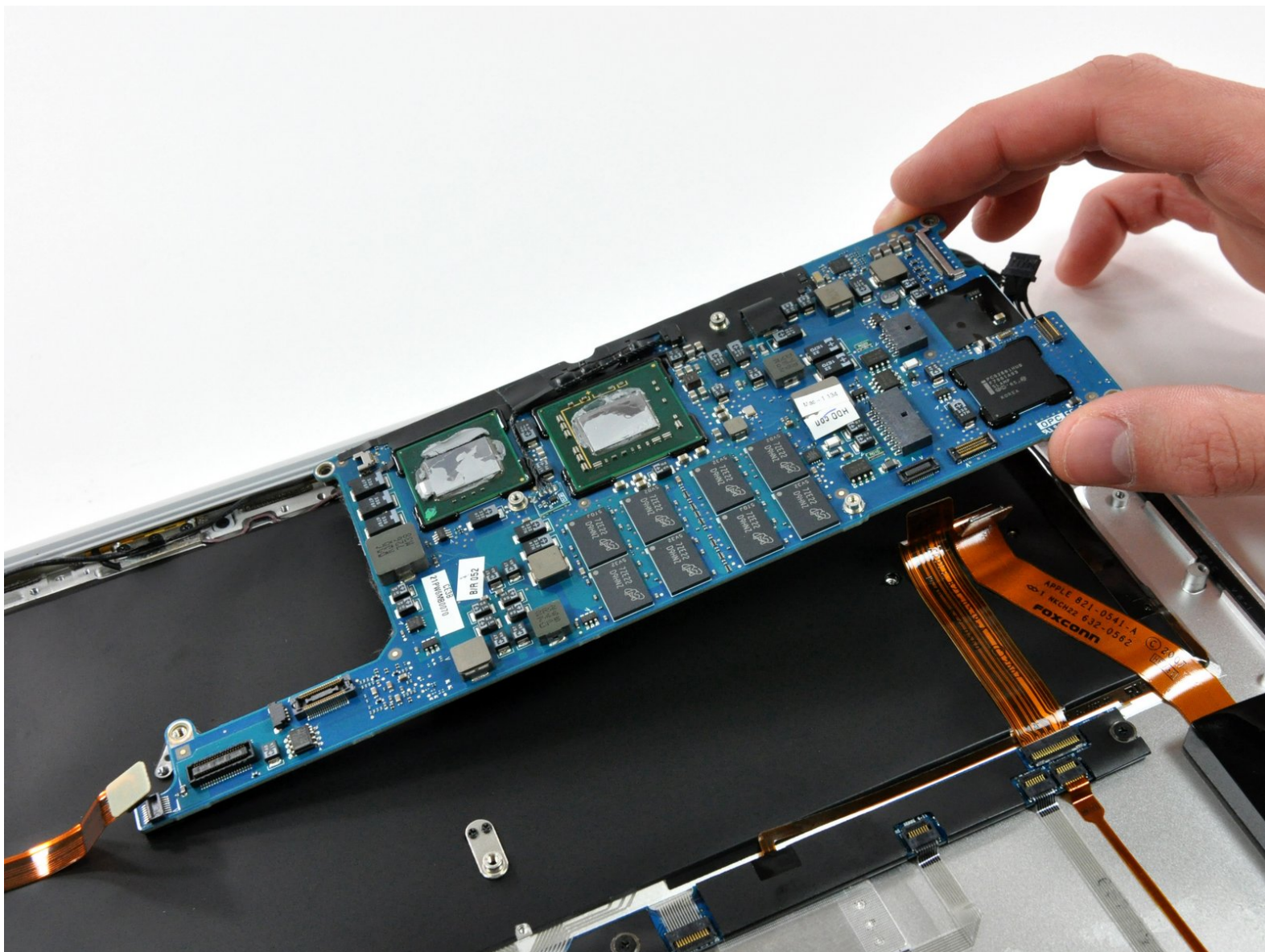




# MacBook Air Models A1237 and A1304 Logic Board Replacement

Replace the logic board on your 13" MacBook Air (models A1237 and A1304).

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# INTRODUCTION

Like brain surgery? Use this guide to replace the mind of your computer.



## TOOLS:

- [Arctic Silver ArctiClean](#) (1)
- [Arctic Silver Thermal Paste](#) (1)
- [Phillips #00 Screwdriver](#) (1)
- [Spudger](#) (1)




## PARTS:

- [MacBook Air 1.6 GHz \(Original\) Logic Board](#) (1)
- [MacBook Air 1.8 GHz \(Original\) Logic Board](#) (1)
- [MacBook Air 1.86 GHz \(Mid 2009\) Logic Board](#) (1)
- [MacBook Air 2.13 GHz \(Mid 2009\) Logic Board](#) (1)
- [MacBook Air 1.6 GHz \(Late 2008\) Logic Board](#) (1)

## Step 1 — Lower Case



 Unplug your MacBook Air and power it off before you proceed.

- Remove ten Phillips screws securing the lower case to the MacBook Air:
  - Six 2.8 mm screws
  - Two 3.8 mm screws
  - Two 5.4 mm screws

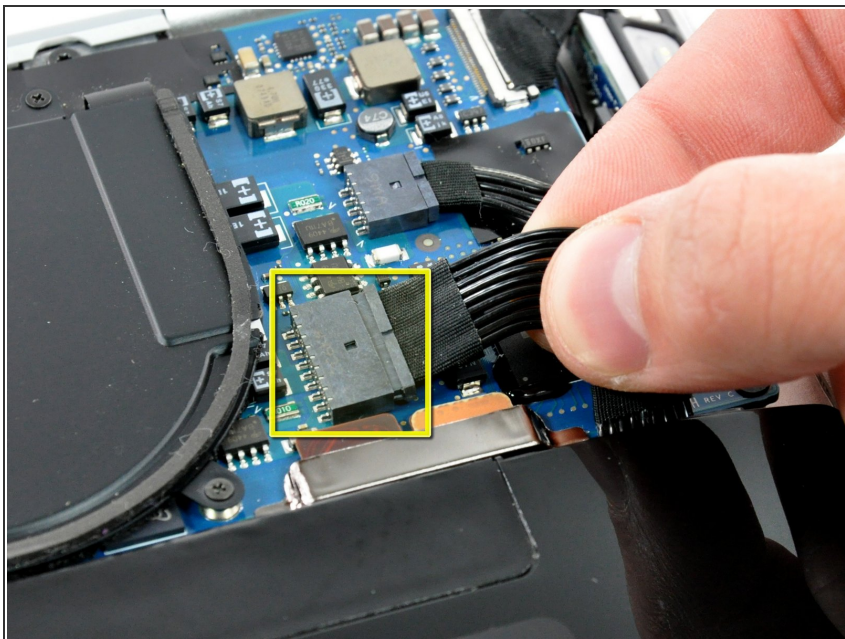
## Step 2



- Slightly lift the lower case near the vents and push it toward the rear of the computer to free the mounting tabs.



## Step 3 — Battery



- Disconnect the battery connector by pulling it straight out of its socket.

## Step 4



- Remove the following nine screws securing the battery to the Air:
  - Four 2.9 mm Phillips.
  - Four 3.8 mm Phillips.
  - One 7.2 mm Phillips.

## Step 5



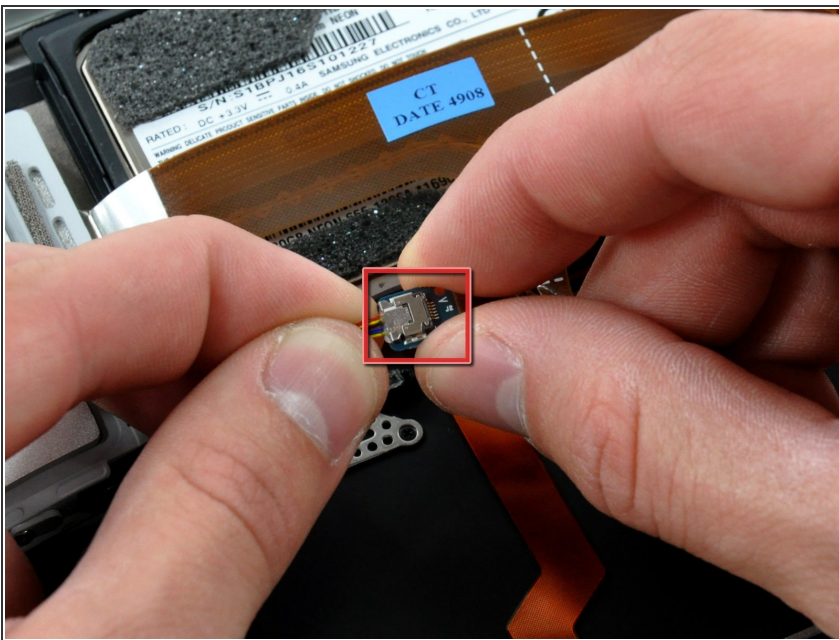
- Lift the battery out of the Air.
- ☑ If you're installing a new battery, you should [calibrate](#) it after installation:
  - Charge it to 100%, and then keep charging it for at least 2 more hours. Then, unplug and use it normally to drain the battery. When you see the low battery warning, save your work, and keep your laptop on until it goes to sleep due to low battery. Wait at least 5 hours, then charge your laptop uninterrupted to 100%.
  - If you notice any unusual behavior or problems after installing your new battery, you may need to [reset your MacBook's SMC](#).

## Step 6 — Hard Drive



- Disconnect the port hatch ribbon cable from the logic board by pulling it straight up by its black pull tab.
- Pull the audio out ribbon cable off the adhesive securing it to the upper case.
- Use a spudger to pry the audio out ribbon cable connector board off the hard drive bracket.

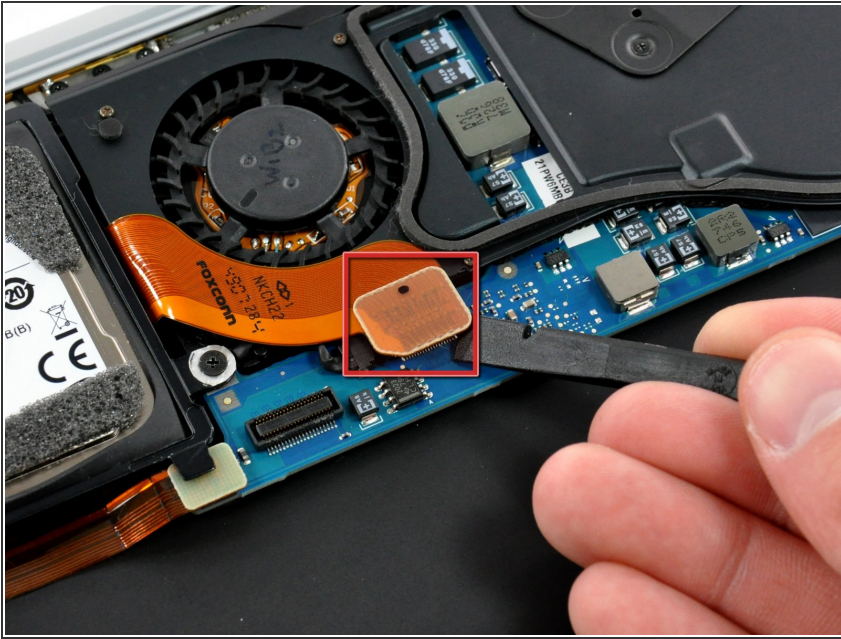
## Step 7



- Disconnect the audio out cable from its socket on the port hatch ribbon cable.



## Step 8



- Use a spudger to pry the hard drive cable connector up off the logic board.

## Step 9



- Use the sharp end of a spudger to de-route the microphone cable from the hard drive bracket.
- Remove the cosmetic screw cover from the adhesive securing it to the hard drive bracket.

## Step 10



- Remove the four Phillips screws securing the hard drive assembly to the upper case:
  - Two 4.7 mm screws.
  - Two 3.9 mm screws.

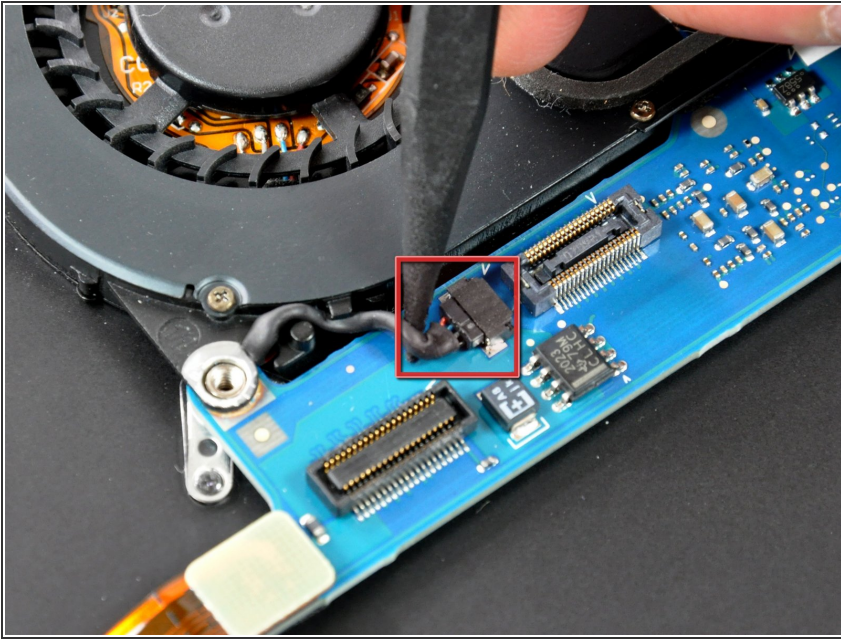
## Step 11



- Lift the hard drive assembly out of the upper case.



## Step 12 — Heat Sink



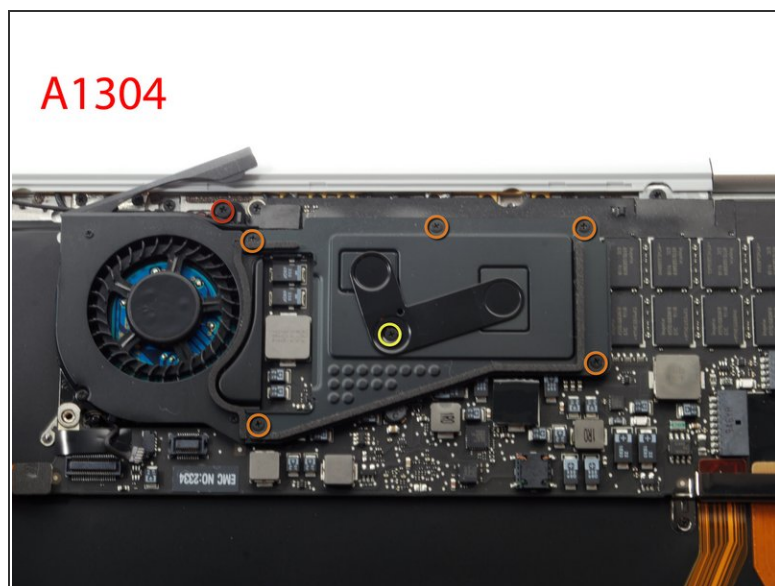
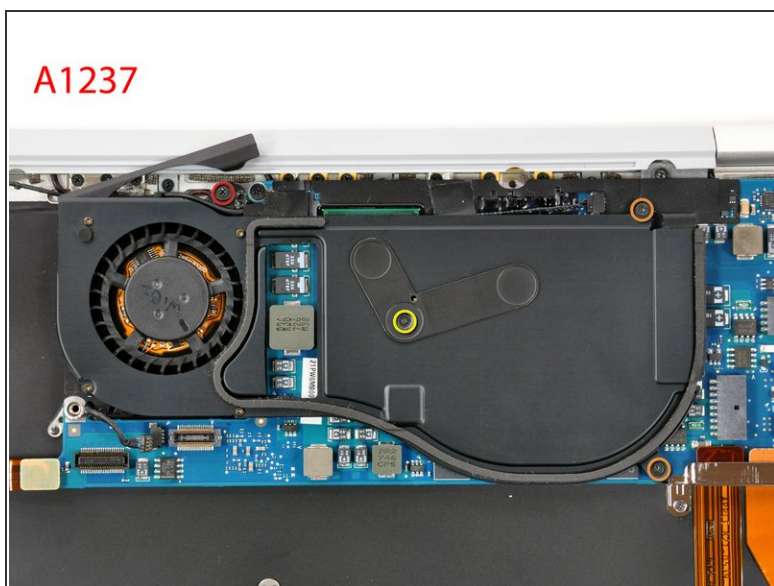
- Use the tip of a spudger to pull the fan cable connector straight away from its connector on the logic board.

## Step 13



- Use the tip of a spudger to move the cosmetic fan cover aside.

## Step 14



- i** If you have the original version of the MacBook Air (A1237), refer to picture 1. Remove the following screws securing the heat sink to the logic board:
- One 5.9 mm Phillips screw.
  - Two 1.9 mm Phillips screws.
  - One 1.9 mm Phillips screw.
- i** If you have the A1304 version of MacBook Air, refer to picture 2. Remove the following screws securing the heat sink to the logic board:
- One 5.0 mm Phillips screw
  - Five 1.9 mm Philips screws.
  - One 2.5 mm Phillips screw.



## Step 15



- Lift the processor clamp off the heat sink.

## Step 16



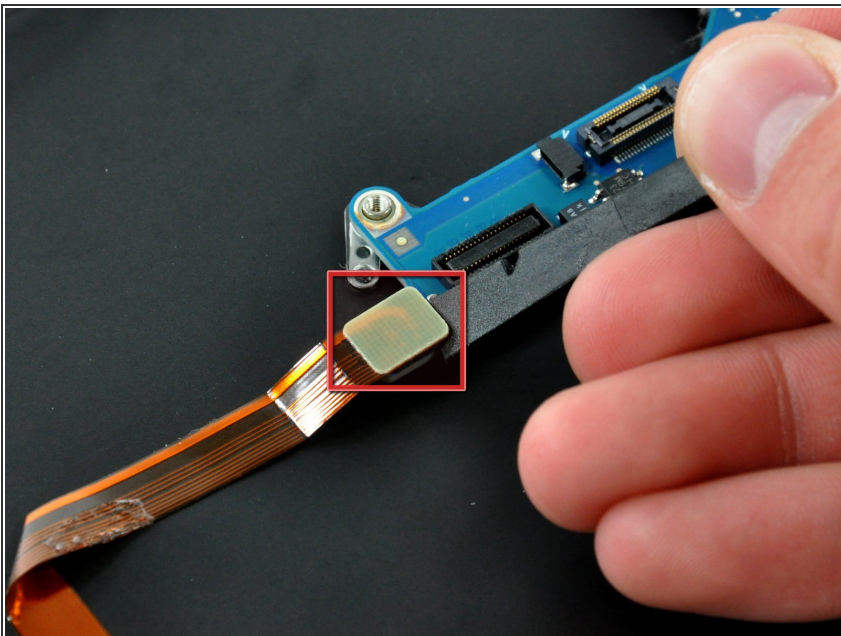
- Deroute the microphone cable away from the channel in the fan.

## Step 17



- Lift the heat sink up off the logic board.
- ⓘ Be mindful of the microphone cable when lifting the heat sink, as it can get tangled on the top edge of the fan.
- ⚠ When you mount the heat sink back onto the logic board, be sure to apply a new layer of thermal paste. We have a [guide](#) that makes replacing the thermal paste easy.

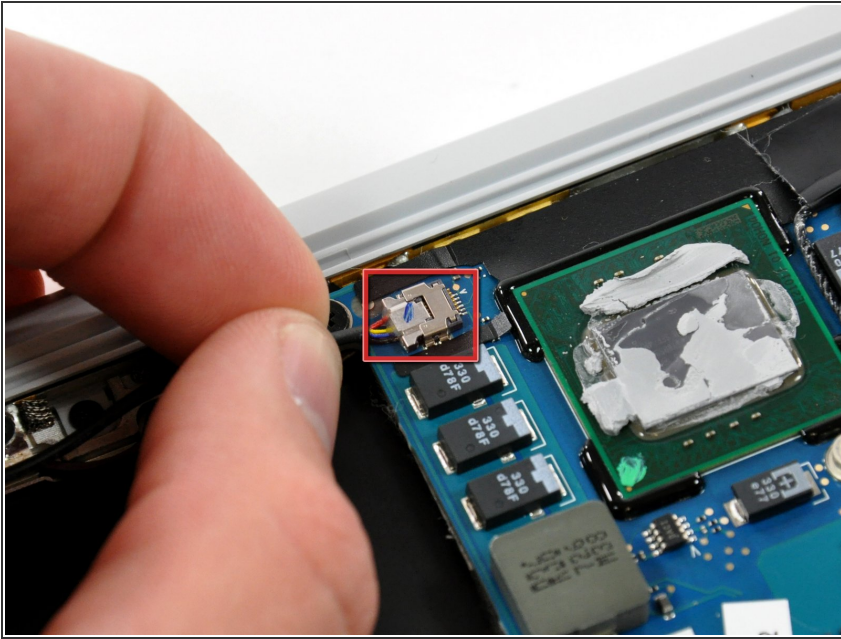
## Step 18 — Logic Board



- Use a spudger to pry the audio cable connector up off the logic board.

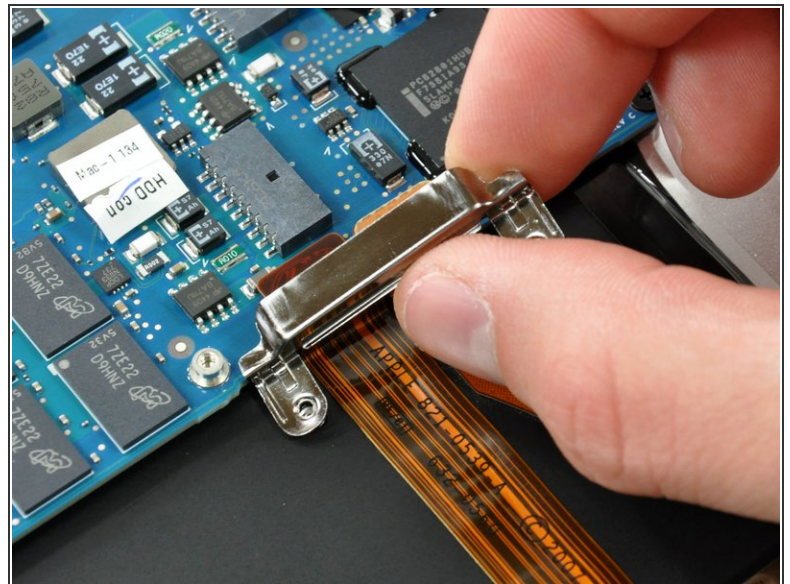
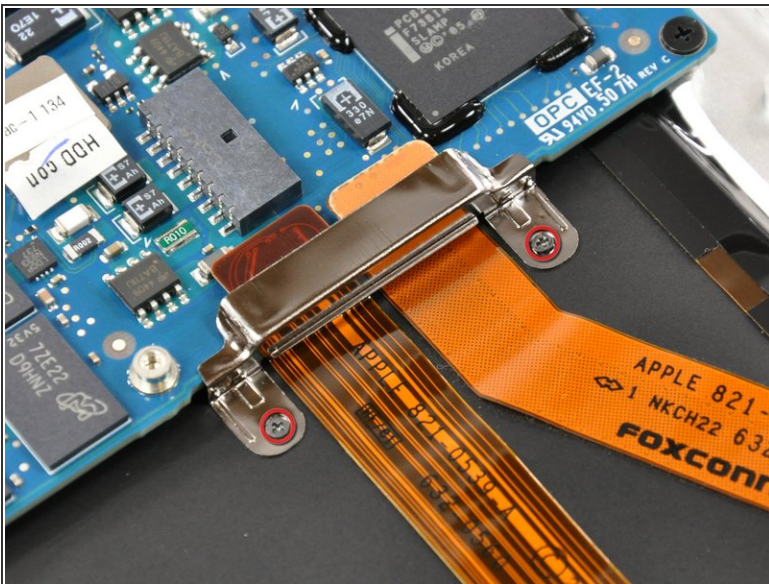


## Step 19



- ❗ If present, remove the small piece of black tape covering the microphone cable connector.
- Disconnect the microphone cable by pulling its connector straight away from the socket on the logic board.

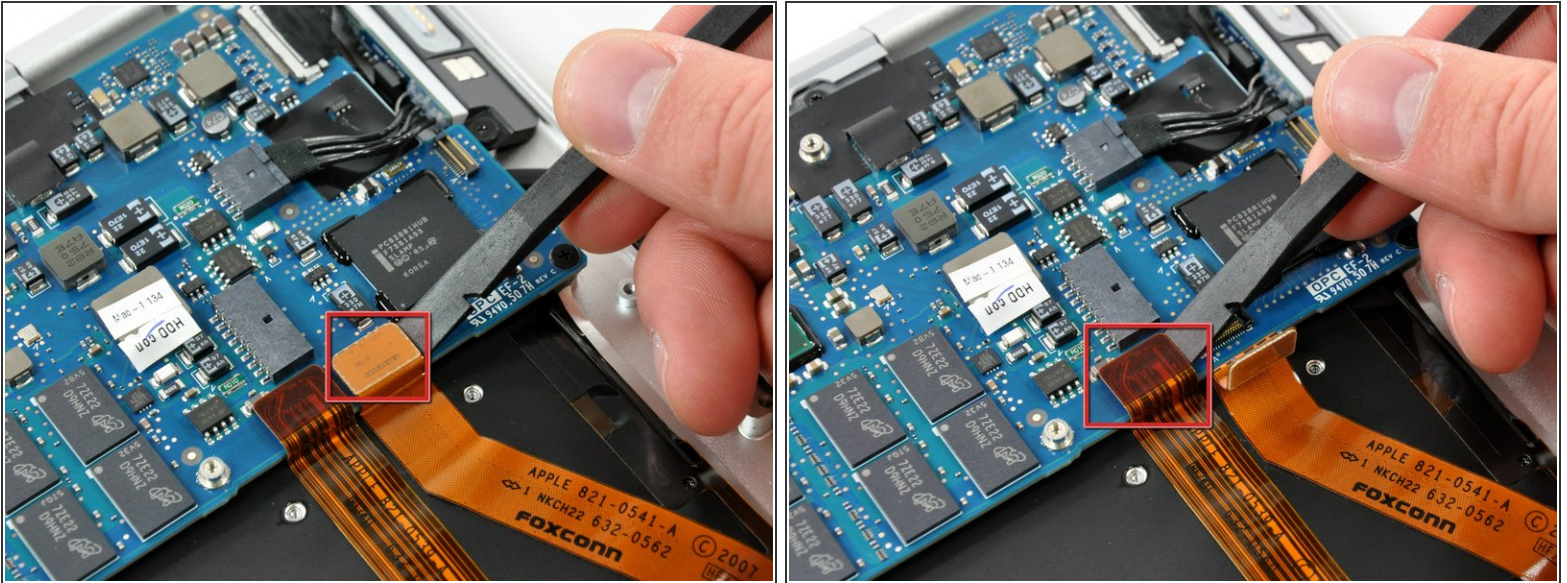
## Step 20



- Remove the two small Phillips screws securing the logic board bracket to the upper case.
- Lift the logic board bracket out of the upper case.

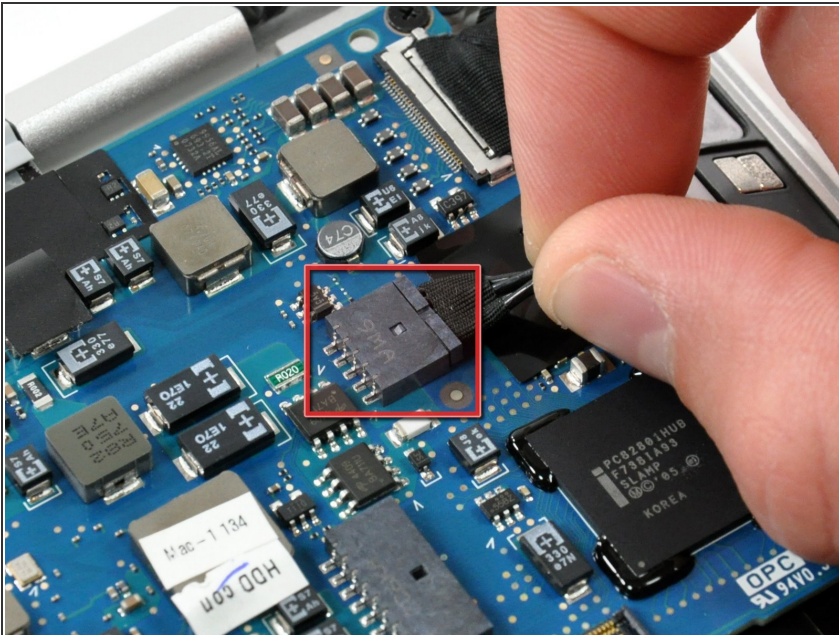


## Step 21



- Use a spudger to pry the AirPort/Bluetooth and trackpad control cable connectors up off the logic board.

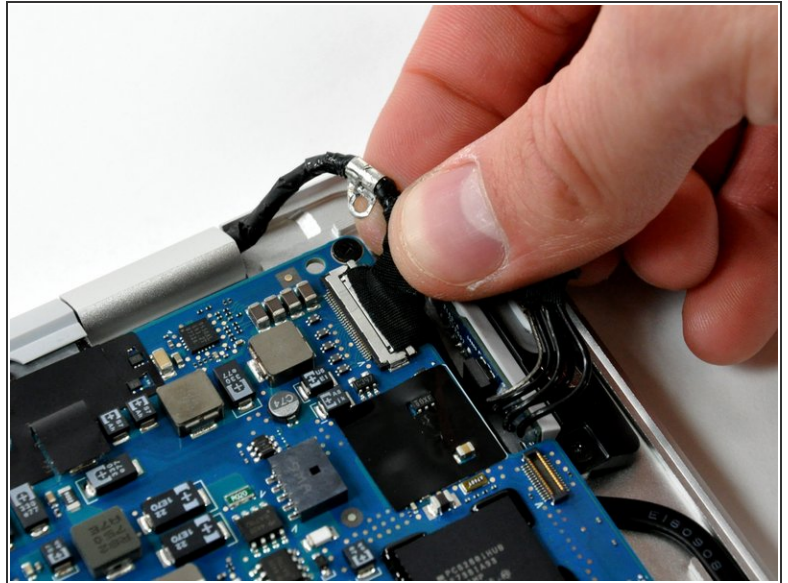
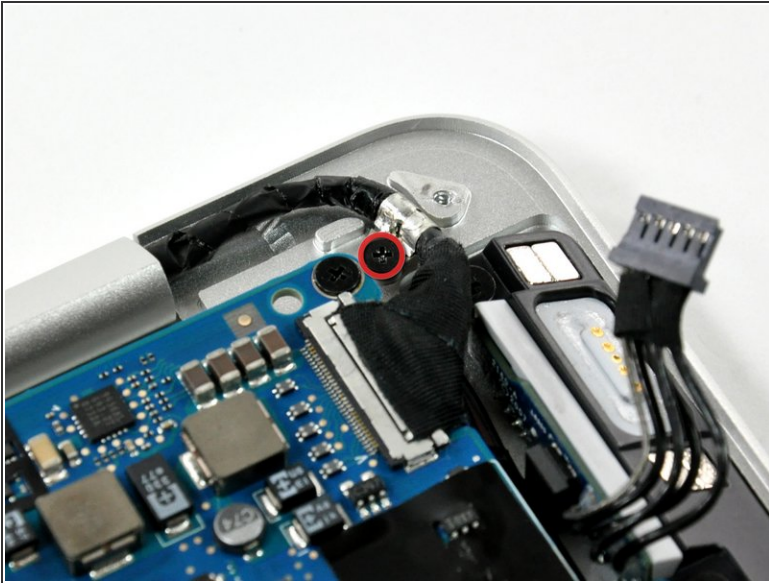
## Step 22



- Disconnect the DC-In cable by pulling its connector straight away from the socket on the logic board.



## Step 23



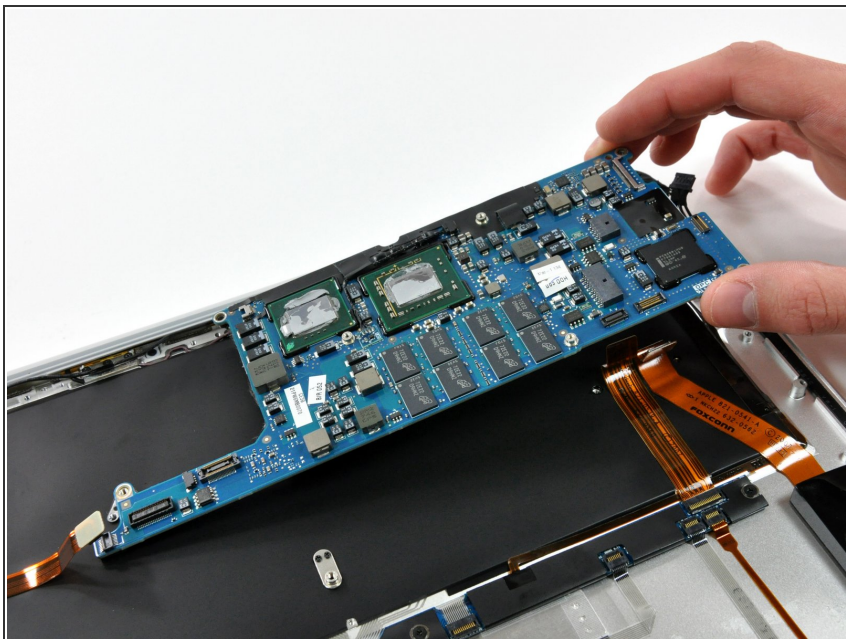
- Remove the small Phillips screw securing the display data cable ground loop to the upper case.
- Disconnect the display data cable by pulling its connector straight away from the socket on the logic board.

## Step 24



- Remove the three Phillips screws securing the logic board to the upper case.

## Step 25



- Lift the logic board out of the upper case.

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