



# Installing PowerBook G4 Aluminum 15" 1-1.5 GHz Keyboard

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## Tools used in this guide

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

## Parts relevant to this guide

- [G4 Aluminum 15" 1/1.25/1.33/1.5 GHz Keyboard \(Non-backlit\)](#) (1)
- [G4 Aluminum 15" 1/1.25/1.33/1.5 GHz Keyboard \(Backlit\)](#) (1)

This guide shows the hidden screws you must remove when replacing the keyboard.



## Step 1 — Battery

- Use a coin to turn the battery locking screw 90 degrees clockwise.
- Lift the battery out of the computer.



## Step 2 — Upper Case

- Remove the four Phillips screws from the memory door.
- Slide the memory door away from the memory compartment.



## Step 3

- Remove the following 8 screws:
  - Two 3 mm Phillips in the battery compartment, on either side of the battery contacts.
  - Two 9 mm Phillips on either side of the memory compartment.
  - Four 16 mm Phillips along the hinge.



## Step 4

- Rotate the computer 90 degrees clockwise, so that the power receptacle faces you.
- Remove the three 3 mm Phillips screws.
- When replacing these screws, you must place each screw in the correct order. Begin by installing the screw closest to the display hinge, and go out from there.





## Step 5

- Turn the computer 90 degrees clockwise so that the hinge faces you.
- Remove the bottom 5 mm Phillips screw on either side of the hinge (two total).



## Step 6

- Rotate the computer 90 degrees clockwise, so that the ports face you.
- Remove the three 3 mm Phillips screws.
- When replacing these screws, you must place each screw in the correct order. Begin by installing the screw closest to the display hinge, and go out from there.





## Step 7

- Turn the computer over and open the display.
- Remove the 4.2 mm 1/16" H 1.5 hex screws in either corner, next to the display (a T6 Torx driver will also do the job nicely).




## Step 8

- This step covers the hardest part to get inside this computer. Take a deep breath and think happy thoughts. 
- Grasp the back corners of the upper case and pull up, disengaging hidden tabs on the sides. Do not pull the upper case off yet; you still need to free tabs in the front of the case.
- The seam is beneath the plastic molding on the upper case. 




## Step 9

- There is one latch that stops you from pulling the upper case right off, located on the left side of the optical drive slit. To free the upper case, you will be pulling a thin metal latch toward you, freeing it from the clasp holding it in place. 
- Pry up the left side of the upper case slightly with your hand and wedge a spudger into the seam between the upper case and lower case.
- Leave the tool in place applying pressure to the upper case for the next step.



## Step 10

- Place enough pressure on the upper case to allow you to slide a tool just within the seam between upper case and lower case as shown in the picture. A dentist's hook, push pin, or similar tool will work.
- Do not yank the upper case off as soon as you free the clasp. The case is attached to the logic board via two ribbon cables. 
- Delicately slip the tip of your tool behind the silver metal latch and pull it forward while pulling up on the case. This may take some effort.
- Alternatively, you can free the clasp with a small flathead screwdriver through the CD slot. The clasp is 1-3/16 in (3cm) from the left side of the slot. Use the screwdriver to lift out (or press back) the felt lining; then use the screwdriver to pull the clasp (shiny metal) forward to free it from the catch behind it (dull metal).



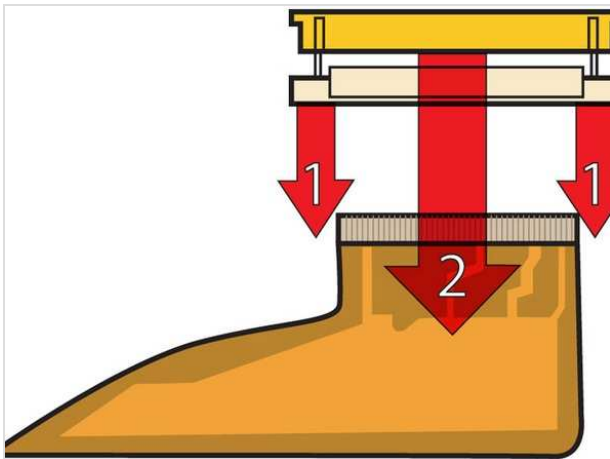
## Step 11

- Lift the back of the case up and work your fingers along the sides, freeing the case as you go. Once you have freed the sides, you may need to rock the case up and down to free the front of the upper case.
- Rotate the upper case up and toward the screen, so that the upper case rests against it.




## Step 12

- Remove the orange tape securing the trackpad ribbon to the logic board.
- Disconnect the trackpad ribbon from the logic board.




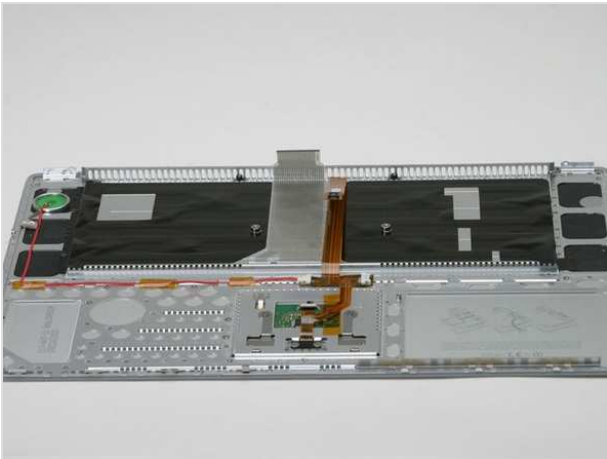
## Step 13

- This is a diagram of the keyboard ribbon clamp connector you will disconnect in the next step. 
- 1) With your fingernails, grasp the locking bar on either side and pull up a small amount (about 1/16" or 2 mm).
- 2) After disengaging the locking bar, slide the cable out of the connector.



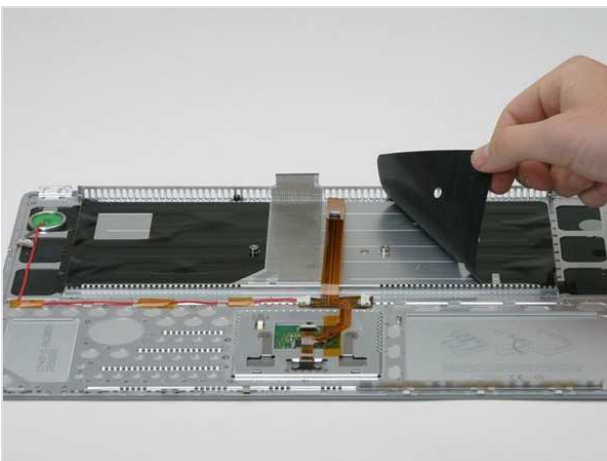
## Step 14

- Loosen the keyboard ribbon clamp by pushing the thin black piece toward the screen, using the tips of your fingers.
- The black piece is very fragile and easily broken. Use care when separating it from the main socket. 
- Slide the grey keyboard ribbon out of the loosened connector.
- Remove the upper case from the computer.




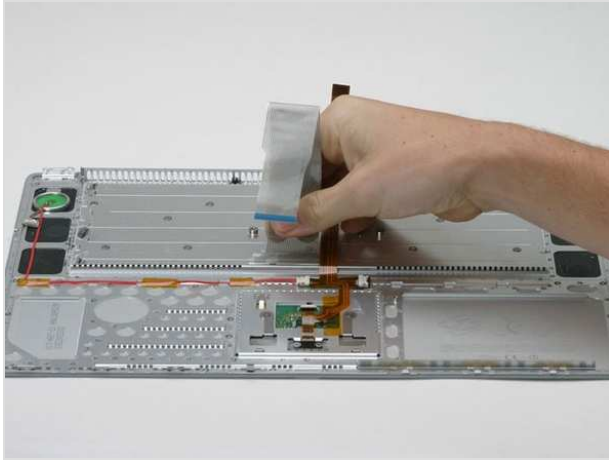
## Step 15 — Keyboard

- Your laptop should look approximately like this.



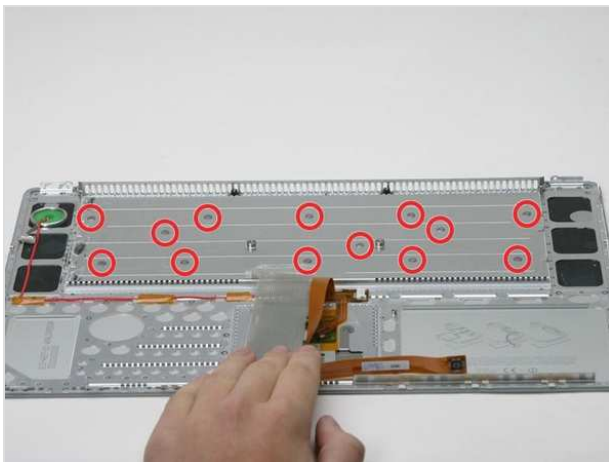
## Step 16

- On the following step, be careful with the tape on the side of the keyboard with the green power button, as the tape may stick and tear. 
- Peel back the black plastic shielding on either side of the keyboard (there are two pieces).



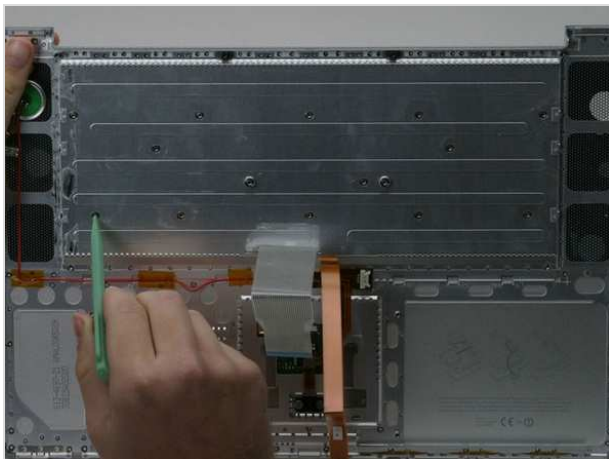
## Step 17

- Peel back the grey keyboard ribbon from the metal casing.



## Step 18

- Remove the 13 identical Phillips screws attaching the keyboard to the casing.



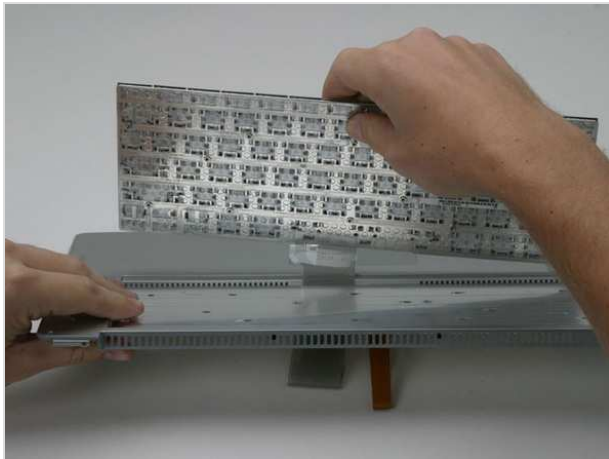
## Step 19

- Place the upper casing on edge and use a spudger to push the keyboard away from the casing, poking the spudger through the holes where the screws were.



## Step 20

- Lay the casing flat so that the keyboard faces up and slowly pry the keyboard up, beginning at the back edge along the 'F' keys, and moving toward the space bar.



## Step 21

- Pull the freed keyboard directly up, minding the cable as it slides through the slot in the casing (watch out for the adhesive on the underside of the case).


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


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# Aluminum 15" Screw Guide

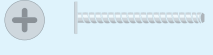



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 RAM shield  
4 Phillips screws


 Upper Case bottom (red)  
2 Phillips

 Upper Case bottom (orange)  
2 Phillips

 Upper Case bottom (yellow)  
4 Phillips

 Upper Case (sides)  
6 Phillips

 Upper Case (back)  
2 Phillips

 Upper Case (top)  
2 T6 Torx

↙ ↘





To organize your screws, simply place each screw in the appropriate box as you remove them from your laptop.


If you are not planning on immediately reassembling your laptop, you may want to tape the screws to this paper.


Due to model variations, the screws you remove may differ slightly from this guide.


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 Keyboard  
13 Phillips


 Optical Drive (right)  
2 Phillips

 Optical/Hard Drive (bracket)  
2 Phillips

 HD Replacement  
4 Phillips

 Modem  
2 Phillips


 Display (back)  
2 Phillips

 Display (inner)  
2 T8 Torx


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↓



Display (outer)  
2 T8 Torx




Left Fan  
4 Phillips




Logic Board (red)  
6 Phillips

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Logic Board (orange)  
2 Phillips



Logic Board (yellow)  
3 Phillips



Right Fan  
3 Phillips



Speakers  
3 Phillips


↙ ↘



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Speakers  
1 4mm nut

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PC Card Cage (right)  
2 Phillips




PC Card Cage (left)  
2 Phillips


↓




Airport Card Cage  
4 Phillips



Right USB Board  
2 Phillips



Heat Sink (red & orange)  
6 Phillips



Heat Sink (yellow)  
1 Phillips



