Apple Video System

User's Manual

Apple Computer, Inc.

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The Apple Publishing System

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C O N T E N T S

Communications regulation information iv

Preface vii

1 Installing the Card and Software and Connecting Video Equipment 1

What you should have 2
Installing the video input card 2
Installing the software 41
Connecting video equipment 43

2 Learning About the Software 51

Opening the Apple Video Player 52
Getting help 53
Choosing the correct video source 54
Adjusting the sound 56
Adjusting the picture 58
Changing the video window size 59
Changing the window color 60
Setting the video input standard 61
Setting and using a “hot key” 62

3 Capturing Video Images 63

Capturing individual images 64
Capturing movies 66

4 Troubleshooting 71

5 Technical Information 77

Index 79

Communications regulation information

FCC statement

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. 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.

DOC statement

DOC Class B Compliance This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Observation des normes—Classe B Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur : "Appareils Numériques", NMB-003 édictée par le ministre des Communications.

VCCI statement

情報処理装置等電波障害自主規制について

この装置は、第二種情報装置（住宅地域又はその隣接した地域において使用されるべき情報装置）で住宅地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会（VCCI）基準に適合しております。

しかし、本装置をラジオ、テレビジョン受信機に近接してご使用になると、受信障害の原因となることがあります。

取扱説明書に従って正しい取り扱いをしてください。

PREFACE

This manual tells you how to install and use the video input card and software, and connect video equipment, so that you can

- view video from a variety of sources in a window that you can move or resize
- adjust the color and sound
- capture a single image or a series of images on disk

CHAPTER

1

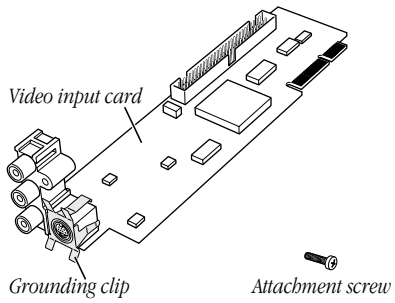
Installing the Card and Software and Connecting Video Equipment

This chapter covers installing the video input card and software. It also shows how to connect video equipment to the card.

If you purchased your computer with the video input card already installed, go to the section "Connecting Video Equipment," later in this chapter.

What you should have

Check your package to make sure you have both the video input card and an attachment screw. Your package also contains floppy disks from which you will install the software later.



Note: The grounding clip may be a separate piece in your package. If so, you will attach it by following instructions later in the manual.

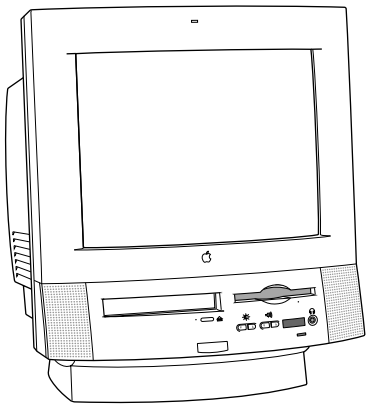
Installing the video input card

You install the video input card by attaching the card to the computer and then connecting the card to your video equipment. The steps for attaching the card to the computer vary slightly depending on whether or not the computer has a built-in monitor.

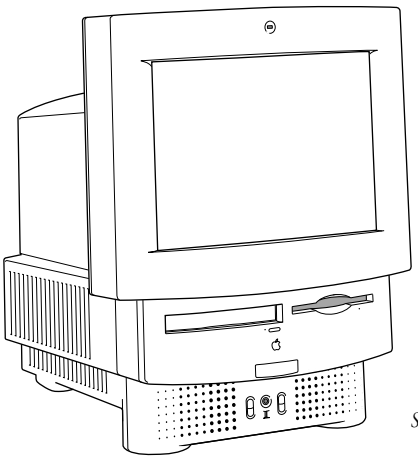
Installing the card in a compact computer

If your system has a built-in monitor, continue with the steps in this section. Otherwise, go to the section that follows, "Installing the Card in a Modular Computer."

Your compact computer may look like either of the computers pictured below; the steps for installing the card vary slightly depending on which model you have. If your computer looks like Style A, follow the first set of steps to install the video input card. If your system looks like Style B, skip to the second set of steps, “Installing the Card in Style B.”



Style A



Style B

Installing the card in Style A

1. Make sure you save any open documents and quit any open applications. Then turn off the computer.
   - Choose Shut Down from the Special menu, or press the Power key on the keyboard.
   - Then press the power switch at the back of the computer.

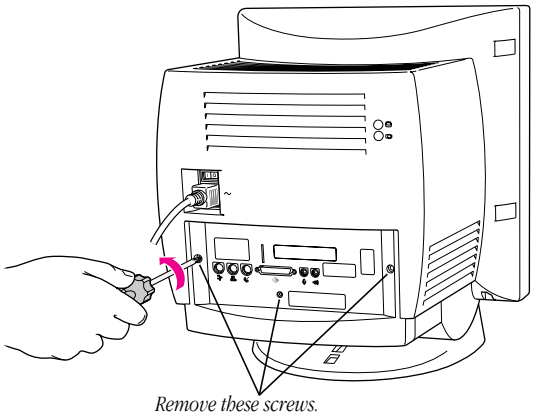
     Press the side of the switch marked with the ○ symbol.
2. Unplug all the cables except the power cord from your computer.

   Leaving the power cord plugged in helps protect the computer from electrostatic discharge damage.

   Important To avoid generating static electricity that may damage components, do not walk around the room until you have finished installing the card and closed the computer. Additionally, move the logic board as little as possible while it is outside the computer.

3 Use a screwdriver to remove the screws from the back panel.

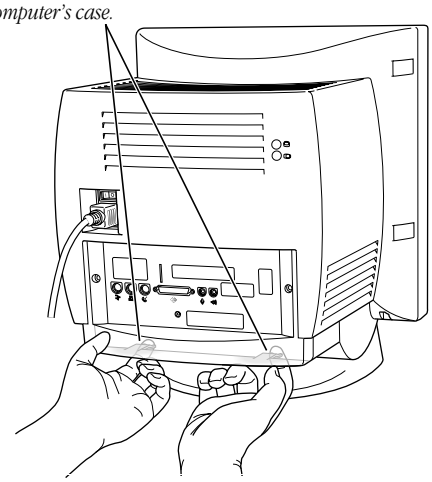
Note: Your computer may have only two screws (on either side of the back panel) to remove. Even if the back of your computer looks different, all the ports should be in the same location as pictured here.



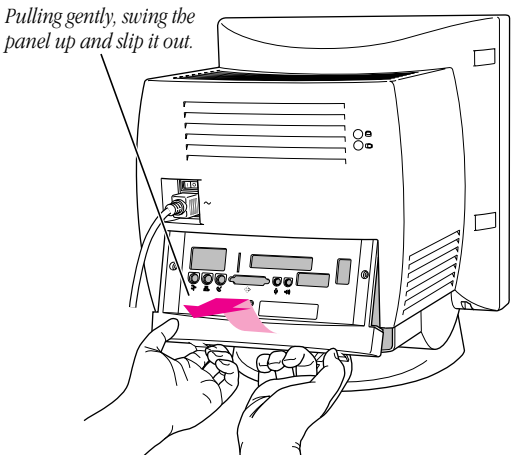
Remove these screws.
(Your computer may have only two screws.)

4 With your fingertips, locate the two latches on the underside of the computer's case.

With your fingertips, locate the two latches on the underside of the computer's case.

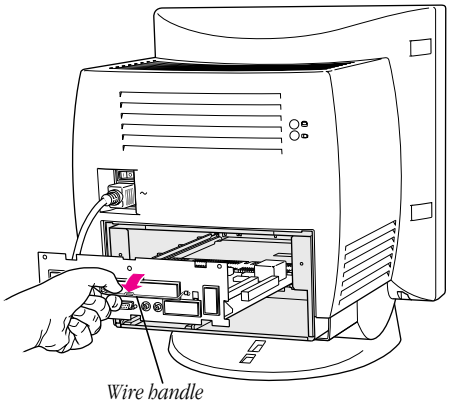


5 Pulling gently, swing the panel up and slip it out.



Remember: Don't walk around the room until you have finished installing the card and closed the computer. Move the logic board as little as possible while it's outside the computer.

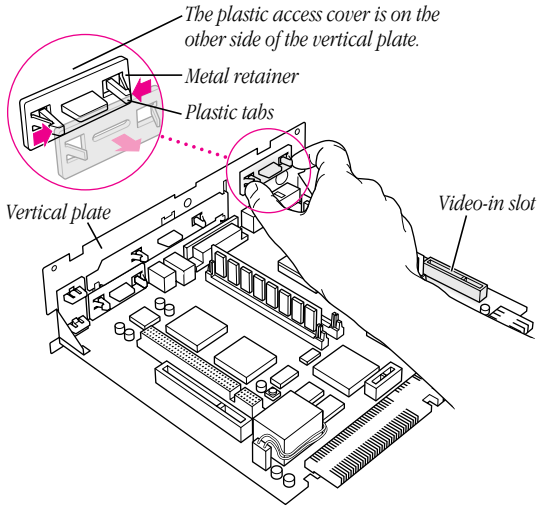
6 There is a wire handle on the back of the logic board. Swing it down and use it to pull the logic board toward you.



The logic board is plugged into a slot inside the computer. You may have to brace the computer with your other hand and pull firmly at first. Slide the entire logic board all the way out of the computer.

7 Locate the video-in access cover on one side of the vertical plate attached to the logic board. Remove the cover from this opening by squeezing together the plastic tabs that hold it in place.

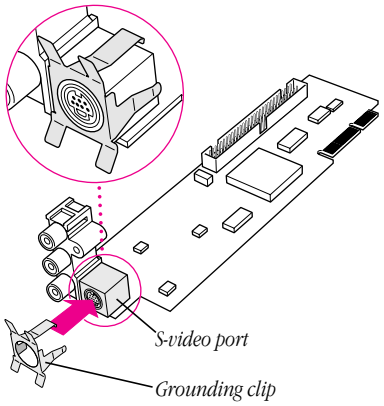
Note: Your logic board may not look exactly like the one pictured here, but the video-in slot and plastic access cover are in the same position regardless of the logic board you have.



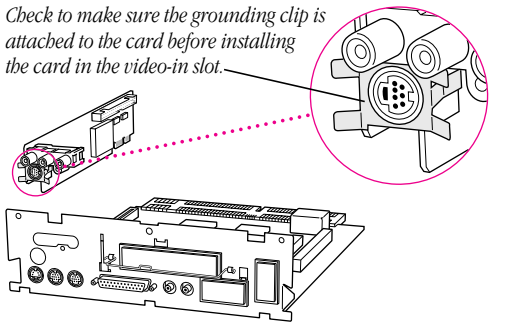
8 Remove the video input card from its static-proof bag. Handle the card by its edges in order to avoid touching the connectors.

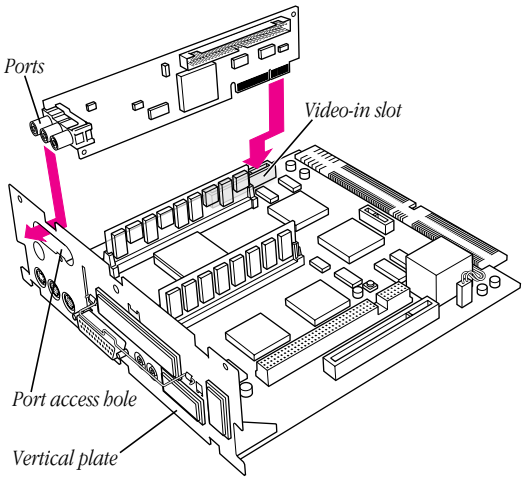
9 Attach the grounding clip to the S-video port of the video input card, if it isn't attached already.

Important Without the grounding clip attached, the S-video port may send insufficient power to equipment you connect to it.

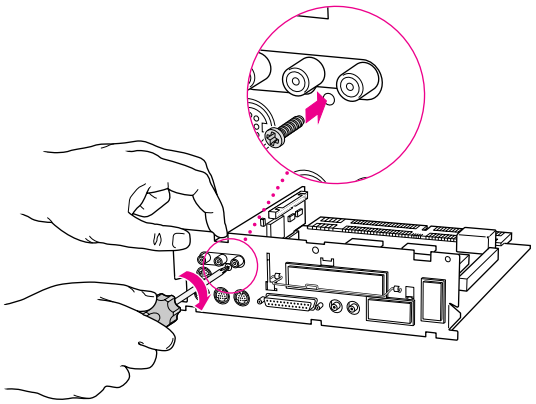


10 Making sure the grounding clip is on the card (as shown in step 9), plug the video input card firmly into the video-in slot on the logic board. Fit the three ports on the card into the port access hole. Make sure the card is firmly seated in the slot.

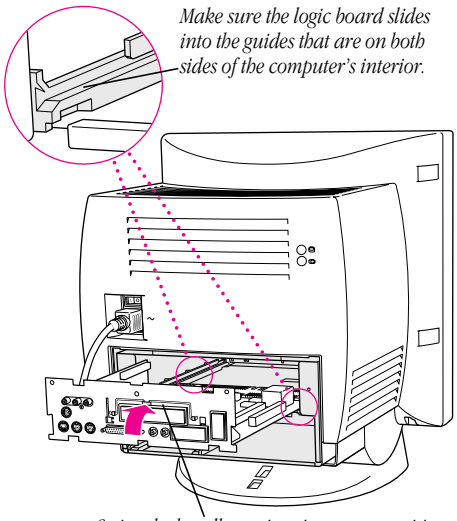




11 Screw the card to the vertical plate on the logic board. (Use the provided attachment screw.)

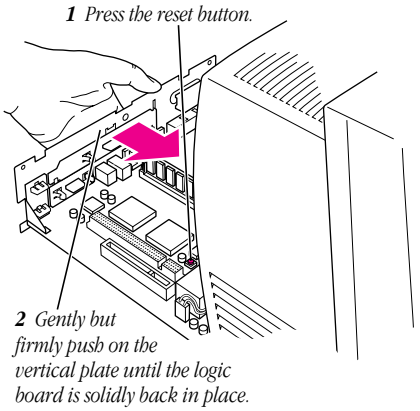


12 Swing the wire handle on the logic board back up into its storage position, securing it under its catch. Then fit the logic board into the guide rails on both sides of the computer's interior.



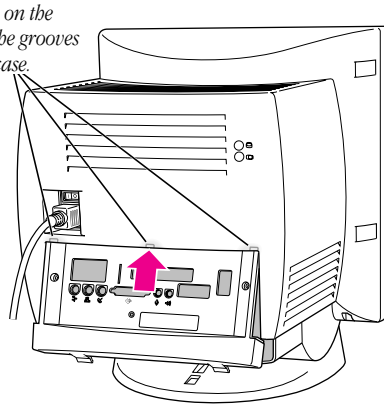
13 Press the reset button on the logic board. Then gently but firmly push the board back into place within the computer. You will need to push a little harder at the end to make sure the connectors at the back of the board are seated in their slot.

Note: If you can't find the reset button, it may be in a different location on your logic board. Check the manual that came with your computer, in the section in the appendix about installing expansion cards. An illustration there shows where the reset button is for your computer.

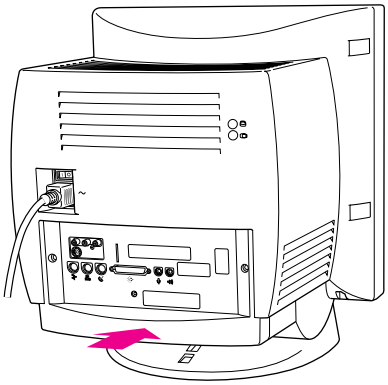


14 Slip the three tabs at the top of the back panel into the matching grooves in the computer case.

Slip the three tabs on the back panel into the grooves in the computer case.



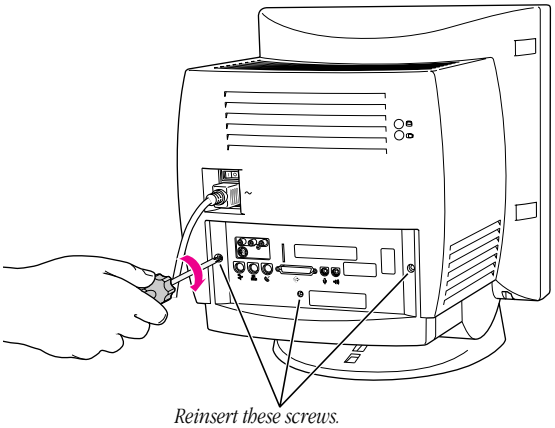
15 Snap the bottom of the panel into place, making sure it is flush with the back of the computer.



Snap the plastic back panel into place.

16 Reinsert the screws in the back panel.

Note: As described earlier, your computer may have only two screws to reinsert, one on either side of the back panel.



Reinsert these screws.
(Your computer may have only two screws.)

17 Reconnect any cables you disconnected at the start of this process.

Because you pressed the reset button on the logic board earlier, some of your computer's software settings may have changed. (For example, the date and time on your computer will need to be reset.) You may want to open the control panels for the date and time, keyboard, and mouse to make sure that they are set the way you want them. For more information about resetting these options, see the "Setting Options" or "Customizing Your Computer" topic of Macintosh Guide, available in the Guide (?) menu. (If you do not have Macintosh Guide on your computer, see the manuals that came with your computer.)

18 Skip the steps that follow ("Installing the Card in Style B"), and the next section, "Installing the Card in a Modular Computer," and go on to the section titled "Installing the Software."

Installing the card in Style B

1 Make sure you save any open documents and quit any open applications. Then turn off the computer.

- Choose Shut Down from the Special menu, or press the Power key on the keyboard.
- Then press the power switch at the back of the computer.

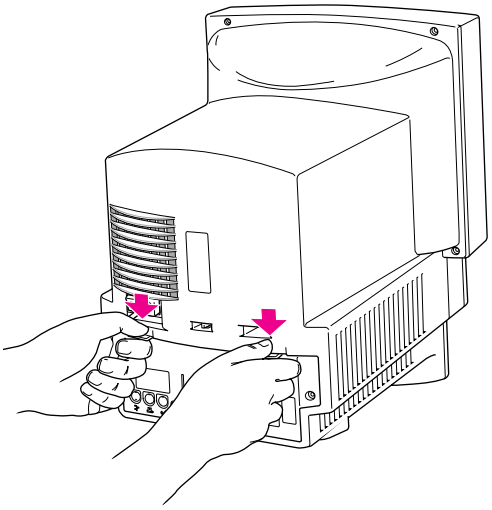
  Press the side of the switch marked with the ○ symbol.

2 Unplug all the cables except the power cord from your computer.

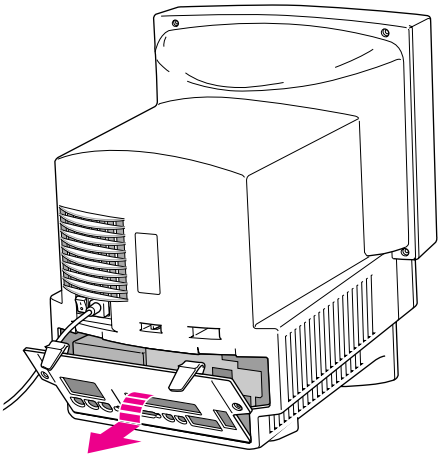
Leaving the power cord plugged in helps protect the computer from electrostatic discharge damage.

Important To avoid generating static electricity that may damage components, do not walk around the room until you have finished installing the card and closed the computer. Additionally, move the logic board as little as possible while it is outside the computer.

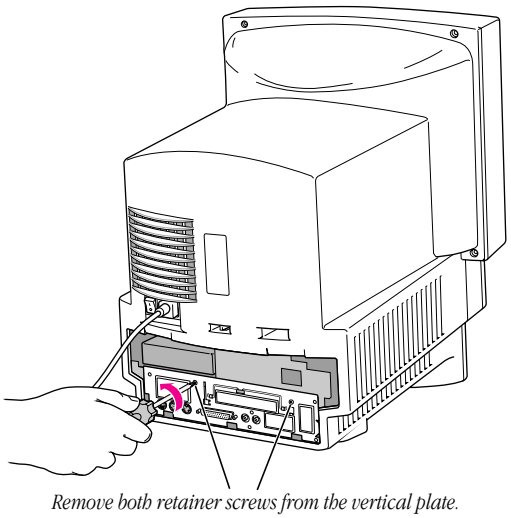
3 If there are screws securing the back panel, remove them with a screwdriver. Then press down with your thumbs to loosen the clips on either side of the back panel.



4 Pulling gently, swing the panel down and slip it out.



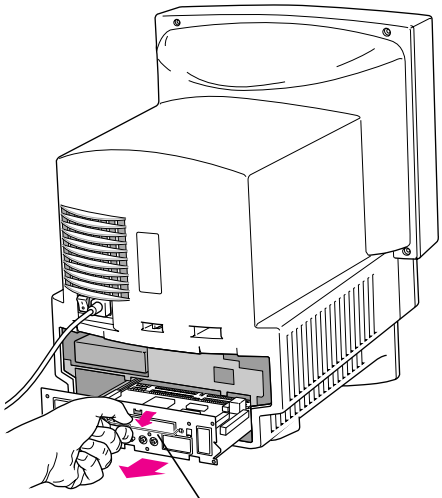
5 Remove both retainer screws from the vertical plate behind the back panel.



Remove both retainer screws from the vertical plate.

Remember: Don't walk around the room until you have finished installing the card and closed the computer. Move the logic board as little as possible while it's outside the computer.

6 There is a wire handle on the back of the logic board. Swing it down and use it to pull the logic board toward you.

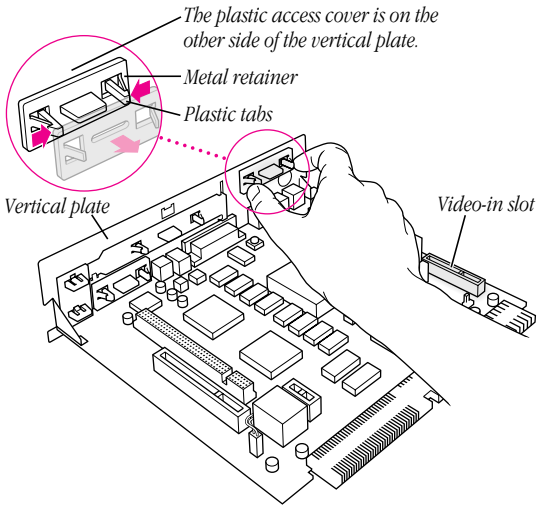


Swing down the wire handle, and slide the logic board out of the computer.

The logic board is plugged into a slot inside the computer. You may have to brace the computer with your other hand and pull firmly at first. Slide the entire logic board all the way out of the computer.

7 Locate the video-in access cover on one side of the vertical plate attached to the logic board. Remove the cover from this opening by squeezing together the plastic tabs that hold it in place.

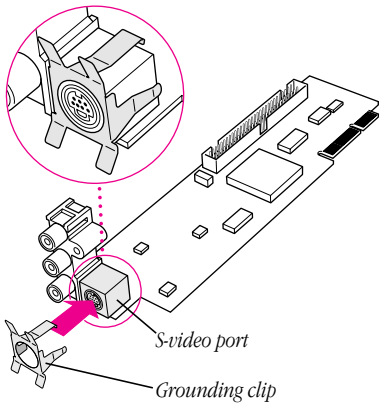
Note: Your logic board may not look exactly like the one pictured here, but the video-in slot and access cover are in the same position regardless of the logic board you have.



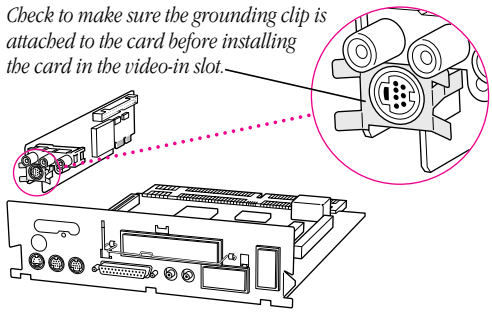
8 Remove the video input card from its static-proof bag. Handle the card by its edges in order to avoid touching the connectors.

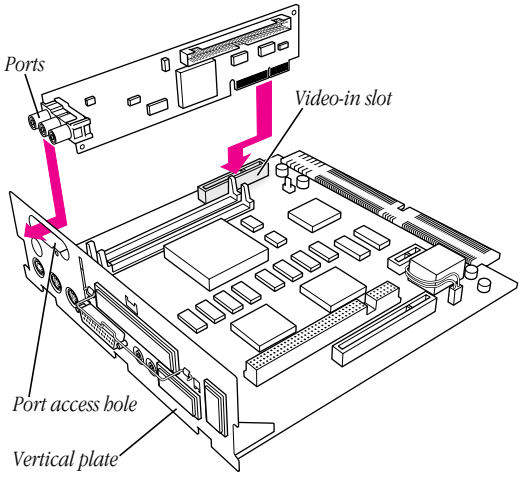
9 Attach the grounding clip to the S-video port of the video input card, if it isn't attached already.

Important Without the grounding clip attached, the S-video port may send insufficient power to equipment you connect to it.

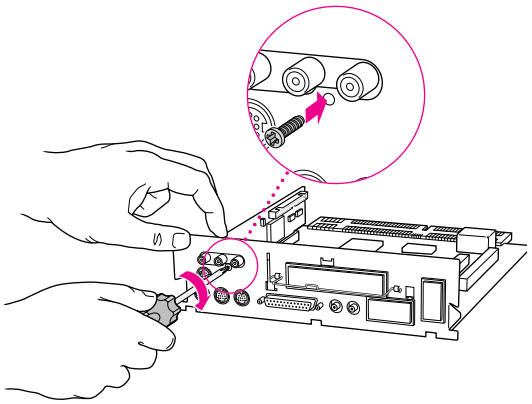


10 Making sure the grounding clip is on the card (as shown in step 9), plug the video input card firmly into the video-in slot on the logic board. Fit the three ports on the card into the port access hole. Make sure the card is firmly seated in the slot.

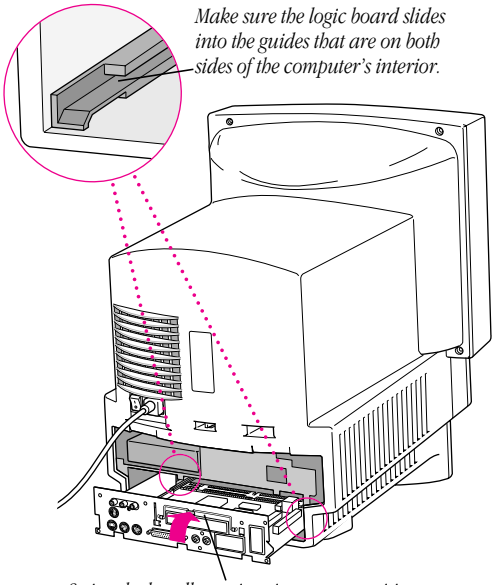




11 Screw the card to the vertical plate on the logic board. (Use the provided attachment screw.)

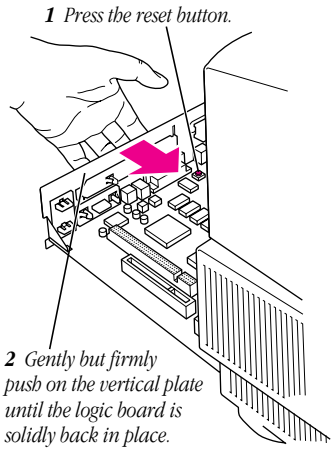


12 Swing the wire handle on the logic board back up into its storage position, securing it under its catch. Then fit the logic board into the guide rails on both sides of the computer's interior.

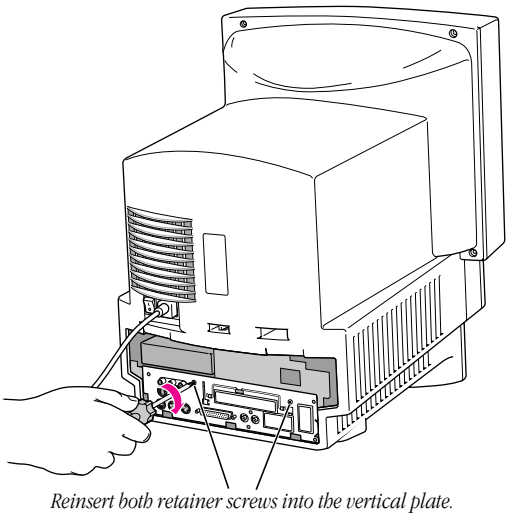


Swing the handle up, into its storage position.

13 Press the reset button on the logic board. Then gently but firmly push the board back into place within the computer. You will need to push a little harder at the end to make sure the connectors at the back of the board are seated in their slot.

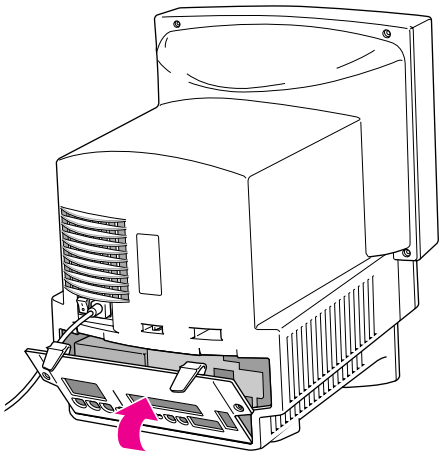


14 Reinsert the retainer screws into the vertical plate on the logic board.



Reinsert both retainer screws into the vertical plate.

15 Slip the tabs at the bottom of the back panel into the matching grooves in the computer case. Then press down on the clips and snap the top of the panel into place, making sure it is flush with the back of the computer.



16 If you removed security screws from the back panel in step 3, reinsert them.

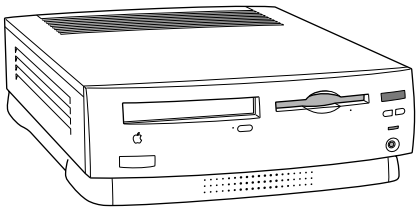
17 Reconnect any cables you disconnected at the start of this process.

Because you pressed the reset button on the logic board earlier, some of your computer's software settings may have changed. (For example, the date and time on your computer will need to be reset.) You may want to open the control panels for the date and time, keyboard, and mouse to make sure that they are set the way you want them. For more information about resetting these options, see the "Setting Options" or "Customizing Your Computer" topic of Macintosh Guide, available in the Guide (?) menu. (If you do not have Macintosh Guide on your computer, see the manuals that came with your computer.)

18 Skip the next section, "Installing the Card in a Modular Computer," and go on to the one that follows, "Installing the Software."

Installing the card in a modular computer

If your system has a separate monitor, like this one, continue with the steps below. If the monitor is built into your system, go back to the previous section, "Installing the Card in a Compact Computer."



To install the video input card in a computer with a separate monitor, follow these steps:

1. Press the Power key on the keyboard to shut down your computer.

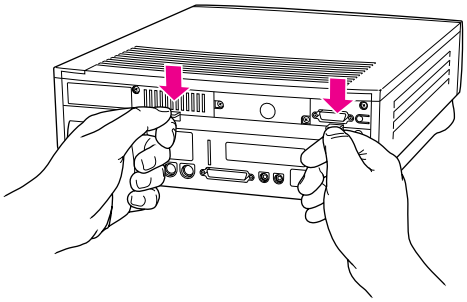
   You can also choose Shut Down from the Special menu.

2. Unplug all the cables except the power cord from your computer.

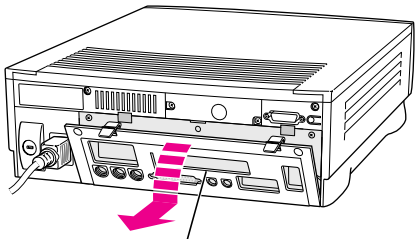
   Leaving the power cord plugged in until you're ready to remove the logic board from the computer helps protect the computer from electrostatic discharge damage.

   Important To avoid generating static electricity that may damage components, do not walk around the room until you have finished installing the card and closed the computer. Additionally, move the logic board as little as possible while it is outside the computer.

3 Place your thumbs on the two tabs at the top of the plastic panel, and press down.

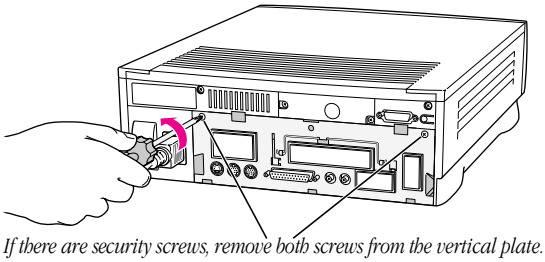


4 Pulling gently, swing the panel down and slip it out.



Remove the back panel.

5 If there are security screws on the vertical plate on the back of the computer, remove them with a screwdriver.



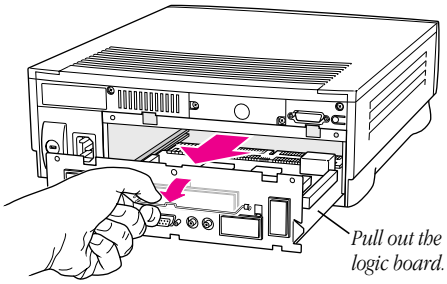
If there are security screws, remove both screws from the vertical plate.

6 Unplug the power cord from your computer.

Remember: Don't walk around the room until you have finished installing the card and closed the computer. Move the logic board as little as possible while it's outside the computer.

7 Swing the handle out from its storage position, then grasp the handle and gently but firmly pull it toward you.

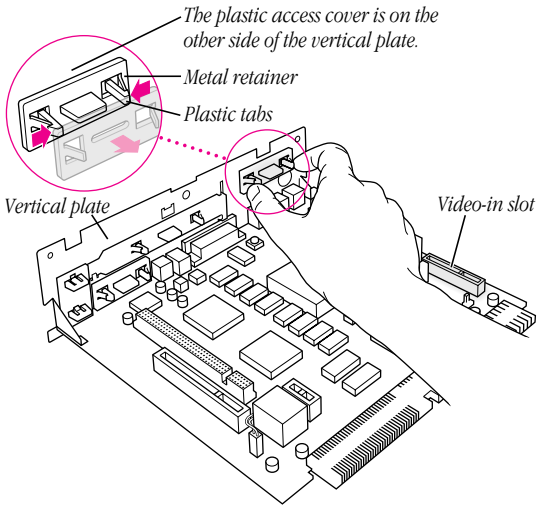
The vertical plate and the logic board to which it's attached slide all the way out of the computer.



Pull out the logic board.

8 Squeeze the plastic tabs on the video input port's access cover and pull the metal retainer so the access cover can come off.

Note: Your logic board may not look exactly like the one pictured here, but the video-in slot and plastic access cover are in the same position regardless of the logic board you have.

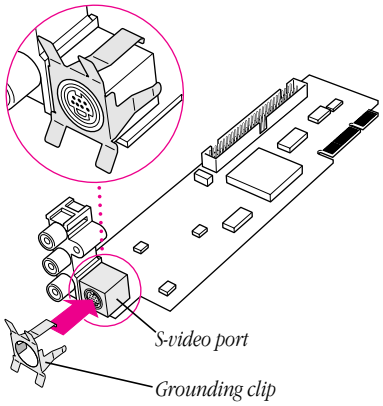


9 Remove the video input card from its static-proof bag.

Hold the card by its edges to avoid touching any connectors.

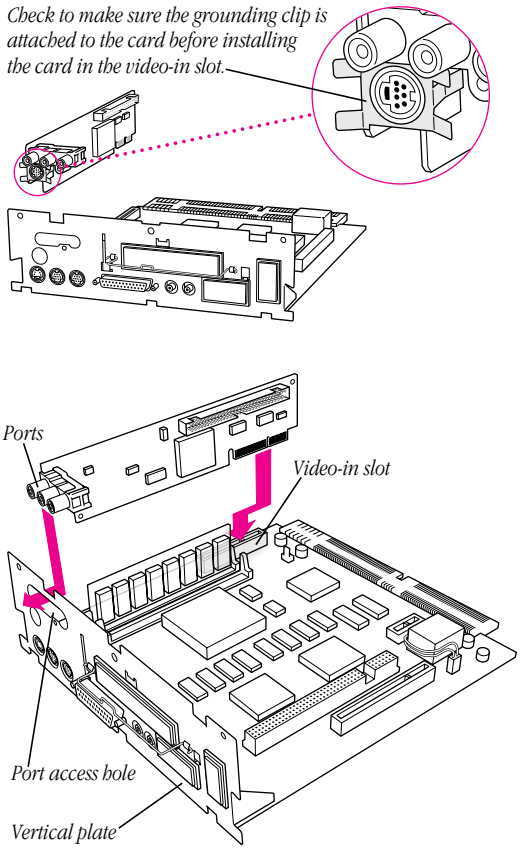
10 Attach the grounding clip to the S-video port of the video input card, if it isn't attached already.

Important Without the grounding clip attached, the S-video port may send insufficient power to equipment you connect to it.

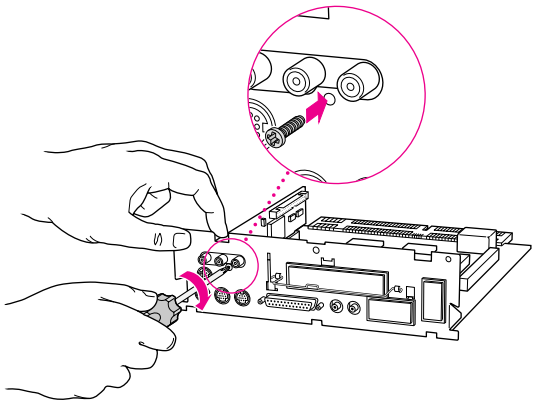


11 Locate the video-in slot on the logic board.

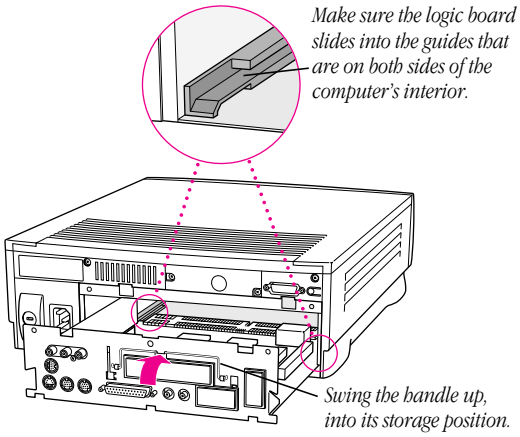
12 Making sure the grounding clip is on the card (as shown in step 10), plug the video input card firmly into the video-in slot on the logic board. Fit the three ports on the card into the port access hole. Make sure the card is firmly seated in the slot.



13 Screw the card to the vertical plate on the logic board. (Use the provided attachment screw.)

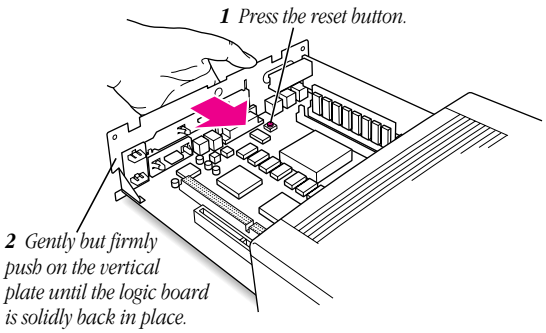


14 Slip the base of the logic board into the guide rails inside the computer case and swing the handle back into its storage position.

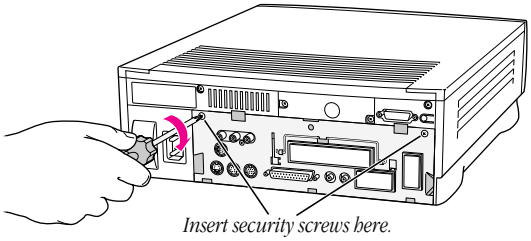


15 Press the reset button on the logic board. Then gently but firmly push the board back into place within the computer. You will need to push a little harder at the end to make sure the connectors at the back of the board are seated in their slot.

Note: If you can't find the reset button, it may be in a different location on your logic board. Check the manual that came with your computer, in the section in the appendix about installing expansion cards. An illustration there shows where the reset button is for your computer.

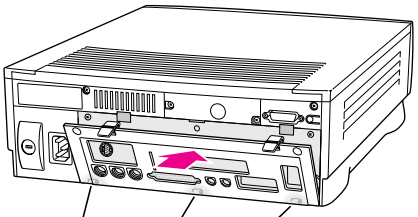


16 If you removed security screws, reinsert and tighten them now.



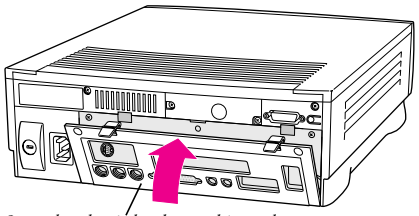
Insert security screws here.

17 Slip the three hooks at the base of the plastic back panel into the grooves in the computer case.



Slip the three hooks on the back panel into the grooves in the computer case.

18 Swing the plastic back panel up and snap it into place.



Snap the plastic back panel into place.

19 Reconnect the power cord and any cables you disconnected at the start of this process.

Because you pressed the reset button on the logic board earlier, some of your computer's software settings may have changed. (For example, the date and time on your computer will need to be reset.) You may want to open the control panels for the date and time, keyboard, and mouse to make sure that they are set the way you want them. For more information about resetting these options, see the "Setting Options" or "Customizing Your Computer" topic of Macintosh Guide, available in the Guide (?) menu. (If you do not have Macintosh Guide on your computer, see the manuals that came with your computer.)

Installing the software

The Apple Video Player application program lets you watch video on your computer. Follow these instructions to install the Apple Video Player application.

1 Start the computer.

2 Insert the first *Video Software Installer Disk* into the floppy disk drive.

3 Double-click the disk icon to open it.

4 Double-click the Installer icon.

5 Click Install.

6 Follow the instructions on the screen.

7 When the installation is complete, click Restart.

You can now find the Apple Video Player icon in the Apple Video Player folder, in the Apple Extras folder on your hard disk.

Connecting video equipment

If you want to see video on your computer from a VCR, laserdisc player, video camera, or other video equipment, you need to connect the equipment to the ports on the video input card.

You can connect one piece of equipment to the S-video port or one piece to the composite video port on the video input card.

Note: You can also connect two pieces of video equipment to the video input card simultaneously—one to the S-video input port on the card and another to the composite video input port on the card. For example, you can view a recording from a videocamera connected to the S-video port, then switch—using the Apple Video Player application, without having to disconnect cables—to viewing video from a VCR connected to the composite port on the card. However, you will hear sound only from that piece of equipment that is connected to the audio input ports on the card.

Preparing to connect video equipment

Before you start, make sure that

- both the Macintosh and the video equipment are turned off
- you place the video equipment near enough your Macintosh for easy connection
- you determine which type of video connector you need for your video equipment (see the next section)

Determining which video connector you need

Check the Video Out port or ports on your video equipment. A Video Out port should look like one of the ports pictured below. (You may have both ports.)

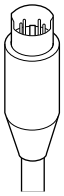
S-video port

Composite video port (RCA-type)

To connect to a composite Video Out port, use a composite (RCA plug) connector. See "Connecting Video Equipment If You Use a Composite (RCA Plug) Connector."

Composite connector (RCA plug)

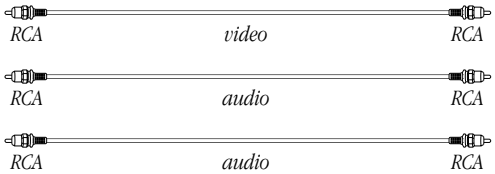
To connect to an S-video Video Out port, use an S-video connector. See "Connecting Video Equipment If You Use an S-video Connector," later in this chapter.



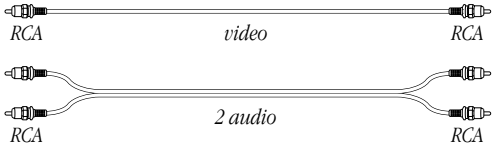
S-video connector

Connecting video equipment if you use a composite (RCA plug) connector

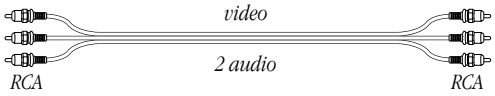
To connect your video equipment you need one video cable and two audio cables, all with RCA plugs at both ends. The cables can be separate or joined. You can purchase cables at electronics supply stores.



or



or



Note: If you have only one Audio Out port on your video equipment, you can use a Y-adapter audio cable. This cable has a single plug on one end to plug into your equipment and a double plug (where it forms a Y) on the other end to plug into the two audio ports on the video input card.

1. Make sure that both the Macintosh and the video equipment are turned off.
2. Attach one end of the video cable to the Video Out port on the video equipment.
3. Plug the other end of the video cable into the yellow composite video input port on the video input card.
4. Insert the RCA plugs on one end of the audio cables into the left and right Audio Out ports on the video equipment.

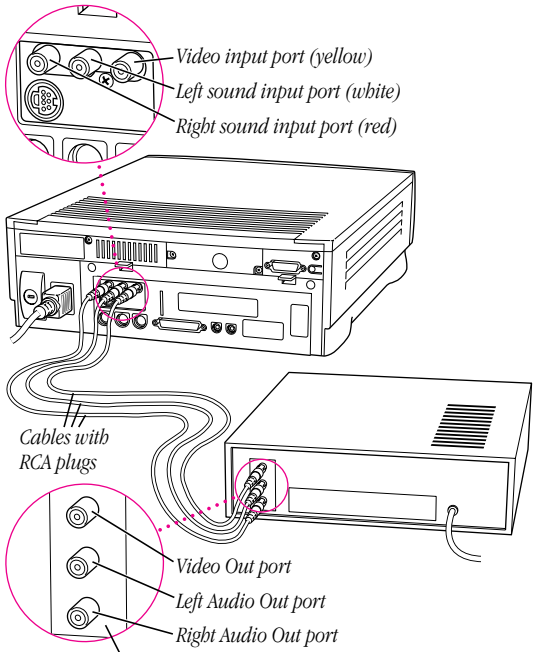
   If you're using a Y-adapter audio cable: Plug the single end of the cable into the Audio Out port on your video equipment.

5. Insert the RCA plugs on the other end of the audio cables into the left (white) and right (red) sound input ports on the video input card.

   Be sure to plug the cable from the left Audio Out port on the video equipment to the left sound input port on the computer. Connect the right ports in the same way.

   If you're using a Y-adapter audio cable: Plug the double end of it (where it forms a Y) into the right and left sound input ports on the video input card.

The video input card ports are exactly the same on a computer with a built-in monitor, and the card itself is in about the same position on the back of the unit as in the illustration below of a computer without a built-in monitor.

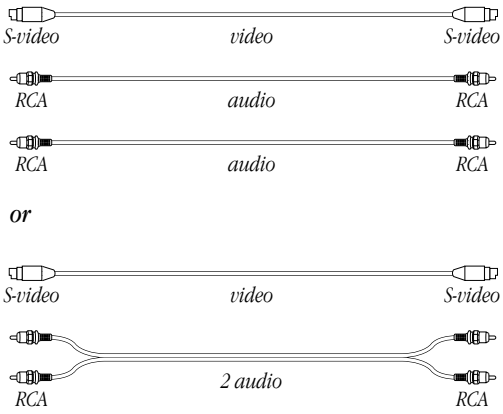


The ports on your video equipment may be arranged and labeled differently from those shown here.

Your video equipment is now connected to the video input card.

Connecting video equipment if you use an S-video connector

To connect your video equipment you need one video cable with S-video connectors on both ends and two audio cables with RCA plugs at both ends. The RCA cables can be separate or joined. You can purchase cables at electronics supply stores.



Note: If you have only one Audio Out port on your video equipment, you can use a Y-adapter audio cable. This cable has a single plug on one end to plug into your equipment and a double plug (where it forms a Y) on the other end to plug into the two audio ports on the video input card.

1. Make sure that both the Macintosh and the video equipment are turned off.
2. Attach one end of the video cable to the Video Out port on the video equipment.
3. Plug the other end of the video cable into the S-video input port on the video input card.

   About the S-video port: The S-video port accepts 4-pin and 7-pin connectors.

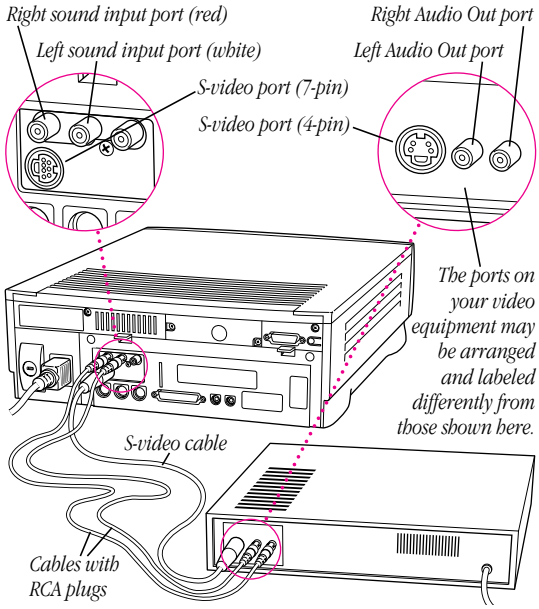
   If the connector doesn't slide easily into the port, realign it and try again. Avoid using force, which could damage the card or the connector.
4. Insert the RCA plugs on one end of the audio cables into the left and right Audio Out ports on the video equipment.

   If you're using a Y-adapter audio cable: Plug the single end of the cable into the Audio Out port on your video equipment.

5 Insert the RCA plugs on the other end of the audio cables into the left (white) and right (red) sound input ports on the video input card.

If you're using a Y-adapter audio cable: Plug the double end of the cable (where it forms a Y) into the right and left sound input ports on the video input card.

The video input card ports are exactly the same on a computer with a built-in monitor, and the card itself is in about the same position on the back of the unit as in the illustration below of a computer without a built-in monitor.



Your video equipment is now connected to the video input card.

CHAPTER

2

Learning About the Software

This chapter contains the information you need to set up and use the Apple Video Player application program. Topics include

- opening the Apple Video Player and the video window
- getting on-screen help for using the Apple Video Player
- changing the video source
- adjusting the sound and the picture
- changing the size of the video window
- changing the color of the windows
- setting the video input standard (NTSC, SECAM, or PAL)
- setting and using a keyboard shortcut (or "hot key") to open and quit the application

See also Chapter 3, "Capturing Video Images."

Opening the Apple Video Player

To use the Apple Video Player application program, open it by double-clicking its icon in the Apple Video Player folder, in the Apple Extras folder on your hard disk.

Apple Video Player

When the Apple Video Player application opens, a video window appears.

If you don't get an image in the window right away, see Chapter 4, "Troubleshooting."

Note: You can also open (and quit) the Apple Video Player application by using a keyboard shortcut. See the section at the end of this chapter, "Setting and Using a 'Hot Key.'"

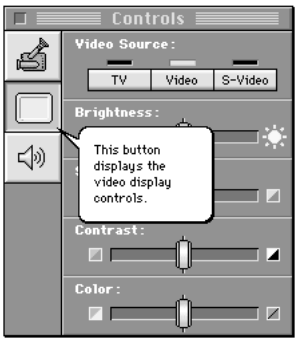
If you're viewing video on a secondary monitor: If you have two monitors attached to your computer (one attached to an expansion card in your computer), you can drag the video window to the secondary monitor, but the image's resolution will decrease.

Getting help

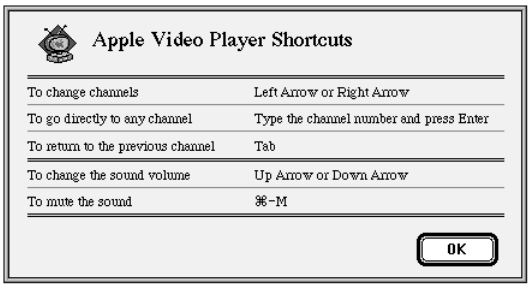
All the step-by-step instructions contained in the rest of this manual are also available in the Guide menu at the upper-right corner of the screen, marked with the ? icon. Make sure the video window is active and then choose Apple Video Player Guide from the Guide (?) menu. Apple Video Player Guide gives you step-by-step instructions for tasks whenever you need help using the application.

Note: Apple Video Player Guide is not available if you have a computer with system software earlier than 7.5; in that case, use this manual.

To see explanations of all the items on the screen when you use Apple Video Player, make sure that the video window is active, then choose Show Balloons from the Guide (?) menu.



To be reminded of keyboard shortcuts you can use with Apple Video Player, choose Apple Video Player Shortcuts from the Guide ? menu in the upper-right corner of the screen.



Choosing the correct video source

If you connected your video equipment to the S-video port on the video input card, you must select S-video in the Apple Video Player application. If you connected your equipment to the composite (RCA) port on the card, you must select Video in the Apple Video Player application.

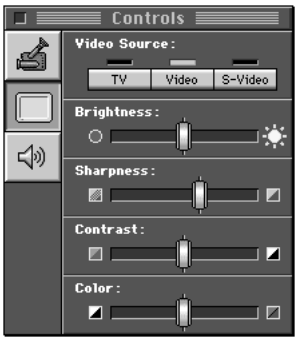
To change the video source setting, follow these instructions:

1. Choose Show Controls Window from the Windows menu.

   The Controls window appears.

2. Click the video screen icon.

The screen controls appear.



3 Click the video source you want to use.

Choose Video if your device is attached to the composite video input port on the video input card, or S-Video if your device is attached to the S-video input port on the video input card.

You can also choose TV to view TV in the video window, if you have a TV tuner card in your computer. To learn about viewing TV on your computer, see the manual that comes with the TV tuner card.

Note: If you're not sure whether or not a TV tuner card is already installed in your computer, check the illustration in Chapter 4, "Troubleshooting."

The source change takes effect as soon as you make it.

Adjusting the sound

When you are watching video in the video window, you can adjust the sound's volume, balance, and tone.

Changing the sound volume

There are three ways to change sound volume:

- Use the volume buttons on the front of the computer.
- Drag the slider next to the speaker icon on the video window.
- Press the Up Arrow key or Down Arrow key on the keyboard. (Make sure Apple Video Player is the active application, or these keys won't have any effect.)

To make the sound mute, click the speaker icon on the video window or press ⌘-M on the keyboard. To turn the sound back on, click the speaker icon or press ⌘-M (or press the remote control's muting button). The sound will also turn back on if you adjust the volume using any method.

You can also click anywhere in a slider's track to move the slider to that position. The sound adjustments take effect immediately, so you can monitor your changes.

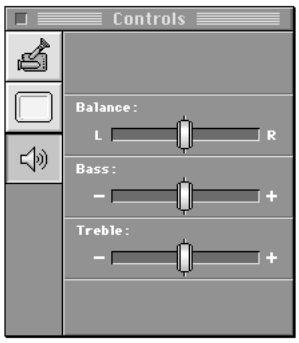
Adjusting speaker balance and tone

To adjust the speaker balance, bass, or treble:

1. Choose Show Controls Window from the Windows menu.
2. Click the sound icon.

3. Drag the appropriate slider to adjust the sound.

   You can also click anywhere in a slider's track to move the slider to that position. The sound adjustments take effect as you make them, so you can monitor your changes.



Note: You'll only be able to hear changes in balance if you have a computer monitor with built-in speakers, if you're using external speakers attached to your computer, or if you're using headphones.

Adjusting the picture

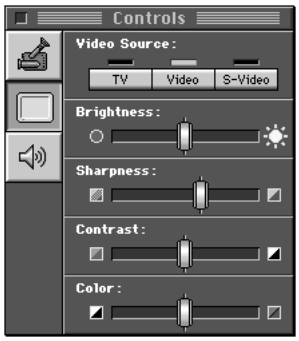
To adjust the brightness, sharpness, contrast, and color of the picture:

1 Choose Show Controls Window from the Windows menu.

The Controls window appears.

2 Click the video screen icon.

The screen controls appear.



3 Drag the appropriate slider to adjust the picture to your liking.

You can also click anywhere in a slider's track to move the slider to that position. The picture adjustments take effect as you make them, so you can monitor your changes.

Changing the video window size

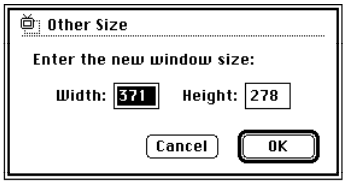
There are several ways to change the size of the video window. You can make a choice from the Windows menu, use a keyboard shortcut for one of the three most common sizes, drag the size box, or click the zoom box.

Choosing menu commands

You can choose different video window sizes from the Windows menu:

- Smallest Size uses about 1/16 of the screen.
- Normal Size uses about 1/4 of the screen.
- Largest Size uses as much of the screen as it can.

  On monitors that are 640 by 480 pixels or smaller, Largest Size hides both the menu bar and the screen controls. Moving the mouse makes the menu bar visible.
- Other Size opens a dialog box in which you can enter a specific other size.



Width must be in the range 160 to 640 pixels. Height must be in the range 120 to 480 pixels.

Keep your proportions: The usual video window width-to-height ratio is 4 to 3. Setting other proportions distorts the video image and decreases its resolution.

Using keyboard shortcuts

There are three keyboard shortcuts for changing the video window size:

- ⌘-1 sets the smallest size.
- ⌘-2 sets normal size.
- ⌘-3 sets the largest size.

You can also switch to the largest size by clicking the zoom box.

Dragging the size box

If you drag the size box, the horizontal and vertical dimensions of the screen change proportionally.

If you drag the size box while holding down the Shift key, the image becomes distorted. (It stretches or shrinks in the direction that you drag.)

Changing the window color

You can set a new color for the border surrounding the video window by choosing Window Color from the Windows menu. The current color is checked. The choices are Dark Gray, Green, Blue, Magenta, Red, and Gold.

"Window Color" is not the display color: The Window Color command has no effect on the colors you see in the video window. For information on setting the brightness, sharpness, contrast, and color in the video window, see "Adjusting the Picture" earlier in this chapter.

Setting the video input standard

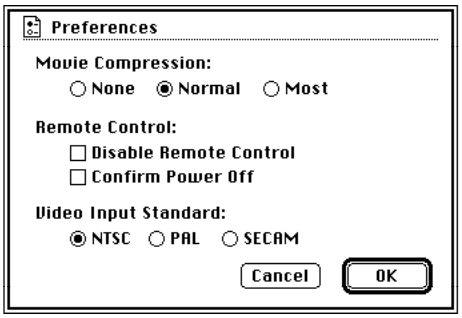
The video input standard determines how the Apple Video Player application interprets video (S-video or composite) signals. This standard is preset to your region in the Apple Video Player software. In most cases, you won't need to change it.

NTSC is the standard video signal for most of the Americas and Japan. PAL is common in Western Europe, Australia, most of Asia, and parts of South America and Africa. SECAM is used in France, Eastern Europe, and parts of Asia and Africa.

To change the video input standard, follow these steps:

1 Choose Preferences from the Setup menu.

The Preferences dialog box appears.



2 Choose the Video Input Standard setting you need.

If the setting you choose produces a strange image (for example, the picture is too small or the colors are odd), try another setting.

Setting and using a "hot key"

You can also open Apple Video Player by pressing a preset key or combination of keys. When you press this "hot" key, you switch to the Apple Video Player application no matter what other application you are currently in. If Apple Video Player is already the active application, the Apple Video Player application quits when you press the hot key.

To set a hot key:

1. With the Apple Video Player application active, choose Hot Key from the Setup menu.

   The Hot Key dialog box appears.

2. Press the key or key combination you want to use for your hot key.

   You can use one or more (up to four) of the modifier keys—⌘, Option, Control, and Shift—plus any other key.

   Important Don't use a key combination that is already used by other programs. For example, don't use ⌘-P, which is a keyboard shortcut for printing in most applications. If you use a keyboard shortcut like ⌘-P to open or quit Apple Video Player, ⌘-P will no longer print things for you—it will instead open Apple Video Player.

3. Click OK.

   Your new hot key is ready to use, to quit or to open Apple Video Player.

   If you discover later that pressing your hot key causes unexpected things to happen—or that a keyboard shortcut in another application launches Apple Video Player—repeat these steps to choose another hot key.

CHAPTER

3

Capturing Video Images

This chapter gives instructions for using the Apple Video Player application program to capture

- individual (still) images
- sequences of moving images (as QuickTime movies)

The images in the video window can come from any video equipment connected to your video card.

You'll need to open the Apple Video Player application before following the instructions in this chapter. (See "Opening the Apple Video Player" in Chapter 2.)

Capturing individual images

You have two ways to capture a single image—by using the capture controls in the Controls window or by using the Copy Video Display command in the Edit menu.

To learn how to record a sequence from a movie, see the section "Capturing Movies" later in this chapter.

Capture controls

When you use the capture controls in the Controls window, you can freeze the screen image before you save it. Additionally, the capture controls let you save the image directly on a disk.

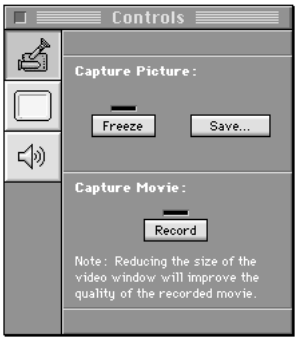
Follow these steps:

1. Choose Show Controls Window from the Windows menu.

   The Controls window appears.

2. Click the video camera icon.

The capture controls appear.



3 Wait until you see the image you want to capture.

The Controls window can remain open without affecting what happens in the video window.

- To freeze the video image at the current frame, click Freeze.

  The video freezes, and you can decide if you want to save the current frame.

  To unfreeze the video, click Freeze again.

- To save the current video frame on a disk, click Save.

  If the video isn't already frozen, it freezes at the current frame until you complete the Save operation.

  A dialog box appears so you can specify where to save the image. When you click Save, the image is saved as a PICT file under the name that you supply. (A PICT file can be opened by most graphics programs.)

Copy Video Display command

To capture the current screen image by copying, choose Copy Video Display from the Edit menu or press ⌘-C.

Important When you use Copy Video Display or press ⌘-C, the current screen image is copied to the Clipboard. The image is not saved on a disk. (To save an image that's on the Clipboard, you must paste it into a document or the Scrapbook.)

Capturing movies

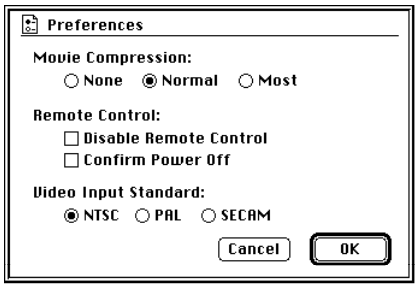
Before capturing a movie and saving it on a disk, you may want to choose a compression rate so that the movie takes up less disk space (but is of lesser quality), following the instructions in "Using Compression," below. If you don't want to choose a compression rate just yet, go on to "Recording" on the next page.

Using compression

With compression you can store movies in a much smaller space than they would normally require. To use compression, follow these steps before you record a movie:

1 Choose Preferences from the Setup menu.

The Preferences dialog box appears.



2 Click one of the buttons under Movie Compression.

None means that no compression takes place. ***Normal,*** the preset choice, uses anywhere from 12% to 50% of the disk space that ***None*** uses; the less movement in each frame of the movie, the greater the savings. ***Most*** uses slightly less disk space than does ***Normal.***

To save the most space you can, choose the smallest size video window and the most compression.

Note: Compression affects picture quality: the more compression you use, the grainier the picture.

Recording

You can capture video sequences (moving images) as QuickTime movies, which can be opened in any application that supports QuickTime, such as SimpleText.

To capture video images, follow these steps:

1 Make sure networking or printing is not active and virtual memory is turned off.

For best results recording video, you should quit networking or printing applications and turn off virtual memory. To check whether virtual memory is on or not, open the Memory control panel. If the On button for virtual memory is selected, click the Off button to turn virtual memory off.

2 Adjust the volume to your liking.

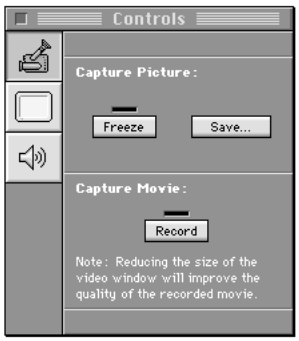
Movies are captured at the current volume setting. For example, if the sound is muted, your recorded movie will not have any sound.

3 Choose Show Controls Window from the Windows menu.

The Controls window appears.

4 Click the video camera icon.

The capture controls appear.



5 Wait until the sequence that you want to capture begins.

The Controls window can remain open without affecting what happens in the video window.

6 Click Record.

Recording begins and the Record button changes to a Stop button.

7 Click Stop when you've recorded as much as you want.

Important If you don't click the Stop button, recording continues until the hard disk is full.

A dialog box appears, in which you can specify a name and location for your movie.

You can also preview the QuickTime movie before you save it.

Use as small a size as you can: The amount of disk storage that a movie takes is directly related to the size of the video window—the larger the window, the more disk space you use. By choosing Smallest Size from the Windows menu before you record, you may be able to save more than 50% in storage space. (A movie that uses about 75 megabytes per minute at the normal video window size will use only about 35 megabytes per minute at the smallest video window size.) See "Changing the Video Window Size" in Chapter 2.

You can open the movie from inside any application that supports QuickTime, such as SimpleText. If you open the movie through SimpleText, for example, the SimpleText document plays the movie using QuickTime technology.

CHAPTER

4

Troubleshooting

This chapter suggests what to do if problems occur when you're using the video input card hardware and software.

Warning If you have a problem with your Apple equipment and nothing presented in this chapter, or in the manual that came with your computer, solves it, consult the service and support information that came with your Apple equipment for instructions on how to contact an Apple-authorized service provider or Apple for assistance. If you attempt to repair the Apple equipment yourself, any damage you may cause to the Apple equipment will not be covered by the limited warranty on your Apple equipment. Contact an Apple-authorized dealer or service provider for additional information about this or any other warranty question.

You see a blank screen when you change to video mode or when you first open Apple Video Player.

- Be sure your video equipment is securely connected to the appropriate video port and your equipment is turned on.
- You may have the wrong video source selected. Go to the screen controls in the Controls window and click the appropriate Video Source button. For further instructions on selecting the video source, see the section, "Choosing the Correct Video Source," in Chapter 2.

Apple Video Player suddenly opens while you're working in another application, or unexpected things happen when you use your hot key.

- The hot key you've chosen to open or quit Apple Video Player is a key combination also used in another application. (For instance, in most Macintosh programs, ⌘-P sends a document to the printer. On the desktop, ⌘-N creates a new untitled folder.) Change the keyboard shortcut for Apple Video Player by choosing Hot Key from the setup menu.

You can't see the volume slider on the video window.

- The video window is too small or too large. Change the size by making a choice from the Windows menu or by dragging the size box.

The image is too small or it's filled with odd colors.

- The video input standard is set incorrectly. Choose Preferences from the Setup menu and select a different setting.

You don't hear any sound.

- Adjust the volume slider in the video window, or the volume controls on the front of your computer if you have them.
- Check the sound-related control panel on your computer to see if the volume has been turned off. For instructions on using the control panel to turn on sound, choose Macintosh Guide from the Guide (?) menu. (Make sure that you're in the Finder first.) If you don't have Macintosh Guide, see the manuals that came with your computer for information on your computer's sound-related control panel.

The image is too white or too dark.

- Adjust the video screen controls. (Choose Show Controls Window from the Windows menu and click the video screen icon.)
- If you have a VCR connected to your video input card, make sure you're not having a problem with the videotape or the VCR itself. (Connect the VCR back to your TV and play the tape to see if the image is still bad.)
- The voltage output of your video equipment may be too high or too low for the video input card. Therefore your video equipment may be sending video signals that are too strong (causing a white picture) or too weak (causing a very dark picture) for the video input card. Try connecting different video equipment to the card.

You have a dark or "rolling" picture.

- Adjust the video screen controls. (Choose Show Controls Window from the Windows menu and click the video screen icon.)
- If you have a VCR connected to your video input card, make sure you're not having a problem with the videotape or the VCR itself. (Connect the VCR back to your TV and play the tape to see if the image is still bad.)
- If your VCR is connected to a TV monitor *and* to the video input card, make sure that your cables go in this order: the first cable must go from the Video Out port on the VCR to the video in port on the TV monitor; the second cable must go from the TV monitor video out port (or loop-through video input port, whichever your TV monitor has) to the computer's video input card. (The connection must *end* at the video input card, not the TV monitor.) Also check that your TV monitor is set to loop-through (also known as "Hi-Z") input.

The sound is intermittent or clipped.

- Turn down the volume controls on your video equipment. They may be set too high for the video input card.
- The voltage output of your video equipment may be too high for the video input card. Therefore your video equipment may be sending signals that are too strong for the video input card. Try connecting different video equipment to the card.

The sound is full of static.

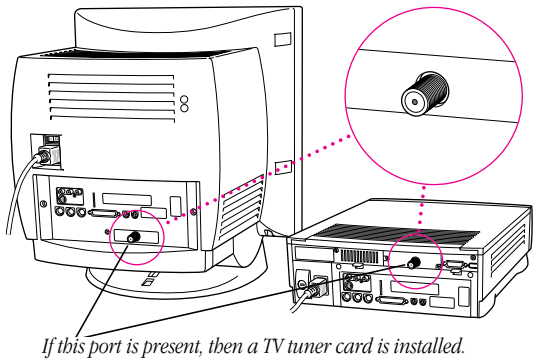
- Be sure your video equipment is securely connected to the appropriate ports on the video input card.

- Adjust the sound controls in the Controls window. (Choose Show Controls Window from the Windows menu and click the sound icon.)
- Turn up the volume controls on your video equipment.

You're playing a video tape with closed captions, but the closed captions do not appear.

- To view a videotape with closed captions, you must connect your VCR to a TV tuner port, not the video input card. If you do not have a TV tuner card in your computer, you can purchase one from an Apple-authorized dealer. Then follow the instructions that come with the TV tuner card to see how to view closed captions on videotape.

  If your computer has a built-in monitor, the TV tuner port (if you have one) is as shown in the computer on the left. If your computer has a separate monitor, the TV tuner port is as shown in the computer on the right.



If this port is present, then a TV tuner card is installed. (The ports on your computer may look different.)

CHAPTER

5

Technical Information

Your video input card is suitable for use with home-quality video equipment. This chapter lists the specific technical characteristics of the video card.

Input standards

Video input standards are the same as the following television input standards:

- NTSC: 525 lines per frame, 60 fields per second
- PAL: 625 lines per frame, 50 fields per second
- SECAM: 625 lines per frame, 50 fields per second

External connections

The external connections on your video input card include the following:

- an S-video Video In port with a DIN-7 (Deutsche Industrie Normung) connector

  Maximum current from S-video: 0.5 Amperes
- an RCA Video In port (with a yellow sleeve)
- a left RCA Audio In port (with a white sleeve)
- a right RCA Audio In port (with a red sleeve)

Internal connections

The video input card can be used with the Apple MPEG Media System card or Apple's TV tuner card, or both.

Video input characteristics

- Maximum input level: 2 volts peak-to-peak (Vpp)
- Minimum input level: 0.5 Vpp
- Impedance: 75 ohms (not a loop-through input)
- Input bandwidth: -3 decibels (dB) at 6 megahertz (MHz)

Audio input characteristics

- Maximum input level: 2 Vpp
- Impedance: 5,000 ohms
- Input bandwidth: 50 to 15 kilohertz (kHz)

A

adjusting
  sound volume 56
  speaker balance and tone 57
  video image 58
Africa, standard video signal for 61
Americas, standard video signal for 61
Apple-authorized dealer 71
Apple Extras folder 42, 52
Apple Video Player application 52–62
  adjusting sound volume with 56
  adjusting speaker balance and tone with 57
  adjusting video image with 58
  changing video window size with 59–60
  changing window color with 60
  choosing the correct video source with 54–55
  getting help in 53–54
  installing 41–42
  keyboard shortcuts in 60
  opening 52–53
    troubleshooting 72
    with a hot key 62
    setting and using a hot key with 62
  setting video input standard with 61
  troubleshooting 72
Apple Video Player folder 42, 52
Apple Video Player Guide command (Guide menu) 53
Apple Video Player icon 42, 52
Apple Video Player Shortcuts command (Guide menu) 54
applications. *See* Apple Video Player application; printing applications
arrow keys, adjusting sound volume with 56
Asia, standard video signal for 61
audio cables 45, 46, 48, 49
audio input characteristics 78
Audio Out ports on video equipment 45–47, 48, 49
audio ports on video input card 45, 50
Australia, standard video signal for 61

B

back panel of a compact computer
  removing 6–7, 18–19
  removing screws from 5, 18
  replacing 15, 29, 40
  replacing screws on 16, 28
back panel of a modular computer
  removing 32
  replacing 40
balance of speakers, adjusting 57

C

cables
  audio cable 45, 46, 48, 49, 50
  S-video cable 50
  video cable 45, 48, 49
  Y-adapter audio cable 46, 48, 49, 50
Canada, standard video signal for 61
capture controls (Controls window) 64–65
capturing video
  individual video images 64–66
  movies 66–69
Central America, standard video signal for 61
changing
  color of video window 60
  sound 56–57
  video source setting 54–55
  video window size 59–60
    by dragging size box 60
    with keyboard shortcuts 60
    with menu commands 59
Clipboard, copying current screen image to 66
closed captions, troubleshooting 75
color
  of video image 58
  of video window 60
  troubleshooting 72
commands
  Apple Video Player Shortcuts (Guide menu) 54
  Copy Video Display (Edit menu) 66
  Hot Key (Setup menu) 62
  Preferences (Setup menu) 61, 66
  Show Balloons (Guide menu) 53
  Show Controls Window (Windows menu) 54, 57, 58, 64, 68, 73
  Window Color (Windows menu) 60
compact computer with built-in monitor
  installing video input card into 2–30
  removing back panel from 6–7, 18–19
  replacing back panel on 15, 29, 40
composite (RCA plug) connector 44–47, 48, 49, 50

composite video input port on video input card 43, 46
composite Video Out port on video equipment 44
compression rate for movies 66–67
computers. *See* compact computer with built-in monitor; modular computer with external monitor
connecting video equipment 43–50
  using composite (RCA plug) connector 45–47
  using S-video connector 48–50
connections
  external 77
  internal 78
connectors
  composite (RCA plug) 44–47, 48, 49, 50
  S-video 44, 48–50
  types of 44
contrast
  adjusting 58
  troubleshooting 73
control panels
  Memory control panel 67
  resetting after installing card 16, 30, 41
Controls Window
  capture controls in 64–65
  showing 54, 57, 58, 64, 68
  sound controls in 75
  viewing 73
copying video images 66
Copy Video Display command (Edit menu) 66

D

dark images 73, 74
dealer, Apple-authorized 71
disk
  saving space on by compressing movies 66–67
  saving video images on 64–65
  space taken up on by movies 69
dragging the size box 60

E

Eastern Europe, standard video signal for 61
Edit menu 66
electrostatic discharge, avoiding damage from 4, 7, 31
Europe, standard video signal for 61
external connections 77

F

folders
  Apple Extras folder 42, 52
  Apple Video Player folder 42, 52
frames. *See* video images
France, standard video signal for 61
freezing and unfreezing video images 64–65

G

grounding clip
  appearance of 2
  attaching to S-video port 10, 23, 35
  checking before installing card 11, 24, 36
  purpose of 10
Guide menu 53, 54
Guide menu icon 53

H

handling
  logic board 4, 7, 20
  video input card 10, 23, 35
headphones 57
help in Apple Video Player application 53–54
Hi-Z input 74
Hot Key command (Setup menu) 62
hot keys
  setting and using 62
  troubleshooting 72

I, J

icons
  Apple Video Player icon 42, 52
  Guide menu icon 53
  Installer icon 41
  sound icon 57
  speaker icon 56
  video camera icon 64
  video screen icon 54, 58
images. *See* video images
input standards 77
Installer 41
Installer icon 41
installing
  video input card
    in a compact computer 2–30
    in a modular computer 31–41
  Apple Video Player application 41–42
internal connections 78

K

keyboard shortcuts
  in Apple Video Player application 54
  for capturing current screen image 66
  hot keys to open and quit Apple Video Player application 62

L

light images 73
logic board
  handling 4, 7, 20
  removing
    from a compact computer 8, 21
    from a modular computer 33
  replacing
    in a compact computer 13–14, 26–27
    in a modular computer 38–39
  reset button on 14, 27, 39
  video-in slot on 11, 24, 36
loop-through ("Hi-Z") input 74

M

Memory control panel 67
menus
  Edit menu 66
  Guide menu 53, 54
  Setup menu 61, 62
  Windows menu 54, 57, 60, 64, 68, 73
modular computer with external monitor
  installing video input card into 31–41
  removing back panel from 32
  replacing back panel on 40
monitors
  external. *See* modular computer with external monitor
  internal. *See* compact computer with built-in monitor
  secondary
    troubleshooting 74
    viewing video on 53
movies. *See also* video images
  capturing 66–69
  compression rate for 66–67
  disk space taken by 69
  recording 67–69
  volume setting for 68
muting sound 56

N

networking, turn off before recording video 67
North America, standard video signal for 61
NTSC video input standard 61

O

opening Apple Video Player application 52–53
  with a hot key 62

P

PAL video input standard 61
PICT file, saving images as 65
pictures. *See* video images
pixel ranges for video image 59
plugs. *See* connectors; RCA plug
port access hole 11, 24, 36
ports
  Audio Out ports on video equipment 45–47, 48, 49
  audio ports on video input card 45, 50
  composite video input port on video input card 43, 46
  composite Video Out port on video equipment 44
  sound input ports on video input card 47, 50

S-video port on video input card 10, 23, 35, 43–44, 49–50, 54–55
TV tuner port 75
video input port on video input card 47
Video Out port on video equipment 44, 46, 47, 49
power, turning off 4
Preferences command (Setup menu) 61, 66
printing applications, turn off before recording video 67
problems. *See* troubleshooting
programs. *See* Apple Video Player application; printing applications

Q

QuickTime movies 66–69
quitting Apple Video Player application with a hot key 62

R

RCA plugs 44–47, 48, 49, 60
recording movies 67–69
removing
back panel
of a compact computer 6–7, 18–19
of a modular computer 32
logic board
from a compact computer 8, 21
from a modular computer 33
screws
from back of a modular computer 33
from back panel of a compact computer 5, 18
video-in access cover
from a compact computer 9, 22
from a modular computer 34
repair 71
replacing
back panel
of a compact computer 15, 29, 40
of a modular computer 40
logic board
in a compact computer 13–14, 26–27
in a modular computer 38–39
screws
on back panel of a compact computer 16, 28
on back of a modular computer 40
reset button on logic board 14, 27, 39
rolling image 74

S

saving video images
  as PICT files 65
  on disk 64–65
screen controls 55, 73
screws
  removing
    from back of a modular computer 33
    from back panel of a compact computer 5, 18
  replacing
    on back panel of a compact computer 16, 28
    on back of a modular computer 40
SECAM video input standard 61
selecting video source 54–55
service and support 71
Setup menu
  Hot Key command 62
  Preferences command 61, 66
sharpness, adjusting 58
shortcuts in Apple Video Player application 54
Show Balloons command (Guide menu) 53
Show Controls Window command (Windows menu) 54, 57, 58, 64, 68, 73
SimpleText 67, 69
size box, dragging 60
size of video window, changing 59–60
software. *See* Apple Video Player application; printing applications; software options
software options, resetting after installing card 16, 30, 41
sound
  adjusting movie volume 68
  adjusting speaker balance and tone 57
  adjusting sound volume 56
  muting 56, 60
  troubleshooting 73
sound controls 75
sound icon 57
sound input ports on video input card 47, 50
South America, standard video signal for 61
speaker icon 56
speakers
  adjusting balance and tone of 57
  adjusting volume of 57
static electricity, avoiding 4, 7, 31
support 71
S-video cable 50
S-video connector 44, 48–50
S-video port on video input card
  appearance of 44
  attaching grounding clip to 10, 23, 35

connecting video equipment to 43, 49–50
connectors accepted by 49
selecting as video source 54–55

T

technical information 77–78
television. *See* TV
tone, adjusting 57
troubleshooting 71–75
color 72
dark or rolling picture 74
hot keys 72
opening Apple Video Player 72
secondary monitor 74
sound 73
VCR 73, 74
video image too small or filled with odd colors 72
too white or too dark 73
video input standard setting 72
videotape closed captions fail to appear on 75
dark or rolling pictures on 74
voltage output of video equipment 73–74
volume slider does not appear on video window 72
turning the computer off 4
TV, viewing in video window 55
TV input standards 77
TV tuner card 55
TV tuner port 75

U

United States, standard video signal for 61

V

VCR, troubleshooting 73, 74
video cable 45, 48, 49
video camera icon 64
video connector, determining which you need 44
video equipment
Audio Out ports on 45–47, 48, 49
composite Video Out port on 44
connecting 43–50
using composite (RCA plug) connector 45–47
using S-video connector 48–50
ports, location and appearance of 47, 50
Video Out port on 44, 46, 49–50
voltage output of 73–74
video images. *See also* movies
adjusting sharpness, contrast, and color of 58
dark or rolling 74

capturing
individual images 64–66
keyboard shortcut for 66
movies 66–69
copying 66
freezing and unfreezing 64–65
recording as movies 67–69
saving as PICT files 65
saving on disk 64–65
troubleshooting
too small or filled with odd colors 72
too white or too dark 73
viewing on a secondary monitor 53
video-in access cover, removing
from a compact computer 9, 22
from a modular computer 34
video input card. *See also specific topic*
audio ports on 45, 50
composite video port on 43, 46
connecting video equipment to 43–50
handling 10, 23, 35
installing
in a compact computer 2–30
in a modular computer 31–41
S-video port on 10, 23, 35, 43–44, 49–50
sound input ports on 47, 50
technical characteristics of 77–78
video input port on 47
voltage requirements for 73–74
video input characteristics 78
video input standard 77
incorrect setting of 72
setting 61
video-in slot
connecting video input card to 11, 24, 36
position of 9, 22, 34
Video Out port on video equipment
appearance of 44, 47
connecting video cable to 46, 49
video screen controls 73
video screen icon 54, 58
video source, choosing 54–55
videotape, troubleshooting 74, 75
video window
changing color of 60
changing size of 59–60
pixel ranges for 59
speaker icon on 56
viewing TV on 55
volume slider does not appear on 72
width-to-height ration for 59

viewing
TV in video window 55
video on a secondary monitor 53
virtual memory, turn off before recording video 67
voltage output of video equipment 73–74
volume
adjusting 57, 74, 68
of movies 68
troubleshooting 73
volume controls 72, 74

W, X

warranty 71
Western Europe, standard video signal for 61
Window Color command (Windows menu) 60
Windows menu
choosing video window sizes in 59
Show Controls Window command 54, 57, 58, 64, 68, 73
Window Color command 60

Y, Z

Y-adapter audio cable
connecting
to audio port of video equipment 46, 49
to sound input ports on video input card 50
description of 45, 48

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