

HomeConnect™

Home Wireless Gateway User Guide

3CRWE50194 Home Network Management Solution

http://www.3com.com/ http://www.3com.com/productreg

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1 WELCOME TO HOME WIRELESS

In today's fast-paced world, communication and sharing information are crucial. Computer networks are among the fastest ways to share information, and wireless computer networks are rapidly becoming the most convenient way of connecting computers. 3Com has brought this exciting technology into the home with the HomeConnect[™] Wireless Gateway.

The products that compose the HomeConnect[™] line give you, the home user, the same power, flexibility, and protection that has been available only to large corporations. Now, you can network the computers in your home, connect them all to a single Internet outlet, and harness the combined power of all of your computers using both wired and wireless connections.

HomeConnect™ Wireless Gateway

The HomeConnect Wireless Gateway is designed to provide effective and transparent management of both your home computer network, as well as your connection to the Internet with the convenience of a wireless connection. The gateway also provides protection in the form of an electronic "firewall," preventing anyone outside of your network from seeing your files or damaging your computers.

As you can see in Figure 1, one computer is connected to the Internet. This computer must always be powered on for the other computers on the network to access the Internet.



Figure 1 Home Network Without a Wireless Gateway

When you utilize the wireless gateway in your network (figure 2), however, it becomes your connection to the Internet, as well as providing you with many other options, such as network management, firewall protection, and roaming capability.

Figure 2 Home Network Using a Wireless Gateway





Wireless Gateway Advantages

- Shared Internet connection without cables.
- Flexible wireless networking, featuring Ethernet connectivity and seamless networking between both media.
- No need for a dedicated, "always on" computer serving as Internet connection.
- Cross-platform operation for compatibility with Windows and Macintosh computers
- Easy access to corporate networks.
- Easy to use, Web-based setup and configuration.
- Use wireless systems from work or school at home.

Firewall Technology

Your wireless gateway also provides fully-integrated firewall technology. The preconfigured, always-on, corporate-grade firewall security combines Stateful Packet Inspection (SPI) and dynamic packet filtering to provide a robust and flexible defense system for your home network. The firewall looks for known data patterns used by hackers, and prevents them from harming your network. Updates are available online to detect and block out new hacker patterns.

Your firewall will:

- Protect the personal, financial, and work-related information on your network.
- Keep hackers from using your identity to send unauthorized messages.
- Keep out unwanted downloads.

Kit Contents

- HomeConnect Wireless Gateway
- Power adapter with three plug adapters
- Nonskid feet (4)
- Standard Ethernet cable (Category 5)
- Installation Map
- User Guide
- Registration Card

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If any of these items are missing or damaged, please contact your retailer.



Figure 3 HomeConnecttm Wireless Gateway Package Contents

Installation Sheet

If you want to perform a basic installation of your HomeConnect Wireless Gateway, please refer to the included Installation Sheet. The Installation Sheet provides a graphical, step-by-step procedure that allows you to set up your home network for multiple computers and other devices.

Minimum System Requirements

Your HomeConnect Wireless Gateway requires that the computer(s) in your home wireless network are configured with at least the following:

- A cable modem or DSL modem with an Ethernet port (RJ-45 connector).
- Windows Millennium, Windows NT, Windows 2000, Windows 98, Windows 95, or Mac OS 8.5 or higher.
- A wireless network interface adapter card, purchased separately, for each computer to be connected to your home wireless network.

- An Ethernet 10Mbps or 10/100 network interface adapter card, purchased separately, for each computer to be connected to the three-port switch on your home wireless gateway.
- Active Internet access account.
- Web browser program, such as Netscape or Internet Explorer (4.0 or higher).

Using This Guide

The rest of the User Guide contains detailed information about your gateway and how to connect it to your home network and Internet.

- Chapter 2 familiarizes you with the front and rear panels of the gateway, including information concerning LEDs and ports.
- Chapter 3 explains the physical connections between the gateway and the Internet, the wireless connection between the gateway and your computer(s), as well as how to configure the computers on your network.
- **Chapter 4** contains a basic overview of the setup program.
- Chapter 5 details the steps involved in accessing the Internet with your gateway, whether you are using an external cable or DSL modem.
- Chapter 6 details the additional features of your gateway, such as setting up client privileges and performing software updates.
- Chapter 7 provides troubleshooting tips.
- Appendix A provides information on how to contact 3Com for technical support.
- The Glossary, which provides definitions for key terms concerning the installation and operation of the gateway.



2......

This chapter will familiarize you with your HomeConnecttm Home Wireless Gateway (Figure 4).

Figure 4 Home Wireless Gateway



Front Panel

The front panel of the gateway contains a series of indicator lights that help describe the state of various networking and connection operations.

Figure 5 Home Wireless Gateway - Front Panel



Power

The Power indicator light informs you when the gateway is on or off. If this light is illuminated, the gateway is on; if it is not illuminated, the gateway is off. During firmware upgrades and resets, this light will blink yellow (see "Update Firmware" on page 28).

WAN

This light indicates the state of your Internet connection. When on, the WAN light indicates that the gateway is connected to the Internet through your external cable or DSL modem.

Wireless LAN

This light displays the state of your wireless connection. If the light is blinking rapidly, data is being transmitted to an associated wireless client. If the light is blinking slowly, no wireless client is associated with the gateway.

Ethernet LAN

These three lights (one per port) display the state of your Ethernet connections. If the light is on, that port is connected to your Ethernet network. If the light is off, the port is not connected to your Ethernet network.

Rear Panel

The rear panel (Figure 6) of the gateway contains four ports, a reset switch, and a power adapter socket.

Figure 6 Home Network Gateway - Rear Panel



Power Adapter Socket

The power adapter socket accepts the power adapter connector. To power up the gateway, simply insert the connector into the socket, and then plug the other end into a standard electrical wall socket.



For easy identification, the power adapter socket is surrounded by a yellow border.

Reset

The reset switch is used to reset the gateway.

A "soft" reset keeps your gateway settings. To perform a "soft" reset, push the reset switch once.

A "hard" reset returns your gateway settings to their factory default state. To perform a "hard" reset, push and hold the reset switch for 3 seconds.

Cable/DSL

The Cable/DSL port (identified by a blue border) accepts an RJ-45 connector to connect your gateway to the Internet.

See "External Cable and DSL Modem Connections" on page 11 for more details.

Ethernet

Three ports are available to connect to Ethernet hubs or to connect other Ethernet-compatible computers to the gateway. These are dual-speed (10/100 Mbps) ports that accept an RJ-45 connector. For easy identification, the Ethernet ports are surrounded by a green border.

See "Setting up Ethernet Networking" on page 13 for more details.

10	Chapter 2: Home Wireless Gateway

BASIC INSTALLATION

This chapter will guide you through a basic installation of the HomeConnect Wireless Gateway, including

- Connecting the Wireless Gateway to the Internet.
- Connecting the Wireless Gateway to your network.
- Setting up your computers for wireless and/or wired (Ethernet) networking with the gateway.

Note that you can use your wireless gateway for either wireless networking or Ethernet networking, or both. You can also set up your home wireless gateway for home networking only; connecting to the Internet is optional.

Connecting the Wireless Gateway to the Internet

The first step of installing your gateway is to physically connect it to a cable or DSL modem in order to be able to access the Internet.

External Cable and DSL Modem Connections

To use your gateway to connect an external cable or DSL modem to the Internet (Figure 9):

1 Insert one end of an Ethernet (RJ-45 Category 5) cable in the Cable/DSL port on the rear panel of the gateway (see "Cable/DSL" on page 9).

2 Insert the other end to the RJ-45 port on your cable or DSL modem

This port would normally be connected to an Ethernet port on your modem. Refer to the documentation that came with your modem for more details.

3 Connect the cable or DSL modem to the Internet.

This step might involve connecting to a phone jack or to a cable box. See the documentation that came with your modem for more details.

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4 Go to "Accessing the Internet" (Chapter 5) to finish configuring the gateway.

Figure 7 Cable or DSL Modem Connected to the Gateway



Connecting the Wireless Gateway to Your Network

The second step for installing your gateway is setting up the connection to one or more computers through your home network.

Home Networking and Wireless Networking Basics

A home network is a way to connect all of your computing devices together (computers, printers, scanners, modems) in order to share files and resources. Once you've created your home network, you will be able to connect to the Internet from any computer in your house. If you have a printer, scanner, or fax connected to your home network, you will also be able to print, scan, or fax from any computer in your house. With the addition of the 3Com Home Wireless Gateway to your home network, you can combine both wireless and wired networking.

Your wireless gateway uses radio signals to transmit and receive data without wires. You can communicate with the network by establishing radio links between your computer(s) and the gateway. To do so, every computer you want to use for a wireless connection must be equipped with a wireless network interface card.

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The gateway also uses Ethernet networking for cable connections to your wired network, as well as for connecting to the Internet through a cable or DSL modem.

Ethernet networking uses special Ethernet cables to connect computers, printers, and other devices together. Among the advantages of Ethernet networking is a higher network speed (up to 100 Mbps), and the ability to use Ethernet hubs to expand your network.

Setting up Ethernet Networking

To set up Ethernet (wired) networking in your home

1 Connect the external cable or DSL modem to your gateway.

See "External Cable and DSL Modem Connections" on page 11.

2 If you haven't done so already, install or connect an Ethernet network adapter for each computer on your home network.

Ethernet network adapters, such as the 3Com HomeConnect Ethernet Network Adapter, can be purchased at your local electronics retailer.

3 Configure and set up the computers on your home network.

Again, you may have already completed this step. See the documentation that came with your Ethernet network adapter for more details about setting up your Ethernet network.

4 Connect the gateway to your network

Use the included Ethernet cable to connect the Ethernet port on the rear panel of the gateway (see "Ethernet" on page 9) to the Ethernet port of the network adapter installed in your desktop or notebook computer, or to an Ethernet hub connected to other computers.

5 If you are using an external cable or DSL modem, connect it to your gateway.

See "External Cable and DSL Modem Connections" on page 11.



Figure 8 Connecting the Gateway to an Ethernet Network

Powering Up

- 1 Plug the included power adapter into the power adapter socket located on the back panel of the gateway (see "Power Adapter Socket" on page 9).
- 2 Plug the other end into a standard electrical wall socket.

The gateway will power up, and the Power indicator light on the front panel will illuminate (see "Power" on page 8).

System Settings for Your Computer(s)

Each of the computers on your home network needs to have settings in its TCP/IP control panel adjusted to take advantage of the gateway.

Wireless Network Settings

After you have set up your gateway for use with your home network and your Internet connection, set up your notebook computer(s) for wireless communication with the gateway using the following procedure:

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Windows

If you are using a Windows-based notebook computer, use the following procedure to change your TCP/IP settings:

- 1 From the desktop, click *Start*, and select *Settings*, *Control Panel*, and *Network*.
- 2 From the Network control panel, select TCP/IP.
- 3 From the TCP/IP dialog box, select *IP Address*.
- 4 Select "Obtain an IP address automatically."
- 5 Click OK, and OK again.
- 6 Restart your computer.

Macintosh

If you are using a Macintosh computer, use the following procedure to change your TCP/IP settings:

- 1 From the desktop, select *Apple Menu*, *Control Panels*, and *TCP/IP*.
- 2 In the TCP/IP control panel, set *Connect Via:* to "Ethernet."

The *Connect Via:* drop-down list is generated by clicking the up or down arrows. From the list, select "Ethernet."

3 In the TCP/IP control panel, set *Configure:* to "Using DHCP Server."

The *Configure:* drop-down list operates in the same way as the *Connect Via:* list.

- 4 Close the TCP/IP dialog box, and save your changes.
- 5 Restart your computer.

Wired (Ethernet) Network Settings

Use the following procedure to set up your wired network computer(s) to communicate with your gateway by Ethernet cable:

Windows

If you are using a Windows-based computer, use the following procedure to change your TCP/IP settings:

- 1 From the desktop, click *Start*, and select *Settings*, *Control Panel*, and *Network*.
- 2 From the Network control panel, select TCP/IP.
- 3 From the TCP/IP dialog box, select IP Address.
- 4 Select "Obtain an IP address automatically."
- 5 Click OK, and OK again.
- 6 Restart your computer.

Macintosh

If you are using a Macintosh computer, use the following procedure to change your TCP/IP settings:

- 1 From the desktop, select *Apple Menu*, *Control Panels*, and *TCP/IP*.
- 2 In the TCP/IP control panel, set *Connect Via:* to "Ethernet."

The *Connect Via:* drop-down list is generated by clicking the up or down arrows. From the list, select "Ethernet."

3 In the TCP/IP control panel, set *Configure:* to "Using DHCP Server."

The *Configure:* drop-down list operates in the same way as the *Connect Via:* list.

- 4 Close the TCP/IP dialog box, and save your changes.
- 5 Restart your computer.

4 RUNNING THE SETUP PROGRAM

Setup Program

The Home Wireless Gateway setup program is Web-based, which means that it is accessed through your Web browser running on your Windows or Macintosh computer. Make sure that your gateway and modem are powered up before performing the following procedure.

Accessing the Setup Program

1 Launch your Web browser on one of your networked computers.

When the gateway is powered up, it will attempt to automatically collect the networking setup information from your Internet Service Provider (ISP). If you get access to the Internet, the gateway has received this required information from your ISP, and 3Com recommends that you perform step 2, below, and then change your password and update your time zone immediately (see "Change your password." on page 22).

If your Web browser informs you that you cannot access the Internet, continue to follow this procedure.

2 Type the following Internet Protocol (IP) address in the location or address field of your browser: 192.168.2.1 (Figure 9)

Figure 9 Web Browser Location Field

渋	3COM	Home	Conn	ect Home Ne	twork G	iateway Se	etup - Netso	ape		
<u>F</u> ile	e <u>E</u> dit	$\underline{\forall} iew$	<u>G</u> o	Communicator	<u>H</u> elp					
1	4		Ň	3	企	æ	mg.	4	ı.	Ô.
	Back	. Fo	orward	Reload	Home	Search	Netscape	Print	Security	Shop
F.m.	₩ E TE	Bookma	arks	🥼 Location:	192.16	B.2.1				

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3 Press *Enter* on the keyboard of your computer. The Home Wireless Gateway main page will appear (Figure 10). Be sure to bookmark this page for easy reference.

Figure 10 Home Network Gateway Main Page



Navigating Through the Setup Program

Moving through the pages of the setup program is simple. When you click on a topic from the main menu, which consists of four topics (Setup, Status, Tools, and Help) that page will appear, as shown in Figure 12.

Menu Tab

On some of the pages of the setup program (Figure 13, for example), a menu tab will appear, containing a list of options pertaining to main menu topic page. Selecting one of the options in the menu tab generates a page pertaining to the option you chose.

Gateway Setup Wizard

By clicking *Go to Gateway Setup Wizard* (which appears on several pages of the setup program), you will be guided, step-by-step, through a basic setup procedure.

If you have the Internet access information provided by your ISP, you can configure the gateway by using the Gateway Setup Wizard. When you are finished with the Wizard, the gateway will be configured for basic use with your modem and your home network.

Setting Up Your Home Wireless Gateway

- 1 On the Setup page, click "Set Time Zone" to select the appropriate time zone for your location. Click "Enter" to move to the "Change Password" screen.
- 2 If you wish to use have a password assigned to your Home Wireless Gateway, enter it here.

NOTE: The unit is shipped without a password, so the default password field will be blank.

- 3 Click "Enter" to complete the Password entry. The "Cable/DSL Setup" screen displays.
- 4 Click "Enter" to proceed to the "Cable/DSL Settings | Standard" screen.

If your ISP has not supplied you with a Static IP address or a DNS address, click "Enter" and proceed to Step 11. Otherwise, proceed to step 5.

- 5 If your ISP has provided you with an IP address and\or a DNS address, click "Yes" and enter the information in the appropriate location. Click "Enter" to complete the Standard Cable/DSL setup. The "Cable/DSL Settings | Advanced" screen appears.
- 6 If your ISP has provided you with a user name and password for PPPoE authentication, select "Yes" and enter this information. If you have been supplied with a Host Name by your ISP, enter this information also. Click "Enter" to complete the Advanced Cable/DSL setup.
- 7 Click "Enter" to go the "Wireless Setup" screen.
- 8 There are several channels available for use by your Home Wireless Gateway. It is recommended that you let the Home Wireless Gateway automatically select the channel to use. However, if you wish to manually

set the channel, click "Manually"and select the desired channel.

- 9 Click "Enter" to proceed to the Wireless LAN Service Area setup section.
- 10 If you wish to use a specific WLAN Service Area ID, select the "Specify" option and enter the desired ID. The default ID on the unit is "101".

NOTE: The same ID will need to be configured on your wireless clients in order for them to connect to the Home Wireless Gateway.

- 11 Click "Enter" to go to the "Wireless Setup | Encryption" screen.
- 12 If, for security reasons, you wish to use encryption to transmit your data securely over your Wireless Network, use one of the following two methods to set up encryption:
 - Select YES -- generate encryption keys automatically to allow the Home Wireless Gateway to automatically generate the encryption keys, OR
 - Select YES -- enter encryption keys manually so that you may manually generate the keys. To do this, enter 5 hexadecimal digit pairs for each of the 4 keys in the locations provided.

NOTE: A hexadecimal digit is a number or letter in the range 0-9 or A-F.

NOTE: If you decide to use encryption, you will need to have the corresponding keys configured identically on each of your wireless clients, otherwise the clients will not be able to connect to the Home Wireless Gateway.

- 13 Click "Enter" to complete the Encryption section of the Home Wireless Gateway setup. The "Setup Wizard | Finished" screen appears.
- 14 Click "Save and Restart" to ensure all your settings have been saved to the Home Wireless Gateway.

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5 ACCESSING THE INTERNET

This chapter will explain how to set up your Home Wireless Gateway for use with your external cable or external DSL modem, so that you can access the Internet.

Before you continue with this procedure, you will need modem setting information from your Internet Service Provider (ISP).

Internet Connection Settings

The following sections will explain how to set up your gateway for use with an external cable or DSL modem.

External Cable and DSL Modem

To use an externally attached cable/DSL modem connected to your gateway, you will need to enter information provided to you by your ISP.

To configure your cable or DSL modem to the gateway, follow the procedure, below, or use the Gateway Setup Wizard, which can be accessed from the Setup page (see "Gateway Setup Wizard" on page 18 and "Setup Page" on page 22):

1 Connect the gateway to one of your computers.

See "Connecting the Wireless Gateway to Your Network" on page 12 to connect the computer to the gateway.

2 Access the Home Wireless Gateway Setup Program.

See "Accessing the Setup Program" on page 17 to access the program.

3 Select *Setup* from the Main menu.

The Setup page will appear.

Figure 11 Setup Page



4 Set your time zone.

From the menu tab on the left side of the page, select *Set Time Zone*. A pull down menu will appear. Press on the arrows, click your choice, and then click *Enter*.

5 Change your password.

3Com recommends changing your password when setting up the gateway for the first time. The factory default username is *admin*, and the password is *3com*. When the Change Password page appears, type the factory default username and password into their respective text boxes and then your new password in both the *New Password* and *Re-enter Password for Verification* text boxes. Click *Enter*.

Note: Write this password down and keep it in a safe place, so that you can change your settings in the future.

6 Go to the cable/DSL modem setup.

Select Cable/DSL from the gray menu tab on the left side of the page. An informational page will appear, suggesting that you have the modem setting information from your ISP handy. Collect the information, and then click *Enter*.

7 Enter the networking setup information you acquired from your ISP.

When the Cable/DSL Setup | Standard page appears (Figure 14), you will be asked to enter the information you received from your ISP. If you have the information and your ISP has given you an IP address, select Yes after the first question. Enter the IP address, subnet mask address, and ISP gateway address in the appropriate text boxes. Each address will be made up of 4 groups of numbers, separated by periods. Enter each number group in a separate text box. For instance, if your IP address is 222.11.123.100, enter 222 in the first IP address text box, 11 in the second, and so on.

If your ISP has given you a DNS address, select Yes under the second question, and fill in those addresses. When you're finished, click *Enter*.



Figure 12 Cable/DSL Setup | Standard Page

8 If applicable, enter PPPoE information.

Your ISP may need you to enter Host Name or PPPoE (Point-to-Point Protocol over Ethernet) settings. Select *Advanced* below *Cable/DSL* on the menu tab to generate the Cable/DSL Setup | Advanced page. Fill in the information in the appropriate text box. When you're finished, click *Enter*.

Since the gateway firmware contains its own PPPoE client proxy, you no longer need to run PPPoE client software from your ISP to access the Internet. You can simply start your browser and surf the Internet immediately after setting up your cable or DSL modem.

You have successfully installed and configured your cable or DSL modem for use with your gateway. Your Internet connection is now protected by a corporate-grade firewall, which will safeguard your computer (and any other computers networked to the gateway) from any damaging hacker attacks.

6 Additional Features

This chapter describes the additional features available to you with your Home Wireless Gateway, which include viewing the Status page, assigning client privileges, and using the system tools.

Status

Selecting *Status* from the main menu generates the Status page (Figure 13) in your Web browser window. On this page, a graphical representation of your home network and Internet connection is provided. Flashing arrows signify that the connection is operating. Broken arrows (such as the "Wireless" arrows in Figure 13) signify that a connection is not being used or is not functioning correctly.

Figure 13 Status Page



On the left side of the page is textual information describing your network, gateway, and Internet connections.

Client Privileges

Selecting *Client Filtering* from the menu tab in the Setup page generates the Client Computer Setup | Client Privileges page (Figure 14).

Figure 14 Client Computer Setup | Client Privileges Page



Assigning client privileges is a way for you to control what kind of Internet service each of the computers on your home network can use. For example, you may not want your children's computer to have access to the Internet during a period of time in which you cannot monitor its use.

When you assign client privileges, you can instruct the gateway to block Internet access to any computer on your home network. You can also limit other Internet services, such as Mail, Telnet, and File Transfer Protocol (FTP).

To assign client privileges:

1 Choose an IP address from the available pool.

Click the up/down arrows to view the available pool of IP addresses. Click one to choose it, and write it down on a piece of scrap paper.

2 Choose the services you want to block.

Below the drop-down menu is a series of Internet services (E-mail, WWW, FTP, News [NNTP], Telnet). Click the checkbox next to the service (or services) you want to block.

3 Choose the block time.

If you want the services you chose in step 2 to be blocked permanently, click the *Always* button.

You can also identify a period of time in which the services are blocked. To do this, click the *Block from:* button, and choose a daily and weekly time period from the drop-down menus.

4 Click Save.

5 Set the IP address on the computer.

Now that the gateway knows which services to block and when to block them, you must set up the computer on which you intend to block the services.

On the selected computer, go to the IP address dialog box (in Windows, select *Start*, *Settings*, *Control Panel*, *Network*, *TCP/IP*, and *Properties* to get to the IP address dialog box; on a Macintosh, select *Apple Menu*, *Control Panels*, *TCP/IP*).

In the IP address dialog box, in Windows select *Specify* an *IP* address or, on a Macintosh, from the *Configure:* drop-down menu, select *Manually*, and enter the IP address you chose in step 1.

6 Restart your computer to save the changed settings.

To block services on other computers on your network, choose another IP address from the available pool, and repeat the procedure.

Tools

Choosing *Tools* from the Main menu generates the Tools page within your browser window. There are five options to select from: *System Test, Security Log, Reset Home Wireless Gateway, Restore Factory Settings,* and *Upgrade Software.*

System Test

Choosing this option generates the System Test page. Clicking the Test button on this page puts the gateway through a thorough system test. You should perform a system test after upgrading your software, or if the gateway is not operating correctly. After the test is done, the results of the test will appear.

Security Log

Choosing *Security Log* brings up a page that displays any attempts to gain access to your home network by computer hackers or other individuals.

Reset Home Wireless Gateway

If your gateway is not operating correctly, you can choose this option to generate the Reset gateway page. Clicking on the *Reset* button will reset the gateway, with all of your settings remaining intact. If you don't want to reset the gateway, click on the *Cancel* button, which sends you back to the Tools page.

Restore Factory Settings

Selecting *Restore Factory Settings* generates the Restore Factory Settings page. If you want to reset the settings on your gateway to those that were loaded at the factory, click *Restore*. If you don't want to restore factory settings, click on *Cancel*.

Update Firmware

Selecting *Update Firmware* generates the Update Firmware page. The software provides the intelligence needed for the gateway to perform its many operations. This software is

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updated on a regular basis, and is available for you to download.

- 1 Note the current firmware version and date on the Update Software page.
- 2 Click Click here for upgrade on 3Com website. This will take you to the 3Com support website.

3 Choose your product name and check the latest firmware.

If the firmware on the 3Com Web site has the same version number and date as the version you noted in step 1, your gateway is running the latest firmware. If the firmware on the 3Com Web site has a higher version number, continue with this procedure.

4 Download the software.

You can choose where on your hard drive you want to download your firmware. Note the location of the downloaded firmware.

5 Return to the Update Firmware page and click Enter.

6 In the next page, enter the location of the downloaded firmware.

You can either enter the directory path in the text box ("C:\download," for example) or search for the location by clicking *Browse*....

7 Once you've located the file, click *Start* to update your firmware.

The setup program will notify you when the upgrade has finished. During the update, the Power light will flicker.



Caution: Do not turn off the gateway while the firmware is being updated.

30	Chapter 6: Additional Features

7 TROUBLESHOOTING

Home Wireless Gateway

- Check power connection.
- Verify power light status.
- Check connections for modem and networking interface(s).
- If you are unable to access the gateway's user interface, please check your computer's network settings. Verify that your TCP/IP settings are correct (see "System Settings for Your Computer(s)" on page 14).
- Ensure that the latest firmware is installed in the gateway.

Modem

Cable or DSL

- Check your Cable/DSL link light to verify a good connection.
- Check your cable or DSL modem to verify that the power cable is connected.
- Check your cable or DSL modem to verify that the cable or DSL line is connected.
- Reboot your Cable/DSL modem.
- If your ISP does not support automatically assigned networking settings, then enter your setting information into the setup program (see "Enter the networking setup information you acquired from your ISP." on page 23).



Ethernet Networks

- Check all connections to the gateway
- Check all connections to each attached device on the network
- Ensure that the TCP/IP settings for all devices are correct (see "System Settings for Your Computer(s)" on page 14).
- Ensure that you have an Ethernet interface for each networked computer
- Each computer must have either Microsoft Windows 95 (or higher) or Mac OS 8.5 (or higher).

3Com KnowledgeBase

If none of the above information has resolved the problem with your gateway, please search the on-line 3Com KnowledgeBase at:

http://knowledgebase.3com.com

Refer to Appendix A, Technical Support for additional information about how to contact 3Com Technical Support.

TECHNICAL SUPPORT

Online Technical Services

3Com offers worldwide product support 24 hours a day, 7 days a week, through the following online systems:

- World Wide Web site
- 3Com FTP site
- 3Com Bulletin Board Service (3Com BBS)
- 3Com Facts[™] automated fax service

World Wide Web Site

Access the latest networking information on the 3Com Corporation World Wide Web site by entering the URL into your Internet browser:

http://www.3com.com/

This service provides access to online support information such as technical documentation and software library, as well as support options ranging from technical education to maintenance and professional services.

3Com FTP Site

Download drivers, patches, software, and MIBs across the Internet from the 3Com public FTP site. This service is available 24 hours a day, 7 days a week.

To connect to the 3Com FTP site, enter the following information into your FTP client:

- Hostname: ftp.3com.com (or 192.156.136.12)
- Username: anonymous
- Password: <your Internet e-mail address>



NOTE: A user name and password are not needed with Web browser software such as Netscape Navigator and Internet Explorer.

3Com Bulletin Board Service

The 3Com BBS contains patches, software, and drivers for 3Com products. This service is available through analog modem or digital modem (ISDN) 24 hours a day, 7 days a week.

Access by Analog Modem

To reach the 3Com BBS by modem, set your modem to 8 data bits, no parity, and 1 stop bit. Call the telephone number nearest you:

Country	Data Rate	Telephone Number
Brazil	Up to 14,400 bps	55 11 5181 9666
Italy	Up to 14,400 bps	39 2 27300680
Mexico	Up to 28,800 bps	52 5 520 7835
U.S.A.	Up to 53,333 bps	1 847 262 6000

Access by Digital Modem

ISDN users can dial in to the 3Com BBS using a digital modem for fast access up to 64 Kbps. To access the 3Com BBS using ISDN, use the following number:

1 847 262 6000

Support from Your Network Supplier

If additional assistance is required, contact your network supplier. Many suppliers are authorized 3Com service partners who are qualified to provide a variety of services, including network planning, installation, hardware maintenance, application training, and support services.

When you contact your network supplier for assistance, have the following information ready:

- Product model name, part number, and serial number
- A list of system hardware and software, including revision levels
- Diagnostic error messages
- Details about recent configuration changes, if applicable

If you are unable to contact your network supplier, see the following section on how to contact 3Com.

Support from 3Com

If you are unable to obtain assistance from the 3Com online technical resources or from your network supplier, 3Com offers technical telephone support services. To find out more about your support options, please call the 3Com technical telephone support phone number at the location nearest you.

When you contact 3Com for assistance, have the following information ready:

- Product model name, part number, and serial number
- A list of system hardware and software, including revision levels
- Diagnostic error messages
- Details about recent configuration changes, if applicable

Below is a list of worldwide technical telephone support numbers:

Country	Telephone Number	Country	Telephone Number
Asia Pacific Rim			
Australia	1 800 678 515	P.R. of China	10800 61 00137
Hong Kong	800 933 486		or
India	+61 2 9937 5085	Singapore	021 6350 1590
Indonesia	001 800 61 009	S. Korea	800 6161 463
Japan	03 5783 1270	From anywhere	
Malaysia	1800 801 777	in S. Korea:	00798 611 2230
New Zealand	0800 446 398	From Seoul:	(0) 2 3455 6455
Pakistan	+61 2 9937 5085	Taiwan, R.O.C.	0080 611 261
Philippines	1235 61 266 2602	Thailand	001 800 611 2000
Europe From anywhere in Europe, call:	+31 (0)30 6029900 phor +31 (0)30 6029999 fax	ne	

From the followi	ng European countries, y	ou may use the to	oll-free numbers:
Austria	0800 297468	Netherlands	0800 0227788
Denmark	800 17309	Poland	0800 3111206
Finland	0800 113153	Portugal	0800 831416
France	0800 917959	South Africa	0800 995014
Germany	0800 1821502	Spain	900 983125
Hungary	06800 12813	Sweden	020 795482
Ireland	1 800 553117	Switzerland	0800 55 30/2
Israel	1 800 9453794	U.K.	0800 966197
Italy	800 879489		
Latin America			
Argentina	AT&T +800 666 5065	Mexico	01 800 CARE (01 800 2273)
Brazil	0800 13 3266	Peru	AT&T +800 666 5065
Chile	1230 020 0645	Puerto Rico	800 666 5065
Colombia	98012 2127	Venezuela	AT&T +800 666 5065
North America	1 800 527 8677		

Returning Products for Repair

Before you send a product directly to 3Com for repair, you must first obtain a Return Materials Authorization (RMA) number. Products sent to 3Com without RMA numbers will be returned to the sender unopened, at the sender's expense.

To obtain an RMA number, call or fax:

Country	Telephone Number	Fax Number
Asia, Pacific Rim	65 543 6500	65 543 6348
Europe, South Africa, and Middle East	+ 44 1442 435860	+ 44 1442 435718

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option 2 and then option 2	in countries, you may can th :	e toil-free numbers; select
Austria Belgium Denmark Finland France Germany Hungary Ireland Israel Italy Netherlands Norway Poland Portugal South Africa Spain Sweden Switzerland U.K.	0800 297468 0800 71429 800 17309 0800 113153 0800 917959 0130 821502 06800 12813 1 800 553117 1 800 9453794 800 879489 0800 0227788 800 11376 0800 3111206 0800 831416 0800 995014 900 983125 020 795482 0800 55 3072 0800 966197	
Latin America	1 408 326 2927	1 408 326 3355
U.S.A. and Canada	1 800 527 8677	1 408 326 7120

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38	Chapter : Technical Support
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GLOSSARY

Client

The term used to described the desktop or mobile PC that is wirelessly connected to your wireless network.

DHCP

Dynamic Host Configuration Protocol. This protocol automatically configures the TCP/IP settings of every computer on your home network.

DNS Server Address

DNS stands for Domain Name System, which allows Internet host computers to have a domain name (such as 3com.com) and one or more IP addresses (such as 192.34.45.8). A DNS server keeps a database of host computers and their respective domain names and IP addresses, so that when a domain name is requested (as in typing "3com.com" into your Internet browser), the user is sent to the proper IP address. The DNS server address used by the computers on your home network is the location of the DNS server your ISP has assigned.

DSL modem

DSL stands for digital subscriber line. A DSL modem uses your existing phone lines to send and receive data at high speeds.

Ethernet

A standard for computer networks. Ethernet networks that are connected by special cables and hubs move data around at up to 100 million bits per second (Mbps).

Firewall

Electronic protection that prevents anyone outside of your network from seeing your files or damaging your computers.

Gateway

A device that acts as a wireless central hub by connecting to each computer's network interface card and managing the wireless traffic. The gateway can stand alone in a pure wireless network or can be connected to a wired network, such as an Ethernet network, to create a mixed wireless/wired network. Sometimes called an Access Point because it is the point at which a wireless network connects to a wired network, such as Ethernet.

IP address

IP stands for Internet Protocol. An IP address, which consists of a series of four numbers separated by periods, identifies a single, unique Internet computer host. Example: 192.34.45.8.

ISP

Internet service provider. An ISP is a business that provides connectivity to the Internet for individuals and other businesses or organizations.

LAN

Local area network. A LAN is a group of computers and devices connected together in a relatively small area (such as a house or an office). Your home network is considered a LAN.

MAC Address

MAC stands for media access control. A MAC address is the hardware address of a device connected to a network.

NAT

Network address translation. This process allows all of the computers on your home network to use one IP address. Using the NAT capability of the HomeConnect home network gateway, you can access the Internet from any computer on your home network without having to purchase more IP addresses from your ISP.

PC Card

A network interface card that enables a notebook computer to connect to a wireless network. The card is



installed in the PCMCIA slot of a notebook computer and communicates with the wireless gateway.

PPPoE

Point-to-Point Protocol over Ethernet. Point-to-Point Protocol is a method of secure data transmission originally created for dial-up connections; PPPoE is for Ethernet connections.

SPI

Stateful Packet Inspection. SPI is the type of corporate-grade Internet security provided by your HomeConnect home network gateway. Using SPI, the gateway acts as a "firewall," protecting your network from hacker attacks.

subnet mask

A subnet mask, which may be a part of the TCP/IP information provided by your ISP, is a set of four numbers configured like an IP address. It is used to create IP address numbers used only within a particular network (as opposed to valid IP address numbers recognized by the Internet, which must assigned by InterNIC).

TCP/IP

Transmission Control Protocol/Internet Protocol. This is the standard protocol for data transmission over the Internet.

WAN

Wide area network. A network that connects computers located in geographically separate areas, (i.e., different buildings, cities, countries). The Internet is an example of a wide area network.



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WARRANTY AND REGULATORY COMPLIANCE

3Com Corporation Limited Warranty

This warranty applies to customers located in the United States, Australia, Canada (except Quebec), Ireland, New Zealand, U.K., and other English language countries, and countries for which a translation into the local language is not provided

3Com AirConnect 11Mbps Wireless LAN

HARDWARE

3Com warrants to the end user ("Customer") that this hardware product will be free from defects in workmanship and materials, under normal use and service, for the following length of time from the date of purchase from 3Com or its authorized reseller:

Five (5) years

Spare Parts and Spares Kits are warranted for ninety (90) days

3Com's sole obligation under this express warranty shall be, at 3Com's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, 3Com may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products or parts may be new or reconditioned. 3Com warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer. 3Com's sole obligation under this express warranty shall be, at 3Com's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, 3Com may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products may be new or reconditioned. 3Com warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

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3Com warrants to Customer that each software program licensed from it, except as noted below, will perform in substantial conformance to its program specifications, for a period of ninety (90) days from the date of purchase from 3Com or its authorized reseller. 3Com warrants the media containing software against failure during the warranty period. No updates are provided. 3Com's sole obligation under this express warranty shall be, at 3Com's option and expense, to refund the purchase price paid by Customer for any defective software product, or to replace any defective media with software which substantially conforms to applicable 3Com published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. 3Com makes no warranty or representation that its software products will meet Customer's requirements or work in combination with any hardware or applications software products provided by third parties. that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected. For any third party products listed in the 3Com software product documentation or specifications as being compatible. 3Com will make reasonable efforts to provide compatibility, except where the non-compatibility is caused by a "bug" or defect in the third party's product or from use of the software product not in accordance with 3Com's published specifications or user manual.

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Any software update or replaced or repaired product will carry a Year 2000 Warranty for ninety (90) days after purchase or until April 1, 2000, whichever is later.

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Customer must contact a 3Com Corporate Service Center or an Authorized 3Com Service Center within the applicable warranty period to obtain warranty service authorization. Dated proof of purchase from 3Com or its authorized reseller may be required. Products returned to 3Com's Corporate Service Center must be pre-authorized by 3Com with a User Service Order (USO) number (or a Return Material Authorization (RMA) number or a Service Repair Order (SRO) number, whichever was issued) marked on the outside of the package, and sent prepaid and packaged appropriately for safe shipment, and it is recommended that they be insured or sent by a method that provides for tracking of the package. Responsibility for loss or damage does not transfer to 3Com until the returned item is received by 3Com. The repaired or replaced item will be shipped to Customer, at 3Com's expense, not later than thirty (30) days after 3Com receives the defective product, and 3Com will retain risk of loss or damage until the item is delivered to Customer.

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Dead- or Defective-on-Arrival. In the event a product completely fails to function or exhibits a defect in materials or workmanship within the first forty-eight (48) hours of installation but no later than thirty (30) days after the date of purchase, and this is verified by 3Com, it will be considered dead- or defective-on-arrival (DOA) and a replacement shall be provided by advance replacement, but only if Customer provides a purchase order number, credit card number, or other method of payment acceptable to 3Com, to be used if 3Com needs to charge Customer for the replacement, as explained below. The replacement product will normally be shipped not later than three (3) business days after 3Com's verification of the DOA product, but may be delayed due to export or import procedures. The shipment of advance replacement products is subject to local legal requirements and may not be available in all locations. When an advance replacement is provided and Customer fails to return the original product to 3Com within fifteen (15) days after shipment of the replacement, 3Com will charge Customer for the replacement, at list price.

INCLUDED SERVICES: Telephone Support, with coverage for basic troubleshooting only, will be provided for ninety (90) days from the date of purchase, on a commercially reasonable efforts basis. Telephone support is available from 3Com only if Customer purchased this product directly from 3Com, or if Customer's reseller is unable to provide telephone support. Please refer to the Technical Support appendix in the User Guide for telephone numbers.

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This Limited Warranty shall be governed by the laws of the State of California, U.S.A. excluding its conflicts of laws principles and excluding the United Nations Convention on Contracts for the International Sale of Goods.

3Com Corporation

5400 Bayfront Plaza Santa Clara, CA 95054 (408) 326-5000 January 3, 2000

Regulatory Compliance Information

RADIO FREQUENCY INTERFERENCE REQUIREMENTS

This device has been tested and found to comply with the limits for a Class B digital device as applicable, pursuant to Part 15 of the Federal Communications Commissions Rules and Regulation. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated 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 the 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:

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

This device compliies with Part 15 of the FCC Rules and Regulations. Operation is subject to the following two conditions:

- 1 This device may not cause harmful interference
- 2 This device must accept any interference received, including interference that may cause undesired operation.

The user must use the accessories and cables supplied by the manufacturer to get optimum performance from the product.

NOTE: This product was tested to comply with FCC-15 Class B requirements in the cases of the following configuraqtions:

a) 802.11b Transceiver for Home or Office Use

MANUFACTURER'S DECLARATION OF CONFORMITY

3Com Corporation 5400 Bayfront Plaza Santa Clara, CA 95052 U.S.A.

Declares that the product: HomeConnecttm Home Wireless Gateway

Date:

Name:

Model Number: 3CRWE50194

Equipment Type: 802.11b WLAN

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.

INDUSTRY CANADA CLASS B EMISSION COMPLIANCE STATEMENT

This Class B digital apparatus complies with Canadian ICES-003.

AVIS DE CONFORMITÉ À LA RÉGLEMENTATION D'INDUSTRIE CANADA

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

EUROPEAN COMMUNITY REGULATORY COMPLIANCE STATEMENT

This device complies with the requirements of European Directive 1999/5/EC.

Potential RF Interference (Canada)

CAUTION

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Japan

この機器の使用周波数帯では、電子レンジ等の産業・科学・医療用機器のほか工場の製造 ライン等で使用されている移動体識別用の構内無線局(免許を要する無線局)及び特定小 電力無線局(免許を要しない無線局)が運用されています。

1 この機器を使用する前に、近くで移動体識別用の構内無線局及び特定小電力無線局が運 用されていないことを確認して下さい。

2 万一、この機器から移動体識別用の構内無線局に対して電波干渉の事例が発生した場合には、速やかに使用周波数を変更するか又は電波の発射を停止した上、下記連絡先にご連絡頂き、混信回避のための処置等(例えば、パーティションの設置など)についてご相談して下さい。

3 その他、この機器から移動体識別用の特定小電力無線局に対して電波干渉の事例が発生 した場合など何かお困りのことが起きたときは、次の連絡先へお問い合わせ下さい。

連絡先:_____

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YOU SHOULD CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS BEFORE USING THIS PRODUCT. IT CONTAINS SOFTWARE, THE USE OF WHICH IS LICENSED BY 3COM CORPORATION ("3COM") TO ITS CUSTOMERS FOR THEIR USE ONLY AS SET FORTH BELOW. IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT USE THE SOFTWARE. USING ANY PART OF THE SOFTWARE INDICATES THAT YOU ACCEPT THESE TERMS.

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