



# **Boot Camp Beta 1.4**

## Installation & Setup Guide

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# Boot Camp Beta 1.4

Run Microsoft Windows on an Intel-based Mac computer.

## Introduction

**WARNING:** Boot Camp Beta is prerelease software licensed for use on a trial basis for a limited time. Do not use Boot Camp Beta in a commercial operating environment or with important data. You should back up all of your data before installing this software and regularly back up data while using the software. Your rights to use Boot Camp Beta are subject to acceptance of the terms of the software license agreement that accompanies the software.

Boot Camp Beta enables you to install Windows on your Intel-based Mac computer, using a Microsoft Windows install disc that you provide. Windows is installed on its own partition. After installation, you can use either Windows or Mac OS X on your Mac computer.

The Boot Camp Assistant application helps you create the Windows partition, burn a disc with software drivers that enable Windows to work with your Mac hardware, and then restart your Mac using your Windows installation disc so you can install Windows.

**Important:** Boot Camp Beta 1.4 and this guide are for use with Mac OS X Tiger. If you are using Mac OS X v10.5 or later, open Boot Camp Assistant, located on your hard disk in /Applications/Utilities/, and follow the onscreen instructions to print out the latest *Boot Camp Installation and Setup Guide*.

**Important:** Before you use Boot Camp Assistant, print this document. It contains information you'll need while installing Windows.

## What's New in Boot Camp Beta 1.4

Boot Camp Beta 1.4 has been updated to run on the latest Intel-based Mac computers and to provide bug fixes for the following:

- Boot Camp control panel
- Keyboard support
- Windows drivers
- Localization
- Support for the latest Mac models

## Support and Feedback

Apple does not provide support for installing or running Boot Camp Beta or Microsoft Windows software. For technical articles about Boot Camp, go to [www.apple.com/support](http://www.apple.com/support) and search for "boot camp."

Apple welcomes your feedback on Boot Camp Beta. Send your comments and suggestions to [bootcamp@apple.com](mailto:bootcamp@apple.com).

## What You Need

Here's what you need to install and set up Windows on your Mac:

- An Intel-based Mac computer, with:
  - a USB keyboard and mouse, or a built-in keyboard and trackpad
  - Mac OS X version 10.4.6 or later (the latest version of Mac OS X is strongly recommended)
  - all firmware updates for your computer

For information about updating your computer's system software and firmware, see page 24.

- At least 10 GB of free space on the disk you're installing on
- 2 GB or more of RAM when running Windows Vista on a Mac Pro computer
- Boot Camp Assistant (installed in /Applications/Utilities/ by BootCampAssistant.pkg)
- A blank recordable CD or DVD
- Windows XP Home Edition or Professional with Service Pack 2 or later, or Windows Vista Home Basic, Home Premium, Business, or Ultimate

**Important:** You must use a single full-install Windows installation disc (Service Pack 2 is required for Windows XP installations). Do not use an upgrade version of Windows and do not install an earlier version of Windows XP and attempt to update it later to SP2. Use only 32-bit versions of Windows.

## If You've Already Installed an Earlier Version of Boot Camp Beta

If this is your first time using Boot Camp Beta, skip this section and go to "Installation Overview" on page 6.

If you've already installed Boot Camp Beta on your computer, you don't need to repartition your hard disk or reinstall Windows. After downloading Boot Camp Beta 1.4 software, use Boot Camp Assistant to burn a new Mac Windows Drivers disc, and use that disc to update the Boot Camp drivers for Windows.

**Important:** If you've customized your Windows environment, write down your settings before updating the drivers.

### To install new and updated Mac drivers and other software for Windows:

- 1 Update your computer's system software and firmware, as described on page 24.
- 2 In Mac OS X, open Boot Camp Assistant (located in /Applications/Utilities/) and burn a Mac Windows Drivers disc.
- 3 In Windows, insert the Mac Windows Drivers disc.

The installer should start automatically. If you have AutoRun turned off, double-click the setup.exe file.

## Upgrading Windows XP to Windows Vista

You can upgrade Windows XP to Windows Vista using a licensed copy of Windows Vista Home Basic, Home Premium, Business, or Ultimate. After upgrading to Windows Vista, you must reinstall the Boot Camp drivers.

### To upgrade Windows XP to Windows Vista:

- 1 Restart your Mac using Windows.
- 2 Insert your Vista install or upgrade disc.
- 3 Follow the instructions that came with Windows Vista.
- 4 After completing the Windows Vista upgrade, insert the Mac Windows Drivers disc.

The installer should start automatically. If you have AutoRun turned off, double-click the setup.exe file.

## Installation Overview

Installing Windows on your Mac computer involves the following steps:

### Step 1: **Run Boot Camp Assistant.**

Boot Camp Assistant helps you with these tasks:

- **Burning a Mac Windows Drivers disc**

You'll use the Mac Windows Drivers disc, after you install Windows, to install Mac-specific drivers and other software.

- **Creating a partition for Windows**

Boot Camp Assistant creates a partition for Windows on your computer's startup or other internal disk.

- **Starting the Windows installation**

Boot Camp Assistant gets you started with the Windows installation.

### Step 2: **Install Windows.**

### Step 3: **Install the Boot Camp drivers on your Windows volume.**

**Important:** Before you begin, make sure you have a backup of the important information on your computer.

## Step 1: Running Boot Camp Assistant

Boot Camp Assistant helps you through the process of burning a Mac Windows Drivers disc and creating a new partition for Windows. Boot Camp Assistant also gets you started with the Windows installation.

**Important:** If you are using a portable computer, connect the power adapter before continuing.

### To use Boot Camp Assistant:

- 1 Quit all open applications and log out any other users on your computer.
- 2 Open Boot Camp Assistant (located in /Applications/Utilities/) and follow the onscreen instructions.

Refer to the following sections for more information.

## Burning a Mac Windows Drivers Disc



### To burn a Mac Windows Drivers disc:

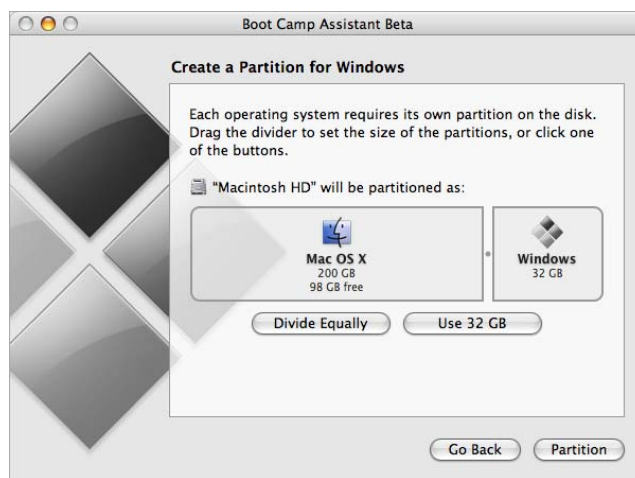
- 1 Select "Burn a Mac Windows Drivers disc" and click Continue.
- 2 Insert a blank recordable CD or DVD.

You can also save the Mac drivers to a folder and burn a disc with those files later. Choose Utility > "Save Mac Windows Drivers to Folder."

## Creating a Partition for Windows

Boot Camp Assistant helps you create a new partition for Windows on an internal disk. The assistant dynamically partitions your startup disk, creating a new partition for Windows without erasing your existing Mac OS X system. If you have a computer with multiple internal disks, you can create a second partition on any of those disks or use an entire disk for Windows. See “Creating a Partition on a Computer with Multiple Internal Disks” on page 9.

When you create the Windows partition, you can choose to use 32 GB, use half of the disk for Windows, or set a custom size. The Windows partition must be at least 5 GB and leave at least 5 GB of free space on the Mac OS X partition.



### To create a partition for Windows:

- 1 Set the size of your Windows partition.

Refer to your Windows installer documentation to help you determine the best partition size for your system. Windows Vista requires more disk space than Windows XP.

**Note:** A partition larger than 32 GB cannot be formatted as a FAT volume. See “Formatting the Windows Partition” on page 14.

- 2 Click Partition.

Boot Camp Assistant creates the new Windows partition. Your original Mac OS partition, with all your software and information, remains intact.

You can use Boot Camp Assistant later to remove the partition if you want to restore the disk to a single-partition Mac OS X volume.

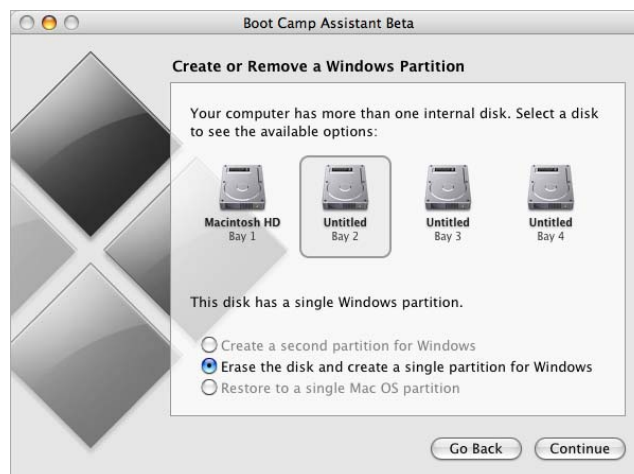


### Creating a Partition on a Computer with Multiple Internal Disks

If you are installing Windows on a computer with more than one internal disk, select which disk to partition for Windows. You can:

- create a second partition for Windows on any internal disk
- erase a nonstartup disk and create a single partition for Windows

If you have already partitioned a disk, you can restore it to a single Mac OS X partition. In the “Create or Remove a Windows Partition” window, select a disk to see the options available for that disk.



## Starting the Windows Installation

You can install any of the following versions of Windows:

- Windows XP Home Edition or Professional
- Windows Vista Home Basic, Home Premium, Business, or Ultimate

**Important:** You must use a single full-install Windows install disc (Service Pack 2 is required for Windows XP installations). Do not install an earlier version of Windows XP and attempt to update it later to SP2. Use only 32-bit versions of Windows.



### To start the Windows installation:

- 1 If you are using a computer with more than one internal disk, select the disk you have partitioned for Windows, and then click Continue.
- 2 Insert your Windows install disc.
- 3 Click Start Installation.

Your computer starts up from the Windows install disc.

## Step 2: Installing Windows

Read and follow these instructions for installing Windows on your Mac computer. Refer to your Windows documentation for general information about installing and setting up Windows.

**Important:** Unless you're using a portable computer, you'll need a USB keyboard and mouse during installation.

### To install Windows on your Mac computer:

- 1 Start the Windows installation using Boot Camp Assistant.
- 2 Follow the onscreen instructions.

If you restarted Mac OS X without installing Windows:

- a Open Boot Camp Assistant.
- b Select "Start the Windows installer."
- c Click Continue.

Refer to the following sections for more information.

## Selecting the Windows Partition

It is very important to select the correct partition when installing Windows so that you don't overwrite Mac OS X on your computer.

**WARNING:** Do not create or delete a partition, or select any partition other than partition C: (Windows XP) or partition 3 (Windows Vista). Doing so may delete the entire contents of your Mac OS X partition.

To select the correct partition for Windows XP:

- Select partition C:.

```
Windows XP Professional Setup

The following list shows the existing partitions and
unpartitioned space on this computer.

Use the UP and DOWN ARROW keys to select an item in the list.

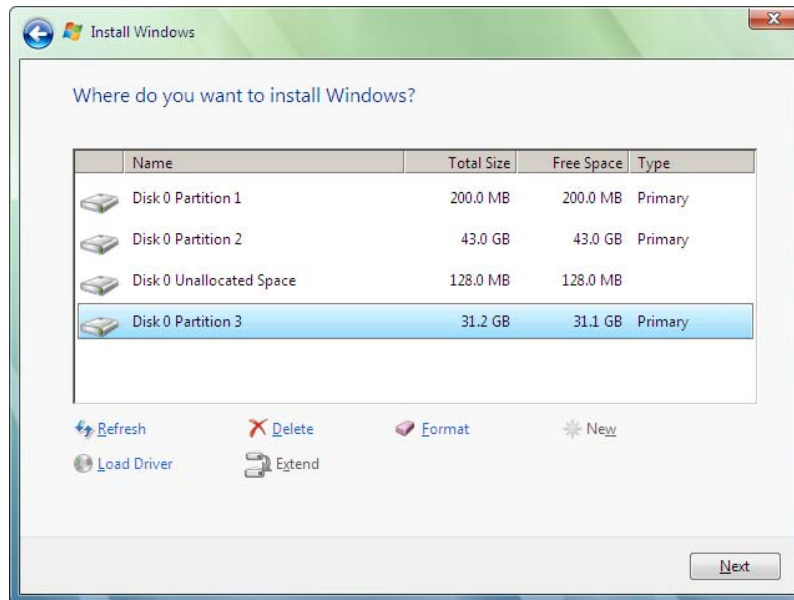
• To set up Windows XP on the selected item, press ENTER.
• To create a partition in the unpartitioned space, press C.
• To delete the selected partition, press D.

130552 MB Disk 0 at Id 0 on bus 0 on atapi [MBR]
E: Partition1 [Unknown]          200 MB < 200 MB free>
F: Partition2 [Unknown]       102400 MB < 102400 MB free>
  Unpartitioned space           128 MB
C: Partition3 [Unknown]       27824 MB < 27823 MB free>

ENTER=Install  D=Delete Partition  F3=Quit
```

To select the correct partition for Windows Vista:

- Select partition 3.

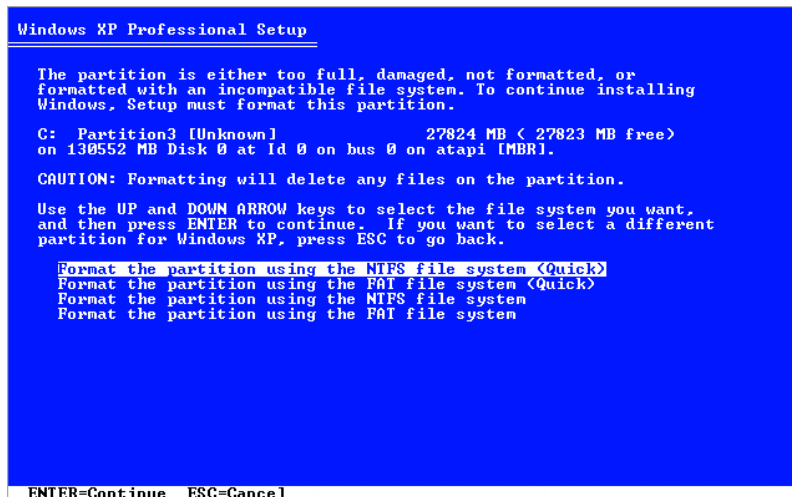


## Formatting the Windows Partition

If you are installing Windows XP, you *must* format the new Windows partition. If you are installing Windows Vista, the installer automatically formats the partition as an NTFS volume.

### To format the partition for Windows XP:

- Select an NTFS or FAT format:
  - NTFS—Provides better reliability and security, but you will not be able to save files to the Windows volume from Mac OS X.
  - FAT—Provides better compatibility, allowing you to read and write files on the Windows volume from Mac OS X. This option is available only if the Windows partition you created in Step 2 is 32 GB or smaller.



The screenshot shows the Windows XP Professional Setup screen. The title bar reads "Windows XP Professional Setup". The main text states: "The partition is either too full, damaged, not formatted, or formatted with an incompatible file system. To continue installing Windows, Setup must format this partition." Below this, it shows details for "C: Partition3 [Unknown]" with a size of "27824 MB < 27823 MB free>" and location "on 130552 MB Disk 0 at Id 0 on bus 0 on atapi [MBR]". A "CAUTION" message states: "Formatting will delete any files on the partition." Instructions follow: "Use the UP and DOWN ARROW keys to select the file system you want, and then press ENTER to continue. If you want to select a different partition for Windows XP, press ESC to go back." A list of options is shown: "Format the partition using the NTFS file system <Quick>", "Format the partition using the FAT file system <Quick>", "Format the partition using the NTFS file system", and "Format the partition using the FAT file system". The first option is highlighted. At the bottom, it says "ENTER=Continue ESC=Cancel".

```
Windows XP Professional Setup

The partition is either too full, damaged, not formatted, or
formatted with an incompatible file system. To continue installing
Windows, Setup must format this partition.

C: Partition3 [Unknown]                27824 MB < 27823 MB free>
on 130552 MB Disk 0 at Id 0 on bus 0 on atapi [MBR].

CAUTION: Formatting will delete any files on the partition.

Use the UP and DOWN ARROW keys to select the file system you want,
and then press ENTER to continue. If you want to select a different
partition for Windows XP, press ESC to go back.

Format the partition using the NTFS file system <Quick>
Format the partition using the FAT file system <Quick>
Format the partition using the NTFS file system
Format the partition using the FAT file system

ENTER=Continue  ESC=Cancel
```

## Setting Up Windows

After you install the Windows software, your computer automatically restarts using Windows. Use the Windows setup screens to configure Windows.

### Step 3: Installing the Boot Camp Drivers for Windows

After installing Windows, use the Mac Windows Drivers disc to install Mac-specific drivers and other software for Windows.

The Mac Windows Drivers disc installs drivers to support Mac components, such as:

- graphics
- networking
- audio
- AirPort wireless connectivity
- Bluetooth®
- iSight camera
- Apple keyboards
- Apple Remote
- brightness control for built-in displays

The Mac Windows Drivers disc also installs the Boot Camp control panel for Windows and the Apple Boot Camp system tray item.

#### To install the Boot Camp drivers:

- 1 Eject the Windows install disc.

- a Go to My Computer.

- b Select the optical drive (D:).

- c Click "Eject this disk" in the System Tasks list.

- 2 Insert the Mac Windows Drivers disc.

The installer should start automatically. If you have AutoRun turned off, double-click the setup.exe file to start installing the drivers.

- 3 Follow the onscreen instructions.

If a message appears that says the software you are installing has not passed Windows Logo testing, click Continue Anyway.

Windows that appear only briefly during the installation don't require your input.

If nothing appears to be happening, there may be a hidden window that you must respond to. Check the taskbar and look behind open windows.

**Important:** Do not click the Cancel button in any of the installer dialogs.

- 4 After your computer restarts, follow the instructions in the Found New Hardware Wizard to update your software drivers (Windows XP only).
- 5 Follow the instructions for any other wizards that appear.

### If You Haven't Yet Burned a Mac Windows Drivers Disc

If you've installed Windows but haven't yet burned a Mac Windows Drivers disc, you'll need to open Boot Camp Assistant in Mac OS X and burn the disc. Make sure you have a blank recordable CD or DVD available.

#### To burn the Mac Windows Drivers disc if Windows is running:

- 1 Restart your computer in Mac OS X.
  - a Restart your computer and hold down the Option key until disk icons appear onscreen.
  - b Select the Mac OS X startup disk and click the arrow beneath the icon.
- 2 Open Boot Camp Assistant (located in /Applications/Utilities/).
- 3 Select "Burn a Mac Windows Drivers disc now" and insert your blank disc.
- 4 When the disc ejects, restart your computer using Windows.
  - a Restart your computer and hold down the Option key until disk icons appear onscreen.
  - b Select the Windows startup disk and click the arrow beneath the icon.
- 5 Follow the instructions in "Step 3: Installing the Boot Camp Drivers for Windows" on page 15.



## Starting Up Using Mac OS X or Windows

Once you've installed Windows and the Boot Camp drivers, you can start using Windows on your Mac. Boot Camp Beta makes it easy to start up your computer using either Mac OS X or Windows. You can set the default operating system for your computer using Startup Disk preferences (Mac OS X) or the Boot Camp control panel (Windows). You can also select an operating system as your computer is starting up.

## Setting the Default Operating System

You can use the Startup Disk pane of System Preferences in Mac OS X to set the default operating system for starting up your computer. Boot Camp Beta also installs a Boot Camp control panel that lets you set the default operating system when you're running Windows.

### To use Startup Disk preferences in Mac OS X:

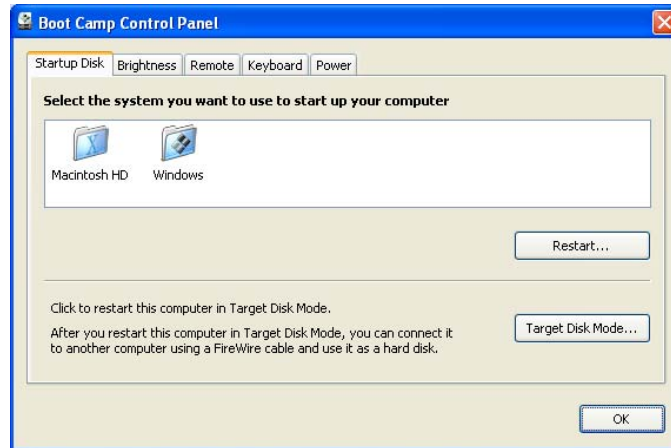
- 1 In Mac OS X, choose Apple (🍏) > System Preferences.
- 2 Click Startup Disk.



- 3 Select the startup disk with the operating system you want to use by default.
- 4 If you want to start up that operating system now, click Restart.

### To use the Boot Camp control panel in Windows:

- 1 In Windows, click the Boot Camp system tray item and choose Boot Camp Control Panel.



- 2 Select the startup disk with the operating system you want to use by default.
- 3 If you want to start up that operating system now, click Restart.

### Selecting an Operating System During Startup

You can select which operating system to use during startup by holding down the Option key. This displays icons for all available startup disks, and lets you override the default setting for the startup disk in Startup Disk preferences (Mac OS X) or the Boot Camp control panel (Windows) without changing that setting.



### To select an operating system during start up:

- 1 Restart your computer and hold down the Option key until disk icons appear onscreen.
- 2 Select the startup disk with the operating system you want to use, and then click the arrow beneath the icon.





## Using Windows on Your Mac

The following sections provide information about running Windows on a Macintosh computer. If you're not already familiar with how to use Windows, refer to the documentation that came with your Windows software.

### Using an Apple Keyboard with Windows

Boot Camp Beta sets the keys on your Apple keyboard to emulate a standard PC keyboard. This enables Control-Alt-Delete, Print Screen, and other common key commands to work with Windows.

The following table tells you how to type PC key commands on Apple external and built-in keyboards. For details, see:  
[docs.info.apple.com/article.html?artnum=304270](https://docs.info.apple.com/article.html?artnum=304270)

PC key command	Apple external keyboard	Built-in Mac keyboard
Control-Alt-Delete	Control-Option-Delete  <sup>1</sup>	Control-Option-Delete
Alt	Option	Option
AltGr	Control-Option	Control-Option
Backspace	Delete	Delete
Delete	Delete  <sup>1</sup>	Fn-Delete
Enter	Return	Return
Enter (numeric keypad)	Enter	Enter
Insert	Help	Fn-Enter
Num lock	Clear	Fn-F6 <sup>2</sup>
Pause/Break	F16	Fn-Esc
Print Screen	F14	Fn-F11
Print active window	Option-F14	Option-Fn-F11
Scroll/Lock	F15	Fn-F12
Windows	Command (  )	Command (  )

<sup>1</sup> Use the Delete key above the navigation keys.

<sup>2</sup> Mac portable computers have a group of keys with small numbers on them that can be used as a numeric keypad. To use these keys as a keypad, press the F6 key to engage Num Lock, or hold down the Fn key while you press the keys in the keypad.

### Right-clicking

You can right-click when running Windows on your Mac using an Apple Mighty Mouse. If you are using a Mac portable computer, you can also right-click using the trackpad.

#### To right-click using a Mighty Mouse:

- Click the upper-right side of the mouse.

#### To right-click using a trackpad:

- Place two fingers on the trackpad and click the trackpad button.

## Scrolling with a Trackpad

If you are using a Mac portable computer, you can use two fingers to scroll vertically with the trackpad.

### To scroll using a trackpad:

- Move two fingers on the trackpad simultaneously.

## Using an Apple Remote

If your computer is equipped with a built-in infrared receiver, you can use an Apple Remote to control iTunes and Windows Media Player (not included with Boot Camp Beta). The remote lets you change the sound volume, start or pause playback, and skip to the next or previous item. You can also use the remote to open iTunes in Windows.

### To open iTunes using an Apple Remote:

- Press the Menu button.

If iTunes is already open, you can press the Menu button to bring iTunes to the front.

The Apple Remote uses an infrared transmitter, and works with Mac computers that have an infrared receiver. If the remote has an unobstructed line of sight to the receiver, it can work at a distance of up to 30 feet.

## Pairing Your Computer with an Apple Remote

If you have more than one infrared-equipped computer at the same location, you can “pair” each computer with a specific Apple Remote. Otherwise, the computer takes commands from any remote within range.

Pairing sets the computer to take commands only from the specified remote. You can pair your computer with only one remote at a time.

### To pair your computer with a remote:

- 1 Hold the remote close to the computer (3 to 4 inches) and point the remote at the front of the computer.
- 2 Press and hold both the Menu and Next buttons on the remote for about 5 seconds, until a chainlink (⌘) symbol appears onscreen.

## Unpairing Your Computer from an Apple Remote

Pairing your computer with a remote tells the computer to take commands only from the specified Apple Remote. You can pair your computer with only one remote at a time. If you’ve paired your computer with an Apple Remote, you must unpair the computer before you can use the computer with a different remote.

### To unpair your computer from an Apple Remote:

- 1 In Windows, open the Boot Camp control panel and click the Remote tab.
- 2 Click Unpair.

### Disabling Remote Control

You can use the Boot Camp control panel to disable the infrared receiver and prevent remote control of your computer.

#### To disable the infrared receiver:

- 1 In Windows, open the Boot Camp control panel and click the Remote tab.
- 2 Select the “Disable remote control infrared receiver” checkbox.

To turn infrared reception back on, deselect the option.

### Ejecting Discs

You can eject a CD or DVD using the Eject key on an Apple keyboard. If your computer has an optical drive with a tray, use the Eject key to open or close the tray.

You can also eject a disc by using Windows Explorer.

#### To eject a disc, do one of the following:

- Press and hold the Eject (⏏) key on your Apple keyboard.
- Right-click the disc icon in Windows Explorer and choose Eject from the menu that appears.
- Select the disc icon in Windows Explorer and click Eject.
- Hold down the primary mouse button as you start up your computer, until the disc ejects.

If you have a Mac Pro computer, you can press Option-Eject to open or close the tray of an optional second optical drive.

### Setting Your Computer to Restart Automatically After a Power Failure

Setting your computer to restart automatically after a power failure might be useful if you need to access your computer remotely.

#### To set your computer to restart automatically after a power failure

- 1 Click the Boot Camp system tray item and choose Boot Camp Control Panel.
- 2 Click the Power tab.
- 3 Select “Restart automatically after a power failure.”

### Using Bluetooth Devices with Windows

Before you can use a Bluetooth wireless device with Windows on your Mac, you must pair the device with your computer while running Windows.

#### To pair a wireless Mighty Mouse or Apple keyboard with your Mac:

- 1 In Windows, open the Bluetooth Devices control panel.
- 2 In the Devices pane, click Add.

- 3 Follow the Bluetooth Device Wizard to set up your device.
  - a To make your Apple wireless device discoverable, turn the device off and then on again.
  - b In the passkey pane, select “Let me choose my own passkey” and enter a numeric code.

*Wireless Mighty Mouse:* Enter four zeros (“0000”).

*Apple Wireless Keyboard:* Enter six to sixteen digits.

Passkeys for wireless devices are used to encrypt the information transmitted from the devices to your computer.

### Using Third-Party Utilities

Before installing and using a third-party disk utility for Windows, check with the vendor to make sure the utility is compatible with Boot Camp Beta.

**WARNING:** Data loss can occur when using a disk utility that is not compatible with Boot Camp Beta.

## Removing Windows from Your Computer

How you remove Windows from your computer depends on whether you installed Windows on a single-volume disk or on a second disk partition.

*If you installed Windows on a single-volume disk:* Use Disk Utility to erase the disk and reformat it as a Mac OS X volume.

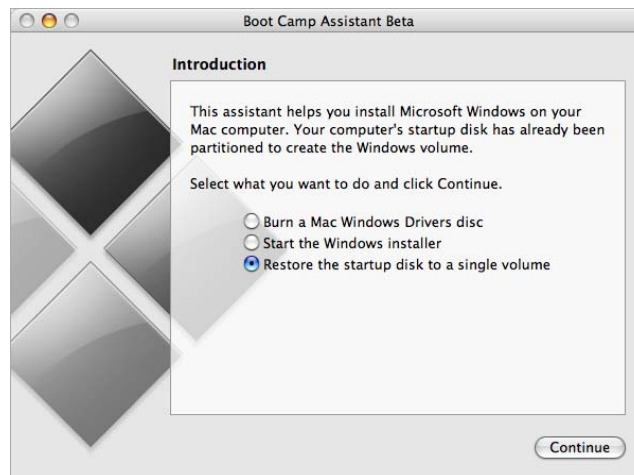
*If you installed Windows on a second disk partition:* Using Boot Camp Assistant as described below, remove Windows by deleting the Windows partition and restoring the disk to a single-partition Mac OS X volume. If your computer has multiple disks, you’ll first have to select the disk with the Windows partition.

**WARNING:** Make a backup of the important information on your computer before removing Windows. Windows software and all other information on the Windows partition will be erased.

### To delete a Windows partition on a computer with a single internal disk:

- 1 Start up in Mac OS X.
- 2 Quit all open applications and log out any other users on your computer.

3 Open Boot Camp Assistant.



4 Select "Restore the startup disk to a single volume" and click Continue.

**To delete a Windows partition on a computer with multiple internal disks:**

- 1 Start up in Mac OS X.
- 2 Quit all open applications and log out any other users on your computer.
- 3 Open Boot Camp Assistant.
- 4 Select "Create or remove a Windows partition" and click Continue.



- 5 Select the disk with Windows on it.
- 6 Select "Restore to a single Mac OS partition" and click Continue.

## Troubleshooting

If you're having trouble partitioning a disk, using Boot Camp Assistant, or installing or running Windows on your Mac, check this section for possible solutions.

For more troubleshooting information, go to the Apple Support website at [www.apple.com/support](http://www.apple.com/support) and search for "boot camp."

### If Boot Camp Assistant won't open because you haven't updated your firmware or system software

Boot Camp Beta requires that you have Mac OS X v10.4.6 or later, and the latest firmware installed on your computer. Some computers may require more than one firmware update.

#### To update your computer's system software:

- 1 From the Apple menu, choose Software Update.
- 2 If an update for Mac OS X appears in the list, select it.
- 3 Click Install.

#### To update your computer's firmware:

- 1 Go to [www.apple.com/support/downloads](http://www.apple.com/support/downloads).
- 2 Search for the firmware updates for your computer.  
For example, search for "Mac mini firmware update."

**Important:** Some computers may require more than one firmware update. See [docs.info.apple.com/article.html?artnum=303880](http://docs.info.apple.com/article.html?artnum=303880) for the current updates available for your computer.

- 3 Download all applicable firmware update packages.
- 4 Open each package and follow the onscreen instructions.

### If you can't partition your disk

In order to partition your disk and install Windows using Boot Camp Assistant, the disk must be a single partition, formatted as a Mac OS X Extended (Journaled) volume. If you have already partitioned your disk using Disk Utility or some other utility, you cannot use Boot Camp Assistant until you restore your disk to a single-partition Mac OS X volume.

Boot Camp Assistant works only with internal disks. You cannot use Boot Camp Assistant to partition and install Windows on an external disk.



If a dialog appears saying “The disk cannot be partitioned because verification failed,” try repairing the disk using Disk Utility and running Boot Camp Assistant again. If that doesn’t work, back up all the information on your computer, start up from your Mac OS X install disc, and erase the disk using Disk Utility. Restore the information to your computer from the backup and try running Boot Camp Assistant again.

#### **If you made the Windows partition too small**

First, back up all the information on your Windows partition. Then run Boot Camp Assistant to restore your disk to a single volume. Restart your computer and use Boot Camp Assistant to partition the disk again and reinstall Windows. Don’t forget to install the Boot Camp drivers after installing Windows.

#### **If the Windows installer isn’t responding**

If you’re using an Apple Mighty Mouse, the Windows installer may not respond if the mouse is connected directly to your computer. Connect the Mighty Mouse to the USB port on your keyboard.

#### **If Windows can’t be installed**

Make sure you’ve installed all the firmware updates available for your computer. See page 24.

#### **If Windows didn’t install properly**

Verify that you are using an original, full version of Windows XP Home Edition or Professional with Service Pack 2 or later, or Windows Vista Home Basic, Home Premium, Business, or Ultimate. Do not use a 64-bit version of Windows. Media Center, OEM, and upgrade versions of Windows XP are not recommended.

Restart your computer and hold down the Option key until one or more disk icons appear on your screen. Insert the Windows install disc. Select the Windows install disc icon and then click the arrow beneath it. Quickly press any key on your keyboard to start the installer. Follow the onscreen instructions to repair or reinstall Windows.

#### **If the Boot Camp drivers weren’t successfully installed**

If it appears that the Boot Camp drivers weren’t successfully installed, insert your Mac Windows Drivers disc and try repairing the software. Double-click the setup.exe file if the installer doesn’t open automatically.

If you need to reinstall specific drivers, you can install one driver at a time.

#### **To install a specific driver:**

- 1 Insert the Mac Windows Drivers disc into your computer.
- 2 Quit AutoRun if it opens.
- 3 Using Windows Explorer, locate the driver that you want to install.
- 4 Open the driver to start the installation.

### **If the function keys on your Mac portable computer don't work the way you expect**

By default in Windows, pressing function keys on a Mac portable computer controls hardware features, such as volume and display brightness.

By holding down the Fn key as you press function keys, you can also use them to trigger application-specific software features. For example, if you open iTunes and press F1, iTunes Help opens.

You can set the keyboard so that the function keys control application-specific features without pressing Fn. You then hold down Fn to use the function keys to control hardware features.

#### **To set whether the function keys control hardware or software features**

- 1 In Windows, click the Boot Camp system tray item and choose Boot Camp Control Panel.
- 2 Click the Keyboard tab.
- 3 Select or deselect "Use the F1-F12 keys to control software features."

### **If you can't eject a CD or DVD**

Most Apple keyboards have an Eject (⏏) key that ejects optical discs. The Eject key on Apple keyboards works in Windows only after you have installed the Boot Camp drivers. See "Step 3: Installing the Boot Camp Drivers for Windows" on page 15.

You must be logged in to a user account to use the Eject key. The Eject key does not work when the Welcome Screen is displayed.

If your keyboard doesn't have an Eject key, you can eject a disc using Windows Explorer. Select the disc and click Eject.

If you're still having trouble ejecting the disc, click and hold down the primary mouse button as you restart your computer, until the disc ejects.

### **If your computer doesn't always show the correct date and time**

You must have an active Internet connection in order to maintain the correct date and time when going between Mac OS X and Windows.

If you are not connected to the Internet, you need to set the date and time manually when you change operating systems.

### **If you can't adjust the brightness of the display on your portable Mac computer**

You can adjust the brightness of MacBook and MacBook Pro displays using function keys on the keyboard. Press the F1 key to dim the display, or the F2 key to brighten it.

If the brightness keys don't appear to work, try pressing and holding the Fn key while pressing the F1 or F2 key. If that doesn't work, make sure you've installed the Boot Camp drivers. See "Step 3: Installing the Boot Camp Drivers for Windows" on page 15.

### **If you can't adjust the sound volume**

You can adjust the sound volume in Windows by using the volume keys on your Apple keyboard. Press Volume Down (⏮) to lower the volume or Volume Up (⏭) to increase it. To mute the volume, press Mute (⏸).

If the volume keys don't appear to work, make sure you've installed the Boot Camp drivers. See "Step 3: Installing the Boot Camp Drivers for Windows" on page 15.

### **If the Windows desktop doesn't fill the entire screen**

If the Windows desktop doesn't fill the entire screen, make sure you've installed the Boot Camp drivers. See "Step 3: Installing the Boot Camp Drivers for Windows" on page 15. Then increase the desktop resolution setting in the Display control panel.

### **If the screen is blank or distorted**

Some graphics cards may not work with both Mac OS X and Windows on a Mac computer. If you're having trouble with your screen display when using Windows, try the following:

- Make sure you've installed the Boot Camp drivers. See "Step 3: Installing the Boot Camp Drivers for Windows" on page 15.
- Adjust the screen resolution setting in the Display control panel.
- Use the graphics card that came with your Mac.