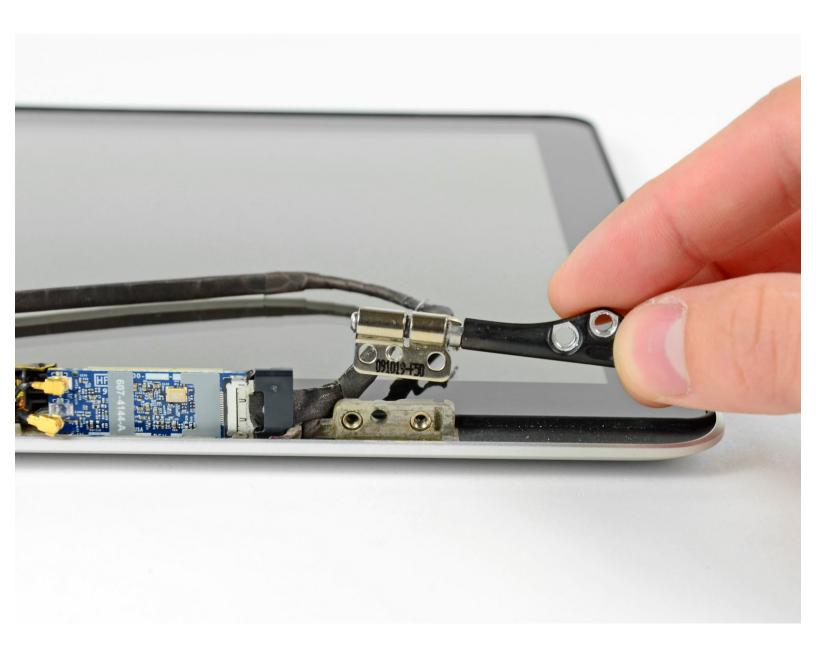


MacBook Pro 13" Unibody Mid 2010 Right Clutch Hinge Replacement

Replace a broken right clutch hinge on your MacBook Pro 13" Unibody Mid 2010.

Written By: Andrew Bookholt



INTRODUCTION

Use this guide to replace a broken right clutch hinge.



TOOLS:

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

Step 1 — Remove the lower case screws



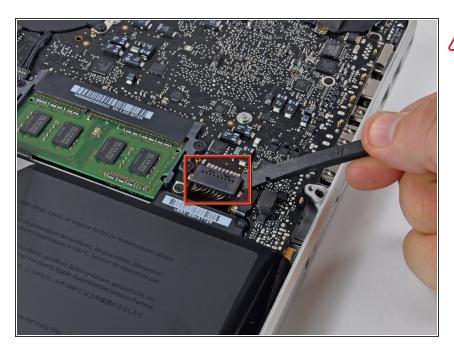
- Remove the following 10 screws securing the lower case to the MacBook Pro 13" Unibody:
 - Seven 3 mm Phillips screws.
 - Three 13.5 mm Phillips screws.

Step 2 — Lift the lower case away



 Slightly lift the lower case and push it toward the rear of the computer to free the mounting tabs.

Step 3 — Battery



- For precautionary purposes, we advise that you disconnect the battery connector from the logic board to avoid any electrical discharge.
 - Use the flat end of a spudger to lift the battery connector up out of its socket on the logic board.

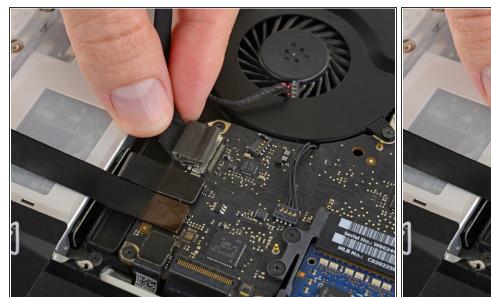
Step 4 — Display







- Use the flat end of a spudger to pry the subwoofer/right speaker cable connector up off its socket on the logic board.
 - A Be very careful to pry under the connector as shown, and not under the socket itself. Otherwise you may accidentally separate the socket from the logic board.

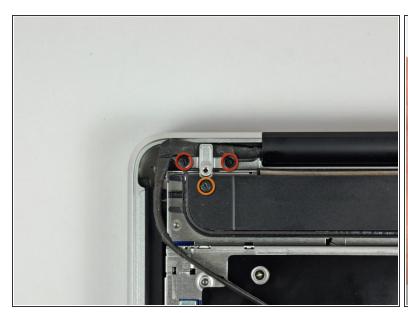


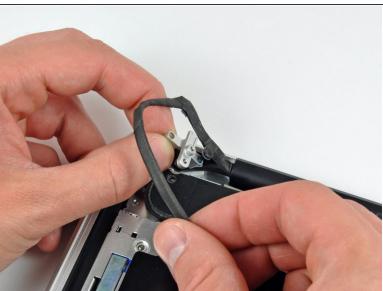


- Disconnect the camera cable by sliding it horizontally out of its socket.
 - Pull the cable parallel to the surface of the logic board, in the direction of the optical drive. Do **not** pull straight up, or you will destroy the connector.
 - If you see a <u>small plastic retainer</u> stuck to the logic board that prevents the camera cable from sliding out, peel it up carefully from the logic board. Apply a little heat from a hair dryer or heat gun if necessary to help soften the adhesive holding it in place. **Do not** attempt to forcibly disconnect the cable with the retainer in place.
 - If you still have trouble, use the point of a spudger to push at each side of the connector and <u>"walk" it slowly from its socket</u>.

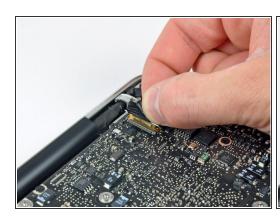


 De-route the camera data cable from the channel in the optical drive.





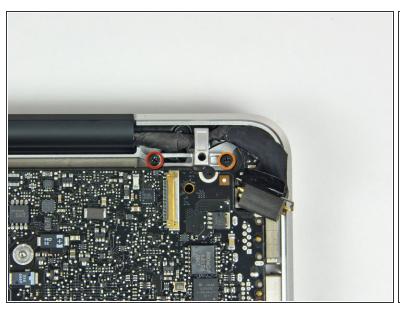
- Remove the following screws securing the camera data cable and right speaker to the upper case:
 - Two 8 mm Phillips screws.
 - One 4mm Phillips screw.
- (i) One of the 8 mm Phillips screws will likely remain captive in the camera cable ground loop.
- Slide the camera cable bracket out from under the subwoofer and remove it from the computer.

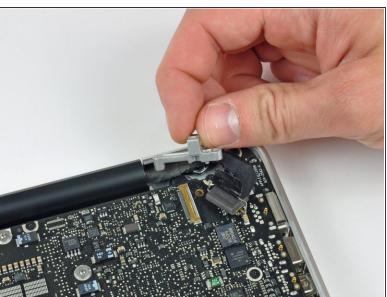




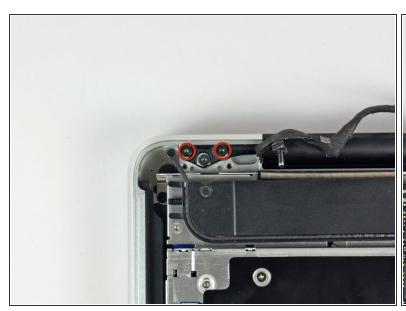


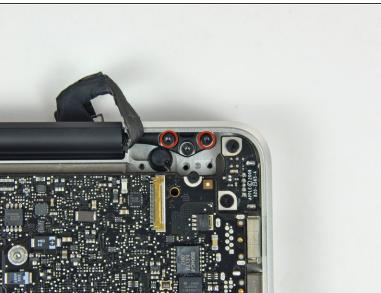
- Grab the plastic pull tab secured to the display data cable lock and rotate it toward the DC-in side of the computer.
- Pull the display data cable connector straight away from its socket.
- (i) Make sure to pull the connector straight away and not straight up from its socket.





- Remove the following two screws securing the display data cable bracket to the upper case:
 - One 7 mm Phillips screw.
 - One 5 mm Phillips screw.
- Lift the display data cable bracket out of the upper case.





- Use your Torx driver to remove the two outer 6.5 mm screws securing each of the two display brackets to the upper case (4 screws total).
 - (i) Mid 2009 models require a T6 Torx driver, while Mid 2010 models require a T8.



- Open your MacBook so the display is perpendicular to the upper case.
- Place your opened MacBook on a table as pictured.
- While holding the display and upper case together with your left hand, use your Torx driver to remove the remaining 6.5 mm screw from the lower display bracket.



- 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 6 mm
 Torx screw securing the display to the upper case.





- 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.

Step 15 — 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.



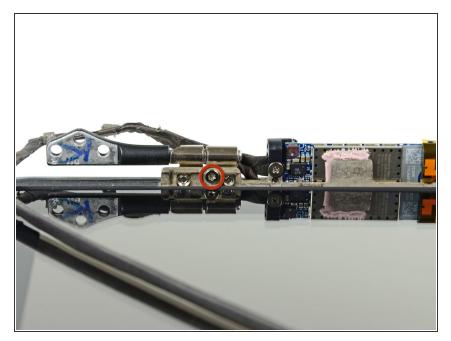
- Gently rock the clutch cover back and forth on its long axis while pulling it away from the display.
- Do this action along the length of the clutch cover until you can lift it off the framework attaching it to the display.

Step 17



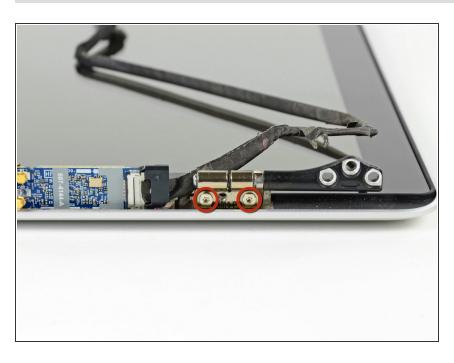
Remove the clutch cover from the display.

Step 18 — Right Clutch Hinge

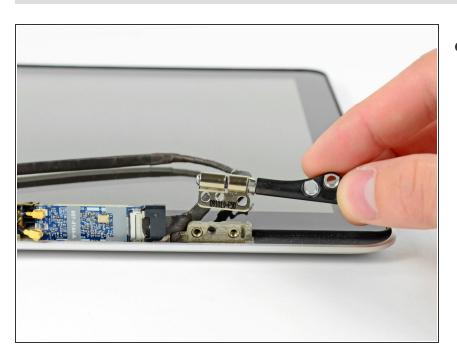


 Remove the single 5.2 mm T6 Torx screw securing the right clutch hinge nearest the display glass.

Step 19



 Remove the two remaining 5.2 mm
 T6 Torx screws securing the right clutch hinge to the display.



Remove the right clutch hinge.

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