## 2Wire:

# 2Wire Gateway Installation Guide 

For 2701HGV

## Contents

Contents ..... 1
Getting Started ..... 1
Remove or Disable Conflicting Applications ..... 1
Check Your Computer's Browser and System Requirements ..... 1
Browser Requirements ..... 1
System Requirements ..... 1
Connect the First Computer to the Gateway ..... 2
Choose a Computer and Connection Type ..... 2
Install the DSL Filter ..... 2
For Wall-Mounted Phones ..... 3
Ethernet Connection ..... 4
Check Your Connections ..... 4
Wireless Connection ..... 5
Non-2Wire Wireless Adapter Configuration ..... 6
USB Connection ..... 7
Install the 2Wire Gateway USB Driver - Windows ..... 8
Install the 2Wire Gateway USB Driver - Macintosh ..... 8
Check Your Connections ..... 8
Run the 2Wire Setup Wizard ..... 9
Windows XP/2K/ME/98SE ..... 9
Macintosh OS 10.1.4/10.1.5/10.2.0-10.2.8/10.3.3-10.3.8 ..... 9
Add Computers to the Network ..... 10
Ethernet Connection ..... 11
USB Connection ..... 12
Wireless Connection ..... 13
Appendix A: Install the Gateway on Other Operating Systems ..... 14
Ethernet Connection ..... 14
USB Connection ..... 15
Configuring the Internet Connection ..... 16
Regulatory Information ..... 17

## DRAFT ONLY 2Wire Confidential

## Notice to Users

©2006 2Wire, Inc. All rights reserved. This manual in whole or in part, may not be reproduced, translated, or reduced to any machinereadable form without prior written approval.

2WIRE PROVIDES NO WARRANTY WITH REGARD TO THIS MANUAL, THE SOFTWARE, OR OTHER INFORMATION CONTAINED HEREIN AND HEREBY EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH REGARD TO THIS MANUAL, THE SOFTWARE, OR SUCH OTHER INFORMATION, IN NO EVENT SHALL 2WIRE, INC. BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, WHETHER BASED ON TORT, CONTRACT, OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THIS MANUAL, THE SOFTWARE, OR OTHER INFORMATION CONTAINED HEREIN OR THE USE THEREOF.

2Wire, Inc. reserves the right to make any modification to this manual or the information contained herein at any time without notice. The software described herein is governed by the terms of a separate user license agreement.

Updates and additions to software may require an additional charge. Subscriptions to online service providers may require a fee and credit card information. Financial services may require prior arrangements with participating financial institutions.

2Wire, the 2Wire logo, and HomePortal are registered trademarks, and HyperG, Greenlight, FullPass, and GuestPass are trademarks of 2Wire, Inc. All other trademarks are trademarks of their respective owners.

## 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 2 Wire 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.

| Internet Sharing Applications | Proxy Software | Security Software |
| :--- | :--- | :--- |
| 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 5.5 or higher (included on the 2Wire 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 XP, Windows 2000, Windows NT 4.0 with Service Pack 6, Windows ME, Windows 98/98SE, or Mac OS 8.6 or higher.
- Network adapter (such as Ethernet, USB, or 802.11b/g 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.

## 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 2 Wire 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 |  |  |

## 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 7.

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 ${ }^{1}$ separates these signals and eliminates the noise.

1. Do not install DSL filters if your telephonelim-is oniy parly ing o/DSL signal. 2Wire Confidential

To install the DSL filter:

1. Locate the phone jack where you want to connect your 2 Wire gateway.

This is a phone jack in your house
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 2 Wire gateway are green. If they are not, see "Understanding the Indicator Lights" on page 18. 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 $802.11 \mathrm{~b} / \mathrm{g}$ wireless network adapter installed. Wireless adapters can be purchased from your service provider.


Figure 2. Gateway Connected Via Wireless

1. Connect the provided AC power adapter from the 2 Wire 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 2 Wire wireless adapter (PCI, PC card, or USB adapter) for wireless networking, the 2 Wire CD automatically configures it to communicate with the gateway during setup. If you are NOT using a 2 Wire wireless adapter, you must manually configure your adapter to communicate with the gateway using the information on page 6.

## Non-2Wire Wireless Adapter Configuration

## Locating the Serial Number and Wireless <br> 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 2 Wire 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 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.

## Install the 2Wire Gateway USB Driver - Windows

1. Power on your computer and place the 2 Wire CD in your computer's CD-ROM drive.
2. 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.
3. 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 2Wire CD into your CD-ROM prior to rebooting your PC.

## 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.

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. Power on your computer and place the 2 Wire CD in your computer's CD-ROM drive.
2. Double-click the 2 Wire CD icon on your desktop.
3. Double-click 2 Wire 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 $\mathbf{O K}$.
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.

## 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 "Understanding the Indicator Lights" on page 18. 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 XP/2K/ME/98SE

1. Insert the 2 Wire $C D$ and follow the on-screen instructions. If the 2 Wire 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, contact your service provider.

## 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 14 for step-by-step instructions.

1. Insert the 2Wire CD.
2. Double-click the 2 Wire icon.
3. Double-click the 2 Wire 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, contact your service provider.

## 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 |
|  |  |  |

## Ethernet Connection



Figure 4. Gateway Connected to Second Computer Via Ethernet

1. Connect an Ethernet cable from any available LOCAL ETHERNET ${ }^{1}$ port on the gateway to your computer's Ethernet port.
2. The number of Ethernet ports vary by model (from one to four). If your gateway has four Ethernet ports, you can connect up to four computers to your network via Ethernet.

## 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 8 for instructions).
3. Repeat "Run the 2 Wire Setup Wizard" on page 9.

## Wireless Connection

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


Figure 6. Gateway Connected to Second Computer Via Wireless

Note: If you use a 2 Wire 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 2 Wire wireless adapter, you must manually configure your adapter to communicate with the gateway using the information on page 6.

1. Install your wireless adapter according to the manufacturer's instructions (see note above).
2. Repeat "Run the 2 Wire Setup Wizard" on page 9.

## 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 2Wire 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

Computer


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. Connect the yellow Ethernet cable provided with the gateway from a LOCAL ETHERNET port on the gateway to your computer's Ethernet port.
5. Proceed to "Configuring the Internet Connection" on page 16.

## USB Connection

$$
\begin{aligned}
& \text { Note: Connecting your computer to the gateway using USB requires an available USB port. } \\
& \text { Only one Windows or Macintosh computer can be directly connected to the 2Wire gateway } \\
& \text { using the USB connection. The following instructions are for Macintosh computers running } \\
& \text { OS 9.x. }
\end{aligned}
$$



Figure 8. Gateway Connected Via USB (Macintosh)

1. Install DSL phone filters according to the instructions on page 2.
2. Insert the 2 Wire $C D$ in the computer's CD-ROM drive.
3. Double-click the 2 Wire $C D$ icon on your desktop.
4. Double-click 2Wire USB to begin the driver installation.
5. If you have set up an administrator name and password, the Authenticate screen opens. Enter your administrator name and password and click OK.
6. Follow the on-screen instructions. When the driver installation is complete, you will be prompted to restart your computer.
7. After your computer restarts, connect the provided blue USB cable from the USB-PC port on the 2 Wire gateway to your computer's USB port.
8. Open the network Control Panel by selecting the Apple icon > Control Panel > TCP/IP.
9. Verify that "Connect Via: 2Wire USB Remote NDIS..." is selected to set the network adapter as active.
10. Click Save to complete your installation.
11. Proceed to "Configuring the Internet Connection" on page 16.

## 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.

# Regulatory Information 

## Declaration of Conformity

Trade Name:<br>2700 Series Gateway<br>Responsible Party:<br>2Wire, Inc.<br>Address:<br>1704 Automation Parkway<br>San Jose, CA<br>Telephone:<br>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.
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 2 Wire Service Center or a 2 Wire authorized agent.

