

## Tech Info Library

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### TITLE

PowerBook and iBook: Resetting Power Manager

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### TOPIC

What is the Power Manager and is there a proper way to reset it for each type of PowerBook computer?

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### DISCUSSION

The Power Manager is an integrated circuit that is usually on the logic board of the PowerBook and iBook. As the name implies, it is responsible for power management of the PowerBook. It controls backlighting, hard disk spin down, sleep and wake, some charging aspects, trackpad control, and I/O as far as looking at the serial port and modem so it doesn't sleep when connected.

Over time, the settings in the Power Manager may become corrupted, which can result in operational anomalies with the PowerBook. Examples would be not powering on, not waking from sleep, not charging the battery, or not seeing the AC Adapter, among others.

Resetting the Power Manager is accomplished in a variety of ways depending upon the specific PowerBook model in use. These methods are described below.

**WARNING:** Resetting the Power Manager on any PowerBook computer will permanently remove a RAM disk, if present, and all of its contents.

#### PowerBook 100

1. Remove the AC adapter and the battery.
2. Flip the battery contact switch on the rear of the unit to the down position.
3. Let the unit sit without power hooked up for 3-5 minutes.
4. Simultaneously press and hold the reset and interrupt buttons on the side of the unit for 15 seconds.
5. Reinstall the battery, reconnect the AC adapter if necessary and flip the battery contact switch on the rear of the unit to the up position.

#### PowerBook 140, 145, 145 B and 170

1. Remove the AC Adapter and the battery.
2. Let the unit sit without power connected for 3-5 minutes.
3. Using two paper clips, simultaneously press and hold the reset and interrupt buttons for 5-10 seconds.
4. Reinstall the battery and, if necessary, reconnect the AC adapter.

**Note:** Both recessed buttons (commonly known as the reset and interrupt buttons) are located next to the power button on the back panel of the PowerBook.

#### PowerBook 150

1. Remove the power adapter and battery from unit.
2. Push the reset button in the back of the unit with a paper clip and hold for 5-10 seconds.
3. Plug the AC adapter into the AC (wall) outlet.
4. Reconnect the power adapter and push the reset button in back again, but just briefly. You should hear a small pop from the speaker; do not be concerned.
5. Push main power button in back (large exposed button). The unit should power up.
6. Apple suggests charging the battery for at least 8 hours before running on battery power.

If the PowerBook powers on, the battery may be reinserted. If it fails to start, the PowerBook may require service.

#### PowerBook 160, 165, or 180

1. Remove the AC adapter and the battery.
2. Let the unit sit without power connected for 3-5 minutes.
3. Reinstall the battery and, if necessary, reconnect the AC adapter.

**Note:** Steps 1 and 2 will usually reset the Power Manager, however if the computer still exhibits the same problem, redo steps 1 and 2 and then follow the step listed below before reinstalling the battery.

1. Using two paper clips, simultaneously press and hold down the reset and interrupt buttons for 5-10 seconds. They are located next to the power button on the back panel of the PowerBook.

### PowerBook 500 series

1. Remove the AC adapter and the battery.
2. Let the unit sit without power hooked up for 3-5 minutes.
3. Simultaneously press and hold Command-Option-Control-Power On for 5-10 seconds.
4. Reinstall the battery and, if necessary, reconnect the AC adapter.

### PowerBook 200 and 2300 Series

1. Press and hold the power button on the rear of the 200 or 2300 series computer for 30-45 seconds.\*
2. (**see Caution**) If resetting the Power Manager chip does not solve the problem, reset the code for the Power Manager chip by removing all power sources and letting the unit sit for 10 minutes. (Disconnect the AC adapter, remove the battery and the internal backup battery.) This forces the PowerBook Duo to reload the Power Manager code from the system software.

**\*\*Caution\*\*** Apple-authorized service technicians may remove the internal back up battery to reset the Power Manager. If you are not an Apple-authorized service technician, please note that removing the internal backup battery is not a simple procedure and is not recommended. If anything is damaged in your attempt to remove the battery, it will not be covered under warranty.

### PowerBook 190, 1400, 2400, 3400, 5300 Series, and PowerBook G3 (M3553):

The PowerBook 190, 1400, 3400, 5300 Series, and PowerBook G3 (M3553) have two different ways to reset the Power Manager. The only difference is the location of the reset button. See the table below for the location of the reset button on each PowerBook series.

PowerBook	Reset Button Location (on rear of computer)
190 Series	Below the video-out port
1400 Series	Between the ADB and Serial ports
2400 Series	Above the floppy drive connector
3400 Series & PowerBook G3 (M3553)	Left of the Serial port
5300 Series	Below the video-out port

### Resetting the Power Manager

1. If the computer is on, turn it off.
2. Restart the computer by holding down the reset button for 10-20 seconds. (See chart above for location of the reset button for your PowerBook series.)
3. If the computer does not restart, repeat step 2 three or four times.

### Resetting the Power Manager and PRAM

Resetting, or zapping, the parameter RAM (PRAM) when the computer is shut down also resets Power Manager. The following process resets both the Power Manager and the parameter RAM.

1. If the computer is on, turn it off.
2. Make sure the Caps Lock key is not down.
3. Restart the computer. Immediately after hearing the startup sound, simultaneously press and hold Command-Option-P-R. (If you do not hold down the key combination within 5-10 seconds after the computer restarts, you will need to repeat steps 1-3.)
4. Hold down the keys until you hear the startup sound again. Then release the keys.
5. If the computer shuts itself off, press the reset button on the back of the computer to turn it back on. (See chart above for location of the reset button for your PowerBook series.)
6. When the computer has finished starting up, restore any custom settings for the desktop pattern, memory, network, AppleTalk, trackpad, power conservation, and so forth.

### PowerBook G3 Series (M4753)

1. If the computer is on, turn it off.
2. Simultaneously press Shift-Fn (function)-Ctrl (control)-power.

3. Wait 5 seconds.
4. Press the power button to restart the PowerBook.

### **PowerBook G3 Series (Bronze Keyboard) (M5343)**

1. If the computer is on, turn it off.
2. Press the reset button on the rear of the computer. The reset button is located between the external video and modem (RJ-11) ports.
3. Wait 5 seconds
4. Press the power button to restart the PowerBook.

**Note:** When you reset the Power Manager, wait at least 5 seconds before using the power button to start up the computer. If you do not wait at least 5 seconds, the reset procedure may become corrupted. (If you suspect that the reset procedure was corrupted, press the reset button again and wait 5 seconds before pressing the power button.)

### **iBook**

1. If the computer is on, turn it off.
2. Press the reset button located above the power button at the base of the display. You will need a small, blunt instrument such as a paper clip to press the button.
3. Wait 5 seconds
4. Press the power button to restart the iBook.

**Note:** The power manager reset on the iBook also resets the Date and Time. After the reset, the system clock will be set to 12:00 A.M., 01/01/1904.

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**EXTENDED Information** - [Apple Internal Use - Service Providers and Support Professional](#)

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#### **Document Information**

Product Area: Computers  
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