



MacBook Core 2 Duo Battery Connector Replacement

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INTRODUCTION

Charges battery and connects battery to logic board.

TOOLS:

- [Coin](#) (1)
- [Phillips #0 Screwdriver](#) (1)
- [Phillips #000 Screwdriver](#) (1)
- [Phillips #00 Screwdriver](#) (1)
- [Spudger](#) (1)

PARTS:

- [MacBook Battery Connector/Sleep Sensor \(non-Energy Star\)](#) (1)
- [MacBook Battery Connector/Sleep Sensor \(Energy Star\)](#) (1)

Step 1 — Battery



- Use a coin or spudger to rotate the battery-locking screw 90 degrees clockwise.

Step 2



- Lift the battery out of the computer.

Step 3 — Memory Cover



- Unscrew the three evenly-spaced Phillips screws from along the rear wall of the battery compartment.
- ☑ The screws are captive to the metal memory cover so you cannot lose them.

Step 4



- Rotate the L-shaped memory cover so it clears the battery compartment opening and lift it up and out of the computer.

Step 5 — Upper Case



- Remove the following 3 screws:
 - One 11 mm Phillips#00 in the middle of the case. (Head: 5mm dia. x .75mm thick)
 - Two 14.5 mm Phillips #00 (Head: 5mm dia. x .75mm thick)
- ⓘ If the screws stick in the case, you can use a magnetized screwdriver to draw them out.
- ☑ The shorter of the three screws goes in the middle.

Step 6



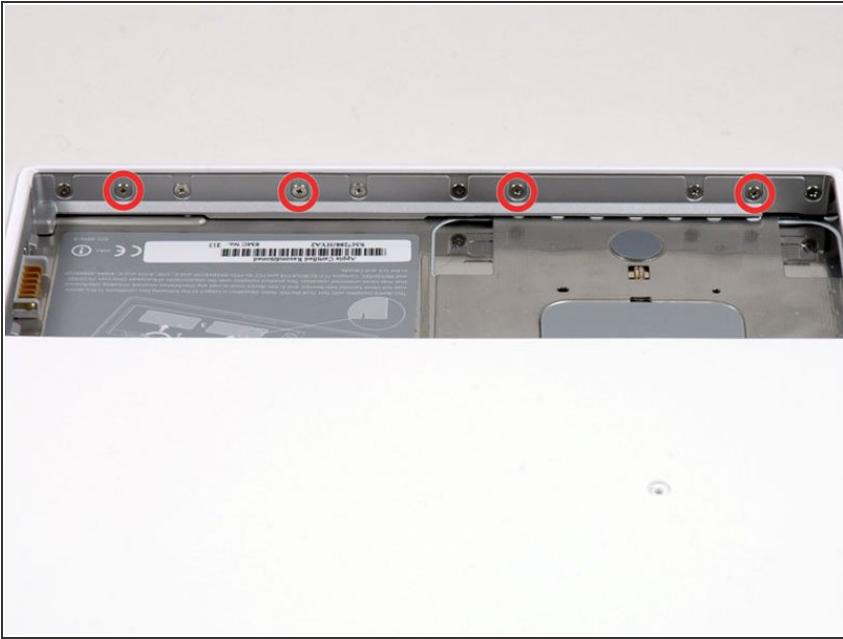
- ⚠ Take extra caution with these screws as they can strip easily!
- Remove the following 3 screws from the rear wall of the battery compartment:
 - One 3 mm Phillips #0. (Head: 2.75 mm. dia.)
 - Two 4 mm Phillips #0 on the either side. (Head: 2.75mm dia.)

Step 7



- Remove the two Phillips screws from either side of the right wall of the battery compartment (not the ones closest to the battery connector).
- Two 6.25 mm Phillips #000.
(Head: 4 mm. dia. x .5mm thick)

Step 8



- Remove the four indicated Phillips screws from the front wall of the battery compartment. When working from the left, remove the 2nd, 4th, 7th and 9th screw.
- Four 3.25 mm Phillips #000.
(Head: 4 mm. dia. x 4mm thick)

Step 9



- Remove the following 4 screws from the back of the computer:
- The longer screws go on the inside, shorter screws on the outside.
- Two 11 mm Phillips #00, with Shank (2.2mm dia. x 2 mm len.)
(Head: 3.2 mm. dia. x .5mm thick)
- Two 7.25 mm Phillips #00, with Shank (2mm dia. x 3.75 mm len.)
(Head: 3.2 mm. dia. x .5mm thick)


Step 10




- Remove the two Phillips screws from the optical drive side of the computer.
 - Two 5.2 mm Phillips #00, with Shank (2.3mm dia. x 3.5 mm len.) (Head: 3.2 mm. dia. x .5mm thick)
- ⓘ It is not necessary to remove the similar screws on the other side of the computer.


Step 11



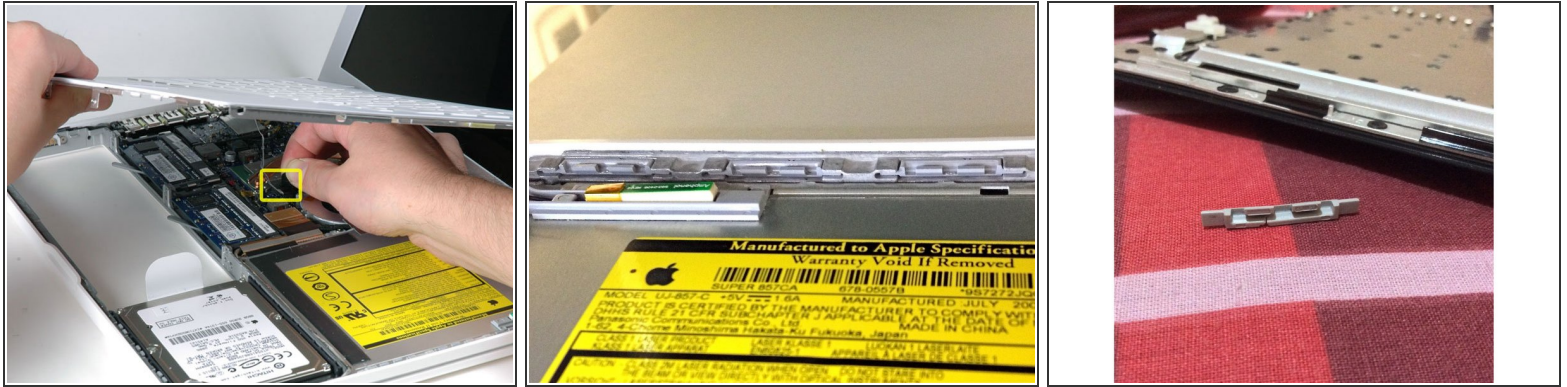
 There's a trackpad and keyboard ribbon connecting the upper case to the logic board, so don't pull the upper case off entirely just yet.

- Starting near the display and working around to the front of the computer, pry up on the upper case. A [plastic opening tool](#) or a medium hard guitar pick may help you to do this.

 The upper case is likely to stick at the connection above the optical drive. If this is the case, first free all other sides, then proceed to pull upward on the upper case from either side of the optical drive opening.

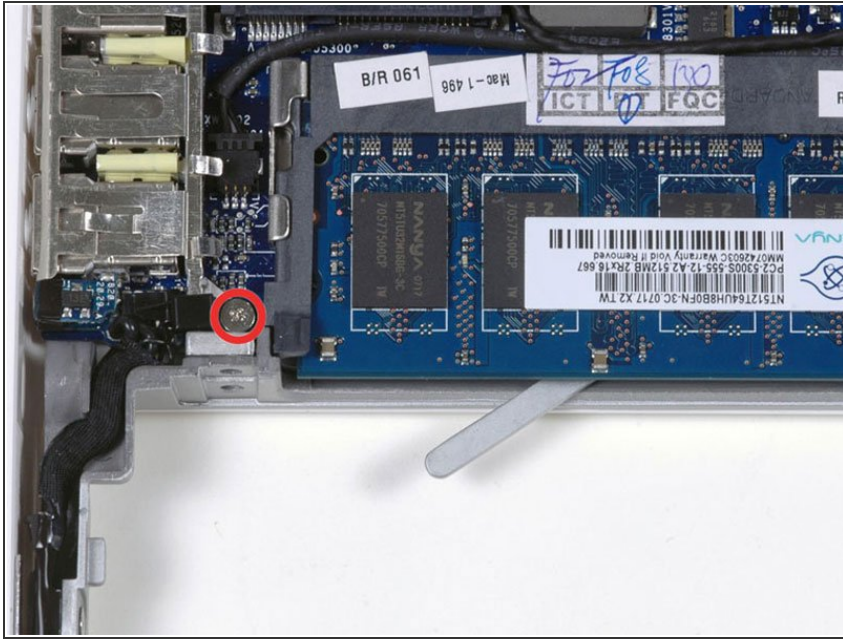
 If you stand the base on end to get a better look you may displace the total of 4 grey plastic clips that hold the keyboard in place. Don't panic. They slide into slots at the top right-most edge near the CD drive.

Step 12



- While holding up the upper case, pull up the black tab of the silver cable away from its connector.
- ⓘ If there is no black tab, you can also use a spudger to gently pry the connector from its housing. This connector is tall, so be sure to pry straight up.
- ⓘ If you happen to break your upper case cable when removing the upper case, we stock the [cable](#) individually and we have a [guide](#) that makes replacing it easy.
- While you have the upper case removed, you may want to take the opportunity to remove dust, hair, etc. It's best to use a can of compressed air, though if you use a brush, make sure that its bristles are made of a material (usually animal hair) that doesn't generate static electricity, which can destroy electronics.
- ⓘ Upon reassembly, there are 4 grey plastic clips on the optical drive side of the keyboard (refer to second picture). They must be installed in their slots for the keyboard to snap in properly.
- ⓘ To make the reassembly process easier, it's better to pull out the clips first by pulling it straight up gently. Be careful not to put too much strength because it will break.

Step 13 — Battery Connector



- Remove the single Phillips screw near the battery connector.

Step 14



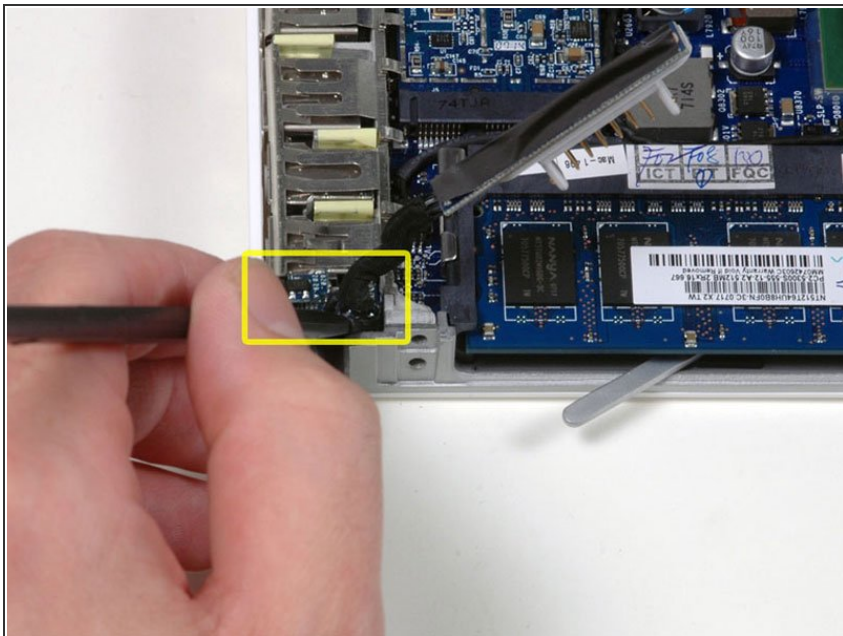
- Remove the small black plastic spacer from the computer.
- ⓘ Penryn models do not have a removable spacer.

Step 15



- Remove the two Phillips screws attaching the battery connector to the lower case.

Step 16



- Use a spudger to carefully pry the battery connector up and disconnect it from the logic board.
- ⓘ In models that don't have a removable black spacer, you may need more clearance to unplug the battery connector from the logic board. Remove the screw at the middle of the left I/O frame, then lift up the lower end of the I/O frame. If removing this screw doesn't give you enough clearance, remove the I/O frame.

- Look at the pinout on the bottom of the battery connector circuit board. If there's no gap in the two rows of pins (if both rows contain ten pins), it's the Non-Energy Star version. If there is a gap (two rows of six pins each, separated from two rows of three pins each), then it's the Energy Star version. These two versions aren't interchangeable.
- ⓘ When reinstalling/replacing the battery connector, make sure to route its short black cable into the channel provided for it in the lower case frame, or else it might press upward on the left edge of the top case at this location, preventing the top case from laying flat here.

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