Macintosh PowerBook DVD-Video PC Card

Instructions for installing and using the
Macintosh PowerBook DVD-Video PC Card
for PowerBook G3 Series computers

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Macintosh PowerBook DVD-Video PC Card

The Macintosh PowerBook DVD-Video PC Card and Apple DVD Player software provide DVD-Video playback capabilities for Macintosh PowerBook G3 Series computers equipped with a DVD-ROM expansion bay module.

DVD discs are similar to music CDs and CD-ROM discs, but can hold up to 25 times the amount of data. The greater storage capacity of a DVD disc allows for an entire movie to be stored on a single disc (known as a DVD-Video disc).

Important This manual provides instructions for installing the DVD-Video PC Card and Apple DVD Player software, along with information on battery power, DVD-Video performance, and DVD-Video troubleshooting. For detailed instructions on using the Apple DVD Player, open the application and choose Apple DVD Player Help from the Help menu.

System Requirements

In order to play DVD-Video discs using the DVD-Video PC Card, you need the following:

- PowerBook G3 Series computer
- DVD-ROM expansion bay module
- Built-in active matrix (TFT) display or external monitor

  The video refresh rate of the 12.1-inch passive-matrix (STN) built-in display on certain configurations of the PowerBook G3 Series does not support full-motion DVD-Video. For this reason an external monitor is required for full-motion DVD-Video playback on PowerBook G3 Series computers with a passive-matrix (STN) display.
- Apple DVD Player and QuickTime 3 software (included on the *Apple DVD Software* CD that came with the DVD-Video PC Card)

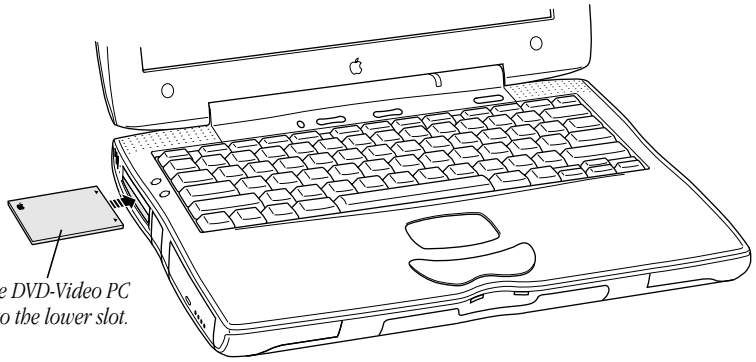
Getting Started

Before you can play a DVD-Video disc on your PowerBook, you need to install the DVD software, restart your computer, and then insert the DVD-Video PC Card. Follow these steps:

Important Depending upon how you purchased the DVD-Video PC Card, the necessary DVD software and QuickTime 3 may already be installed on your PowerBook. To see if the software is installed, open the Apple (🍎) menu and look for the Apple DVD Player. If you need to reinstall your system software, you will need to install the DVD software separately from the *Apple DVD Software* CD.

1. Insert the *Apple DVD Software* CD and double-click the Install Apple DVD Software icon.
2. Follow the onscreen instructions to install the necessary software to support DVD-Video, including QuickTime 3.
3. After the software has been successfully installed, a dialog box appears. Click Restart.
4. After the PowerBook restarts, insert the connector end of the DVD-Video PC Card into the lower PC Card slot as shown below.

Important The DVD-Video PC Card must be placed in the lower PC Card slot because only the lower slot has the "zoomed video" interface required by the DVD-Video PC Card.



Insert the DVD-Video PC Card into the lower slot.

When inserting the card, you will feel some resistance. Continue to insert the card all the way into the lower PC Card slot. When completely inserted, only the end of the card (approximately 1/8 inch or 4 mm) will stick out of the PC Card slot.

When the card is properly inserted, the following icon appears on the desktop.

DVD PC Card

Problems Inserting the DVD-Video PC Card

If an icon does not appear on the desktop, make sure that the card is fully inserted into the lower PC Card slot. If the card is fully inserted, shut down your PowerBook and manually eject the DVD-Video PC Card using the PC Card eject button located above the PC Card slot. (If the eject button does not work try inserting a paper clip into the small hole next to the lower PC Card slot.) Then restart your computer and try inserting the card again. For more information on inserting or ejecting a PC Card, see your PowerBook user's manual.

Playing DVD-Video Discs

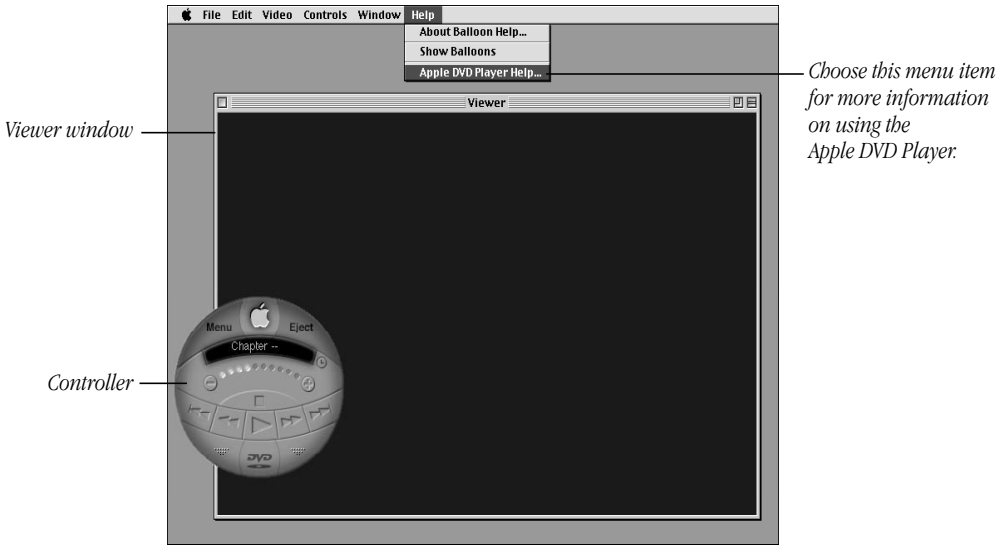
You use the Apple DVD Player application to play and control DVD-Video discs. To play a DVD-Video disc on your PowerBook, follow these steps:

1 Insert a DVD-Video disc into the DVD-ROM expansion bay module.

An icon for the disc appears on the desktop.

2 Choose Apple DVD Player from the Apple (🍎) menu.

The Controller and the Viewer window appear onscreen.



Use the Controller to start, stop, and control the video displayed in the Viewer window. With the Apple DVD Player, you can also do the following:

- Set parental controls
- Control the size of the Viewer window
- Adjust the sound volume of your DVD movie
- Set up keyboard commands that show and hide the Controller

For detailed instructions on these and other features, choose Apple DVD Player Help from the Help menu.

Important When used inside your PowerBook, it is normal for the DVD-Video PC Card to get warm. If you want to eject the card, wait several minutes after shutting down the computer to allow time for the card to cool down.

DVD-Video and Battery Power

Playing DVD-Video discs on your PowerBook requires the PowerBook to continuously access the DVD-ROM drive and provide power to the DVD-Video PC Card. These additional power requirements decrease the amount of time that your PowerBook can operate under battery power. To avoid draining the battery, whenever possible plug in the power adapter when playing DVD-Video discs on your PowerBook.

The DVD-Video PC Card uses additional battery power only when you are playing a DVD-Video disc. You do not need to eject the card when it is not in use.

Improving the Performance and Quality of DVD-Video

The way you configure your PowerBook G3 Series computer can affect the performance of the DVD-Video playback.

When playing DVD-Video discs, do the following:

- Plug in your computer's power adapter whenever possible.
- Make sure that virtual memory is turned off.
- Make sure the Energy Saver control panel is set to maximum performance.

Important If you have a PowerBook G3 Series computer with a 12.1-inch passive-matrix (STN) display, you should view DVD-Video discs on an external monitor. The video refresh rate of the 12.1-inch passive-matrix (STN) built-in display does not support full-motion DVD-Video. For instructions on connecting an external monitor, see your PowerBook user's manual.

Viewing DVD-Video on a Television

If your PowerBook G3 Series computer has the optional S-video output port (S-VIDEO OUT), you can use your PowerBook to play DVD-Video discs on a television that has S-video or RCA-type input ports. For instructions on connecting your PowerBook to a television, see your PowerBook user's manual.

When setting up your PowerBook to show DVD-Video on a television, do the following:

- For the best quality, use an S-video cable instead of an RCA cable to connect your PowerBook to the television. (These cables are not included with the PC Card.)
- If you want to hear sound through the television, connect the sound out port (🔊) on the back of the PowerBook to the sound input ports on the television. For Dolby Pro Logic surround sound, connect the sound out port (🔊) to a Dolby Pro Logic compatible sound system.
- For best results, select a 640 x 480 resolution from the Control Strip when the PowerBook is connected to a television.

Resolution icon

DVD-Video Troubleshooting

My DVD-Video disc will not play on my PowerBook.

- Make sure the DVD-Video PC Card is fully inserted in the lower PC Card slot.
- Make sure that Apple DVD software and QuickTime 3 software are installed.
- Check the region code for your DVD-Video disc. Some discs are coded to play only in a specific geographical region. For example, discs designed to play in Region 2 (Japan, Europe, South Africa, and the Middle East) cannot be played using a DVD-Video PC Card purchased in Region 1 (United States and Canada).

I cannot record a DVD movie to my computer or external video device.

- Many DVD-Video discs have built-in copy protection that prevents any portion of the movie from being duplicated on your computer or through the use of an external recording device such as a VCR.

When I switch between audio formats, the volume increases or decreases.

- There are several different audio formats for DVD discs. Some DVD discs contain multiple audio tracks that use different formats. Switching between formats may affect the sound volume.

When I insert my DVD-Video disc, I see a message that says that the disc is unreadable.

- A small number of DVD discs do not properly implement the UDF disc format. If your PowerBook cannot recognize the DVD-Video disc, eject the disc and then reinsert it while simultaneously holding down the keys ⌘, Option, and I. This will cause the computer to treat the disc as an ISO-9660 disc (using the standard CD icon) instead of a UDF disc.

Apple DVD Player quits when I sleep my PowerBook.

- When you sleep your PowerBook, Apple DVD Player version 1.0 will quit and the movie will start at the beginning the next time you open the application. Many DVD-Video discs have the ability to jump to different sections of the movie (known as chapters). To resume a movie after sleep, open Apple DVD Player and use the disc menu to skip to the chapter where you left off. For more information see the Apple DVD Player Help available onscreen from the Help menu.

When I use the Apple DVD Player, some controls do not function properly.

- Because DVD-Video is an emerging standard, a small number of DVD-Video discs have been manufactured using standards that may differ from the one used by Apple and other DVD-Video player manufacturers. If a DVD-Video disc plays in the Viewer window but navigation or other features of the Controller don't work properly, the disc was probably created using a different standard. This does not indicate a problem with the DVD-Video PC Card or the Apple DVD Player software.

Specifications for the PowerBook DVD-Video PC Card

- *Interface:* 16-bit PC Card
- *Maximum power:* 1.5 watts
- *Decoding standard:* MPEG-2
- *Display output resolution:* 720 x 480 at 30 Hertz
- *Format:* NTSC Format Interlaced Video
- *Video interface:* PC Card Zoomed Video (lower slot)
- *Compatibility:* DVD
- *Audio:* Dolby Digital (AC-3) 5.1 downmixed to 2 channel Dolby Pro Logic
- *Output channels:* 2

Communications Regulation Information

FCC Declaration of Conformity

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. See instructions if interference to radio or television reception is suspected.

Radio and Television Interference

The equipment described in this manual generates, uses, and can radiate radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with Apple's instructions—it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether your computer system is causing interference by turning it off. If the interference stops, it was probably caused by the computer or one of the peripheral devices.

If your computer system does cause interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the computer to one side or the other of the television or radio.
- Move the computer farther away from the television or radio.
- Plug the computer into an outlet that is on a different circuit from the television or radio. (That is, make certain the computer and the television or radio are on circuits controlled by different circuit breakers or fuses.)

If necessary, consult an Apple-authorized service provider or Apple. See the service and support information that came with your Apple product. Or, consult an experienced radio/television technician for additional suggestions.

Important Changes or modifications to this product not authorized by Apple Computer, Inc., could void the FCC Certification and negate your authority to operate the product.

This product was tested for FCC compliance under conditions that included the use of Apple peripheral devices and Apple shielded cables and connectors between system components. It is important that you use Apple peripheral devices and shielded cables and connectors between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices. You can obtain Apple peripheral devices and the proper shielded cables and connectors through an Apple-authorized dealer. For non-Apple peripheral devices, contact the manufacturer or dealer for assistance.

Responsible party (contact for FCC matters only): Robert Steinfeld, Apple Computer, Inc., 1 Infinite Loop, Cupertino, CA 95014-2084, 408-974-2618.

Industry Canada Statement

This Class B device meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

VCCI Class 2 Statement

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