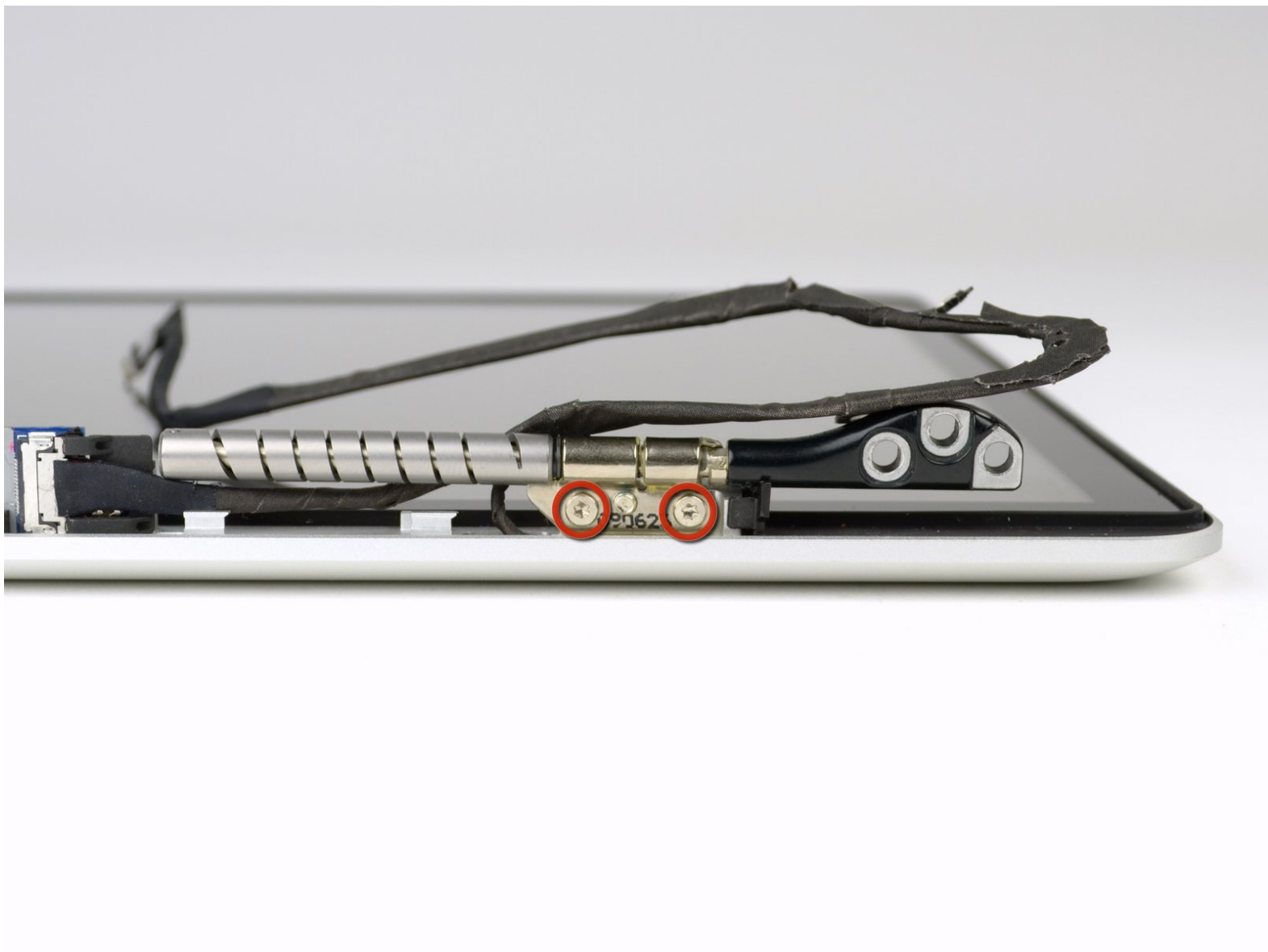




MacBook Pro 17" Unibody Right Clutch Hinge Replacement

Replace the right clutch hinge in your MacBook Pro 17" Unibody.

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INTRODUCTION

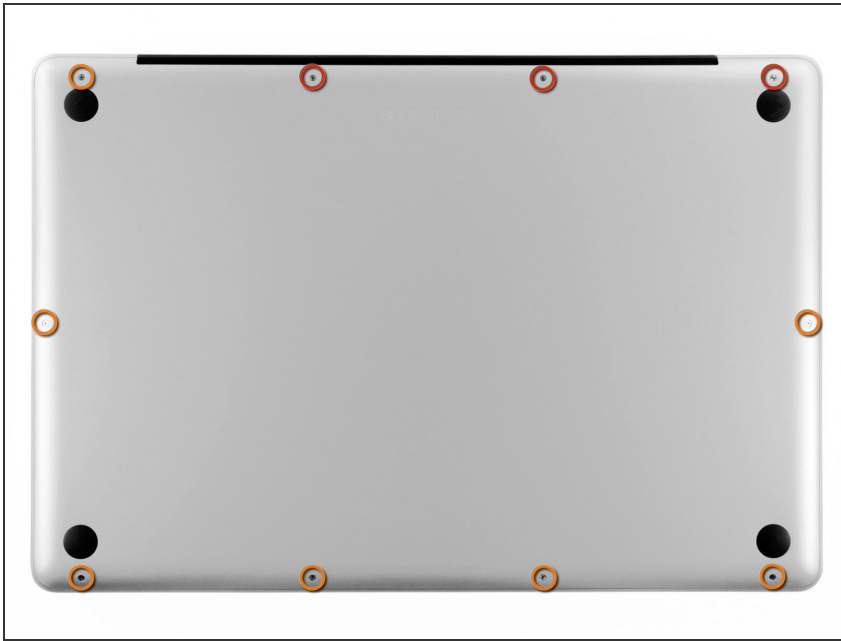
Does your display have a hard time staying upright? Nobody likes a floppy display. Use this guide to replace the right clutch hinge.



TOOLS:

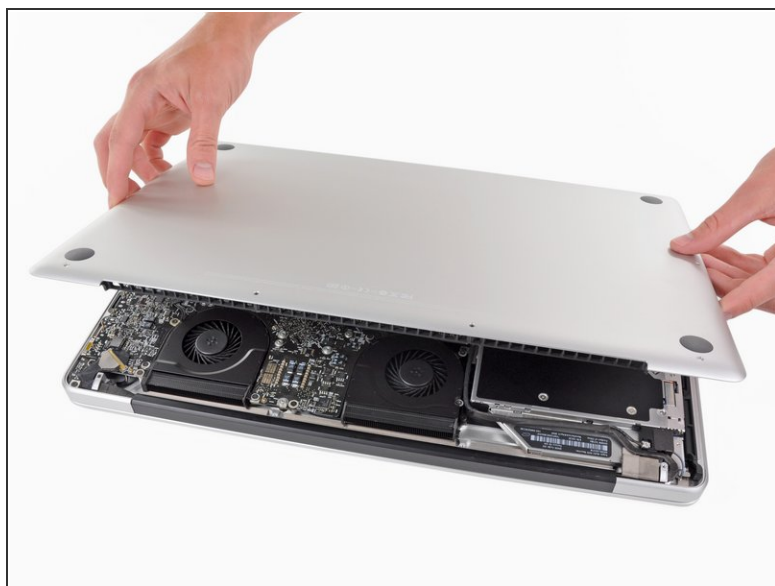
- [Phillips #00 Screwdriver](#) (1)
 - [Spudger](#) (1)
 - [T6 Torx Screwdriver](#) (1)
-

Step 1 — Lower Case



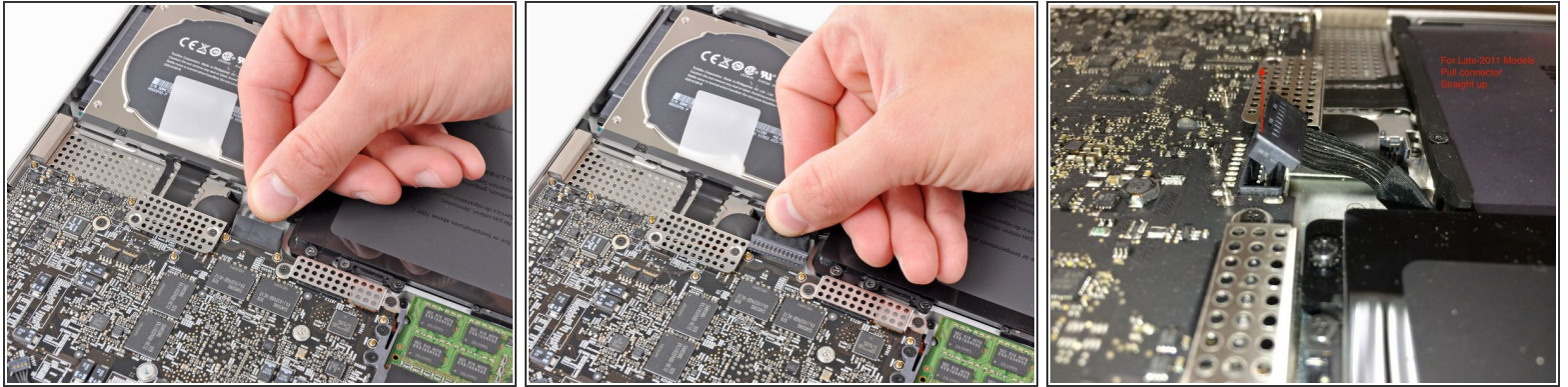
- Remove the following ten screws securing the lower case to the upper case:
 - Three 13.5 mm Phillips screws.
 - Seven 3 mm Phillips screws.

Step 2



- Wedge your fingers between the lower case and the vent, and lift upward to release the two clips holding the lower case to the upper case.
 - ☑ During reassembly, carefully align the lower case and then press it firmly until both clips engage.
- Remove the lower case.

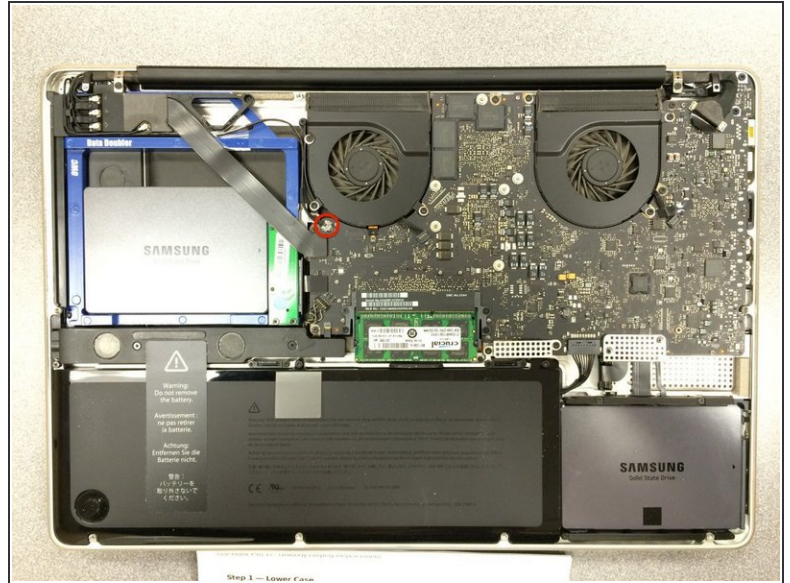
Step 3 — Battery



 Whenever working near the logic board, it is always wise to first disconnect the battery to avoid short circuits.

- If present, grab the plastic tab attached to the battery connector and pull it toward the front edge of the device. For Late-2011 models the battery connector will not have a tab and is simply a plug that inserts straight down into the motherboard--to remove pry the plug straight up.
-  If the plastic tab is missing, use a spudger to pry the connector up from its socket.
-  Pull the tab parallel to the face of the logic board.

Step 4 — Display



- i** Before disconnecting the camera cable, a small plastic retainer stuck to the logic board must first be moved out of the way. In late-2011 models you can skip this step because there is not a plastic retainer on the camera cable connector.
- Use the tip of a spudger to push the small plastic cable retainer away from the camera cable socket for enough clearance to remove the camera cable.

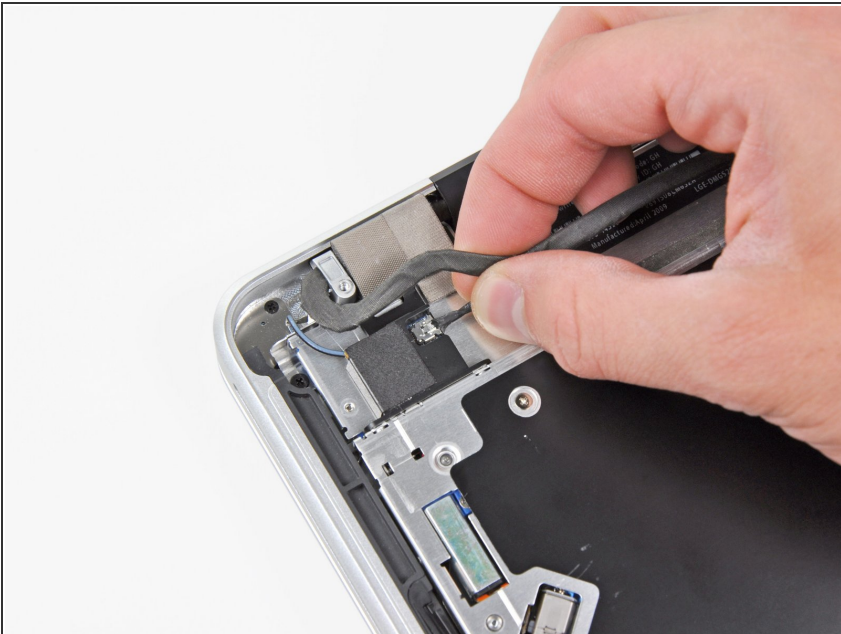
Step 5



- Pull the camera cable toward the optical drive opening to disconnect it from the logic board.

 The camera cable socket is very fragile. Do not apply any upward force to this socket, as it may break off the logic board. Pull the camera cable parallel to the face of the logic board.

Step 6



- Carefully pull the Bluetooth cable toward the fans to disconnect it from the Bluetooth board.
-  Pull the cable parallel to the face of the optical drive.

Step 7



- Use the flat end of a spudger to peel the thin plastic cover off the top and sides of the Bluetooth board housing. For late-2011 models check out the other picture because the connector location is in a totally different location.

Step 8



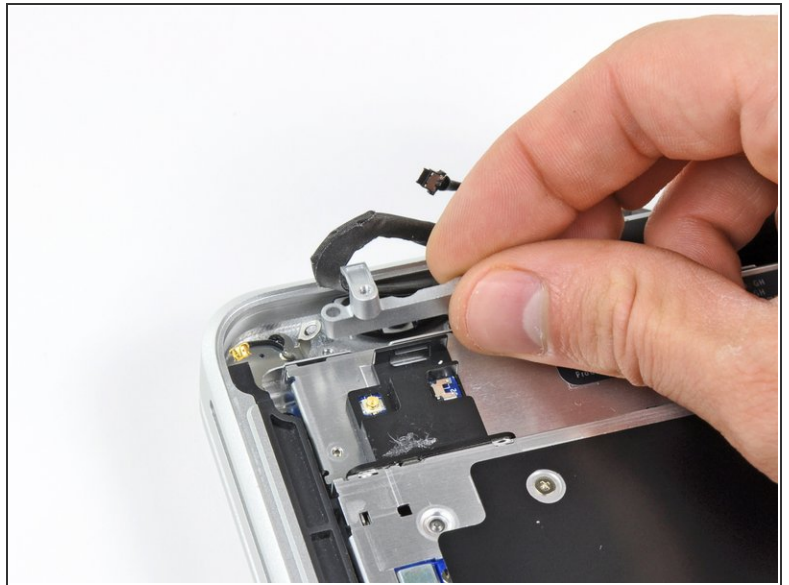
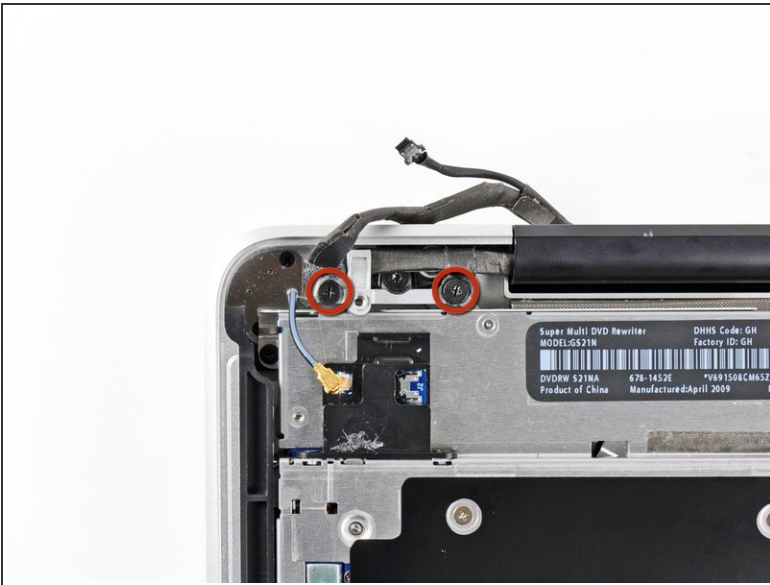
- Use the flat end of a spudger to pry the Bluetooth antenna connector up and off its socket on the Bluetooth board.

Step 9



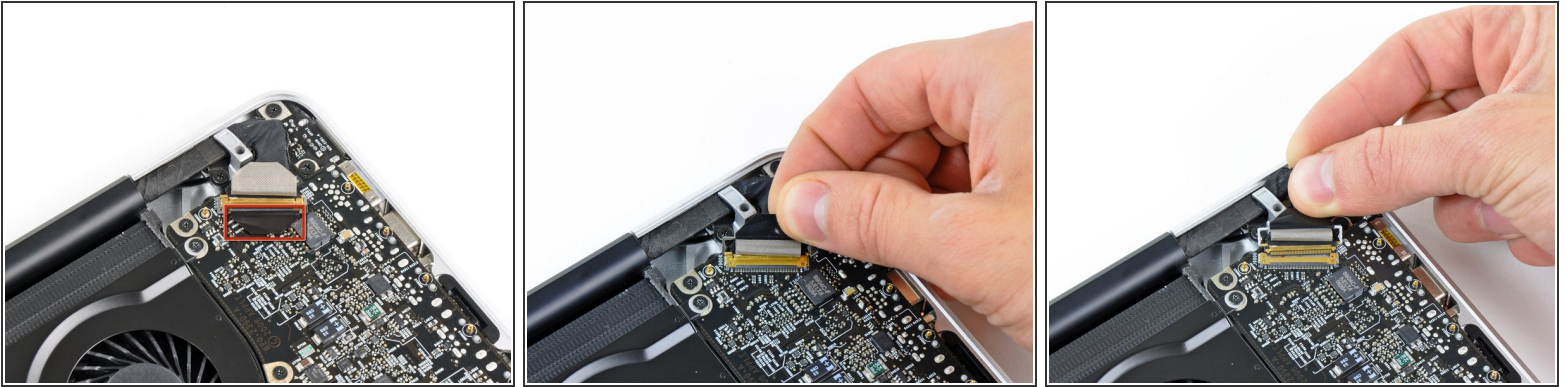
- ✦ If present, remove the small piece of EMI foam near the Bluetooth board.
- De-route the camera cable from the slot molded into the Bluetooth board housing.

Step 10



- Remove the two 7.1 mm Phillips screws securing the camera cable retainer to the upper case.
- Remove the camera cable retainer from the upper case.

Step 11



- Lift the black plastic flap attached to the display data cable retainer and rotate it toward the DC-In side of the MacBook.
- Pull the display data cable out of its socket.

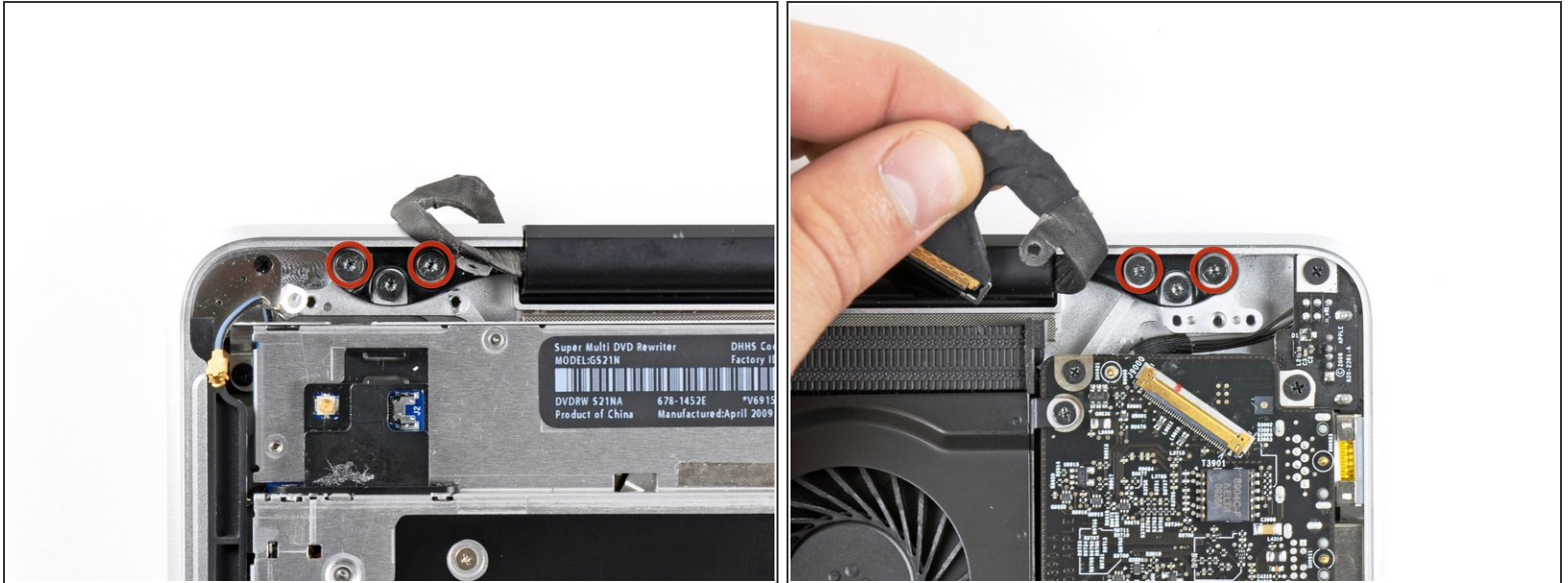
⚠ The display data cable socket is very fragile. **Do not** lift the connector upward as you disconnect it, as the socket may break off the logic board. Pull the cable parallel to the face of the logic board.

Step 12



- Remove the two 7.1 mm Phillips screws securing the display data cable retainer to the upper case.
- Remove the display data cable retainer.

Step 13



- Remove the two outer 6.8 mm T6 Torx screws from each of the two display brackets (four screws total).
- ⓘ We purposely have you leave one screw attaching each display bracket to the upper case to aid in future steps.

Step 14



- ★ Open your MacBook Pro so the display is perpendicular to the upper case.
- ⓘ Place your opened MacBook Pro on a table as pictured.
- While holding the display and upper case together with your left hand, remove the remaining T6 Torx screw from the lower display bracket.

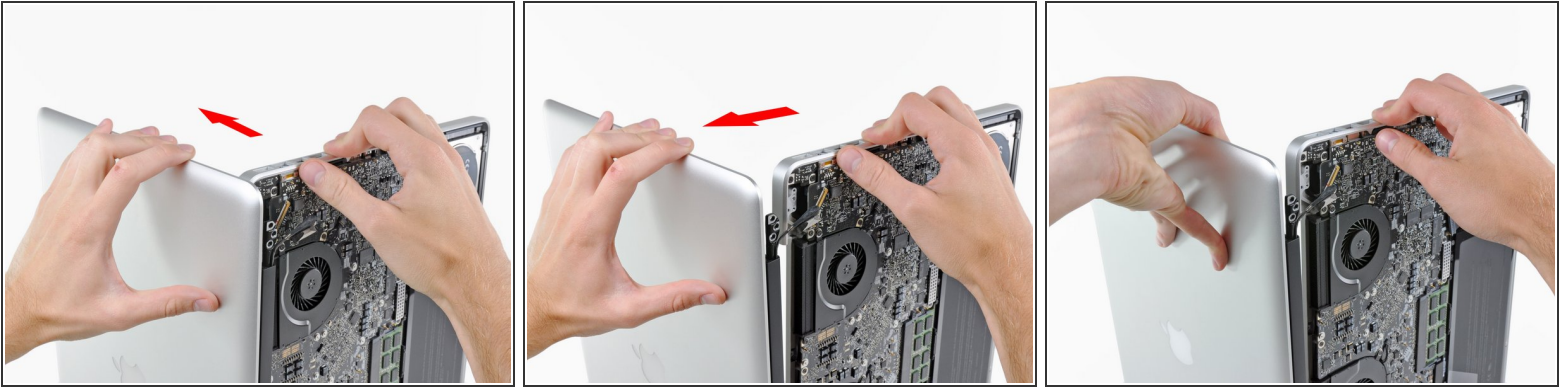
Step 15



⚠ Be sure to hold the display and upper case together with your left hand. Failure to do so may cause the freed display/upper case to fall, potentially damaging each component.

- Remove the last remaining T6 Torx screw securing the display to the upper case.

Step 16



- Grab the upper case with your right hand and rotate it slightly toward the top of the display so the upper display bracket clears the edge of the upper case.
 - Rotate the display slightly away from the upper case.
 - Lift the display up and away from the upper case, minding any brackets or cables that may get caught.
- ✦ During reassembly, fit the display into place and install the display bracket Torx screws, then close the lid and lay the laptop upside-down to check the alignment of the screen to the body. If necessary, loosen the screws and realign the display before tightening.

Step 17 — Clutch Cover



- Grab the clutch cover as shown and slide it toward the right side of the display.

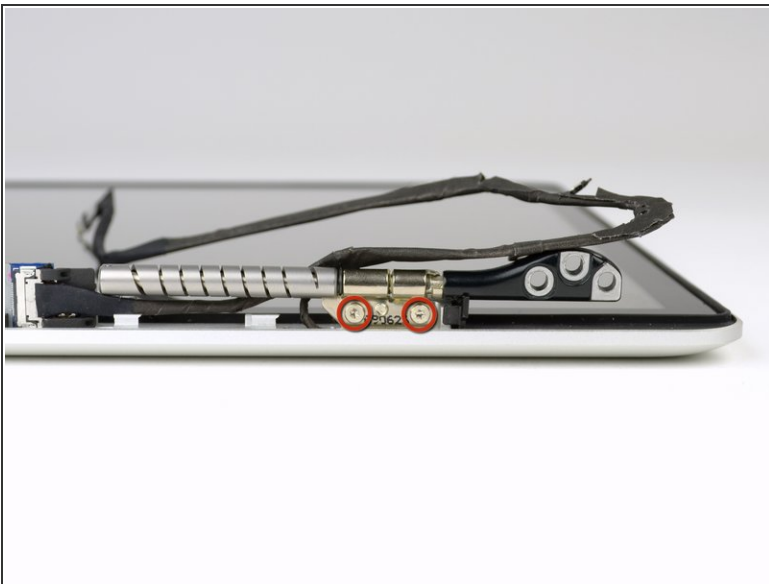
i It should move about 1/4" and stop. Don't force it beyond this point.

Step 18



- Lifting the left edge of the clutch cover, gently rock it back and forth on its long axis while pulling it away from the display.
- Remove the clutch cover from the display, minding any cables that may get caught.

Step 19 — Right Clutch Hinge



- Remove the three 5.2 mm T6 Torx screws securing the right clutch hinge to the display assembly.

Step 20



- Remove the right clutch hinge from the display assembly.
- Remove the plastic hinge guard as well, making sure to not lose it.

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