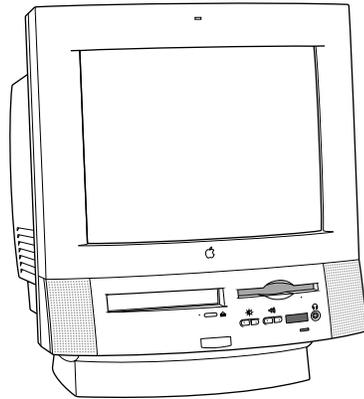
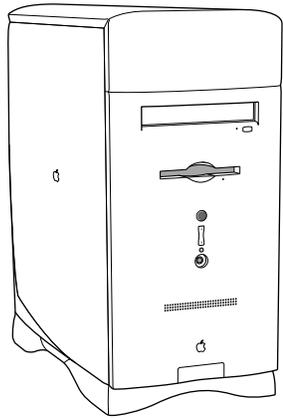


Installing the Video Input and TV Tuner Cards in a Compact Computer or a Dual PCI-Slot Tower Computer

This booklet describes how to install the video input and TV tuner cards in a compact Macintosh computer—one with a built-in monitor—or a dual PCI-slot tower computer.



Compact computer

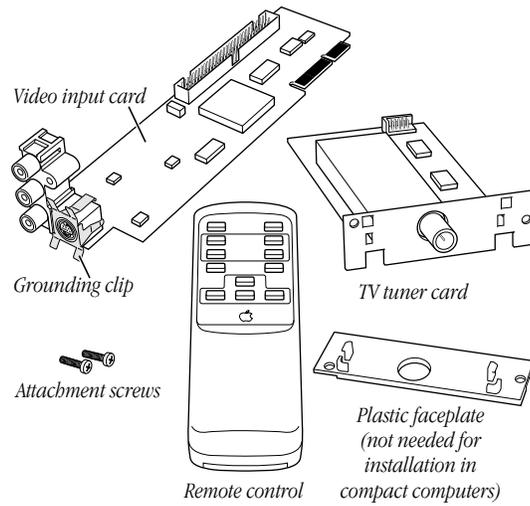


Dual PCI-slot tower computer

If your computer has a separate monitor but is not the tower model with two PCI slots, see the *Apple TV/Video System User's Guide* for installation instructions.

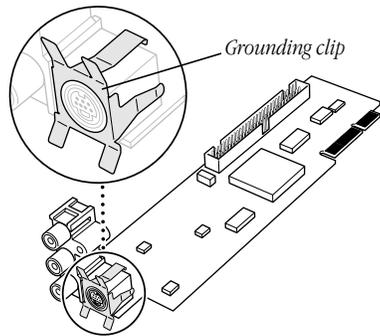
What you should have

If you purchased the video input card and the TV tuner card, you should have everything shown below.



Note Your remote control may look different from the one shown here.

Your package should also include the metal grounding clip shown below. It may be a separate piece, or it may already be attached to the video input card.

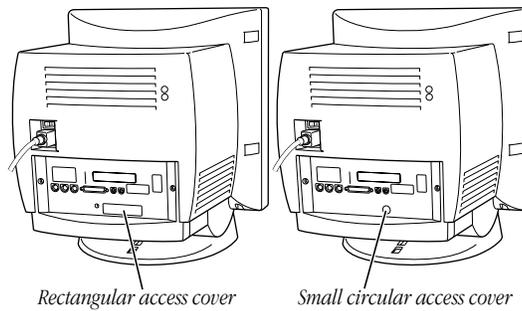


If you have a compact computer, follow the instructions in the next section, “Installing the Cards in a Compact Computer.” If you have a tower computer, go to the section “Installing the Cards in a Dual PCI-Slot Tower Computer.”

Installing the cards in a compact computer

The TV tuner card will not work if you do not have the video input card installed. To use the TV tuner card, install the video input card even if you do not intend to connect any video equipment to it.

The illustrations in this manual often show a circular access cover on the back of the computer. Your computer may have a rectangular access cover instead. This manual contains steps for installing the cards in both types of computers.



Removing the logic board

- 1** Turn off the computer.

Choose Shut Down from the Special menu, or press the Power key on the keyboard.

Press the power switch at the back of the computer.

Press the side of the switch marked with the \odot symbol.

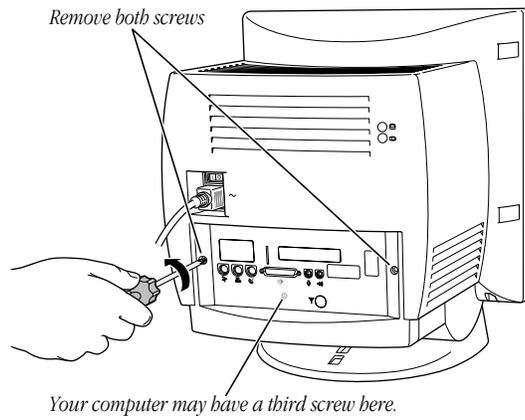
- 2** Unplug all the cables except the power cord from your computer.

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 completed the installation of the card and closed the computer. Additionally, move the logic board as little as possible while it is outside the computer.

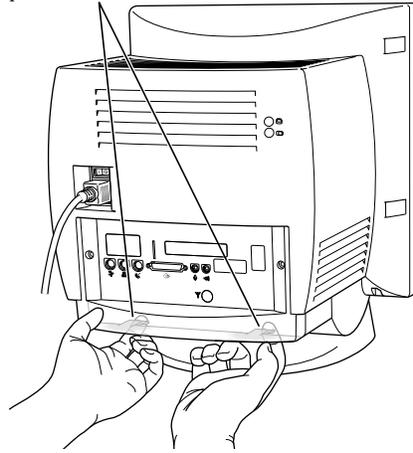
- 3 Use a screwdriver to remove the security screws from the back panel.

Note Depending on the computer model you have, there may be two or three screws.



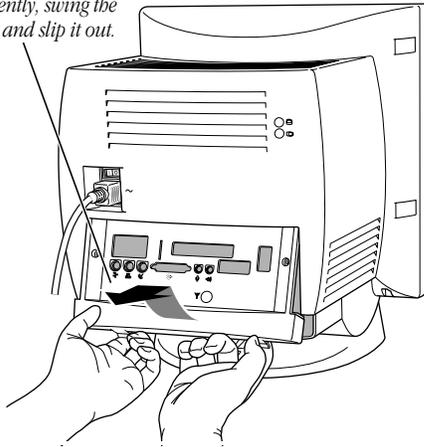
- 4** With your fingertips, locate the two latches on the underside of the computer's case.

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



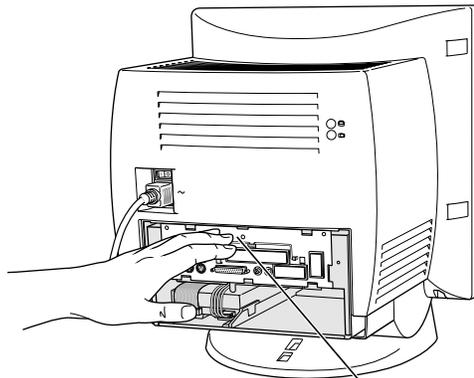
- 5** Pulling gently, swing the panel up and slip it out. Set the panel aside.

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



6 Touch the metal plate inside the computer.

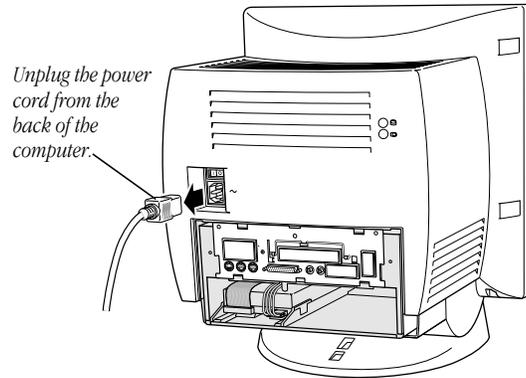
This discharges any static electricity from your body and protects the computer's electronic components from damage.



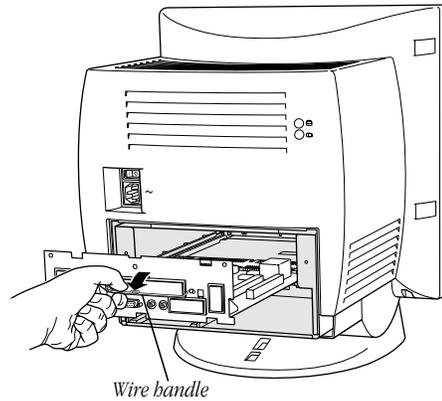
Touch any metal on the exposed metal plate.

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.

7 Unplug the power cord from the computer.



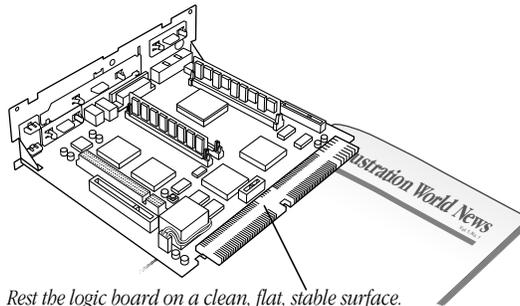
- 8 There is a wire handle on the back of the logic board. Swing it down and use it to pull the logic board toward you.



The logic board is plugged into a slot inside the computer, so 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.

- 9 Place the logic board on a magazine on a stable, clean, flat surface.

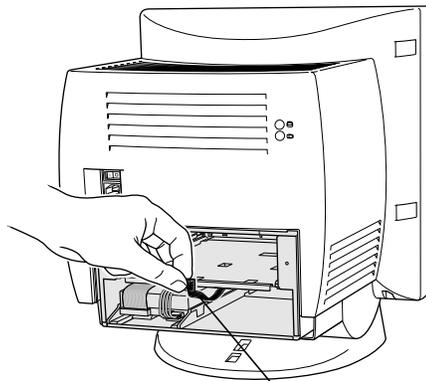
The magazine will help protect the components on the bottom of the logic board.



*Rest the logic board on a clean, flat, stable surface.
Place a thick magazine under this end of the logic
board to help protect the components underneath.*

Installing the TV tuner card and removing the access cover on the back panel

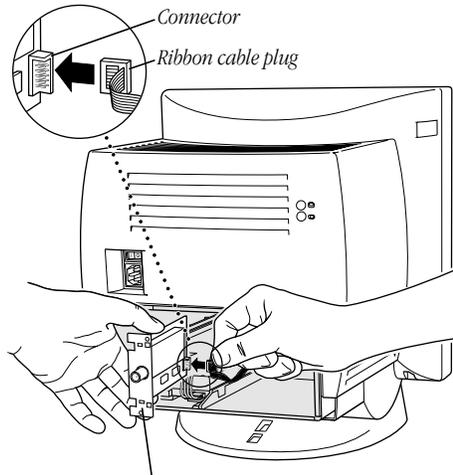
- 1** There is a ribbon cable inside the computer, held in place under the logic board tray, at the bottom of the chassis. Gently pull the cable a short way out of the opening.



If the ribbon cable is taped down on the inside of the computer, remove the tape and gently pull the ribbon cable a short way out of the opening so that you can attach it to the card.

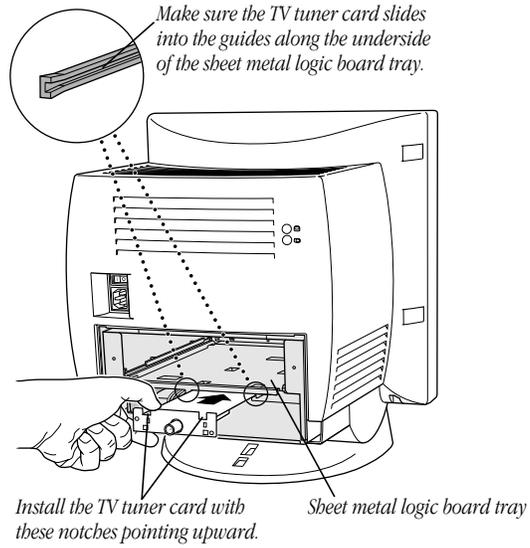
- 2** Remove the TV tuner card from its static-proof bag. Hold the card by its edges to avoid touching the connectors.

- 3** Attach the plug on the ribbon cable to the connector on the TV tuner card.

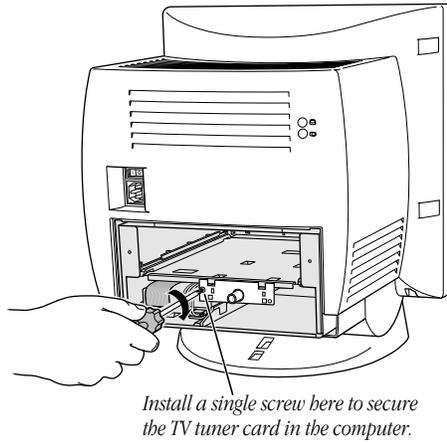


Note: The plastic faceplate should not be attached to the TV tuner card when it is installed in this type of computer.

- 4** Slide the TV tuner card into place under the logic board tray. Fit the edges of the card into both of the guides there, making sure the notches on the card point upward.



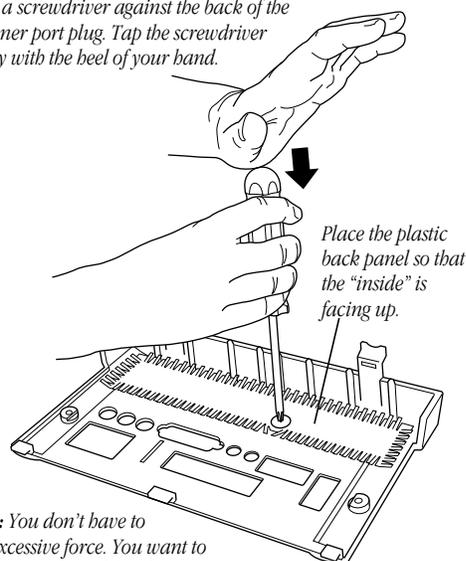
- 5** If your back panel has a small circular access cover, insert and gently tighten one of the provided attachment screws in the hole at the upper left of the card.



Important If your back panel has a rectangular access cover, do not install this attachment screw.

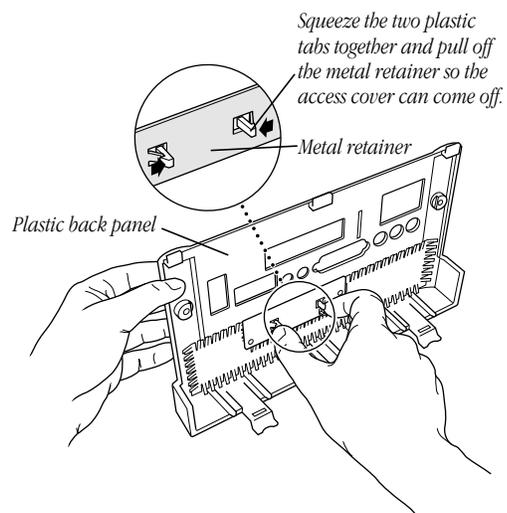
- 6 Remove the access cover from the back panel of the computer. The steps for this vary depending on whether your back panel has a circular or a rectangular access cover.
- *If your back panel has a circular access cover*, place the panel, exterior side down, on a surface, such as carpet, that won't scratch it, and that won't be damaged when pressure is applied to it. (Do not place the panel on glass, tile, or other fragile or easily marred surfaces.) Then hold a screwdriver against the back of the cover and tap the screwdriver firmly, but not too hard, with the heel of your hand. After you have loosened the cover, you should be able to remove it by pressing with your thumb.

Hold a screwdriver against the back of the TV tuner port plug. Tap the screwdriver firmly with the heel of your hand.



Note: *You don't have to use excessive force. You want to snap one or two of the plastic "runners" holding the port plug in place so you can then remove the port plug with your fingers.*

- *If your back panel has a rectangular access cover,* remove the cover from its opening by squeezing together the plastic tabs that hold it in place.

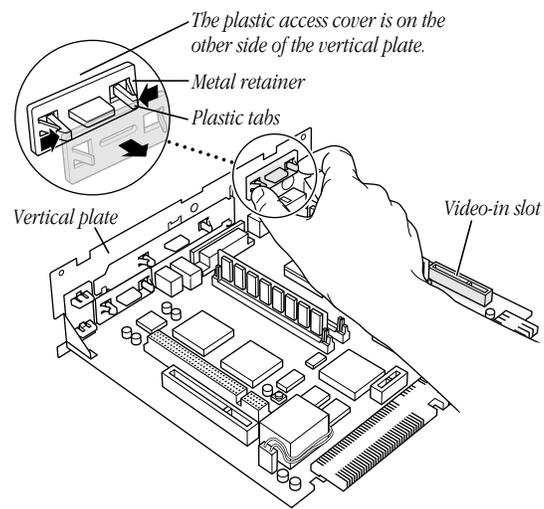


Store the access cover; you may want to replace it if you ever remove the TV tuner card.

Now go to the next section to install the video input card in your computer.

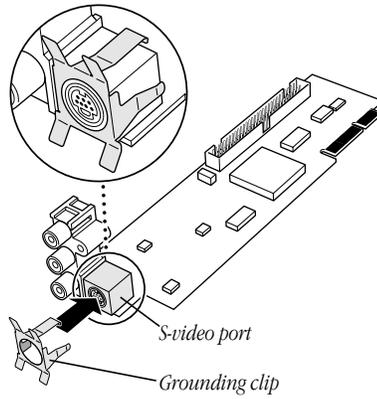
Installing the video input card

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

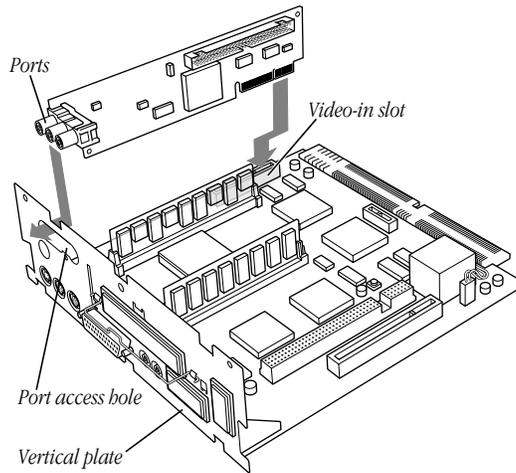


- 2 Remove the video input card from its static-proof bag. Hold the card by its edges to avoid touching the connectors.

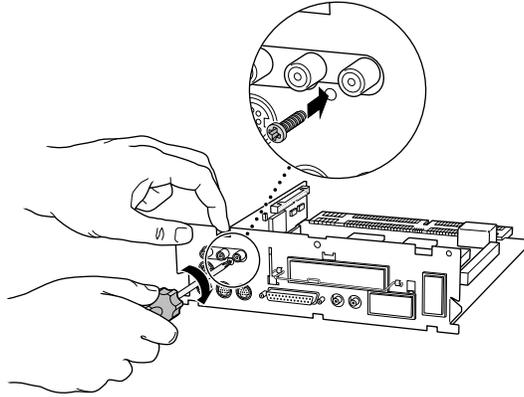
- 3** If it isn't attached already, attach the grounding clip to the S-video port of the video input card.



- 4 Plug the video input card into the video-in slot on the logic board, fitting the three ports on the card into the port access hole you uncovered in the previous step. Make sure the card is firmly seated in the slot.

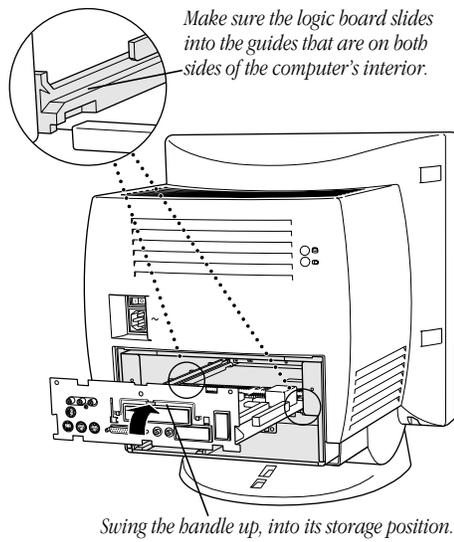


- 5 Screw the card to the vertical plate on the logic board. (Use one of the attachment screws provided.)

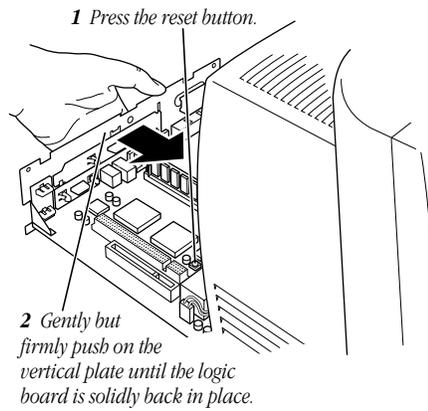


Replacing the logic board

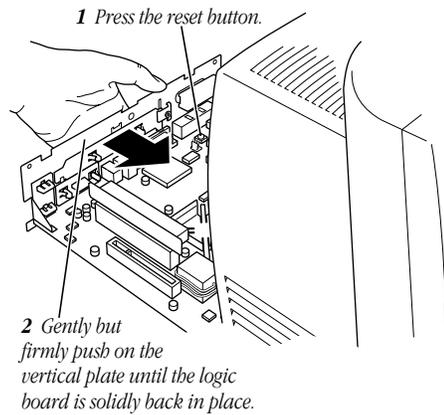
- 1 Swing the wire handle on the logic board back up into its storage position, securing it under its catch. Then fit the logic board into the guide rails on both sides of the computer's interior.



- 2** Press the reset button on the logic board, then gently but firmly push on the vertical plate until the logic board is back in place within the computer. You'll 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.



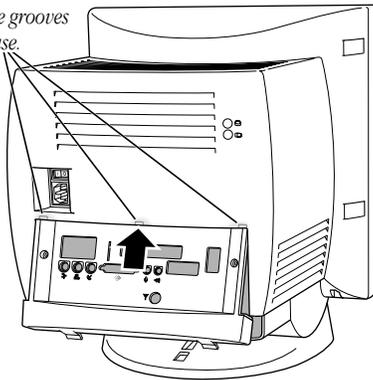
Note On some logic boards, the reset button is in the location shown below.



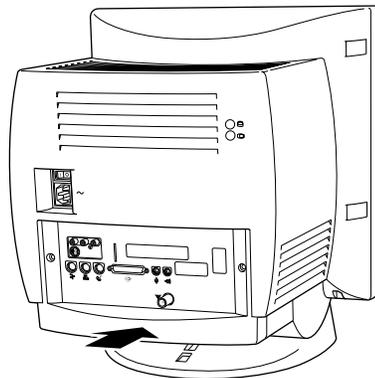
Note When you press the reset button, some of your computer's software settings will change. You may want to open the control panels for the date and time, keyboard, and mouse to make sure that they are set the way you want them. For more information about working with control panels, see Macintosh Guide, the on-screen help that's available in the Guide (🔍) menu.

- 3** 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.

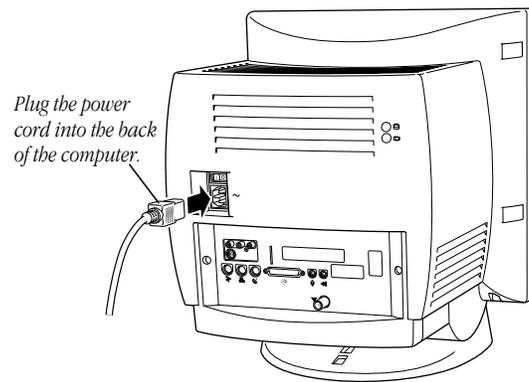


- 4** Then snap the bottom of the panel into place, making sure it is flush with the back of the computer.



Snap the plastic back panel into place.

- 5** Reinsert all the security screws on the back panel.
- 6** Finally, plug in the power cord. Reconnect any other cables you removed from your computer at the start of this process.



Now turn to the section titled “Installing and Making Connections to the TV Tuner Card” in Chapter 1 of the card’s manual. Then continue with the subsequent sections on connecting video equipment.

Installing the cards in a dual PCI-slot tower computer

The TV tuner card will not work if you do not have the video input card installed. To use the TV tuner card, install the video input card even if you do not intend to connect any video equipment to it.

Removing the logic board

- 1** Turn off the computer.

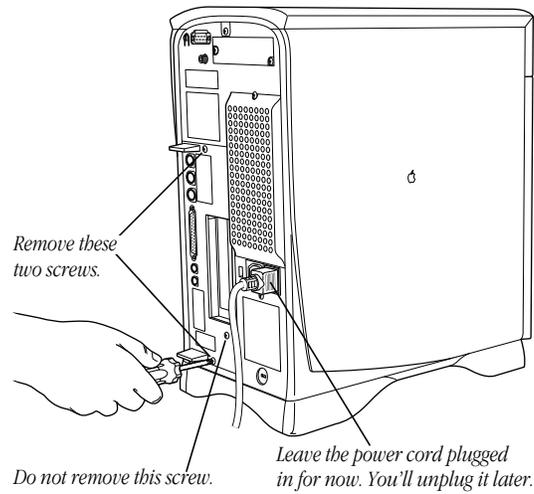
Choose Shut Down from the Special menu, or press the Power key on the keyboard.

- 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.

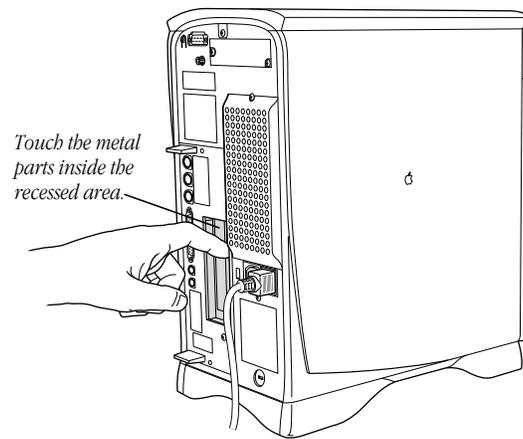
Important To avoid generating static electricity that may damage components, do not walk around the room until you have completed the installation of the card and closed the computer. Additionally, move the logic board as little as possible while it is outside the computer.

- 3** Unscrew and remove the two screws on the left side of the computer's back panel.

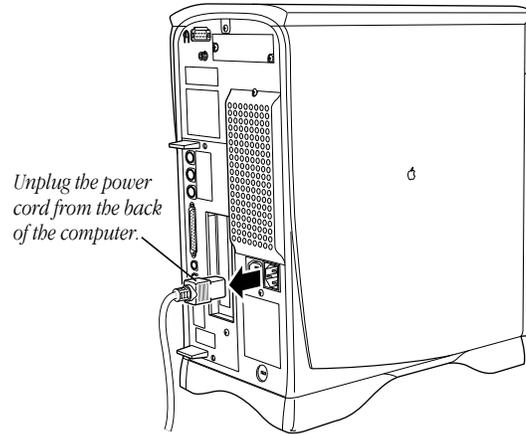


- 4 Touch the metal parts in the recessed area on the back panel.

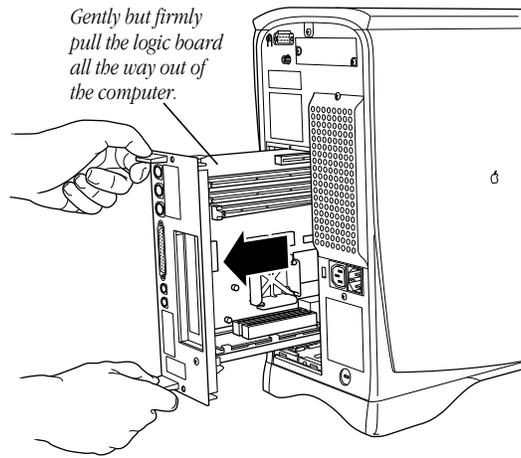
This discharges any static electricity from your body and protects the computer's electronic components from damage.



5 Unplug the power cord from the computer.

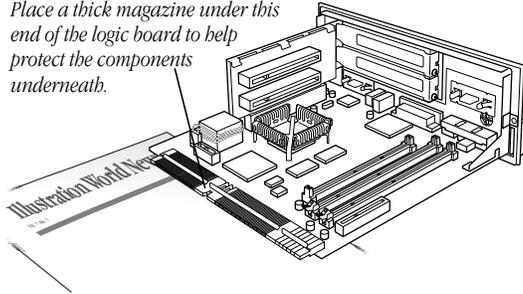


- 6 Grasp the plastic tabs on the left side of the back panel and gently but firmly slide the logic board all the way out of the computer.



- 7 Place the logic board on a clean, flat, stable surface. Rest the connector end on a thick magazine to protect the components underneath.

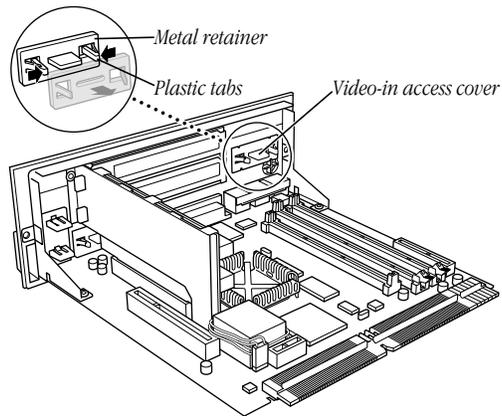
*Rest the logic board on a clean, flat, stable surface.
Place a thick magazine under this
end of the logic board to help
protect the components
underneath.*



Important 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. This lowers the risk of damage from static electricity.

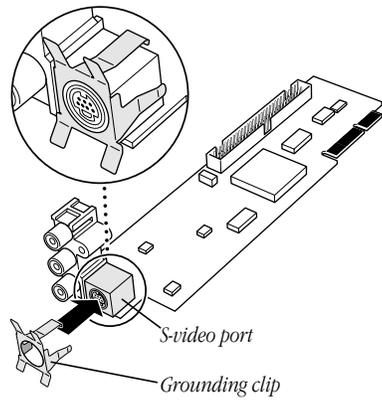
Installing the video input card

- 1 Locate the video-in access cover on one side of the back panel. Remove the cover by squeezing together the plastic tabs that hold it in place.

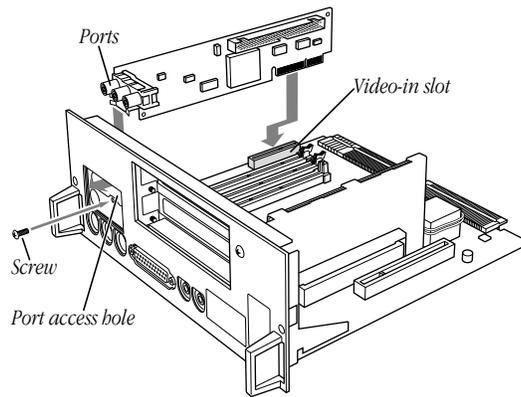


- 2 Remove the video input card from its static-proof bag. Hold the card by its edges to avoid touching the connectors.

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



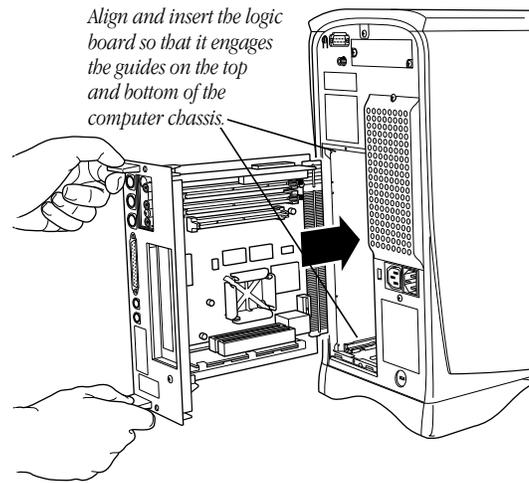
- 4 Plug the video input card into the video-in slot on the logic board. Fit the three ports on the end of the card into the port access hole you uncovered in step 1. Make sure the card is firmly seated in the slot.



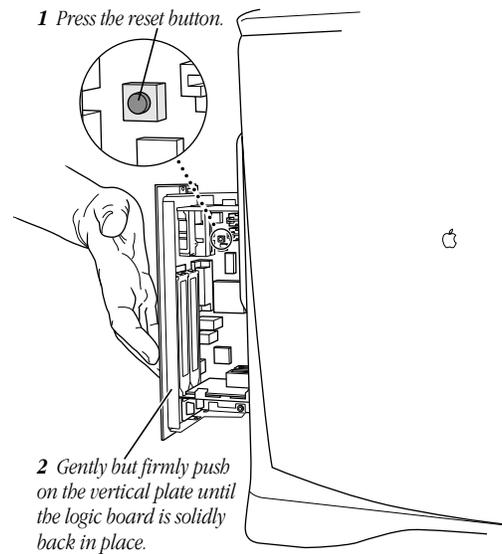
- 5 Screw the card to the back panel of the logic board with the attachment screw provided.

Replacing the logic board

- 1 Holding the plastic tabs on the left side of the back panel, fit the logic board into the guide rails on the top and bottom of the computer's interior.

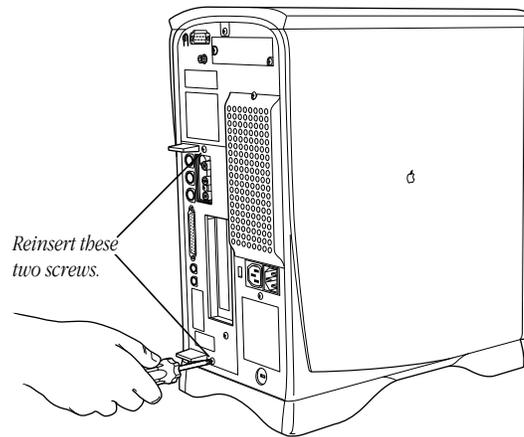


- 2 Press the reset button on the logic board. Then gently but firmly push the back panel so the logic board slides into the computer. You need to push a little harder at the end to make sure the connectors at the back of the logic board are seated in their slot.



Note When you press the reset button, some of your computer's software settings will change. You may want to open the control panels for the date and time, keyboard, and mouse to make sure they are set the way you want them. For more information about working with control panels, see Macintosh Guide, the on-screen help that's available in the Guide (🔍) menu.

- 3 Reinsert the two screws you removed in step 3 of the section “Removing the Logic Board.”

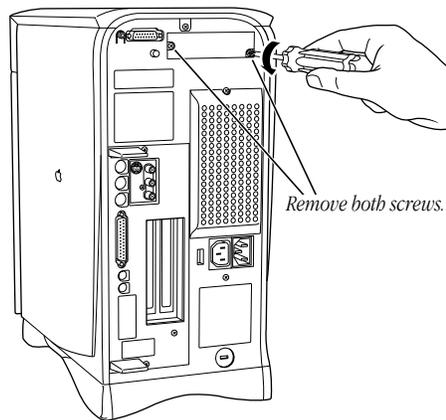


Now go on to the next section, “Installing the TV Tuner Card.” After you install the TV tuner card, turn to the section titled “Installing and Making Connections to the TV Tuner Card” in Chapter 1 of the card’s manual. Then continue with the subsequent sections on video equipment.

Installing the TV tuner card

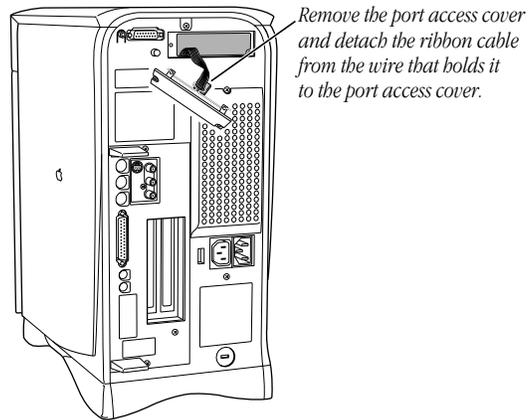
Follow these steps to install the TV tuner card in a dual PCI-slot tower computer. The computer should be turned off and unplugged.

- 1 Use a screwdriver to remove the two screws from the TV tuner port access cover, near the top of the computer's back panel.

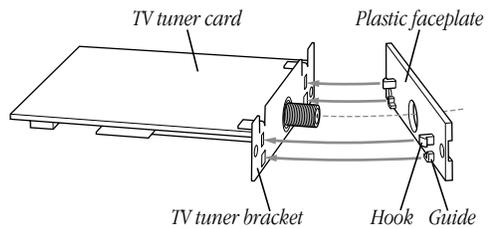


There is a ribbon cable attached to the port access cover.

- 2** Detach the ribbon cable from the wire that holds it to the port access cover.

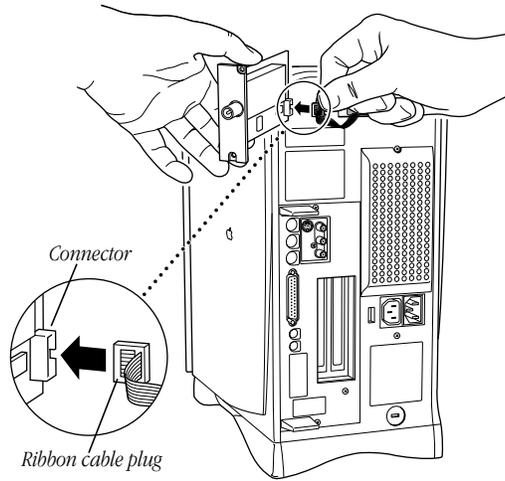


- 3** Remove the TV tuner card from its static-proof bag. Hold the card by its edges to avoid touching the connectors.
- 4** Snap the plastic faceplate onto the front of the TV tuner card.

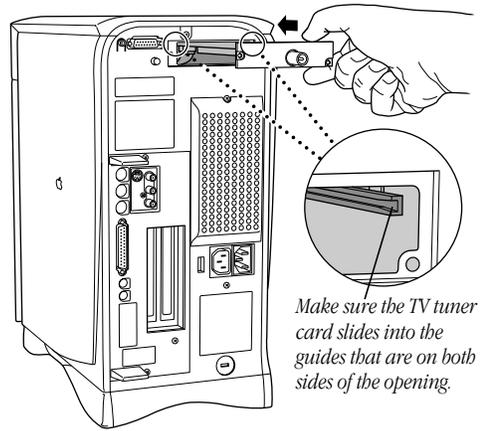


The plastic faceplate fits onto the TV tuner card only one way. Be sure to align the hooks and guides on the plastic faceplate with the corresponding holes in the TV tuner bracket.

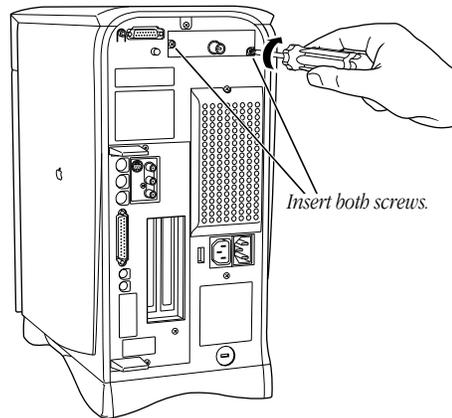
- 5** Attach the plug on the ribbon cable to the connector on the TV tuner card.



- 6** Align the TV tuner card with the guide rails inside the computer's case and slide the card into the computer.

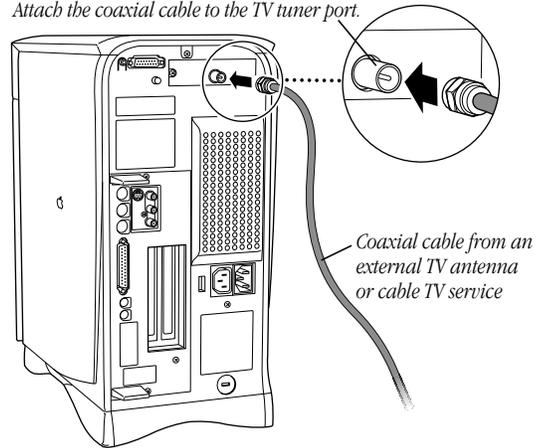


- 7** Reinsert the two screws you removed in step 1.

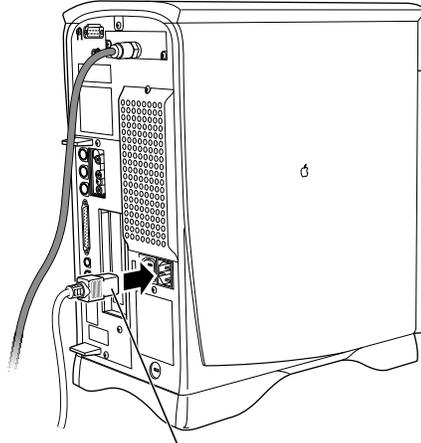


- 8 Plug the coaxial cable from your external TV antenna or cable TV service into the port on the TV tuner.

Attach the coaxial cable to the TV tuner port.



- 9 Plug the power cord into the back of the computer.



Plug the power cord into the back of the computer.

Now turn to the section titled “Installing and Making Connections to the TV Tuner Card” in Chapter 1 of the card’s manual. Then continue with the subsequent sections on connecting video equipment.



Read This First
for updated installation instructions
for the Apple TV/Video System

Read This First
for updated installation instructions
for the Apple TV/Video System

Read This First
for updated installation instructions
for the Apple TV/Video System

Read This First
for updated installation instructions
for the Apple TV/Video System

Read This First
for updated installation instructions
for the Apple TV/Video System

Read This First

*for updated installation instructions
for the Apple TV/Video System*

C O N T E N T S

.....

**Installing the Video Input and TV Tuner Cards
in a Compact Computer or a Dual PCI-Slot
Tower Computer A1**

What you should have A3

Installing the cards in a compact computer A5

Installing the cards in a dual PCI-slot tower computer A29

**Installing the Video Input and TV Tuner Cards
in a Compact Computer or a Dual PCI-Slot
Tower Computer B1**

What you should have B3

Installing the cards in a compact computer B5

Installing the cards in a dual PCI-slot tower computer B29

**Installing the Video Input and TV Tuner Cards
in a Compact Computer or a Dual PCI-Slot
Tower Computer C1**

What you should have C3

Installing the cards in a compact computer C5

Installing the cards in a dual PCI-slot tower computer C29

**Installing the Video Input and TV Tuner Cards
in a Compact Computer or a Dual PCI-Slot
Tower Computer D1**

What you should have D3

Installing the cards in a compact computer D5

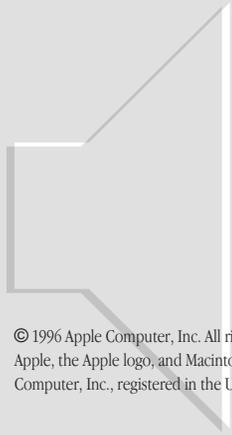
Installing the cards in a dual PCI-slot tower computer D29

**Installing the Video Input and TV Tuner Cards
in a Compact Computer or a Dual PCI-Slot
Tower Computer E1**

What you should have E3

Installing the cards in a compact computer E5

Installing the cards in a dual PCI-slot tower computer E29



© 1996 Apple Computer, Inc. All rights reserved.
Apple, the Apple logo, and Macintosh are trademarks of Apple
Computer, Inc., registered in the U.S. and other countries.

ZM030-9784-A
Printed in Ireland