

MacBook Air 11" Mid 2013 Upper Case Replacement

Use this guide to replace the upper case.

Written By: Sam Goldheart



INTRODUCTION

Use this guide to replace the upper case.

TOOLS:

P5 Pentalobe Screwdriver Retina MacBook Pro and Air (1)

Spudger (1)

T5 Torx Screwdriver (1)

Tweezers (1)

TR8 Torx Security Screwdriver (1)

Phillips #00 Screwdriver (1)

PARTS:

MacBook Air 11" (Mid 2013) Upper Case with Keyboard (1) MacBook Air 11" (Mid 2013-Early 2015) Trackpad Cable (1)

Step 1 — Lower Case



- i Shut down and close your computer. 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
- (i) The special screwdriver needed to remove the 5-point Pentalobe screws can be found here.



 Wedge your fingers between the display and the lower case and pull upward to pop the lower case off the Air.

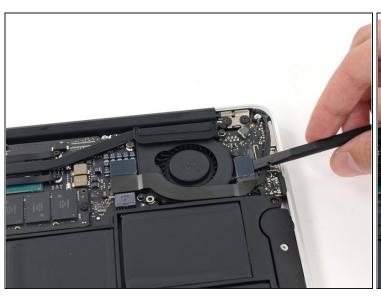
Step 3 — **Battery Connector**



⚠ 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 bend back and make contact with its socket.

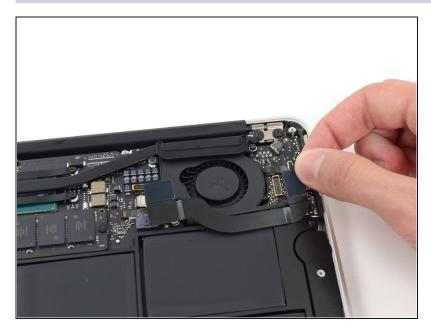
Step 4 — I/O Board Cable





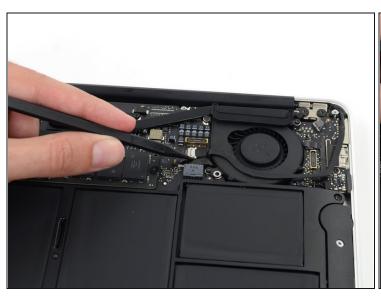
• Use the flat end of a spudger to pry the left and right I/O board cable connectors up off their respective sockets on the I/O board.

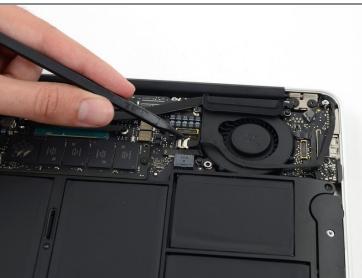
Step 5



• Lift and remove the I/O board cable.

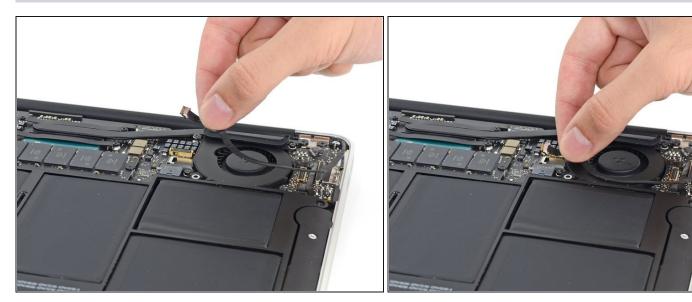
Step 6 — Fan



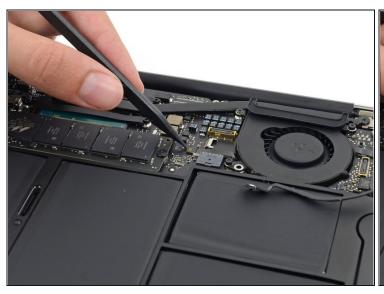


- Use the tip of a spudger to carefully push on each side of the iSight camera cable connector to loosen it out of its socket on the logic board.
- (i) We recommend you gently "walk" the connector out of its socket.

Step 7



• Peel the iSight camera cable up off the adhesive securing it to the 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.

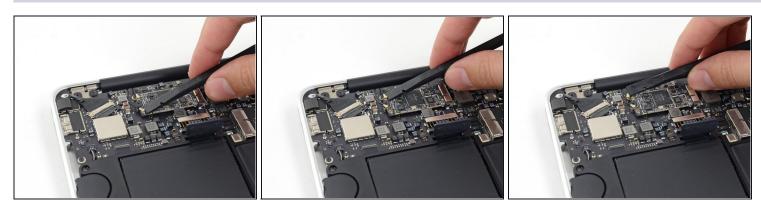


- Remove the following three screws securing the fan to the upper case:
 - Two 5.5 mm T5 Torx screws
 - One 4.6 mm T5 Torx screw
 - in some models this is a 3.6 mm T5 Torx screw.

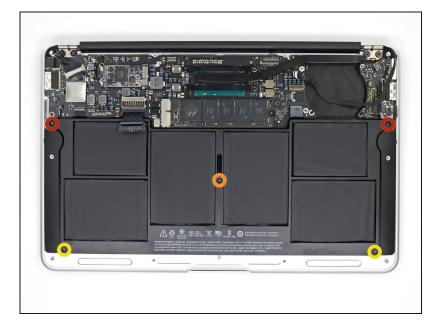


- Lift, but **do not** remove the fan out of its recess in the upper case.
- Carefully pull the fan ribbon cable out of its socket as you remove the fan from the Air.

Step 11 — Logic Board Assembly



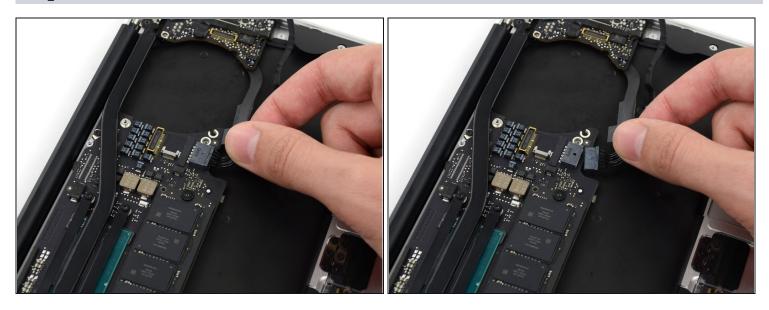
• Use the flat end of a spudger to pry both antenna connectors up from their sockets on the AirPort/Bluetooth card, and move them out of the way.



- 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

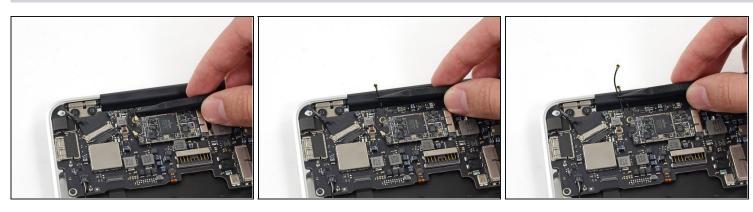


- ⚠ When handling the battery, avoid squeezing or touching the six exposed lithium polymer cells.
 - Lift the battery from its edge nearest the logic board and remove it from the upper case.



- Disconnect the I/O board by pulling the power cable away from its socket on the logic board.
- *i* 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 to de-route the antenna cables from their notches in the logic board.



- 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, gently pull the display data cable out of its socket.

⚠ Do not pull upward on the display data cable as you disconnect it, as its socket may break off the logic board.



- Use the tip of a spudger to pry under the speaker cable connector, lifting it straight up from its socket.
- De-route the cable from its notch in the logic board.



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

⚠ 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.

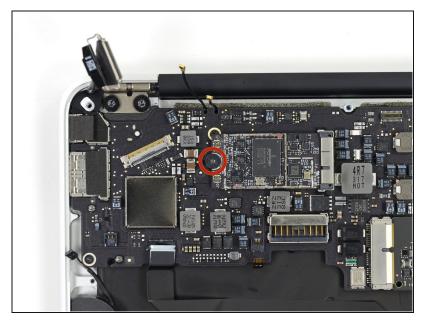
Step 19



• Use the tip of a spudger to flip up the retaining flap on the keyboard backlight ribbon cable ZIF socket.

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

• Pull the keyboard backlight ribbon cable out of its socket.



Remove the single 2.9 mm T5
 Torx screw securing the
 AirPort/Bluetooth card to the
 logic board.

Step 21







• Slightly lift the free end of the AirPort/Bluetooth board and pull it out of its socket on the logic board.

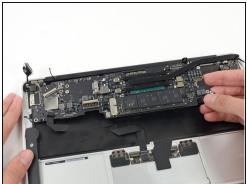
⚠ To avoid damaging its socket on the logic board, do **not** excessively lift the free end of the AirPort/Bluetooth card.



- Remove the three 3.6 mm T5
 Torx screws securing the logic board to the upper case.
- In some models these are 3.1 mm T5 Torx screws.

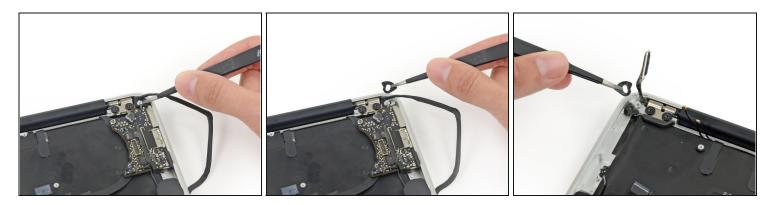






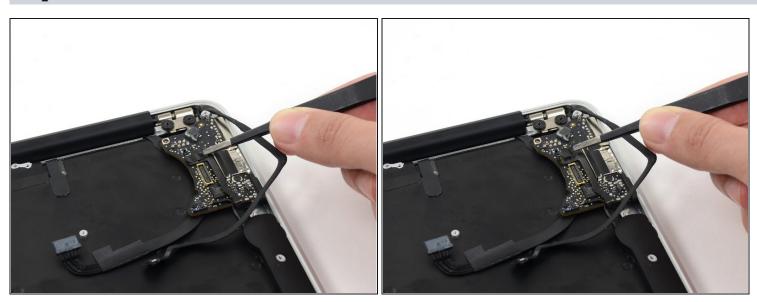
- Gently lift the logic board assembly from the heat sink end and pull it away from the port side of the case to remove it from the Air.
- When replacing the logic board, insert the board's rubber edge under the port-side rubber gasket, then lower the board into place.

Step 24 — I/O Board



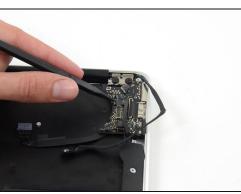
- Remove the small rubber gasket from the corner of the upper case nearest the the I/O board.
- Remove the gasket from the corner nearest display cable connector.

Step 25



i If necessary, use <u>tweezers</u> to remove any tape covering the microphone cable ZIF connector.







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

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

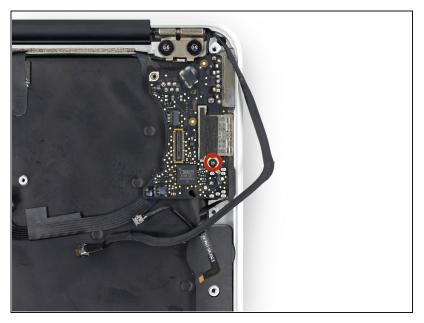
With a pair of tweezers, pull the microphone ribbon cable straight out of its socket.







- Use the tip of a spudger to pry under the speaker cable near the connector, lifting it straight up from its socket.
- De-route the cable from its notch in the logic board.



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

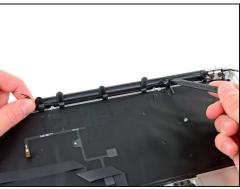
Step 29

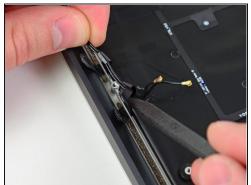


• Carefully lift the I/O board by its power cable and pull it away from the edge of the case.

Step 30 — Display Assembly

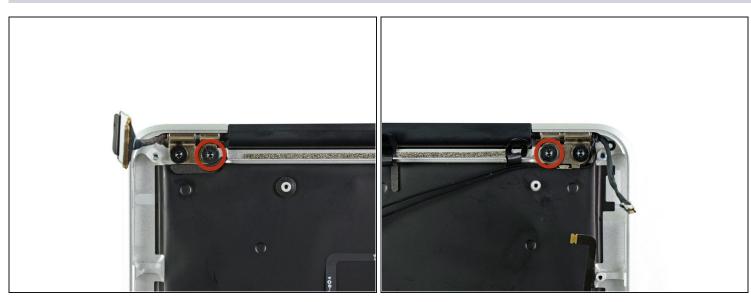




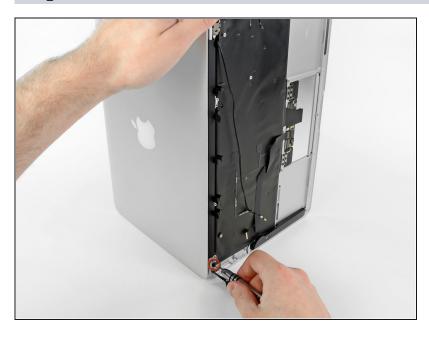


- Peel up the six cable loops securing the antenna cables to the upper case.
- *i* In some models there are seven cable loops.
- Gently pull the cable loops slightly out of the channel cut into the upper case one at a time.
- Use your spudger to open up the plastic loops as you de-route the antenna cables through them.
- Repeat this for each retaining loop until the antenna cables are free from the upper case.

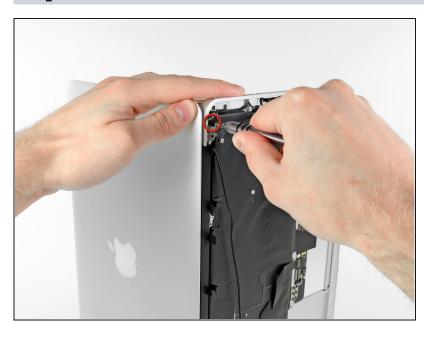
Step 31



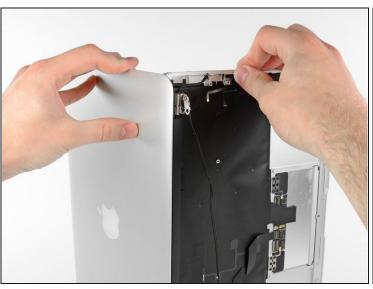
• Remove the inner 4.9 mm T8 Torx screw securing each display hinge to the upper case (two screws total).



- (i) 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.



- ⚠ 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.

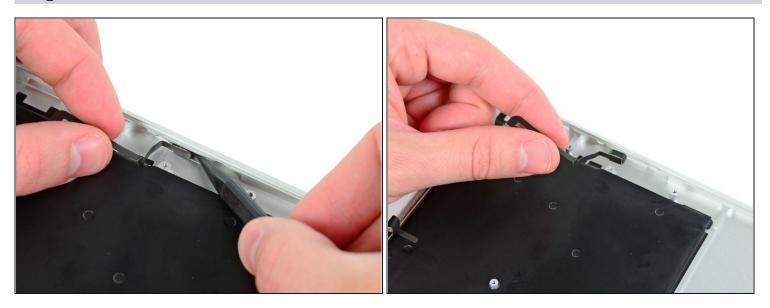
Step 35 — Upper Case



- 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 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.

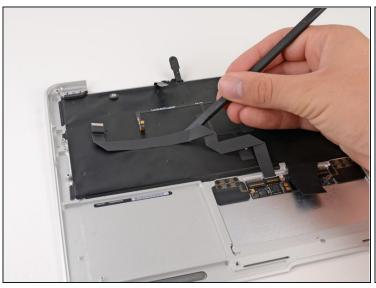


- Use the tip of a spudger to pry the microphone away from the side of the upper case.
- Remove the microphone from the upper case.
- Upper case remains.

Step 38 — Upper Case

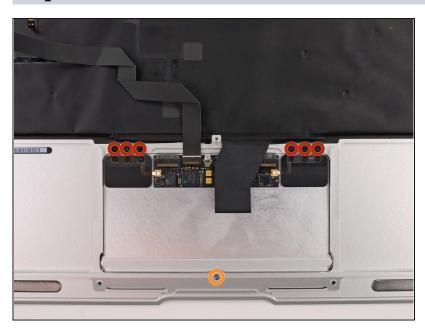


- (i) The ZIF connector for the keyboard ribbon cable is hidden under the cable itself.
- Push/lift the keyboard ribbon cable off of the upper case with one hand.
- With the other hand, use a spudger to flip up the retaining flap on the ZIF connector.
- Once the retaining flap has been flipped up, carefully pull the ribbon cable straight out of its socket.





- Use the flat end of a spudger to separate the trackpad ribbon cable from the underside of the keyboard.
- (i) The cable is held in place with adhesive. Work carefully, and be sure to not let the spudger slip and damage any components.



- Remove the six 1.5 mm Phillips #00 screws securing the trackpad to the upper case.
- Check your replacement upper case—if it doesn't have this wide T5 screw, remove it to transfer into the replacement.
 - i This is an adjustment screw to set the distance of the click of the trackpad—on reassembly, test the click and adjust this screw until it feels right.







- Holding the upper case up off the table with one hand, gently push the trackpad up through the upper case.
- Remove the trackpad from the upper case.

Step 42



• The upper case remains.

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