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Powerbook G3 Pismo (2000) Firewire Repair Manual

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This manual is presented as a guide in order to help you repair problems on your powerbook. Working on a powerbook can be dangerous if not done properly. We at Powerbookmedic.com take no responsibility for any damage or harm done to yourself or your powerbook as a result of reading this guide.

Suggestions for making this manual better? Email: sales@powerbookmedic.com

Identifying the Pismo Powerbook

If the writing under your display only has the word “Powerbook” as shown, then you have a Pismo.



The design of the rear ports is as in the picture below. Note the two Firewire and USB ports. Of all the G3 powerbooks, only the Pismo G3 has firewire ports.



Identification of Parts



Display / TFT / Screen



Logic / Motherboard



Heat Sync /Transfer



Processor /Daughter Board



Heat Shield



Power / Charger Board



Sound / AC Board

Required Tools

Torx T8 Screwdriver – available from www.powerbookmedic.com



Flathead Screwdriver & or Philips Head Screwdriver



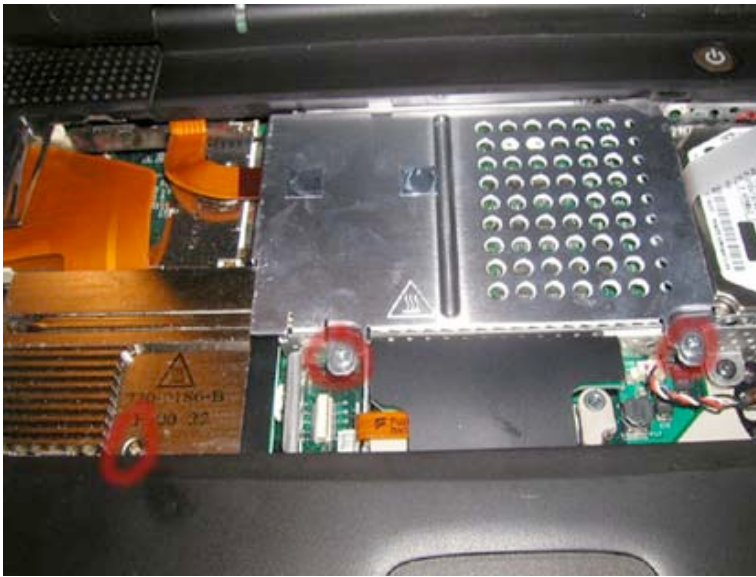
Keyboard and Processor Removal



Pull the two keyboard tabs back and flip the keyboard back. (Flip back the keyboard while pressing in the two tabs. The picture only shows the left hand tab being pulled back.)



Grab the keyboard ribbon cable with thumb and forefinger, and gently wiggle from side to side to undo it from its motherboard connector.



Remove the three Philips screws as shown. (Note that the one on the far left is longer and will take more time to remove than the other two.)



Using a torx T8 screwdriver (available from www.powerbookmedic.com) remove the two screws from the processor as shown. (Replacement note: Don't get the two torx screws confused with the Philips screws in the previous step.)



The processor heat shield should now be removed. If it is difficult to remove, use a flathead screwdriver to gently pry it up as shown.

Processor Removal

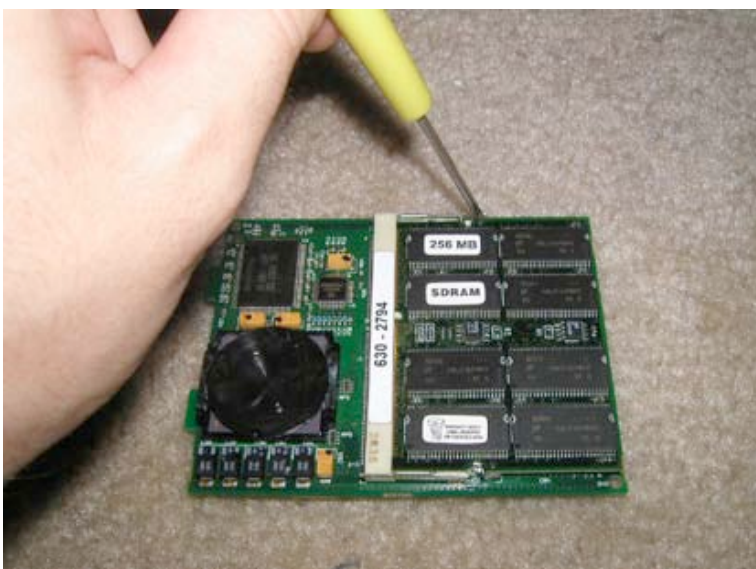


To remove the processor, put the flathead screwdriver on the right hand side of the processor as shown. Then gently pry up until the processor pops out. *Do not use too much pressure. If the processor does not easily come out, simply try another location in the bottom right hand corner. It should be relatively easy to pop out.



Remove the processor as shown, and place on a static free surface.

Ram Replacement



Note – To change the ram in the upper slot you do not need to remove the processor. You only need to for the bottom slot. Using either a flat head screwdriver or your fingernail, pry back the metal fasteners holding in the ram as shown. Do this on each side. It's easier if you do them at the same time. To install new ram, align the grooves, slide in, and push

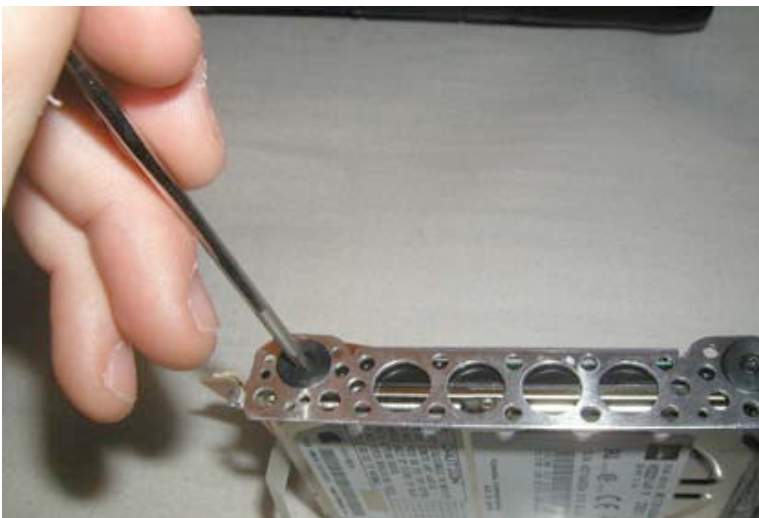
Hard Drive Removal & Replacement



Using your thumb and forefinger, grab the orange cable as shown in the picture, and gently wiggle back and forth until the cable is loose. You should now be able to pull the hard drive out using the plastic tab.



*Note: If the hard drive does not come out easily, then the hard drive sled may be holding it in on the back near the power button. If this is the case, use a flathead screwdriver as shown to pull the cage towards you while lifting from the plastic tab. The hard drive and cage should now come out.



Remove the four black Torx screws (2 on each side) with your Torx T8 Screwdriver.

Then remove the hard drive cable and hard drive from the hard drive



orange cable going to the hard drive. To do this, grab the cable as shown, and gently pull straight up. Note: If you use too much force or do not pull straight up, then you will bend some of the pins and will have to straighten them with a flathead screwdriver later.

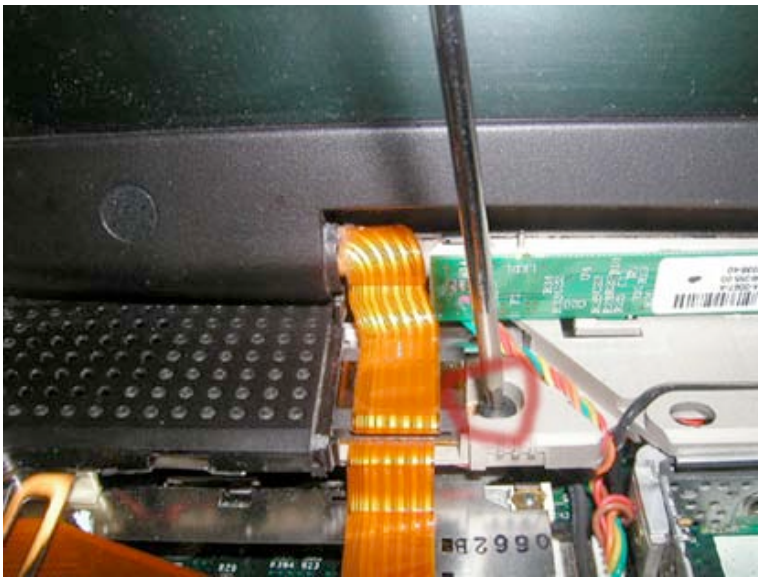
Screen Removal and Replacement



Tilt the display back, and pull the power button clutch cover upwards. (This can sometimes take a lot of force. The more tilted the display, the easier it is to take off.)



Using your Torx T8 screwdriver, remove the four flathead torx screws on the back of the unit as shown. (Replacement Note: These four screws have flat heads, not the rounded heads like the other torx screws, do not get them confused.)



Now, remove the round torx screw next to the ribbon cable as shown.



Using your thumb and forefinger, grab the inverter board as shown, and gently push it towards the display and up. It will snap right out with ease. Do this on the left hand and right hand sides of the inverter. There are two snaps. Grab the cable from the inverter as shown, and in a gentle wiggling motion, remove the cable from its connector.



Then, grabbing the orange cable as shown, remove it from its connector. Repeat for the multi colored inverter cable.



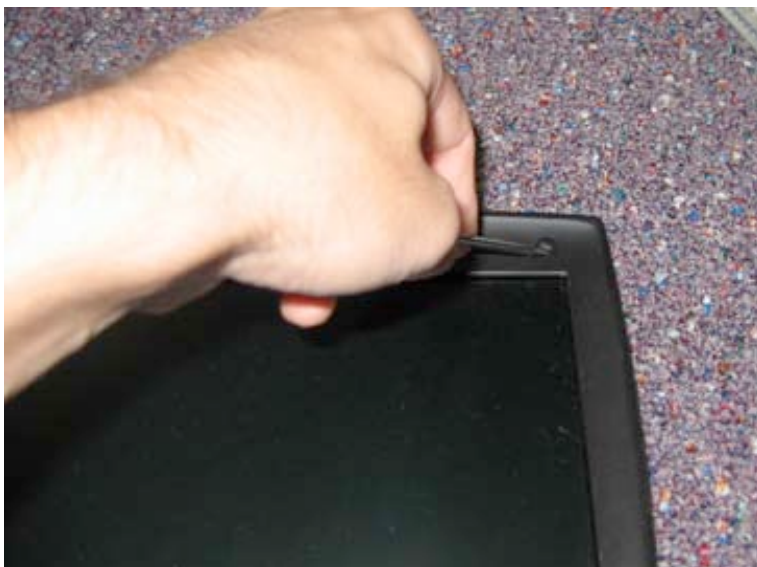
Now, pull the display back up so it is perfectly vertical. Place your hands on the right hand and left hand side of the monitor, and lift the display out of the casing.

Display Disassembly

Skip this section if you are repairing something other than the display!



To begin, there are six screws that need to be removed from the front of the display. These screws are located at the positions shown in red. Note that at each of these locations there is a screw covering that must first be removed to get to the screws. The top four screws have a rubber stopper, and the bottom two screws have a very thin plastic covering.



Begin by removing the screw coverings. This is done by getting a flat head tool (such a flathead screwdriver or plastic nylon tool) and prying up from the sides of the coverings as shown. They should come out easily.



Be careful with the bottom two coverings. These are very flimsy and easily damaged. (If damaged, it is only a cosmetic issue.)



Now, remove the 6 philip head screws located at the 6 positions under the screw coverings.

With the screws removed, you can remove the back lid of the display.



Start at a bottom corner, and pull the back lid apart from the top lid. You will have to use a little force to pull the back lid off. You may also need to start off by prying the two pieces apart with a flathead screwdriver or nylon tool if you are having a great deal of trouble.



Put the back lid aside.



Right Hinge

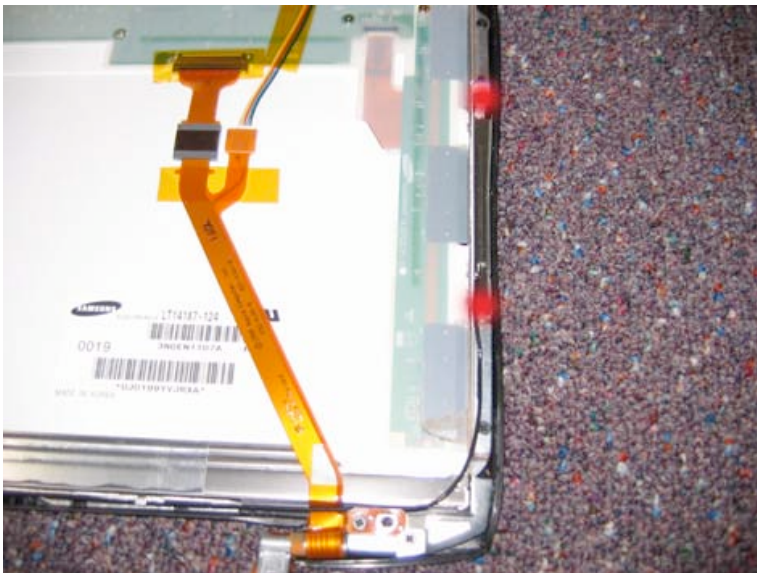
The right hinge is simple to replace.
First remove the 4 philips head screws in
the positions shown.



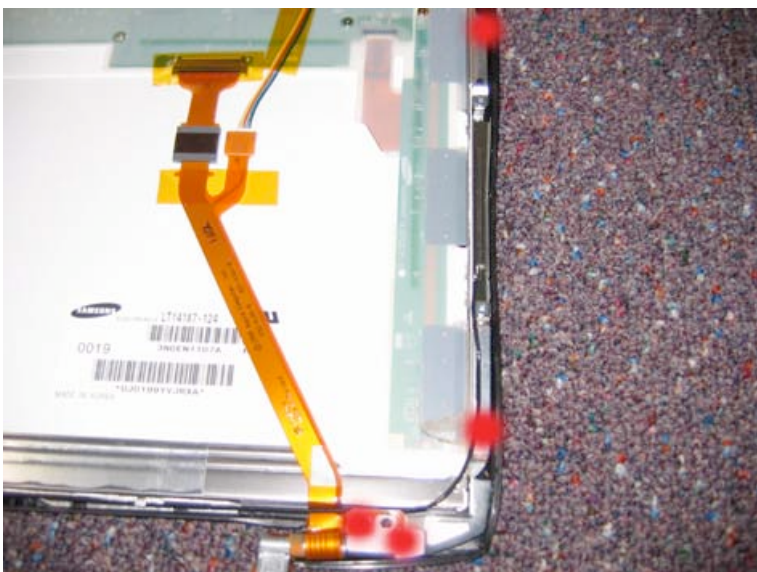
Pull the display apart from the front
bezel two reveal two torx T8 screws.
Remove these.



The hinge will come out easily.



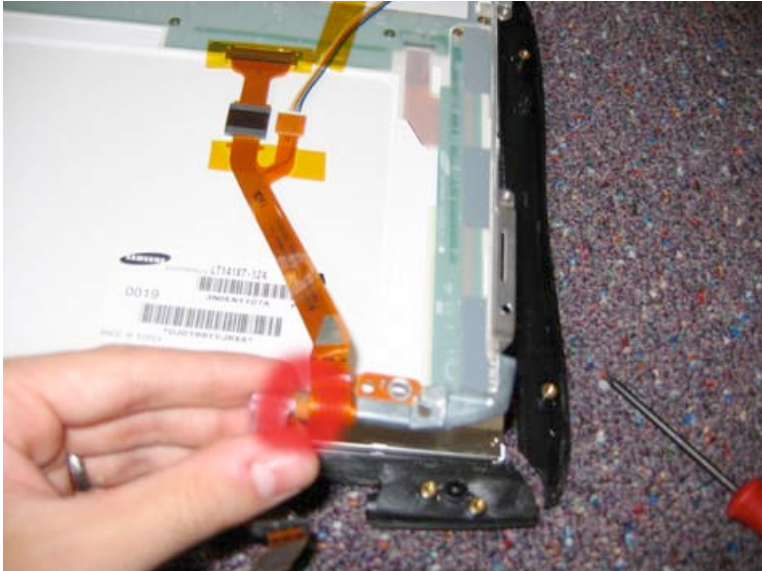
First remove the two silver Philips head screws on the metal piece that the airport cable runs to. (You need to remove these now or they will be very difficult to remove later. (If only replacing the display cable, you don't need to remove these screws!))



Remove the 4 philips head screws in the positions shown.



Pull the display apart from the front bezel two reveal two torx T8 screws. Remove these.



You need to remove the display cable from the hinge to replace the hinge. Begin by finding a strip of orange tape in the location shown.



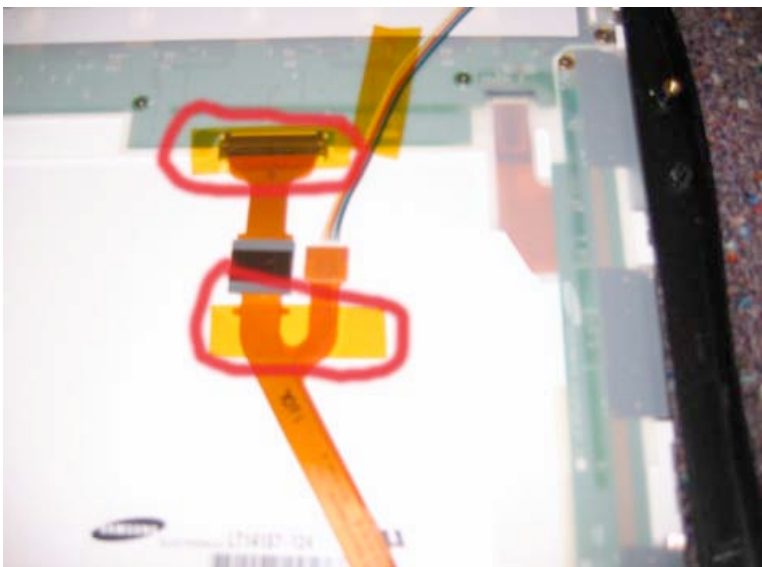
Pull this strip of tape around and around until it comes off of the hinge.



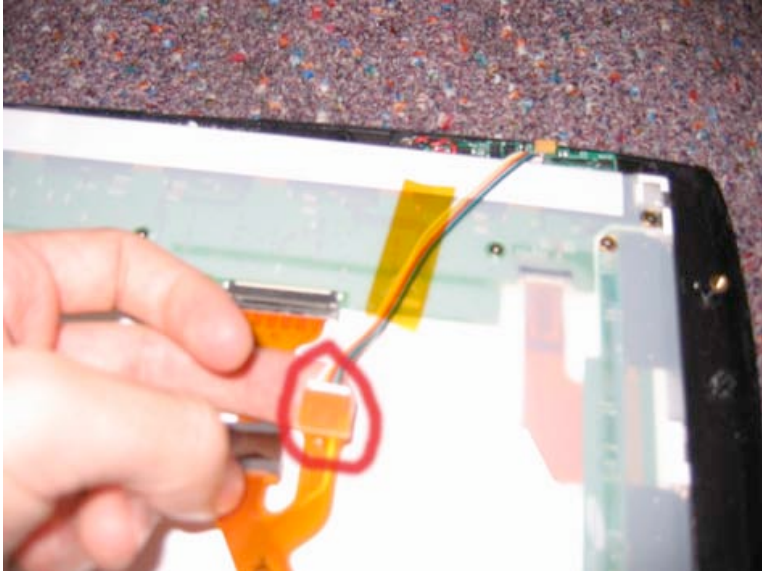
Unwrap the cable from the hinge by pulling the cable towards you and then under the hinge.



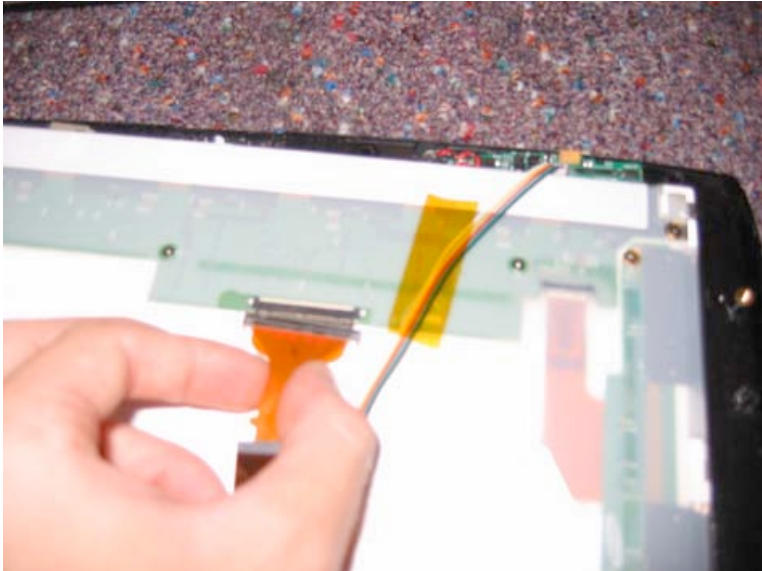
Pull the cable off the hinge, and the hinge will be free to replace, or you can continue to remove the display cable and LCD.



Remove the two pieces of orange static tape in the locations shown.

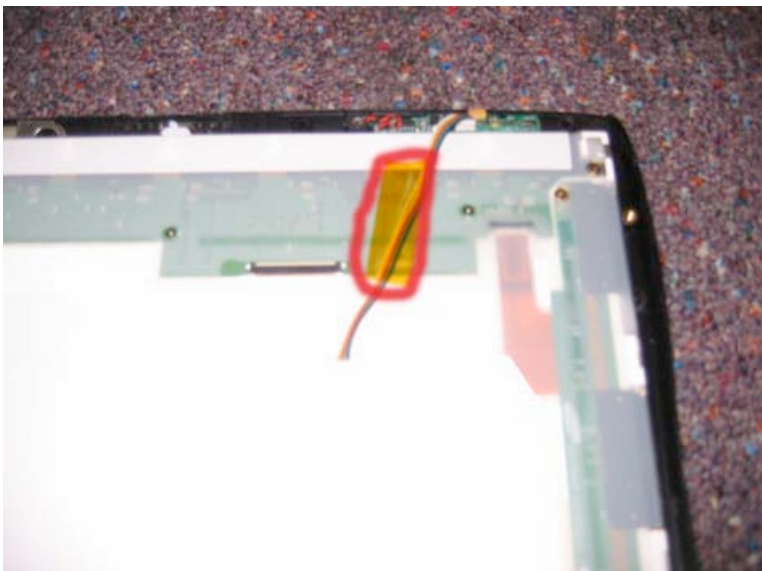


Remove the multicolored cable from the orange display cable.



Now disconnect the display cable from the LCD.

The Display cable can now be set aside or replaced.



LCD Removal

Remove the piece of orange static tape in the location shown.



The LCD will now easily lift up and out of the front bezel.

Bottom Casing Removal



Modem Removal

Remove the black torx screw as shown.

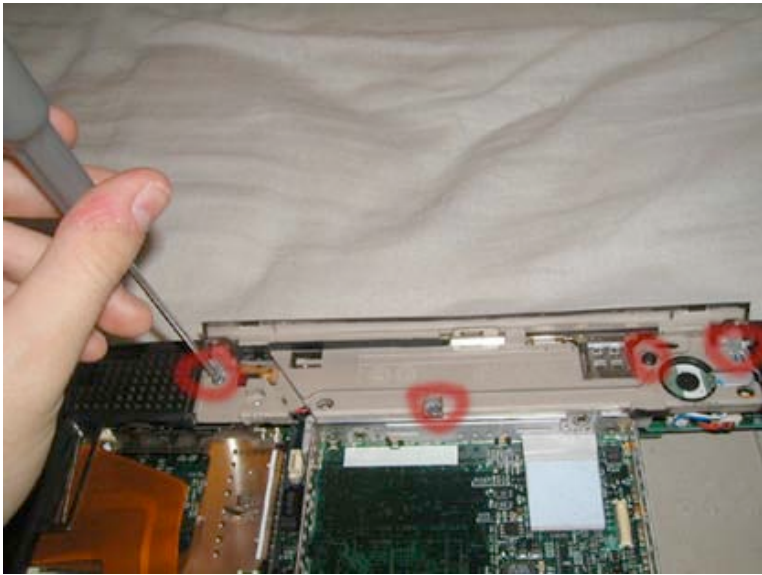


Then using a flathead screwdriver, gently pry up the modem as shown.



After the modem is loose, remove the cable from the modem, and place the modem on a static free surface.

Trackpad Removal



Remove the 4 torx screws as shown.
(There are 3 long silver screws, and 1 short black one.)



Using your forefinger, slide the black plastic sheet from under the trackpad as shown.



This reveals the orange trackpad cable.
Using your thumb and forefinger, gently wiggle the orange connector cable from its connector.



Pull this cable back to expose one silver screw. Using your torx T8 screwdriver, remove this screw along with the visible one to the right of it. (Both are long silver screws.)



Remove the last torx screw as shown.



Remove the seven torx screws as shown. (Replacement note, the two longer torx screws go on the far left and right hand side of the area under the trackpad as shown)



Remove the two cables from the Sound AC board as shown. (Note these are harder to remove than previous cables. Using needle nose pliers, and grabbing on to the connector and then pulling towards you may help. If you do this, remember to be gentle.)



The casing will now easily come off. Work your way around the entire unit pulling up on the casing as shown. Start at the back right-hand corner, and work your way around to the back left-hand corner. Be gentle. If it doesn't come up easily, then double check to make sure you didn't miss a screw.



Before the trackpad can come off, you must remove the orange airport cable. Using your thumb and forefinger, Gently wiggle off the airport connector from the motherboard.

Now the trackpad can be taken off.

Charger Board Replacement



Remove the two long sliver screws from the charger board as shown.

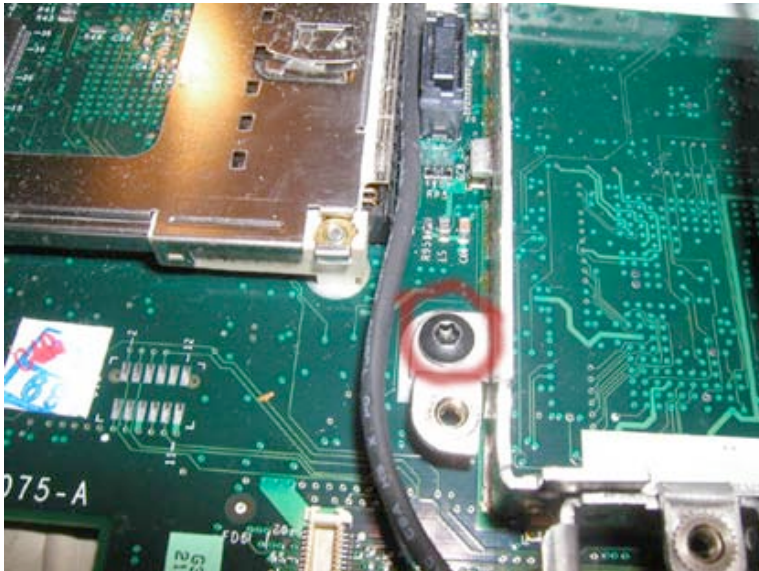


Then, grab the charger board as shown, and gently wiggle it out of its connector. The board should come out with ease. Place the board on a static free surface.

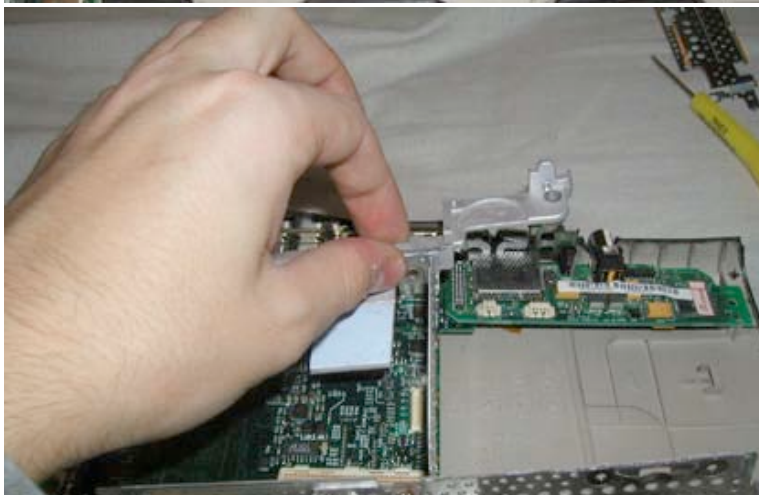
AC / Sound Board Replacement



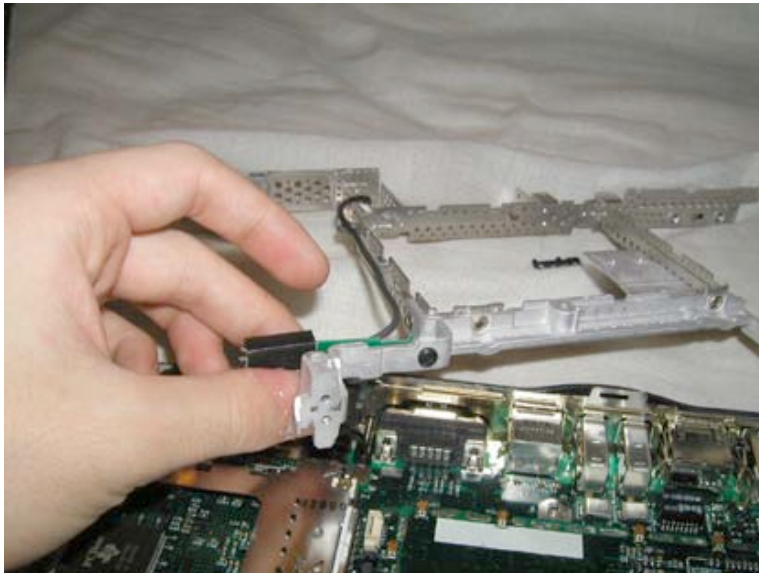
Remove the black torx screw that was located underneath the charger board as shown.



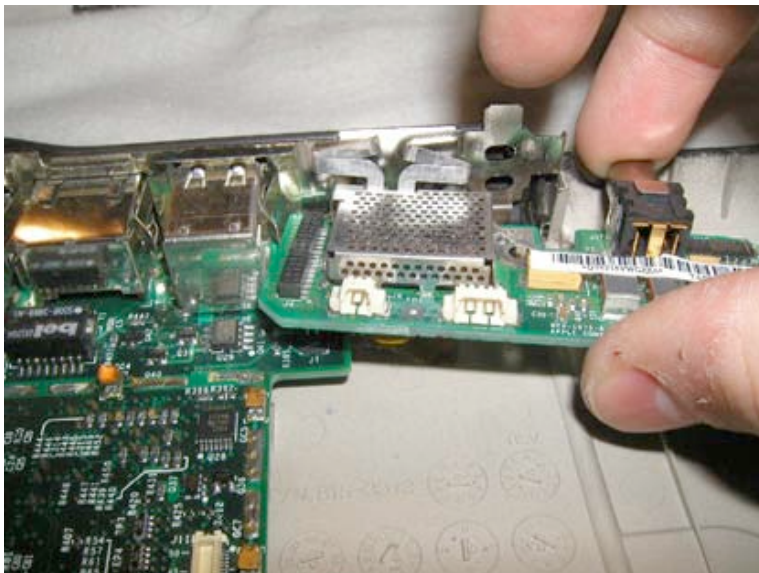
Remove the short black torx screw located to the right of the PCMCIA card cage, and the short black torx screw located next to the Pram battery.



Pull the rib frame out and fold back as shown,



Then remove the cable coming from the modem port.

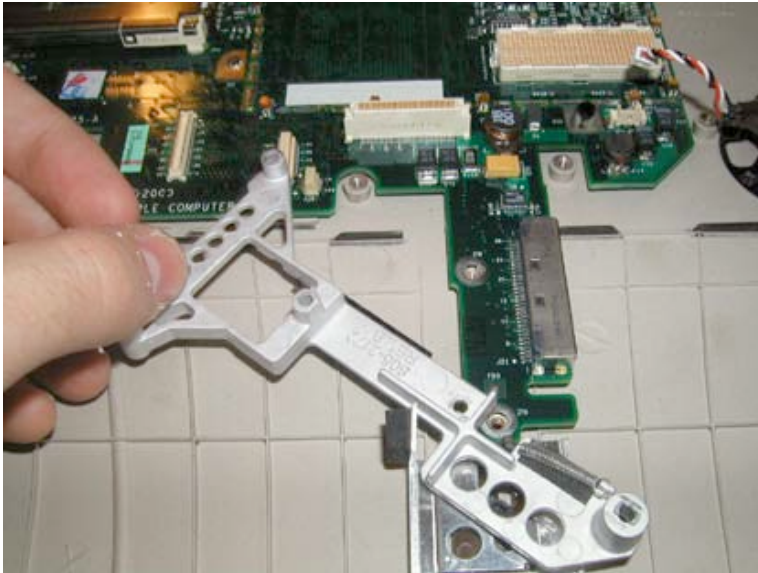


Now gently pull the sound board up and out as shown.



Logic Board Replacement

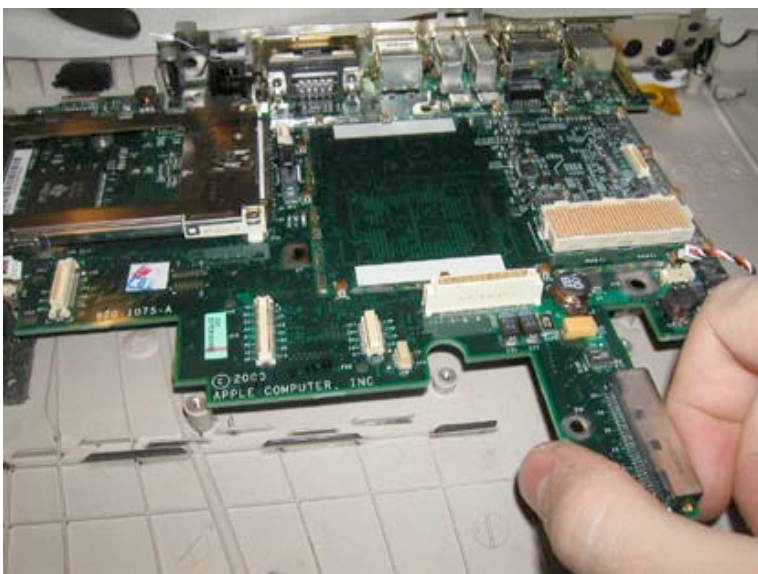
Disconnect the Pram battery and fan from their connectors. Remove the small torx screw located next to the fan connector.



Slide the trackpad release free from the motherboard as shown. (Replacement Note: the spring comes loose simply attach it back to the black connector. Make sure the screen release button works before putting the unit back together.)



Next, remove the nut as shown in the picture. You can either use a small allen bit or needle nose pliers as the screw is not on very tight. If you elect to use needle nose pliers, make sure not to let the pliers slip!



Now grab the board as shown, pull up and out.

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