Barricade ADSL Router

Wireless Broadband Router with built-in ADSL Modem

- ◆ Compatible with all leading DSLAMs
- ◆ Firewall (hacker attack logging, DoS, and client filtering)
- ◆ Supports DMT line modulation
- ◆ Four auto-negotiating 10/100 Ethernet ports
- ◆ Built-in print server
- ◆ PPTP, L2TP, and IPSec pass through
- ◆ Multiple user Internet access with a single-user account
- ◆ Supports PPPoE and PPPoA
- ◆ Plug & Play installation
- ◆ Web-based management

SMC®
N e t w o r k s

User Guide

SMC7404WBRA

Wireless Broadband Router with built-in ADSL Modem

From SMC's line of award-winning connectivity solutions

SMC®
N e t w o r k s

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* SMC will provide warranty service for one year following discontinuance from the active SMC price list. Under the limited lifetime warranty, internal and external power supplies, fans, and cables are covered by a standard one-year warranty from date of purchase.

<div align="center">

SMC Networks, Inc.
38 Tesla
Irvine, CA 92618

</div>

COMPLIANCES

Mobile of end product
Federal Communication Commission Interference 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 energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:
FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada - Class B

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par l'Industrie.

Australia AS/NZS 3548 (1995) - Class B

ACN 069 351 613

SMC contact for products in Australia is:

SMC-Australia
L9, 123 Epping Rd.,
North Ryde, NSW Australia
Phone: 61-2-88757887
Fax: 61-2-88757777

EC Conformance Declaration - Class B

This information technology equipment complies with the requirements of the Council Directive 89/336/EEC on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility and 73/23/EEC for electrical equipment used within certain voltage limits and the Amendment Directive 93/68/EEC. For the evaluation of the compliance with these Directives, the following standards were applied:

RFI Emission: • Limit class B according to EN 55022:1998

- Limit class B for harmonic current emission according to EN 61000-3-2/ 1995

- Limitation of voltage fluctuation and flicker in low-voltage supply system according to EN 61000-3-3/1995

Immunity: • Product family standard according to EN 55024:1998

- Electrostatic Discharge according to EN 61000-4-2:1995 (Contact Discharge: ±4 kV, Air Discharge: ±8 kV)

- Radio-frequency electromagnetic field according to EN 61000-4-3:1996 (80 - 1000 MHz with 1 kHz AM 80% Modulation: 3 V/m)

- Electrical fast transient/burst according to EN 61000-4-4:1995 (AC/DC power supply: ±1 kV, Data/Signal lines: ±0.5 kV)

- Surge immunity test according to EN 61000-4-5:1995 (AC/DC Line to Line: ±1 kV, AC/DC Line to Earth: ±2 kV)

- Immunity to conducted disturbances, Induced by radio-frequency fields: EN 61000-4-6:1996 (0.15~80 MHz with 1 kHz AM 80% Modulation: 3 V/m)

- Power frequency magnetic field immunity test according to EN 61000-4-8:1993 (1 A/m at frequency 50 Hz)

- Voltage dips, short interruptions and voltage variations immunity test according to EN 61000-4-11:1994 (>95% Reduction @10 ms, 30% Reduction @500 ms, >95% Reduction @5000 ms)

LVD: • EN 60950 (A1/1992; A2/1993; A3/1993; A4/1995; A11/1997)

Safety Compliance

Wichtige Sicherheitshinweise (Germany)

1. Bitte lesen Sie diese Hinweise sorgfältig durch.

2. Heben Sie diese Anleitung für den späteren Gebrauch auf.

3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssigoder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.

4. Die Netzanschlu ßsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.

5. Das Gerät ist vor Feuchtigkeit zu schützen.

6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.

7. Die Belüftungsöffnungen dienen der Luftzirkulation, die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.

8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.

9. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.

10. Alle Hinweise und Warnungen, die sich am Gerät befinden, sind zu beachten.

11. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.

12. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.

13. Öffnen sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.

14. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:

    a. Netzkabel oder Netzstecker sind beschädigt.
    b. Flüssigkeit ist in das Gerät eingedrungen.
    c. Das Gerät war Feuchtigkeit ausgesetzt.
    d. Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
    e. Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
    f. Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.

15. Zum Netzanschluß dieses Gerätes ist eine geprüfte Leitung zu verwenden. Für einen Nennstrom bis 6 A und einem Gerätegewicht größer 3 kg ist eine Leitung nicht leichter als H05VV-F, 3G, 0.75 mm² einzusetzen.

Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 Teil 1000 beträgt 70 dB(A) oder weniger.

COMPLIANCES

TABLE OF CONTENTS

CHAPTER 1
INTRODUCTION

Congratulations on your purchase of the Barricade Wireless Broadband Router with built-in ADSL Modem (SMC7404WBRA). We are proud to provide you with a powerful yet simple communication device for connecting your local area network (LAN) to the Internet. For those who want to surf the Internet in the most secure way, this Router provides a convenient and powerful solution.

About the Barricade

The Barricade provides Internet access to multiple users by sharing a single-user account. Support is provided for both wired and wireless devices. New technology provides wireless security via WEP (Wired Equivalent Privacy) encryption and MAC address filtering. It is simple to configure and can be up and running in minutes.

Features

- Internet connection via an RJ-11 WAN port.

- Local network connection via four 10/100 Mbps Ethernet ports.

- On-board IEEE 802.11b 11 Mbps wireless network adapter.

- DHCP for dynamic IP configuration, and DNS for domain name mapping.

- Firewall with Stateful Packet Inspection, client privileges, intrusion detection, and NAT.

- NAT also enables multi-user Internet access via a single user account, and virtual server functionality (providing protected access to Internet services such as Web, FTP, e-mail, and Telnet).

- VPN pass-through (IPSec-ESP Tunnel mode, L2TP, PPTP).

- User-definable application sensing tunnel supports applications requiring multiple connections.

- Easy setup through a Web browser on any operating system that supports TCP/IP.

- Compatible with all popular Internet applications.

Applications

Many advanced networking features are provided by the Barricade:

- **Wireless and Wired LAN**

  The Barricade provides connectivity to wired 10/100 Mbps devices, and wireless IEEE 802.11b compatible devices, making it easy to create a network in small offices or homes.

- **Internet Access**

  This device supports Internet access through an ADSL connection. Since many ADSL providers use PPPoE or PPPoA to establish communications with end users, the Barricade includes built-in clients for these protocols, eliminating the need to install these services on your computer.

- **Shared IP Address**

  The Barricade provides Internet access for up to 253 users via a single shared IP address. Using only one ISP account, multiple users on your network can browse the Web at the same time.

- **Virtual Server**

  If you have a fixed IP address, you can set the Barricade to act as a virtual host for network address translation. Remote users access various services at your site using a constant IP address. Then, depending on the requested service (or port number), the Barricade can route the request to the appropriate server (at another internal IP address). This secures your network from direct attack by hackers, and provides more flexible management by allowing you to change internal IP addresses without affecting outside access to your network.

- **DMZ Host Support**

  Allows a networked computer to be fully exposed to the Internet. This function is used when NAT and firewall security prevent an Internet application from functioning correctly.

- **Security**

  The Barricade supports security features that deny Internet access to specified users, or filter all requests for specific services that administrator does not want to serve. The Barricade's firewall also blocks common hacker attacks, including IP Spoofing, Land Attack, Ping of Death, IP with zero length, Smurf Attack, UDP port loopback, Snork Attack, TCP null scan, and TCP SYN flooding. WEP (Wired Equivalent Privacy), SSID, and MAC filtering provide security over the wireless network.

• **Virtual Private Network (VPN)**

The Barricade supports three of the most commonly used VPN protocols – PPTP, L2TP, and IPSec. These protocols allow remote users to establish a secure connection to their corporate network. If your service provider supports VPNs, then these protocols can be used to create an authenticated and encrypted tunnel for passing secure data over the Internet (i.e., a traditionally shared data network).

The VPN protocols supported by the Barricade are briefly described below.

• Point-to-Point Tunneling Protocol – Provides a secure tunnel for remote client access to a PPTP security gateway. PPTP includes provisions for call origination and flow control required by ISPs.

• L2TP merges the best features of PPTP and L2F – Like PPTP, L2TP requires that the ISP's routers support the protocol.

• IP Security – Provides IP network-layer encryption. IPSec can support large encryption networks (such as the Internet) by using digital certificates for device authentication.

CHAPTER 2
INSTALLATION

Before installing the Barricade Broadband Router with built-in ADSL Modem, verify that you have all the items listed under "Package Contents." If any of the items are missing or damaged, contact your local distributor or Service Provider where you acquired the router. Also be sure that you have all the necessary cabling before installing the Barricade. After installing the Barricade, refer to "Configuring the Barricade" on page 4-1.

Package Contents

After unpacking the Barricade, check the contents of the box to be sure you have received the following components:

* Barricade ADSL Router (SMC7404WBRA)

* Power adapter

* One CAT-5 Ethernet cable

* Telephone patch cable

* Documentation CD

* This User Guide

Immediately inform your retailer or Service Provider in the event of any incorrect, missing, or damaged parts. If possible, please retain the carton and original packing materials in case there is a need to return the product.

System Requirements

You must meet the following minimum requirements:

•   Internet access from your Internet Service Provider (ISP) using an ADSL modem.

•   A PC using a fixed IP address or dynamic IP address assigned via DHCP, as well as a gateway server address and DNS server address from your service provider.

•   A computer equipped with a 10 Mbps, 100 Mbps, or 10/100 Mbps Fast Ethernet card, a USB-to-Ethernet converter, or an IEEE 802.11b wireless network adapter.

•   TCP/IP network protocols installed on each PC that will access the Internet.

•   A Java-enabled Web browser, such as Microsoft Internet Explorer 4.0 or above or Netscape Communicator 4.0 or above installed on one PC at your site for configuring the Barricade.

Hardware Description

The Barricade contains an integrated ADSL modem and connects to the Internet or to a remote site using its RJ-11 WAN port. It connects directly to your PC or to a local area network using any of the four RJ-45 Fast Ethernet LAN ports or via a wireless network adapter.

Access speed to the Internet depends on your service type. Full-rate ADSL provides up to 8 Mbps downstream and 640 Kbps upstream. G.lite (or splitterless) ADSL provides up to 1.5 Mbps downstream and 512 Kbps upstream. However, you should note that the actual rate provided by specific service providers may vary dramatically from these upper limits.

Data passing between devices connected to your local area network can run at up to 100 Mbps over the Fast Ethernet ports and 11 Mbps over the built-in wireless network adapter.

The Barricade includes an LED display on the front panel for system power and port indications that simplifies installation and network troubleshooting. It also provides the following ports on the rear panel:

Item	Description
LAN Ports	Fast Ethernet ports (RJ-45). Connect devices on your local area network to these ports (i.e., a PC, hub, or switch).
Parallel Printer Port	One parallel printer port that can be connected to a printer. This printer can then be shared by all LAN users.
Reset Button	Use this button to reset the power and restore the default factory settings. To reset without losing configuration settings, see "Reset" on page 4-55.
Power Inlet	Connect the included power adapter to this inlet. **Warning**: Using the wrong type of power adapter may cause damage.
WAN Port	WAN port (RJ-11). Connect your ADSL line to this port.

LED Indicators

Verify Status

Check the power and port LED indicators.

LED	Condi-tion	Status
Power	On	The Barricade is receiving power. Normal operation.
	Off	Power off or failure.
Ethernet (4 LEDs)	On	Ethernet Link.
	Flashing	Sending/Receiving data.
	Off	No Link.
ADSL Syn	On	ADSL connection is functioning correctly.
	Flashing	Startup.
	Off	ADSL connection is not established.
ADSL Data	Flashing	Sending/Receiving data.
	Off	No data transferring.

ISP Settings

Please collect the following information from your ISP before setting up the Barricade (for PPPoE, PPPoA or fixed IP users only):

- For PPPoE and PPPoA users

    - An ISP account user name and password

    - ISP authentication type or script (if not PAP/CHAP)

- For fixed IP users

    - IP address and subnet mask

    - IP address for your ISP's Gateway Server and Domain Name Server

Connect the System

The Barricade can be positioned at any convenient location in your office or home. No special wiring or cooling requirements are needed. You should, however, comply with the following guidelines:

- Keep the Barricade away from any heating devices.

- Do not place the Barricade in a dusty or wet environment.

You should also remember to turn off the power, remove the power cord from the outlet, and keep your hands dry when you install the Barricade.

Connect the ADSL Line

Run standard telephone cable from the wall jack providing ADSL service to the WAN port on your Barricade. When inserting an ADSL RJ-11 plug, be sure the tab on the plug clicks into position to ensure that it is properly seated. If you are using splitterless ADSL service, add low-pass filters between the ADSL wall jack and your telephones. (These filters pass voice

signals through but filter data signals out.)

Phone Line Configuration

Installing a Full-rate Connection

If you are using a full-rate (G.dmt) connection, your service provider will attach the outside ADSL line to a data/voice splitter. In this case you can connect your phones and computer directly to the splitter as shown below:
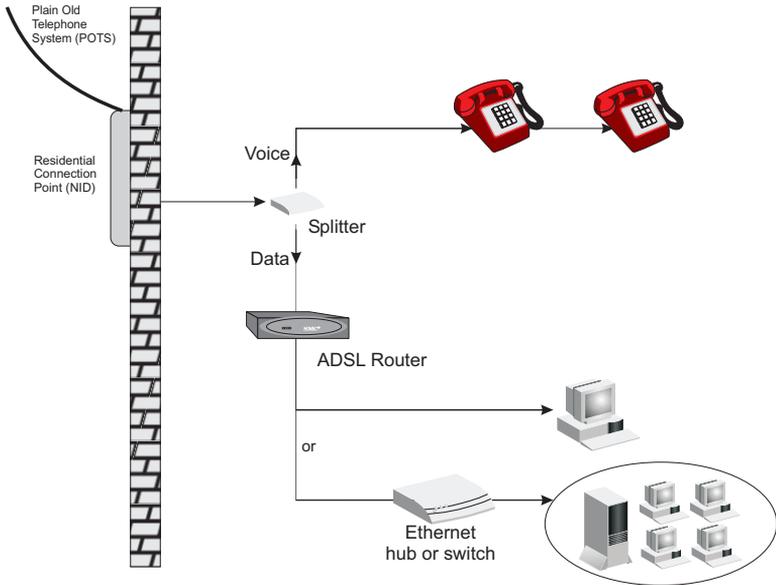
Figure 2-1. Installing with a Splitter

Installing a Splitterless Connection

If you are using a splitterless (G.lite) connection, then your service provider will attach the outside ADSL line directly to your phone system. In this case you can connect your phones and computer directly to the incoming ADSL line, but you will have to add low-pass filters to your phones as shown below:
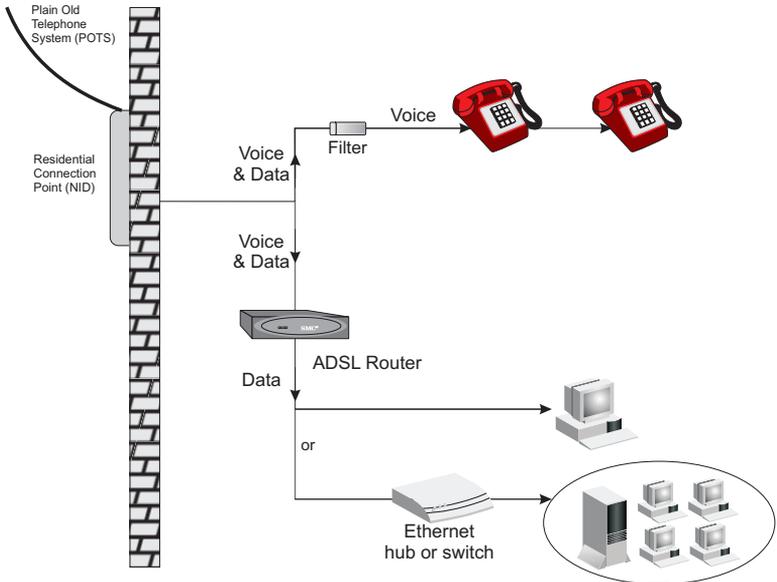
Figure 2-2. Installing without a Splitter

Attach to Your Network Using Ethernet Cabling

The four LAN ports on the Barricade auto-negotiate the connection speed to 10 Mbps Ethernet or 100 Mbps Fast Ethernet, as well as the transmission mode to half duplex or full duplex.

Use twisted-pair cabling to connect any of the four LAN ports on the Barricade to an Ethernet adapter on your PC. Otherwise, cascade any of the LAN ports on the Barricade to an Ethernet hub or switch, and then connect your PC or other network equipment to the hub or switch. When inserting an RJ-45 connector, be sure the tab on the connector clicks into position to ensure that it is properly seated.

Warning: Do not plug a phone jack connector into an RJ-45 port. This may damage the Barricade.

Notes: 1. Use 100-ohm shielded or unshielded twisted-pair cable with RJ-45 connectors for all Ethernet ports. Use Category 3, 4, or 5 for connections that operate at 10 Mbps, and Category 5 for connections that operate at 100 Mbps.

2. Make sure each twisted-pair cable length does not exceed 100 meters (328 feet).

Connect the Power Adapter

Plug the power adapter into the power socket on the rear of the Barricade, and the other end into a power outlet.

Check to confirm the power indicator on the front panel is lit. If the power indicator is not lit, refer to "Troubleshooting" on page A-1.

In case of a power input failure, the Barricade will automatically restart and begin to operate once the input power is restored.

If the Barricade is properly configured, it will take about 30 seconds to establish a connection with the ADSL service provider after powering up. During this time the Sync indicator will flash. After the ADSL connection has been established, the ADSL Sync LED will stay on.

CHAPTER 3
CONFIGURING CLIENT PC

After completing hardware setup by connecting all your network devices, you need to configure your computer to connect to the Barricade. First determine how your ISP issues your IP address. Many ISPs issue these numbers automatically using Dynamic Host Configuration Protocol (DHCP). Other ISPs provide a static IP address and associated numbers, which you must enter manually. How your ISP assigns your IP address determines how you need to configure your computer. See this section for Windows 95/98/Me configuration. See "Windows NT 4.0" on page 3-8, "Windows 2000" on page 3-13, "Windows XP" on page 3-17, or "Configuring Your Macintosh Computer" on page 3-21 depending on your operating system.

TCP/IP Configuration

To access the Internet through the Barricade, you must configure the network settings of the computers on your LAN to use the same IP subnet as the Barricade. The default network settings for the Barricade are:

IP Address: 192.168.2.1

Subnet Mask: 255.255.255.0

Note: These settings can be changed to fit your network requirements, but you must first configure at least one computer to access the Barricade's Web configuration interface in order to make the required changes. (See "Configuring the Barricade" on page 4-1 for instruction on configuring the Barricade.)

Windows 95/98/Me

You may find that the instructions in this section do not exactly match your version of Windows. This is because these steps and screenshots were created from Windows 98. Windows 95 and Windows Millennium Edition are similar, but not identical, to Windows 98.

1. On the Windows desktop, click Start/Settings/Control Panel.
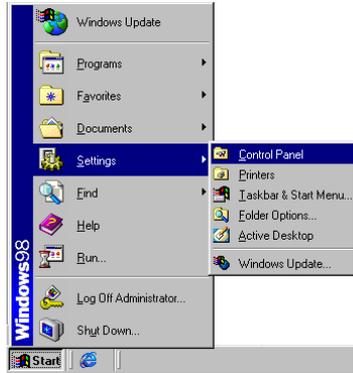
2. In Control Panel, double-click the Network icon.

3. In the Network window, under the Configuration tab, double-click the TCP/IP item listed for your network card.
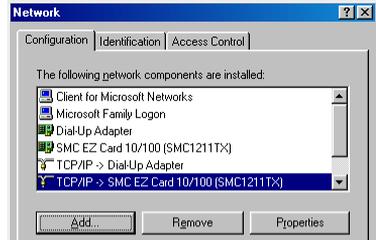
4. In the TCP/IP window, select the IP Address tab. If "Obtain an IP address automatically" is already selected, your computer is already configured for DHCP. Click Cancel to close each window, and skip to "Disable HTTP Proxy" on page 3-5. If not, locate your IP address and subnet mask. Record the numbers in the space provided on the following page.
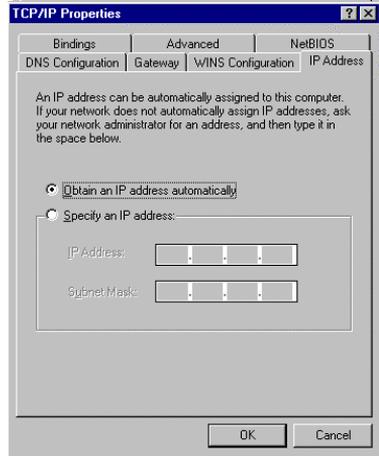
5. Click the Gateway tab and record the numbers listed under the Installed gateways field.

CONFIGURING CLIENT PC
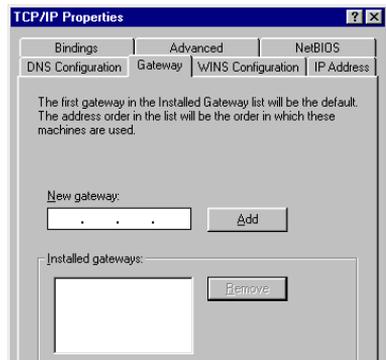
6. Click the DNS Configuration tab. Locate the DNS servers listed under the DNS Server Search Order field. Record any listed addresses.

7. After writing down your settings, check to make sure you have recorded them correctly. Click OK to close the window.

8. Windows may need your Windows 95/98/Me CD to copy some files. After it finishes copying, it will prompt you to restart your system. Click Yes and your computer will shut down and restart.
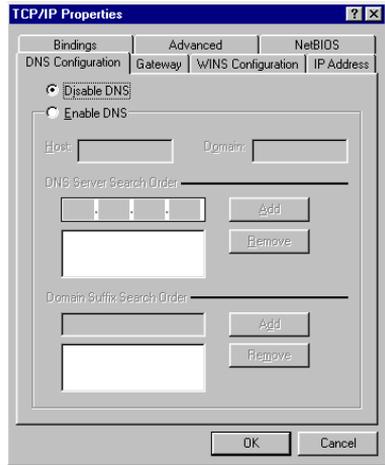
TCP/IP Configuration Setting

IP Address	____.____.____.____
Subnet Mask	____.____.____.____
Primary DNS Server	____.____.____.____
Secondary DNS Server	____.____.____.____
Default Gateway	____.____.____.____
Host Name	____.____.____.____

3-4

Disable HTTP Proxy

You need to verify that the "HTTP Proxy" feature of your Web browser is disabled. This is so that your browser can view the Barricade's HTML configuration pages. The following steps are for Internet Explorer and Netscape. Determine which browser you use and follow the appropriate steps.

Internet Explorer

1. Open Internet Explorer.

2. Click the Stop 🔴 button, then click Tools/Internet Options.

3. In the Internet Options window, click the Connections tab. Next, click the LAN Settings... button.

4. Clear all the checkboxes.

5. Click OK, and then click OK again to close the Internet Options window.
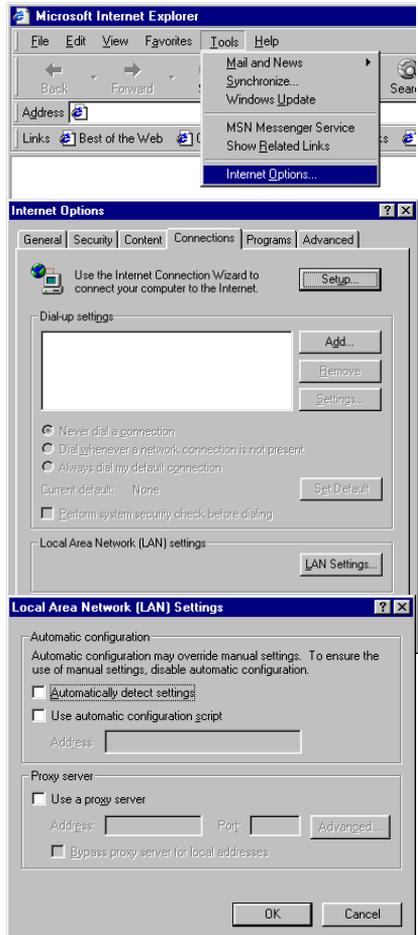
Netscape

1. Open Netscape.

2. Click the Stop ⊗ button, and then click Edit/Preferences...

3. In the Preferences window, under the Category field double-click Advanced, then click Proxies. Select "Direct connection to the Internet." Click OK.

4. Repeat these steps for each Windows 95/98/Me computer connected to your Barricade.
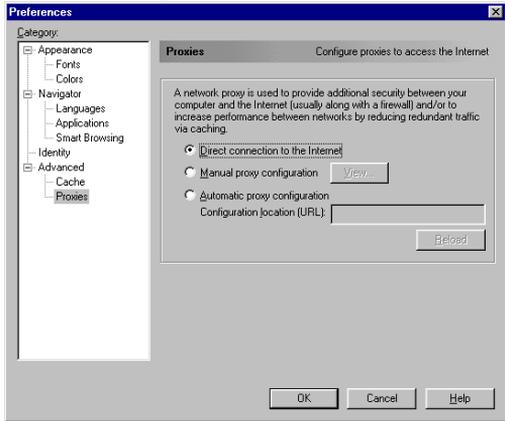
Obtain IP Settings from Your ADSL Router

Now that you have configured your computer to connect to your Barricade, it needs to obtain new network settings. By releasing old DHCP IP settings and renewing them with settings from your Barricade, you can also verify that you have configured your computer correctly.

1. On the Windows desktop, click Start/Run...

2. Type "WINIPCFG" and click OK. It may take a second or two for the IP Configuration window to appear.

3. In the IP Configuration window, select your network card from the drop-down menu. Click Release and then click Renew. Verify that your IP address is now **192.168.2.xxx**, your Subnet Mask is **255.255.255.0** and your Default Gateway is **192.168.2.1**.
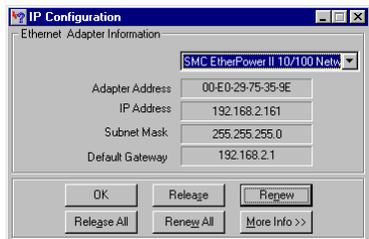
These values confirm that your Barricade is functioning. Click OK to close the IP Configuration window.

Windows NT 4.0

After completing the hardware setup by connecting your network devices, you need to configure your computer to connect to the Barricade. First determine how your ISP issues your IP address. Many ISPs issue these numbers automatically using Dynamic Host Configuration Protocol (DHCP). Other ISPs provide a static IP address and associated numbers, which you must enter manually. How your ISP assigns your IP address determines how you need to configure your computer.

Follow these instructions:

1. On the Windows desktop, click Start/Settings/Control Panel.

2. Double-click the Network icon.

3. In the Network window, Select the Protocols tab. Double-click TCP/IP Protocol.

4. When the Microsoft TCP/IP Properties window open, select the IP Address tab.

5. In the Adapter drop-down list, be sure your Ethernet adapter is selected.

6. If "Obtain an IP address automatically" is already selected, your computer is already configured for DHCP. Click Cancel to close each window, and skip to "Disable HTTP Proxy" on page 3-10.

7. In the TCP/IP Properties window, under the IP Address tab, locate your IP Address, Subnet Mask, and Default Gateway. Record these values in the spaces provided on the following page.
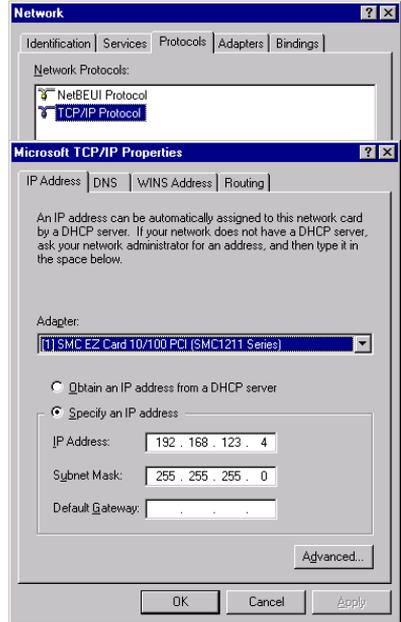
8. Click the DNS tab to see the primary and secondary DNS servers. Record these values in the spaces provided below.

9. After writing down your IP settings, click the IP address tab. Select the Obtain IP address automatically radio button and click OK. Click OK again to close the Network window.
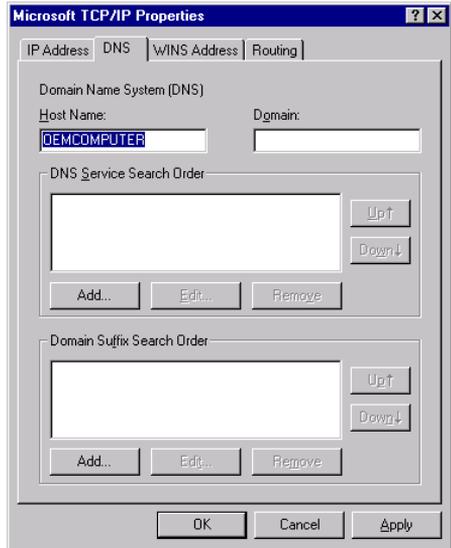
10. Windows may copy some files, and will then prompt you to restart your system. Click Yes and your computer will shut down and restart.

TCP/IP Configuration Setting

IP Address   ____.____.____.____

Subnet Mask   ____.____.____.____

Default Gateway   ____.____.____.____

Primary DNS Server   ____.____.____.____

Secondary DNS Server   ____.____.____.____

Host Name   ____.____.____.____

Disable HTTP Proxy

You need to verify that the "HTTP Proxy" feature of your Web browser is disabled. This is so that your browser can view the Barricade's HTML configuration pages. Determine which browser you use and refer to "Internet Explorer" on page 3-5 or "Netscape" on page 3-6.

Obtain IP Settings from Your Barricade

Now that you have configured your computer to connect to your Barricade, it needs to obtain new network settings. By releasing old DHCP IP settings and renewing them with settings from your Barricade, you will verify that you have configured your computer correctly.

1. On the Windows desktop, click Start/Programs/Command Prompt.
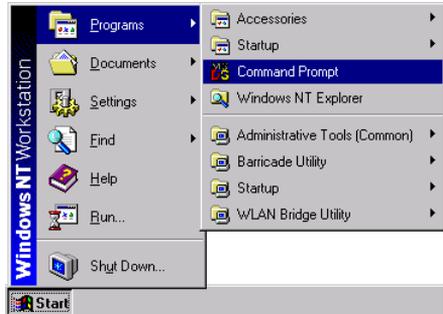
2. In the Command Prompt window, type "IPCONFIG /RELEASE" and press the ENTER key.
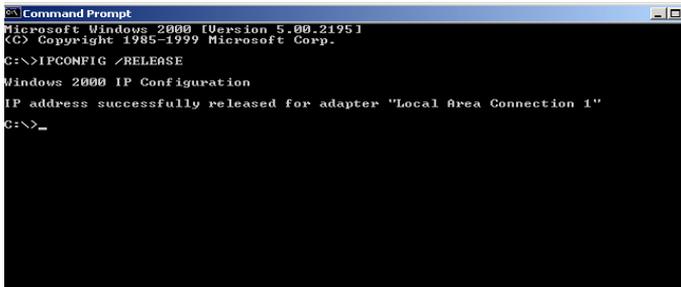
3. Type "IPCONFIG /RENEW" and press the ENTER key. Verify that your IP Address is now **192.168.2.xxx**, your Subnet Mask is **255.255.255.0** and your Default Gateway is **192.168.2.1**. These values confirm that your Barricade is functioning.
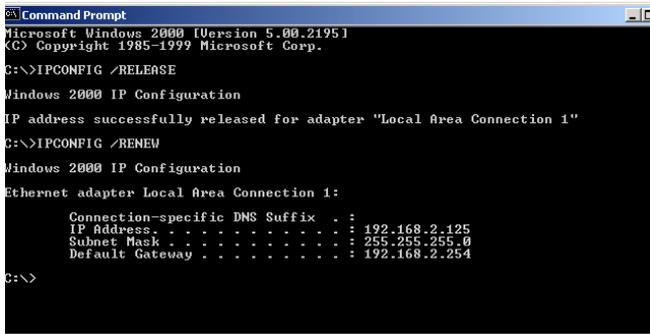

```
Command Prompt                                                      _ □ ×
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-1999 Microsoft Corp.

C:\>IPCONFIG /RELEASE

Windows 2000 IP Configuration

IP address successfully released for adapter "Local Area Connection 1"

C:\>IPCONFIG /RENEW

Windows 2000 IP Configuration

Ethernet adapter Local Area Connection 1:

        Connection-specific DNS Suffix  . :
        IP Address. . . . . . . . . . . . : 192.168.2.125
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 192.168.2.254

C:\>
```

4. Type "EXIT" and press the ENTER key to close the Command Prompt window.

Your computer is now configured to connect to the Barricade.

Windows 2000

1. On the Windows desktop, click Start/Settings/ Network and Dial-Up Connections.

2. Click the icon that corresponds to the connection to your Barricade.

3. The connection status screen will open. Click Properties.

4. Double-click Internet Protocol (TCP/IP).
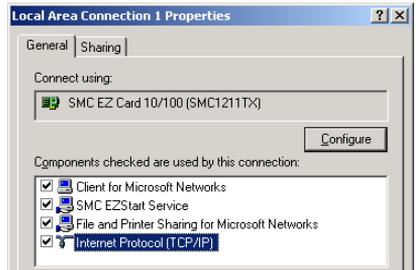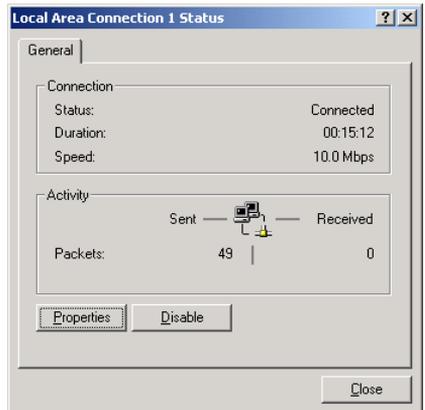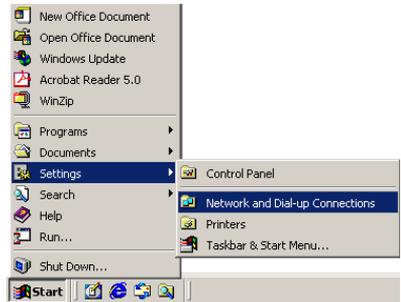
5. If there is IP Address information on the Internet Protocol (TCP/IP) Properties window, it should be recorded. Use the spaces below to record the current settings.

6. If "Obtain an IP address automatically" and "Obtain DNS server address automatically" are already selected, your computer is already configured for DHCP. Click Cancel to close each window, and skip to "Disable HTTP Proxy" on page 3-14.

7. Select "Obtain an IP address automatically" and "Obtain DNS server address automatically." Click OK or Close to close each window.

TCP/IP Configuration Setting

IP Address	____.____.____.____
Subnet Mask	____.____.____.____
Default Gateway	____.____.____.____
Preferred DNS Server	____.____.____.____
Alternate DNS Server	____.____.____.____

Disable HTTP Proxy

You need to verify that the "HTTP Proxy" feature of your Web browser is disabled. This is so that your browser can view the Barricade's HTML configuration pages. Determine which browser you use and refer to "Internet Explorer" on page 3-5 or "Netscape" on page 3-6.

Obtain IP Settings from Your Barricade

Now that you have configured your computer to connect to your Barricade, it needs to obtain new network settings. By releasing old DHCP IP settings and renewing them with settings from your Barricade, you can verify that you have configured your computer correctly.
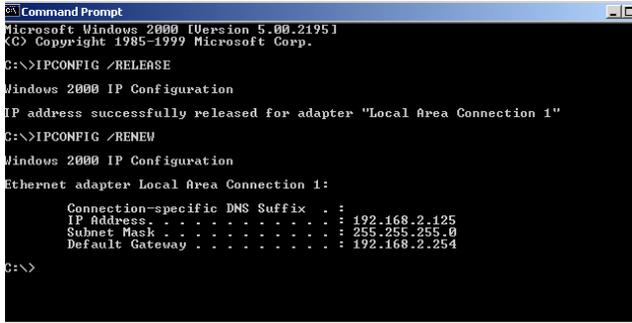
1. On the Windows desktop, click Start/Programs/ Accessories/Command Prompt.

2. In the Command Prompt window, type "IPCONFIG/RELEASE" and press the ENTER key.

3. Type "IPCONFIG /RENEW" and press the ENTER key. Verify that your IP Address is now **192.168.2.xxx**, your Subnet Mask is **255.255.255.0** and your Default Gateway is **192.168.2.1**. These values confirm that your ADSL Router is functioning.

4. Type "EXIT" and press the ENTER key to close the Command Prompt window.

Your computer is now configured to connect to the Barricade.

Windows XP

1. On the Windows desktop,
    click Start/Control Panel.

2. In the Control Panel window,
    click Network and Internet
    Connections.

3. The Network Connections
    window will open. Double-click
    the connection for this device.

4. On the connection status screen,
    click Properties.

5. Double-click Internet Protocol (TCP/IP).
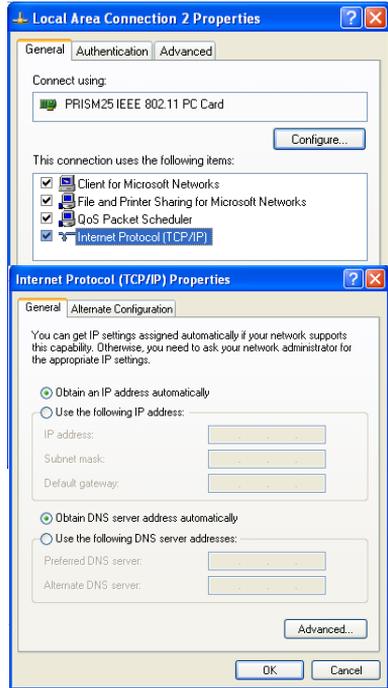
6. If there is IP Address information on the Internet Protocol (TCP/IP) Properties window, it should be recorded. Use the spaces below to record the current settings.

7. If "Obtain an IP address automatically" and "Obtain DNS server address automatically" are already selected, your computer is already configured for DHCP. Click Cancel to close each window, and skip to "Disable HTTP Proxy" on page 3-19."

8. Select "Obtain an IP address automatically" and "Obtain DNS server address automatically." Click OK or Close to close each window.

TCP/IP Configuration Setting

IP Address   ____.____.____.____

Subnet Mask   ____.____.____.____

Default Gateway   ____.____.____.____

Preferred DNS Server   ____.____.____.____

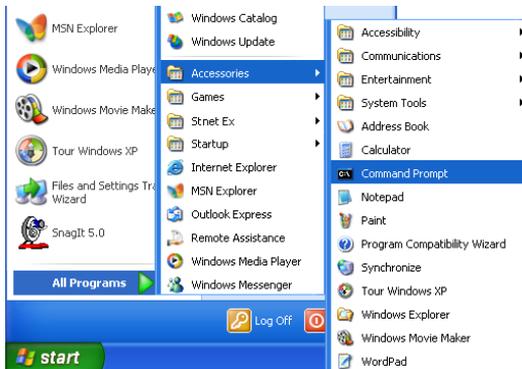Alternate DNS Server   ____.____.____.____

Disable HTTP Proxy

You need to verify that the "HTTP Proxy" feature of your Web browser is disabled. This is so that your browser can view the Barricade's HTML configuration pages. Determine which browser you use and refer to "Internet Explorer" on page 3-5 or "Netscape" on page 3-6.
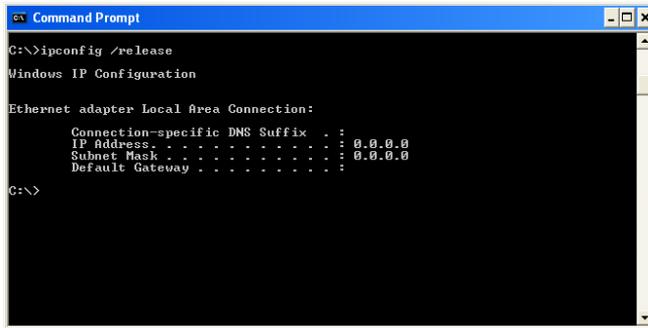
Obtain IP Settings from Your Barricade

Now that you have configured your computer to connect to your Barricade, it needs to obtain new network settings. By releasing old DHCP IP settings and renewing them with settings from your Barricade, you can verify that you have configured your computer correctly.

1. On the Windows desktop, click Start/Programs/Accessories/ Command Prompt.

2. In the Command Prompt window, type "IPCONFIG/RELEASE" and press the ENTER key.

3. Type "IPCONFIG /RENEW" and press the ENTER key. Verify that your IP Address is now **192.168.2.xxx**, your Subnet Mask is **255.255.255.0** and your Default Gateway is **192.168.2.1**. These values confirm that your ADSL Router is functioning.

Type "EXIT" and press the ENTER key to close the Command Prompt window.

Your computer is now configured to connect to the Barricade.

Configuring Your Macintosh Computer

You may find that the instructions here do not exactly match your operating system. This is because these steps and screenshots were created using Mac OS 8.5. Mac OS 7.x and above are similar, but may not be identical to Mac OS 8.5.
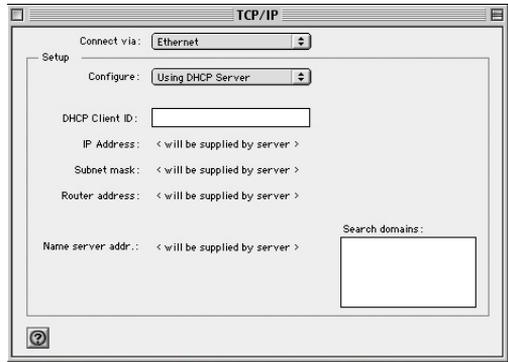
Follow these instructions:

1. Pull down the Apple Menu. Click Control Panels/TCP/IP.
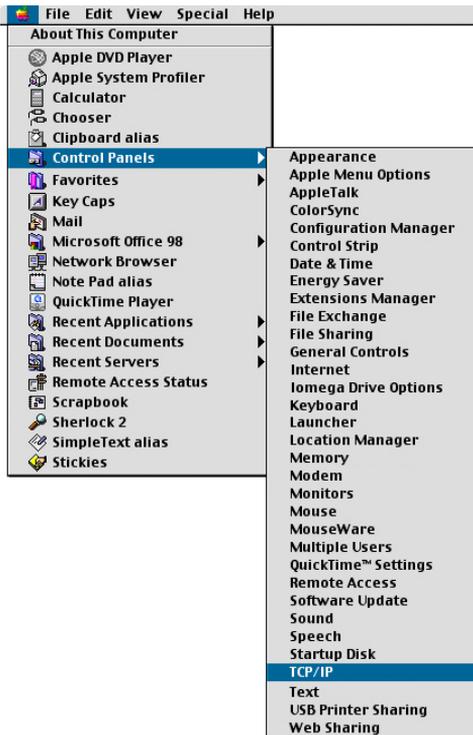
2. In the TCP/IP window, make sure "Ethernet" is selected in the Connect via: field.

3. If "Using DHCP Server" is already selected in the Configure field, your computer is already configured for DHCP. Close the TCP/IP window, and skip to "Disable HTTP Proxy" on page 3-23.

4. If there is IP Address information on the TCP/IP screen, it should be recorded. Use the spaces below to record the current settings.

5. After writing down your IP settings, select "Using DHCP Server" in the Configure field and close the window.

6. Another box will appear asking whether you want to save your settings. Click Save.
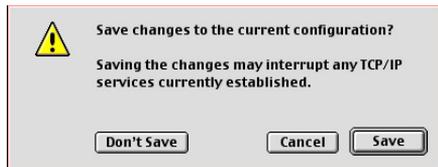
TCP/IP Configuration Setting

IP Address   ____.____.____.____
Subnet mask   ____.____.____.____
Router address   ____.____.____.____
Name server address   ____.____.____.____

Disable HTTP Proxy

You need to verify that the "HTTP Proxy" feature of your Web browser is disabled. This is so that your browser can view the Barricade's HTML configuration pages. The following steps are for Internet Explorer and Netscape. Determine which browser you use and follow the appropriate steps.

Internet Explorer

1. Open Internet Explorer and click the Stop button. Click Edit/Preferences.

2. In the Internet Explorer Preferences window, under Network, select Proxies.

3. Uncheck all checkboxes and click OK.
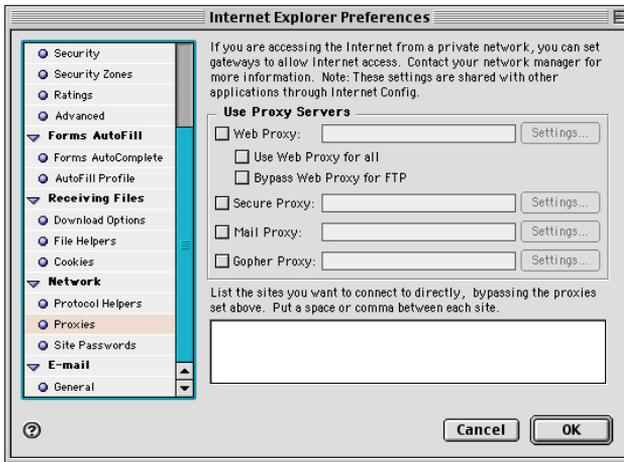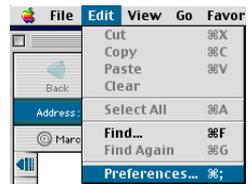
Netscape

1. Open Netscape and click the Stop button. Click Edit/Preferences.

2. In the Preferences window, in the left-hand column labeled Category, select Advanced. Under the Advanced category, select Proxies.

3. Select "Direct Connection to the Internet" and click OK.
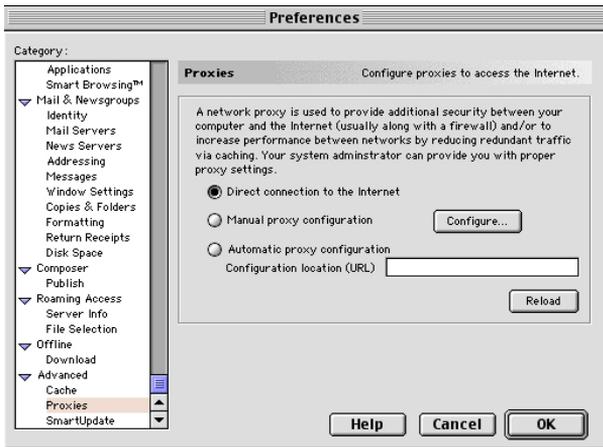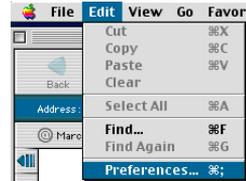
Obtain IP Settings from Your Barricade

Now that you have configured your computer to connect to your Barricade, it needs to obtain new network settings. By releasing old DHCP IP settings and renewing them with settings from your Barricade, you can verify that you have configured your computer correctly.

1.   Pull down the Apple Menu. Click Control Panels/TCP/IP.