



# 2Wire Gateway Installation Guide



#### Notice to Users

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# Getting Started

## Remove or Disable Conflicting Applications

Internet sharing software and PC based firewall applications typically interfere with the 2Wire gateway, and should be removed or disabled before you install the gateway. The 2Wire gateway provides the same features as the products listed below.

If you have any of the following (or similar) applications installed on your computers, remove or disable them according to the manufacturer's instructions before proceeding.

<b>Internet Sharing Applications</b>	<b>Proxy Software</b>	<b>Security Software</b>
Microsoft Internet Connection Sharing	Wingate	Norton Internet Security
Intel Anypoint ISS	Sygate	Black Ice
3Com HomeClick		Zone Alarm

## Check Your Computer's Browser and System Requirements

Verify that your computers meet the following minimum requirements:

### Browser Requirements

**Windows:** Microsoft Internet Explorer 6.0 or higher (included on the 2Wire Setup Wizard CD), Netscape Navigator 4.7 or higher, **or** Firefox 1.0 or higher.

**Macintosh:** Safari 1.0, Microsoft Internet Explorer 5.0, **or** Netscape 4.74 or higher.

### System Requirements

- 5 MB of available hard disk space for 2Wire gateway software.
- Windows 98, 98SE, Windows ME, Windows NT 4.0 with Service Pack 6, Windows 2000, Windows XP, or Mac OS 8.6 or higher
- Network adapter (such as Ethernet, USB, or wireless).

# Connect the First Computer to the Gateway

Congratulations on the purchase of your 2Wire gateway. To install your gateway and configure your network, follow these steps.



**Note:** Features for different models may vary. Product details will be specified for each particular model.

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## Choose a Computer and Connection Type

There are many ways to set up your network, but typically the first computer is located in the same room as the gateway and your DSL connection. Ethernet is the preferred connection method for your first computer, although instructions for connecting via wireless and USB are also provided.

The first computer you connect to the network is used to configure the 2Wire gateway for proper operation. Choose one of the following methods to connect your first computer to the gateway. Save and close all open programs before you begin connecting your gateway.

Connection Type	Page
Ethernet	page 4
Wireless	page 5
USB	page 8

## Install the DSL Filter



**Note:** New DSL customers only. Existing DSL customers with filters already installed should proceed to Ethernet Connection on page 4, Wireless Connection on page 5, or USB Connection on page 8.

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Regular telephone and Digital Subscriber Line (DSL) signals are carried over the same line. Converting your regular telephone line to DSL can cause high-pitched tones and static when using the phone.

Installing a filter on every telephone or telephone device sharing the same telephone number as your DSL<sup>1</sup> separates these signals and eliminates the noise.

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1. Do not install DSL filters if your telephone line is only carrying a DSL signal.

To install the DSL filter:

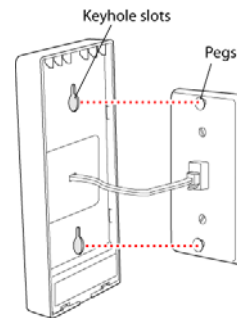
1. Locate the phone jack where you want to connect your 2Wire gateway.
2. Insert the DSL filter into the jack.
3. If you have a phone, answering machine, fax machine, satellite TV equipment, or other phone device in this jack location, plug it into the filter port labeled **PHONE**.
4. Install a DSL filter on *all* other phone devices in your house (such as dial-up modems, fax machines, caller ID devices, and set top boxes). Plug each of these devices into the filter port labeled **PHONE**.



### For Wall-Mounted Phones

If you have a wall-mounted telephone, install a wall-mount DSL filter following these steps.

1. Lift the telephone from the wall pegs and disconnect the phone cord from the wall jack.
2. Connect the telephone cord from the back of the DSL filter into the wall jack. Align the keyhole slots on the filter with the wall plate pegs and press down gently to secure.



3. Connect the telephone cord to the phone jack located on the front of the mounted filter.

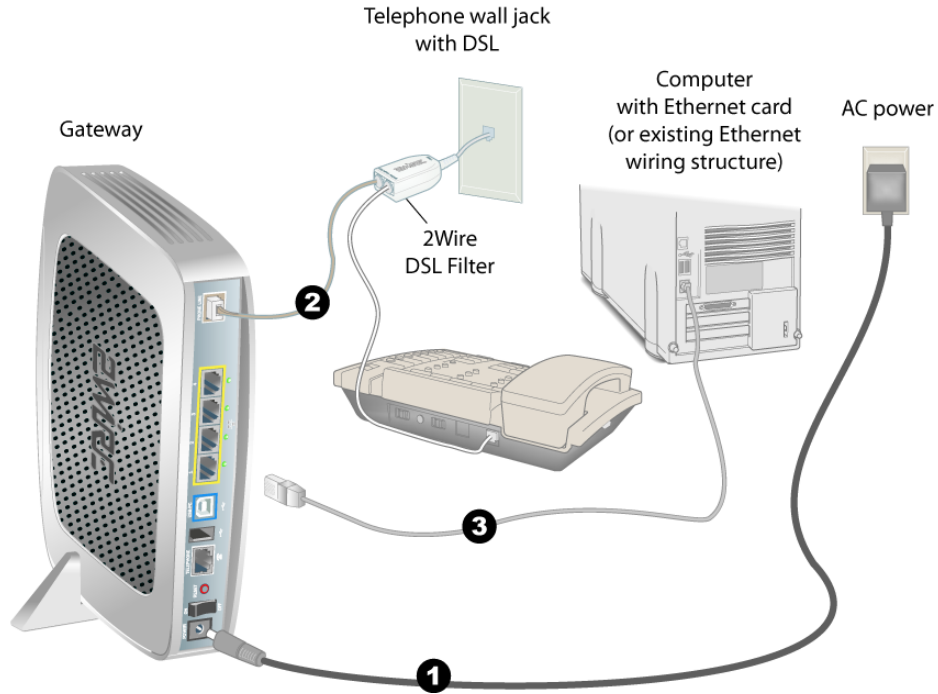


4. Attach the telephone to the mounting pegs on the DSL filter and your installation is complete.



**Note:** The extra phone jack located at the bottom of the filter (labeled **LINE**) is provided should you wish to connect your gateway at this phone connection.

## Ethernet Connection



**Figure 1.** Gateway Connected Via Ethernet

1. Connect the provided power adapter from the gateway's **POWER** port to an electrical outlet. The **POWER** light on the front of the gateway should be green.
2. Connect the provided gray phone cable from the gateway's **PHONE LINE** port to the DSL filter jack labeled **DSL/HPNA**.
3. Connect the yellow Ethernet cable provided with the gateway from any available **LOCAL ETHERNET** port on the gateway to your computer's Ethernet port.

### Check Your Connections

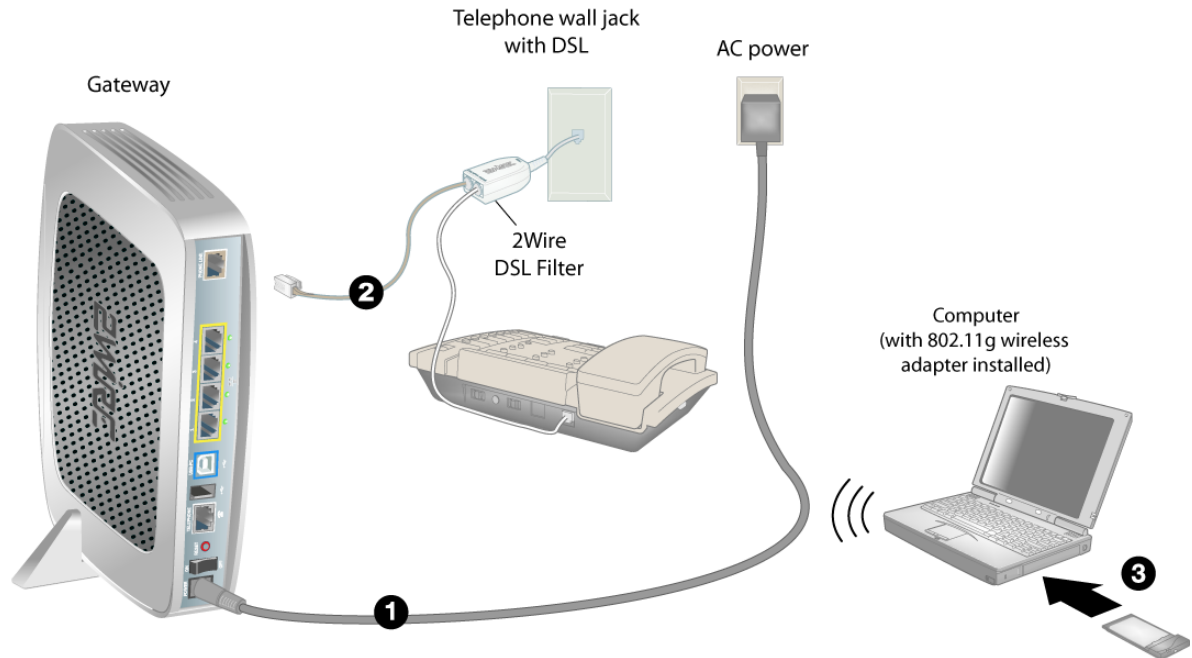
With your computer completely started, verify the **POWER** and **ETHERNET** indicator lights on the front of the 2Wire gateway are green. If they are not, see "Indicator Lights" on page 14. *The **INTERNET** indicator light will not turn green until the gateway software has been installed and an Internet connection has been established.*

## Wireless Connection

Requires wireless-enabled notebook or a computer with an 802.11b/g wireless network adapter installed. Wireless adapters can be purchased from your service provider.



**Note:** The 2Wire 2070, 2070V, and 270 gateways do not include wireless support. If you are using a 2Wire 2070, 2070V, or 270 gateway, skip this section.



**Figure 2.** Gateway Connected Via Wireless

1. Connect the provided AC power adapter from the 2Wire gateway's **POWER** port to an electrical outlet. The **POWER** light on the front of the gateway should be green.
2. Connect the provided gray telephone cable from the gateway's **PHONE LINE** port to a telephone jack with DSL service.
3. Install your wireless adapter according to the manufacturer's instructions (see note below).



**Note:** If you use a 2Wire wireless adapter (PCI, PC card, or USB adapter) for wireless networking, the 2Wire gateway Setup Wizard CD automatically configures it to communicate with the gateway during setup. If you are *NOT* using a 2Wire wireless adapter, you must manually configure your adapter to communicate with the gateway using the information on page 7.



### Check Your Connections

With your computer completely started, verify the **POWER** and **WIRELESS** indicator lights on the front of the 2Wire gateway are green. If they are not, see “Indicator Lights” on page 14. *The **INTERNET** indicator light will not turn green until the gateway software has been installed and an Internet connection has been established.*

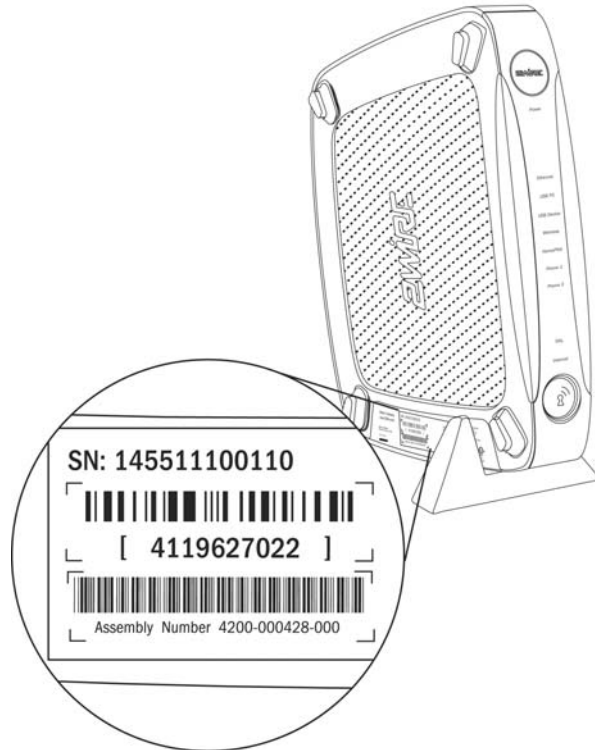
## Third-Party Wireless Adapter Configuration

### Locating the Serial Number and Wireless Encryption Key

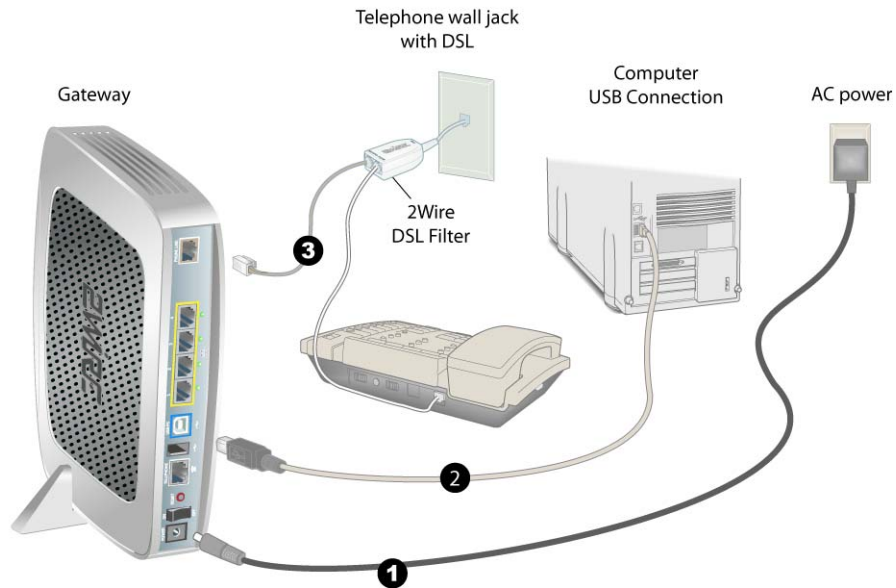
The serial number of your 2Wire gateway is used as the network name (SSID). Beneath the serial number is a ten-digit number which is used as the encryption key. These are located on the bottom of your gateway (shown in vertical orientation). You will need this information to configure your wireless adapter.

### Configuring the Adapter

1. Install and configure your wireless adapter according to the manufacturer's instructions.
2. Use the network adapter configuration software or Windows network connection wizard to set the network name (SSID) and encryption key (WEP).
  - a. The network name is the word "2WIRE" (in all capital letters), followed by the last three digits of the gateway serial number (for example, 2WIRE110).
  - b. The encryption key is a 64-bit hex value, located beneath the bar code on the bottom of the 2Wire gateway. In the example, it is 4119627022.
  - c. For Mac OS X users, you may need to enter the "\$" character at the beginning of the encryption key (for example, \$4119627022).



## USB Connection



**Figure 3.** Gateway Connected Via USB

1. Connect the provided AC power adapter from the 2Wire gateway's **POWER** port to an electrical outlet. The **POWER** light on the front of the gateway should be green.
2. Connect the provided blue USB cable from the gateway's **USB-PC** port to the USB port on your computer.
3. Connect the provided gray telephone cable from the gateway's **PHONE LINE** port to a telephone jack with DSL service.



**Note:** The **USB-DEVICE** port is reserved for connecting peripheral USB devices, such as digital cameras or network attached storage. This port is not currently active.

### Install the 2Wire Gateway USB Driver - Windows

1. Power on your computer. If the Add Hardware Wizard displays, follow the on-screen instructions. If prompted to identify where to search for drivers, deselect **Floppy Disk drive** and check **CD-ROM drive**.
2. After the driver installs click **Finish** to complete the driver installation. The Setup Wizard will resume when your PC has rebooted.



**Note:** Microsoft Windows 98 users may be prompted to insert the Windows 98 installation CD-ROM after installing the 2Wire gateway USB drivers. After the Windows 98 updates are complete, remove the Windows 98 CD and reinsert the Setup Wizard CD into your CD-ROM prior to rebooting your PC.

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### Install the 2Wire Gateway USB Driver - Macintosh



**Note:** The 2Wire gateway supports USB for Macintosh OS 8.6, 9.2, 10.1.4, 10.1.5, 10.2.0, 10.2.1 to 10.2.6, 10.3.3 to 10.3.9, 10.4.0, and 10.4.1.

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Before making your USB connection to the gateway, you must install the 2Wire gateway USB driver on your computer. The following instructions are for USB installation on Macintosh computers running OS 10.2.

1. With your computer powered on and the 2Wire Setup Wizard CD still in the CD-ROM drive, double-click the 2Wire CD icon on your desktop.
2. Double-click 2Wire USB to begin the driver installation.
3. If you have set up an administrator name and password, the Authenticate screen opens. Enter your administrator name and password and click **OK**.
4. Follow the on-screen instructions. When the driver installation is complete, you will be prompted to restart your computer.
5. After your computer restarts, connect the provided blue USB cable from the **USB-PC** port on the 2Wire gateway to your computer's **USB** port.

### Check Your Connections

With your computer completely started, verify the **POWER** and **USB-PC** indicator lights on the front of the 2Wire gateway are green. If they are not, see "Indicator Lights" on page 14. *The **INTERNET** indicator light will not turn green until the gateway software has been installed and an Internet connection has been established.*

# Run the 2Wire Setup Wizard

## Windows 98/SE/2K/ME/XP

1. Insert the 2Wire Setup Wizard CD and follow the on-screen instructions. If the 2Wire Setup Wizard does not automatically start:
  - Double-click the My Computer icon located on the desktop.
  - Double-click the icon that corresponds to your CD-ROM drive.
  - Double-click Setup.exe and follow the on-screen instructions.
2. If prompted by the Setup Wizard, enter the 20-digit key code you received from your service provider. If you were not provided with a key code, refer to “Appendix B: Back-Up Key Codes” on page 19.

## Macintosh OS 10.1.4/10.1.5/10.2.0 - 10.2.8/10.3.3 - 10.3.8



**Note:** MAC OS 9.X AND OTHER OPERATING SYSTEM USERS: Users running Mac OS 9.X and operating systems other than those stated above must perform a manual configuration of the gateway. Refer to “Appendix A: Install the Gateway on Other Operating Systems” on page 16 for step-by-step instructions.

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1. Insert the 2Wire Setup Wizard CD.
2. Double-click the 2Wire icon.
3. Double-click the 2Wire Setup Wizard icon.
4. If prompted by the Setup Wizard, enter the 20-digit key code you received from your service provider. If you were not provided with a key code, refer to “Appendix B: Back-Up Key Codes” on page 19.

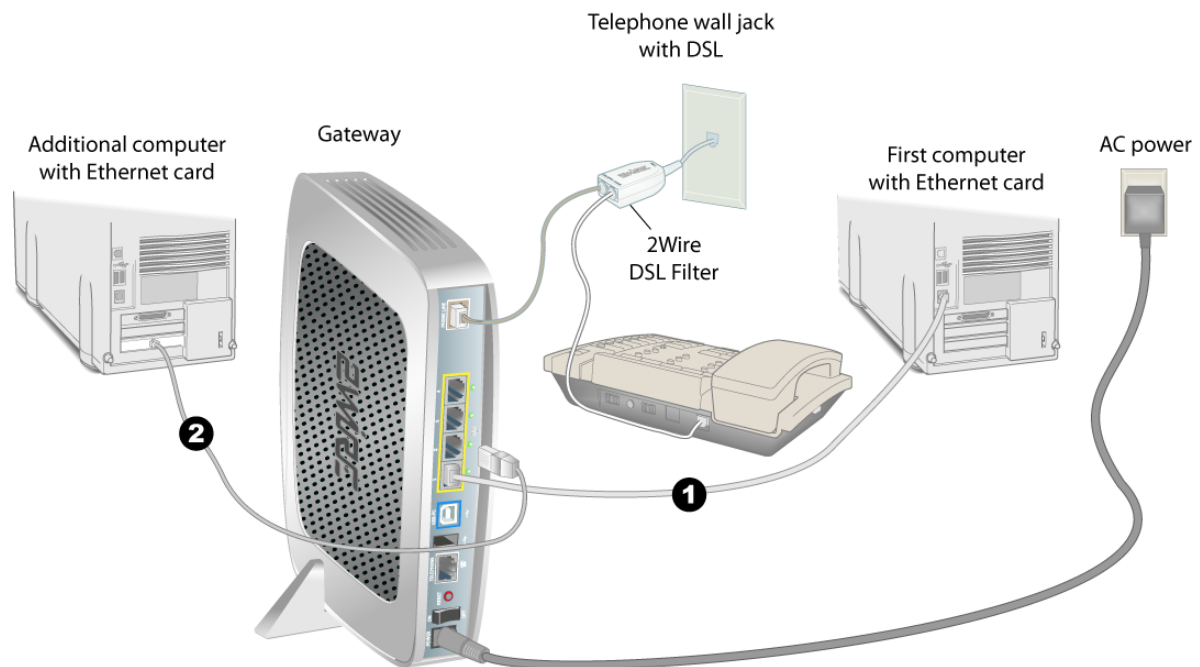
# Add Computers to the Network

After your first computer is connected to the 2Wire gateway and your Internet connection has been established, you can connect other computers to the network.

Use any of the following methods to connect additional computers to your network.

Connection Type	Page
Ethernet	page 11
USB	page 12
Wireless	page 13

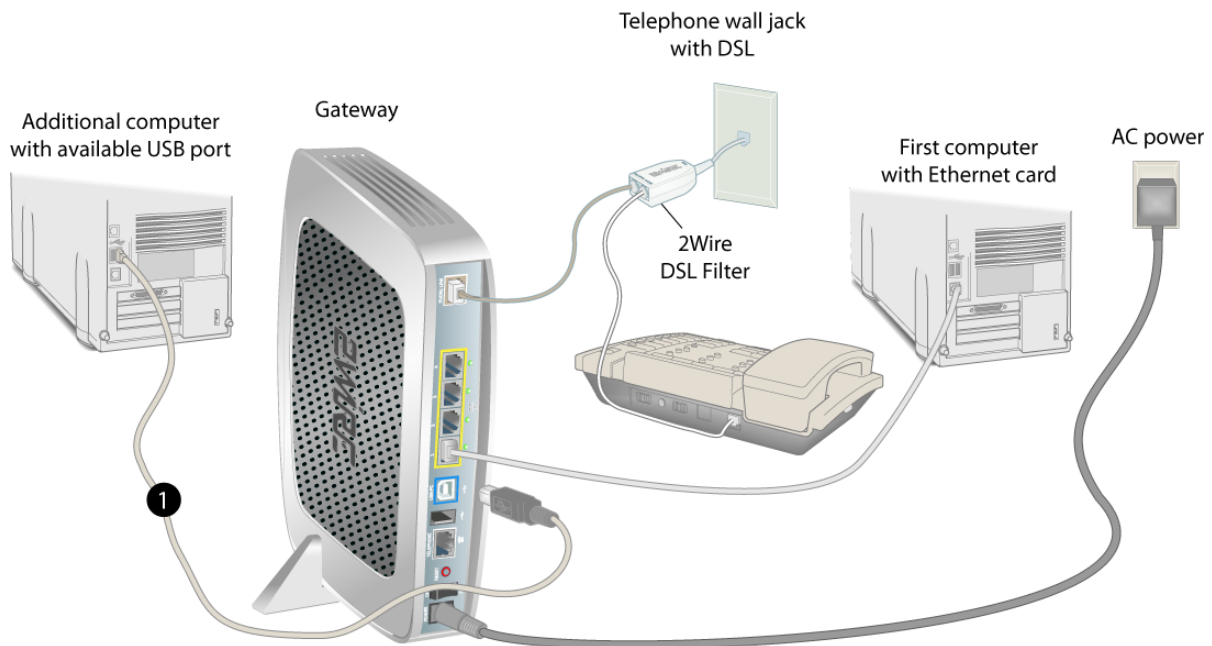
## Ethernet Connection



**Figure 4.** Gateway Connected to Second Computer Via Ethernet

1. Connect an Ethernet cable from any available **LOCAL ETHERNET** port on the gateway to your computer's Ethernet port.

## USB Connection



**Figure 5.** Gateway Connected to Second Computer Via USB

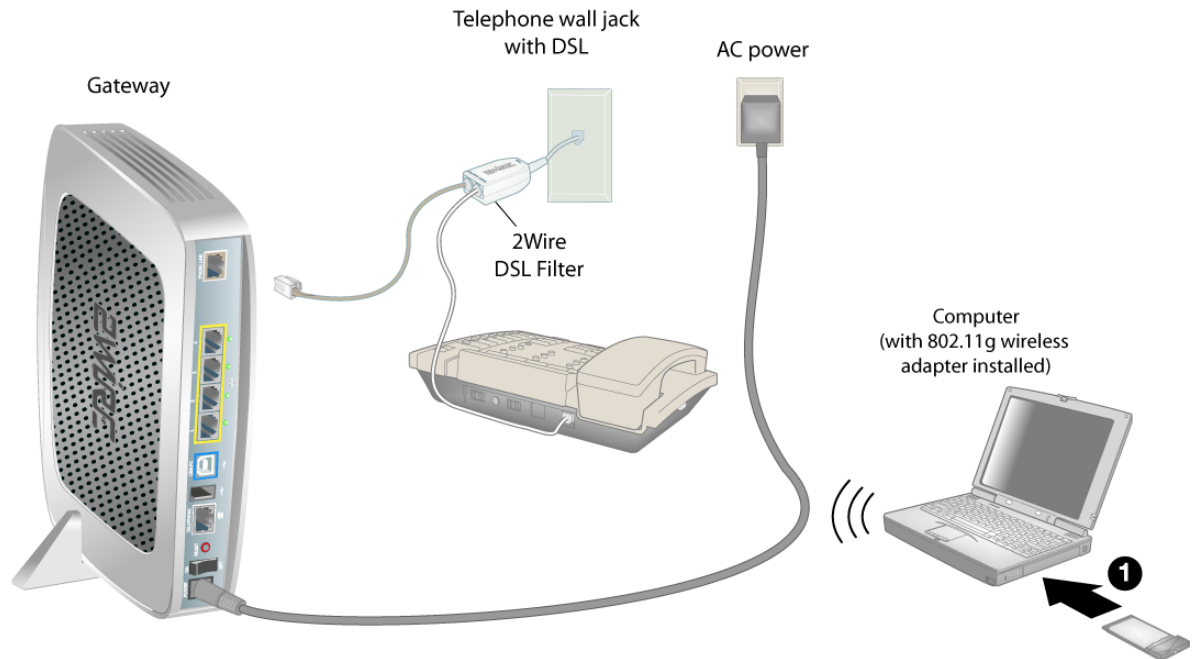
1. Connect the provided blue USB cable from the gateway's **USB-PC** port to the USB port on your computer.
2. Install the USB driver (refer to page 9 for instructions).
3. Repeat "Run the 2Wire Setup Wizard" on page 10.

## Wireless Connection

Requires a computer with an 802.11b/g wireless network adapter installed. Wireless adapters are purchased separately from the 2Wire gateway.



**Note:** The 2Wire 2070, 2070V, and 270 gateways do not include wireless support. If you are using a 2Wire 2070, 2070V, or 270 gateway, skip this section.



**Figure 6.** Gateway Connected to Second Computer Via Wireless



**Note:** If you use a 2Wire wireless adapter (PCI, PC card, or USB adapter) for wireless networking, the gateway installation software automatically configures it to communicate with the gateway during setup.

If you are *NOT* using a 2Wire wireless adapter, you must manually configure your adapter to communicate with the gateway using the information on page 7.

1. Install your wireless adapter according to the manufacturer's instructions (see note above).
2. Repeat "Run the 2Wire Setup Wizard" on page 10.



# Indicator Lights

The 2Wire gateway has numerous indicator lights that can be used to diagnose installation and connection problems. The following table describes how to interpret the indicator lights.



## Power Light

OFF

## Operating State

The gateway is not getting power.

Blinking green (slow)

The gateway is undergoing POST (power-on self test).

Solid green

Power is on.

Blinking orange

The gateway is undergoing a software upgrade.

Solid red

System error. Contact Technical Support.

## Ethernet, USB, or Wireless Light

OFF

## Operating State

The gateway is powered off or booting up.

Solid green

Device(s) connected via Ethernet, USB, or Wireless.

Flickering green

Data traffic is coming into or going out from the network.

## Phone 1 or Phone 2 Light

OFF

## Operating State

Voice service is not operating.

The gateway is powered off or booting up.

Solid green

Voice service is operating.

Blinking green (fast)

Voice service is operating; phone is off hook.

**DSL Light**

**Operating State**

OFF

The gateway is powered off or booting up.

Blinking green (slow)

The gateway is attempting to establish a connection to your broadband service(s).

Blinking green (fast)

The gateway has been unable to connect to the DSL signal for more than three minutes.

Solid green

The gateway is fully connected to your broadband service(s).

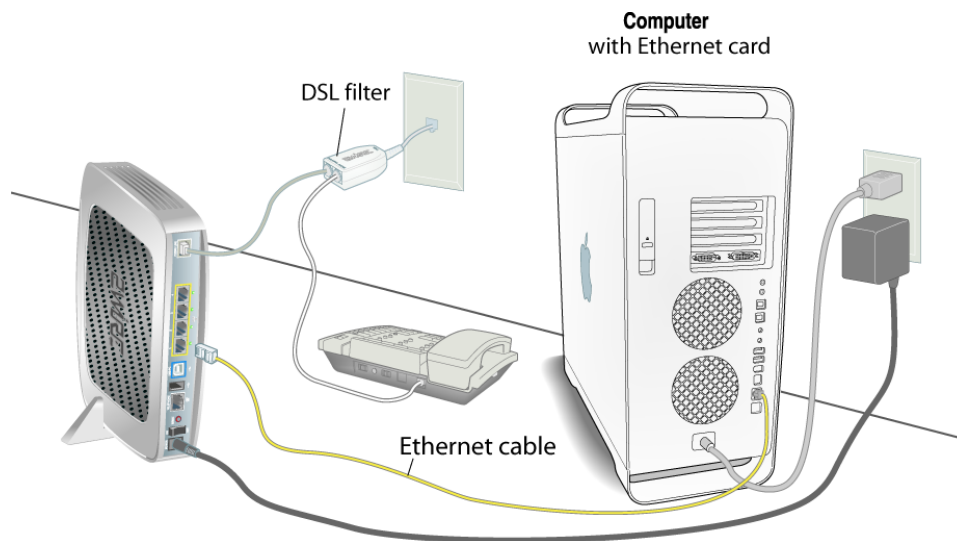


# Appendix A: Install the Gateway on Other Operating Systems

Follow these instructions if you are using an operating system that is not supported by the Setup Wizard CD (such as any Macintosh OS prior to 10.2, UNIX, or Linux).

There are many ways to set up your network, but typically the first computer is located in the same room as the gateway and your DSL connection. Ethernet is the preferred connection method for your first computer, although instructions for connecting via USB are also provided.

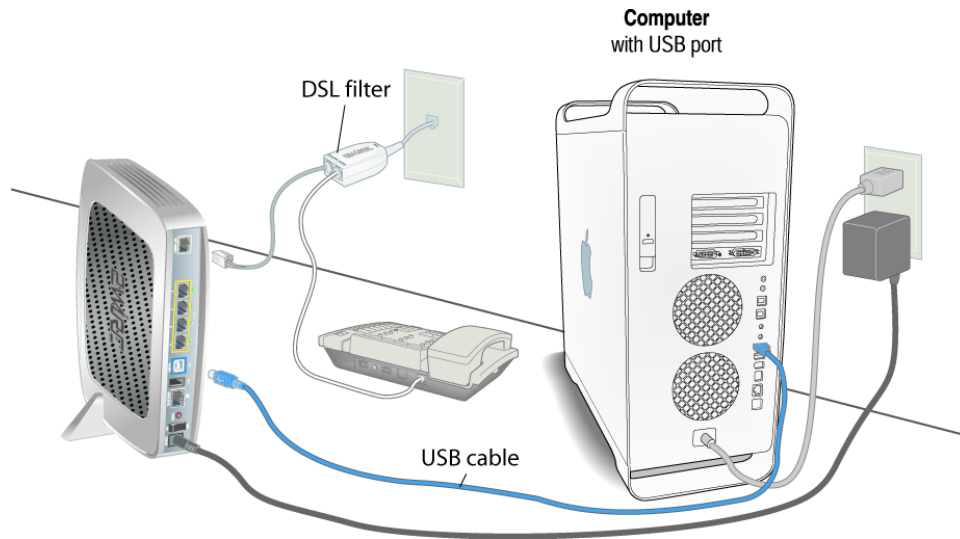
## Ethernet Connection



**Figure 7.** Gateway Connected Via Ethernet (Macintosh)

1. Install DSL phone filters according to the instructions on page 2.
2. Connect the provided power adapter from the gateway's **POWER** port to an electrical outlet.
3. Connect the provided gray phone cable from the gateway's **PHONE LINE** port to the DSL filter jack labeled DSL/HPNA.
4. Proceed to "Configuring the Internet Connection" on page 18.

## USB Connection



**Figure 8.** Gateway Connected Via USB (Macintosh)



**Note:** Connecting your computer to the gateway using USB requires an available USB port. Only one Windows or Macintosh computer can be directly connected to the 2Wire gateway using the USB connection.

1. Install DSL phone filters according to the instructions on page 2.
2. With your computer powered on and the 2Wire Setup Wizard CD still in the CD-ROM drive, double-click the 2Wire CD icon on your desktop.
3. Double-click **2Wire USB** to begin the driver installation.
4. If you have set up an administrator name and password, the Authenticate screen opens. Enter your administrator name and password and click **OK**.
5. Follow the on-screen instructions. When the driver installation is complete, you will be prompted to restart your computer.
6. After your computer restarts, connect the provided blue USB cable from the **USB-PC** port on the 2Wire gateway to your computer's USB port.
7. Open the network Control Panel by selecting the **Apple icon > Control Panel > TCP/IP**
8. Verify that Connect Via: 2Wire USB Remote NDIS... is selected to set the network adapter as active.
9. Click **Save** to complete your installation.
10. Proceed to "Configuring the Internet Connection" on page 18.

## Configuring the Internet Connection

Now that your first computer is connected to the gateway, you need to configure your gateway to communicate with your Internet service provider.

To activate your Internet account:

1. Open your Internet browser.
2. Type `http://gateway.2wire.net/setup` into the browser's address line.
3. When prompted to enter a key code, enter the key code provided by your Internet service in the key code field, and click **NEXT**.
4. Select your Local Time Zone and click **NEXT**.
5. You may be prompted to enter service provider information such as username and password. Enter any required service provider information and click **NEXT**.
6. The connection process will begin. During this process the **INTERNET** light on the front of the gateway will first blink green then turn solid green. This step could take up to five minutes as the gateway searches for your broadband service.
7. The gateway will now connect to the Internet. This process may take several minutes. If the registration screen opens, click the **REGISTER** button and complete the 2Wire registration process.

# Appendix B: Back-Up Key Codes

In most cases, you will receive a key code from your ISP. This key code is used to activate the 2Wire gateway. If you did not receive a key code, you can use the key codes provided in the following table.

If your Internet Service Provider did not provide you with a user name, password, or IP address to set up your Internet connection, your broadband connection most likely uses DHCP (Dynamic Host Configuration Protocol) and you should use this key code.	52EU-2374-2262-22AT-B222
If your Internet Service Provider gave you a PPPoE username and password to set up your Internet connection, your broadband connection uses Point-to-Point Protocol over Ethernet and you should use this key code.	52EU-2374-6262-22AS-B22Y
If your Internet Service Provider assigned you an IP address to set up your Internet connection, your broadband connection uses static IP (Internet Protocol) and you should use this key code.	52EU-2374-2E66-22AS-B2TW
If your Internet Service Provider gave you a PPPoA username and password to set up your Internet connection, your broadband connection uses Point-to-Point Protocol over ATM. In this case, you would use this key code and Microsoft Dial-up Networking to connect to the Internet.	52EU-2374-A222-22AS-B2QK

# Regulatory Information

## Declaration of Conformity

Trade Name: 2Wire 2700HG, 2700HGV, 270HG, 270HGV

Responsible Party: 2Wire, Inc.

Address: 1704 Automation Parkway  
San Jose, CA

Phone: 408-856-1600

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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Only peripherals (computer input/output devices, terminals, printers, and so forth) that comply with FCC Class B limits may be attached to this computer product.

Operation with noncompliant peripherals is likely to result in interference to radio and television reception.

All cables used to connect peripherals must be shielded and grounded. Operation with cables, connected to peripherals that are not shielded and grounded may result in interference to radio and television reception.

**WARNING:** While this device is in operation, a separation distance of at least 20 cm (8 inches) must be maintained between the radiating antenna inside the ERU and the bodies of all persons exposed to the transmitter in order to meet the FCC RF exposure guidelines. Making changes to the antenna or the device is not permitted. Doing so may result in the installed system exceeding RF exposure requirements. This device must not be co-located or operated in conjunction with any other antenna or radio transmitter. Installers and end users must follow the installation instructions provided in this guide.

## FCC Part 68

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five. To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operations of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact the store, reseller, or agent from whom the product was purchased.

Repair of this equipment should be made only by the 2Wire Service Center or a 2Wire authorized agent.