MacBook Air 13" Mid 2012 Heat Sink Replacement

Replace the thermal paste or heat sink in your MacBook Air 13" Mid 2012.

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INTRODUCTION

Use this guide to replace the thermal paste or heat sink.

TOOLS:

- Arctic Silver ArctiClean (1)
- Arctic Silver Thermal Paste (1)
- P5 Pentalobe Screwdriver Retina MacBook Pro and Air (1)
- Spudger (1)
- T5 Torx Screwdriver (1)
- T8 Torx Screwdriver (1)

PARTS:

- MacBook Air 13" (Mid 2011/Mid 2012) Heat Sink (1)

Step 1 — Lower Case

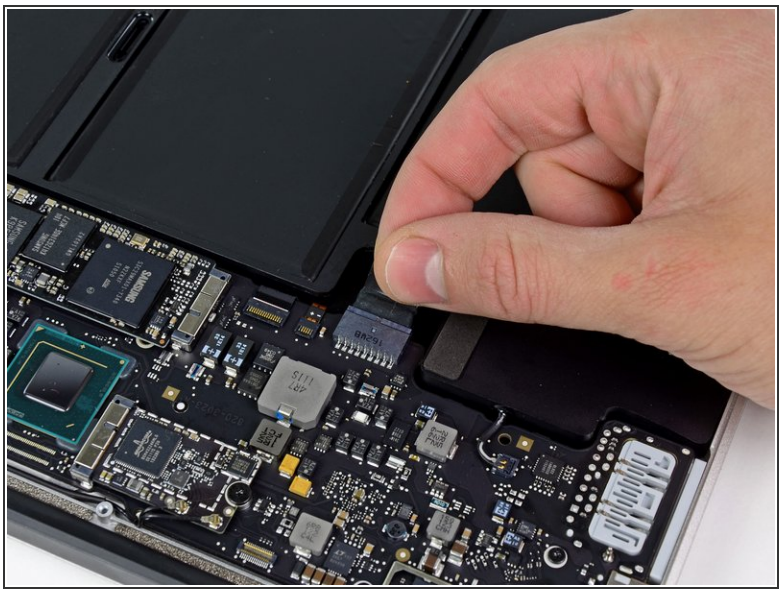
Before proceeding, power down your MacBook. Close the display and lay it on a soft surface, top-side down.

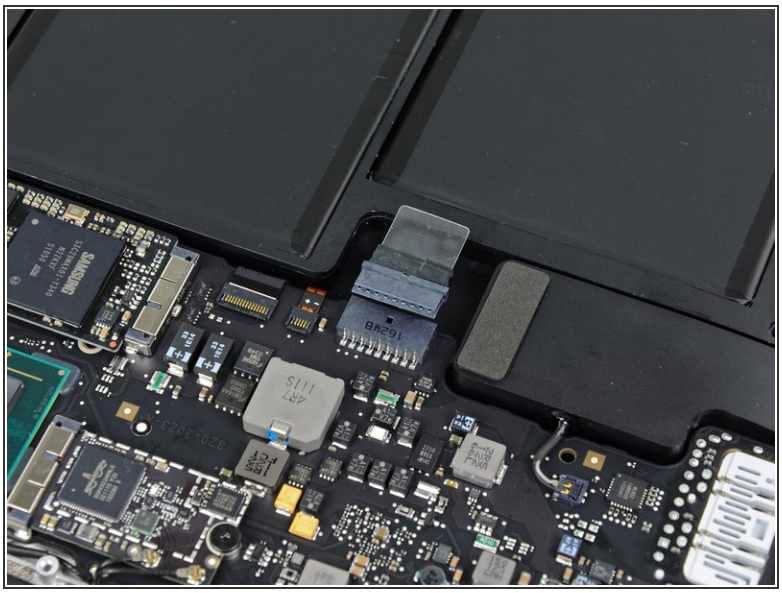
- Use a P5 Pentalobe driver to remove ten screws securing the lower case, of the following lengths:
  - Two 9 mm screws
  - Eight 2.6 mm screws

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 Connector



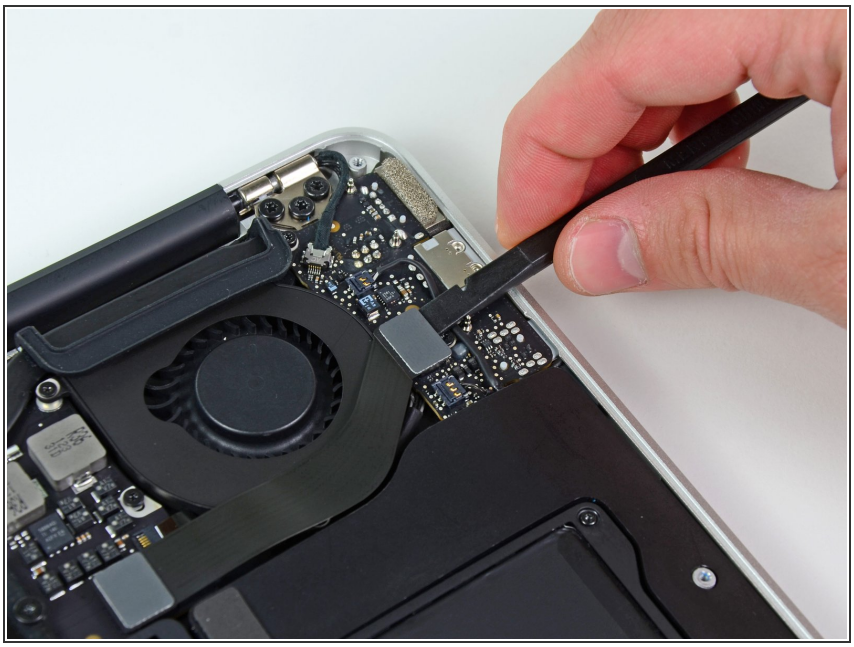


As a precaution against accidental discharge or shock, disconnect the battery connector from the logic board.

- Grab the clear plastic pull tab attached to the battery connector and pull it toward the front edge of the Air to disconnect the battery from the logic board.

Be sure to pull the connector horizontally toward the battery, and not straight up from the Air, or you may damage the socket on the logic board.

Step 4 — 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 5

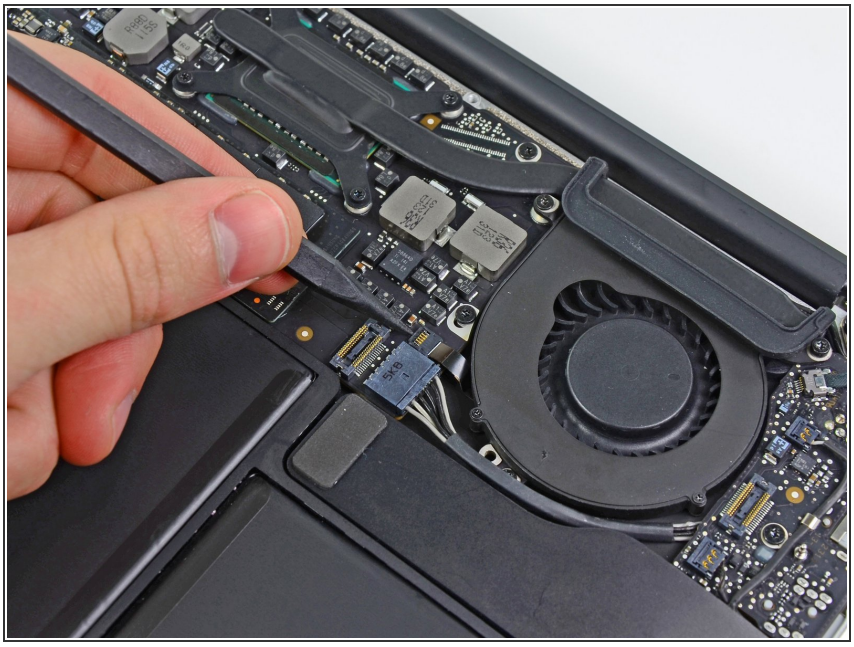
- Carefully peel the I/O board cable from the top of the fan.

Step 6

⚠ 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.

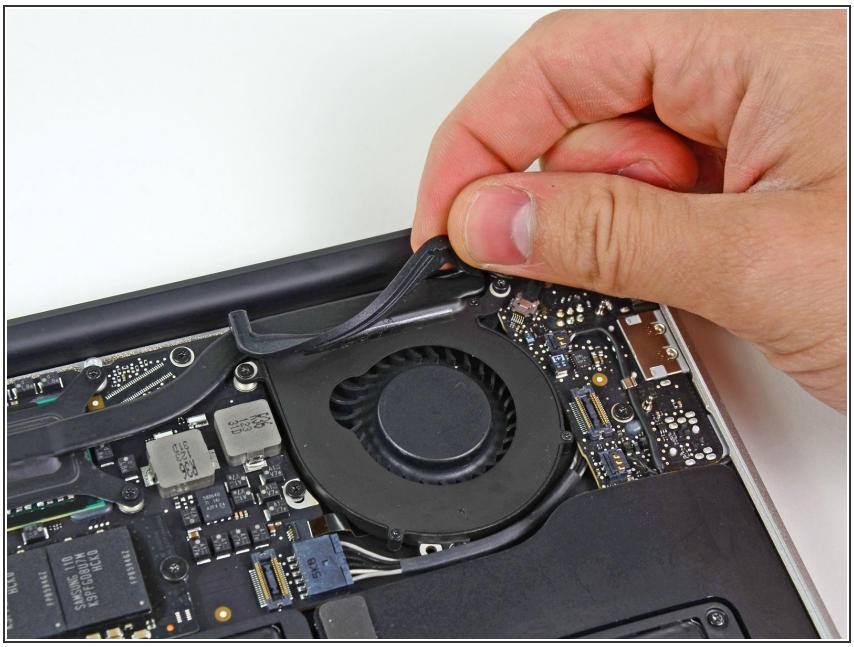
Step 7 — Fan



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

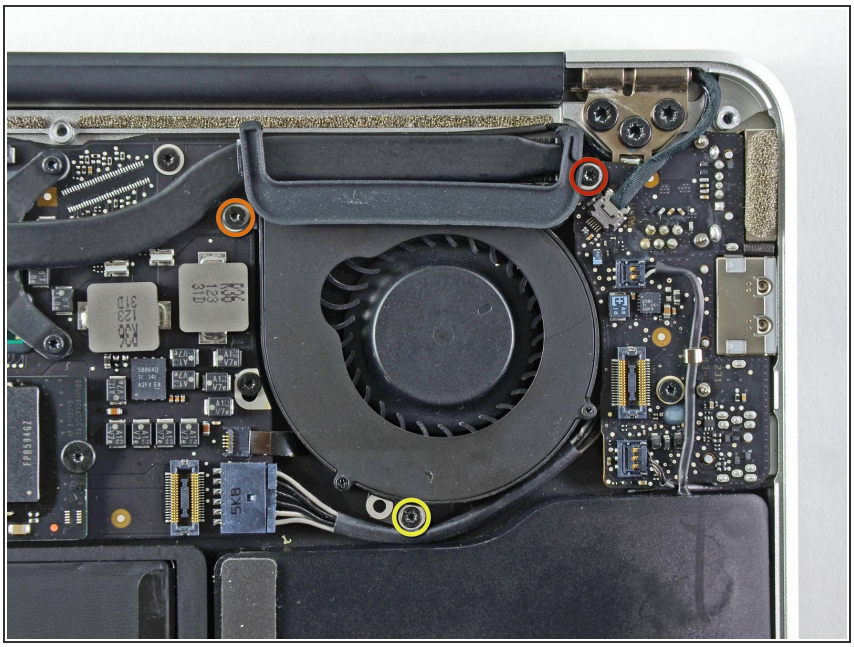
⚠ Be sure you are prying up on the hinged retaining flap, **not** the socket itself.

Step 8



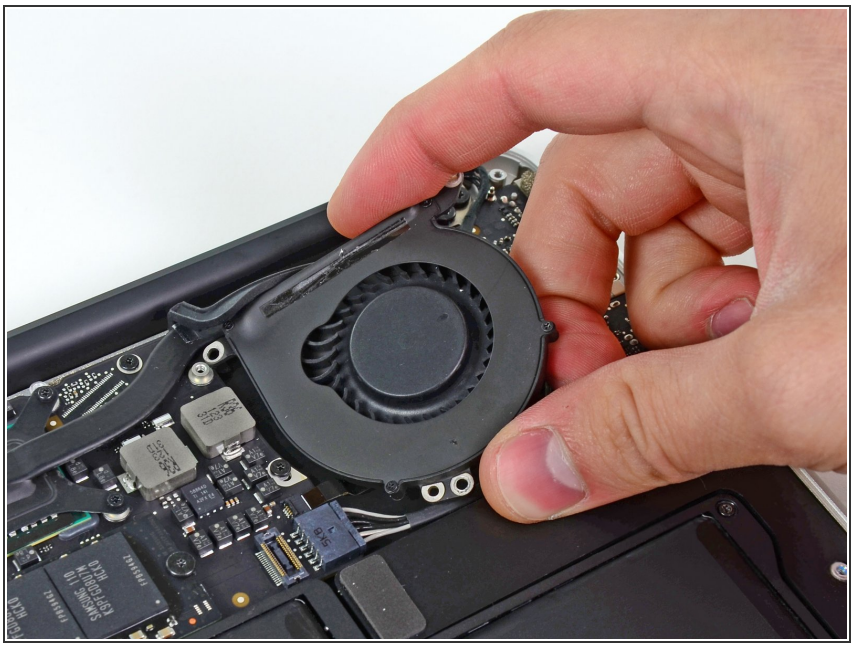
- Peel the rubber gasket off the adhesive on the top of the fan.

Step 9



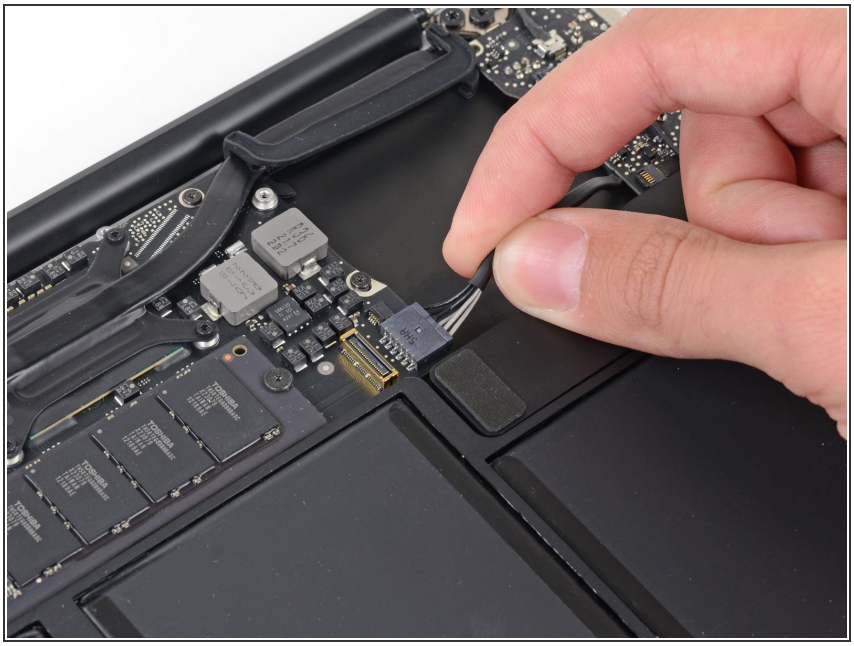
- Remove the following three screws securing the fan to the upper case:
  - One 3.6 mm T5 Torx screw
  - One 2.7 mm T5 Torx screw
  - One 3.6 mm T5 Torx screw with a short head

Step 10



- 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.

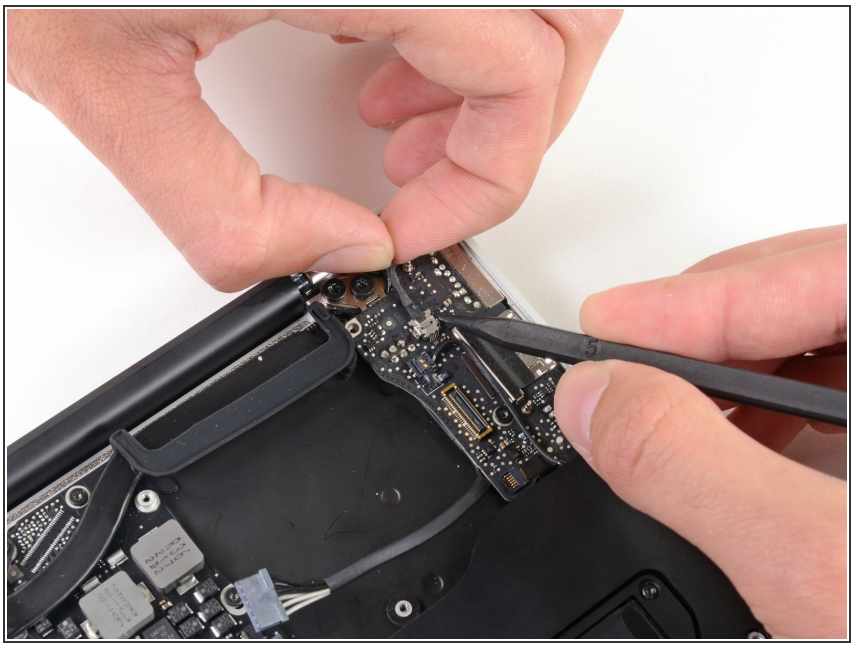
Step 11 — I/O Board



- 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 right edge of the Air.

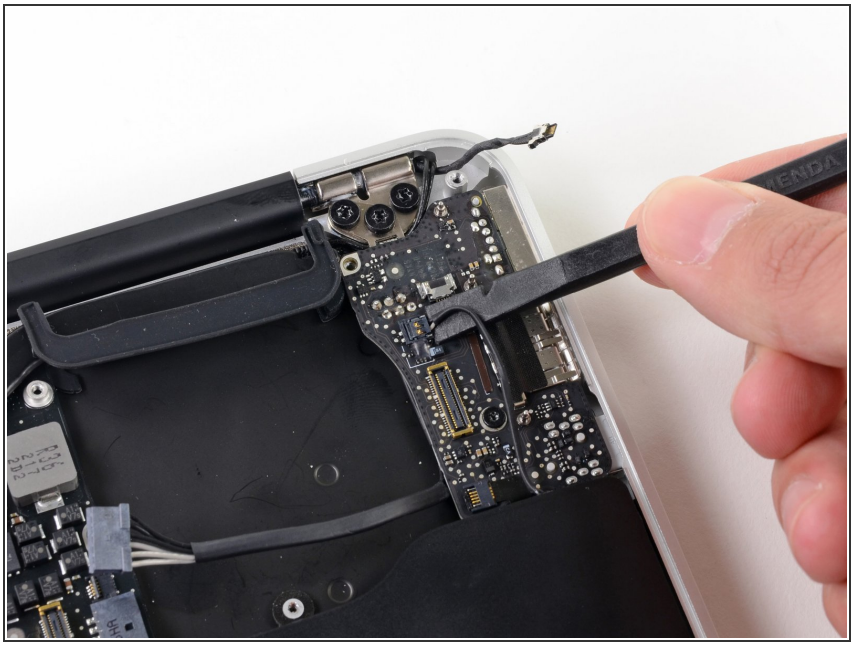
Step 12



- Pull the camera cable parallel to the face of the I/O board toward the hinge of the Air to disconnect it from its socket, using the tip of a spudger to help push the connector out of its socket.

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

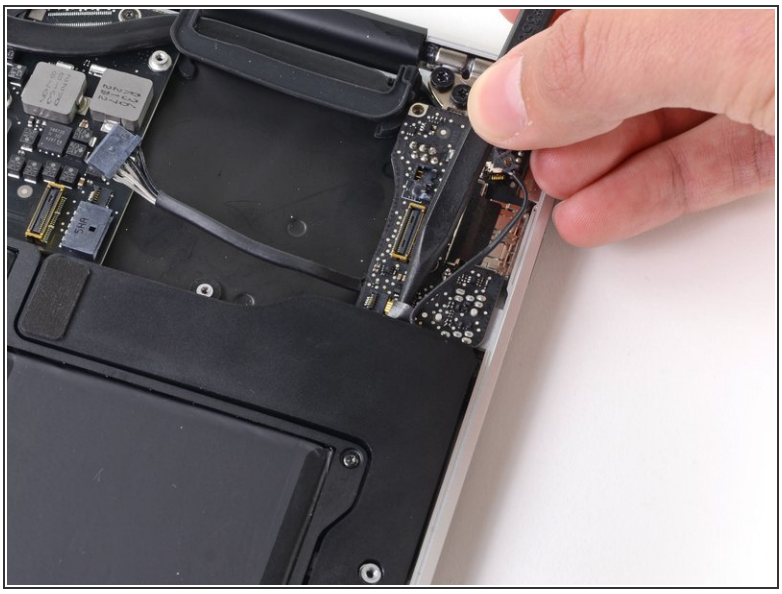
Step 13



- 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.

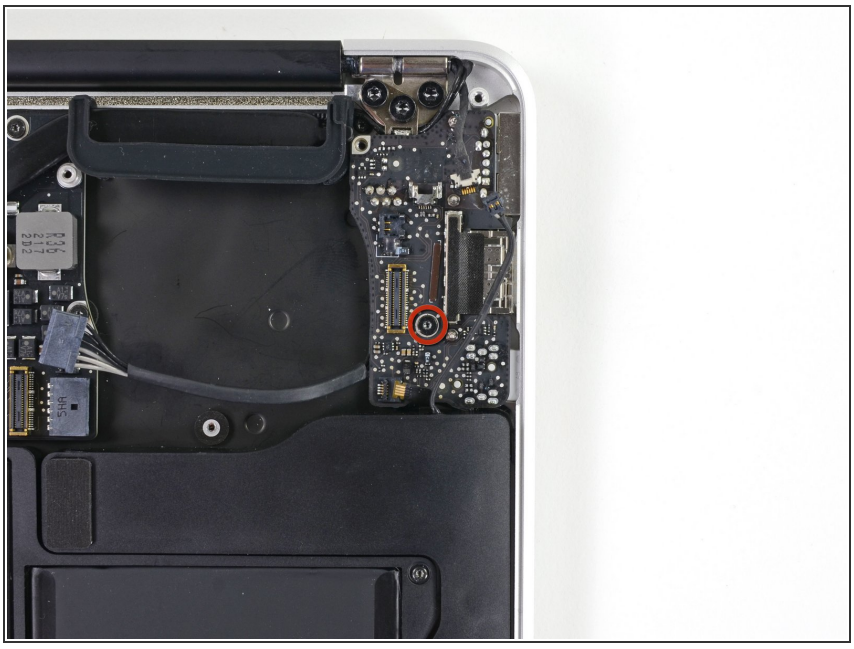
ⓘ Pry up from beneath the wires.

Step 14



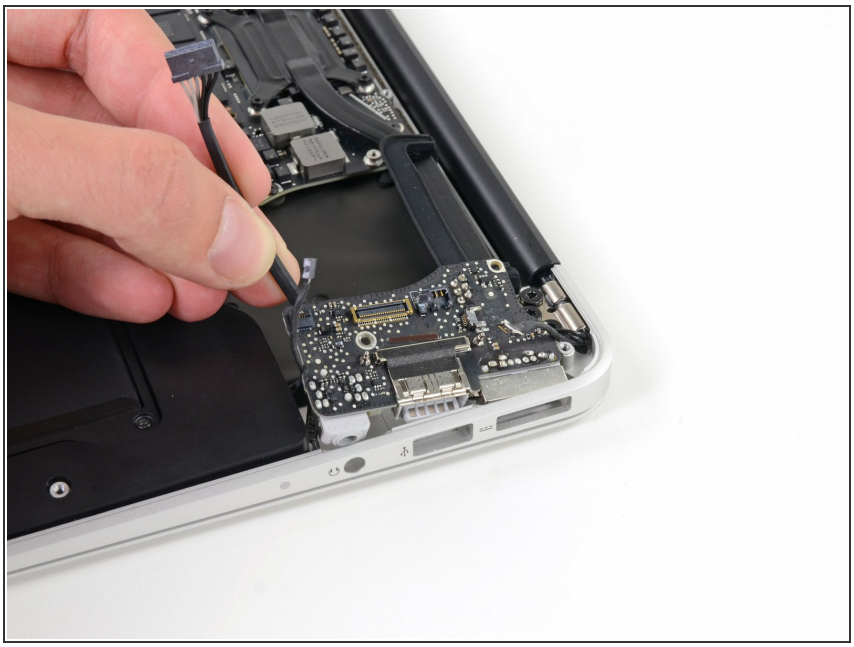
- Use the tip of a spudger to flip up the retaining flap securing the microphone ribbon cable to the I/O board.
- Use the tip of a spudger to remove the volume button ribbon cable from its ZIF connector on the I/O board.

Step 15



- Remove the single 4.0 mm T5 Torx screw securing the I/O board to the upper case.

Step 16



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

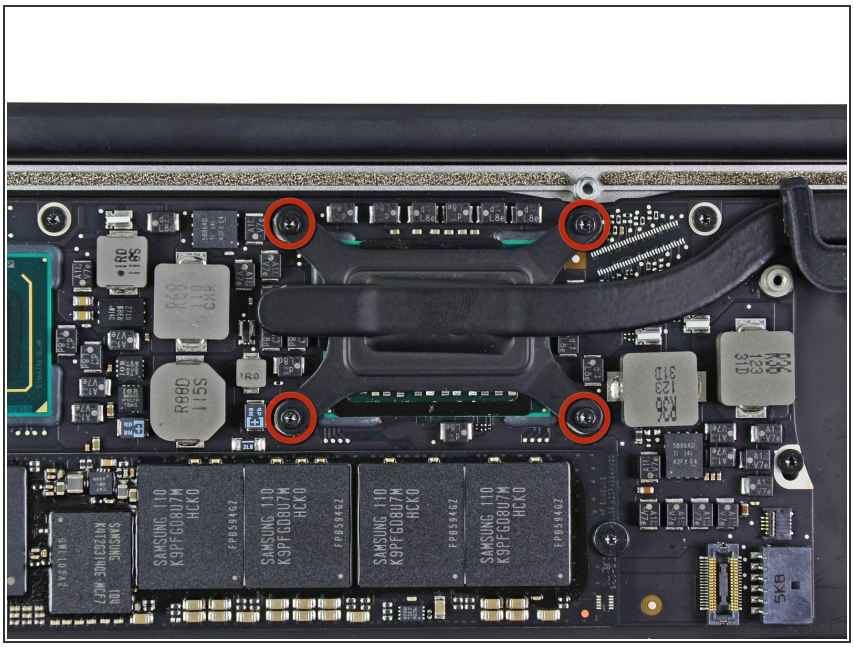
Step 17 — Heat Sink

- Remove the two 4.9 mm T8 Torx screws securing the antenna cable retainer on the left display hinge to the upper case.

Step 18

- Push the antenna cable retainer out of the way and remove the 3 mm T5 Torx screw securing the end of the heat sink to the upper case.

Step 19



- Remove the four 2.5 mm T5 Torx screws securing the heat sink to the logic board.

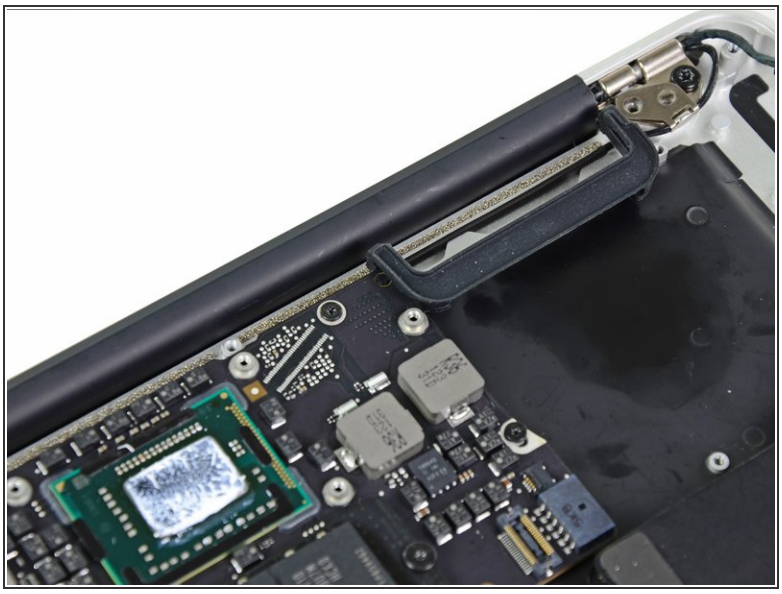
Step 20

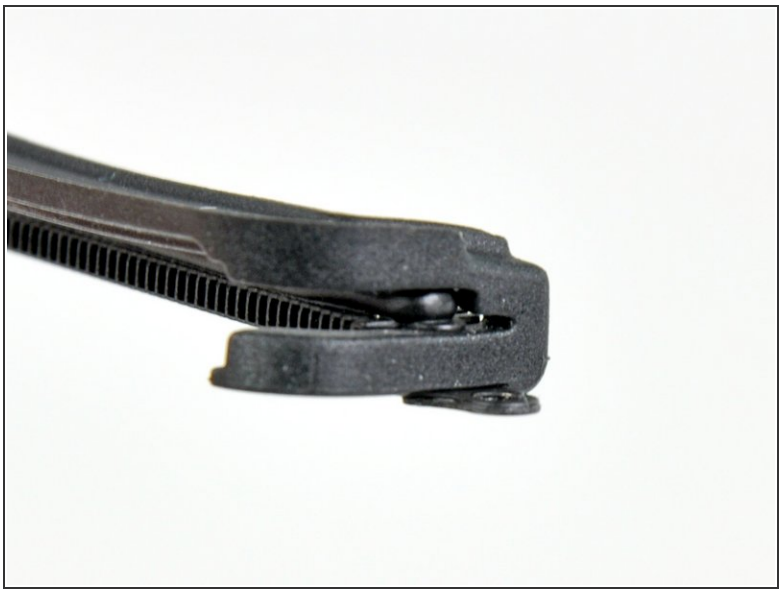
If the heat sink seems to be stuck to the logic board after removing all five screws, use a spudger to carefully separate the heat sink from the faces of the CPU and GPU.

- Remove the heat sink from the logic board.

When reinstalling the heat sink, be sure to apply a new layer of thermal paste. If you have never applied thermal paste before, we have a guide that makes it easy.

Step 21





These shots show how the rubber fan gasket should be installed during reassembly. Be sure not to install the gasket underneath the ear where the end of the heatsink is screwed down to the upper case.

Additionally, be sure the small post molded into the rubber gasket mates with the hole cut into the upper right corner of the logic board.

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

