



PowerBook G4 Titanium DVI Upper Case Replacement

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INTRODUCTION

This guide is used to disassemble the PowerBook G4 Titanium DVI Upper Case.



TOOLS:

- [4mm Nut Driver](#) (1)
- [Anti-Static Wrist Strap](#) (1)
- [Spudger](#) (1)
- [T6 Torx Screwdriver](#) (1)
- [T8 Torx Screwdriver](#) (1)



PARTS:

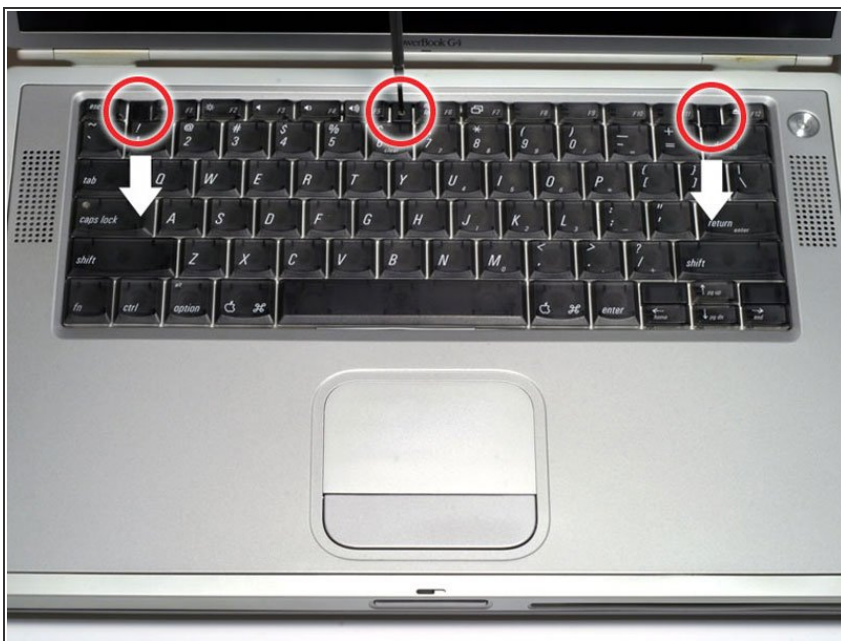
- [G4 Titanium DVI Upper Case](#) (1)

Step 1 — Battery



- Locate the battery release tab on the underside of the G4.
- Slide the battery release tab to the left and lift the battery out of the computer.

Step 2 — Keyboard



- Turn the keyboard locking screw located in the middle of the keyboard so that it is parallel to the space bar. A half turn from parallel to parallel will unlock it. Another half turn will lock it again.
- Pull the keyboard release tabs toward you and lift up on the keyboard until it pops free.

Step 3



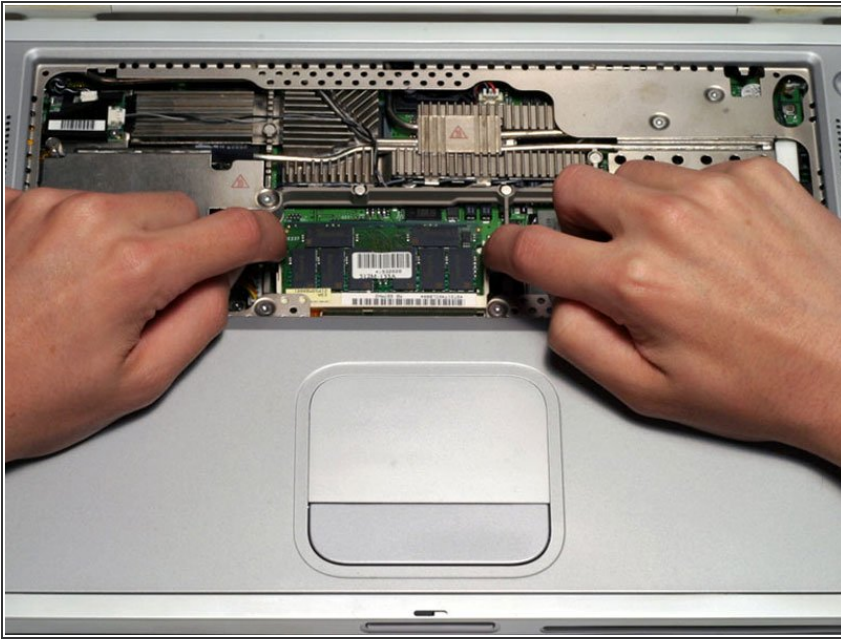
- Rest the keyboard face down on the trackpad area.
- Disconnect the keyboard connector from the logic board.

Step 4



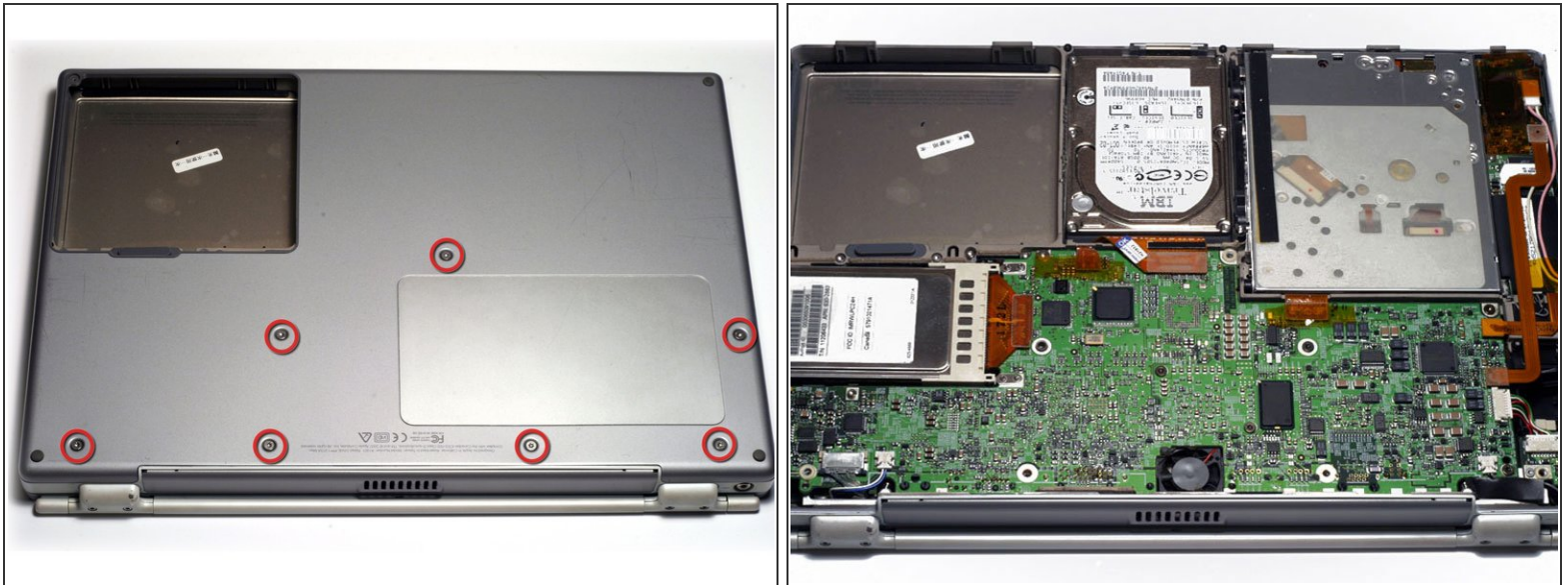
- Your laptop should look approximately like this.

Step 5 — RAM



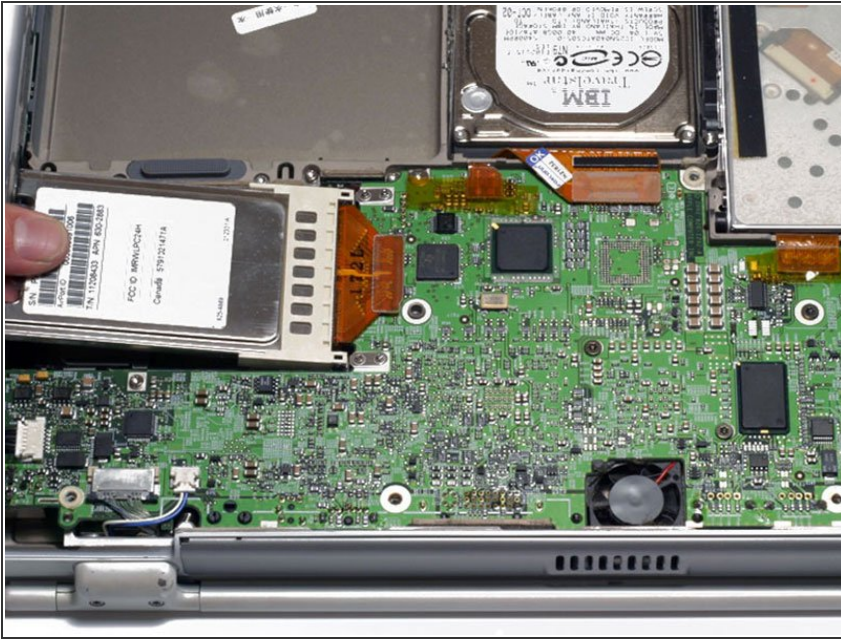
- Release the tabs on each side of the RAM chip at the same time. These tabs lock the chip in place and releasing them will cause the chip to "pop" up.
- Pull the RAM chip out.
- Repeat this process if a second RAM chip is installed.

Step 6 — Lower Case



- Remove the seven T8 Torx screws from the lower case.
- Using your thumbs, slide the lower case toward the front of the computer.
- The lower case may stick in the front on a tab just above the center of the optical drive. Be careful as you work the case off, or you may break the thin strip of plastic just above the drive.
- Lift the lower case off.

Step 7 — Airport Card



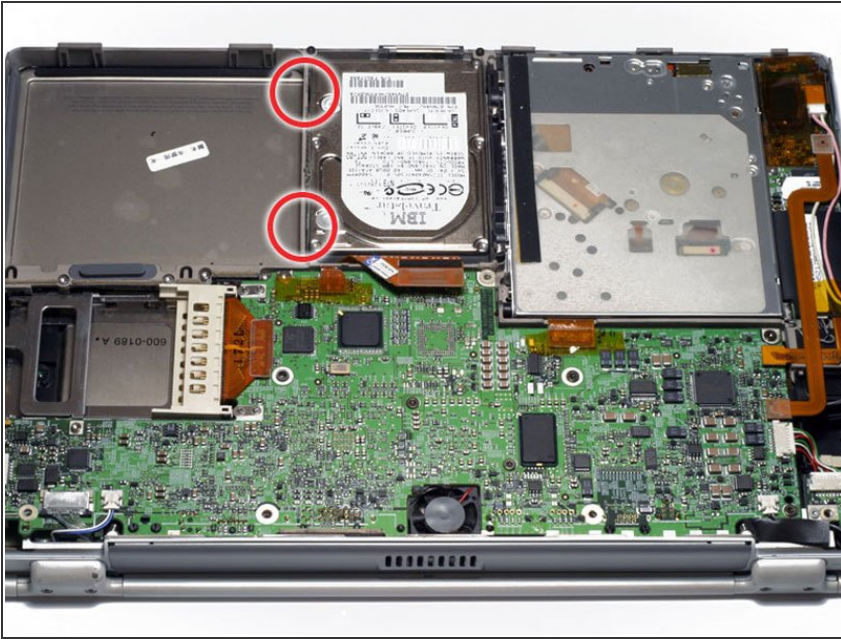
- Firmly grasp the plastic tab attached to the Airport card and pull up and to the left.
- Disconnect the antenna cable from the left side of the Airport card.

Step 8 — Hard Drive



- Disconnect the hard drive ribbon from the logic board using a spudger or the tip of your finger.

Step 9



- To free the hard drive, remove the two T8 Torx screws from the right wall of the battery housing.

Step 10



- Remove the hard drive by lifting the left edge up and out of the computer.
- ⓘ There are four rubber bumpers that fit over the hard drive screws. Ensure that these bumpers come out when you remove the hard drive.

Step 11



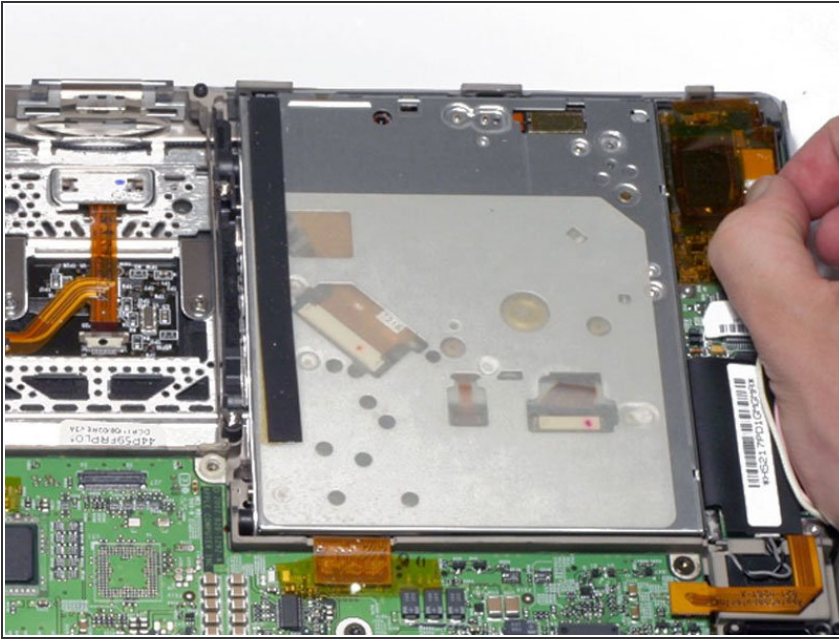
- Your laptop should look approximately like this.

Step 12 — Optical Drive Removal



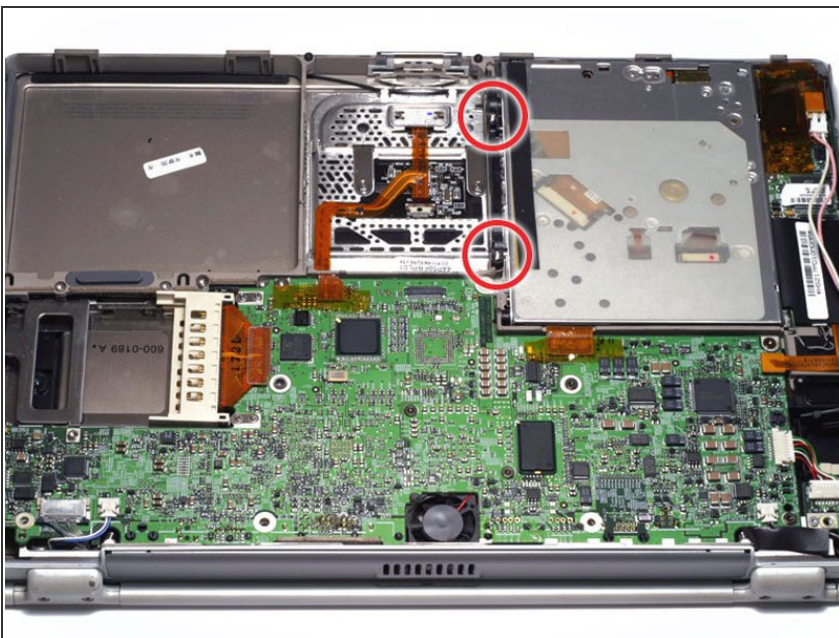
- Disconnect and remove the indicated orange ribbon cable.

Step 13



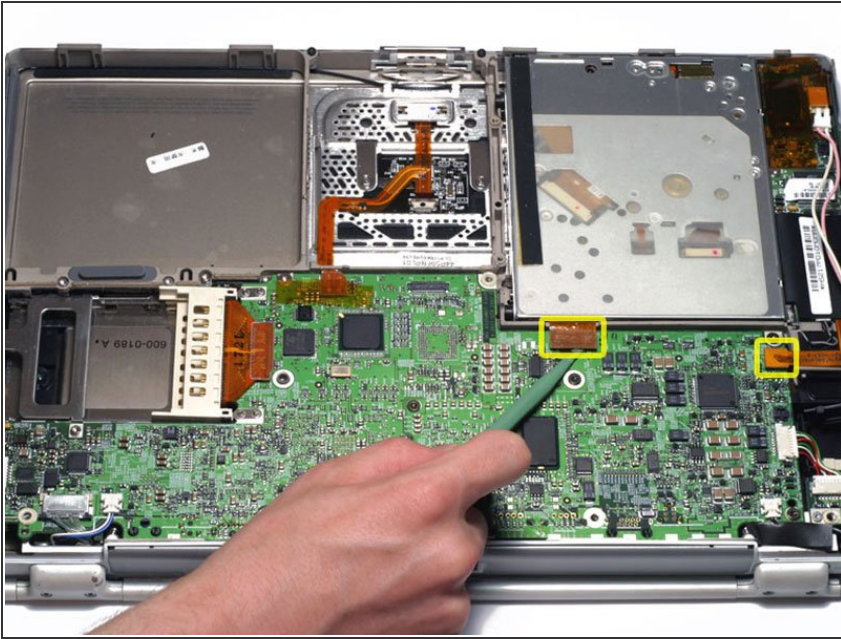
- Disconnect the pink and white inverter cable from the inverter board.
- ⓘ The display inverter has orange plastic shielding around it that looks similar to the tape used elsewhere within the computer. Do not remove the shielding from the inverter.

Step 14



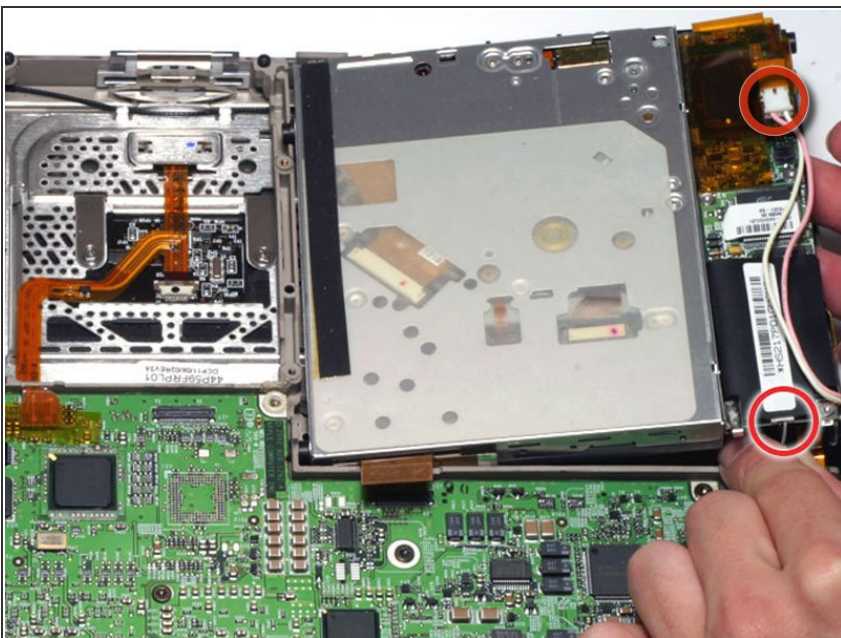
- Remove the two silver T8 Torx screws from the black plastic bar.
- Lift the black plastic bar out.
- ★ Reassembly will be significantly easier if you reseat the hard drive **before** returning the black bar to its place.

Step 15



- Disconnect the two orange connectors from the logic board, removing tape as necessary.

Step 16



- Lift the drive up on the right side so that you can access and disconnect the modem cable and inverter cable.

Step 17



- Remove the drive by lifting the right edge up and out of the computer.

Step 18 — DC-In Board



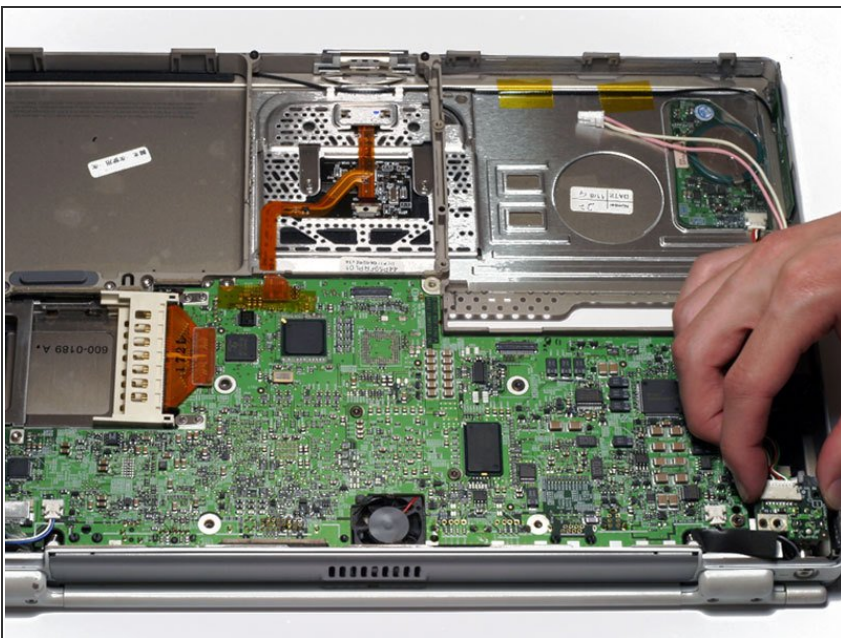
- Disconnect the large DC-In connector from the right side of the logic board.

Step 19



- Remove the two T6 Torx screws from the DC-In board.

Step 20



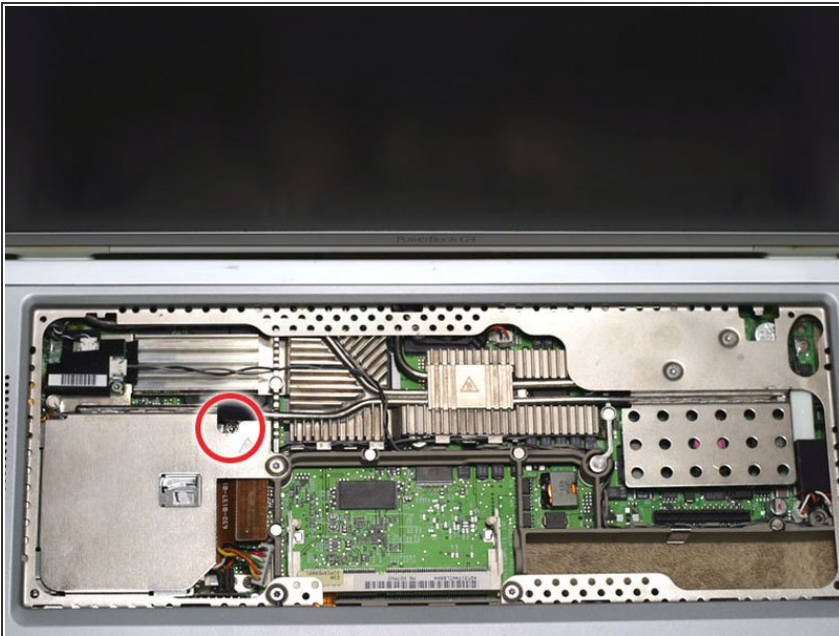
- Lift the DC-In board out of the computer by pulling up and away from you.
- ⓘ If you don't have a 667 MHz computer, there is a fan in this location which makes it a bit difficult to remove the DC-In board.
- If there is a fan present, rotate the DC-In board slightly clockwise before easing it out at a slight angle in order to clear the fan clamp on top of it.

Step 21 — Modem Filter Board



- Before continuing, place a soft cloth on your work surface to rest the computer on. Turn the G4 over and place it on the cloth.
- Disconnect the four indicated connectors from the logic board.
- ⓘ The large multicolor cable may be difficult to free.
- ⓘ The top center cable may not need to be disconnected to remove the modem filter board. It connects to the logic board fan to its immediate left, which is attached to the logic board itself.

Step 22



- Remove the T8 Torx screw near the heat pipe.

Step 23



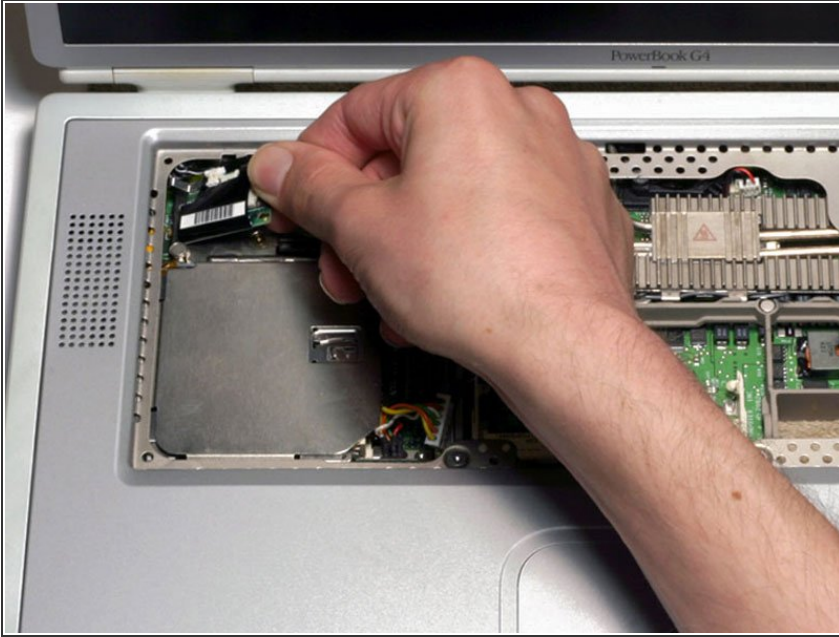
- Disconnect the two connectors from the modem filter board.
- ★ To the immediate right of the modem filter board, the heatsink has two sets of five fins with a double-wide space in between them. This space is where the gray & black coiled wire is supposed to go to ensure a flush fit.

Step 24



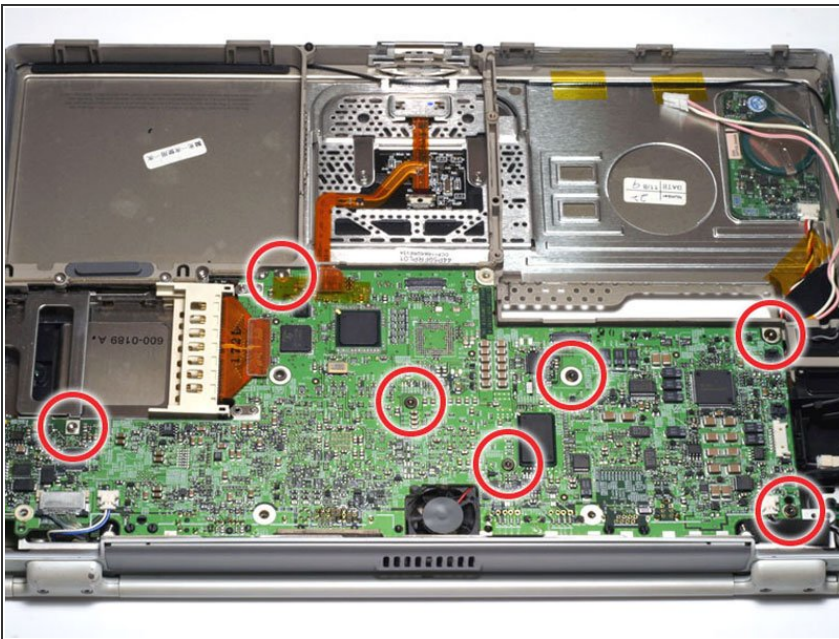
- Remove the T6 Torx screw from the modem filter board.

Step 25



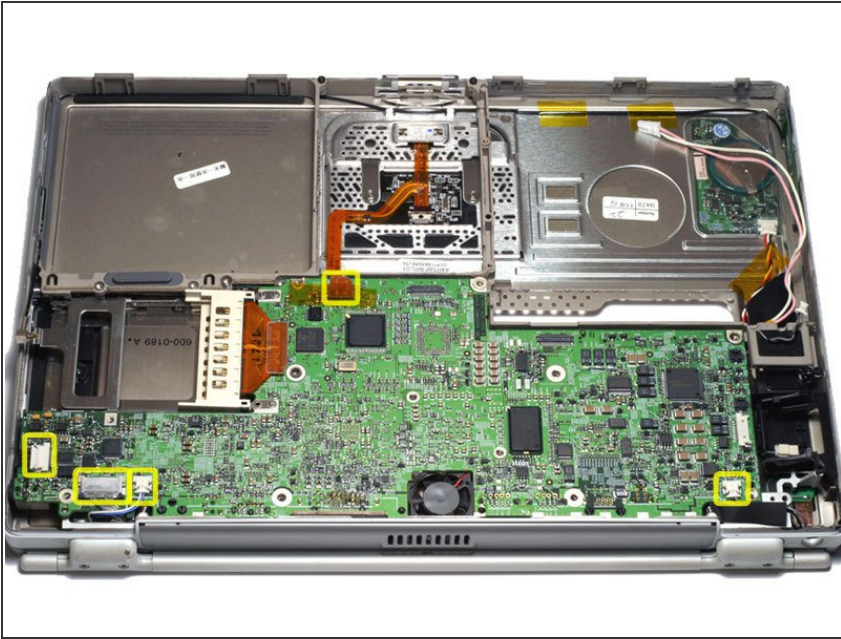
- Remove the modem filter board from the computer by pulling up and to the right.
- ⓘ There is a small plastic post which helps hold the modem filter board in place. You need to clear this post to remove the modem filter board from the computer.

Step 26 — Logic Board



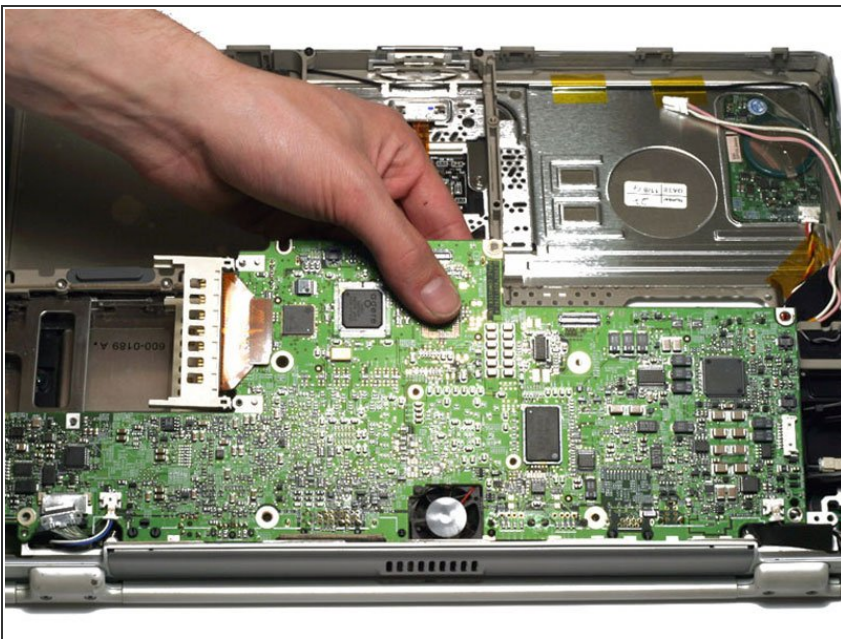
- Turn the G4 over.
- Remove the seven T8 Torx screws from the logic board.
- ★ The five black screws go on the right side of the logic board, the large silver screw goes at the top, and the small silver screw is located on the left side.

Step 27



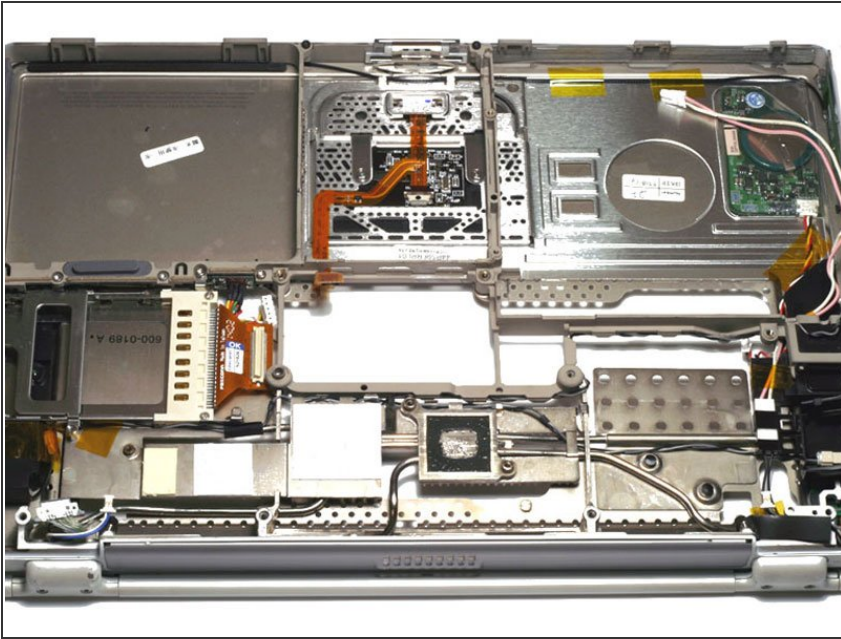
- Disconnect the 5 indicated connectors from the logic board, removing tape as necessary.
- **Reassembly Tip:** Reseating the logic board will be much easier if you use kapton tape to hold these five connectors out of the way until it is in place.
- **Caution:** If taping the connectors back, be careful not to use tape with anything but very weak adhesive (i.e. kapton tape). Even electrical tape can pull the paint off the hinges when removed.

Step 28



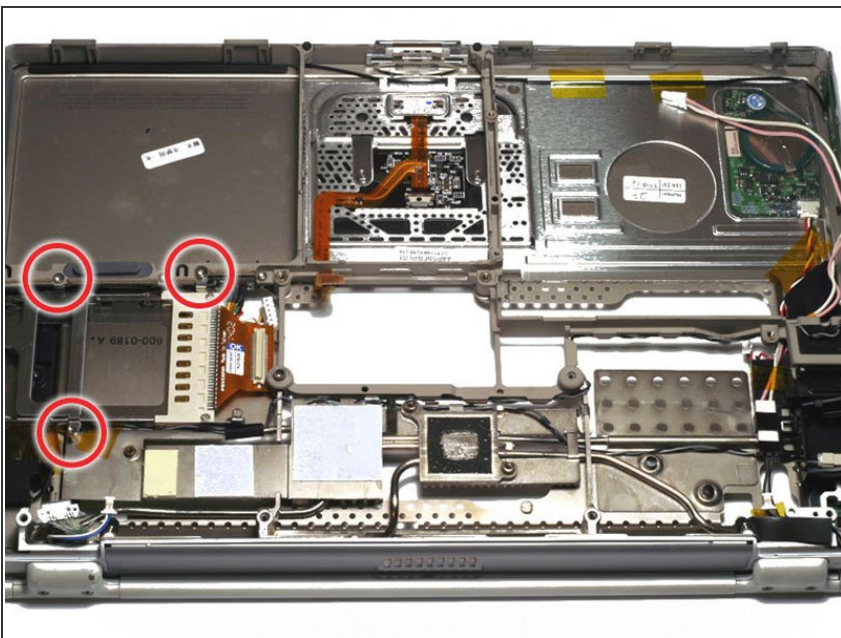
- Carefully lift the logic board up and pull it away from you.
- ⓘ This step requires some force, but if the logic board will not come up, make sure that you have removed all the necessary screws and connectors. Warming the heatsink with a heatgun or blow dryer will help release the logic board.
- ⓘ On 800 MHz and above G4s, you must disconnect the fan cable from the logic board before you lift the board entirely off.

Step 29



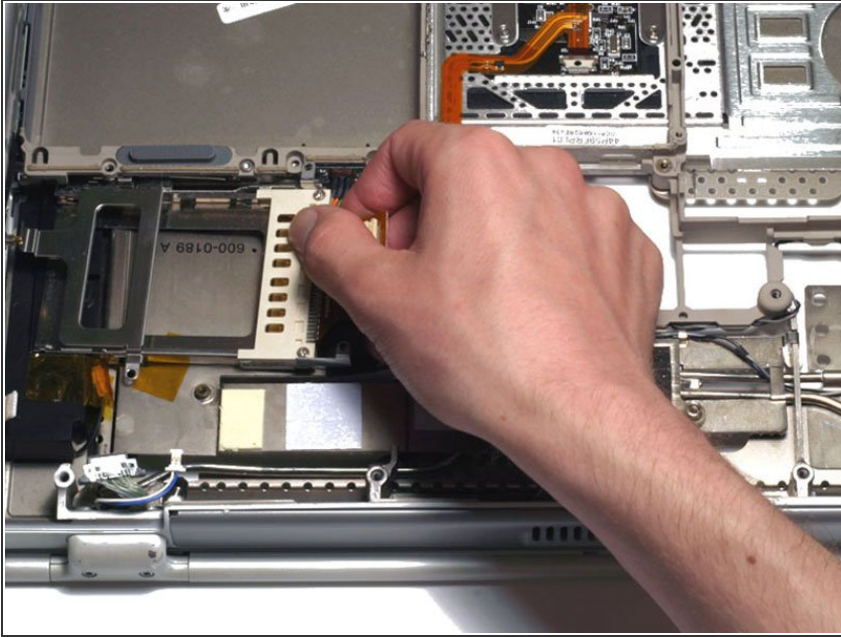
- Your laptop should look approximately like this.

Step 30 — PC Card Cage



- Remove the two T8 Torx screws that secure the PC Card cage.
- Remove the 4 mm hex nut from the PC Card cage.

Step 31



- Remove the PC Card cage by pulling it to the right and twisting slightly toward you.

Step 32 — Fan



- Remove the fan or placeholder from the computer.

i If you have a 667 MHz computer there is no fan in this location and just a placeholder bracket.

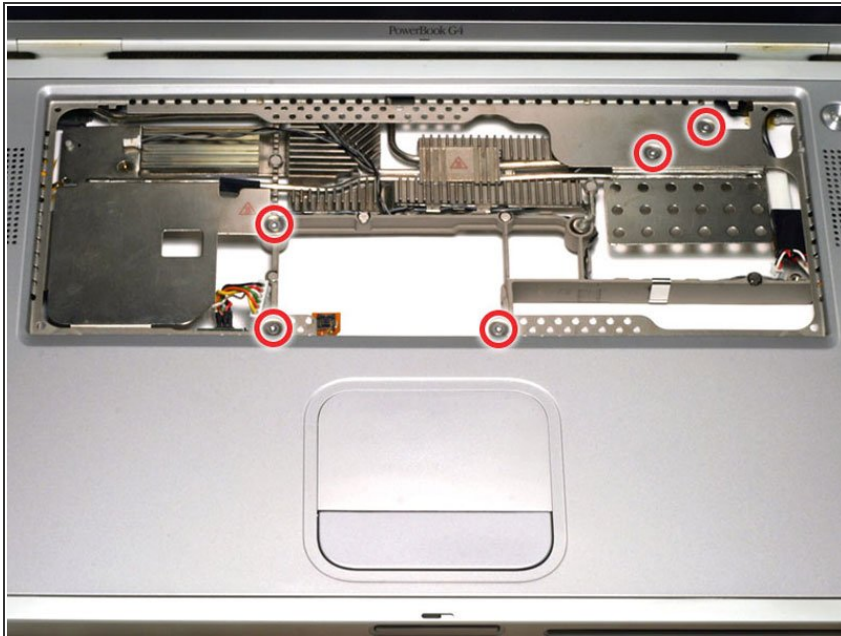
Step 33 — Display



 Performing the following steps incorrectly can easily damage the display and render it inoperable. The multicolored display data cable is especially fragile.

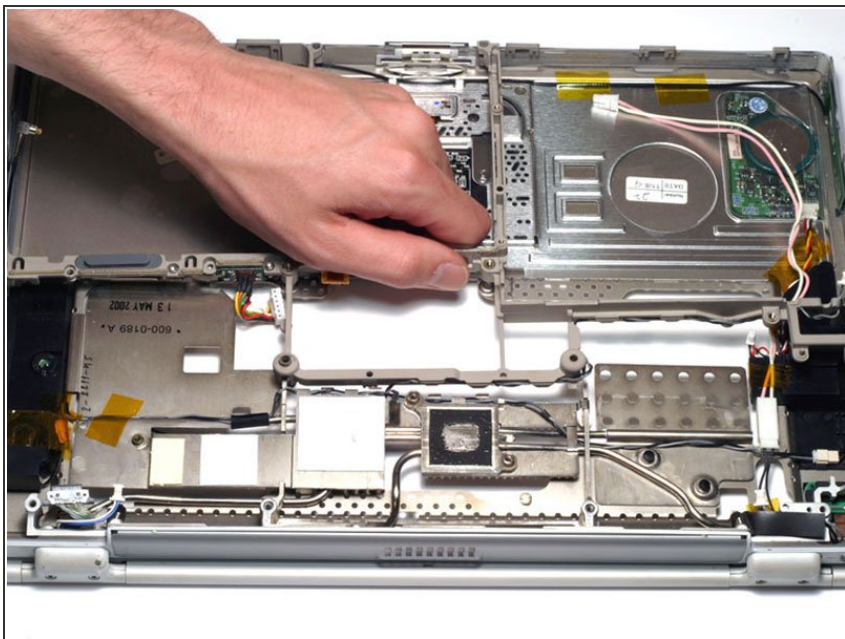
- Remove the four black T8 Torx screws from the plastic framework.

Step 34



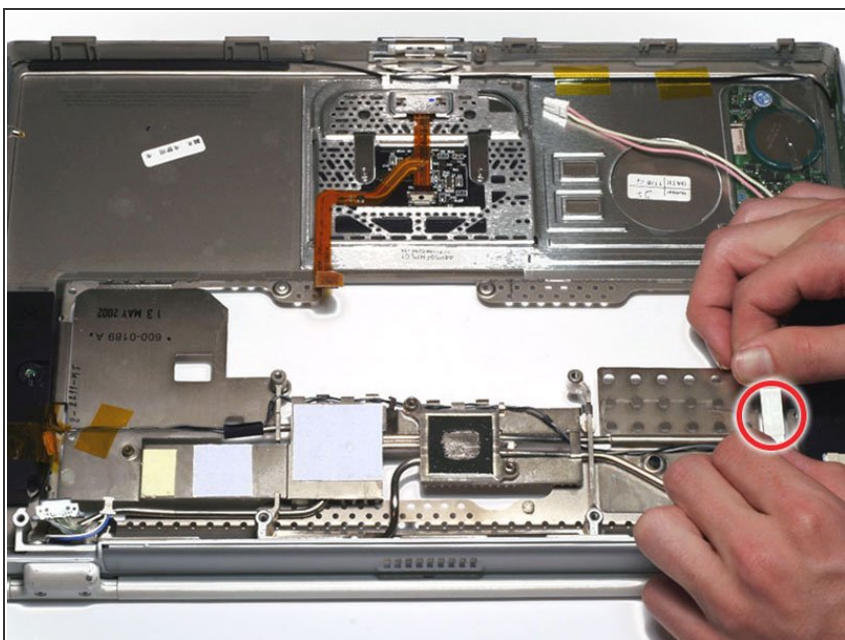
- Turn the G4 over.
- Remove the five silver T8 Torx screws from the metal framework.

Step 35



- Turn the G4 over.
- Grasp the plastic framework and pull directly up.

Step 36



- Disconnect and remove the pink and white inverter cable, removing tape as necessary.

Step 37



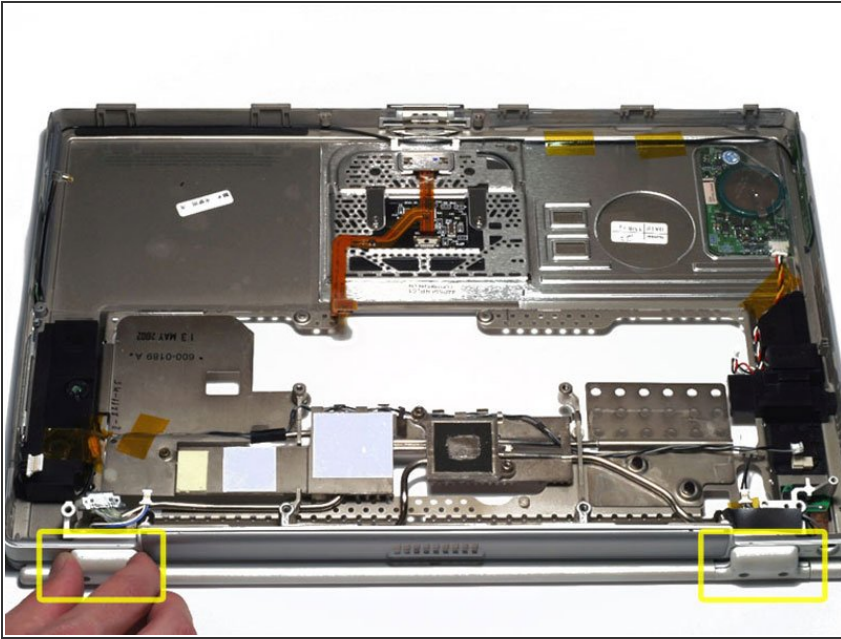
- Disconnect the audio connector cable on the right side of the computer.

Step 38



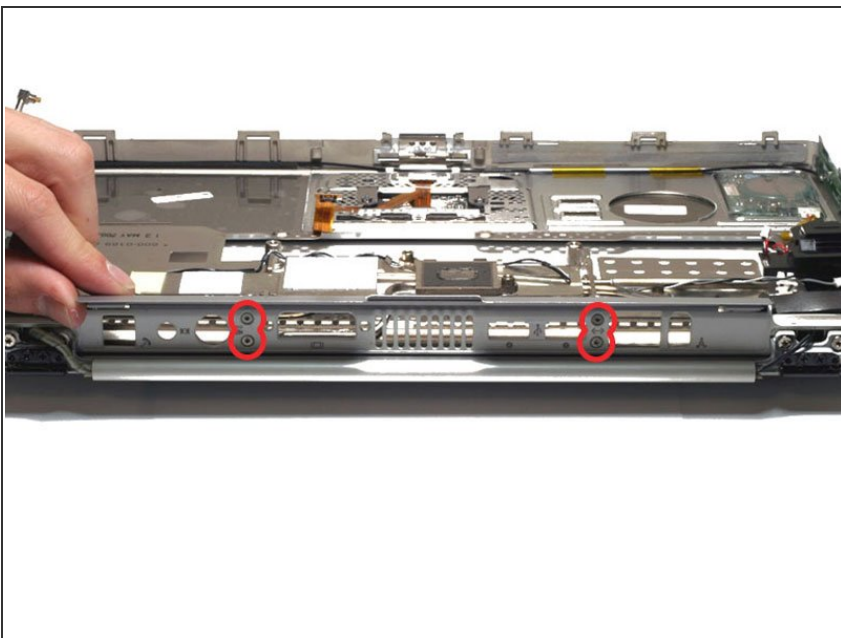
- Position the display approximately at a 45 degree angle and rest the computer on a soft cloth with the back panel ports facing up.
- Remove the two T8 Torx screws from each clutch cover.

Step 39



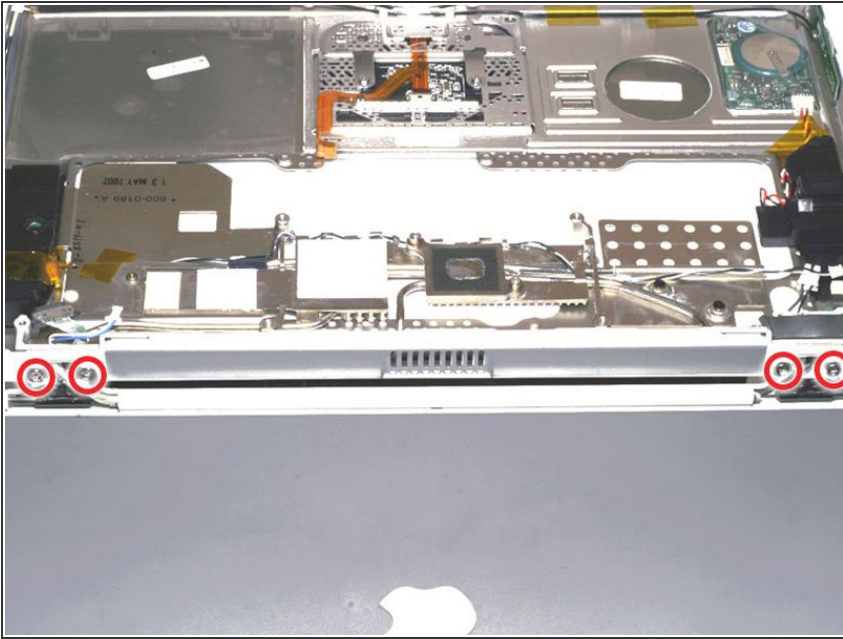
- Close the display and pull off both clutch covers. You can use a non-metal flathead screwdriver if the clutch covers do not come off easily.

Step 40



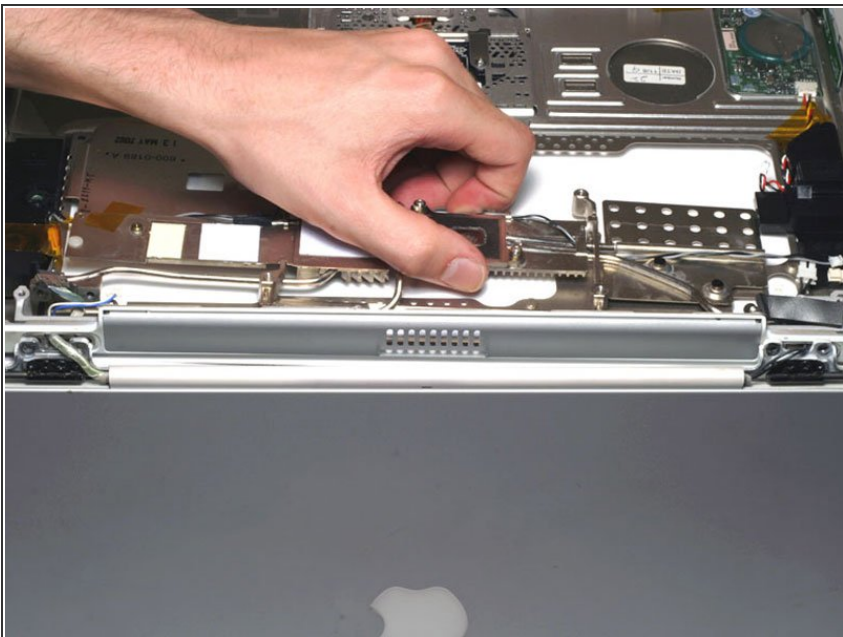
- Open the back panel port cover and remove the four T6 Torx screws.
- ★ The upper screw on each side fastens a small metal mount in place. Be sure to put this part back in when reassembling the computer.

Step 41



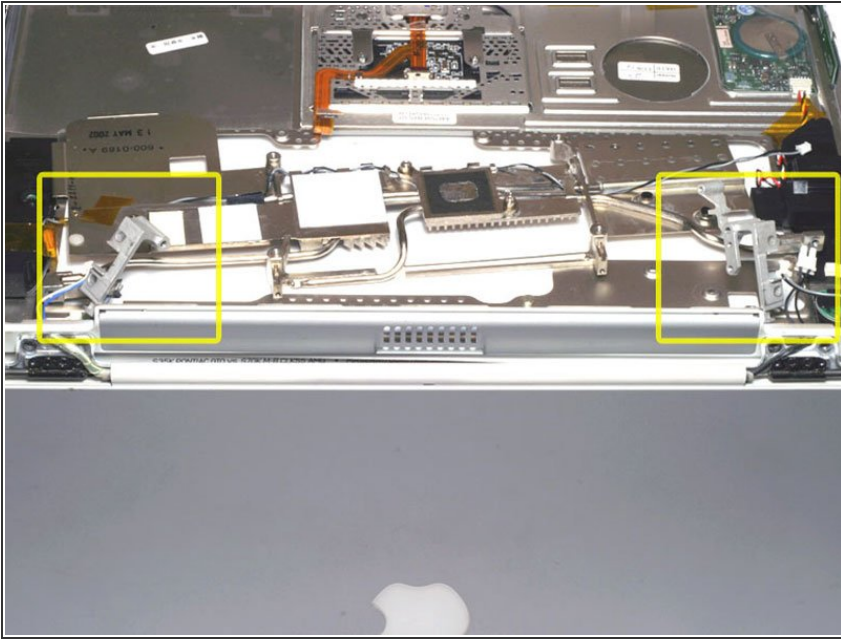
- Open the display to a 90 degree angle. Rest the trackpad face down on your work surface and allow the display to hang over the edge. If possible, adjust your chair or worksurface height so the display will rest on your legs and the trackpad will lie flat on the worksurface.
- Remove the four T8 Torx screws which fasten the display to the trackpad. The screw closest to the display data cable has a tapered head.

Step 42



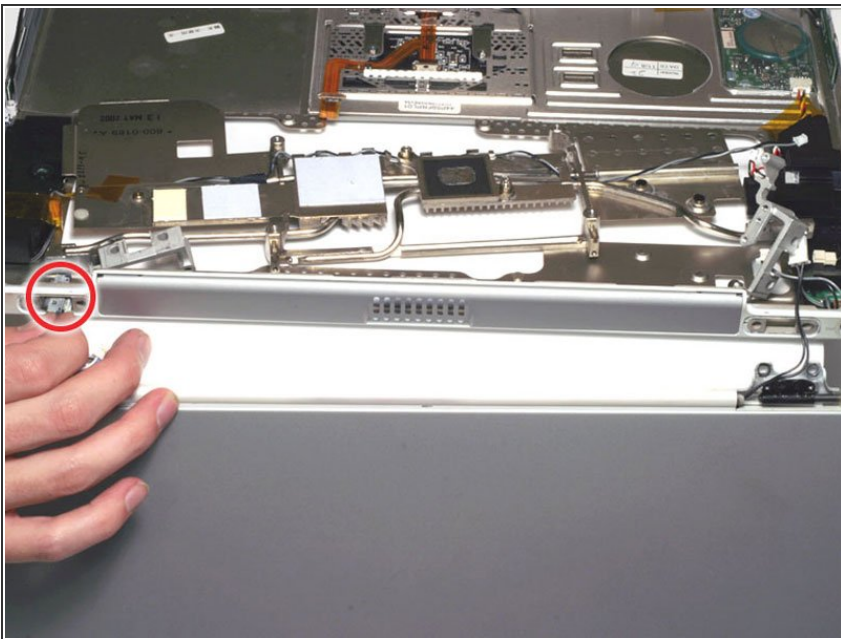
- Grasp the metal heat exchanger and pull up and away from you. You may need to move the inverter cable on the right side of the computer in order to rotate the heat exchanger.

Step 43



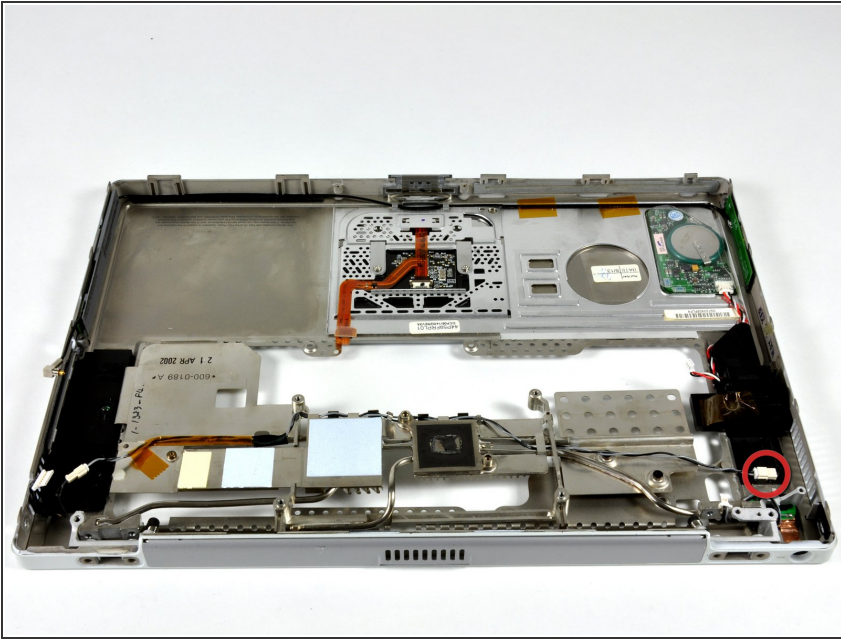
- Lift up the metal brackets on either side of the upper case.

Step 44



- Carefully thread the inverter cable on the right side through the slot in the upper case.
- Carefully thread the display and backlight cables individually through the slot in the upper case. Be very careful with the display cable as it is easily damaged.
- Remove the display assembly.

Step 45 — Upper Case



- Re-align the metal heat exchanger with the upper case. Reconnect the audio connector cable on the right side of the upper case.

Step 46



- Use a spudger to pry the PRAM battery out of its housing on the upper case. Make sure not to bend the PRAM battery too much while prying it out.

Step 47



- Your upper case should look approximately like this.

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