



# **Boot Camp** Installation & Setup Guide

# Contents

3	Introduction
3	What You Need
4	Installation Overview
4	Step 1: Check for updates
4	Step 2: Prepare your Mac for Windows
4	Step 3: Install Windows
4	Step 4: Install the Windows support software
5	Step 1: Check for Updates
5	Step 2: Prepare Your Mac for Windows
6	If You Have Problems Creating a Partition
6	Step 3: Install Windows
8	If You Have Problems Installing Windows
8	If you get a message saying “Installer Disc Not Found” when installing Windows
8	If Windows didn’t install properly
8	If the Windows installer isn’t responding
8	If you insert the wrong disc during installation
8	Step 4: Install the Windows Support Software
9	If the Windows Support Software Wasn’t Successfully Installed
10	If You Have Problems Using Windows on Your Mac
10	If you see “No Boot Disk Attached” when starting up your computer
10	If the screen is blank or distorted
10	If you can’t rename the Windows partition
10	If you have a RAID configuration
11	Starting Up Using Mac OS X or Windows
11	Setting the Default Operating System
11	Selecting an Operating System During Startup
12	Removing Windows from Your Computer
12	Learning More, Support, and Feedback

# Installing and Setting Up Boot Camp

This document shows you how to install and set up Boot Camp so you can use Microsoft Windows on a Mac computer.

## Introduction

Boot Camp lets you install Windows on a Mac computer in its own partition, so you can use either Windows or Mac OS X on your Mac computer.

The Boot Camp Assistant application and this guide walk you through the steps needed to create a Windows partition on your Mac and then restart your Mac using your Windows installation disc. Then, follow this guide to install Windows and install software drivers that let Windows work with your Mac hardware.

You can install Windows with an installation disc you provide or, on some Mac computers, with a USB flash drive that contains a Windows 7 ISO image downloaded from Microsoft. Boot Camp Assistant helps you burn the image to the flash drive.

If you want to upgrade the version of Boot Camp or Windows on your Windows partition, you don't need to use Boot Camp Assistant. Instead, click the Finder icon in the Dock, choose Help > Help Center, and search for "upgrade Boot Camp" or "upgrade Windows."

**NOTICE:** This document is for Boot Camp Assistant version 4.0.1 or later. If you're using Boot Camp Assistant version 4.0 or earlier, open Boot Camp Assistant and click "Print Installation & Setup Guide" to print the document for your computer. To see what version of Boot Camp Assistant you're using, open Boot Camp Assistant, and then choose Boot Camp Assistant > About Boot Camp Assistant.

## What You Need

- A printed copy of this document, which contains information you need to refer to when installing Windows..
- The keyboard and mouse or trackpad that came with your computer. (If they aren't available, use a USB keyboard and mouse.)

To install Windows 7 with a installation disc, you need the following:

- A built-in optical disc drive or a compatible external optical drive.

For information on using your computer with an external optical drive, see the documentation that came with your computer.

- An installation disc with Windows 7 Home Premium, Professional, or Ultimate

You must use a single full-install Windows installation disc. You cannot use an upgrade version of Windows.

- A blank CD or DVD, or an external drive formatted as MS-DOS (FAT).

After you install Windows, you need to install software drivers that let Windows work with your Mac hardware. You can download the drivers to a blank CD, blank DVD, or external drive. To format an external drive as MS-DOS (FAT), use Disk Utility in the Utilities folder.

You may be able to install Windows 7 with a USB flash drive that contains a Windows 7 ISO image downloaded from Microsoft. To check whether you can do so, open Boot Camp Assistant, click Continue, and see if the option “Create a Windows 7 install disk” is available.

To install Windows 7 with a USB flash drive, you need the following:

- An ISO image of Windows 7 Home Premium, Professional, or Ultimate downloaded from Microsoft.
- A USB flash drive with 4 GB or more.

Boot Camp Assistant erases the flash drive, and copies to it the Windows 7 ISO image and software drivers that let Windows work with your Mac hardware

To see how much free space you need on your disk for Windows, refer to the documentation that came with Windows.

## Installation Overview

Installing Windows on your Mac computer involves the following steps:

### Step 1: [Check for updates](#)

### Step 2: [Prepare your Mac for Windows](#)

Boot Camp Assistant (in the Utilities folder) prepares your Mac for Windows by creating a partition for Windows and then starting the Windows installer. Optionally, you can download the Windows support software and copy a Windows 7 ISO image to a USB flash drive.

### Step 3: [Install Windows](#)

### Step 4: [Install the Windows support software](#)

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

## Step 1: Check for Updates

Be sure to install all Mac OS X updates so Windows installs successfully.

**To check for updates:**

- 1 Log in to an administrator account on your computer, quit all open applications, and log out any other users on your computer.
- 2 Choose Apple (🍏) > Software Update.

Install all available updates. If your computer restarts after installing an update, choose Apple (🍏) > Software Update again to install any additional updates.

- 3 Go to [www.apple.com/support/bootcamp](http://www.apple.com/support/bootcamp) and check whether you need additional updates.

## Step 2: Prepare Your Mac for Windows

Boot Camp Assistant helps prepare your Mac for Windows by creating a new partition for Windows and then starting the Windows installer. Optionally, you can download the Windows support software and copy a Windows 7 ISO image to a USB flash drive.

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

**To prepare your Mac for Windows:**

- 1 Open Boot Camp Assistant, in the Utilities folder.
- 2 Select the option to add a Windows partition, select other options you need, and then click Continue.

Here are the other options you can choose:

- If you want to install Windows from a USB flash drive and you have a Windows 7 ISO image, select the option to copy the image to a USB flash drive. If this option isn't available, your computer doesn't support installing Windows from a USB flash drive.
  - If you haven't already downloaded the Windows support software for this computer, select the option to download it. In a later step, you'll install the Windows support software on your Windows partition.
- 3 Follow the onscreen instructions for the options you selected.
  - 4 When you're asked to create a partition for Windows, choose the partition's size.

If you need help determining the best size for your Windows partition, refer to your Windows installer documentation.

In a later step, you'll format the Windows partition.

- 5 Insert your Windows 7 installation disc into your computer's optical drive, or insert the USB flash drive with Windows 7 into a USB port on your computer
- 6 Click Install  
Boot Camp Assistant creates the Windows partition, restarts your Mac, and opens the Windows 7 installer.

### If You Have Problems Creating a Partition

If you have problems creating a Windows partition, check the following:

- Your Mac's disk must be a single partition, formatted as Mac OS Extended (Journaled). If the disk already has more than one partition, you must repartition it.
- Your Mac's disk must be an internal disk. You cannot use Boot Camp Assistant to install Windows on an external disk.
- If you have a Mac Pro with more than one internal disk and you want to install Boot Camp on a disk that isn't in the first hard drive bay, remove the drives in the lower numbered bays. You can reinstall the drives after you install Boot Camp.
- If a dialog appears saying "The disk cannot be partitioned because verification failed," try repairing the disk using Disk Utility and opening Boot Camp Assistant again. If that doesn't work, back up all the information on your computer, and reinstall Mac OS X. For more information, click the Finder icon in the Dock, choose Help > Help Center, and search for "reinstall Mac OS X."

## Step 3: Install Windows

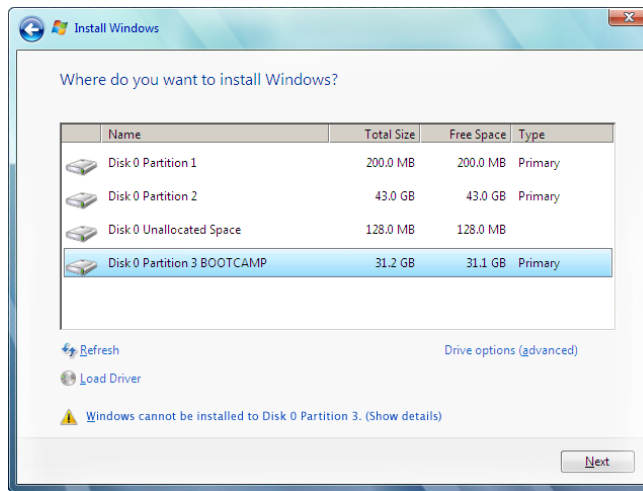
Read and carefully follow these instructions for installing Windows on your Mac computer. Refer to your Windows documentation for general information about installing and setting up Windows.

**To install Windows on your Mac computer:**

- 1 In the Windows 7 installer, follow the onscreen instructions, until you're asked where to install Windows.

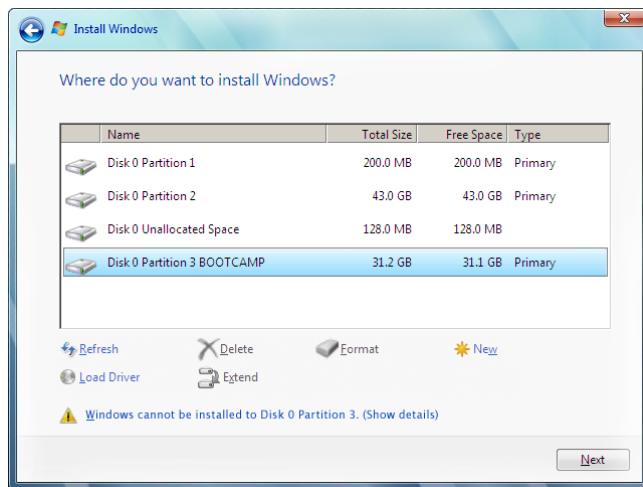
- 2 When you're asked where to install Windows, select the partition named "BOOTCAMP."

**NOTICE:** Do not create or delete a partition, or select any other partition. Doing so may delete the entire contents of your Mac OS X partition.



- 3 Click "Drive options (advanced)."

- 4 Click Format, and then click OK.



- 5 Click Next.

The installer formats the Windows partition using the NTFS file system.

- 6 Follow the onscreen instructions to finish installing and configuring Windows.

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

## If You Have Problems Installing Windows

If you have problems installing Windows, try the following solutions.

### If you get a message saying “Installer Disc Not Found” when installing Windows

Make sure you’re logged in to Mac OS X as an administrator.

### If Windows didn’t install properly

Verify that you’re using an original, full version of Windows 7 Home Premium, Professional, or Ultimate.

Restart your computer and hold down the Option key until one or more disk icons appear on your screen. Insert the Windows installation disc into the optical drive or insert the USB flash drive with Windows 7 into a USB port on your computer. Select the Windows installation disk 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 Windows installer isn’t responding

Be sure you are using the original keyboard and mouse that came with your computer.

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

### If you insert the wrong disc during installation

Eject the disc by holding down the Eject key on your keyboard, the button on your mouse, or the button on your trackpad while restarting the computer.

## Step 4: Install the Windows Support Software

After installing Windows, install Mac-specific drivers and other support software for Windows. The support software installs Boot Camp drivers to support your Mac’s hardware, including AirPort, its built-in camera, the Apple Remote, the trackpad on a portable Mac, and the function keys on an Apple keyboard. The software also installs the Boot Camp control panel for Windows and the Apple Boot Camp system tray item.

### To install the Windows support software:

- 1 If you can’t find the CD, DVD, or external disk with the support software you downloaded, open Boot Camp Assistant and download the software again.

You can quit the assistant after you save the software without creating a new partition.



- 2 Insert the CD or DVD or connect the external disk with the Windows support software. The installer may start automatically. If it doesn't, do one of the following:
  - If the support software is on the same USB flash drive as the Windows 7 installer, double-click the setup.exe file in the WindowsSupport directory.
  - Otherwise, double-click the setup.exe file in the Boot Camp directory.
- 3 Follow the onscreen instructions.

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

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

You don't need to respond to installer dialogs that appear only briefly during the installation.

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.

- 4 After your computer restarts, follow the instructions for any other installers that appear.
- 5 Check for updated Windows support software by using Apple Software Update or going to [www.apple.com/support/bootcamp](http://www.apple.com/support/bootcamp).

### If the Windows Support Software Wasn't Successfully Installed

If it appears your Mac's hardware isn't working as expected because the Windows support software wasn't successfully installed, try repairing it.

#### To repair the Windows support software:

- 1 Start up your computer in Windows. See "Starting Up Using Mac OS X or Windows" on page 11.
- 2 Insert the CD or DVD or connect the external disk with the Windows support software. The installer may start automatically. If it doesn't, do one of the following:
  - If the support software is on the same USB flash drive as the Windows 7 installer, double-click the setup.exe file in the WindowsSupport directory.
  - Otherwise, double-click the setup.exe file in the Boot Camp directory.
- 3 Click Repair and follow the onscreen instructions.

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

### **To reinstall a specific driver:**

If you need to reinstall specific drivers, you can install one driver at a time. For example, if your Mac's built-in camera isn't working, you can reinstall just the camera's driver.

Individual drivers are in the Drivers folder on the CD, DVD, or external disk with the Windows support software.

- 1 Insert the CD or DVD or connect the external disk with the Windows support software.
- 2 Quit AutoRun if it opens.
- 3 Using Windows Explorer, locate the driver that you want to reinstall.
- 4 Open the driver to start the installation.

### **If You Have Problems Using Windows on Your Mac**

If you're having trouble using Windows on your Mac, try the solutions below.

For more troubleshooting information, go to [www.apple.com/support/bootcamp](http://www.apple.com/support/bootcamp).

#### **If you see "No Boot Disk Attached" when starting up your computer**

You may have formatted your Boot Camp partition incorrectly so it cannot start up your computer. Start up your computer with Mac OS X and open Boot Camp Assistant. Remove the Boot Camp partition and then re-create it. Install Windows again, being sure to format the partition.

#### **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:

- Use the graphics card that came with your Mac.
- Make sure you've installed the Boot Camp drivers. See "Step 4: Install the Windows Support Software" on page 8.
- Adjust the screen resolution setting in the Display control panel.
- Go to [www.apple.com/support/bootcamp](http://www.apple.com/support/bootcamp) and check for compatibility information and updated software for your computer.

#### **If you can't rename the Windows partition**

You can rename the Windows partition only in Windows. Start up in Windows and right-click the C: drive in Windows Explorer. Then type a name.

#### **If you have a RAID configuration**

RAID configurations using Boot Camp are not supported. For more information, go to [www.apple.com/support/bootcamp](http://www.apple.com/support/bootcamp) and search for "RAID."

## Starting Up Using Mac OS X or Windows

After you've installed Windows and the support software, Boot Camp makes it easy to start up your computer using either Mac OS X or Windows. To set the operating system for your computer, choose a disk with that operating system installed as your startup disk and then restart your computer.

### Setting the Default Operating System

To set the default operating system in Mac OS X, use the Startup Disk pane of System Preferences in Mac OS X. To set it in Windows, use the Boot Camp control panel.

#### To set the default operating system in Mac OS X:

- 1 In Mac OS X, choose Apple menu > System Preferences, and then click Startup Disk.
- 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.

#### To set the default operating system in Windows:

- 1 In Windows, click the Boot Camp icon in the system tray 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.

#### To restart in Mac OS X using the Boot Camp icon in the system tray:

- In Windows, click the Boot Camp icon in the system tray and choose "Restart in Mac OS X."

This also sets the default operating system to Mac OS X.

### 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 startup:

- 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.

## Removing Windows from Your Computer

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

*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 and you installed Windows on a disk that has only one partition:* Start up in Mac OS X and use Disk Utility, in the Utilities folder, to reformat it as a Mac OS X volume.

### To delete Windows and the Windows partition:

- 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 “Remove Windows 7,” and then click Continue.
- 5 Do one of the following:
  - If your computer has a single internal disk, click Restore.
  - If your computer has multiple internal disks, select the disk with Windows on it, and then select “Restore to a single Mac OS partition” and click Continue.

## Learning More, Support, and Feedback

For more information about Boot Camp, go to [www.apple.com/bootcamp](http://www.apple.com/bootcamp).

For Boot Camp support, go to [www.apple.com/support/bootcamp](http://www.apple.com/support/bootcamp).

Apple welcomes your feedback on Boot Camp. To submit feedback, go to [www.apple.com/macosx/feedback](http://www.apple.com/macosx/feedback).

Apple does not provide support for installing or using Microsoft Windows software. To find help for Windows issues, go to [www.microsoft.com/windows](http://www.microsoft.com/windows).

© 2011 Apple Inc. All rights reserved.

Apple, the Apple logo, AirPort, Boot Camp, iMac, Mac, MacBook, and Mac OS are trademarks of Apple Inc., registered in the U.S. and other countries. Intel, Intel Core, and Xeon are trademarks of Intel Corp. in the U.S. and other countries. Other company and product names mentioned herein may be trademarks of their respective companies.

019-2133 2011-6