

# MacBook Air 11" Late 2010 Upper Case Replacement

Replace the upper case on your MacBook Air 11" Late 2010.

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# INTRODUCTION

Use this guide to replace your MacBook Air's upper case. The upper case includes the keyboard and trackpad.

# TOOLS:

- P5 Pentalobe Screwdriver Retina MacBook
  Pro and Air (1)
- Phillips #00 Screwdriver (1)
- Spudger (1)
- T5 Torx Screwdriver (1)
- T8 Torx Screwdriver (1)

# **PARTS**:

- MacBook Air 11" (Late 2010) Upper Case with Keyboard (1)
- MacBook Air 11" (Late 2010) Trackpad Cable (1)

#### Step 1 — Lower Case



- Before proceeding, close your computer and lay it on a soft surface top-side down.
  - Remove the following ten screws:
    - Two 8 mm 5-point Pentalobe screws
    - Eight 2.5 mm 5-point Pentalobe screws
- The special screwdriver needed to remove the eight 5-point Pentalobe screws can be found <u>here</u>.

#### Step 2



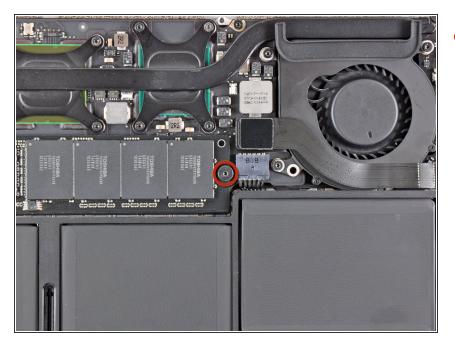
- Wedge your fingers between the display and the lower case and pull upward to pop the lower case off the Air.
- Remove the lower case and set it aside.

## Step 3 — Battery



- In this step you will disconnect the battery to help avoid shorting out any components during service.
- Use the flat end of a spudger to pry both short sides of the battery connector upward to disconnect it from its socket on the logic board.
- Bend the battery cable slightly away from the logic board so the connector will not accidentally contact its socket.

# Step 4 — Solid-State Drive



 Remove the single 2.9 mm T5 Torx screw securing the SSD to the logic board.



• Use a spudger to help lift the free end of the SSD just enough to grab it with your other hand.

 $\bigwedge$  Do not lift the end of the SSD excessively.

- Pull the drive straight out of its socket and remove it from the logic board.
- When reinstalling the SSD, be sure it is properly seated before reinstalling its retaining screw.

## Step 6 — I/O Board Cable



 Use the flat end of a spudger to pry the I/O board cable connector upward out of its socket on the I/O board.

## Step 7



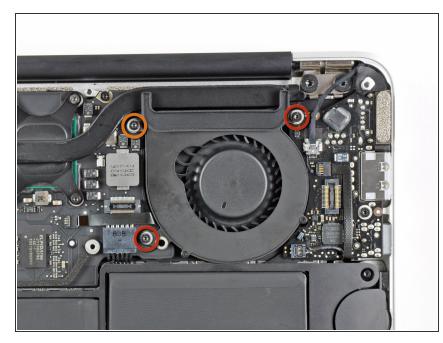
- The following connector has an especially deep socket. Use care when disconnecting it.
- While gently pulling the I/O board cable upward near its connection to the logic board, use the tip of a spudger to pry upward on alternating sides of the connector to help "walk" it out of its socket.
- Remove the I/O board cable.

## Step 8 — Fan



- Use the tip of a spudger to carefully flip up the retaining flap on the fan cable ZIF socket.
- Be sure you are prying up on the hinged retaining flap, **not** the socket itself.

# Step 9

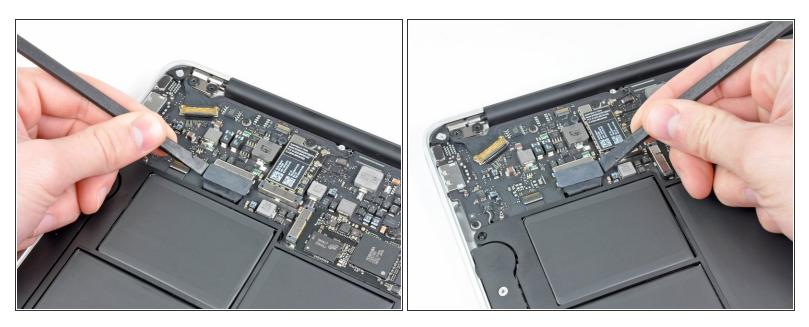


- Remove the following three screws securing the fan to the upper case:
  - Two 5.2 mm T5 Torx screws
  - One 3.6 mm T5 Torx screw



• Lift the fan out of the upper case and carefully pull the fan ribbon cable out of its socket as you remove it from the Air.

## Step 11 — Battery



- Use the flat end of a spudger to pry both short sides of the battery connector upward to disconnect it from its socket on the logic board.
- Bend the battery cable slightly away from the logic board so the connector will not accidentally contact its socket.



- Remove the following five screws securing the battery to the upper case:
  - Two 5.2 mm T5 Torx screws
  - One 6 mm T5 Torx screw
  - Two 2.6 mm T5 Torx screws



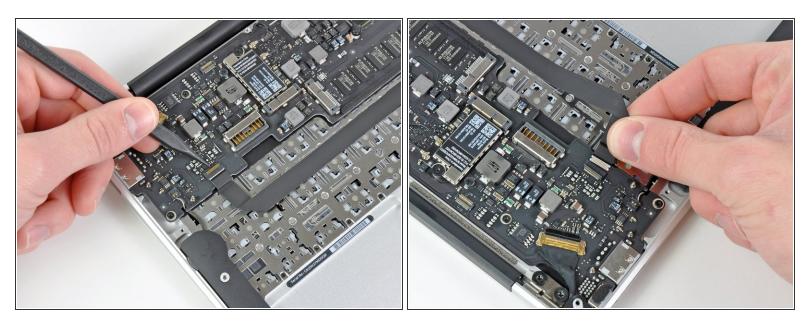
- When handling the battery, avoid squeezing or touching the six exposed lithium polymer cells.
  - Lift the battery from its edge nearest the logic board and remove it from the upper case.
- If you're installing a new battery, you should <u>calibrate</u> it after installation:
  - Charge it to 100%, and then keep charging it for at least 2 more hours. Next, 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 <u>reset your</u> <u>MacBook's SMC</u>.

## Step 14 — Logic Board



- Disconnect the I/O board by pulling the power cable away from its socket on the logic board.
- Pull the cable parallel to the face of the logic board toward the front edge of the Air.

# Step 15



 Use the tip of a spudger or your fingernail to flip up the retaining flap on the trackpad ribbon cable ZIF socket.

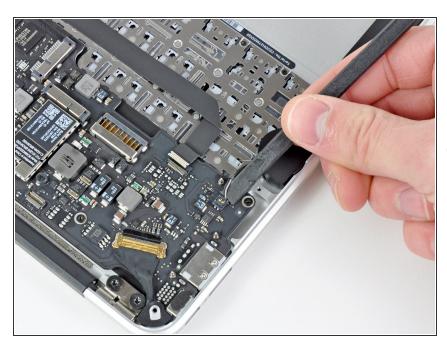
A Be sure you are prying up on the hinged retaining flap, **not** the socket itself.

• Pull the trackpad ribbon cable straight out of its socket toward the front edge of the Air.



• Use the tip of a spudger to de-route the right speaker cable from the slot cut into the logic board.

# Step 17



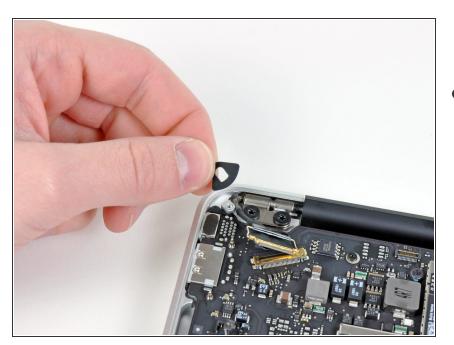
• Use the flat end of a spudger to pry the right speaker cable connector up and out of its socket on the logic board.

(i) Pry up from beneath the cables.

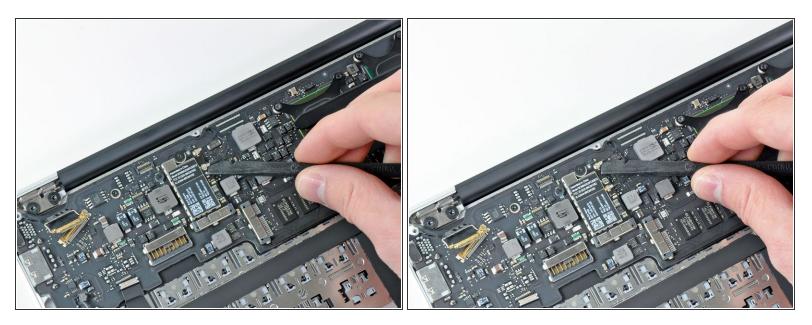


- Gently push the tip of a spudger under the black plastic flap stuck to the display data cable lock to make the lock pop upward and away from the socket.
- While holding the lock away from the socket, use the tip of a spudger and your fingers to gently remove the display data cable from its socket.
- Do not pull upward on the display data cable as you disconnect it, as its socket may break off the logic board.

## Step 19

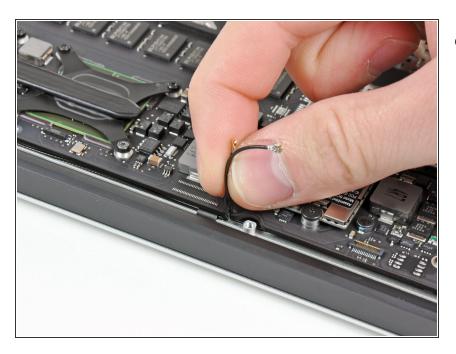


 Remove the small rubber gasket from the corner of the upper case near the display data cable.

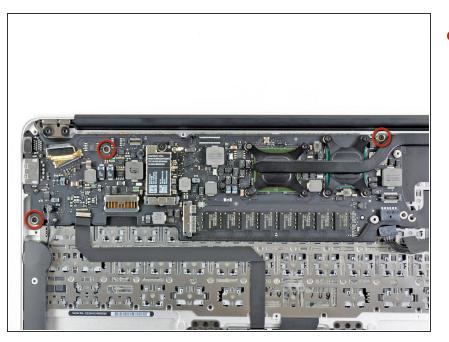


 Use the flat end of a spudger to pry both antenna cable connectors up and off their sockets on the AirPort/Bluetooth card.

# Step 21

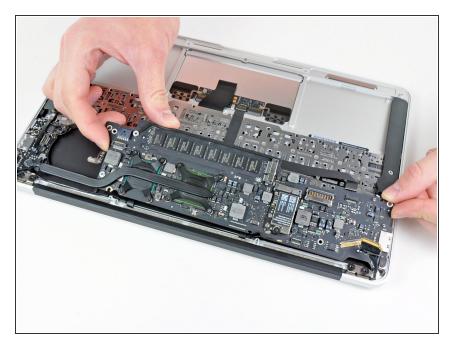


• Gently de-route the antenna cables from the slot cut into the logic board.



 Remove the three 3.6 mm T5 Torx screws securing the logic board to the upper case.

## Step 23



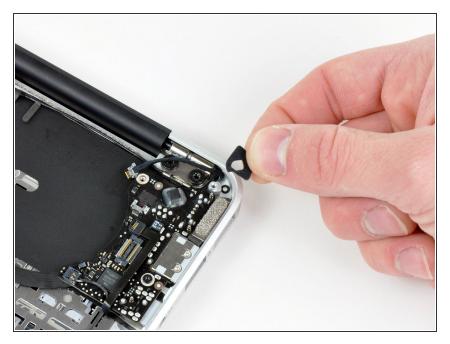
• Gently lift the logic board assembly out of the upper case, minding the fragile heat sink and any cables that may get caught.

## Step 24 — Display Assembly



- Pull the camera cable parallel to the face of the I/O board toward the rear edge of the Air to disconnect it from its socket.
- Do not lift upward on this cable as you disconnect it, as its socket may break off the logic board.

#### Step 25

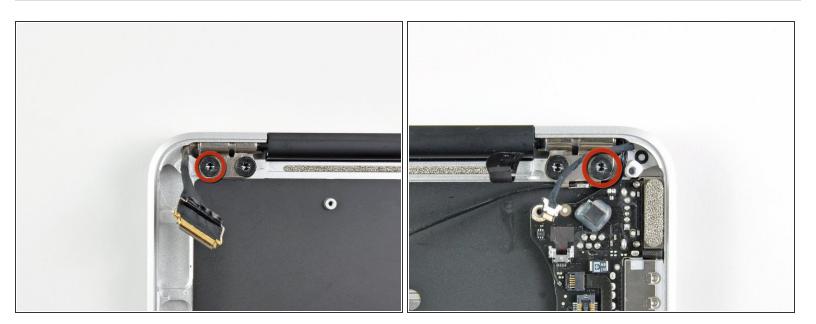


• Remove the small rubber gasket from the corner of the upper case nearest the I/O board.



- Peel up the six cable loops securing the antenna cables to the upper case.
- Gently pull the cable loops slightly out of the channel cut into the upper case one at a time.
- Use your spudger to open up the plastic loops as you de-route the antenna cables through them.
- Repeat this for all five retaining loops.

#### Step 27

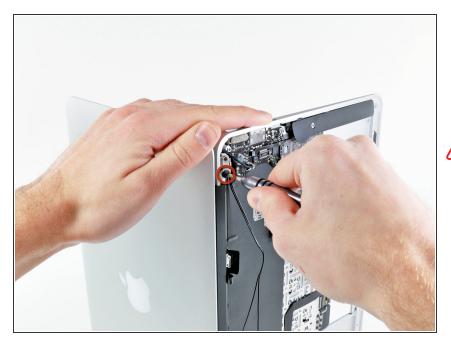


 Remove the outer 4.9 mm T8 Torx screw securing each display hinge to the upper case (two screws total).



- Open the display until it is perpendicular to the upper case and place it on a table as shown.
- While holding the Air steady, remove the remaining 4.9 mm T8 Torx screw from the lower display bracket.

## Step 29



- Before removing the last display screw, be sure to hold the display and upper case steady with your other hand. Failure to do so may allow the components to fall onto the table, causing potentially expensive damage.
  - Remove the last 4.9 mm T8 Torx screw securing the display to the upper case.

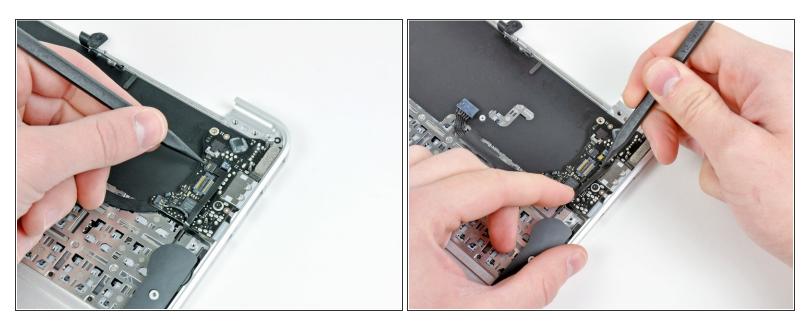


- Push the upper case slightly toward the display assembly, then rotate it away from the front of the display assembly.
- Once the two display hinges have cleared the upper case, remove the display and set it aside.
- ★ Keep track of the shims under each of the two display brackets. When installing the display, be sure a shim is installed under each display bracket (against the upper case) as shown in the third picture.

## Step 31 — Upper Case



- Use the flat end of a spudger to pry the right speaker off the adhesive securing it to the upper case.
- Only pry up on the speaker from the areas of bare aluminum on the upper case. Prying up from the keyboard area may damage the keyboard and the speaker itself.
- Remove the right speaker from the upper case.



• Use the tip of a spudger to carefully flip up the retaining flap on the microphone cable ZIF socket.

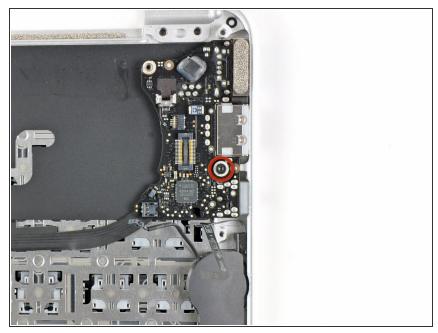
A Be sure you are prying up on the retaining flap, **not** the socket itself.

• Pull the microphone ribbon cable straight out of its socket.



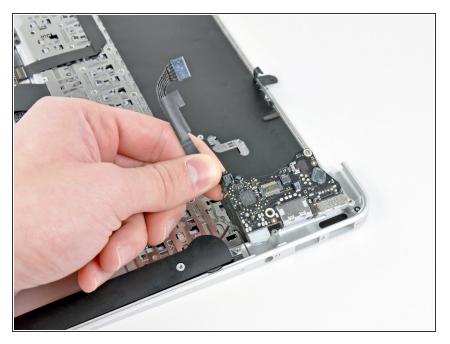
- Use the flat end of a spudger to pry the left speaker cable connector up and out of its socket on the I/O board.
- (i) Pry up from beneath the wires.
- De-route the left speaker cable from the notch cut into the I/O board.

## Step 34



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Remove the single 3.6 mm T5 Torx screw securing the I/O board to the upper case.



• Carefully lift the I/O board from its edge nearest the logic board and remove it from the upper case.

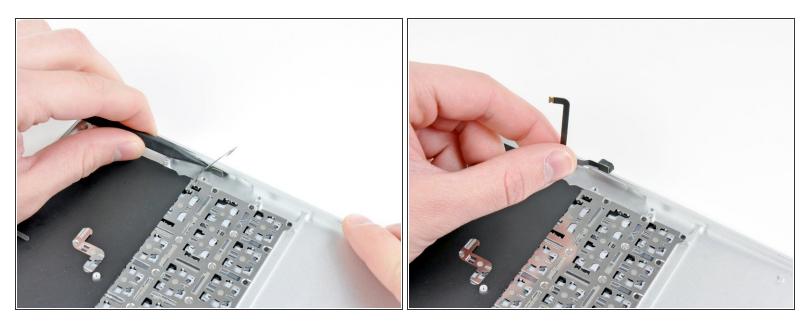
## Step 36



• Use the flat end of a spudger to pry the left speaker off the adhesive securing it to the upper case.

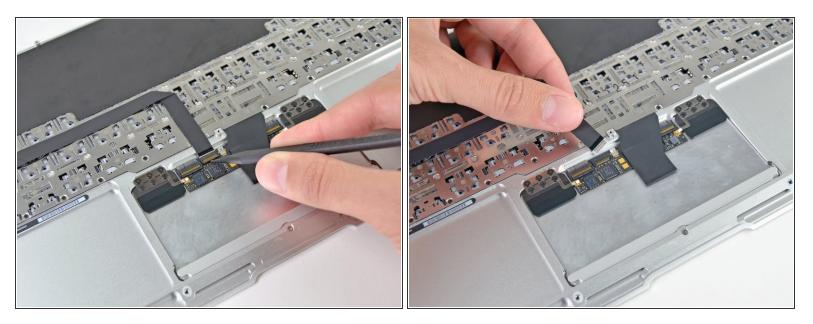
Only pry up on the speaker from the areas of bare aluminum on the upper case. Prying up from the keyboard area may damage the keyboard and the speaker itself.

• Remove the left speaker from the upper case.



- Use the tip of a spudger to pry the microphone away from the side of the upper case.
- Remove the microphone from the upper case.
- Upper case remains.

## Step 38 — Upper Case



- Use the tip of a spudger to pry up the retaining flap on the trackpad data cable ZIF connector.
- Be careful to pry on the hinged flap, not the connector itself; the connector is delicate and may break.
- Gently slide the trackpad ribbon cable out of the ZIF connector.



- With one hand, lift the keyboard ribbon cable up and push it slightly away from the trackpad to access the ZIF connector underneath.
- Use a spudger tip to pry up the retaining flap on the keyboard ribbon cable ZIF connector.
- Be careful to pry on the hinged flap, not the connector itself; the connector is delicate and may break.
- Gently slide the keyboard ribbon cable out of the ZIF connector.

#### Step 40



 Remove the six 1.5 mm Phillips #00 screws that secure the trackpad assembly to the upper case.



- While supporting the upper case, press up on the side of the trackpad closest to the logic board.
- Remove the trackpad.

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