

Cable Modem

User's Guide



GLOBAL VILLAGE

for Macintosh®

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About This Manual

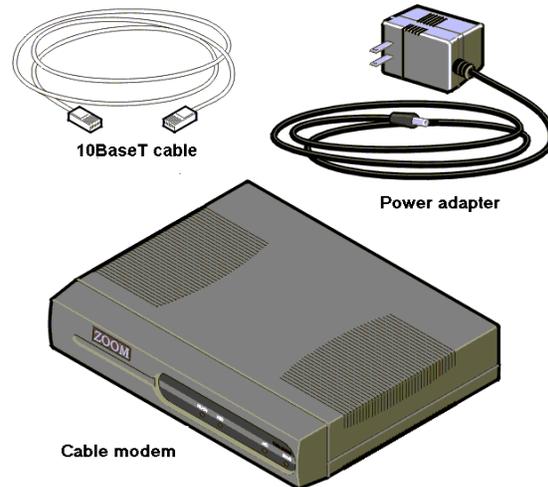
This User's Guide provides explanations and step-by-step instructions for installing and using your new Global Village cable modem bundle.

Package Contents

Before you begin, check that you have all the items necessary to complete installation and connect to the Internet. If you are missing any items, contact your supplier.

- Zoom® cable modem Model 5011
- 10BaseT (Ethernet) cable
- Power adapter
- CD-ROM with complimentary value-added software.

Some models may also include a mounting stand.



What You Will Also Need

In addition to the items packaged with your modem, you will need the following items to complete your installation.

- Macintosh with an available Ethernet port and running Mac OS 7.6.1 or above.

Note: If you have an older Mac, it may have an AAUI-15 Ethernet port rather than a 10BT Ethernet port. If so, you will need to purchase an AAUI-15-to-10BT adapter.

- Cable modem service provided by your cable company. The service must be DOCSIS (Data Over Cable Service Interface Specification) compatible.
- A power outlet.
- A cable TV outlet that has been configured by your cable company for high-speed broadband access.
- The proper length of 75-ohm coaxial cable to reach between your cable modem and the cable outlet

Note: Because there is great variety in the way cable is installed, we do not provide a coaxial cable to connect to your cable system. If your cable service company does not provide one, you should purchase a coaxial cable with an RG-59 or RG-61U rating (75-ohm) and industry-standard F connectors on both ends. For best performance, do not use “push-on” F connectors; use only “screw-on” F connectors.

1

Installing Your Cable Modem

This chapter explains how to connect your new cable modem to your Macintosh and illustrates a typical cable installation in your home or office.

Note: If your cable company provides you with an installation procedure, follow it instead of the procedure described in this chapter.

Installation consists of a few simple steps:

- 1** Requesting cable modem service from your cable company.
- 2** Configuring your Macintosh's network settings.
- 3** Connecting your modem.

Requesting Cable Modem Service

Before you install your cable modem, contact your cable company to arrange for cable modem service and to establish an account.

A cable company representative may take care of the entire installation for you, or you may get an installation CD from the company and complete the procedure yourself. If you are doing it yourself, you will need to provide the following information to the cable company *before* you make the connections. We recommend that you write the information down in the table below for future reference. All the information you need is printed on the modem's bottom label, except for your Macintosh's Ethernet Adapter MAC (E-MAC) Address. The E-MAC Address is printed on the Macintosh's case, either on the side or bottom. If your Macintosh is missing its E-MAC Address label, you can locate the number by following the steps in the next section.

Information Required for Cable Service Provider

Cable Modem Product Name & Model No.	
	<u>Zoom Model 5011</u>
S/N (on modem's bottom label)	_____
MIB ID (on modem's bottom label under large bar code)	_____
Cable Modem MAC Address (on modem's bottom label above small bar code)	_____
Ethernet ID (on Macintosh case label)	_____

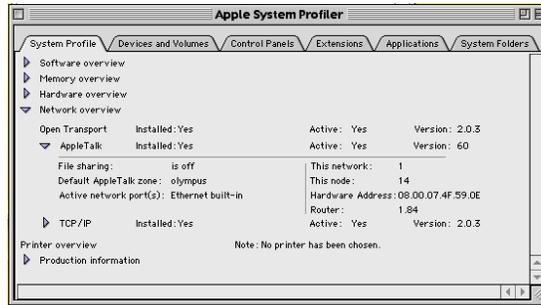
If you've entered all the above information, go to **Configuring Your Macintosh's Network Settings** on page 9. If the Ethernet ID label is missing on your Mac, continue below.

Locating Your Ethernet Adapter MAC Address

For Mac OS 7.6.1 - 9.1 and Above but not OS X:

- 1 From the **Apple** menu, choose **Apple System Profiler**.

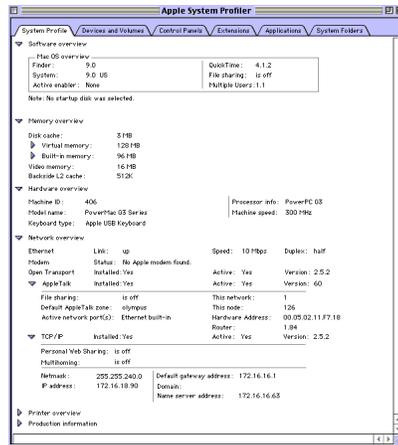
- 2 In the **Apple System Profiler** window, click the **Network Overview** arrow and then the **AppleTalk** arrow. Find the 12-character **Hardware Address** (E-MAC Address) and make a note of it in the table above.



- 3 Continue with **Configuring Your Macintosh Network Settings** below.

For Mac OS X:

- 1 From the **Dock**, choose **System Preferences** and then **Network**. The **Network** pane appears.
- 2 Under the **Configure** drop-down tab, choose **Built-in Ethernet** or **Ethernet**.
- 3 Make sure that the **TCP/IP** tab is foremost. Find the 12-character **Hardware Address** (E-MAC Address) and note it in the table above.



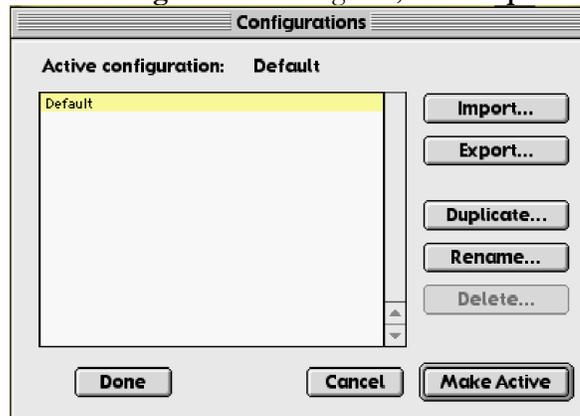
- 4** Click **Save** and close the **Network** pane.
- 5** Continue with **Configuring Your Macintosh Network Settings** below.

Configuring Your Macintosh's Network Settings

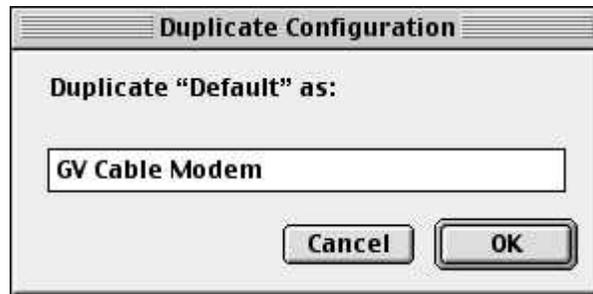
Depending on your Mac OS, the directions to configure your Macintosh's network settings will differ. For OS X, follow the instructions on page 11. Otherwise, continue directly below.

For Mac OS 7.6.1 - 9.1 and Above but not OS X

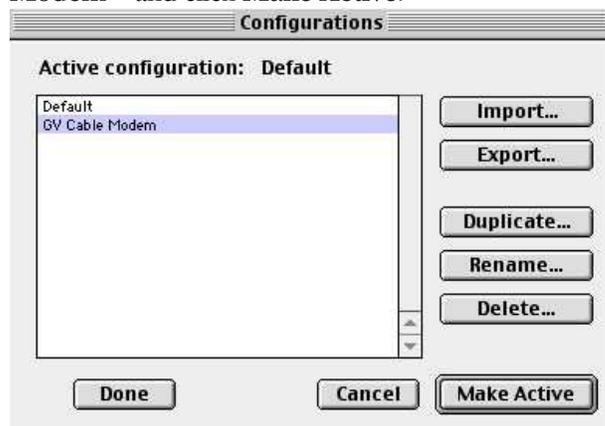
- 1** From the **Apple** menu, choose **Control Panels** and then **TCP/IP** to display the **TCP/IP** dialog box (you will use this dialog box in Step 6).
- 2** On the main toolbar, from the **File** menu, choose **Configurations**.
- 3** In the **Configurations** dialog box, click **Duplicate**.



- 4** The **Duplicate Configuration** dialog box appears. Type a name of your choosing, such as "**GV Cable Modem**," and click **OK**.

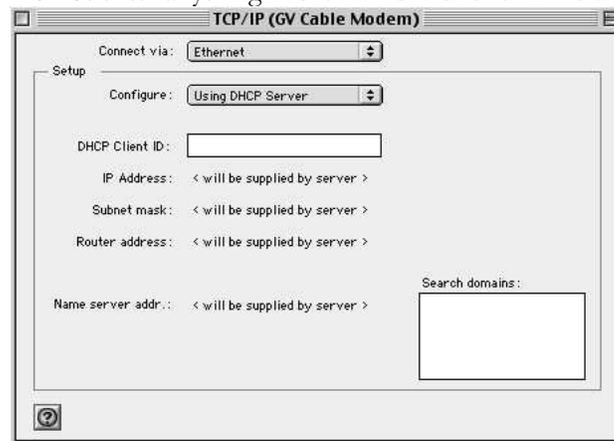


- 5** The **Configurations** dialog box appears again. Highlight your new configuration—in our example, **GV Cable Modem**—and click **Make Active**.



- 6 In the **TCP/IP** dialog box, in the **Connect via** pop-up menu, select **Ethernet**. In the **Configure** pop-up menu, select **Using DHCP Server**.

Do not enter anything in the **DHCP Client ID** field.



- 7 Close the **TCP/IP** dialog box. You will be asked if you want to save the changes. Click **Save**.

You have configured your Macintosh network settings successfully. Now continue with **Connecting Your Modem** on page 12.

For Mac OS X

- 1 From the **Dock**, choose **System Preferences** and then **Network**. The **Network** pane appears.

- From the **Location:** drop-down list box, select **New Location....** In the dialog box, type a name of your choosing, such as “**GV Cable Modem,**” and click **OK.**



- Under the **Configure** drop-down tab, choose **Built-in Ethernet** or **Ethernet.**
- Make sure that the **TCP/IP** tab is foremost and make sure that **Using DHCP** is highlighted in its **Configure:** drop-down list box. Do not enter anything into the **DHCP Client ID** field.

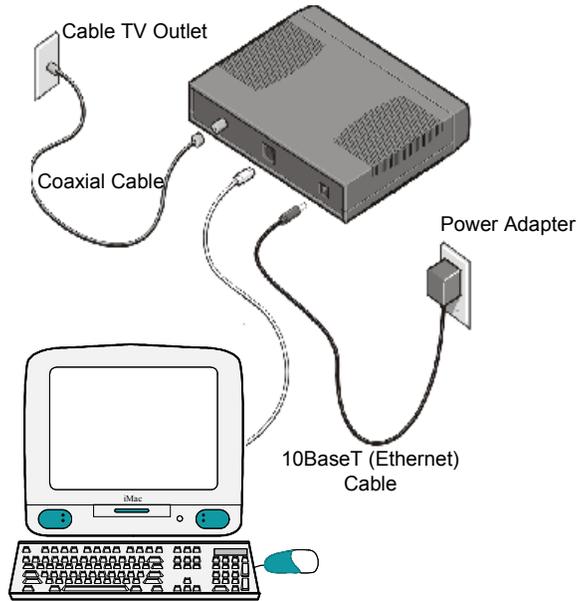


- Click **Save** and close the **Network** pane.

You have configured your Macintosh network settings successfully. Now continue below with **Connecting Your Modem.**

Connecting Your Modem

Typical connections are illustrated below.



Note: Make sure you have given the Cable Modem MAC Address and Ethernet Adapter MAC Address to your cable company before you connect the modem. See page 6 if you need help determining these addresses.

<p>CAUTION</p> 	<ul style="list-style-type: none"> • Locate the modem so that there is one inch of free space between its top and sides and any other device or the wall. This free space will ensure proper air circulation. Do not block the vents in any way. Failure to allow proper air circulation can result in serious damage to the cable modem. • Do not place any items on top of the modem while it is powered up. • Do not place the modem near a heating or air conditioning duct, in direct sunlight, or in a location susceptible to drastic temperature changes.
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Follow the steps below to connect your modem. All connections are made on the rear panel of the modem.



- 1** Turn your Macintosh on.
- 2** Connect one end of the 10BaseT/Ethernet cable to the **10BT** jack on the rear of the modem and the other end to the Ethernet <...> jack on your Mac.
- 3** Connect the coaxial cable to the cable TV jack on your wall. Connect the other end of the cable to the cable connector on the back of the modem.
- 4** Insert the small round end of the power cord into the power socket on the back of the modem. Plug the power adapter into the wall socket. The **READY** and **10BT** lights on the front panel come on.

The cable modem now receives power and starts the synchronization process as described below.

Automated Synchronization

The lights on the modem's front panel indicate the status of the synchronization process. After the modem completes a self-test, it synchronizes with the cable provider network. During this process, the **SYNC** light blinks, rapidly at first, then slowly. The **ACT** light flickers briefly as the modem receives information from the cable provider. When the process is complete, the **SYNC** light stays steady On. For details on the front panel lights and their modes, refer to **Appendix A**.

Note: When your modem receives power for the first time, synchronization can take 20 seconds to five minutes.

This completes the installation of the modem. Please turn to the next chapter, **Using Your Cable Modem**.

Tip: If you want to use your cable modem with more than one Mac, please contact your cable service provider or Global Village Sales at 800-631-3116.

2

Using Your Cable Modem

Once you've installed your cable modem, connecting to the Internet is as simple as clicking the icon that corresponds to the desired Internet application.

Note: At this time you may also want to install and use other software, such as the value-added software included with your Cable Modem CD or the software furnished by your cable service provider. Refer to the CD(s) for installation instructions.

Connecting to the Internet

When you have correctly installed the cable modem, it synchronizes itself with the cable network. The **READY**, **10BT**, and **SYNC** lights go on, indicating that the modem is fully operational. To connect to the Internet, start your browser or other Internet application.

Ending an Internet Session

After you have completed your Internet session, just close your browser. The cable modem remains connected with the cable system and stays ready to open another session.

Note: There is some risk associated with leaving your computer and cable modem left on and unattended for long periods of time. Security software, such as that included on your Global Village CD, helps to protect your Mac in such circumstances.

Unplugging the Modem

If you unplug the cable modem or if power is lost for any reason, all communication between the modem and the cable system is terminated. When the power is restored, the modem must go through the synchronization process before you can connect to the Internet. This process takes place automatically when you turn the modem on.

Note: If your cable TV service is interrupted, your cable modem service may also be interrupted. Refer to the **Troubleshooting** section of this manual for advice.

Appendix A

Front Panel Information

The table below defines each of the lights on your cable modem's front panel.

Note: After you've correctly installed your Mac cable modem, the **READY** light, **10BT** light, and **SYNC** light go on to indicate that the unit is fully operational.

<i>Light</i>	<i>Mode</i>	<i>Status</i>
READY	On	Power is on.
10BT	On	The cable modem is connected to the computer (the computer must be turned on).
ACT	Blinking	Activity is present on the cable; i.e., the cable modem is sending data to the cable service provider or receiving data from it. Note: This light flickers during the synchronization process.
SYNC	Blinking Fast	The modem is searching for a data channel from the cable provider.
SYNC	Blinking Slow	The modem is synchronizing itself with the cable network and adjusting the signal for optimum performance.
SYNC	Steady On	The modem is completely synchronized to the cable network.

Appendix B

Troubleshooting Tips

This appendix provides tips for troubleshooting your cable modem in the event of minor problems. In addition, check your modem CD for FAQs, and our Website, www.globalvillage.com, for new tips.

Q: I cannot access my Internet service or send or receive e-mail. What should I do?

A: Check that the power is on and that the modem has completed the synchronization process.

Check all physical connections. The **READY**, **10BT**, and **SYNC** lights on the modem's front panel must all be a steady green before your cable modem will work.

Check to see that your cable TV service is working. If not, call your cable service provider.

Verify that the MAC and Ethernet Adapter addresses you gave to your service provider are correct, and that they are entered into their system. (See page 7.)

Make sure you have given the proper cable modem name and model number to your cable service provider. You will find this information on the modem's bottom case label.

Verify that your Ethernet card and port are working correctly.

Check that TCP/IP is configured correctly. Verify that the TCP/IP parameters supplied by your cable company are correct and up-to-date.

Verify that your cable modem service is working.

If all else fails, you should reinstall the cable modem. If that fails, please call Global Village Technical Support.

Q: Why does the power to my cable modem go on and off?

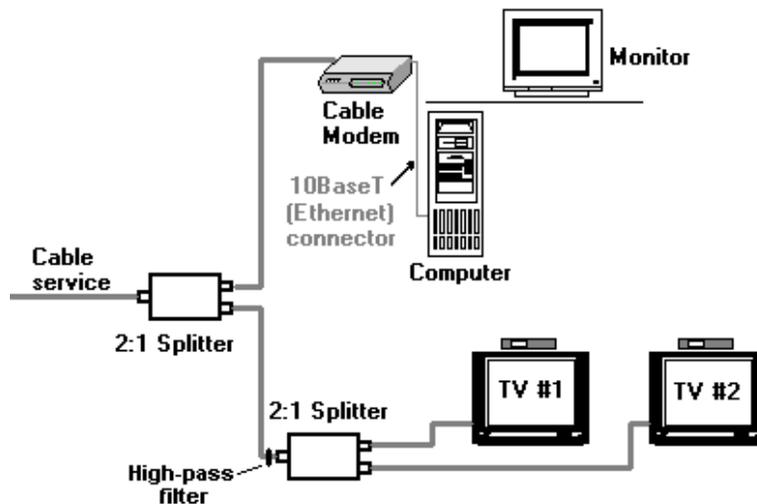
A: Check that you are using the power adapter that came with your cable modem.

*Q: The Cable Modem's **SYNC** light blinks for 5 minutes, goes off, comes on again, and repeats.*

A: Make sure the connection is secure.

Check with your cable service provider to make sure that high speed access is available and running.

In rare instances, the cable signal may be weak or noisy. Be sure the modem is attached to one of the ports on the first splitter after the cable enters your home or office. Refer to the diagram below or contact your cable provider.



Make sure there is no video amplifier on the same line with the cable modem. (A video amplifier prevents data from returning to the cable provider's central office.)

Tip: Sometimes, when your cable modem service is restored after a disruption, you may experience difficulty communicating. If this happens, disconnect and reconnect the power, and let the modem perform the automated synchronization process again.

Appendix C

Regulatory Information

FCC Part 15 Emissions Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and 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.

Industry Canada Emissions Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Electrostatic Discharge Statement

This unit may require resetting after a severe electrostatic discharge event.

Declaration of Conformity

The manufacturer declares under sole responsibility that this equipment is compliant to Directive 1999/5/EC(R&TTE Directive) via the following:

<u>Directives</u>	<u>Standards</u>
73/23/EEC	EN 60950
89/336/EEC	EN 55024
89/336/EEC	EN 55022

The product is CE marked.

