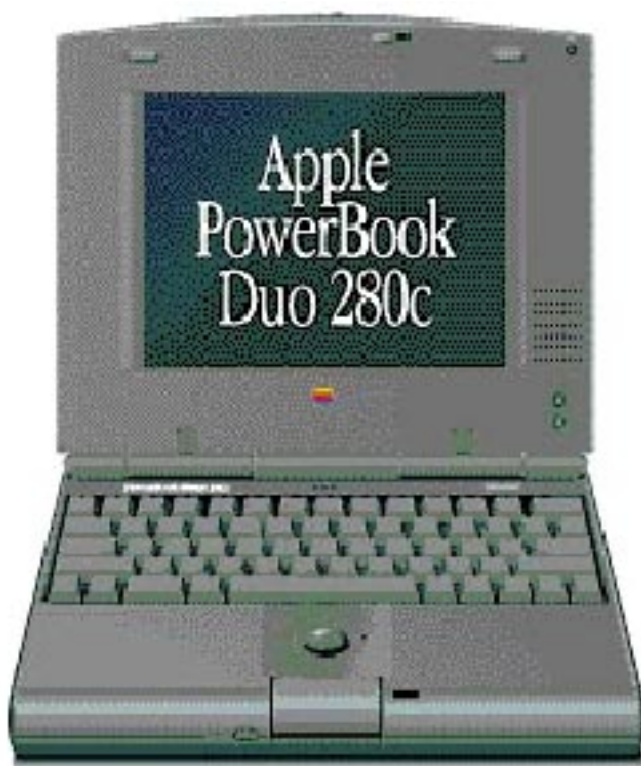# HARD DISK INSTALLATION
all   2xx   Duo   PowerBooks

Lets talk about what we are about to do and some procedures that I use to make the task much easier. We are about to install a 2.5" that has a **Non-usable System**. Before you start dissembling your Duo, make sure that you have (minimum) a floppy disk drive that can be used on your Duo and System Disks from Apple. I like the CD version of the System. Installation goes much faster. If you have a Duo Dock with an internal hard disk or an external hard disk (plugged into a SCSI mini dock or a full Duo Dock) that can be set as the Start-up Disk, from the Control Panel, do that now. Restart your Duo to make sure that the System that is on the **other** hard disk is usable. After doing this successfully, **backup any software and data files** that are on your old hard disk that you wish to retain on your new hard disk.
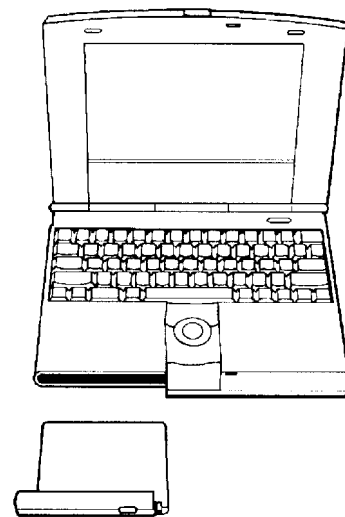
Now on to the installation.

Handle the PowerBook Duo in a static-free work area. If you have a static wrist strap, use it. If you do not, my favorite place at home is the bathroom drain board. It is tile and no carpet on the floor to cause static. Also, you can periodically tap the sink fixtures discharging any static charge.

You will need a T8 Torx screwdriver
Jeweler's screwdriver (a small screwdriver with a flat blade)
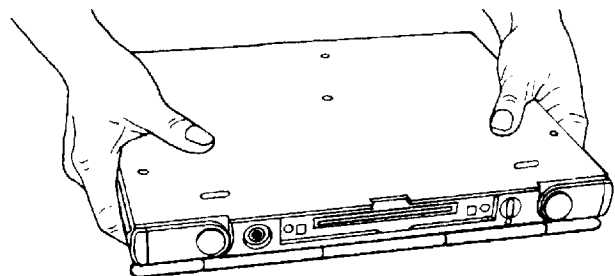System 7.1 or 7.5 start-up disks and System disks.

1. Make sure to disconnect the power adapter if you are using one.
2. Open the PowerBook Duo.

3. Remove the battery from the computer.
Slide the battery latch towards the left and pull the battery forward, out of the PowerBook Duo case.
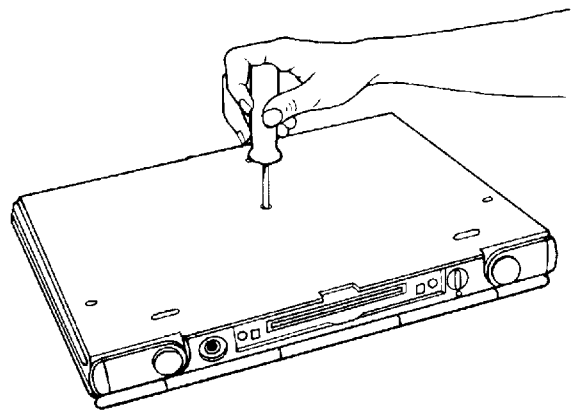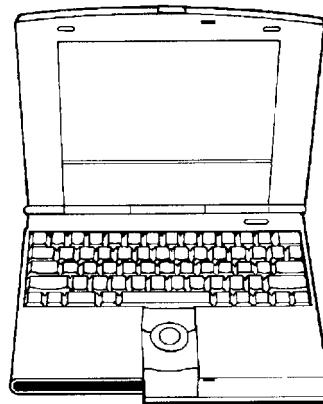

4. Turn over the PowerBook Duo.
Close the PowerBook Duo. Holding the top and bottom of the computer together, carefully turn if over so that the bottom of the computer is facing you.

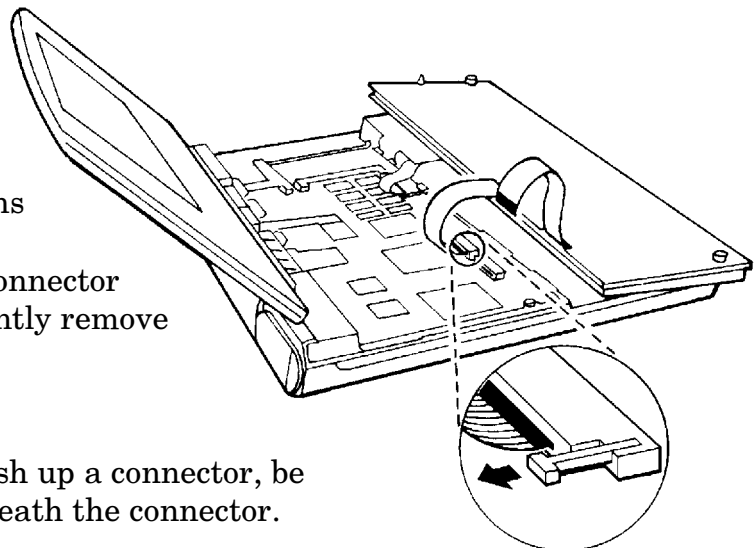5. Remove the four screws from the bottom of the PowerBook Duo that attach the keyboard to the computer.

6. Open the PowerBook Duo computer.
Turn the computer right-side-up on your working surface. Unlatch the display and open as in ordinary use.

7. Remove the keyboard.
Holding the computer with one hand and the other hand in front of the keyboard, tip the PowerBook Duo forward allowing the keyboard to tilt out of the computer onto your hand. Note that the keyboard is attached to the computer by two connectors. Turn the keyboard over and place it on top of the palm rest. Set the PowerBook Duo back down on your work surface.
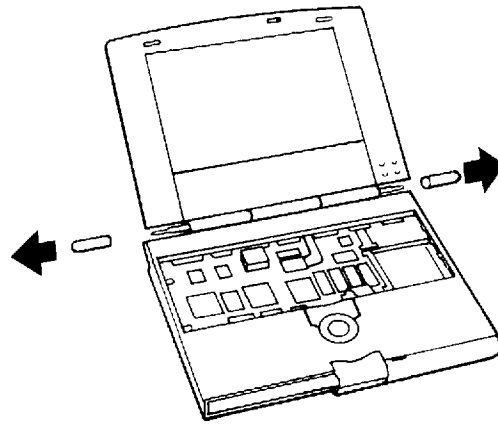
8. Disconnect the two keyboard ribbon cables from the PowerBook Duo.
Carefully reach inside the computer to disconnect each ribbon cable, which joins the keyboard unit with the logic board. Simultaneously push each side of the connector up. Releasing the ribbon cable, then gently remove the ribbon cable.
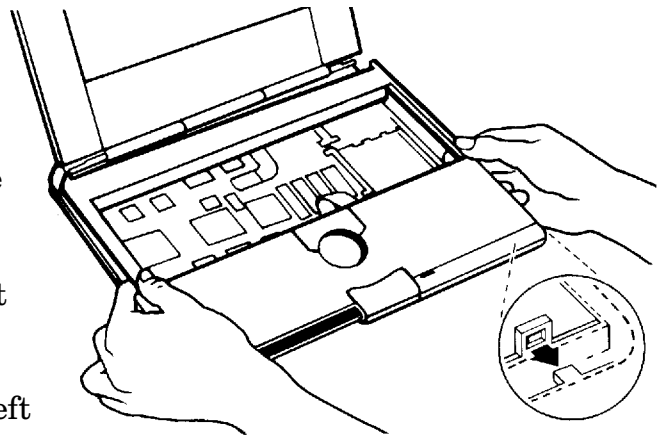
Important
If you use a jeweler's screwdriver to push up a connector, be careful not to scratch the board underneath the connector.

9.   Remove the clutch covers from the hinges between the top and bottom of the computer. Using your thumb nails, one on the front and one on the back, or a jeweler's screwdriver, push each clutch cover to the left or right so that it comes away from the PowerBook Duo.
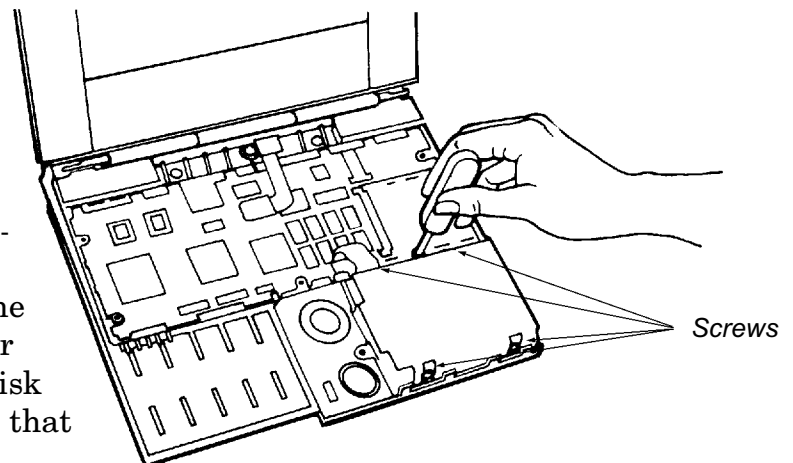
10.   Remove the top case covering the bottom of the PowerBook Duo.
The top case is connected to the bottom of the PowerBook Duo by a snap in the left corner and four interlocking tabs along the right side of the case. Raise the left corner of the casing first to release the snap, then lift the plastic casing up and move it toward you, removing it from the PowerBook Duo.
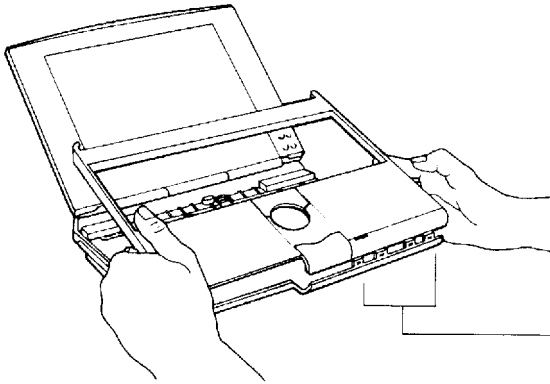
11.   Remove the rubber bumpers from the left and right edges of the bottom case. Pay attention to which way they lay. There is a top and bottom.

12.   From this point you can see the hard disk in the lower right corner of the PowerBook Duo.
Loosen the mounting screws that attach the hard disk to the frame and lift it gently up. Carefully unplug the ribbon cable that is plugged into the hard disk. Make note as to which direction the cable is laying so that you can put it back into the new hard disk in the same direction. Plug the cable into your new hard disk and reattach the hard disk to the frame with the mounting screws that you removed from the old drive.

Screws

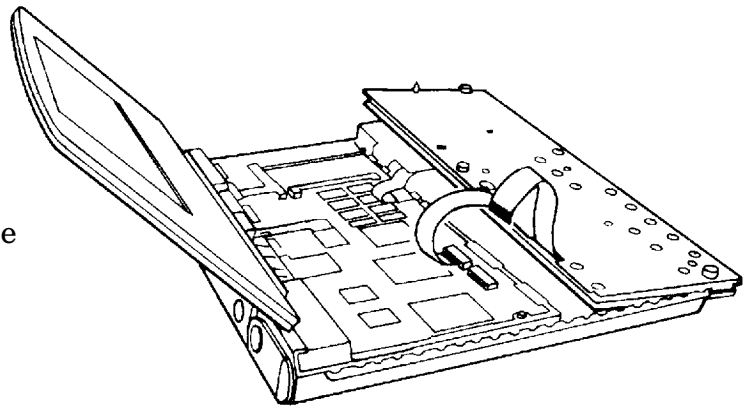13.   Replace the rubber bumpers with the notched side facing up.

14.   Replace the top case over the bottom of the PowerBook Duo.
Make sure the tabs under the front of the top case are correctly aligned with the bottom case.
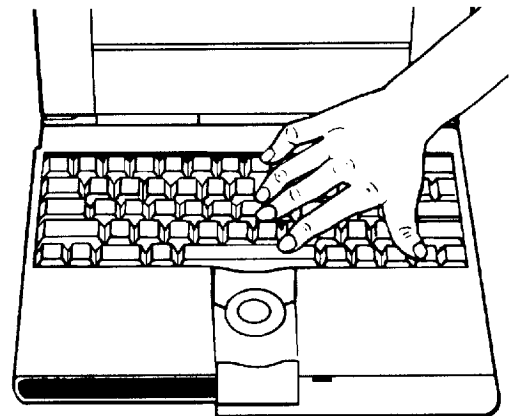**Tip**   Placing the display at a 30-45° angle to the work surface can ease replacement of the top case.
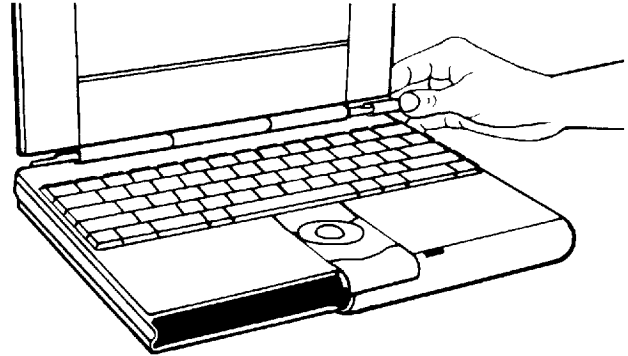
Align top and
bottom cases

15.   Reconnect the two keyboard connectors to the logic board.
Carefully reach inside the PowerBook Duo to connect each ribbon cable. Simultaneously push each side of the connector down, locking the ribbon cable into place.
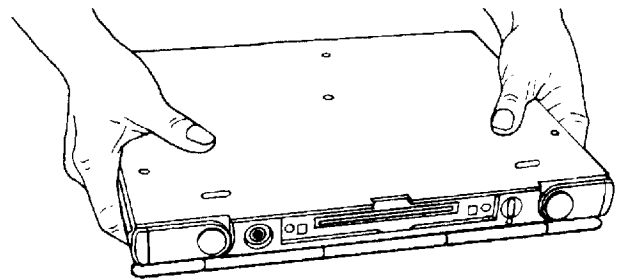
16.   Replace the keyboard.
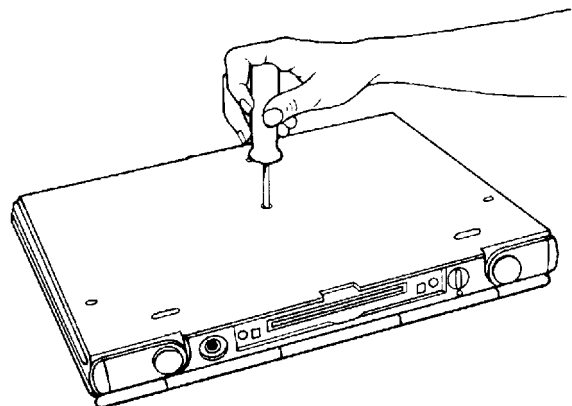Carefully place the keyboard back into its space and press down on it.

17.   Replace the plastic clutch covers so that each piece covers a hinge between the top and bottom of the computer.
Slide each clutch cover back into place.

18.   Turn over the computer.
Close the PowerBook Duo. Holding the top and bottom of the computer together, carefully turn it over so that the bottom of the computer is facing you.
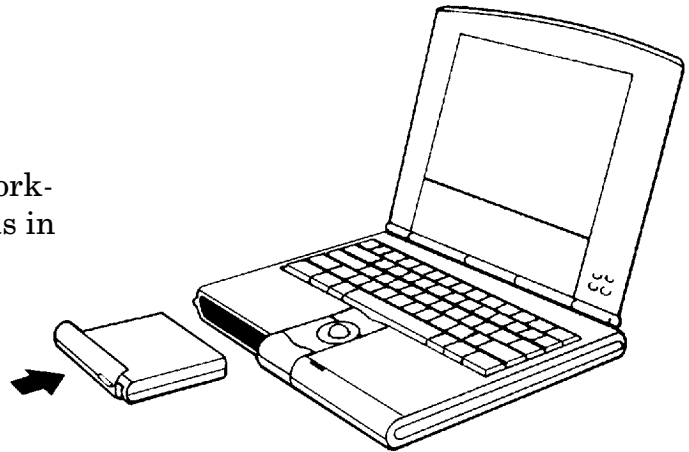
19.   Replace the four screws from the bottom of the PowerBook Duo.
With the PowerBook Duo upside down on a work surface, replace the four T8 screws in the bottom of the computer. Be careful not to tighten the screws too much. It will distort the keyboard if you do.

20.   Replace the battery
Turn the computer right-side-up on your work-
ing surface. Unlatch the display and open as in
ordinary use.

Your PowerBook Duo is ready for installation of a System File.

Attach your PowerBook Duo to it's Dock and start it up. Double click the Hard Disk icon
that is your new Hard Disk on your PowerBook Duo. Drag the System folder into the
Trash and Empty the Trash.
Using the System install program on your CD or Floppy disks, install a new, PowerBook
Duo compatible, system on your PowerBook Duo.
After this procedure is completed you are ready to restore files from your backup onto your
new PowerBook Duo hard disk.

Enjoy.