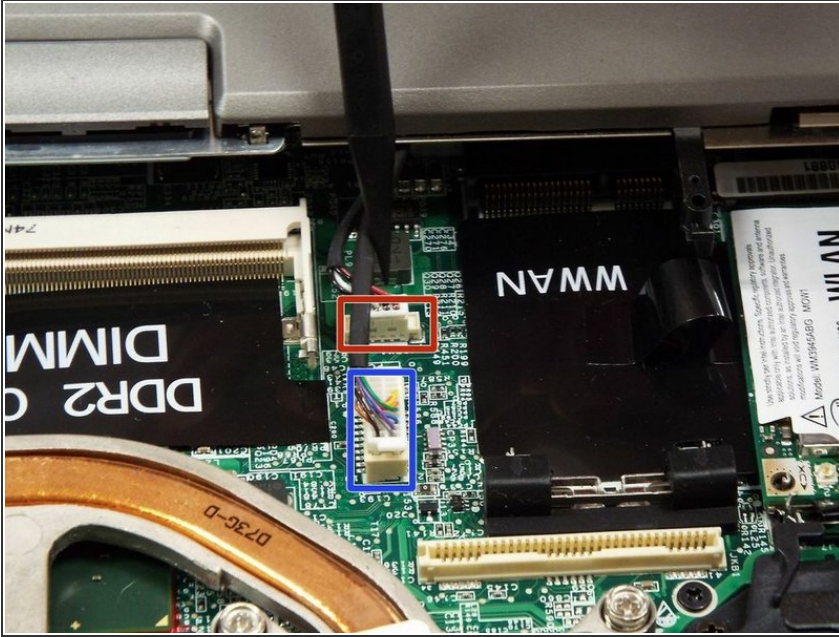
- Remove the memory chip under the keyboard by pulling the two tabs away from each other as shown in second picture. (Yes there is one on the bottom as well)

Step 8



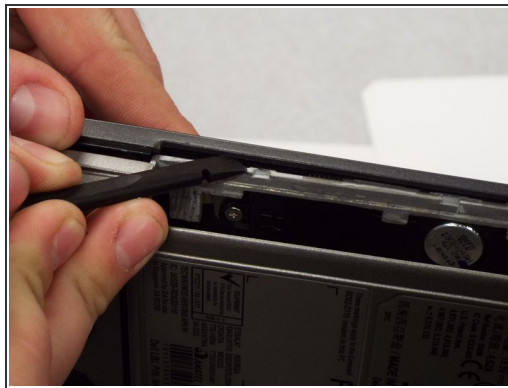
- Disconnect the wireless card from the bottom-corner.
- Push the retaining tab and lift the card out.
- Do this for the ethernet card which is in the same spot.

Step 9



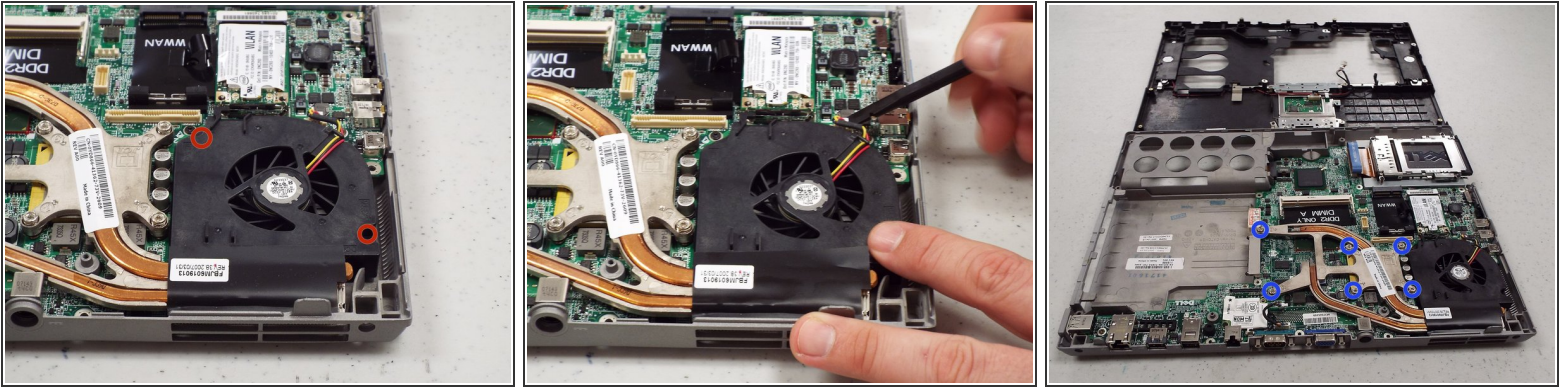
- Remove the cable that connects the speaker (small rectangle) to the frame by pulling straight out. The cable is located to the left of DDR2 DIMM A.
- Remove the cable that connects the track pad (large rectangle) to frame by pulling straight out. The cable is also located to the left of DDR2 DIMM A.

Step 10



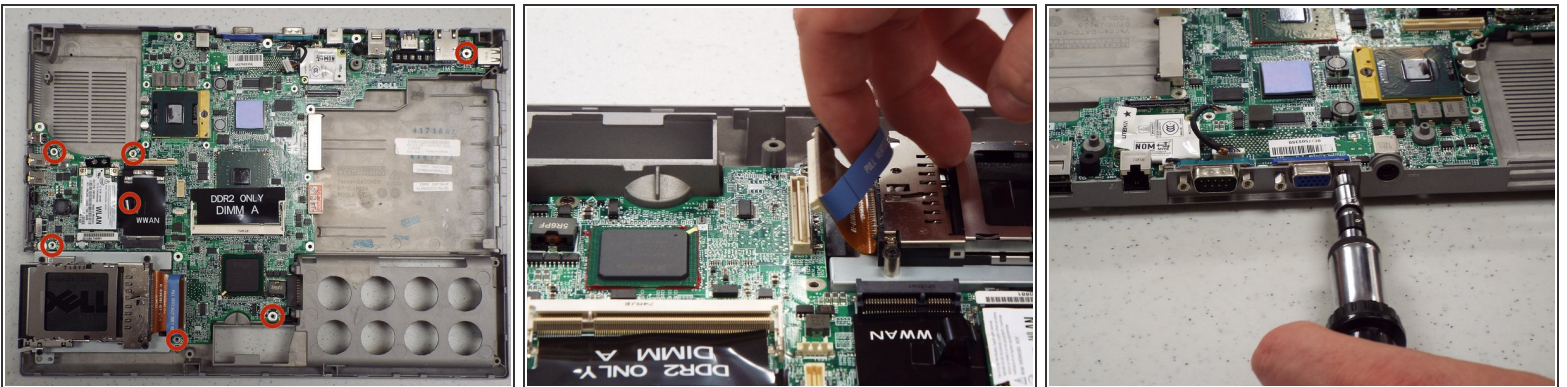
- Remove 3 Screws that hold the upper case to the mother board.
 - Remove the upper casing from the bottom casing.
- ⚠ *note— when prying shell from laptop – gently pry open 3 tabs by the CD-ROM with spudger.

Step 11



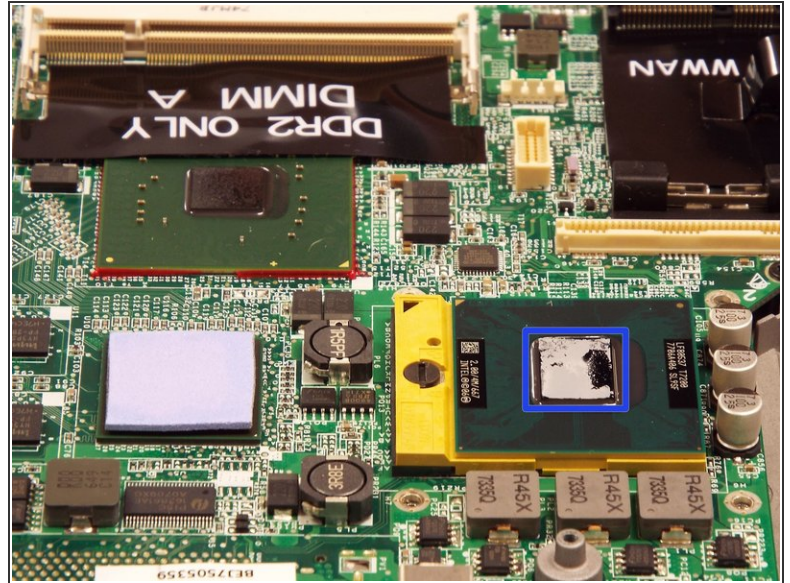
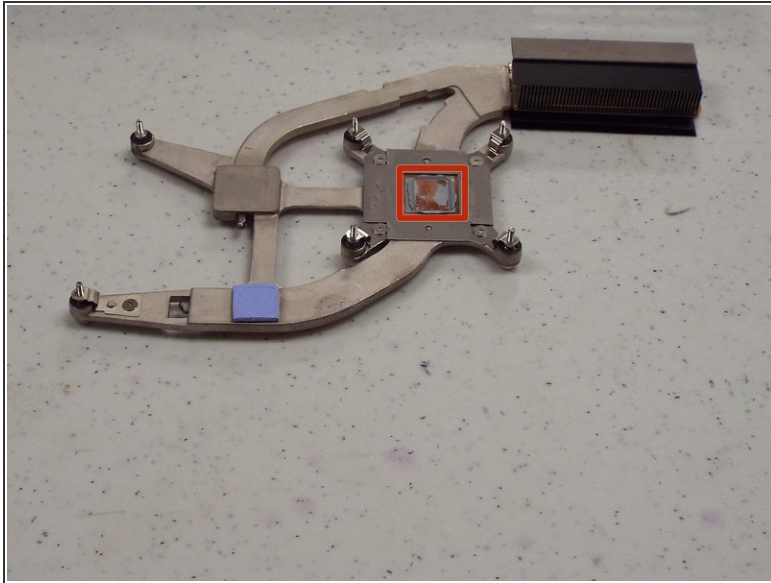
- Remove 2 screws for fan removal – both 5.6 mm length x 2.31 mm width – remove the fan power cable.
- Unscrew 6 spring loaded screws from Heat Sink. These are permanently attached to heat sink and will not come off.

Step 12



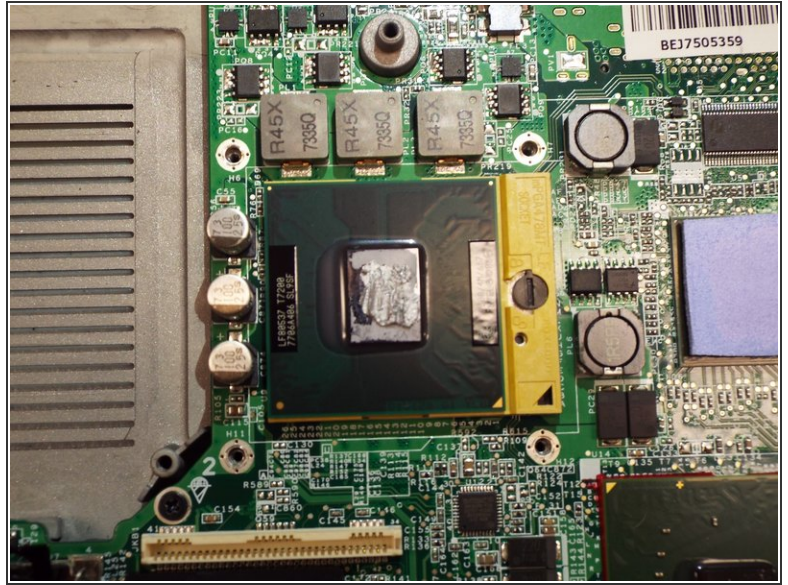
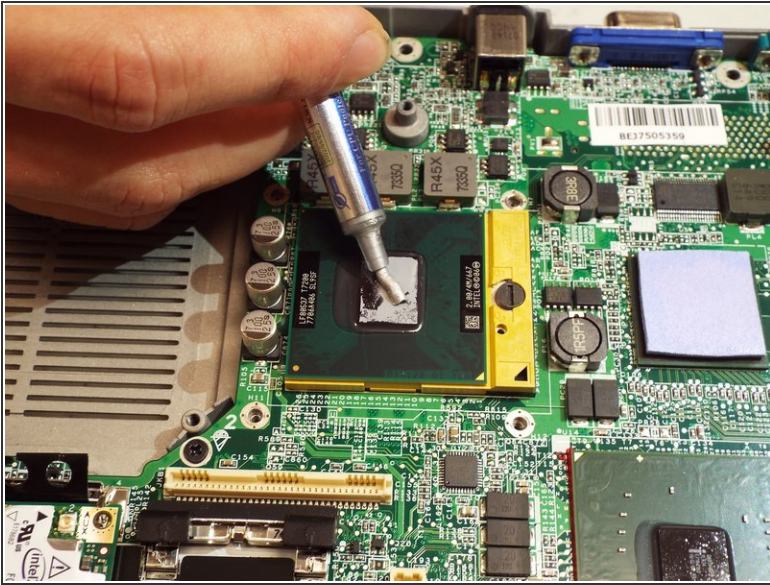
- There are 7 screws that need to be removed around edge of Motherboard. 4 of the screws are 3.73mm length x 1.90mm width
- 3 of the screws are 3.80mm length x 1.89mm width. One of these is near top left of Dell MCIA. The other is near top left of WWAN. An there is one underneath the Black WWAN label.
- Remove the PCMCIA connector from the motherboard.
- Turn the laptop on the side and remove 2 female hex screws from video card and 2 posts from serial port using socket driver (3/16 socket) All hex screws are 10.23mm x 2.66mm size

Step 13 — Thermal Paste



- Using a lint free cloth and a drop of TimClean or ArctiClean to clean residue from the heat sink.
 - Using a lint free cloth and a drop of TimClean or ArctiClean to clean residue off CPU.
 - Wipe with a clean lint free cloth to remove any residue of cleaner.
- ⚠ Do not touch with fingers!
- Allow to dry completely.

Step 14



- Dispense a small amount of thermal paste onto processor.
- Using your rubber finger stall or spudger spread a thin, even layer over processor.
- The processor is ready for heat sink installation.

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