AirConnect® Wireless PCI Card User Guide

3CRWE777A

CONTENTS

1 **OVERVIEW**

Introduction

3Com's Wireless PCI Card is an 11 Mbps wireless network adapter that seamlessly integrates with existing Ethernet networks to support applications such as mobile users or temporary conferences. This solution offers a high data rate and reliable wireless connectivity with considerable cost savings over wired LANs (which include long-term maintenance overhead for cabling). Just install PCI adapters into your notebook PCs, and start networking.

Using this card in conjunction with 3Com's AirConnect Access Point, you can create an instant network that integrates seamlessly with 10 Mbps Ethernet LANs. Moreover, moving or expanding your network is as easy as moving or installing additional access points - no wires!

Package Checklist

The Wireless PCI Card package includes:

- One wireless PCI card (3CRWE777A)
- One CD containing drivers and utilities
- This *Wireless PCI Card User Guide*
- One registration card (please complete and return)

Please inform your dealer if there are any incorrect, missing or damaged parts. If possible, retain the carton, including the original packing materials. Use them again to repack the product in case there is a need to return it for repair.

Hardware Description

3Com's Wireless PCI Card supports 1, 2, 5.5, and 11 Mbps half-duplex connections to Ethernet networks. This card is fully compliant with 2.4GHz DSSS CSMA/CA wireless networking as defined in IEEE 802.11b. It is designed to complement PCI Local Bus computers. It supports Windows 95/98/NT/2000/Me.

Features

- 1, 2, 5.5, and 11 Mbps data rate.
- Wireless connection without the difficulties and cost of cabling
- Greater flexibility to locate or move networked PCs
- Integrates with or replaces wired LANs at dramatically lower cost than wired alternatives
- Seamless connectivity to wired Ethernet LANs augments existing networks quickly and easily
- Easy installation
- Operating range up to 30m (100 ft) at 11 Mbps , up to 100m (300 ft) at 5.5 Mbps and lower
- Point-to-point and point-to-multipoint access
- Direct Sequence Spread-Spectrum (DSSS) technology provides robust, interference-resistant and secure wireless connection
- Supports a wide range of operating systems (Win95/98/NT/2000/Me)
- Plug-and-Play
- Provides a user-friendly interface for configuration
- Enhances your network security with WEP data encryption

Applications

3Com wireless products offer a fast, reliable, cost-effective solution for wireless client access to the network in applications like these:

- Remote access to corporate network information:
  E-mail, file transfer and terminal emulation.

- Difficult-to-wire environments:

    Historic or old buildings, asbestos installations, and open areas where wiring is difficult to employ.
- Frequently changing environments:

    Retailers, manufacturers and banks who frequently rearrange the workplace and change location.
- Temporary LANs for special projects or peak times:

    Trade shows, exhibitions and construction sites that need a temporary setup for a short time period.

    Retailers, airline, and shipping companies that need additional workstations for peak periods.

    Auditors who require workgroups at customer sites.
- Access to database for mobile workers:

    Doctors, nurses, retailers, and white-collar workers who need access to databases while being mobile in the hospital, retail store, or office campus.
- SOHO (Small Office and Home Office) users:

    SOHO environments needing easy and quick installation of a small computer network.

Status LED Indicator

The Wireless PCI Card includes one status LED indicator, as described in the following figure and table.

LED
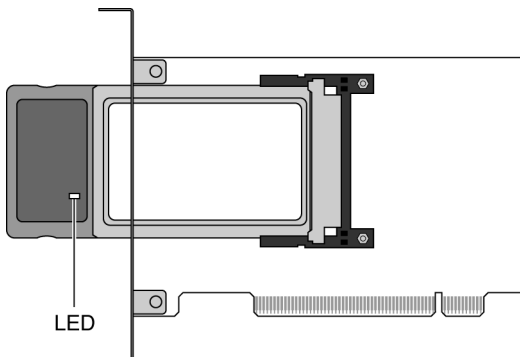
Figure 1

Always On	Blinking	Off
■ Power is being supplied to the PCI card. ■ A valid connection to the network exists. ■ The PCI card is transmitting or receiving data.	The PCI card is attempting to associate with an access point.	No power is being supplied to the PCI card.

System Requirements

Before you install the wireless PCI card, check your system for the following requirements:

■ Windows 95/98/NT/2000/Me operating system (prepare the Windows installation CD-ROM for use during installation).

■ A minimum of 500 Kbytes of free disk space for installing the driver and utility program.

■ Other IEEE 802.11b-compliant devices installed in your service area (such as 3Com's AirConnect access point and wireless PC card.

2 .... **I**NSTALLATION

Introduction

Before Installing the 3Com Wireless PCI Card, be sure you read and follow the precautions listed here:

- Network cards are sensitive to static electricity. To protect the card, always touch the metal chassis of your computer before handling the card.

- Be sure to turn off power to your computer before you plug in or remove a wireless PCI card.

Card Installation Procedure

1 **Turn off power to your desktop computer and unplug the power cord.**

2 **Remove the cover of your computer.**

3 **Locate an empty PCI slot and remove its slot cover. Save the screw.**

4 **Carefully insert the PCI card into the selected slot until it seats snugly (see Figure 2). The shielded part of the wireless PCI card protrudes from the card faceplate and juts out beyond the back panel of your computer when the card is installed.**

CAUTION: DO NOT REMOVE the shielded part of the PCI card from the printed circuit carrier.
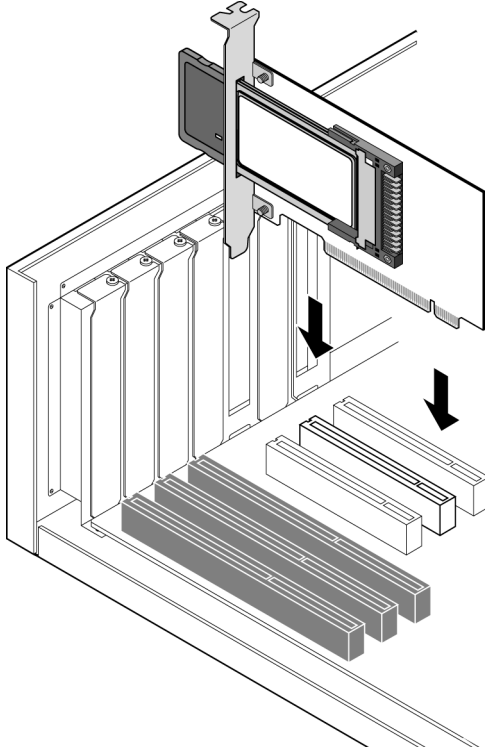
Figure 2

5   **Secure the card with the screw that you removed earlier.**

6   **Replace the cover of your PC and plug in the power cord.**

7   **Turn on the power to your computer.**

8   **Depending on your operating system, proceed to either "Windows 95/98/2000/Me Driver Installation Procedure" or "Windows NT 4.0 Driver Installation Procedure".**

Windows 95/98/2000/Me Driver Installation Procedure

Your *End User Utilities* CD contains all the software drivers available for the 3Com Wireless PCI Card. New or updated drivers can be downloaded from 3Com's web site at http://www.3Com.com.

1 Windows 95/98/2000/Me will automatically detect the new hardware and prompt you to install the driver. Click "Next" to find the driver.

2 Insert the CD and click "Next".

3 Specify the CD drive and click "Next". The setup program automatically finds the appropriate .INF file and driver for your operating system.

4 Click "Next" to copy files from the CD.

5 The Adapter Properties window appears, showing the Advanced tab screen.
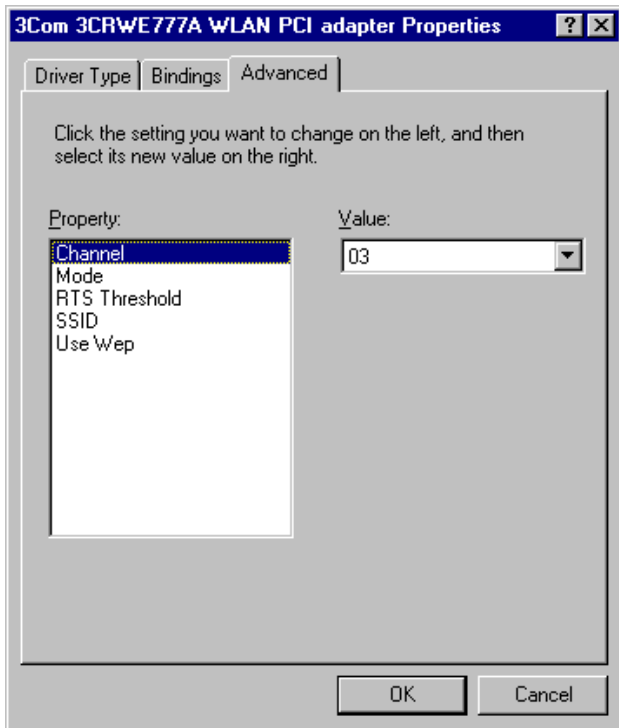
6   If you are setting up an ad hoc wireless LAN, set "Channel" to the same radio channel as that used by the other wireless clients in your group. However, if you are connecting to a network via an access point, then use the same channel as that used by the access point (access point default: 3).

7   Set "Mode" to ad hoc or infrastructure, depending on the type of network you want to connect to. Click *OK* (default: infrastructure).

8   Set "RTS Threshold" to the same as that used by the other devices in your network (access point default: 2432).

9   Set the "SSID" identifier to the same as that used by the ad hoc workgroup or access point you want to connect to (access point default: 101).

10 For more secure data transmission, set the "Use WEP" to "Enabled" to ensure wireless network security. The advanced Wired Equivalent Privacy (WEP) is implemented in this card to prevent unauthorized access (default: Disabled).

i *If the access point you wish to connect to is set for encryption, you must also enable encryption on the wireless client. Click Encryption in the Wireless LAN Configuration Utility to go to screens where you can enable and configure encryption.*

You must set the wireless client for the same encryption algorithm and shared key values as the access point it will associate with. Save the configuration settings and exit by clicking OK.

11 Click "*OK*". At this point, depending on how your computer is configured, Windows 98/98SE may prompt you to insert the Windows 98/98SE installation CD to copy required system files. Follow the instructions displayed, then click "Finish."

12 Restart your computer when prompted.

Windows NT 4.0 Driver Installation Procedure

1 **From the Windows desktop, select "Control Panel," double-click "Network," click "Adapters," and then click the "Add" button on the Network dialog box.**

2 **Windows NT will present a list of all its supported adapters. Click "Have Disk" to continue.**

3 **Windows NT will ask for the drive/path containing the Windows NT drivers. Insert the CD into the drive, specify the drive letter of the CD, then click "OK."**

4 **When prompted, select** *3Com 3CRWE777A WLAN PCI adapte***r, then click "OK."**

5 **Windows NT will attempt to locate the SYS and INF files in the specified path. If you have entered the path name correctly, Windows NT should copy the appropriate drivers to the Windows NT system. You must confirm the selection by clicking "OK."**

6 **The Adapter Properties dialog box appears. Configure the card as described below, and click "OK."**
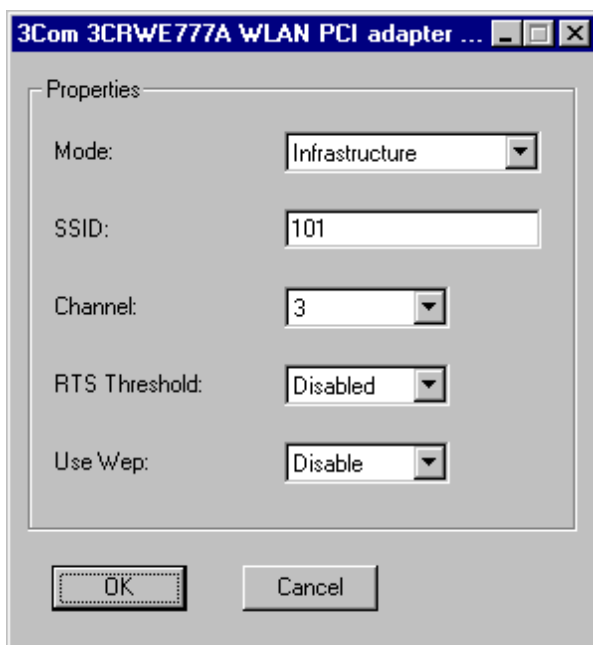
- **Mode** - Set to "ad hoc" or "infrastructure", depending on the type of network you want to connect to.
- **SSID** - Set the "SSID" identifier to the same as that used by the ad hoc workgroup or access point you want to connect to. (access point default: 101).
- **Channel** - If you are setting up an ad hoc wireless LAN, set the channel number to the same radio channel used by the other wireless clients in your group. However, if you are connecting to a network via an access point, then use the same channel as that used by the access point (access point default: 3).
- **RTS Threshold** - Set the RTS threshold to the same as that used by the other devices in your network (default: Disabled).
- **Use WEP** - For more secure data transmission, set this field to "Enabled" to ensure wireless network security. Wired Equivalent Privacy (WEP) is implemented in the PCI card to prevent unauthorized access (default: Disabled).

i *If the access point you wish to connect to is set for encryption, you must also enable encryption on the wireless client. Click Encryption in the Wireless LAN Configuration Utility to go to screens where you can enable and configure encryption.*

You must set the wireless client for the same encryption algorithm and shared key values as the access point it will associate with. Save settings and exit by clicking OK.

7 **If desired, select the Services tab and Click "Add..." to install the network protocols you want to use, such as IPX/SPX, NetBEUI or TCP/IP.**

If you install TCP/IP, be sure to set the appropriate gateway, DNS server, and domain for your network. If you install an IPX/SPX-compatible protocol, then you also need to install the Client for NetWare Networks.

8 **Click "Close."**

9   **Restart your computer when prompted.**

10   **To ensure that the 3Com Wireless PCI Card works correctly, go to the Windows *Control Panel* and double-click *Devices*. The 3Com Wireless PCI Card driver status should be "Started."**

NETWORK CONFIGURATION AND PLANNING

Introduction

3Com's Wireless Solution supports a stand-alone wireless network configuration, as well as an integrated configuration with 10 Mbps Ethernet LANs.

The Wireless PCI card can be configured as:

• Ad hoc for departmental or SOHO LANs

• Infrastructure for enterprise LANs

Network Topologies

Ad hoc Wireless LAN

An ad hoc wireless LAN consists of a group of computers, each equipped with a wireless adapter, connected via radio signals as an independent wireless LAN. Computers in a specific ad hoc wireless LAN must therefore be configured to the same radio channel. An ad hoc wireless LAN can be used for a branch office or SOHO operation.

Ad hoc Wireless LAN

Notebook with
Wireless USB Adapter

Notebook with
Wireless PC Card

PC with Wireless
PCI Adapter
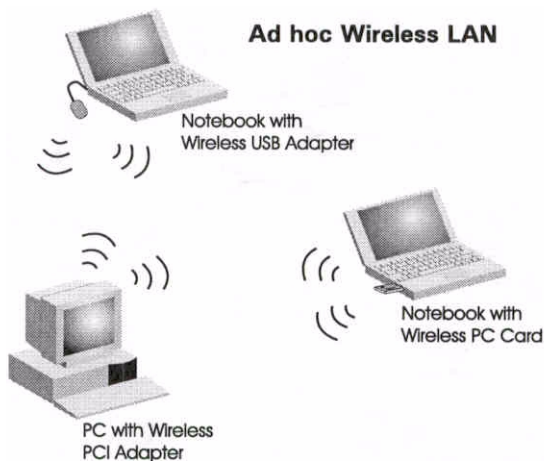
Infrastructure Wireless LAN

The wireless PCI card can also provide access to a wired LAN for wireless workstations. An integrated wired and wireless LAN is called an infrastructure configuration. A Basic Service Set (BSS) consists of a group of wireless PC users, and an access point that is directly connected to the wired LAN. Each wireless PC in this BSS can talk to any computer in its wireless group via a radio link, or access other computers or network resources in the wired LAN infrastructure via the access point.

The infrastructure configuration not only extends the accessibility of wireless PCs to the wired LAN, but also doubles the effective wireless transmission range for wireless PCs by passing their signal through one or more access points.

A wireless infrastructure can be used for access to a central database, or for connection between mobile workers, as shown in the following figure.
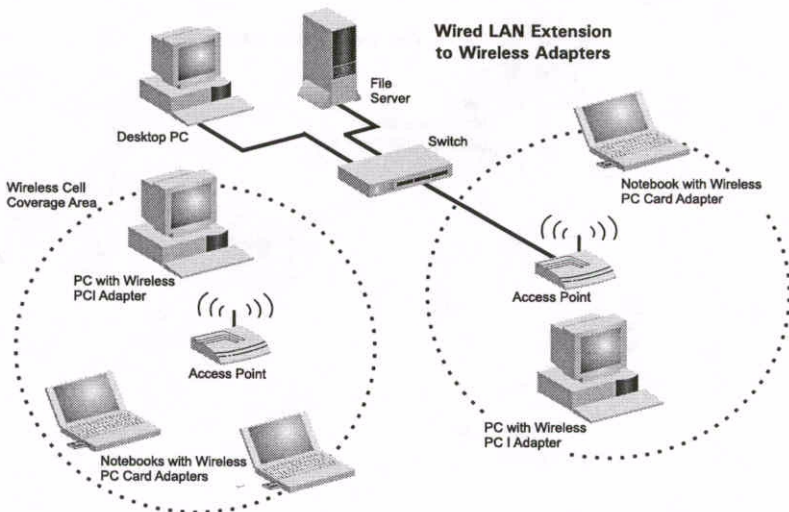
Setting the Communication Domain

Stationary Wireless PCs

The Basic Service Set (BSS) is the communication domain for each 3Com wireless access point (AP). For wireless PCs that do not need to support roaming, set the domain identifier (SSID) for the wireless card to the BSSID of the AP you want to connect to. Ask your administrator for the BSSID of the AP point he or she wants you to connect to.

Roaming Wireless PCs

A wireless infrastructure can also support roaming for mobile workers. More than one access point can be configured to create an Extended Service Set (ESS). By placing the access points so that a continuous coverage area is created, wireless users within this ESS can roam freely. All AirConnect cards and access points within a specific ESS must be configured with the same SSID and to the same radio channel.
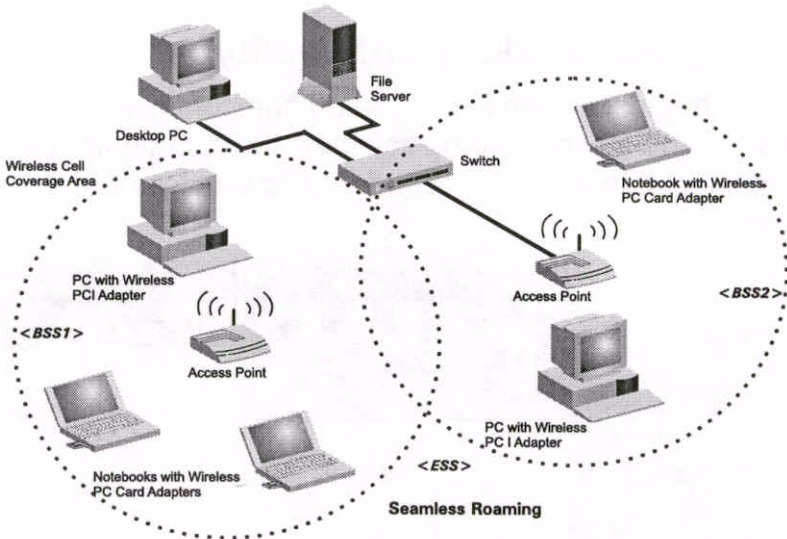
Before setting up an ESS for roaming, you need to choose a clear radio channel and ideal location for the access points to maximize performance.

4

CONFIGURATION AND DIAGNOSTIC UTILITY

Introduction

3Com's Wireless PCI Card provides free optional management software for quick network configuration and easy diagnostics. The CD that comes with your package contains a user-friendly utility for configuring the wireless PCI card.

Installing the Wireless LAN Configuration Utility

To install this utility:

1 **Insert the CD in your computer's CD-ROM drive. The AirConnect main menu appears.**

2 **Click *Installation for Windows* from the menu screen.**

3 **Click *Install WLAN Applications* from the menu.**

4 **Follow the onscreen instructions to finish installation.**

Using the Wireless LAN Configuration Utility

Once the installation is completed, the configuration utility can be accessed by selecting the "Configuration Utility" icon from the "3Com AirConnect Utility" folder.

The configuration software includes the following functions:

- Link Information - Allows you to monitor network status.
- Configuration - Allows you to configure parameters for the wireless adapter.
- Encryption - Provides RC4 security control.

Link Information Screen

When you start the wireless LAN utility, the hardware information window for the wireless PCI card is shown on the first folder of the utility windows. Click on the "Link Information" tab to monitor the network status of the wireless adapter, including the BSSID, current channel, transmission rate used, transmission/receiving throughput, link quality, and signal strength condition.
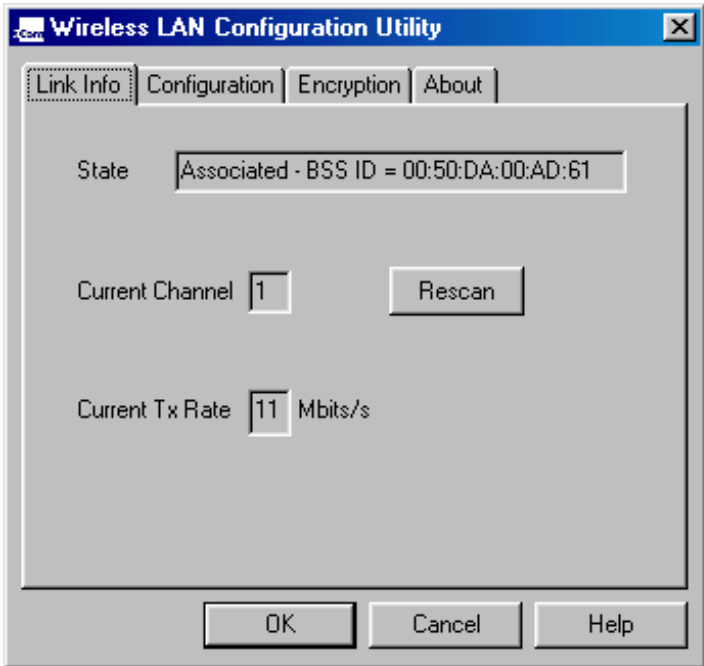
Configuration Screen

The Configuration screen allows you to check and modify the configuration of the adapter.
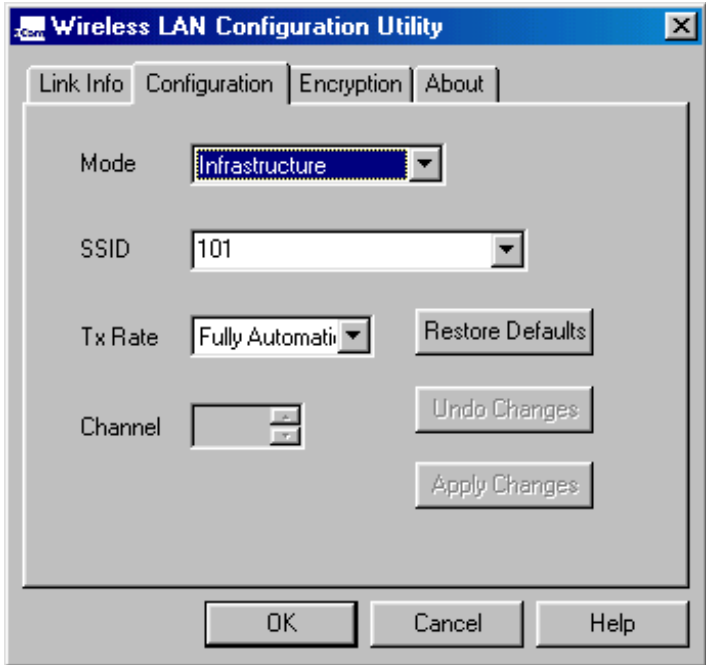
The user-configurable parameters are:

- **Mode** - Set the station operation mode to AdHoc for network configurations that do not have any access points, or to Infrastructure for configurations with access points ("Ad hoc" is the default setting).
- **SSID** - Input an SSID number if the roaming feature is enabled ("101" is the default setting).
- **Tx Rate** - Indicates the communication rates. Select appropriate transmission speed to match your wireless LAN settings ("Fully Automatic" is the default setting).
- **WEP** - For more secure data transmission, select "Enabled" to use WEP security. The advanced Wired Equivalent Privacy (WEP) is implemented in this card to prevent unauthorized access. However, for normal use it is recommended to retain the factory-set "Disabled" WEP. ("Disabled" is the default setting).
- **Channel** - If you are setting up an Ad hoc wireless LAN, set the channel number to the same radio channel as that used by the other wireless clients in your group. However, if you are connecting to a network via an access point, then use the same channel as that used by the access point (access point default: 3).

Encryption Screen

The WEP (Wired Equivalent Privacy) implemented in
3Com's wireless PCI card is based on an RC4 encryption
algorithm and provides a 40-bit security key to ensure data
confidentiality. This WEP security protects your wireless LAN
against eavesdropping and unauthorized access by hackers
or other intruders. If the WEP is in use, the WEP key is
required for connecting to an access point or listening to
messages that pass through the air.
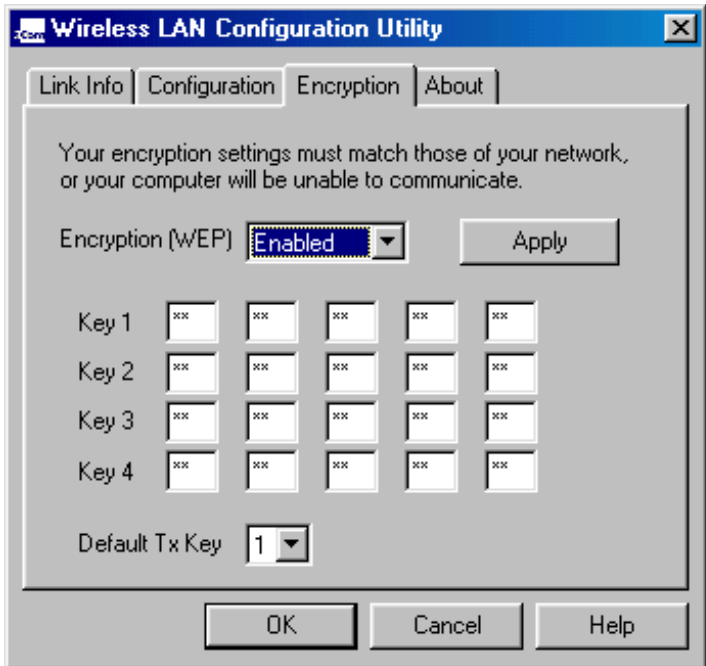
To use the WEP function, take the following steps:

1 **Click on the *Encryption* tab to set up WEP
   security keys.**

2 **Select *Enabled* for the *WEP* field.**

3 **Select one encrypted key (from Key 1 to Key 4) as
   your default key.**

4 **Click the *Apply* button.**

5 .... **TROUBLESHOOTING**

Introduction

This chapter describes troubleshooting procedures you can perform to solve basic problems.

Preliminary Troubleshooting

Check the following items before contacting 3Com Technical Support.

PCI Compatibility

Some PCI computers are not self-configuring and require you to perform some or all of the following functions by motherboard jumper changes and/or BIOS Setup program configuration:

- Make sure your BIOS correctly supports the PCI Local Bus Specification v2.0 or later and upgrade your computer BIOS to the latest version.

- Verify that the PCI slot is an enabled bus-master slot and not a slave PCI slot. In some computers, the PCI slot must be configured to enable bus mastering. Refer to your computer's manual and check the PCI BIOS Setup program to be sure the PCI slot is an enabled bus-master slot.

- In some computers, you may be required to disable Plug-n-Play (PnP) in the BIOS Setup program if resources are not properly assigned between installed cards.

- Some computers may require you to reserve interrupts and memory addresses for installed ISA cards to prevent PCI adapters from using the same settings. Refer to your computer's manual and check the PCI BIOS Setup program configuration options for ISA cards.

- Make sure the PCI slot is configured to support INTA.
- Be sure that INTA for the slot is assigned to a free interrupt (IRQ) number.
- If it still does not work, remove the wireless adapter. Delete the appropriate system file (see list below) from c:\windows\system:
    - Windows 9x: cw10.sys
    - Windows 2000: cw10nt.sys
    - Windows Me: cw10nt.sys

    Go to "Control Panel" and delete the wireless PCI card from your network configuration menu. Restart your computer and reinstall the card as described in Chapter 2.

Network Connection Problems

If the Link LED on the wireless PCI card does not light, or if you cannot access any network resources from the computer, check the following:

- Make sure the correct software driver is installed for your operating system. If necessary, try reinstalling the driver.
- Make sure the computer and other network devices are receiving power.
- The access point you want to attach to may be defective. Try using another access point.
- If you cannot access a Windows or NetWare service on the network, check that you have enabled and configured the service correctly. If you cannot connect to a particular server, be sure that you have access rights and a valid ID and password.
- If you cannot access the Internet, be sure you have configured your system for TCP/IP.

If your wireless station cannot communicate with a computer in the Ethernet LAN when configured for Infrastructure mode, check the following:

- Make sure the access point which the station associated with is powered on.
- Make sure your wireless station is configured with the same operating radio channel as the access point.
- If you still cannot connect, change the access point and all the stations within the BSS to another radio channel.
- Make sure the BSSID is the same as the access point for a station with roaming disabled, or the SSID is the same as the access point for a station with roaming enabled.
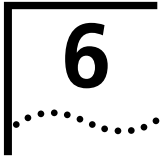
6 TECHNICAL SPECIFICATIONS

Specifications

General Specifications

Functional Criteria

Data Rate:	1, 2, 5.5, 11 Mbps
Transmission Mode	Half duplex
Network Connection	IEEE 802.11b - wireless

Operating Range Up to 30m (100 ft) at 11Mbps
Up to 100m (300 ft) at 5.5 Mbps or lower

Interrupt	INTA

Radio Signal

Signal Type	Direct Sequence Spread-Spectrum (DSSS)
Operating Frequency	USA & Canada: 2.400-2.4835 GHz
Europe: 2.400-2.4835 GHz
Japan: 2.400-2.497 GHz
Sensitivity	1, 2, 5.5 Mbps: -80 dBm
11 Mbps: -76 dBm (typical)
Modulation	CCK, BPSK, QPSK

Physical Characteristics

Power Consumption	5V, 480 mA transmit
360 mA receive
Dimensions	178 x 120 x 20 mm (7 x 4.7 x 0.8 in)
Antenna	Built-in
LED Indicator	AdHoc, Infrastructure, AP link
Host Interface	PCI Specification 2.1

Standards Conformance IEEE 802.11b

Environmental

Temperature	Operating: 0 to 50˚ C (32 to 122˚ F)
Storage: 0 to 70˚ C, (32 to 158˚ F)
Humidity	5 to 80% (non-condensing)
Vibration/Shock/Drop	IEC 68-2-34, IEC 68-2-27, IEC 68-2-32

Certification

CE Mark	EN55022 Class B, EN 55024, IEC 61000-4-2/3/4/6/11
Emissions	FCC Part 15(B), ETS 300-328, RCR STD-33 A

Software Drivers

NDIS Drivers	Windows 95
	Windows 98
	Windows 2000
	Windows NT 4.0
	Windows Millennium Edition

A 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

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>**

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

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		P.R. of China	10800 61 00137 or 021 6350 1590
Australia	1 800 678 515		
Hong Kong	800 933 486	Singapore	800 6161 463
India	+61 2 9937 5085	S. Korea	
Indonesia	001 800 61 009	From	
Japan	03 5783 1270	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 phone +31 (0)30 6029999 fax

From the following European countries, you may use the toll-free numbers:

Country	Telephone Number	Country	Telephone Number
Australia	1800 678 515	New Zealand	0800 446 398
Austria	0800 297468	Norway	800 11376
Belgium	0800 71429	P.R. of China	10 800 61 00137
Denmark	800 17309	Phillipines	1235 61 266 2602
Finland	0800 113153	Poland	0800 3111206
France	0800 917959	Portugal	0800 831416
Germany	0800 1821502	Singapore	800 616 1463
Hong Kong	800 933 486	South Africa	0800 995014
Hungary	06800 12813	South Korea	00798 611 2230
Indonesia	001 80061 009	Spain	900 983125
Ireland	1 800 553117	Sweden	020 795482
Israel	1 800 9453794	Switzerland	0800 55 3072
Italy	800 879489	Taiwan, R.O.C.	0080 611 261
Malaysia	1800 801777	Thailand	001 800 611 2000
Netherlands	0800 0227788	U.K.	0800 966197

Latin America

Country	Telephone Number	Country	Telephone Number
Argentina	AT&T +800 666 5065	Mexico	AT&T +800 778 5573
Brazil	0800 13 3266	Peru	AT&T +800 666 5065
Chile	0800 13 3266	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

From the following European countries, you may call the toll-free numbers; select option 2 and then option 2:

Australia	1800 678 515
Austria	0800 297468
Belgium	0800 71429
Denmark	800 17309
Finland	0800 113153
France	0800 917959
Germany	0130 821502
Hong Kong	800 933 486
Hungary	06800 12813
Indonesia	001 80061 009
Ireland	1 800 553117
Israel	1 800 9453794
Italy	800 879489
Malaysia	1800 801777
Netherlands	0800 0227788
New Zealand	0800 446 398
Norway	800 11376
P.R. of China	10 800 61 00137
Phillipines	1235 61 266 2602
Poland	0800 3111206
Portugal	0800 831416
South Africa	0800 995014
South Korea	00798 611 2230
Spain	900 983125
Sweden	020 795482
Switzerland	0800 55 3072
Taiwan, R.O.C.	0080 611 261
Thailand	001 800 611 2000
U.K.	0800 966197

Country	Telephone Number	Fax Number
Latin America	1 408 326 2927	1 408 326 3355
U.S.A. and Canada	1 800 527 8677	1 408 326 7120

INDEX

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 11 Mbps 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:

Three (3) 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.

SOFTWARE

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.

The site survey software is licensed "AS IS".

THIS 3COM PRODUCT MAY INCLUDE OR BE BUNDLED WITH (1) THIRD PARTY SOFTWARE, OR (2) 3COM SOFTWARE WHICH IS USED WITH THE LINUX OPERATING SYSTEM, THE USE OF WHICH IS GOVERNED BY A SEPARATE END USER LICENSE AGREEMENT. THIS 3COM WARRANTY DOES NOT APPLY TO SUCH THIRD PARTY SOFTWARE OR 3COM LINUX SOFTWARE. FOR THE APPLICABLE WARRANTY, PLEASE REFER TO THE END USER LICENSE AGREEMENT GOVERNING THE USE OF SUCH SOFTWARE OR THE ACCOMPANYING DOCUMENTATION RELATING TO SUCH SOFTWARE

Year 2000 Warranty

In addition to the Hardware Warranty and Software Warranty stated above, 3Com warrants that each product sold or licensed to Customer on and after January 1, 1998 that is date sensitive will continue performing properly with regard to such date data on and after January 1, 2000, provided that all other products used by Customer in connection or combination with the 3Com product, including hardware, software, and firmware, accurately exchange date data with the 3Com product, with the exception of those products identified at 3Com's Web site, http://www.3com.com/products/yr2000.html, as not meeting this standard. If it appears that any product that is stated to meet this standard does not perform properly with regard to such date data on and after January 1, 2000, and Customer notifies 3Com before the later of April 1, 2000, or ninety (90) days after purchase of the product from 3Com or its authorized reseller, 3Com shall, at its option and expense, provide a software update which would effect the proper performance of such product, repair such product, deliver to Customer an equivalent product to replace such product, or if none of the foregoing is feasible, refund to Customer the purchase price paid for such product.

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.

Obtaining Warranty Service

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.

3Com shall not be responsible for any software, firmware, information, or memory data of Customer contained in, stored on, or integrated with any products returned to 3Com for repair, whether under warranty or not.

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 product, 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.

Warranties Exclusive

IF A 3COM PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY FOR BREACH OF THAT WARRANTY SHALL BE REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT 3COM'S OPTION. TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. 3COM NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS.

3COM SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT OR MALFUNCTION IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO OPEN, REPAIR OR MODIFY THE PRODUCT, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, POWER CUTS OR OUTAGES, OTHER HAZARDS, OR ACTS OF GOD.

LIMITATION OF LIABILITY

TO THE FULL EXTENT ALLOWED BY LAW, 3COM ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF 3COM OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT 3COM'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

DISCLAIMER

Some countries, states, or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers, or the limitation of liability for personal injury, so the above limitations and exclusions may be limited in their application to you. When the implied warranties are not allowed to be excluded in their entirety, they will be limited to the duration of the applicable written warranty. This warranty gives you specific legal rights which may vary depending on local law.

GOVERNING LAW

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
U.S.A.
(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 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 instruction manual, 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 to which the receiver is connected.

■ Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

CSA Statement (Canada)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radio-électriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dens le Règlement sur le brouillage radioélectrique édicté par l'Industrie.

Japan VCCI Class B Compliance

This is a Class B equipment based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

BSMI Class A Compliance (Taiwan)

警告使用者：
這是甲類的資訊產品,在居住的
環境中使用時,可能會造成射頻
干擾,在這種情況下,使用者會
被要求採取某些適當的對策。

CE Mark Declaration of Compliance

This is to certify that this product complies with ISO/IEC Guide 22 and EN45014. This product complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC, and carries the CE Mark accordingly.

This product conforms to the following specifications:

EMC:	EN55022(1988)/CISPR-22(1985)	class B
	IEC 61000-4-2(2000)	4kV CD, 8kV AD
	IEC 61000-4-3(2000)	3V/m
	IEC 61000-4-4(2000)	1kV - (power line)
	IEC 61000-4-6(2000)	3Vrms
	IEC 61000-4-11(2000)	3Vrms

3Com End User Software License Agreement

IMPORTANT: Read Before Using This Product

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.

LICENSE: 3Com grants you a nonexclusive license to use the accompanying software program(s) (the "Software") subject to the terms and restrictions set forth in this License Agreement. You are not permitted to lease, rent, distribute or sublicense the Software or to use the Software in a time-sharing arrangement or in any other unauthorized manner. Further, no license is granted to you in the human readable code of the Software (source code). Except as provided below, this License Agreement does not grant you any rights to patents, copyrights, trade secrets, trademarks, or any other rights in respect to the Software.

The Software is licensed to be used on any workstation or any network server owned by or leased to you, provided that the Software is used only in connection with a 3Com adapter. You may reproduce and provide one (1) copy of the Software and supporting documentation for each such workstation or network server on which the Software is used as permitted hereunder. Otherwise, the Software and supporting documentation may be copied only as essential for backup or archive purposes in support of your use of the Software as permitted hereunder. You must reproduce and include all copyright notices and any other proprietary rights notices appearing on the Software and the supporting documentation on any copies that you make.

NO ASSIGNMENT; NO REVERSE ENGINEERING: You may not transfer or assign the Software and/or this License Agreement to another party without the prior written consent of 3Com. If such consent is given and you transfer or assign the Software and/or this License Agreement, then you must at the same time either transfer any copies of the Software as well as the supporting documentation to the same party or destroy any such materials not transferred. Except as set forth above, you may not transfer or assign the Software or your rights under this License Agreement.

Modification, reverse engineering, reverse compiling, or disassembly of the Software is expressly prohibited. However, if you are a European Community ("EC") resident, information necessary to achieve interoperability of the Software with other programs within the meaning of the EC Directive on the Legal Protection of Computer Programs is available to you from 3Com upon written request.

EXPORT RESTRICTIONS: You agree that you will not export or re-export the Software or accompanying documentation (or any copies thereof) or any products utilizing the Software or such documentation in violation of any applicable laws or regulations of the United States and the country in which you obtained them.

The 3Com product and/or software covered by this agreement may contain encryption code which is unlawful to export from the US or Canada without an approved US Department of Commerce export license. You agree that you will not export, reexport, either physically or electronically, any encrypted product without an approved export license.

TRADE SECRETS; TITLE: You acknowledge and agree that the structure, sequence and organization of the Software are the valuable trade secrets of 3Com and its suppliers. You agree to hold such trade secrets in confidence. You further acknowledge and agree that ownership of, and title to, the Software and all subsequent copies thereof regardless of the form or media are held by 3Com and its suppliers.

UNITED STATES GOVERNMENT LEGEND: All technical data and computer software are commercial in nature and developed solely at private expense. The Software is delivered as "Commercial Computer Software" as defined in DFARS 252.227-7014 (June 1995) or as a "commercial item" as defined in FAR 2.101(a) and as such is provided with only such rights as are provided in this License Agreement, which is 3Com's standard commercial license for the Software. Technical data is provided with limited rights only as provided in DFAR 252.227-7015 (Nov. 1995) or FAR 52.227-14 (June 1987), whichever is applicable. You agree not to remove or deface any portion of any legend provided on any licensed program or documentation delivered to you under this License Agreement.

TERM AND TERMINATION: This license will expire fifty (50) years from the date that you first use the Software, if it is not earlier terminated. You may terminate it at any time by destroying the Software and documentation together with all copies and merged portions in any form. It will also terminate immediately if you fail to comply with any term or condition of this License Agreement. Upon such termination you agree to destroy the Software and documentation, together with all copies and merged portions in any form.

GOVERNING LAW: This License Agreement shall be governed by the laws of the State of California as such laws are applied to agreements entered into and to be performed entirely within California between California residents and by the laws of the United States. You agree that the United Nations Convention on Contracts for the International Sale of Goods (1980) is hereby excluded in its entirety from application to this License Agreement.

LIMITED WARRANTY; LIMITATION OF LIABILITY: All warranties and limitations of liability applicable to the Software are as stated on the Limited Warranty Card or in the product manual, whether in paper or electronic form, accompanying the Software. Such warranties and limitations of liability are incorporated herein in their entirety by this reference.

SEVERABILITY: In the event any provision of this License Agreement is found to be invalid, illegal or unenforceable, the validity, legality and enforceability of any of the remaining provisions shall not in any way be affected or impaired and a valid, legal and enforceable provision of similar intent and economic impact shall be substituted therefor.

ENTIRE AGREEMENT: This License Agreement sets forth the entire understanding and agreement between you and 3Com, supersedes all prior agreements, whether written or oral, with respect to the Software, and may be amended only in a writing signed by both parties.

3Com is a registered trademark of 3Com Corporation.

3Com Corporation, 5400 Bayfront Plaza, P.O. Box 58145, Santa Clara, CA 95052-8145. (408) 326-5000

Free Manuals Download Website

http://myh66.com

http://usermanuals.us

http://www.somanuals.com

http://www.4manuals.cc

http://www.manual-lib.com

http://www.404manual.com

http://www.luxmanual.com

http://aubethermostatmanual.com

Golf course search by state

http://golfingnear.com

Email search by domain

http://emailbydomain.com

Auto manuals search

http://auto.somanuals.com

TV manuals search

http://tv.somanuals.com