MacBook Pro 13" Retina Display Late 2012 Right Fan Replacement

Use this guide to replace the right fan.

Written By: Walter Galan

INTRODUCTION

Use this guide to replace the right fan.

TOOLS:

Arctic Silver ArctiClean (1)
Arctic Silver Thermal Paste (1)
MacBook Pro and Air 5-Point Pentalobe Screwdriver (1)
Phillips #00 Screwdriver (1)
iFixit Opening Tool (1)
Spudger (1)
T5 Torx Screwdriver (1)
T6 Torx Screwdriver (1)
Tweezers (1)

PARTS:

MacBook Pro 13" Retina (Late 2012-Early 2013) Right Fan (1)

Step 1 — Lower Case

- Remove the following ten screws securing the lower case to the upper case:
  - Two 2.3 mm P5 Pentalobe screws
  - Eight 3.0 mm P5 Pentalobe screws
- Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from to avoid damaging your device.

Step 2

- Wedge your fingers between the upper case and the lower case.

- Gently pull the lower case away from the upper case.
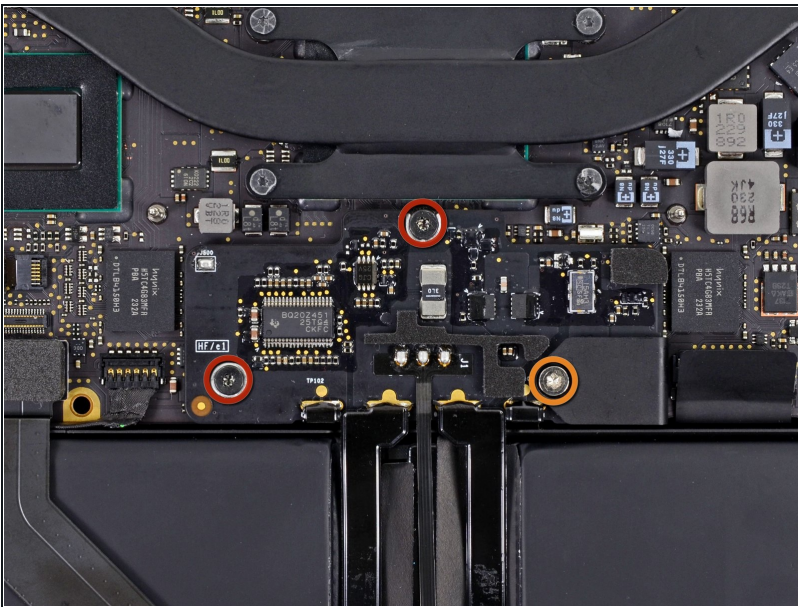
- Remove the lower case and set it aside.

Step 3

⊡ During reassembly, gently push down the center of the lower case to reattach the two plastic clips.

- The lower case is connected to the upper case at the center, with two plastic clips.

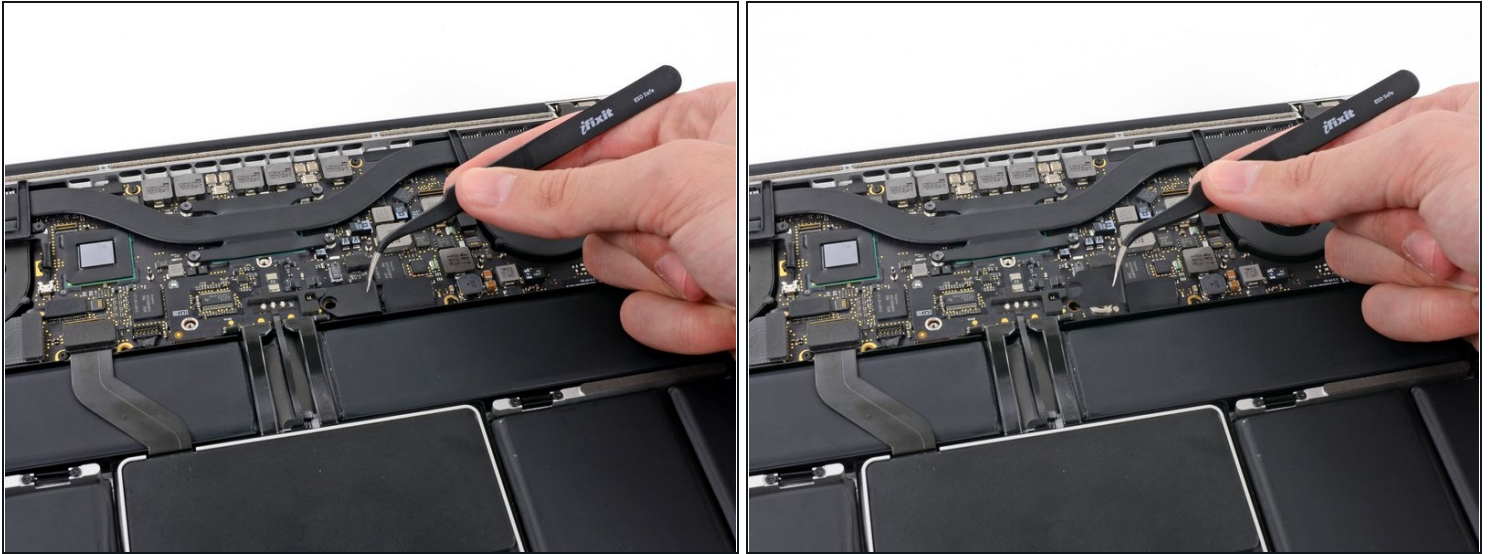## Step 4 — Battery Connector

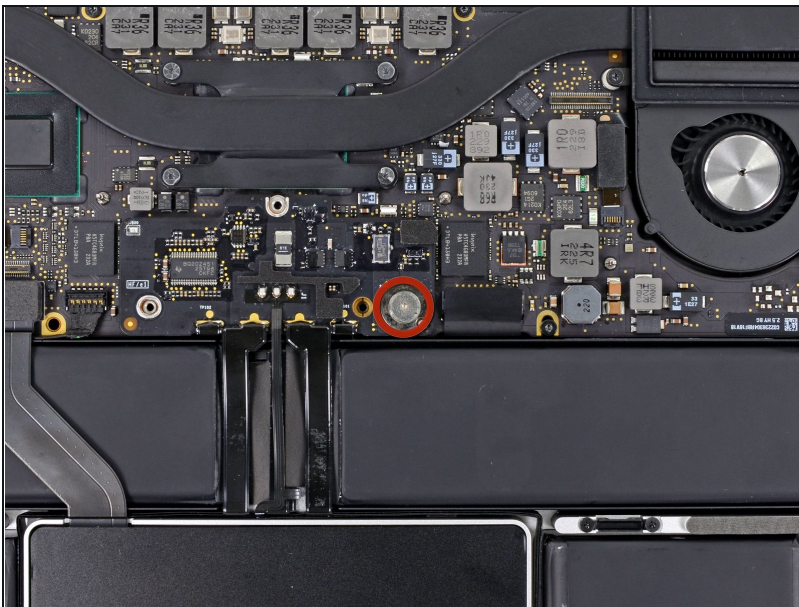- Remove the plastic cover adhered to the battery contact board.

Step 5

- Remove the following screws securing the battery connector board to the logic board:
  - Two 2.8 mm T6 Torx screws
  - One 7.0 mm T6 Torx shouldered screw

Step 6

- Use [tweezers](#) to remove the small plastic cover located near the bottom right of the battery connector board.

Step 7

- Remove the wide head 6.4 mm T6 Torx screw securing the battery connector to the logic board assembly.
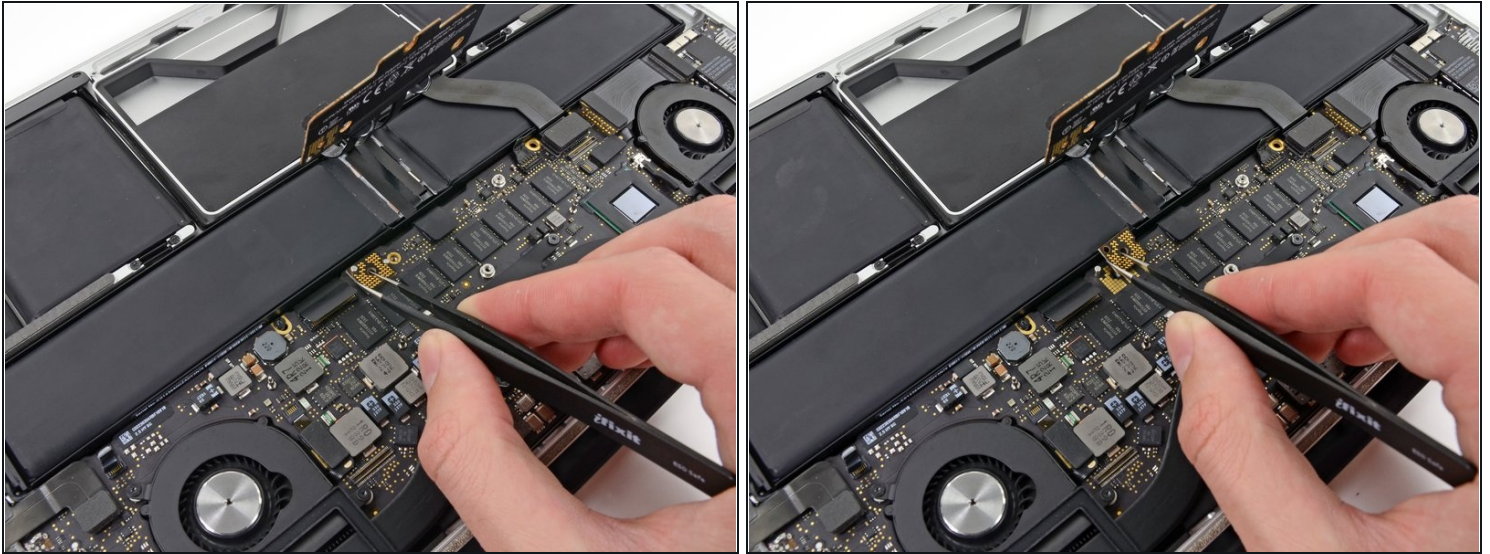
Step 8

- Carefully lift the battery connector board up off the logic board.

- It is recommended to bend the battery cables just slightly, to keep the board suspended up above the logic board and out of the way.
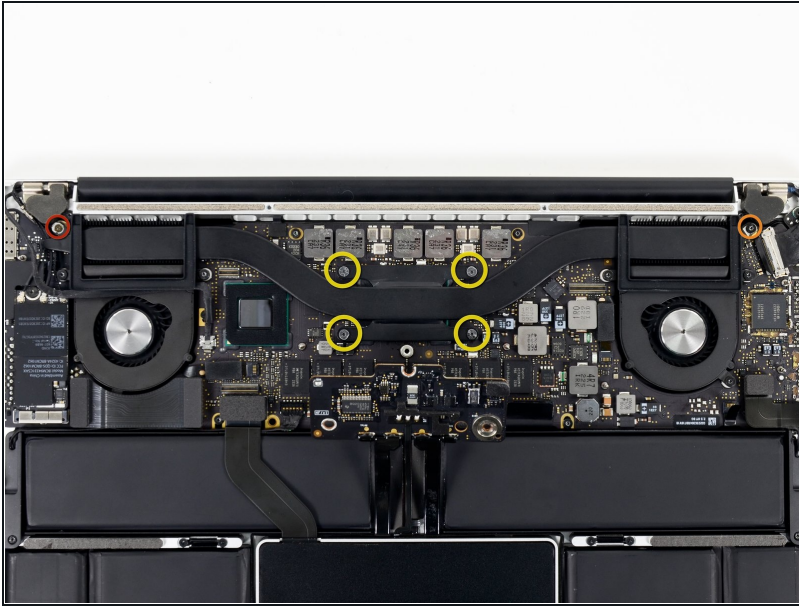
⚠ Do not fold the board completely over, or crease the cables, as this may damage the battery.
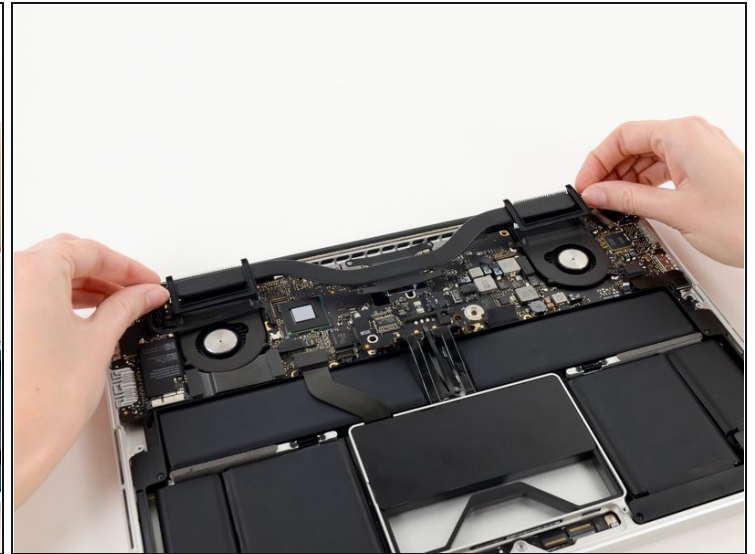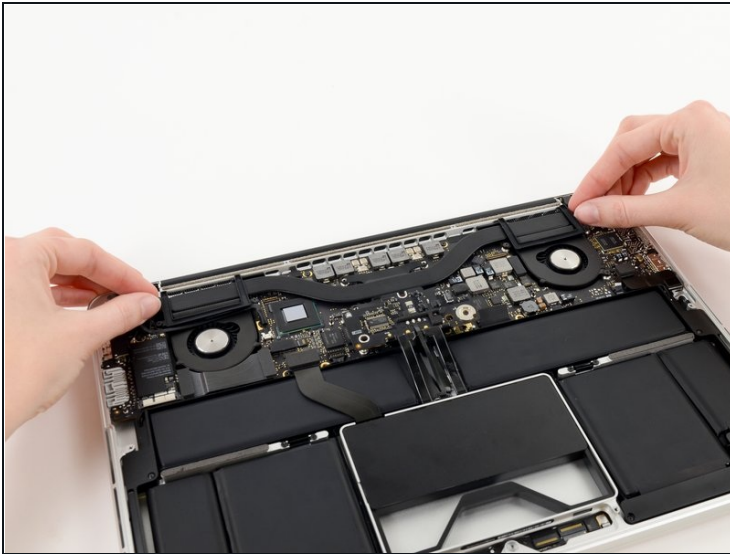
Step 9 — Battery Contact Board

- Grasp the Interposer with [tweezers](#).
  - ⓘ An interposer is the name for an interface that links one electrical connection to another. In this repair, it is the board connecting the battery to logic board.

- Lift the Interposer off the logic board and remove it.
  - ⚠ Removing this board will ensure that the battery remains disconnected throughout your repair, preventing your computer from accidentally powering on. It's also a good idea to take it out so it doesn't fall out unexpectedly.

Step 10 — Heat Sink Assembly

- Remove the following screws securing the heat sink to the logic board assembly:
  - One 2.4 mm Phillips #00 screw
  - One 3.4 mm T5 Torx screw
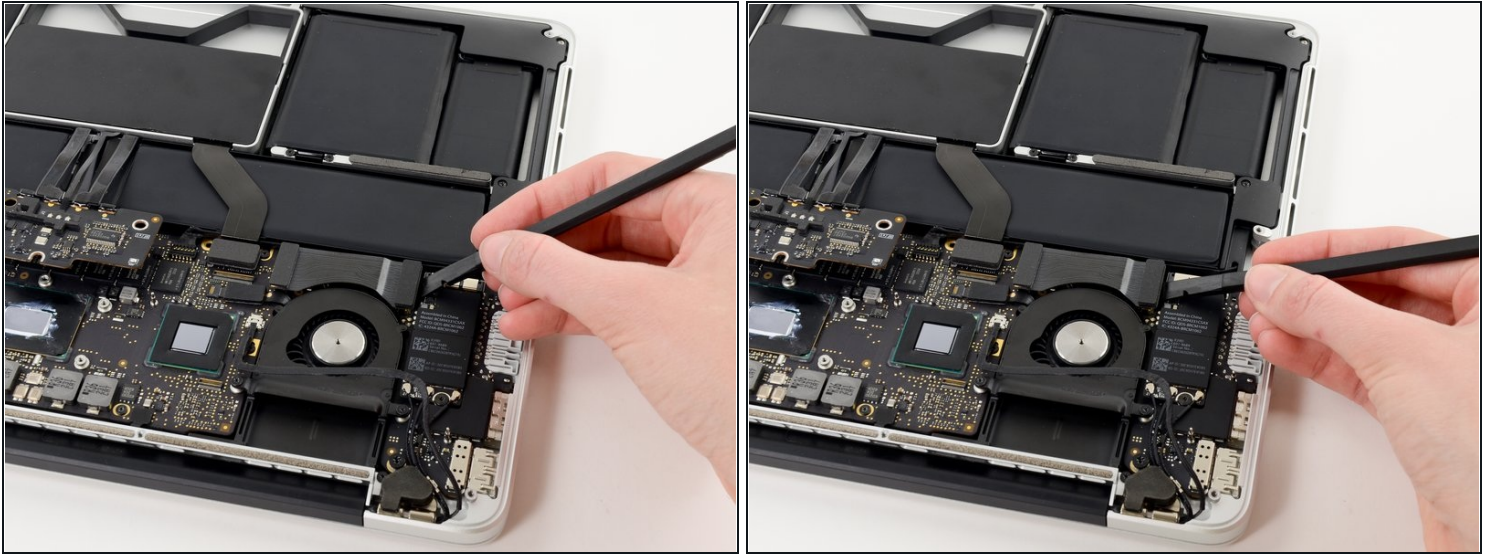 - Four 2.7 mm T5 Torx screws

Step 11

- Lift and remove the heat sink up off the logic board assembly.

⚠ 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 12 — I/O Board Data Cable

- Use the flat end of a spudger to pry the right side of the I/O board data cable connector up off its socket on the I/O board.

⚠ When prying the I/O board data cable connector from its socket, make sure to pry the connector itself and **not** the socket. Prying the socket may cause irreversible damage to the I/O board.
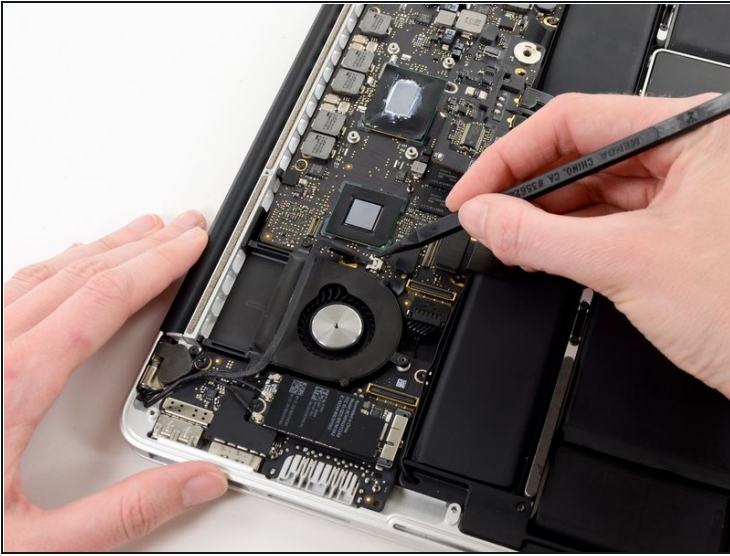
Step 13

- Wedge the flat end of a spudger beneath the left side of the I/O board data cable connector.

- Gently twist the spudger to disconnect the I/O board data cable connector from its socket on the logic board.
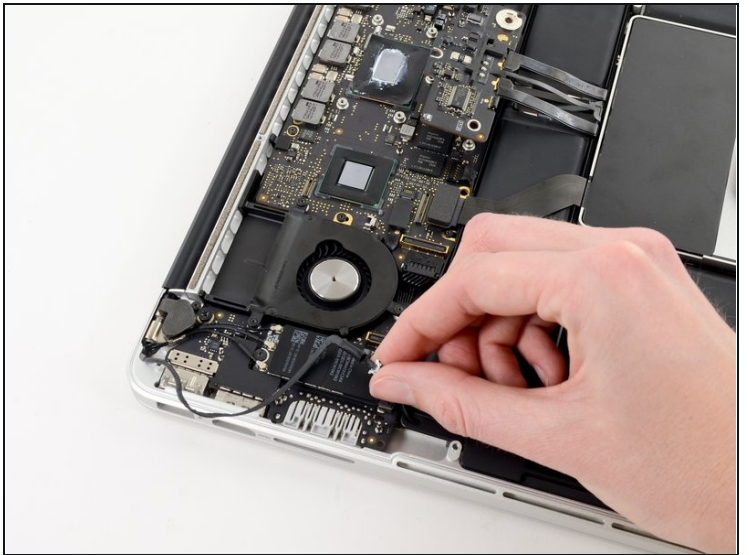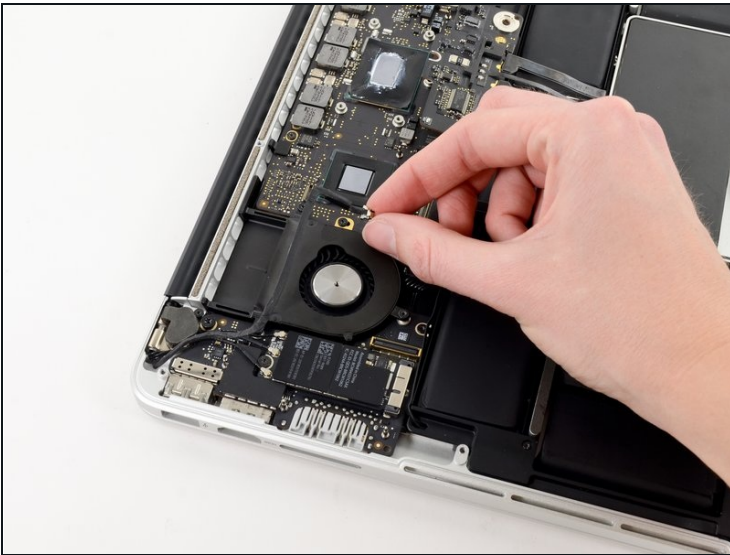
Step 14

- Lift and remove the I/O board data cable from the MacBook Pro.

Step 15 — iSight Camera Cable

- Use the tip of a spudger to push the iSight camera cable connector straight away from its socket on the logic board.

- ⓘ It is recommended to carefully push on both sides of the connector to "walk" it out of its socket.

Step 16

- Move the iSight camera cable aside.

Step 17 — Right Fan

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

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

- Pull the right fan ribbon cable straight out of its socket on the logic board.

Step 18

- Remove the three 3.1 mm T5 Torx screws securing the right fan to the logic board assembly.

Step 19

- Lift and remove the right fan out of the upper case.

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