User's Guide

WebST★R

Model DPX130 Cable Modem

Scientific Atlanta

Bringing the Interactive Experience Home™

IMPORTANT RULES FOR SAFE OPERATION

This symbol is intended to alert you of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

This symbol is intended to alert you that uninsulated voltage within this product may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this product.

CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

AVIS

**RISQUE DE CHOC ÉLECTRIQUE
NE PAS OUVRIR**

CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

WARNING
TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

Read and Retain These Instructions

- Read all of the instructions before you operate this equipment. Give particular attention to all safety precautions. Retain the instructions for future reference.

- Comply with all warning and caution statements in the instructions. Observe all warning and caution symbols that are affixed to this equipment.

- Comply with all instructions that accompany this equipment.

Cleaning the Equipment

Before cleaning this equipment, unplug it from the electrical outlet. Use a damp cloth to clean this equipment. Do not use a liquid cleaner or an aerosol cleaner. Do not use a magnetic/static cleaning device (dust remover) to clean this equipment.

Placement

Place this equipment in a location that is close enough to an electrical outlet to accommodate the length of the power cord. Place this equipment on a stable surface. The surface must support the size and weight of this equipment. Place this equipment either horizontally or vertically.

> ⚠ **WARNING:**
> **Avoid personal injury and damage to this equipment. An unstable surface may cause this equipment to fall.**

Accessories

Do not use accessories with this equipment unless recommended by your cable service provider.

Ventilation

This equipment has openings for ventilation that protect it from overheating. To ensure the reliability of this equipment, do not obstruct the openings.

- Do not place other equipment, lamps, books, or any other object on the top of or beside this equipment.

- Do not place this equipment in any of the locations that follow:
  - On a bed, sofa, rug, or similar surface
  - Over a radiator or a heat register
  - In an enclosure, such as a bookcase or equipment rack, unless the installation provides proper ventilation

> ⚠ **WARNING:**
> **Avoid electric shock and fire hazard. Never push objects through the openings in this equipment. Objects can touch dangerous voltage points or cause electrical shorts that can result in electric shock or fire.**

Liquid or Moisture

Do not expose this equipment to liquid or moisture. Do not place this equipment on a wet surface. Do not spill liquids on or near this equipment.

Lightning and Power Surges

Plug your equipment into a surge protector in order to reduce the risk of damage from lightning strikes and power surges. If you are unsure of the type of surge protector to use, contact your local cable service provider.

Servicing

Do not open the cover of this equipment. If you open the cover, your warranty will be void. Refer all servicing to qualified personnel only. Contact your cable company for instructions.

Power Cord Protection

Arrange all power cords so that people cannot walk on the cords, place objects on the cords, or place objects against the cords, which can damage the cords. Pay particular attention to cords that are at plugs, at electrical outlets, and at the places where the cords exit the equipment.

Power Sources

A label on the AC power adapter which is supplied with this equipment, indicates the correct power source for this equipment. Operate this equipment only from an electrical outlet that has the voltage and frequency that the label indicates.

If you are unsure of the type of power supply to your residence, consult Scientific-Atlanta, Inc., or your local power company.

⚠ **WARNING:**
Avoid electric shock and fire hazard. Do not overload electrical outlets and extension cords. For equipment that requires battery power or other sources to operate, refer to the operating instructions for that equipment.

Grounding

This equipment may be supplied with a non-polarized two-prong plug, or a three-prong plug. It is important to fully insert the plug into the electrical wall outlet.

If you are unable to insert this plug fully into the outlet, contact an electrician to replace your obsolete outlet.

Damage that Requires Service

For damage that requires service, unplug this equipment from the electrical outlet. Contact your cable service provider when any of the following situations occur:

• There is damage to the power cord or plug

• Liquid enters the equipment

• A heavy object falls on the equipment

• There is exposure to rain or water

• Operation is not normal (the instructions describe the proper operation)

• If you drop this equipment, or damage the cabinet of this equipment

• If this equipment exhibits a distinct change in performance

Upon completion of any service or repairs to this equipment (cable modem), ask the service technician to perform safety checks to determine that the equipment is in proper operating condition.

Checklist

Equipment Checklist

Before you install your cable modem, verify that the carton contains:

• One WebSTAR™ Model DPX 130 Cable Modem

• One twisted pair Ethernet cable (CAT5/RJ-45)

• One USB cable

• One Power Adapter

• One Power cord (may be packed separately)

• One Vertical Modem Stand (attached to the modem)

• One diskette containing the USB drivers

Note: You will need an optional cable signal splitter and additional standard RF coaxial cable if you want to connect a VCR, a Digital Home Communications Terminal (DHCT) or a set-top converter, or a TV to the same cable connection as your cable modem.

Overview

Contents

WebSTAR Cable Modem Features

Welcome to the world of high-speed Internet access. Your new WebSTAR Model DPX 130 Cable Modem offers the following outstanding features:

- Euro-DOCSIS certification ensures full interoperability with any Euro-DOCSIS compatible headend equipment

- Two-way, high-speed data rates much faster than 56K analog modems, ISDN, or DSL

- Plug and Play operation for easy setup and installation

- 10/100BaseT Ethernet or USB connection

- Clear LED display

- Vertical or horizontal placement

- Cable modem software can be upgraded automatically by your cable service provider

- Supports up to 16 devices (may require additional equipment or service provider fees)

Getting Started

## Contacting Your Local Cable Service Provider

You need to set up an Internet access account with your local cable service provider in order to use your cable modem. When you contact your cable service provider, verify the following conditions:

- The cable service to your home supports two-way, Euro-DOCSIS-compatible cable modem access. If your cable company does not provide two-way Euro-DOCSIS-compatible service, this modem will not be able to communicate with your cable service provider's Internet access service.

- You have an active RF coaxial cable line near your personal computer (PC), and is it capable of two-way cable modem service. If your current cable input is not conveniently located near your PC, your cable service provider can install one.

- You have an Internet access account. Your cable service provider will set up your Internet access account, and will become your Internet Service Provider (ISP) to enable you to send and receive e-mail, access the World Wide Web, and receive other Internet services.

You must also give your cable service provider the following information:

- The serial number of the modem

- The Media Access Control (MAC) address of the modem

These numbers appear on a white bar code label located on the side of the cable modem. The serial number consists of a series of alpha-numeric characters located directly under the **SER. NO.** bar code. The MAC address consists of a series of alpha-numeric characters located directly under the **MAC** bar code. The following example illustrates a sample bar code label.
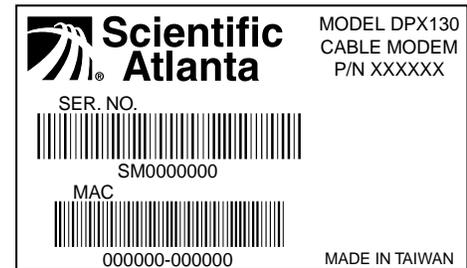
System Requirements

Introduction

This section provides hardware and software requirements.

Minimum System Requirements for PCs
- PC with a Pentium MMX 133 processor or greater
- 32 MB of RAM
- Netscape or Internet Explorer
- 3.5-in. disk drive or CD-ROM drive

Minimum System Requirements for Macintosh
- MAC OS 7.5 or higher
- 32 MB of RAM

System Requirements for an Ethernet Connection
- A PC with Windows 95 operating system (or later) with TCP/IP protocol installed, or an Apple Macintosh computer with TCP/IP protocol installed
- An active 10/100 BaseT Ethernet network interface card (NIC) installed in your PC.

### System Requirements for a USB Connection
- A PC with Windows 98/98SE/ME/ or 2000 operating system
- A master USB port installed in your PC

Before You Begin

Select the location for your workspace giving careful consideration to the following:

- Position your PC and cable modem so that they are located near your cable input. There should be plenty of room to guide the cables away from the modem without straining or crimping them.

- Air flow around the cable modem should not be restricted.

- Familiarize yourself with all of the materials supplied with the cable modem. Read this user's guide thoroughly before installing the cable modem.

WebSTAR Cable Modem Front Panel
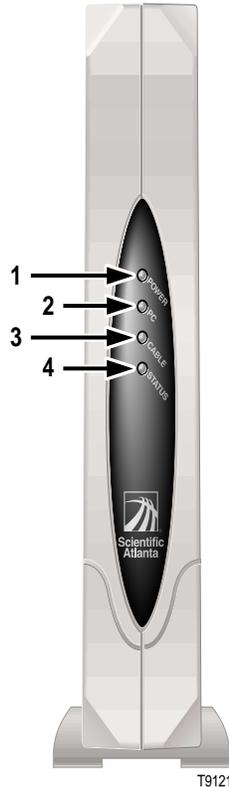
Front Panel Indicators

|		
1	Power	Illuminates solid green to indicate that power is being applied to the cable modem
2	PC	Illuminates solid green to indicate that an Ethernet/USB carrier is present
		Blinks to indicate that Ethernet/USB data is being transferred
3	Cable	Blinks during software upgrade and to indicate cable activity
4	Status	Illuminates solid green when the modem is registered on the network

Blinks to indicate one of the following conditions:

- The cable modem is booting up and not ready for data.
- The cable modem is scanning the network and attempting to register.
- The cable modem has lost registration on the network, and will continue blinking until it registers again.

T9121

WebSTAR Cable Modem Back Panel
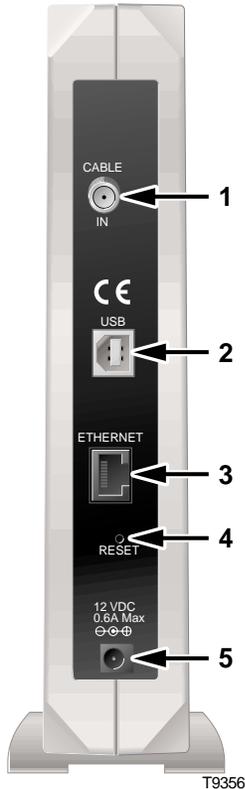
Back Panel Components

1 Cable In F-Connector connects to an active RF coaxial cable signal from your cable service provider

2 USB 12 Mbps USB port connects to the USB port on your PC

3 Ethernet RJ-45 Ethernet port connects to the 10/100BaseT Ethernet port on your PC

4 Reset Reset-to-Default button

> ⚠ **CAUTION:**
> **This button is for maintenance purposes only.**
> **Do not use!**

5 12 V DC Power Connector Connects the cable modem to the DC output of the AC power adapter that is provided with your cable modem

Note: Only use the power cord and the AC power adapter that is provided with your cable modem.

T9356

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Connection Diagram

Installation

Follow these steps for proper installation.

1. Power down your PC and unplug it from the power source.

2. Connect the active RF coaxial cable to the **CABLE IN** connector. Use an optional cable signal splitter to add a TV, a DHCT or set-top converter, or a VCR.

3. Connect your PC to **either** the **Ethernet** port or the **USB** port using **one** of the appropriate supplied cables.

4. Insert the AC power adapter cord into the DC power connector on the back of the cable modem, insert the supplied cord into the AC power adapter, and then plug the cord into an AC power source.

5. Plug in and power on your PC.

6. Choose one of the following options:

   • To configure the TCP/IP protocol for Ethernet—see **TCP/IP Configuration** on pages 12 through 14.

   • To install the USB Drivers for USB—see **USB Driver Installation** on pages 15 and 16.

The following diagram illustrates one of the various connection options that are available to you.

T9355
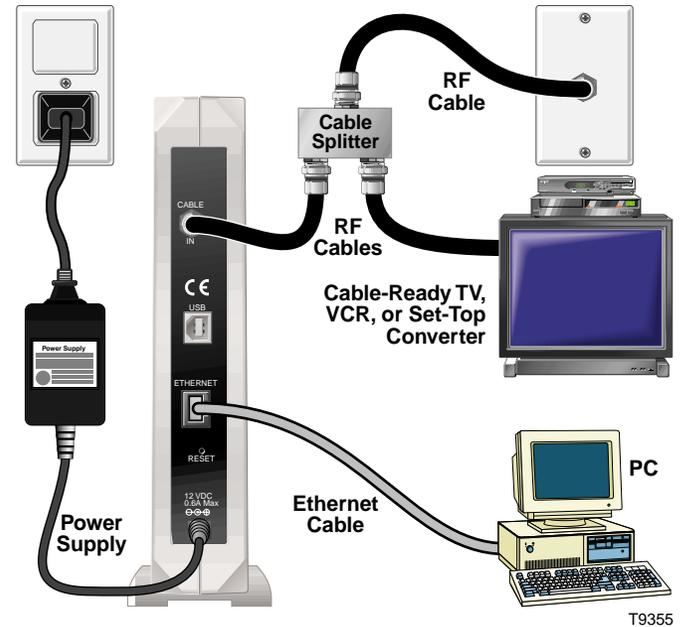
Note: Professional installation may be available. Contact your local cable service provider for further assistance.

TCP/IP Configuration

Introduction

This section contains instructions for configuring the TCP/IP protocol for both Windows and Macintosh operating systems.

Configuring the TCP/IP Protocol for Windows 95/98/ME

Note: You need to have either an Ethernet Network Interface Card (NIC) with the TCP/IP communications protocol installed on your system, or a USB network interface, before you install your cable modem.

Follow these steps to install and configure the TCP/IP protocol for Windows 95/98.

1. Click **Start**, select **Settings**, and choose **Control Panel**. The Control Panel window appears.

2. In the Control Panel window, double-click the **Network** icon. A list of installed network components appears.

3. Under the **Configuration** tab, read the list of installed network components to verify your PC contains the TCP/IP protocol.

4. Does your PC have the TCP/IP protocol?

   • If **yes**, go to step **8**.
   • If **no**, click **Add**.

5. Click **Protocol**, and then click **Add**.

6. In the Manufacturers list, click **Microsoft**.

7. In the Network Protocols list, scroll to and click **TCP/IP**, and then click **OK**.

8. Scroll to and click the **TCP/IP Ethernet Adapter** protocol, and then click **Properties**.

9. Click the **IP Address** tab, and then select **Obtain an IP address automatically**.

10. Click the **Gateway** tab and verify that these fields are empty. If they are not empty, highlight and delete all information from the fields.

11. Click the **DNS Configuration** tab; then, select **Disable DNS.**

12. Click **OK.** The Copying Files... window appears.

13. When the system finishes copying the files, click **OK.**

14. Close all networking windows.

15. When the System Settings Change dialog box appears, click **YES** to restart your computer.

Configuring the TCP/IP Protocol for Windows 2000

Follow these steps to install and configure the TCP/IP protocol for Windows 2000.

1. Click **Start**, select **Settings**, and choose **Network and Dial-up Connections**. The Network and Dial-up Connections window appears.

2. In the Network and Dial-up Connections window, double-click **Local Area Connection** icon. The Local Area Connection Status window appears.

3. In the Local Area Connection Status window, click **Properties**. The Local Area Connection Properties window appears.

4. In the Local Area Connection Properties window, select **Internet Protocol (TCP/IP)**, then click **Properties**. The Internet Protocol (TCP/IP) Properties window appears.

5. In the Internet Protocol (TCP/IP) Properties window, select *both* **Obtain an IP address automatically**, and **Obtain DNS server address automatically**, and then click **OK**. The Local Network window appears.

6. In the Local Network window, click **OK** to restart your computer.

Configuring the TCP/IP Protocol on a Macintosh

Note: Many Macintosh computers have Ethernet devices installed at the factory.

Follow these steps to verify that the TCP/IP communications protocol and an Ethernet device is installed on your system.

1. Click the **Apple** icon in the upper left corner of the Finder. Scroll down to **Control Panels**, and then click **TCP/IP**.

2. Click **Edit** on the Finder (gray bar) at the top of the screen. Scroll down to the bottom of the menu, and then click **User Mode**.

3. Click **Advanced** in the User Mode window, and then click **OK**.

4. Click the **Up/Down** selector arrows located to the right of the Connect Via section of the TCP/IP window, and then click **Using DHCP Server**.

5. Click **Options** in the TCP/IP window, and then click **Active** in the TCP/IP Options window.

   Note: In some cases, the **Load only when needed** option will not appear. If it appears, select the option. A check mark appears in the option.

6. Verify that the **Use 802.3** option located in the upper right-hand corner of the TCP/IP window is unchecked. If there is a check mark in the option, deselect the option, and then click **Info** in the lower left-hand corner.

7. Is there a Hardware Address listed in this window?
   - If **yes**, click **OK.** To close the **TCP/IP Control Panel** window, click **File**, and then scroll down to click **Close**.
   - If **no**, you must power down your Macintosh

8. With the power off, simultaneously press and hold down the **Command (Apple), Option, P,** and **R** keys on your keyboard. Keeping those keys pressed down, power on your Macintosh. The computer will start, and you will hear the Apple chime; do *not* release these keys.

9. Continue pressing these keys for up to three chimes, then release the keys and allow the computer to restart.

10. When your computer fully reboots, repeat steps 1 through 7 to verify that all TCP/IP settings match those in the preceding instructions. If your computer *still* does not have a Hardware Address, contact your local authorized Apple dealer or Apple technical support center.

USB Driver Installation

Installing the USB Drivers for Windows 98/ME

If your PC has a USB interface, follow these steps to install the provided USB drivers. If your PC does not have a USB interface, you may skip this procedure.

1. Insert the **USB Cable Modem Driver Installation** disk into the floppy disk **A** drive of your PC.

2. Wait until the **Power** and **Status** indicators on the cable modem illuminate solid green, then plug the USB cable into the USB port on your PC. The Add New Hardware Wizard window appears.

3. Click **Next**.

4. In the Add New Hardware Wizard window, select **Search for the best driver for your device (Recommended)**, then click **Next**.

5. In the Add New Hardware Wizard window, select **Floppy disk drives**, then click **Next**.

6. In the Add New Hardware Wizard window, select **The updated driver (Recommended)**, then click **Next**.

7. In the Add New Hardware Wizard window, click **Next**. The Copying Files...window appears. After about 10 to 20 seconds has passed, the Add New Hardware Wizard window reappears.

8. Click **Finish**. The System Settings Change window appears. Installation is complete.

9. Click **Yes** to restart your computer.

Installing the USB Driver for Windows 2000

Follow these steps to install the USB driver on a Windows 2000 system.

1. Wait until the **Power** and **Status** indicators on the cable modem illuminate solid green, then plug the USB cable into the USB port on your PC. The Found New Hardware Wizard window appears.

2. Click **Next**.

3. In the Found New Hardware Wizard window, select **Search for a suitable driver for my device (recommended),** then click **Next.**

4. Insert the USB Driver installation disk into floppy disk drive A.

5. In the Found New Hardware Wizard window, select **Floppy disk drives**, then click **Next**. The Found New Hardware Wizard window updates.

6. In the Found New Hardware Wizard Window, click **Next** again. The Digital Signature Not Found window appears.

7. In the Digital Signature Not Found window, click **Yes** to continue the installation. The Found New Hardware Wizard reappears.

8. Click **Finish.**

USB Driver Uninstallation

Uninstalling the USB Drivers for Windows 98/ME

You may need to uninstall the USB Drivers. Follow this procedure to uninstall the USB drivers on a Windows 98/ME system.

1. Click **Start**, select **Settings,** and choose **Control Panel**. The Control Panel window appears.

2. In the Control Panel window, double-click the **System** icon. The System Properties window appears.

3. In the System Properties window, click the **Device Manager** tab, select **Network Adapters**, choose **DPX USB Cable Modem Adapter**, and then click **Remove**.

4. Click **OK** to finish the uninstall procedure, and to close the System Properties window.

Uninstalling the USB Drivers for Windows 2000

Follow this procedure to uninstall the USB drivers on a Windows 2000 system.

1. Click **Start**, select **Settings**, and choose **Control Panel**. The Control Panel window appears.

2. In the Control Panel window, double-click the **Add/Remove Hardware** icon. The Add/Remove Hardware Wizard window appears.

3. In the Add/Remove Hardware Wizard window, click **Next**.

4. In the Add/Remove Hardware Wizard window, click **Uninstall/Unplug a device**, and then click **Next**.

5. In the Add/Remove Hardware Wizard window, click **Uninstall a device**, and then click **Next**.

Uninstalling the USB Drivers for Windows 2000, continued

6. In the Add/Remove Hardware Wizard window, click **USB Cable Modem Adapter**, and then click **Next**.

7. In the Add/Remove Hardware Wizard window, click **Yes, I want to uninstall this device**, and then click **Next**.

8. In the Add/Remove Hardware Wizard window, click **Finish** to complete the uninstall procedure and to close the Add/Remove Hardware Wizard window.

Renewing the IP Address for Windows 95/98/ME

If your PC cannot access the Internet after the cable modem is online, it is possible that your PC did not renew its IP address. Follow these steps to renew the IP address on your PC.

1. Click **Start,** and then click **Run** to open the Run window.

2. Type **winipcfg** in the Open field, and click **OK** to execute the winipcfg command. The IP Configuration window appears.

3. Click the down arrow to the right of the top field, and select the Ethernet adapter that is installed on your PC. The IP Configuration window displays the Ethernet adapter information.

4. Click **Release**, and then click **Renew**. The IP Configuration window displays a new IP address.

5. Click **OK** to close the IP Configuration window.

Renewing the IP Address for Windows 2000

Follow these steps to renew the IP address on your PC if you are using Windows 2000.

1. Click **Start**, and then click **Run** to open the Run window.

2. Type **cmd** in the Open field, and click **OK** to execute the cmd command. A DOS window appears.

3. At the DOS prompt, type **ipconfig** and press **Enter**. A list of IP addresses appears.

4. Type **ipconfig /release** and press **Enter**.

5. Type **ipconfig /renew** and press **Enter**.

6. Type **exit** to close the DOS window and return to Windows.

Renewing the IP Address for Macintosh

Follow these steps to renew the IP address on your Macintosh computer.

1. Click the **Apple** icon in the upper left corner of the Finder. Scroll down to **Control Panels**, and then click **TCP/IP**. The TCP/IP window appears.

2. In the Configure field of the TCP/IP window, select **Using DHCP Server.**

3. Click the **Close** icon in the uper left corner of the TCP/IP window. The save changes to the current configuration? message box appears.

4. Click **Save** in the save changes message box.

5. Wait approximately 2 or 3 minutes, and repeat step 1 to verify the IP address. If there is no IP address, contact your local authorized Apple dealer or Apple technical support center.

Frequently Asked Questions

Q. What if I don't subscribe to cable TV?

A. If cable TV is available in your area, data service may be made available with or without subscribing to cable TV service. Contact your local cable service provider for complete information on cable services, including high-speed Internet access.

Q. How do I arrange for installation?

A. Professional installation from your cable service provider may be provided. A professional installation ensures proper cable connection to the modem and to your PC, and ensures proper configuration of all hardware and software settings.

Q. How does the WebSTAR Cable Modem connect to my computer?

A. The cable modem connects to the USB port or the 10/100BaseT Ethernet port on your PC. If your PC is not equipped with an Ethernet interface, an Ethernet card is available from your local PC or office supply retailer, or from your cable service provider.

Q. Once my cable modem is connected, how do I access the Internet?

A. Your local cable service provider becomes your Internet Service Provider (ISP), offering a wide range of services including e-mail, chat, news, and information services.

Q. Can I watch TV and surf the Internet at the same time?

A. Absolutely! If you subscribe to cable television service, you can watch TV and use your cable modem at the same time by connecting your TV and your cable modem to the cable network using an optional cable signal splitter.

Q. Can I run more than one device on the modem?

A. Yes! You can operate two PCs simulataneously using an Ethernet connection to one PC, and a USB connection to the other. Your WebSTAR cable modem will support up to 16 devices using an Ethernet hub, which you can purchase at your local PC or office supply retailer. Contact your cable service provider for further assistance.

Common Troubleshooting Issues

The modem does not register an Ethernet connection.

Even new PCs do not always have Ethernet capabilities. Be sure to verify that your computer has a 10/100BaseT Ethernet card and that the Ethernet driver software is properly installed. If you purchase and install an Ethernet card, follow the installation instructions very carefully.

Note: If you have a 100BaseT card installed on your PC, make certain that it also supports 10BaseT.

The modem does not register a cable connection.

- The modem works with a standard, 75-ohm, RF coaxial cable. If you are using a different cable, your cable modem will not function properly. Contact your cable service provider to determine whether you are using the correct cable.

- Verify that you have followed the procedure for **Renewing the IP address for Windows 95/98**, or the procedure for **Renewing the IP address for Windows 2000** on pages 18 and 19 earlier in this guide.

- Your NIC card or USB interface may be malfunctioning. Refer to the trouble-shooting information in the NIC or USB documentation.

Tips for Improved Performance

Check and Correct

If your cable modem does not perform as expected, the following tips may help. If you need further assistance, contact your cable service provider.

- Verify that the plug to your cable modem AC adapter is properly inserted into an electrical outlet.
- Verify that your cable modem AC adapter is not plugged into an electrical outlet that is controlled by a wall switch. If the electrical outlet is controlled by a wall switch, make sure the switch is in the ON position.
- Verify that the **Power** and **Status** indicators on the front panel of your cable modem are illuminated.
- Verify that all cables are properly connected, and that you are using the correct cables.
- Verify that your cable service is active and that it supports two-way service.
- For Ethernet port use, verify that your TCP/IP is properly installed and configured.

- For USB port use, verify that you have followed the procedure for **Installing the USB Drivers for Windows 98/ME** on page 15 of this guide, or the procedure for **Installing the USB Drivers for Windows 2000** on page 16 of this guide.
- Verify that you have called your cable service provider and given them the serial number and MAC address of your cable modem.
- If you are using a cable signal splitter so that you can connect the cable modem to other devices, remove the splitter and reconnect the cables so that the cable modem is connected directly to the cable input. If the cable modem functions properly when connected in this way, the cable signal splitter may be defective and may need to be replaced.

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