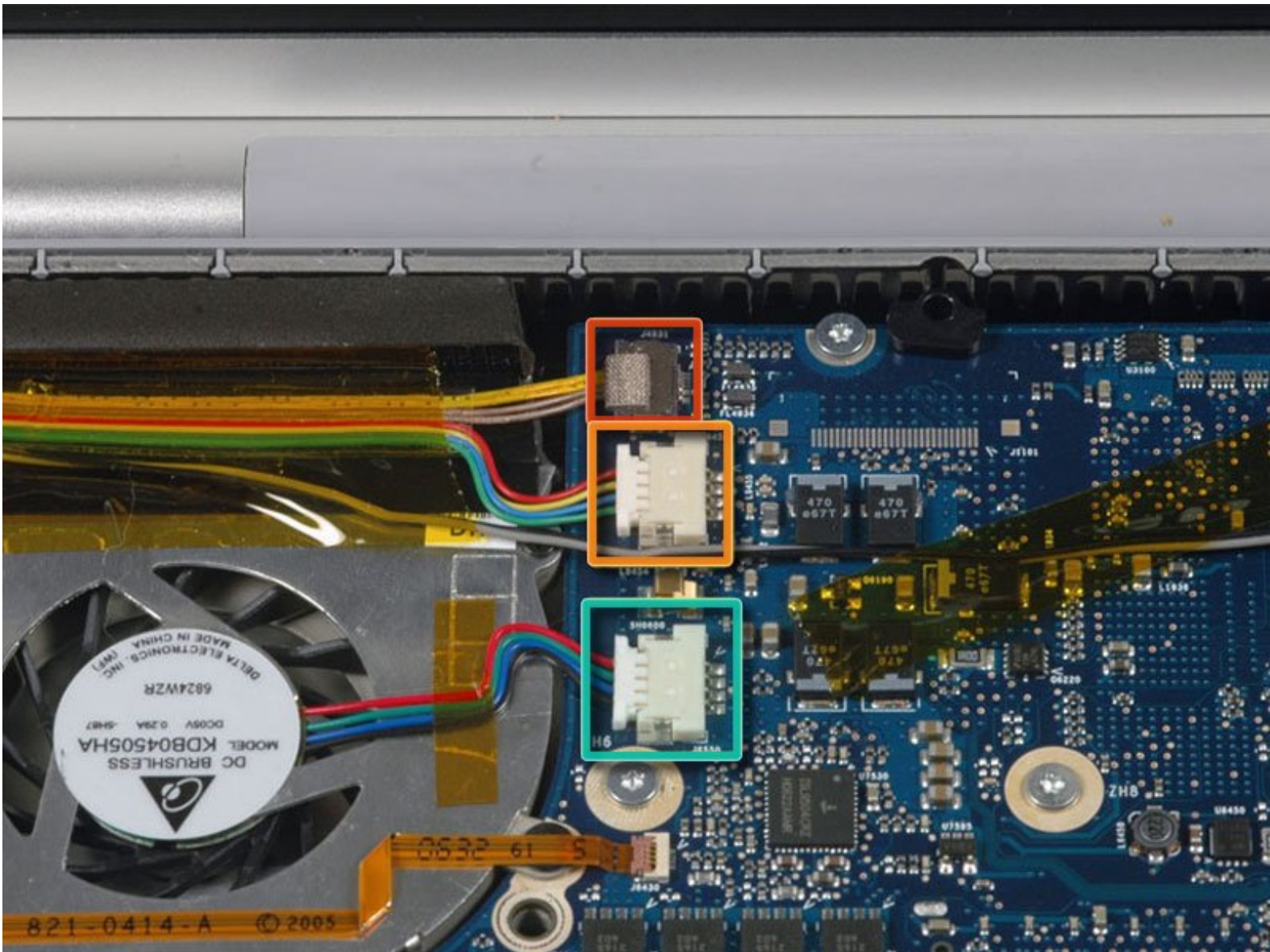




MacBook Pro 15" Core Duo Model A1150 LCD Panel High Definition (1920x1200) Replacement

Written By: Ben Eisenman



INTRODUCTION

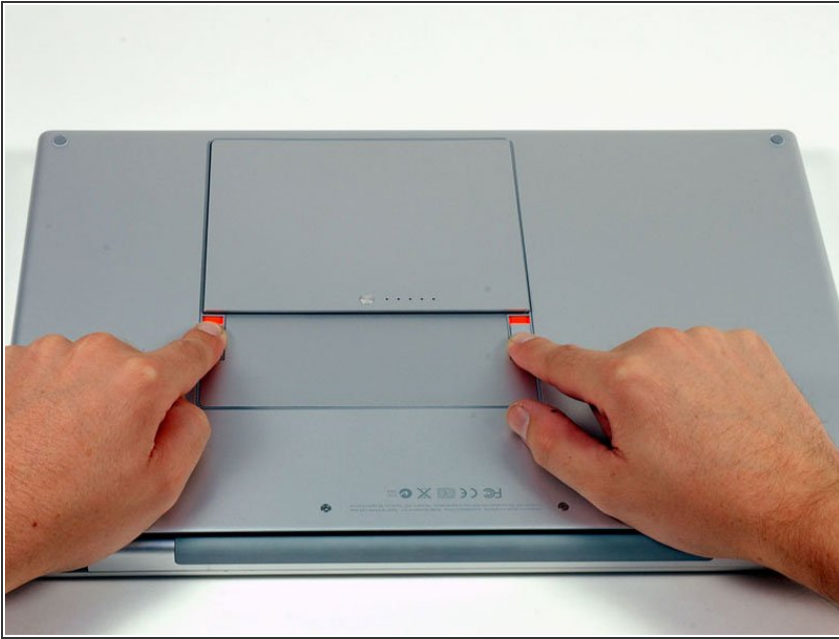
By following this guide, you can install a high-definition LCD panel on your MacBook Pro!



TOOLS:

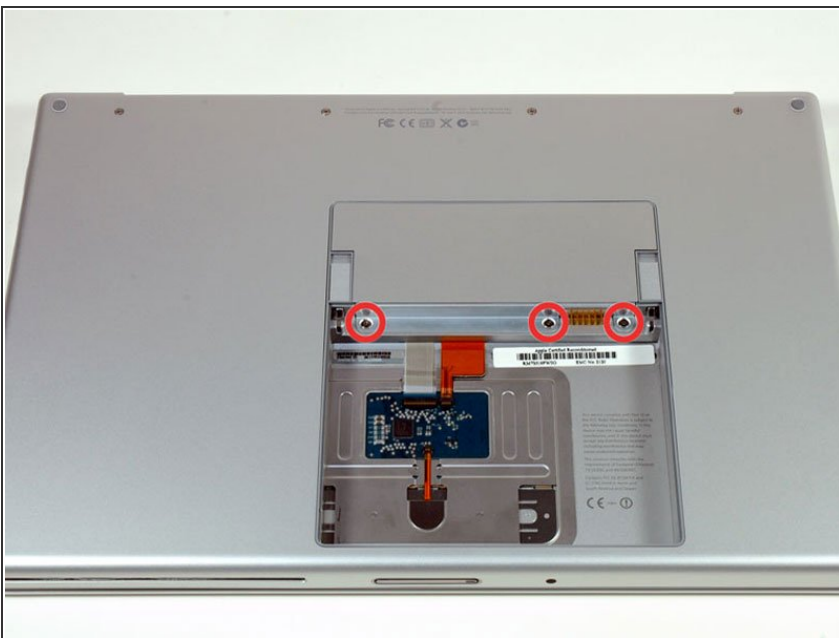
- [Phillips #00 Screwdriver](#) (1)
 - [Anti-Static Project Tray](#) (1)
 - [Spudger](#) (1)
 - [T6 Torx Screwdriver](#) (1)
-

Step 1 — Battery



- Use your fingers to push both battery release tabs away from the battery, and lift the battery out of the computer.

Step 2 — Memory Door



- Remove the three identical Phillips screws from the memory door.
- ★ Make sure to record which sets of screws came from where. This will help when re-assembling.

Step 3



- Lift the memory door up enough to get a grip on it, and slide it toward you, pulling it away from the casing.

Step 4 — Upper Case



- Remove the two Phillips screws in the battery compartment near the latch.

Step 5



- Remove the following 6 screws:
 - Two 10 mm T6 Torx screws on either side of the RAM slot.
 - Four 14.5 mm Phillips screws along the hinge.

Step 6



- Remove the four Phillips screws on the port side of the computer.

Step 7



- Rotate the computer 90 degrees and remove the two Phillips screws from the rear of the computer.

Step 8



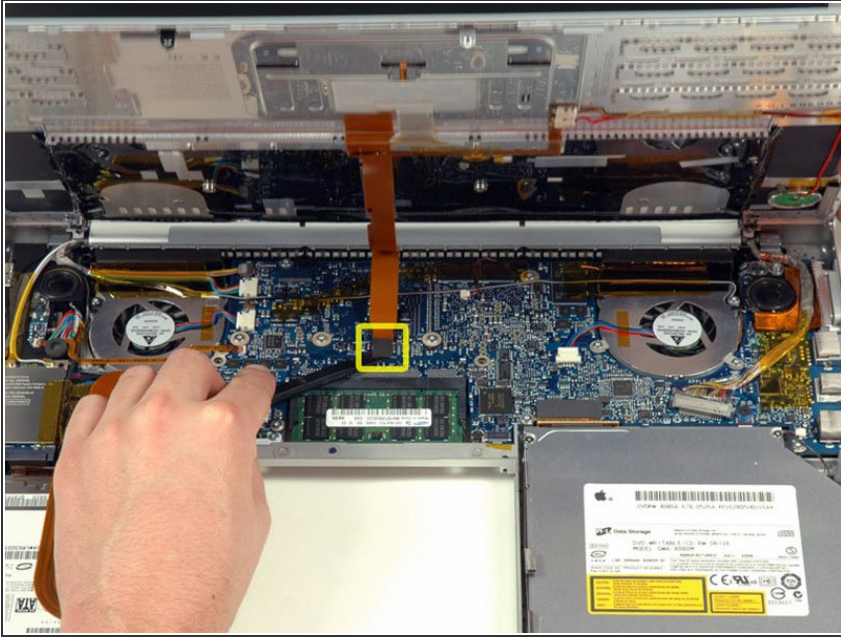
- Rotate the computer 90 degrees again and remove the four Phillips screws from the side of the computer.

Step 9



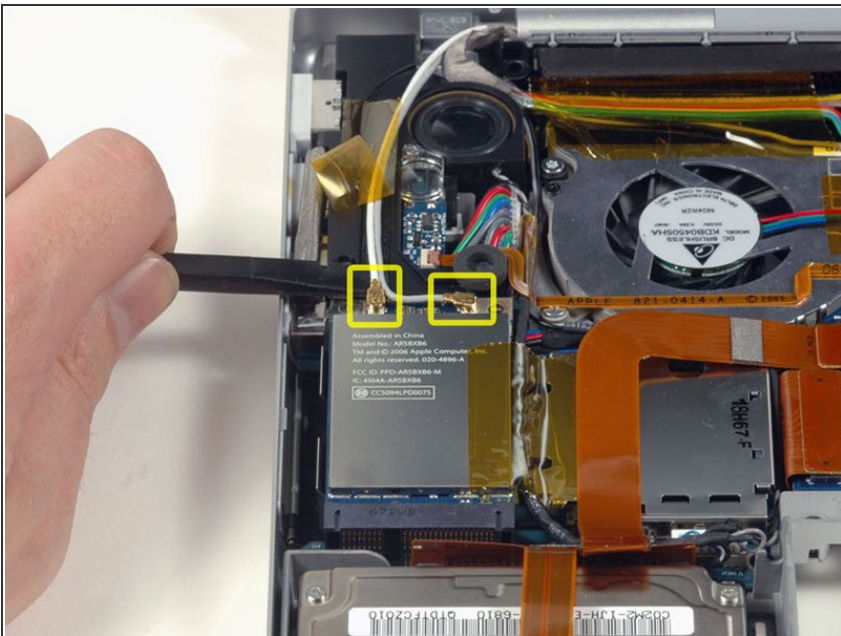
- ❗ Do not yank the upper case off quickly. The case is attached to the logic board via a ribbon cable.
- Lift up at the rear of the case and work your fingers along the sides, freeing the case as you go. Once you have freed the sides, you may need to rock the case up and down to free the front of the upper case. This stage can be quite tricky. Over the DVD reader are 4 tabs set back which pull out vertically.
- Note that the two small tongues on the left hand front of the upper case may bend while you remove the upper case. When re-installing, you may need to bend them back to fit in the grooves in the lower case.

Step 10



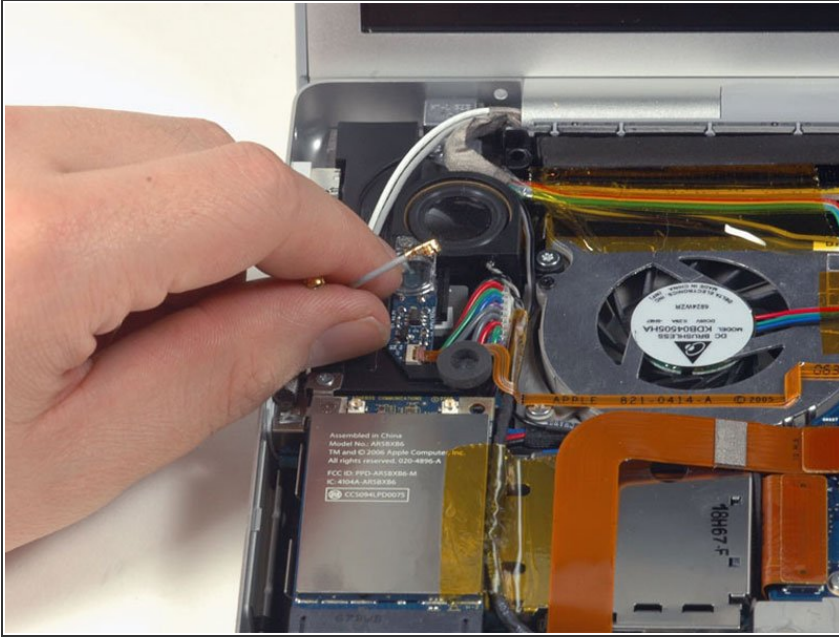
- Disconnect the trackpad and keyboard ribbon cable from the logic board, removing tape as necessary.
- Remove the upper case.

Step 11 — Display Assembly



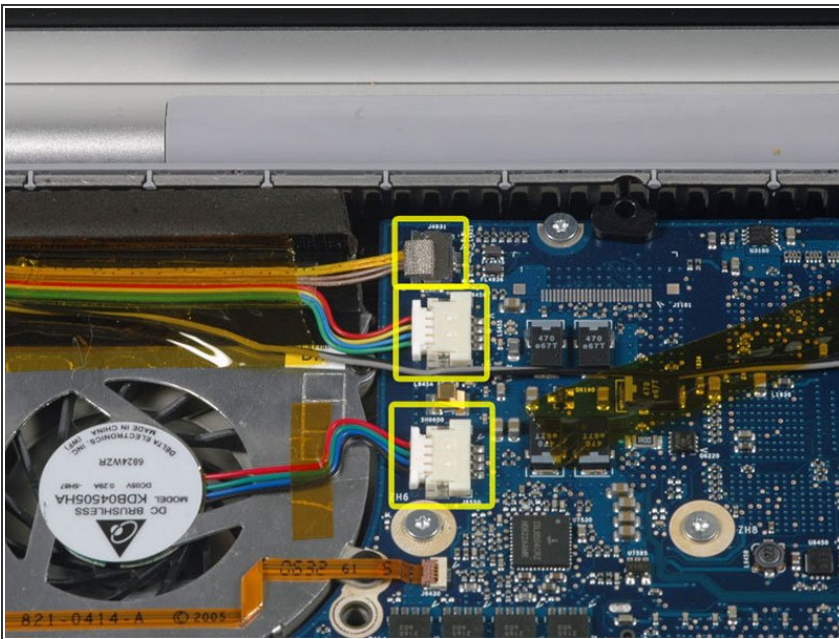
- Disconnect the two antenna cables attached to the Airport Extreme card.
- ✦ The white antenna cable connects to the left side of the Airport Extreme card.

Step 12



- Deroute the Airport antenna cables from their channel in the left speaker.

Step 13



- Disconnect the iSight, inverter, and left fan cables from the logic board by gently pulling in the direction of each cable.

Step 14



- Disconnect the display data cable from the logic board.

Step 15



- Remove the silver T6 Torx screw securing the ground loop on the display data cable to the casing.

Step 16



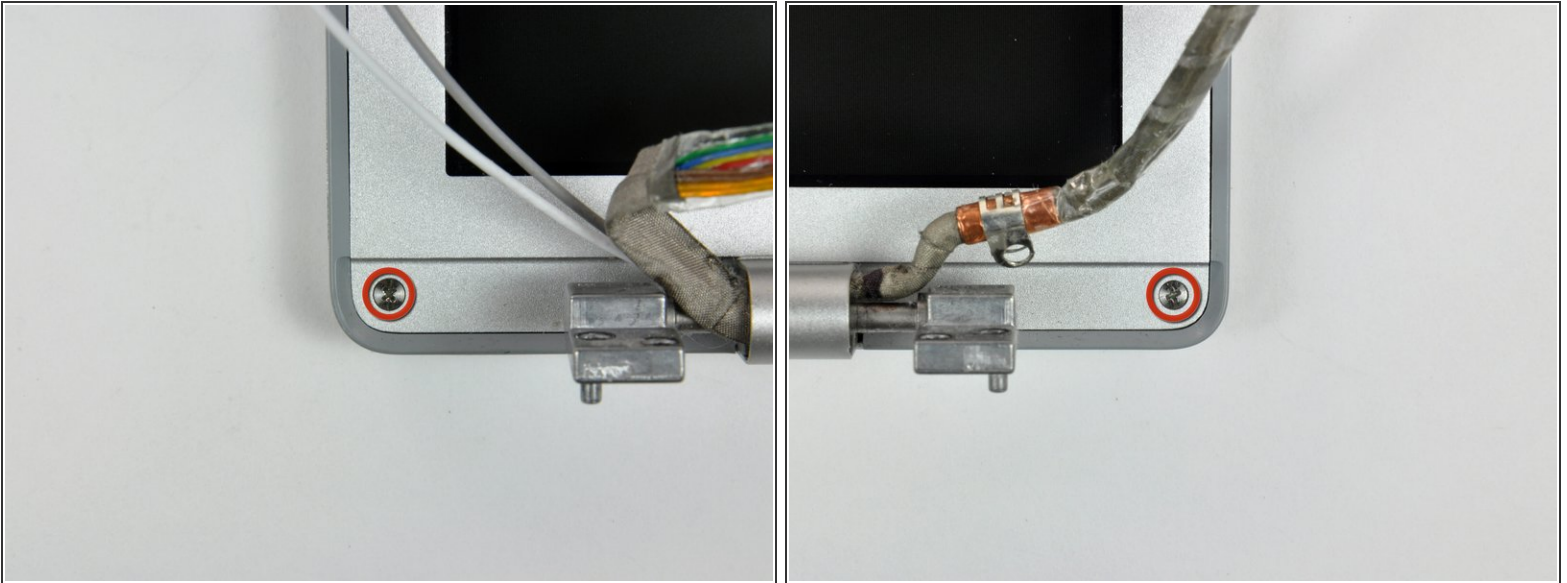
- Support the display with one hand while removing the following 3 screws:
 - Two 9.5 mm silver T6 Torx screws with threads on only part of the shaft on the inside of the display hinges.
 - One 9.5 mm silver T6 Torx screw with threads on the entire shaft on the outside of the left hinge.

Step 17



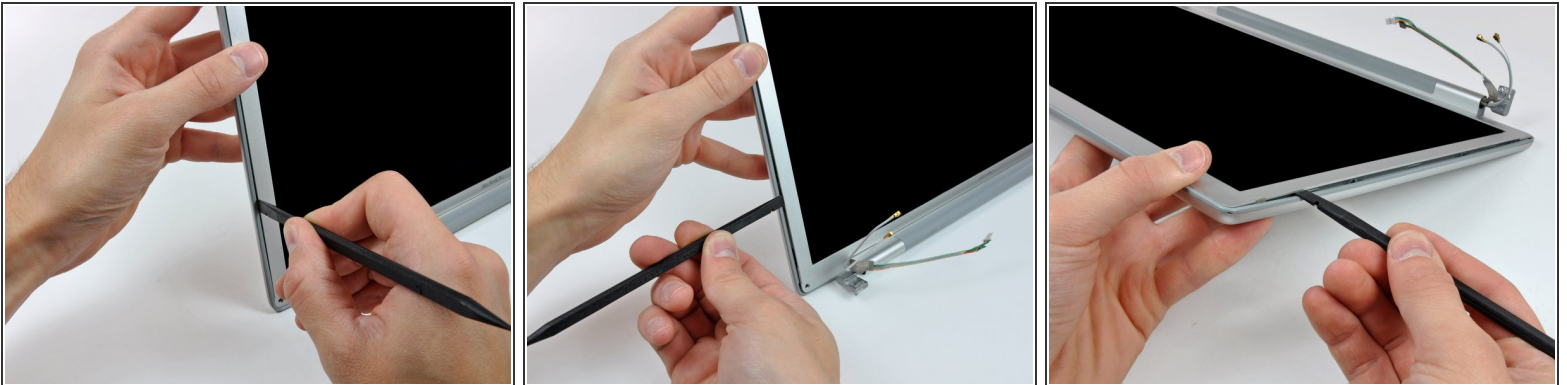
- Grasp the display assembly on both sides and lift it up and out of the computer.

Step 18 — Rear Display Bezel



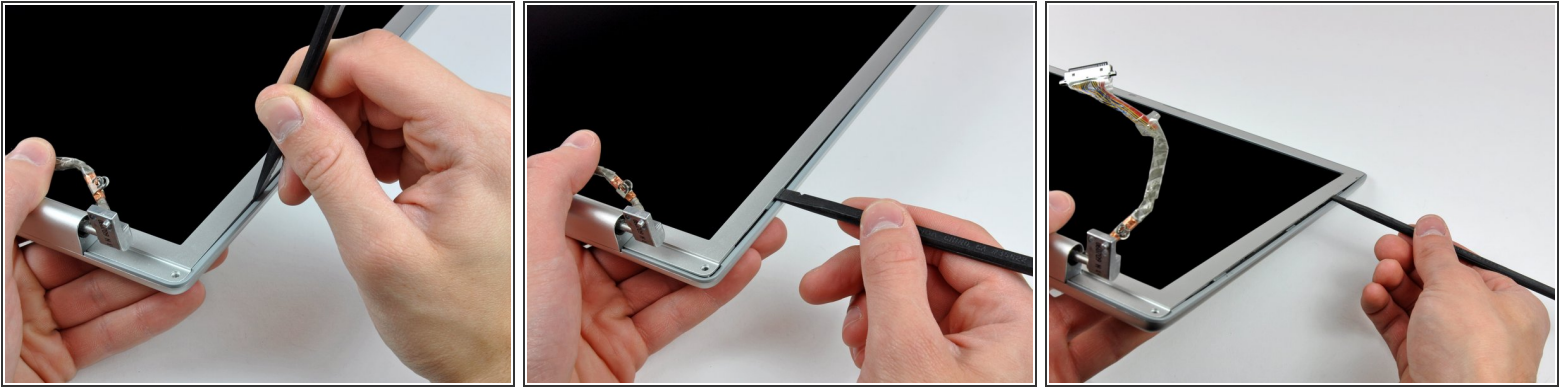
- Remove the two 5 mm Phillips screws from the lower left and right corners of the display (two screws total).

Step 19



- Insert the flat end of a spudger perpendicular to the face of the display between the plastic strip attached to the rear bezel and the front bezel.
- ⚠ Do not insert your spudger between the plastic strip and the rear bezel.
- With the spudger still inserted, rotate it away from the display to separate the front and rear bezels.
- Work along the left edge of the display until the rear bezel is evenly separated from the front bezel.

Step 20



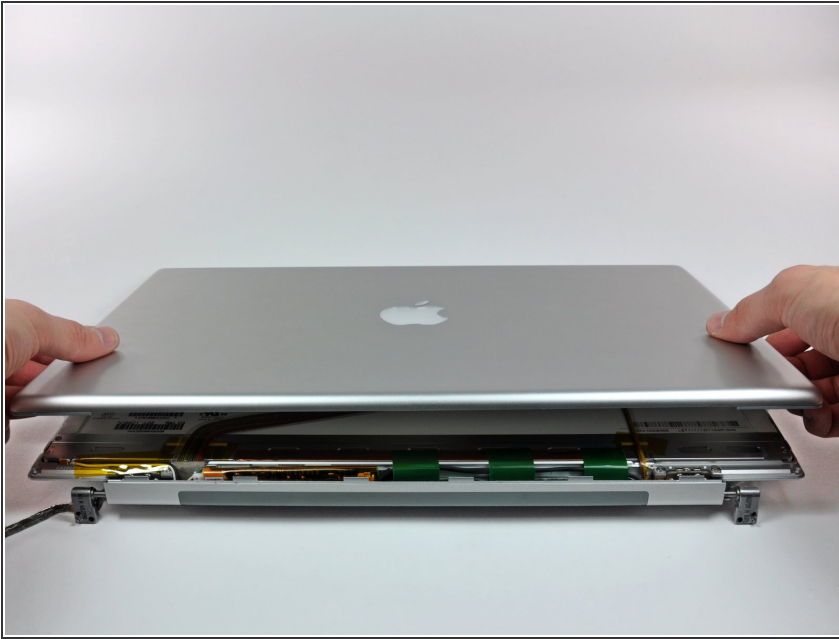
- Insert the flat end of a spudger perpendicular to the face of the display between the plastic strip attached to the rear bezel and the front bezel.
- With the spudger still inserted, rotate it away from the display to separate the front and rear bezels.
- Work along the right edge of the display until the rear bezel is evenly separated from the front bezel.

Step 21



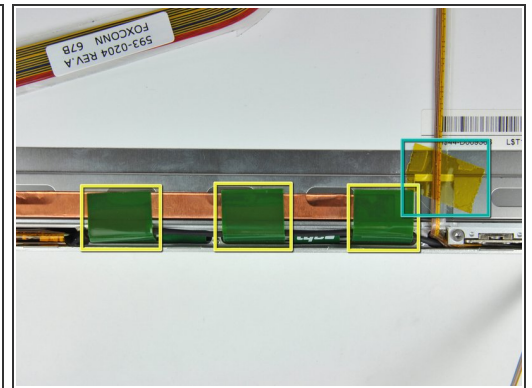
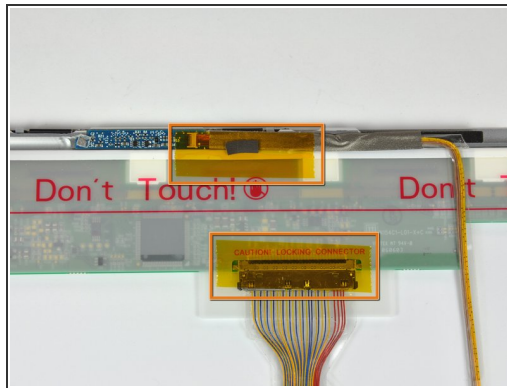
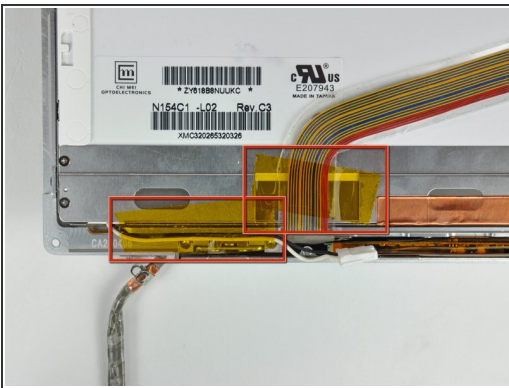
- Insert the flat end of a spudger between the front bezel and the plastic strip attached to the rear bezel near the screw holes at the bottom corners of the display.
- Rotate your spudger toward the rear bezel to separate it from the front bezel.
- If necessary, enlarge the gap between the lower edge of the rear bezel and the clutch cover until the two components are completely separated.

Step 22



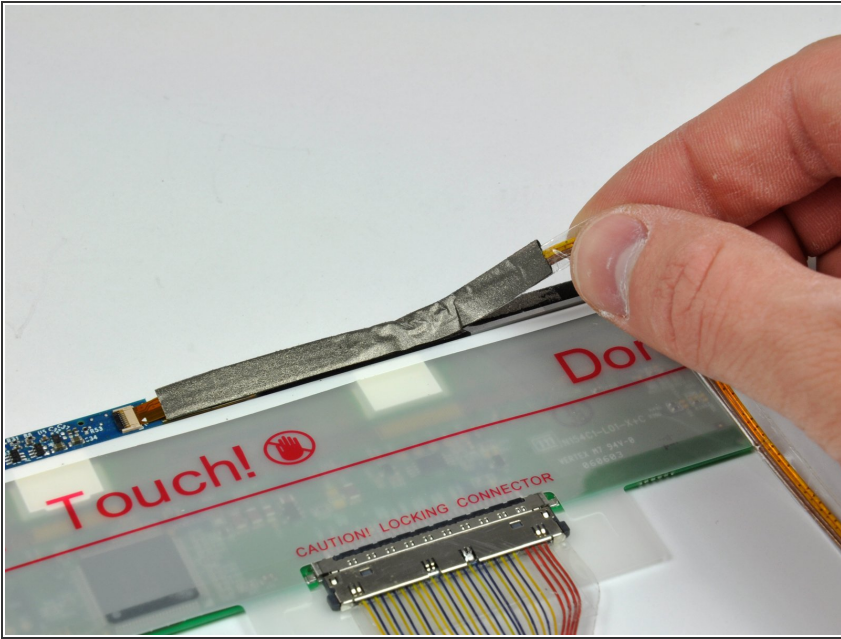
- Lift the rear bezel by its bottom edge and rotate it away from the display assembly to separate the top edge.
- Remove the rear display bezel from the display assembly.

Step 23 — LCD Panel



- Remove the pieces of yellow kapton tape from the bottom left corner of the display.
- Remove the pieces of tape securing the display data cable and camera cable to the display.
- Peel the three green antenna ground straps off the copper tape along the bottom edge of the LCD.
 - ⚠ The adhesive connecting these straps to the display is very strong. An edged tool is helpful to separate the adhesive while you peel the straps off.
- Remove the piece of tape securing the camera cable to the LCD.

Step 24



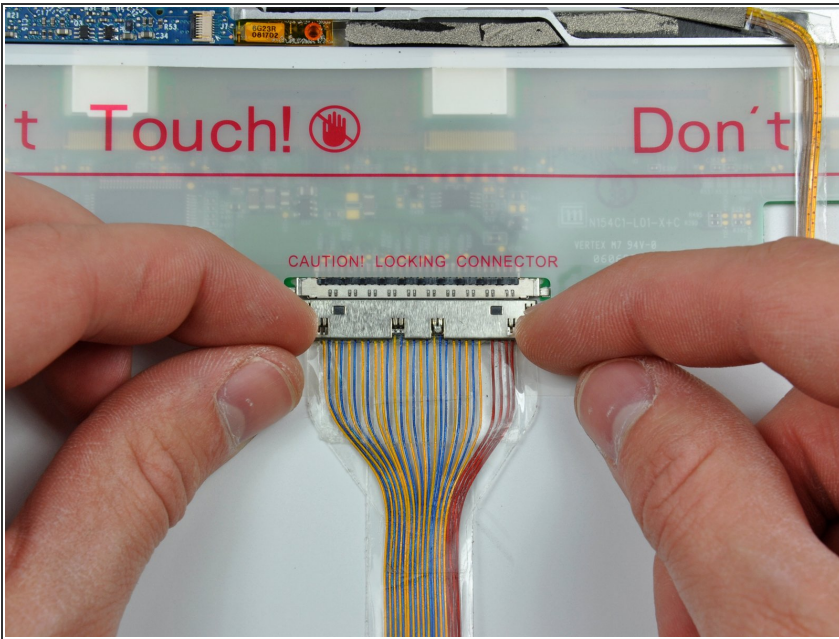
- Carefully peel the camera cable off the foam tape along the top edge of the LCD.

Step 25



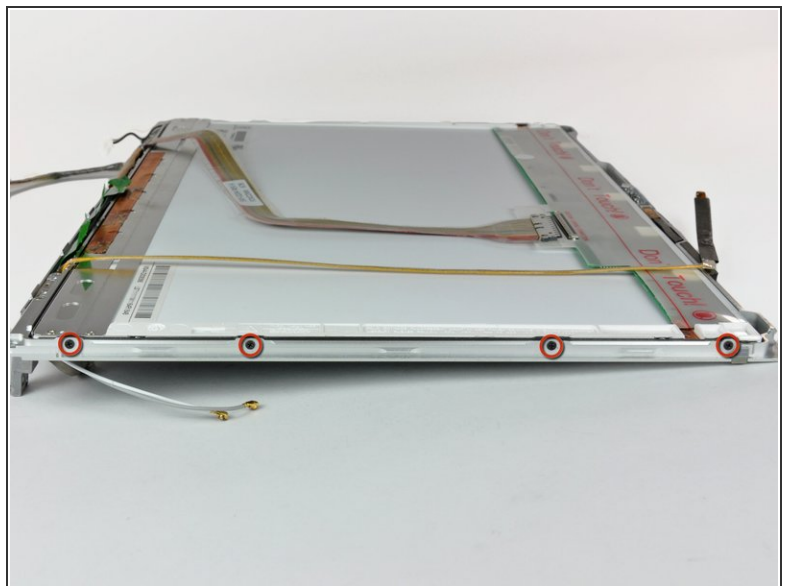
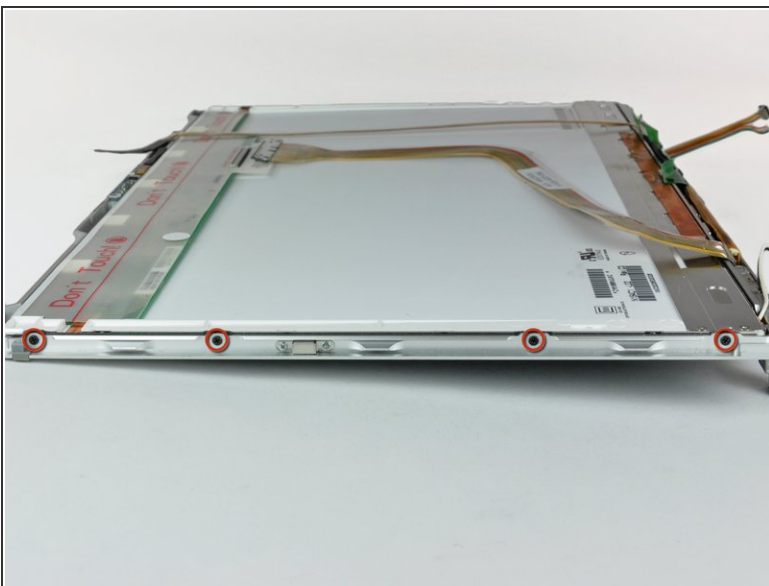
- Use the tip of a spudger and carefully flip the ZIF connector bar up to release the before the camera cable.
- Gently pull the camera cable away from its socket on the camera board.
- ⓘ Pull the cable parallel to the face of the LCD.

Step 26



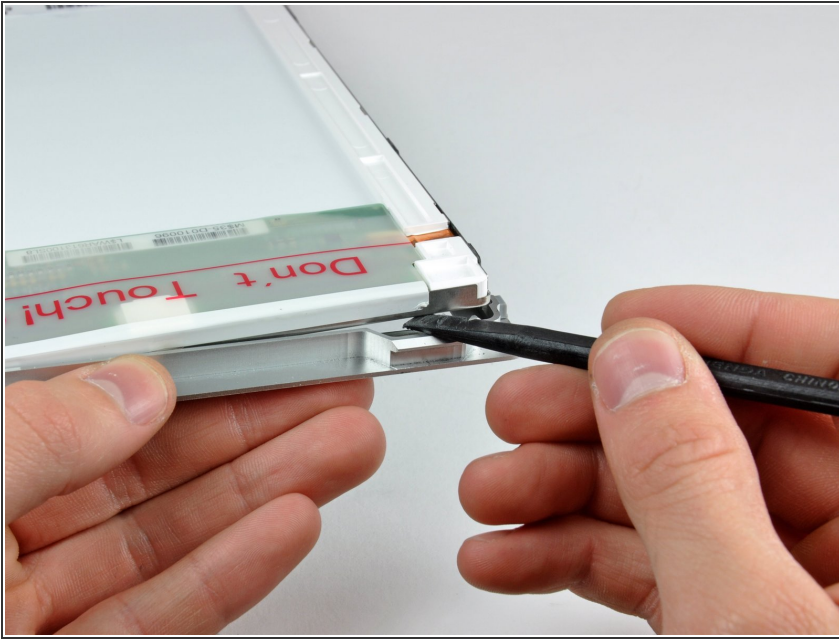
- Pull the display data cable connector away from its socket on the LCD.
- ⓘ Pull the connector parallel to the face of the LCD.

Step 27



- Remove the four black Phillips screws along the left and right edges of the display (eight screws total).

Step 28



i The next few steps will require you to separate the LCD from the adhesive applied to the upper and lower edges of the front bezel. A heat gun may be helpful to soften the adhesive to prevent damaging the LCD panel during removal.

! The adhesive is applied such that it sticks to a thin steel strip around the perimeter of the LCD. When prying your LCD away from the front panel, be sure you are separating the front panel from the steel strip on the LCD.

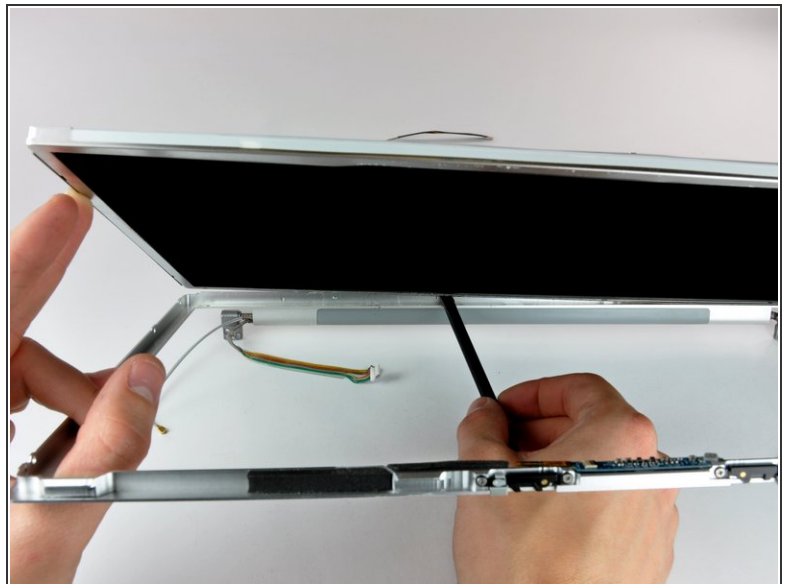
- Use the flat end of a spudger to gently lift one of the top corners of the LCD out of the front bezel.

Step 29



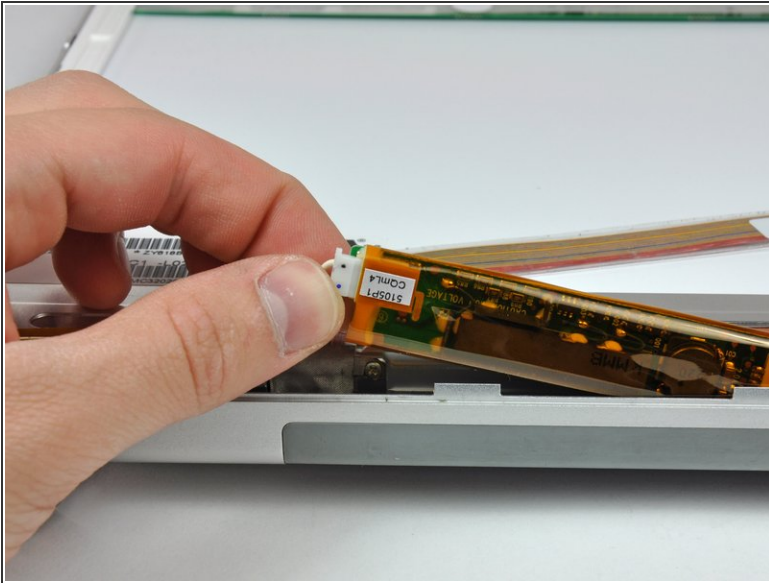
- Work your way along the top edge of the LCD, slowly prying the attached steel strip away from the front bezel.

Step 30



- Now that the top edge is free, slightly lift the LCD out of the front bezel for enough room to pry the steel strip along the lower edge of the LCD away from the front bezel.
- Pry along the lower edge of the LCD until it is freed from the adhesive on the front bezel.

Step 31



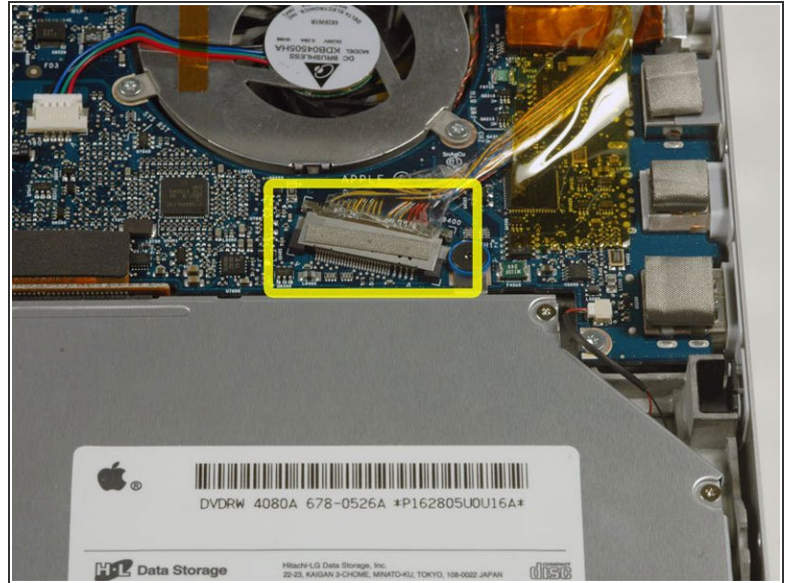
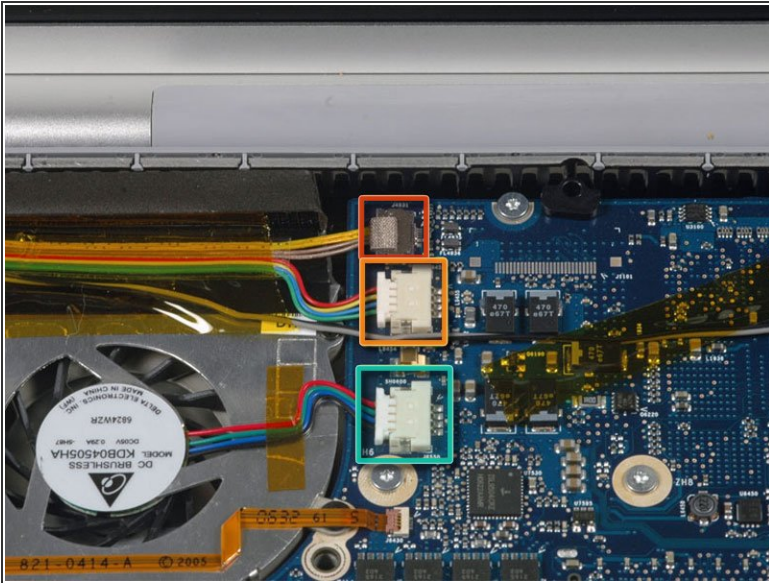
- Lift the inverter out of the clutch cover.
- Disconnect the LCD backlight connector from its socket on the inverter board.

Step 32



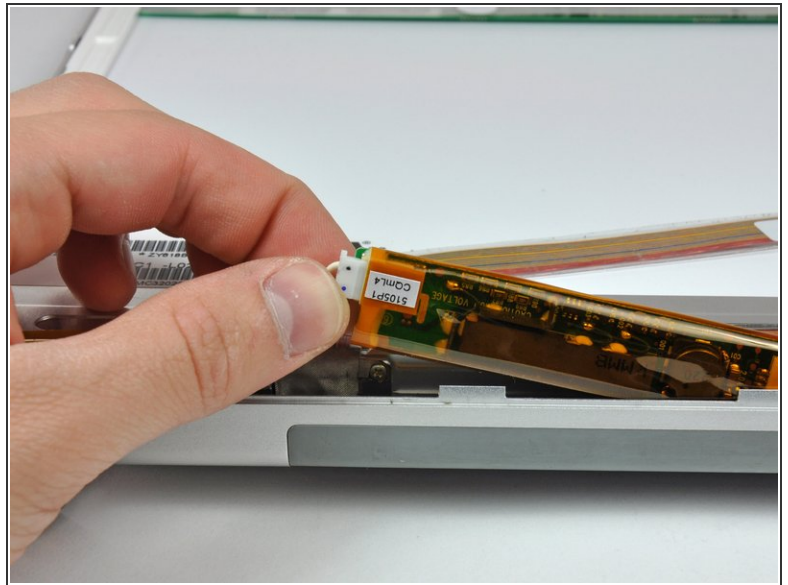
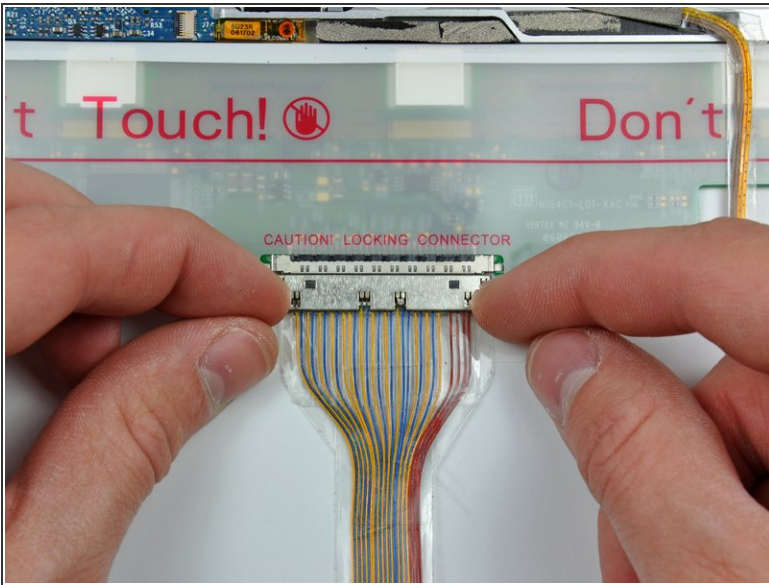
- Lift the LCD out of the front bezel, minding any cables that may get caught.

Step 33 — LCD Panel High Definition (1920x1200)



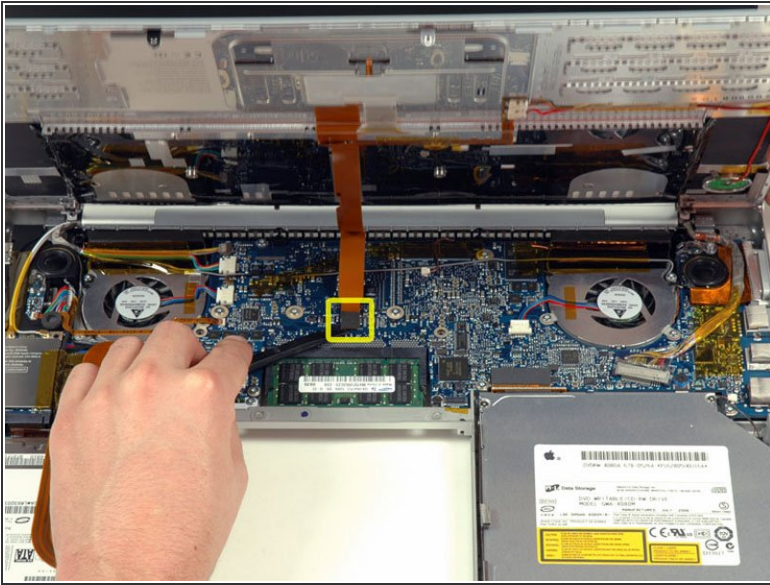
- Reconnect the following connectors back in their respective sockets on the logic board:
 - Camera connector cable
 - Inverter cable
 - Left fan
 - Display data cable
- ☑ Do not reassemble the display to the lower case assembly just yet. The display can lay next to the laptop.

Step 34



- Connect the display data cable and the inverter cable connector back into their respective sockets on the original LCD assembly.

Step 35



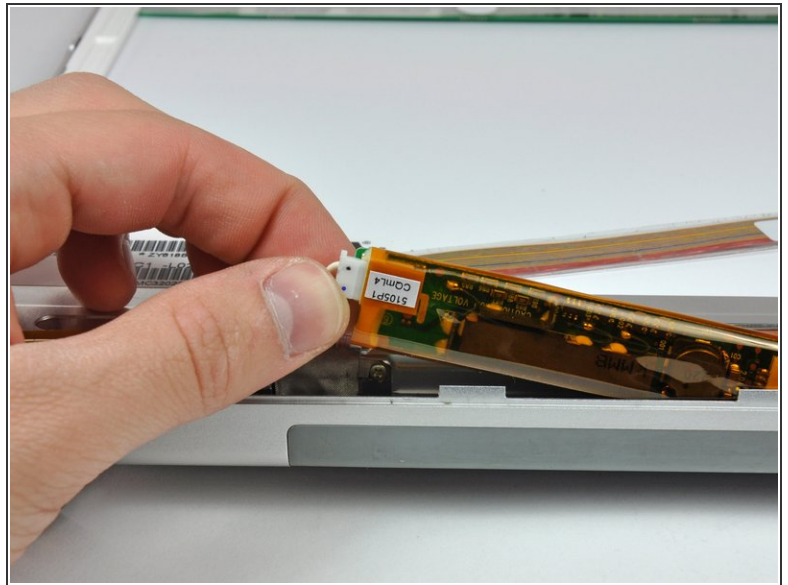
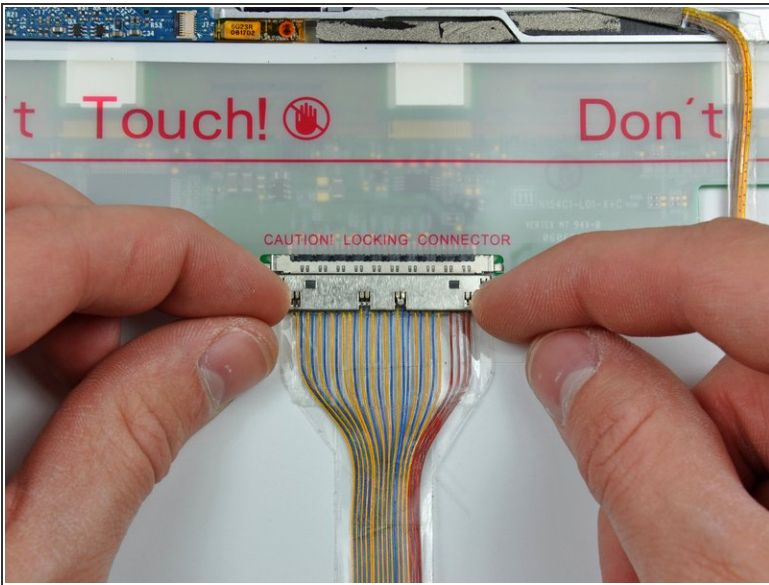
- Use a spudger to re-seat the trackpad/keyboard ribbon cable connector to its socket on the logic board.
 - Carefully realign the upper case over the lower case.
- ⚠ Do not secure the upper case to the lower case just yet.

Step 36



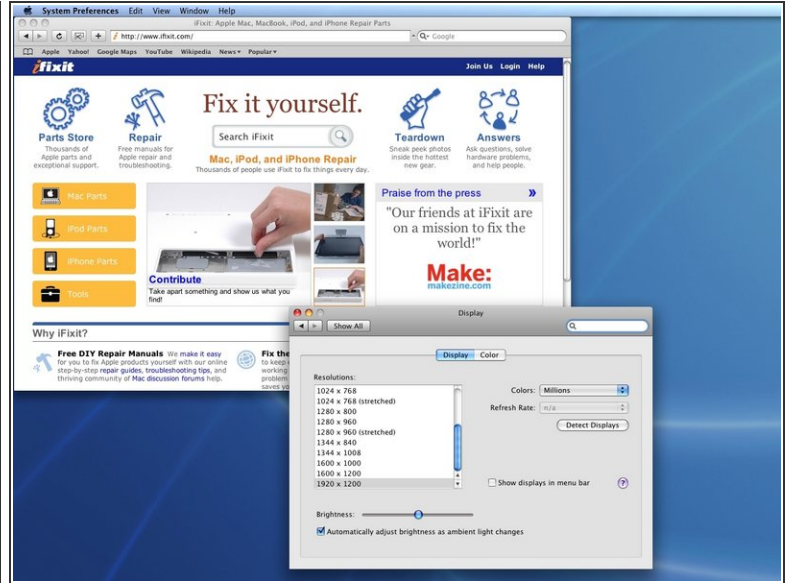
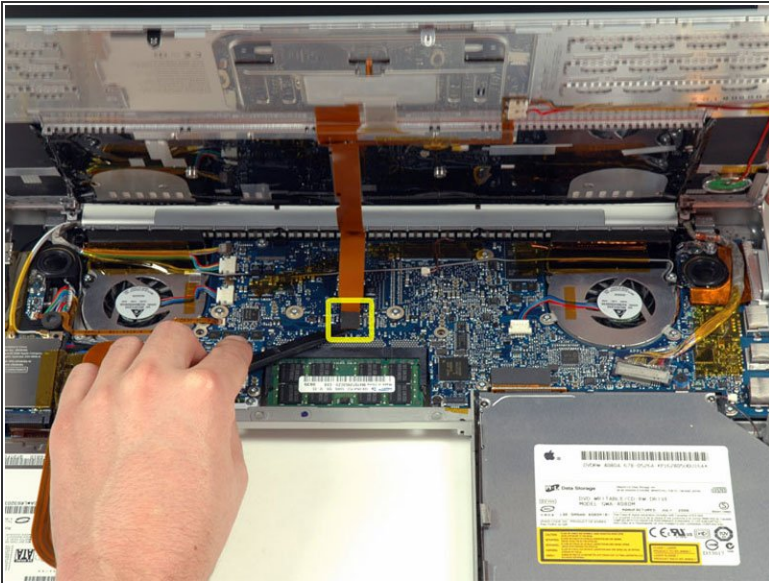
- Connect an external USB mouse to your MacBook Pro.
- Power up the MacBook Pro and boot into the OS.
- Carefully lift the upper case and use a spudger to pry the trackpad/keyboard ribbon cable up off the logic board. Remove the upper case from the computer.
- Use your external mouse to select the "Sleep" option from the Apple menu.
- Make sure that the sleep light is pulsing before continuing.

Step 37



- Disconnect the display data cable and inverter cable from the original LCD panel.
- Connect the display data cable and inverter to the high definition LCD panel.

Step 38



- Use a spudger to re-seat the trackpad/keyboard ribbon cable connector to its socket on the logic board.
- ⓘ This will wake the machine from sleep mode.
- The MacBook Pro will now readjust itself to a resolution of 1920 x 1200!
- ⚠ The high definition resolution will be retained upon rebooting your MacBook Pro. However, if you reset your machine's PRAM/NVRAM, it will revert to standard definition, and you will need to redo the entire process!

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