



# AirPort Express

## Setup Guide



# Contents

- 5 Chapter 1: Getting Started**
  - 7 About AirPort Express
  - 8 About the AirPort Software
  - 9 What You Need to Get Started
  - 10 Plugging In Your AirPort Express
  - 11 AirPort Express Status Lights
  - 12 What's Next
  
- 13 Chapter 2: Using AirPort Express**
  - 13 Using AirPort Express with Your Broadband Internet Service
  - 15 Using AirPort Express on an Existing Wireless Network and Stream Music to Powered Speakers or Your Home Stereo
  - 17 Using AirPort Express to Share a USB Printer
  
- 21 Chapter 3: Setting Up Your AirPort Express**
  - 22 Using AirPort Utility
  - 24 Creating a New Wireless Network
  - 24 Configuring and Sharing Internet Access
  - 25 Connecting to an Existing Wireless Network
  - 26 Allowing Wireless Clients Access to Your Network

- 27 Setting Advanced Options
- 29 Chapter 4: Tips and Troubleshooting**
- 35 AirPort Express Placement Considerations
- 36 Items That Can Cause Interference with AirPort
- 37 Chapter 5: Learning More, Service, and Support**
- 37 Online Resources
- 37 Onscreen Help
- 38 Obtaining Warranty Service
- 38 Finding the Serial Number of Your AirPort Express
- 39 Appendix: AirPort Express Specifications**
- 40 AirPort Express Safety Tips
- 41 Avoid Wet Locations
- 41 Do Not Make Repairs Yourself
- 43 Regulatory Compliance Information

# Getting Started

# 1

Congratulations on purchasing AirPort Express. Read this guide to get started using it.

AirPort Express is based on an Institute of Electrical and Electronics Engineers (IEEE) draft 802.11n specification and provides better performance and greater range than previous IEEE 802.11 standards. AirPort Express is compatible with computers using 802.11b, and 802.11g, as well as computers using the 802.11a and 802.11n wireless standards.

You can use AirPort Express to share your broadband Internet access with wireless computers on your network, play iTunes music on your home stereo, and share a USB printer.

Your AirPort Express comes with AirTunes, an easy way to play iTunes music through remote speakers.

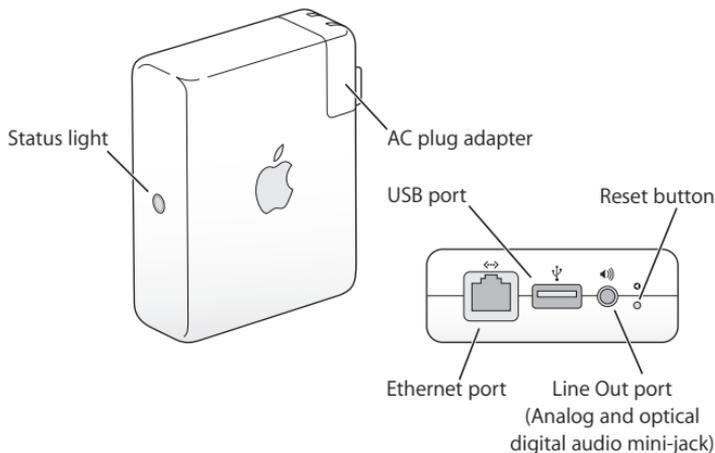
With AirPort Express, you can:

- Create a wireless network in your home, and then connect to the Internet and share the connection with up to ten computers, or Wi-Fi devices such as iPhone, iPod touch, and Apple TV. An entire family can be connected to the Internet at the same time.
- Connect AirPort Express to your home stereo or powered speakers and use iTunes to play your iTunes music on your home stereo from a Macintosh with an AirPort or AirPort Extreme Card, or a compatible Windows XP or Windows Vista computer.
- Set up a wireless connection to your Ethernet network. AirPort and AirPort Extreme-equipped Macintosh computers, or Windows Vista or Windows XP computers, can then have access to an entire network without being connected with a cable.
- Connect a USB printer to your AirPort Express. All of the compatible computers on the AirPort network, both wireless and wired, can print to it.

## About AirPort Express

AirPort Express has three ports, located on the bottom side:

- Ethernet (↔) port for connecting a DSL or cable modem, or for connecting to an existing Ethernet network
- Analog and optical digital audio stereo mini-jack (🔊) for connecting AirPort Express to a home stereo or powered speakers
- USB (📀) port for connecting a compatible printer to AirPort Express



Next to the ports is a reset button, which is used for troubleshooting your AirPort Express. The status light on the side of AirPort Express shows the current status.

## About the AirPort Software

AirPort Express works with the AirPort software included on the AirPort Express CD.

---



### **AirPort Utility**

AirPort Utility helps you set up your AirPort Express to create a wireless network, connect to the Internet, and share a USB printer. You can also connect your AirPort Express to an existing AirPort Express or AirPort Extreme wireless network to extend the range of your network using WDS. Use AirPort Utility to quickly and easily set up your AirPort Express and your wireless network.

AirPort Utility is also an advanced tool for setting up and managing AirPort Extreme and AirPort Express Base Stations. Use AirPort Utility to adjust network, routing, and security settings and other advanced options.

---



### **AirPort status menu in the menu bar**

Use the AirPort status menu to switch quickly between AirPort networks, monitor the signal quality of the current network, create a Computer-to-Computer network, and turn AirPort on and off. The status menu is available on computers using Mac OS X.

---

## What You Need to Get Started

**To set up AirPort Express using a Macintosh, you must have the following:**

- A Macintosh computer with an AirPort or AirPort Extreme Card installed
- Mac OS X v10.5.7 or later
- AirPort Utility v5.5.1 or later

**To set up AirPort Express using a Windows PC, you must have the following:**

- A Windows PC with 300 MHz or higher processor speed with a compatible 802.11a, 802.11b, 802.11g, or 802.11n wireless adapter
- Windows XP with Service Pack 3, or Windows Vista with Service Pack 1
- AirPort Utility v5.5.1 or later

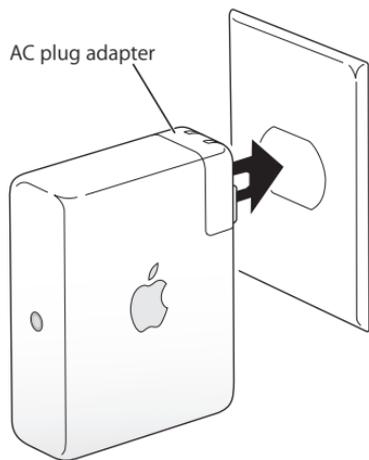
You need iTunes to play audio from your computer to a stereo connected to AirPort Express. To be sure you have the latest version of iTunes, go to [www.apple.com/itunes](http://www.apple.com/itunes).

You can use AirPort Express with any wireless computer that is compliant with the IEEE 802.11a, 802.11b, 802.11g, or 802.11n standards. To set up AirPort Express, your computer must meet the requirements listed above.

## Plugging In Your AirPort Express

Before you plug in your AirPort Express, first connect the appropriate cables to the ports you want to use, including the Ethernet cable connected to your DSL or cable modem (if you will connect to the Internet), the audio cable connected to your stereo (if you will use AirTunes to play music from iTunes), and a USB cable connected to a compatible USB printer (if you'll print to a USB printer).

After you have connected the cables for all the devices you plan to use, plug AirPort Express into the power outlet. There is no "on" switch.



When you plug the AirPort Express AC adapter into the power outlet, the status light flashes green for one second, and then glows amber while it starts up. After it has started up completely, the status light flashes amber until it is updated with new settings. The status light glows solid green after your AirPort Express is properly set up and connected to the Internet or a network.

## AirPort Express Status Lights

The following table explains AirPort Express light sequences and what they indicate.

Light	Status/description
Off	AirPort Express is unplugged.
Flashing green	AirPort Express is starting up. The light flashes for one second.
Solid green	AirPort Express is on and working properly. If you choose Flash On Activity from the Status Light pop-up menu in the Base Station pane of AirPort Utility, the status light may flash green to indicate normal activity.

Light	Status/description
Flashing amber	AirPort Express cannot establish a connection to the network or the Internet, or is encountering a problem. Make sure you have installed AirPort Utility and use it to get information about what might cause the status light to flash amber. See “If Your AirPort Express Status Light Flashes Amber” on page 32.
Solid amber	AirPort Express is completing its startup sequence.
Flashing amber and green	There may be a problem starting up. AirPort Express will restart and try again.
Solid blue	The base station is ready to allow a wireless client access to the network. See “Allowing Wireless Clients Access to Your Network” on page 26.

## What’s Next

After you plug in AirPort Express, you use AirPort Utility to set it up to work with your Internet connection, stereo, USB printer, or existing network.

See “Using AirPort Express” on page 13 for examples of all the ways you can use AirPort Express, and information about how to set up your wireless network.

Then see “Setting Up Your AirPort Express” on page 21 to find out more about the setup process.

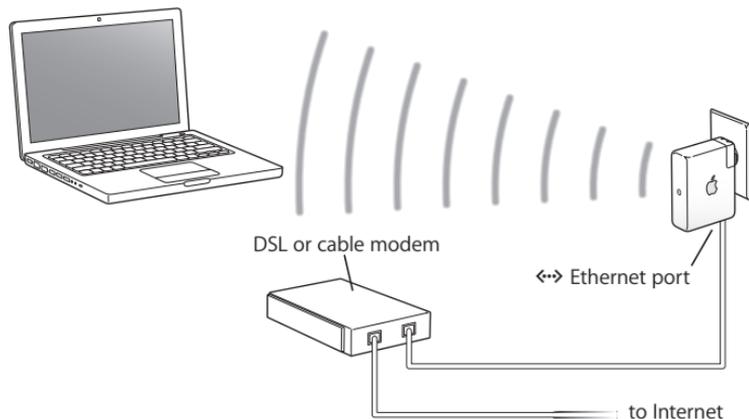
In this chapter you'll find explanations of the different ways you can use AirPort Express.

This chapter gives examples of how your setup might look, depending on how you use AirPort Express. It also gives a brief explanation of what you need to do to get your AirPort Express network up and running quickly.

## Using AirPort Express with Your Broadband Internet Service

When you set up AirPort Express to provide network and Internet access, Macintosh computers with AirPort and AirPort Extreme cards, and 802.11a, 802.11b, 802.11g, or 802.11n wireless computers can access the wireless AirPort network to share files, play games, and use Internet applications such as web browsers and email applications.

## What It Looks Like



### How to Set It Up

- 1 Connect your DSL or cable modem to your AirPort Express using the Ethernet (↔) port.
- 2 Use AirPort Utility to create a new network. (See “Setting Up Your AirPort Express” on page 21 for more information.)

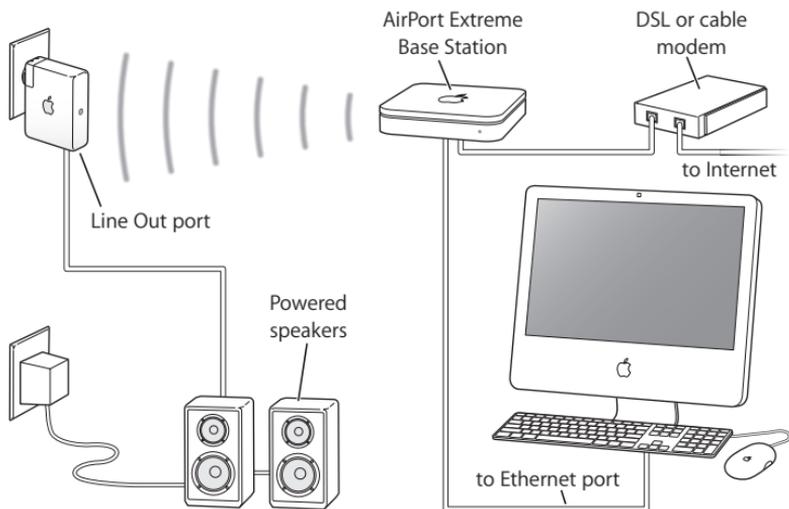
Computers using AirPort and computers using other wireless cards or adapters connect to the Internet through AirPort Express.

Wireless computers communicate with each other through AirPort Express.

## Using AirPort Express on an Existing Wireless Network and Stream Music to Powered Speakers or Your Home Stereo

You can also connect AirPort Express as a client to an existing wireless network. Connect AirPort Express to your stereo or powered speakers and use iTunes to play music from iTunes. Connecting AirPort Express to your existing network allows you to place AirPort Express in another room, within range of your network.

### What It Looks Like



## How to Set It Up

- 1 Connect your AirPort Express to your home stereo or powered speakers using a digital fiber optic cable, analog mini-stereo-to-dual-RCA cable, or mini-stereo to mini-stereo cable (depending on what type of connectors your stereo uses) connected to the stereo mini-jack (Ⓜ).

**Note:** You cannot use USB speakers with AirPort Express. Use powered speakers with a stereo mini-jack connector.

- 2 To join the wireless network, use the AirPort status menu in the menu bar on a Macintosh. On a Windows computer, hold the pointer over the wireless connection icon until you see your AirPort network name (SSID), and choose it from the list if there are multiple networks available. Enter the network password if necessary.
- 3 Open iTunes on your computer and choose your stereo or speakers from the speakers pop-up menu in the lower-right corner of the iTunes window.

You can stream iTunes music to more than one AirPort Express at a time by choosing Multiple Speakers from the speakers pop-up menu.

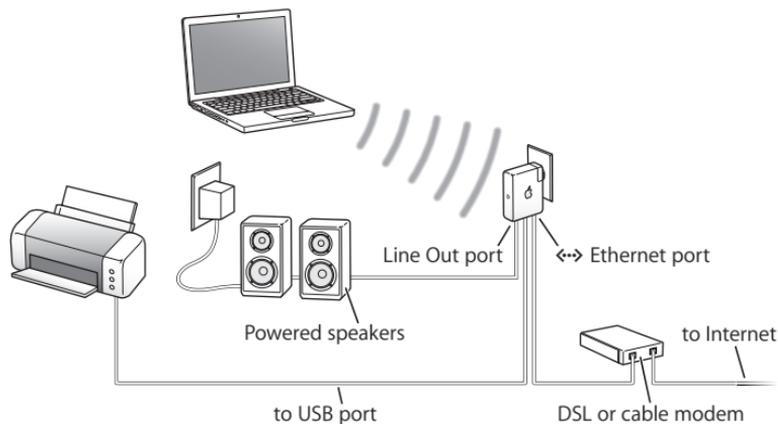
Wireless computers within range of AirPort Express can wirelessly stream music to it using iTunes 4.6 or later. Only one computer at a time can stream music to AirPort Express.

Do not connect AirPort Express to the phono jack on your stereo.

## Using AirPort Express to Share a USB Printer

When you connect a USB printer to your AirPort Express, all of the computers on the wireless network can print to it.

### What It Looks Like



## How to Set It Up

- 1 Connect the printer to the AirPort Express USB (ψ) port using a USB cable.
- 2 Use AirPort Utility to create a new network or join an existing one. (See “Setting Up Your AirPort Express” on page 21.)

Wireless computers can print to the printer using Mac OS X v10.2.7 or later, or Windows Vista or Windows XP.

### To use the printer with a computer using Mac OS X v10.3 or v10.4:

- 1 Open Printer Setup Utility (located in the Utilities folder in the Applications folder).
- 2 Select the printer from the list.  
If the printer is not in the list, click Add, choose Bonjour from the pop-up menu, and then select the printer from the list.

### To use a printer with a computer using Mac OS X v10.5 or later:

- 1 Choose Apple > System Preferences, and then click Print & Fax.
- 2 Select the printer in the list. If the name of the printer isn't in the list, click Add (+) at the bottom of the list and then select the printer you want to use.

### To use the printer with a Windows computer:

- 1 Install Bonjour for Windows from the CD that came with your AirPort Express.
- 2 Follow the onscreen instructions to connect your printer.

## Optional Audio Cable and Power Cord

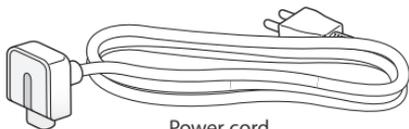
You can purchase the optional AirPort Express Stereo Connection Kit to connect your AirPort Express to your home stereo or powered speakers. The kit includes analog mini-stereo-to-dual-RCA connectors, a Toslink digital fiber optic cable, and a power cord.



Mini-stereo-to-RCA cable



Toslink-to-mini digital  
fiber optic cable



Power cord

- Connect the analog cable to your home stereo if it uses standard analog cables.
- Connect the digital fiber optic cable if your stereo has a digital Toslink port.
- Connect the power cord if you are setting up your AirPort Express away from a power outlet.



# Setting Up Your AirPort Express

# 3

This chapter provides information and instructions for using the AirPort software to set up your AirPort Express.

Use the diagrams in the previous chapter to help you decide where you want to use your AirPort Express, and what features you want to set up on your AirPort network. Then use the instructions in this chapter to easily configure your AirPort Express and set up your wireless network.

With AirPort Utility you can:

- Set up a new network that wireless computers can use to communicate with each other. If you set up your AirPort Express as a base station and connect it to the Internet, wireless computers can also share the Internet connection.
- Connect your AirPort Express to your existing wireless network and use AirTunes to play iTunes music on your home stereo or powered speakers, and connect a USB printer to share.

You can use AirTunes to play music from iTunes and share a USB printer in any type of network you set up, whether it is a new network or you are joining an existing network.

If you have more than one AirPort Express, you can connect one to the stereo in your living room and connect another to the powered speakers in your den, for example. Using AirTunes, you can stream your iTunes music to either AirPort Express, depending

on where you are in your house. Choose the name of the AirPort Express you want to use from the speakers pop-up menu in the lower right corner of the iTunes window. You can also stream iTunes to more than one AirPort Express simultaneously.

This chapter provides an overview for using the setup assistant in AirPort Utility to set up your network and other features of your AirPort Express. For more detailed wireless networking information, and for information about the advanced features of AirPort Utility, refer to the “Apple AirPort Networks” document, located at [www.apple.com/support/airport](http://www.apple.com/support/airport).

The document provides details for both of the following:

- Using AirPort Utility with the AirPort Extreme 802.11n Base Station
- Using AirPort Utility to set up your AirPort Express 802.11g Base Station

**Note:** You can do most of your network setup and configuration tasks using the setup assistant in AirPort Utility. To set advanced options, choose Manual Setup from the Base Station menu of AirPort Utility. See “Setting Advanced Options” on page 27.

## Using AirPort Utility

To set up and configure your AirPort Express to use AirPort for wireless networking and Internet access, use the setup assistant in AirPort Utility. AirPort Utility is installed on your computer when you install the software on the AirPort Express CD.

**On a Macintosh computer using Mac OS X v10.5.7 or later:**

- 1 Open AirPort Utility, located in the Utilities folder in the Applications folder.
- 2 Select your AirPort Express and click Continue.

- 3 Follow the onscreen instructions to set up your AirPort Express and your wireless network.

**On a computer using Windows XP (with Service Pack 3) or Window Vista (with Service Pack 1):**

- 1 Open AirPort Utility, located in Start > All Programs > AirPort.
- 2 Select your AirPort Express and click Continue.
- 3 Follow the onscreen instructions to set up your AirPort Express and your wireless network.



The setup assistant in AirPort Utility asks you a series of questions about the type of network you want to use and the services you want to set up. The setup assistant helps you enter the appropriate settings for the network you are setting up.

If you are using AirPort Express to connect to the Internet, you need a broadband (DSL or cable modem) account with an Internet service provider, or a connection to the Internet using an existing Ethernet network. If you received specific information from your service provider (such as a static IP address or a PPPoE user name and password), you may need to enter it in AirPort Utility. Have this information available before you set up your AirPort Express.

## Creating a New Wireless Network

You can use the setup assistant in AirPort Utility to create a new wireless network. The setup assistant guides you through the steps necessary to name your network, protect your network with a password, and set other options.

### **If you plan to share a USB printer on your network:**

- 1 Connect the printer to the AirPort Express USB (⌘) port.
- 2 Open AirPort Utility, located in the Utilities folder in the Applications folder on a Macintosh, or in Start > All Programs > AirPort on a computer using Windows XP.
- 3 Follow the onscreen instructions to create a new network.

## Configuring and Sharing Internet Access

If you plan to share your Internet connection with wireless computers on your network, you need to set up your AirPort Express to share its Internet connection. After your AirPort Express is set up, computers access the Internet via the AirPort network. Your AirPort Express connects to the Internet and transmits information to the computers over the AirPort network.

Before you use AirPort Utility to set up your base station, connect your DSL or cable modem to the AirPort Express Ethernet (↔) port. If you are using an existing Ethernet network with Internet access to connect to the Internet, you can connect the AirPort Express to the Ethernet network instead.

Use the setup assistant in AirPort Utility to enter your ISP settings and configure how AirPort Express shares the settings with other computers.

Using AirPort Utility is a quick and easy way to set up your base station and network. If you want to set additional options for your network, such as restricting access to your network, or setting advanced DHCP options, choose Manual Setup from the Base Station menu of AirPort Utility.

## Connecting to an Existing Wireless Network

You can use AirPort Utility to join an existing wireless network. When you connect your AirPort Express to your home stereo, computers on your wireless network can use iTunes to play music from iTunes on the stereo. If you connect a USB printer to your AirPort Express, all of the computers on the network can print to the printer.

Make sure you connect the audio cable to your stereo and the USB cable to your printer before you use AirPort Utility.

### **To connect to an existing network:**

- 1 Open AirPort Utility, located in the Utilities folder in the Applications folder on a Macintosh, or in Start > All Programs > AirPort on a Windows computer.
- 2 Follow the onscreen instructions to connect your AirPort Express to your wireless network.

## Allowing Wireless Clients Access to Your Network

If your network is password-protected using WPA Personal or WPA/WPA2 Personal, you can provide wireless clients access to your network without requiring them to enter the network password.

When you allow a client access to your network, the client's name and wireless MAC address (or AirPort ID) are stored in the access control list of AirPort Utility until you remove the client from the list. You can also provide 24 hours of access, after which time the client will no longer be able to access your network.

When you provide a client access to your wireless network, the client does not need to enter the network password.

### **To allow client access to your network:**

- 1 Open AirPort Utility, select your base station, and then choose Manual Setup from the Base Station menu. Enter the base station password if necessary.
- 2 Choose Add Wireless Clients from the Base Station menu.
- 3 Select how you want the client to access the network:
  - Select PIN to enter the eight-digit number provided by the client requesting network access.
  - Select "First attempt" to allow network access to the first client attempting to join the network.
- 4 Select "Limit client's access to 24 hours" if you want to provide only one day of access to your network. If you don't select this option, the client will have access to your network until you remove the client's name from the list.

## Setting Advanced Options

To set advanced options, you can use AirPort Utility to set up your AirPort Express manually. You can configure advanced base station settings, such as advanced security options, closed networks, DHCP lease time, access control, power controls, setting up user accounts, and more.

**To set advanced options or make changes to a network you've already set up:**

- 1 Choose the wireless network you want to change.

On a Macintosh, use the AirPort status menu in the menu bar. On a computer using Windows XP, hold the pointer over the wireless connection icon until you see your AirPort network name (SSID), and then choose it from the list if there are multiple networks available.

The default network name for an Apple base station is AirPortNetwork XXXXXX, where XXXXXX is replaced with the last six digits of the AirPort ID, also known as the Media Access Control or MAC address. The AirPort ID is printed on the electrical-plug side of the AirPort Express.

- 2 Open AirPort Utility, located in the Utilities folder in the Applications folder on a Macintosh, and in Start > All Programs > AirPort on a computer using Windows.
- 3 If there is more than one base station in the list, select the base station you want to change. If you don't see the base station you want to configure, click Rescan to scan for available base stations, and then select the base station you want.
- 4 Choose Manual Setup from the Base Station menu. If you are prompted for a password, enter it.



You can quickly solve most problems with AirPort Express by following the advice in this chapter.

## **If the AirPort Express Software Can't Detect the Proper AirPort Hardware**

Make sure that the computer you are using has an AirPort Card or an AirPort Extreme Card installed. If you recently installed the card, shut down your computer and make sure the card is properly installed. Make sure that the AirPort antenna is securely connected to the card (you should hear a click when the antenna is connected securely). Make sure that the other end of the card is firmly inserted into the connector in the AirPort Card slot.

If you are using a Windows computer, make sure the wireless card or adapter is installed correctly. See the documentation that came with your computer to check the connection.

## If You Can't Play Music on Your Stereo from iTunes

Check the following:

- Make sure your AirPort Express is plugged into a power outlet, is in range of your computer, and that you have connected the appropriate cables. You may need to join the AirPort Express network.
- Make sure to choose your AirPort Express from the speakers pop-up menu in the lower right corner of the iTunes window.
- Make sure you are using iTunes 4.6 or later.

## If You Can't Hear Music Playing

If music is playing (the progress bar at the top of the iTunes window is moving) but you can't hear anything, check the following:

- If you are trying to play music through speakers connected to an AirPort Express, and you've selected the "Disable iTunes volume control for remote speakers" checkbox in the Audio pane of iTunes preferences, make sure your remote speakers are selected in the pop-up menu at the bottom of the iTunes window and the volume control on the remote speakers isn't turned down.

## If You Forgot Your Network or AirPort Express Password

You can clear the AirPort network or AirPort Express password by resetting AirPort Express.

**To reset your password:**

- 1 Use the end of a straightened paper clip to press and hold the reset button for one second.
- 2 Select your AirPort network.

### **On a Macintosh computer:**

- Use the AirPort status menu in the menu bar to select the network created by AirPort Express (the network name does not change).

### **On a computer using Windows Vista or Windows XP:**

- Hold the pointer over the wireless connection icon until you see your AirPort Network Name (SSID), and choose it from the list if there are multiple networks available.
- 3 Open AirPort Utility, located in the Utilities folder in the Applications folder on a Macintosh, and in Start > All Programs > AirPort on a computer using Windows.
  - 4 Select your AirPort Express and click Configure.
  - 5 In the dialog that appears, make the following changes:
    - Reset the AirPort Express password.
    - Turn on encryption to activate password protection for your AirPort network. If you turn on encryption, enter a new password for your AirPort network.
  - 6 Click OK.
- AirPort Express restarts to load the new settings.

### **If Your AirPort Express Isn't Responding**

Try unplugging it and plugging it back into a power outlet.

If your AirPort Express stops responding completely, you may need to reset it to the factory default settings. This erases all of the settings you've made and resets them to the settings that came with the AirPort Express.

## If Your AirPort Express Status Light Flashes Amber

The Ethernet cable may not be connected properly, your AirPort Express may be out of range of an AirPort network, or there may be a problem with your Internet service provider. If you are connected to the Internet with a DSL or cable modem, the modem may have lost its connection to the network or the Internet. Even if the modem seems to be working properly, try disconnecting the modem from its power supply, waiting a few seconds, and then reconnecting it. Make sure your AirPort Express is connected directly to the modem via Ethernet before reconnecting power to the modem.

For information about the reason the light flashes amber, open AirPort Utility, select your base station, and then choose Manual Setup from the Base Station menu. Enter the base station password if necessary, and then click Base Station Status to display information about the flashing light.

You can also select the “Monitor base station for problems” checkbox in AirPort preferences. If the base station has problems, AirPort Utility opens and walks you through solving the problems.

**Note:** If AirPort Express is set up as a wireless client and the network it’s joining is protected by an access control list (ACL), AirPort Express must be in the ACL to connect to the network.

### To return AirPort Express to the factory settings:

- Use the end of a straightened paper clip to press and hold down the reset button for ten seconds.

AirPort Express restarts with the following settings:

- AirPort Express receives its IP address using DHCP.

- The network name reverts to Apple Network XXXXXX (where X is a letter or number).
- The AirPort Express password returns to *public*.

If you used AirPort Utility to create profiles for your AirPort Express, they are preserved when you reset your AirPort Express.

If you need to return your AirPort Express to the factory settings and remove any profiles you have set up:

- 1 Unplug AirPort Express.
- 2 Use the end of a straightened paper clip to hold down the reset button while you plug in AirPort Express.

Wait until the status light flashes, and then reset the base station.

### **If Your Printer Isn't Responding**

If you connected a printer to the USB port on AirPort Express and the computers on the AirPort network can't print, try doing the following:

- 1 Make sure the printer is plugged in and turned on.
- 2 Make sure the cables are securely connected to the printer and to the AirPort Express USB port.
- 3 Make sure the printer is selected in the Printer List on client computers.

#### **To select your printer on a computer using Mac OS X v10.3 or v10.4:**

- Open Printer Setup Utility, located in the Utilities folder in the Applications folder.
- If the printer is not in the list, click Add.
- Choose Bonjour from the pop-up menu.
- Select the printer and click Add.

**To select your printer on a computer using Mac OS X v10.5 or later:**

- Choose Apple > System Preferences, and then click Print & Fax.
- Select the printer in the list. If the name of the printer isn't in the list, click Add (+) at the bottom of the list, and then select the printer you want to use.

**To select your printer on a computer using Windows:**

- Open "Printers and Faxes" from the Start menu.
- Select the printer. If the printer is not in the list, click Add Printer and then follow the onscreen instructions.

4 Turn off the printer, wait a few seconds, and then turn it back on.

**If You Want to Update Your AirPort Software**

Apple periodically updates AirPort software.

**To update your base station software:**

- 1 Open AirPort Utility, located in the Utilities folder in the Applications folder.
- 2 Choose "Check for Updates" from the AirPort Utility menu.
- 3 Click Download to download all available firmware updates, or click Show Details to select specific firmware for your base station.
- 4 After the firmware is downloaded, click Update to install it on your base station. If you are updating more than one base station, click Show Details to select the base stations you want to update.

## AirPort Express Placement Considerations

The following recommendations can help your AirPort Express achieve maximum wireless range and optimal network coverage.

- Place your AirPort Express in an open area where there are few obstructions, such as large pieces of furniture or walls. Try to place it away from metallic surfaces.
- If you place your AirPort Express behind furniture, keep at least an inch of space between the AirPort Express and the edge of the furniture.
- Avoid laying your AirPort Express on its side.
- Avoid placing your AirPort Express in areas surrounded by metal surfaces on three or more sides.
- If you place your AirPort Express in an entertainment center with your stereo equipment, avoid completely surrounding AirPort Express with audio, video, or power cables. Place your AirPort Express so that the cables are to one side. Maintain as much space as possible between AirPort Express and the cables.
- If you place your AirPort Express behind your stereo equipment, place it on one side or the other. Avoid centering it behind your stereo.
- Try to place your AirPort Express at least 25 feet (8 meters) from a microwave oven, 2.4 GHz cordless phone, or other source of interference.

## Items That Can Cause Interference with AirPort

The farther away the interference source, the less likely it is to cause a problem.

The following items can cause interference with AirPort communication:

- Microwave ovens
- Direct Satellite Service (DSS) radio frequency leakage
- The original coaxial cable that came with certain types of satellite dishes. Contact the device manufacturer and obtain newer cables.
- Certain electrical devices such as power lines, electrical railroad tracks, and power stations
- Cordless telephones that operate in the 2.4 GHz range. If you have problems with your phone or AirPort communication, change the channel your base station or AirPort Express uses.
- Adjacent base stations using nearby channels. For example, if device A is set to channel 1, device B should be set to channel 6 or 11. For best results, use channels 1, 6, or 11 when operating your device in the 2.4 GHz range.

# Learning More, Service, and Support

# 5

You can find more information about using AirPort Express on your hard disk, on the web, and in onscreen help.

## Online Resources

For the latest information about AirPort Express, go to [www.apple.com/airportexpress](http://www.apple.com/airportexpress).

To register your AirPort Express (if you didn't do it when you installed the software on the AirPort Express CD), go to [www.apple.com/register](http://www.apple.com/register).

For AirPort service and support information, forums with product-specific information and feedback, and the latest Apple software downloads, go to [www.apple.com/support/airport](http://www.apple.com/support/airport).

For support outside the United States, go to [www.apple.com/support](http://www.apple.com/support) and choose your country from the pop-up menu.

## Onscreen Help

- To learn more about using AirPort, open AirPort Utility and choose Help > AirPort Utility Help.

## Obtaining Warranty Service

If your AirPort Express appears to be damaged or does not function properly, please follow the advice in this booklet, the onscreen help, and the online resources.

If the unit still does not function, go to [www.apple.com/support](http://www.apple.com/support) for instructions on how to obtain warranty service.

## Finding the Serial Number of Your AirPort Express

The serial number is printed on the back of your AirPort Express.

# AirPort Express Specifications

## AirPort Specifications

- *Frequency Band:* 2.4 or 5 gigahertz (GHz)
- *Radio Output Power:* 20 dBm (nominal)
- *Standards:* 802.11 DSSS 1 and 2 Mbps standard, 802.11a, 802.11b, 802.11g specifications, and a draft 802.11n specification

## Interfaces

- RJ-45 Ethernet LAN connector for built-in 10/100Base-T (↔)
- Universal Serial Bus (USB) (ψ)
- Analog/digital optical 3.5 mm mini-jack
- AirPort Extreme

## Environmental Specifications

- *Operating Temperature:* 32° F to 95° F (0° C to 35° C)
- *Storage Temperature:* –13° F to 140° F (–25° C to 60° C)
- *Relative Humidity (Operational):* 20% to 80% relative humidity
- *Relative Humidity (Storage):* 10% to 90% relative humidity, noncondensing
- *Operating Altitude:* 0 to 10,000 feet (0 to 3048 m)
- *Maximum Storage Altitude:* 15,000 feet (4572 m)

## Size

- *Height:* 3.7 inches (94 mm)
- *Width:* 2.9 inches (75 mm)
- *Thickness:* 1.12 inches (28.5 mm)

## Hardware Addresses

The AirPort Express has two hardware addresses printed on the side of the case:

- *AirPort ID:* The address used to identify AirPort Express on a wireless network.
- *Ethernet ID:* Also known as the MAC address. You may need to provide this address to your ISP to connect AirPort Express to the Internet.

## AirPort Express Safety Tips

- The only way to shut off power completely to your AirPort Express is to disconnect it from the power source.
- When connecting or disconnecting your AirPort Express, always hold it by its sides. Keep fingers away from the metal part of the plug.
- Your AirPort Express is a high-voltage component and should not be opened for any reason, even when the AirPort Express is unplugged. If your AirPort Express needs service, see “Learning More, Service, and Support” on page 37.
- Never force a connector into a port. If the connector and port do not join with reasonable ease, they probably don’t match. Make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port.
- If you are using the optional power cord, avoid dangling AirPort Express from the power cord.

- When you are using your AirPort Express, it is normal for the case to get warm. The AirPort Express case functions as a cooling surface that transfers heat from inside the unit to the cooler air outside.

## Avoid Wet Locations

**WARNING:** To reduce the chance of shock or injury, do not use your AirPort Express in or near water or wet locations.

- Keep AirPort Express away from sources of liquid, such as drinks, washbasins, bathtubs, shower stalls, and so on.
- Protect AirPort Express from direct sunlight and rain or other moisture.
- Take care not to spill any food or liquid on your AirPort Express. If you do, unplug AirPort Express before cleaning up the spill.

In case of a spill, you may have to send your equipment to Apple for service. See Chapter 5, “Learning More, Service, and Support,” on page 37.

## Do Not Make Repairs Yourself

**WARNING:** Do not attempt to open your AirPort Express or disassemble it. You run the risk of electric shock and voiding the limited warranty. No user-serviceable parts are inside.



## Regulatory Compliance Information

### Wireless Radio Use

This device is restricted to indoor use due to its operation in the 5.15 to 5.25 GHz frequency range to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

Cet appareil doit être utilisé à l'intérieur.

### Exposure to Radio Frequency Energy

The radiated output power of this device is well below the FCC and EU radio frequency exposure limits. However, this device should be operated with a minimum distance of at least 20 cm between its antennas and a person's body. The antennas used with this transmitter must not be co-located or operated in conjunction with any other antenna or transmitter subject to the conditions of the FCC Grant.

### FCC Declaration of Conformity

This device complies with part 15 of the FCC rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and  
(2) this device must accept any interference received, including interference that may cause undesired operation. See instructions if interference to radio or television reception is suspected.

### Radio and Television Interference

This computer equipment 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 Inc. could void the EMC compliance and negate your authority to operate the product.

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

*Responsible party (contact for FCC matters only):*

Apple Inc., Corporate Compliance  
1 Infinite Loop M/S 26-A  
Cupertino, CA 95014.

### Industry Canada Statement

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

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

### VCCI Class B 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、情報処理装置等電波障害自主規制協議会 (VCCI) の基準に基づくクラス B 情報技術装置です。この装置は家庭環境で使用されることを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取扱をしてください。

### Europe — EU Declaration of Conformity

For more information, see [www.apple.com/euro/compliance](http://www.apple.com/euro/compliance).

### European Union — Disposal Information



This symbol means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

### Disposal and Recycling Information

This product has an internal battery. Please dispose of it according to your local environmental laws and guidelines. For information about Apple's recycling program, go to [www.apple.com/environment](http://www.apple.com/environment).

**California:** The coin cell battery in your product contains perchlorates. Special handling and disposal may apply. Refer to [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).

**Deutschland:** Dieses Gerät enthält Batterien. Bitte nicht in den Hausmüll werfen. Entsorgen Sie dieses Gerätes am Ende seines Lebenszyklus entsprechend der maßgeblichen gesetzlichen Regelungen.

**Nederlands:** Gebruikte batterijen kunnen worden ingeleverd bij de chemokar of in een speciale batterijcontainer voor klein chemisch afval (kca) worden gedeponeerd.



Taiwan:



廢電池請回收

## Singapore Wireless Certification

Complies with  
IDA Standards  
DB00063

## Apple and the Environment

Apple Inc. recognizes its responsibility to minimize the environmental impacts of its operations and products.

More information is available on the web at:  
[www.apple.com/environment](http://www.apple.com/environment).

## 中国

有毒或 有害物质	零部件		
	电路板	附件	电源适配器
铅 (Pb)	X	X	X
汞 (Hg)	O	O	O
镉 (Cd)	O	O	O
六价铬 (Cr, VI)	O	O	O
多溴联苯 (PBB)	O	O	O
多溴二苯醚 (PBDE)	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 规定的限量要求。

根据中国电子行业标准 SJ/T11364-2006 和相关的中国政府法规，本产品及其某些内部或外部组件上可能带有环保使用期限标识。取决于组件和组件制造商，产品及其组件上的使用期限标识可能有所不同。组件上的使用期限标识优先于产品上任何与之相冲突的或不同的环保使用期限标识。

## Taiwan Warning Statements

### 無線設備的警告聲明

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

如有這 頻率:

### 於 5.25GHz 至 5.35GHz 區域內操作之 無線設備的警告聲明

工作頻率 5.250 ~ 5.350GHz 該頻段限於室內使用。

## Korea Warning Statements

"달해 무선설비는 운용 중 전파혼신 가능성이 있음"

"이 기기는 인명안전과 관련된 서비스에 사용할 수 없습니다"

### B급 기기(가정용 방송통신기기)

이 기기는 가정용(B급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

© 2010 Apple Inc. All rights reserved.  
Apple, the Apple logo, AirPort, AirPort Express, AirPort Extreme, Apple TV, Bonjour, iPhone, iTunes, Mac, Macintosh, and Mac OS are trademarks of Apple Inc., registered in the U.S. and other countries. AirTunes is a trademark of Apple Inc. Other product and company names mentioned herein may be trademarks of their respective companies.







[www.apple.com/airportexpress](http://www.apple.com/airportexpress)  
[www.apple.com/support/airport](http://www.apple.com/support/airport)

034-5314-A  
Printed in XXXX