

EZ Connect

ADSL USB Modem

- ◆ High-speed Internet access over existing phone lines
- ◆ One RJ-11 ADSL port
- ◆ Delivers USB plug-and-play installation
- ◆ Supports full-rate DMT connection
(8 Mbps downstream, 1 Mbps upstream)
- ◆ Supports economical G.lite connection
(1.5 Mbps downstream, 512 Kbps upstream)
- ◆ Graphic interface for ADSL connection management



EZ Connect ADSL USB Modem User Guide

From SMC's EZ Connect line of feature-rich SOHO solutions

SMC[®]
Networks

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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.

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COMPLIANCES

FCC - Class B

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 instructions, may cause harmful interference to radio communications. However, there is no guarantee that the 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 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

FCC - Part 68

The modem is registered with the FCC as compliant with the rules of Part 68 and use of this modem is subject to the following restrictions:

1. The Federal Communication Commission FCC has established rules which permit this device to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin phones.
2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company can temporarily disconnect service.
3. The telephone company may make changes in its facilities, equipment, operation and procedures; if such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes. You will be advised of your right to file a complaint with the FCC.
4. If the telephone company requests information on what equipment is connected to their lines, inform them of:
 - a. The telephone number to which this unit is connected
 - b. The ringer equivalence number
 - c. The USOC jack required
 - d. The FCC Registration number

Items (b) and (d) are indicated on the label. The Ringer Equivalence Number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the REN of all the devices on any one line should not exceed 5.0. If too many devices are attached, they may not ring properly.

Industry Canada Required Information

EQUIPMENT ATTACHMENTS LIMITATIONS

To ensure that certified equipment is attached correctly and only to the networks of participating carriers, the following statement shall accompany each unit of certified equipment offered for sale. This statement must be included conspicuously in written or electronic format, at or near the front of each copy of the operating manual, or accompany other technical information, or be included as a separate sheet. The required statement is:

“**NOTICE:** The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The department does not guarantee the equipment will operate to the user’s satisfaction.”

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions might not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas. **Caution:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

An explanatory note on Ringer Equivalence Numbers (see Section 10.0) and their use must be provided for the terminal equipment user in the information accompanying the terminal equipment. A notice similar to the following would be suitable:

“**NOTICE:** The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the ringer equivalence Numbers of all the devices does not exceed 5.”

EC Conformance Declaration - Class B

SMC contact for these products in Europe is:

SMC Networks Europe,
Edificio Conata II,
Calle Fructuós Gelabert 6-8, 2^a, 4^a,
08970 - Sant Joan Despí,
Barcelona, Spain.

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)

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 the Department of Communications.

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 le ministère des Communications.

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: 61-2-8875-7887
Fax: 61-2-8875-7777

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 Netzanschlussteckdose 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 Netzanschlusleitung 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 autorisiertem 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

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Glossary

CHAPTER 1

INTRODUCTION

The EZ Connect ADSL USB Modem (SMC7003USB V.2) provides high-speed Internet access over existing phone lines by making use of previously unused frequency bandwidth above the voice band. By placing ADSL (Asymmetric Digital Subscriber Line) signals above the frequency of the voice signal, ADSL service can coexist on the same line with your telephone service. ADSL is asymmetric in that it provides a higher data rate in the downstream (receive) direction than in the upstream (transmit) direction. Asymmetric operation is ideal for typical home and small office use where files and information are downloaded more frequently than uploaded.

The EZ Connect ADSL USB Modem supports both full-rate Discrete Multi-Tone (G.dmt) connection (T1.413, Issue II) and the more economical G.lite connection (G.992.2). This modem delivers concurrent data and voice over a single connection. It also supports a Rate Adaptive algorithm to maintain high data integrity under existing conditions, including varied connection lengths and degraded signal quality. Because all data is encapsulated in ATM frames, the EZ Connect ADSL USB Modem can be connected directly to any standards-compliant DSL Access Multiplexer (DSLAM) at your service provider's central office, data is then sent through an ATM backbone, and out to the Internet via an ISP router. Moreover, there is no need to install any new line.

INTRODUCTION

This plug-in ADSL modem provides an always-on digital connection that eliminates dial-up delays, and transparent reconnection when initiating any network request. Full support for the ATM protocol also provides access to a wide range of advanced transport features, including support for real-time video, and other multimedia services requiring guaranteed Quality of Service (QoS). This device enables true telecommuting for the first time by providing complete access to Internet and corporate resources via multiprotocol encapsulation (including TCP/IP, Novell's IPX, and Windows NetBEUI network protocols).

Note: Since this modem supports both G.dmt and G.lite, it requires an external splitter to separate the traffic entering your premises into data and voice, and also to merge the data and voice traffic leaving your premises into a single stream.

Key Features

- High-speed Internet access over existing phone lines
- Full-rate DMT connection (8 Mbps downstream, 1 Mbps upstream) and economical G.lite connection (1.5 Mbps downstream, 512 Kbps upstream)
- Multiprotocol encapsulation of all network protocols, including TCP/IP, Novell's IPX, and Windows NetBEUI for complete access to the Internet and corporate resources
- Always-on digital connection eliminates dial-up delays, and transparent reconnection when initiating any network request
- Concurrent data and voice over a single connection (needs splitter for both G.dmt and G.lite)
- Interoperable with Alcatel, Cisco and other DSLAM central office equipment manufacturers
- Compatible with various ISP services, using RFC 1483 static IP assignment or PPP dynamic IP assignment
- Graphic interface for ADSL connection management
- Supports Windows 98/98SE/2000/XP, and Macintosh 9.x

Note: The current version does not support Macintosh 10.2.

INTRODUCTION

CHAPTER 2

HARDWARE INSTALLATION

Before installing the SMC ADSL USB Modem verify that you have all the items listed under “Package Contents.” If any of the items are missing or damaged, contact your local SMC distributor. Also be sure you have all the necessary cabling before installing the modem.

Package Contents

After unpacking the EZ Connect ADSL USB Modem, check the contents of the box to be sure you have received the following components:

- ◆ EZ Connect ADSL USB Modem (SMC7003USB V.2)
- ◆ 1 USB cable, modem to computer (Type B to Type A)
- ◆ 1 Installation CD containing this User Guide and drivers
- ◆ 1 SMC Warranty Registration Card

Immediately inform your dealer 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.

Please fill out and return the Warranty Registration Card to SMC or register on SMC’s Web site. The EZ Connect ADSL USB Modem is covered by a limited-lifetime warranty.

Hardware Description

Setting up the EZ Connect ADSL USB Modem involves connecting the device's cables and installing the driver software. Note that Windows 98, 98SE, 2000, XP, or Macintosh 9.x should already be installed on the computer before installing the driver software.

The following figure shows the components of this modem:

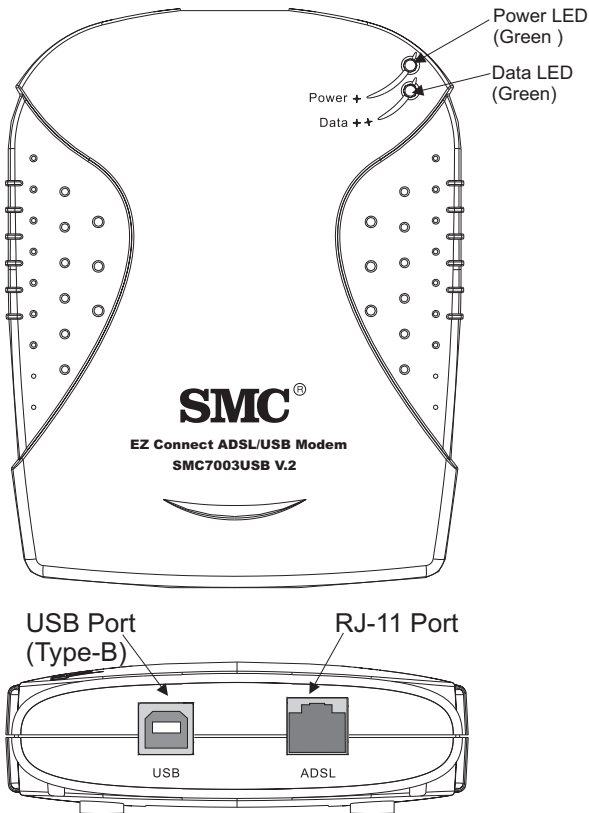


Figure 2-1. EZ Connect ADSL USB Modem

LED Indicators

The EZ Connect ADSL USB Modem has two LEDs on the top panel, one is marked “Data” and the other “Power.” The operational status of the modem is indicated by the LED conditions listed below.

LED	Status	Description
Data	Flashing	Indicates the modem is synchronizing its ADSL/ATM link with the head end.
	On	Indicates an ADSL/ATM link has been established on the RJ-11 port.
Power	On	Power is being supplied to the modem via the USB bus.

Power Requirements

USB devices can be either self-powered or bus-powered. A device which has no power connector is bus-powered, and derives its operating power from the USB connection directly. The EZ Connect ADSL USB Modem is bus-powered — all you need to do is plug it into a host PC or self-powered USB hub.

System Requirements

The EZ Connect ADSL USB Modem requires the following PC features to operate:

- A host PC that supports the Universal Serial Bus
- 32 MB of RAM and 10 MB of hard disk space
- Windows 98, 98SE, 2000, XP, or Macintosh 9.x
- Standard telephone cable with RJ-11 plugs

Note: To share Internet access on your network, you will need to install appropriate Internet-sharing software on one PC.

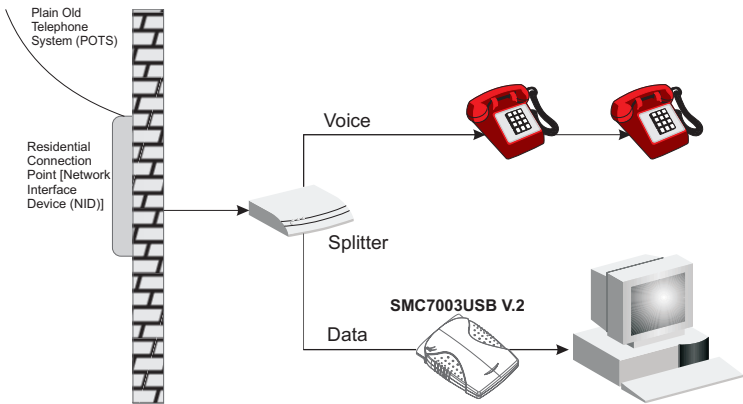
The ADSL network must meet the following minimum requirements:

- ADSL service from your local telephone company or have access to an ADSL DSLAM (Digital Subscriber Line Access Multiplexer)
- PC configured with fixed IP address or dynamic IP address assignment via DHCP, Gateway server address, and DNS server address from your telephone company or network administrator

Connecting the System

Phone Line Configuration

The EZ Connect ADSL USB Modem supports dual-mode operation for both full-rate G.dmt and economical G.lite. Your service provider will attach the outside ADSL line to a data/phone splitter. You can then connect your phones and computer directly to the splitter as shown below:



Depending on the wiring configuration used in your house, separate wall jacks may be used for telephone and voice signals. Otherwise, you will need to connect your phones and PC directly to the splitter.

1. Connect the modem's ADSL port to the data port on the splitter (or to an RJ-11 telephone wall jack connected to this port) using standard telephone cable.
2. Insert the USB cable's Type-B plug (square end) into the modem's USB port.
3. Install the driver best suited for your connection needs as described in the next chapter.

HARDWARE INSTALLATION

CHAPTER 3

DRIVER INSTALLATION

The CD supplied with the package contains the software drivers available for the EZ Connect ADSL USB Modem.

Note: DO NOT plug the device to your computer directly before driver installation. Follow the instructions to install the driver and connect the modem properly.

This modem is fully software upgradeable so that new features and updates may be added by simply loading a new version of the device driver onto your PC. New or updated drivers can be downloaded from SMC's Web site at:

<http://www.smc.com>

Note: Updating to a new version of the software requires removal of the currently installed version, go to “Upgrading the Modem Software” on page 6-1 for a detailed description.

Windows 98/98SE/2000/XP

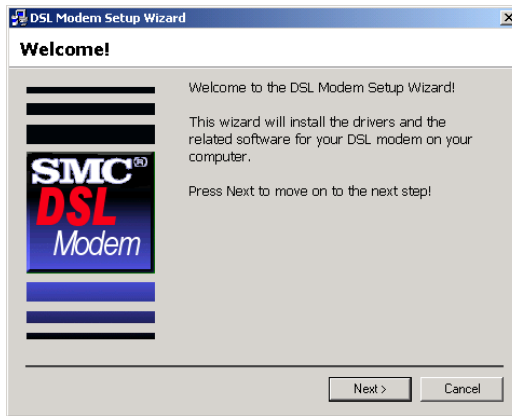
You may find that the instructions here do not exactly match your version of Windows. This is because these steps and screenshots were created from Windows 2000. The installation of Windows 98, 98SE and XP are similar, but not identical, to Windows 2000.

Follow the instructions below to begin the driver installation:

1. Disconnect the EZ Connect ADSL USB Modem with your computer.
2. Insert the CD-ROM that comes with the modem into your CD drive. The Installation Wizard screen will appear. Click Install SMC 7003 ADSL USB Modem Driver.



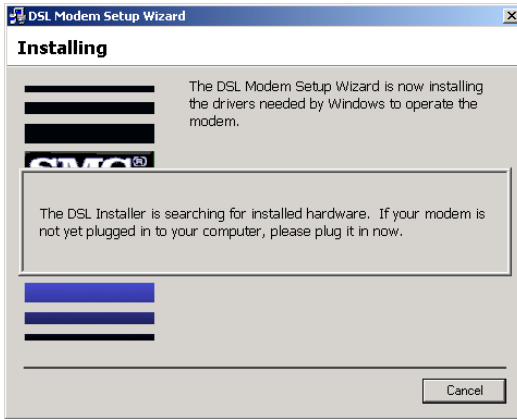
3. The Welcome screen will open. Click Next to continue.



4. After viewing the license agreement, click Accept.

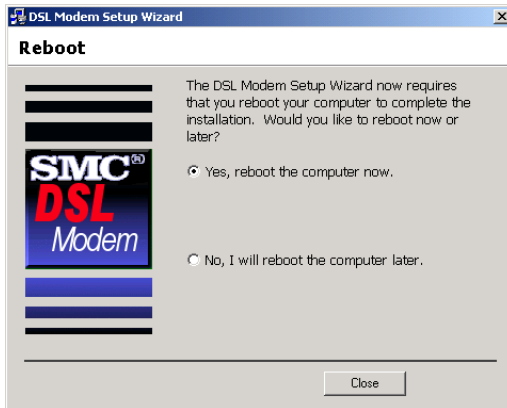


5. During installation, the system will display a screen to ask you to plug in the modem. Plug in the device now.

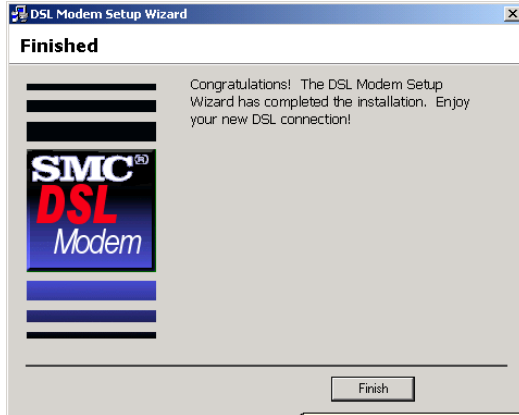


Note: Connect the SMC7003USB V.2 to the computer using the supplied USB cable. Insert the rectangular end (Type-A) of the USB cable into the USB port of your PC. Insert the square end (Type-B) of the cable into the USB port of the USB modem.

6. After the driver files have been installed, you will be asked to reboot the computer. Check "Yes, reboot the computer now" and click Close.



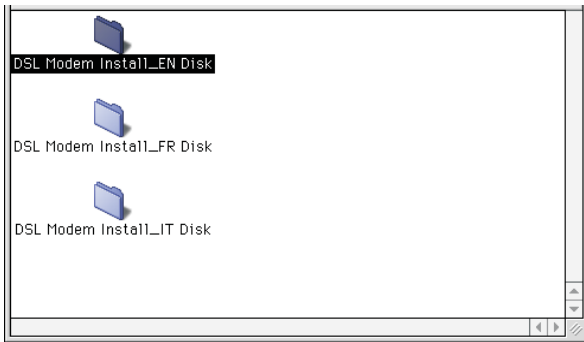
7. After your computer restarts, the “Finished” screen will appear to indicate successful completion of the installation process. Click Finish.



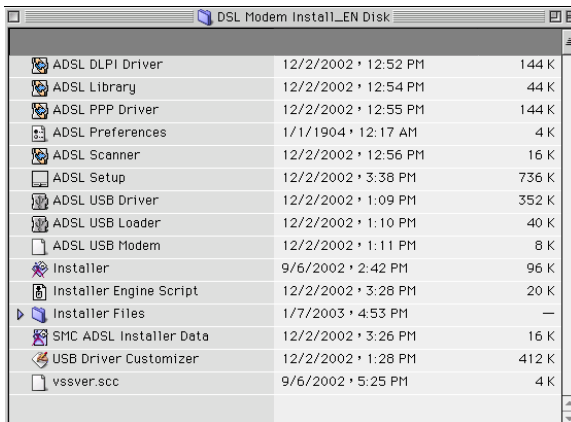
Note: Regardless of the driver type installed, the installation procedure will automatically configure the TCP/IP settings to acquire IP addressing information from the service provider via DHCP.

Macintosh 9.x

1. Start up your PC with the modem connected.
2. Insert the CD-ROM that comes with the EZ Connect ADSL USB Modem into your CD drive.
3. Select the language version you want to install, and double-click to open the chosen folder.



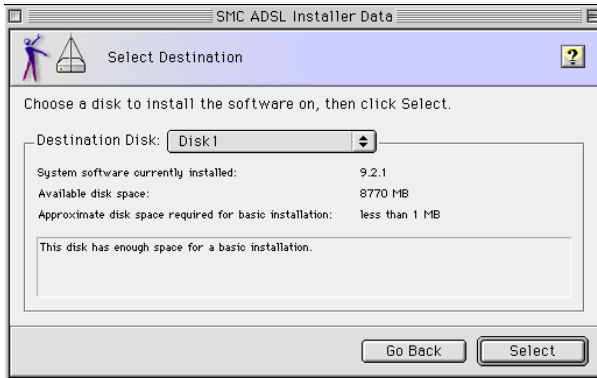
4. Double-click Installer to start driver installation.



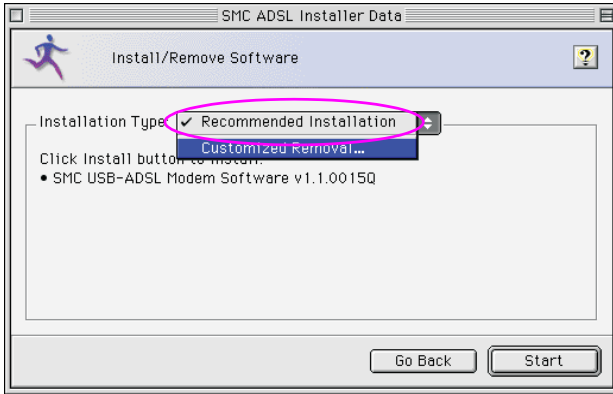
5. The Welcome screen will appear as shown on below; click Continue.



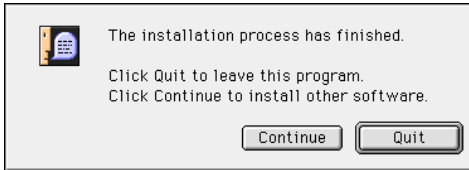
6. Select the location to install the software, and click Select.



7. Click Start to continue.

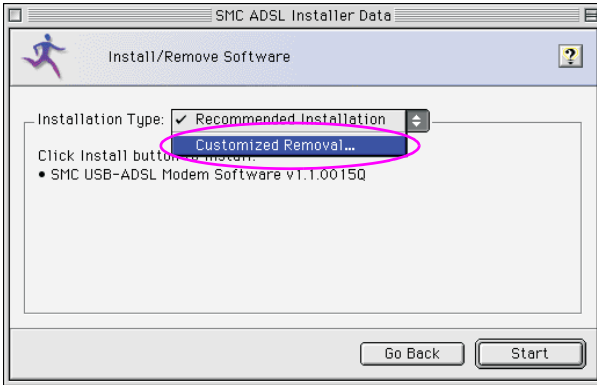


8. Click Quit to finish driver installation.

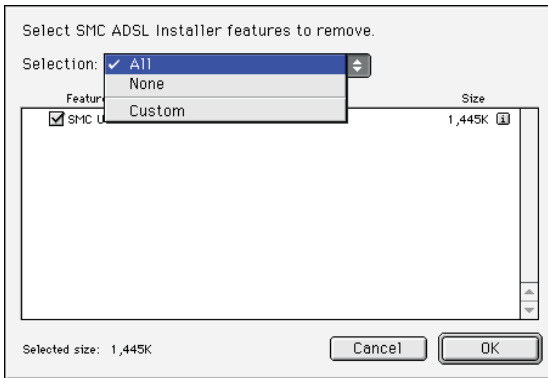


Uninstallation in Macintosh 9.x

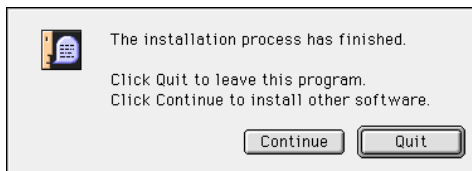
1. If you want to uninstall the driver and SMC7003USB control panel, insert the CD-ROM that comes with the modem into your CD drive. Then repeat step 3 to step 6 in the previous section.
2. Choose Customized Removal and click Start to continue.



3. Select All and click OK.



4. Click Quit to close the window.



CHAPTER 4

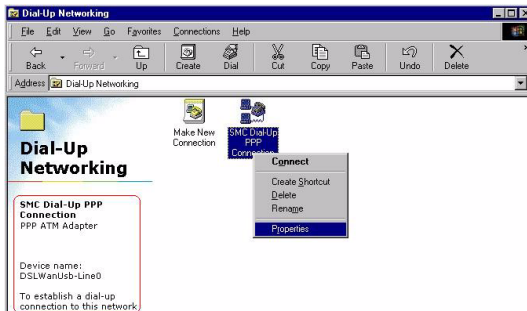
TCP/IP NETWORKING

OPTIONS

Microsoft Windows 98/98SE

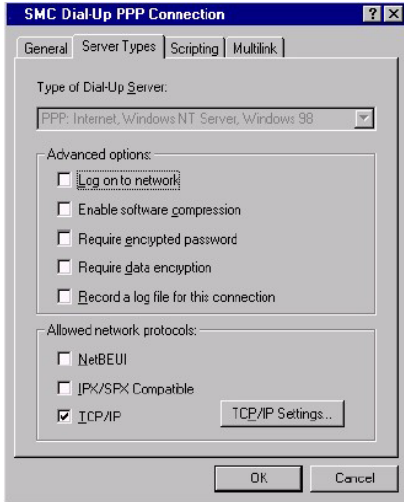
TCP/IP settings are automatically set up during the software installation process. The following procedure may be used to change TCP/IP settings, if necessary.

1. From your PC desktop, double-click the My Computer icon.
2. From the My Computer window, double-click the Dial-Up Networking icon.
3. From the Dial-Up Networking window, right-click the SMC ADSL Connection icon and click Properties.

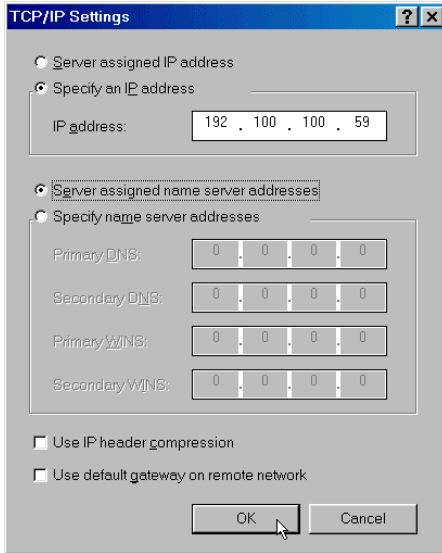


Note: The icon name may differ from that specified above. The SMC connection will be identified as “DSLAtmUsb-Line0” in the Device Name from the Dial-Up Networking window.

4. From the Server Types tab of the SMC Dial-Up PPP Connection window, select the TCP/IP checkbox and click TCP/IP Settings.



- The TCP/IP Settings window will appear for you to modify the IP address, Name Server addresses and/or default gateway.



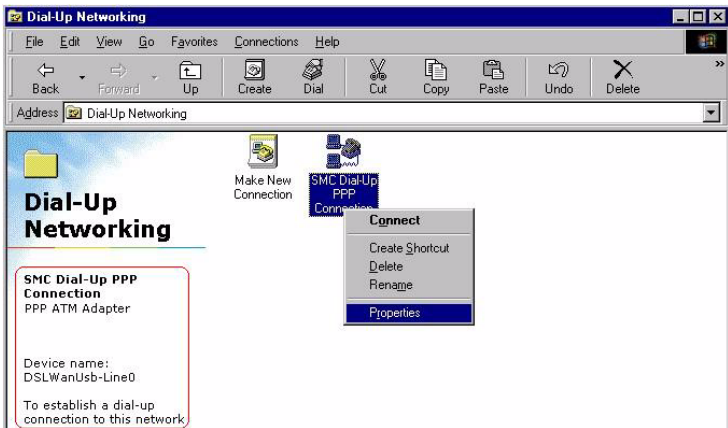
Note: Please fill in the information provided by your Internet Service Provider on the above screen.

- Click OK.
- The SMC Dial-Up PPP Connection window will reappear. Click OK to close the window.

Microsoft Windows 2000

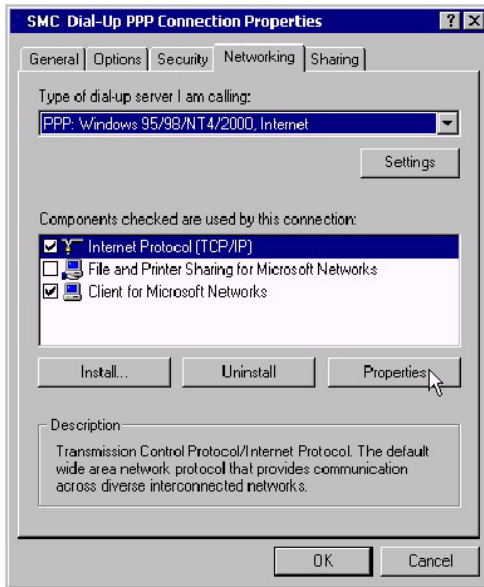
TCP/IP settings are automatically set up during the software installation process. The following procedure may be used to change TCP/IP settings, if necessary.

1. From your PC desktop, click Start/Settings/Network and Dial-Up Connections.
2. From the Network and Dial-Up Connections window, right-click SMC Dial-Up PPP Connection and select Properties.

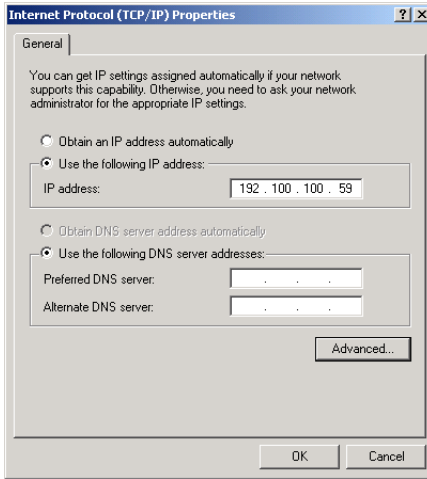


Note: The icon name may differ from that specified above. The SMC connection will be identified as “DSLAtmUsb-Line0” in the Device Name from the Dial-Up Networking window.

3. From the Networking tab of the SMC Dial-Up PPP Connection Properties window, select Internet Protocol (TCP/IP) and click Properties.



4. The Internet Protocol (TCP/IP) Properties window will appear for you to modify the IP address and DNS Server addresses.



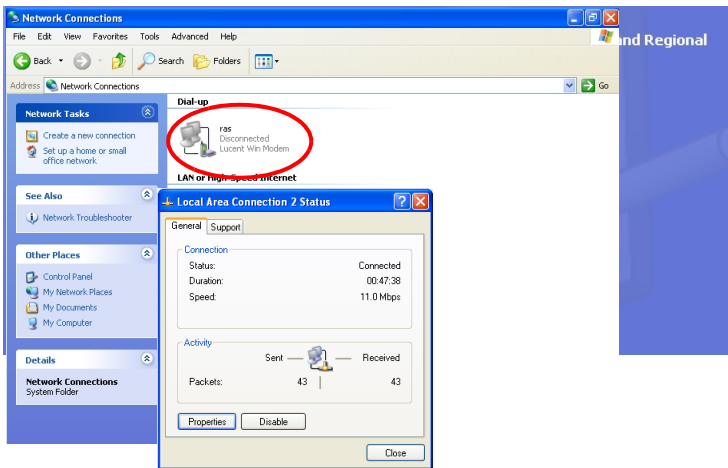
Note: Please fill in the information provided by your Internet Service Provider on the above screen.

5. Click OK.
6. The SMC Dial-Up PPP Connection Properties window will reappear. Click OK to close the window.

Microsoft Windows XP

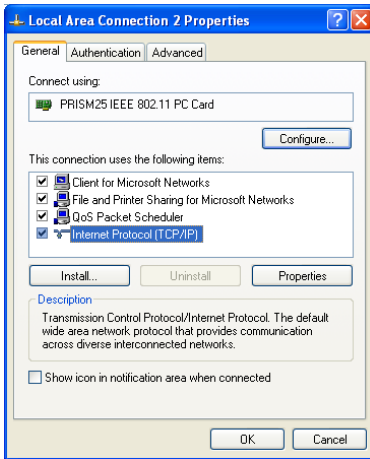
TCP/IP settings are automatically set up during the software installation process. The following procedure may be used to change TCP/IP settings, if necessary.

1. Click Start/Control Panel.
2. Click Network and Internet Connections.

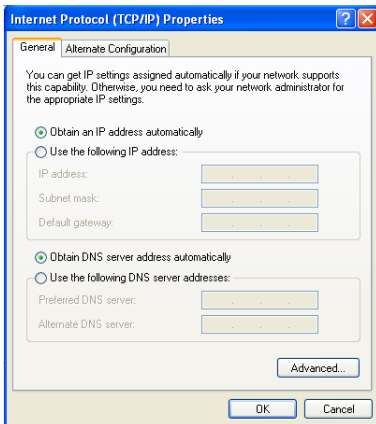


3. The Network Connections window will open as shown above. Double-click the connection for this device. On the connection status screen, click Properties.

4. Double-click Internet Protocol (TCP/IP).



5. Fill in the information provided by your Internet Service Provider. Use the spaces on the next page to record the TCP/IP settings.



6. 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 _____

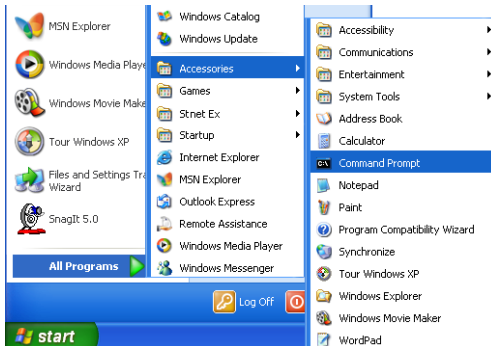
Preferred DNS Server _____

Alternate DNS Server _____

Obtain IP Settings from Your Modem

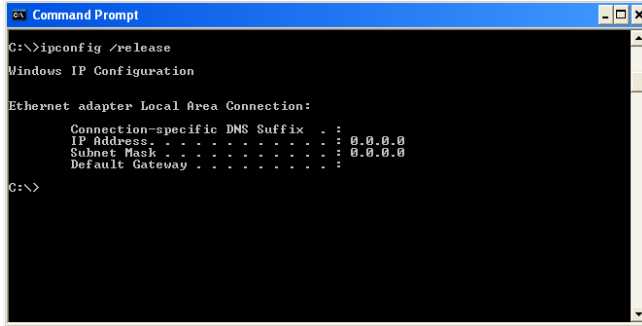
Now that you have configured your computer to connect to your modem, it needs to obtain new network settings. By releasing old DHCP IP settings and renewing them with settings from your modem, you can verify that you have configured your computer correctly.

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



TCP/IP NETWORKING OPTIONS

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



```
Command Prompt
C:\>ipconfig /release

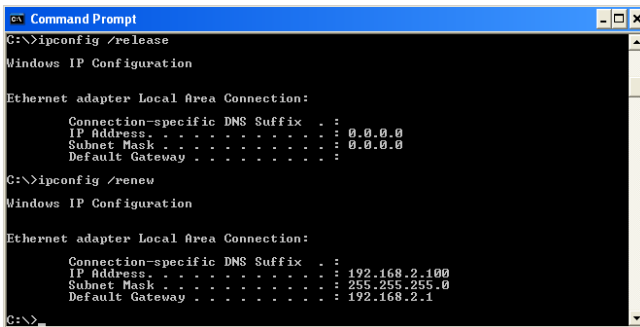
Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 0.0.0.0
    Subnet Mask . . . . . : 0.0.0.0
    Default Gateway . . . . . : 

C:\>
```

3. Type “IPCONFIG /RENEW” and press the ENTER key. Verify that your IP Address is now **192.100.100.xxx** (where x is 1 - 14, 16 - 254), your Subnet Mask is **255.255.255.0** and your Default Gateway is **192.100.100.15**. These values confirm that your ADSL Router is functioning.



```
Command Prompt
C:\>ipconfig /release

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 0.0.0.0
    Subnet Mask . . . . . : 0.0.0.0
    Default Gateway . . . . . : 

C:\>ipconfig /renew

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.2.100
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.2.1

C:\>
```

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


Your computer is now configured to connect to the modem.

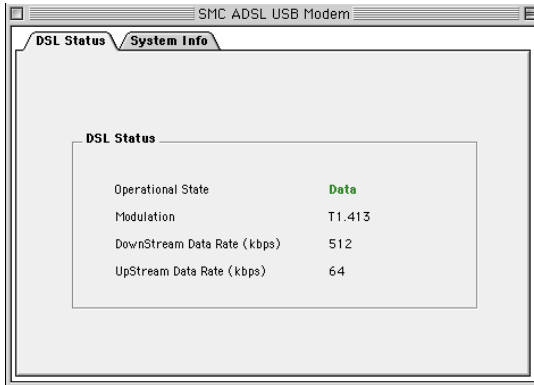
Macintosh Configuration

The following instructions will help you to get your network configuration information.

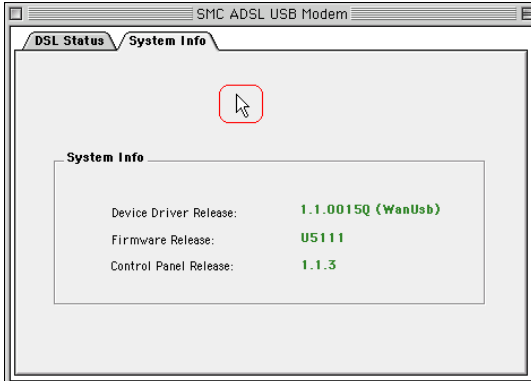
Note: Your local ISP will configure your network to the following settings. If there is any problem with these functions, please contact your local ISP for help.

ADSL Setup

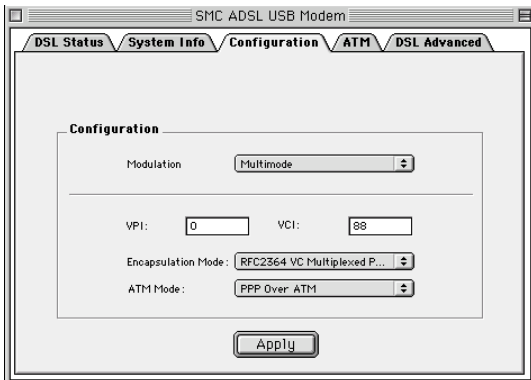
1. Pull down the Apple Menu. 
2. Select Control Panels/ADSL Setup to view SMC ADSL USB Modem information including DSL Status and System Information.



3. Move the cursor onto the SMC ADSL USB Modem window, and press the “Ctrl” - “1” keys on your keyboard.



4. The Configuration, ATM, and DSL Advanced information fields will appear as shown below.



5. Click the button in the top left corner  to close this ADSL Setup window.

TCP/IP

1. Pull down the Apple Menu. Select Control Panels/TCP/IP to view your TCP/IP information.
2. On the TCP/IP window, make sure “PPP” is selected in the Connect via: field, and “Using PPP Server” is already selected in the Configure field.
3. Click the button in the top left corner to close the TCP/IP window.

Modem

1. Pull down the Apple Menu. Select Control Panels/Modem to configure this device.
2. Set the Connect via field and the Modem field to “ADSL USB MODEM” on this window.
3. Once you have made these changes, close the Modem Control Panel and click Save to save your changes.

Remote Access

1. On the control strip located along the bottom of your screen, click Remote Access/Open Remote Access.
2. Enter the user name and password for the user account you should have received from your ISP.
3. Key in the Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) (e.g., 0, 33) in Number field.

Note: The VPI and VCI should be provided by your local ISP.

4. Click Connect.

Your computer is now ready to connect to the Internet.

CHAPTER 5

COMMUNICATION SETTINGS

Dial-Up PPP Connection

Once the SMC ADSL USB Modem and software have been installed, the SMC Dial-Up PPP Connection icon will appear on your desktop.



To connect to Internet, double-click the short-cut icon. Fill in the User name and Password (which should be provided by your Internet Service Provider). Click Dial to start your Internet connection.

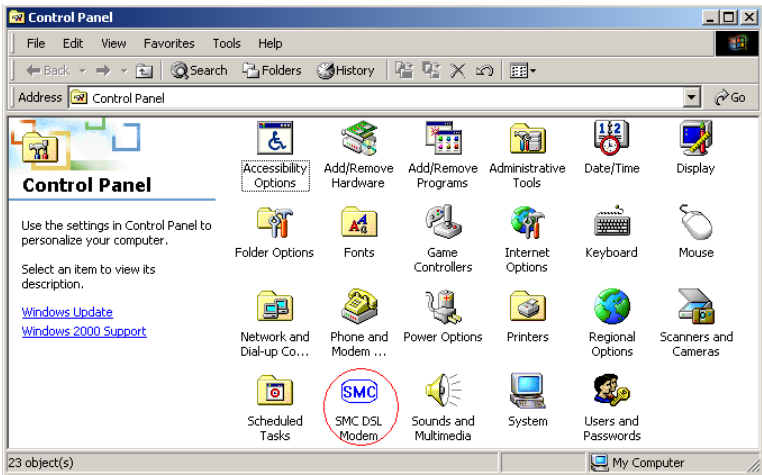


Note: If you cannot connect to the Internet, go to “Troubleshooting” on page A-1.

Connection Information

The EZ Connect ADSL USB Modem control panel program provides a quick and easy way to configure and check the performance of the modem and ADSL connection. When open, the monitor window is updated every two seconds.

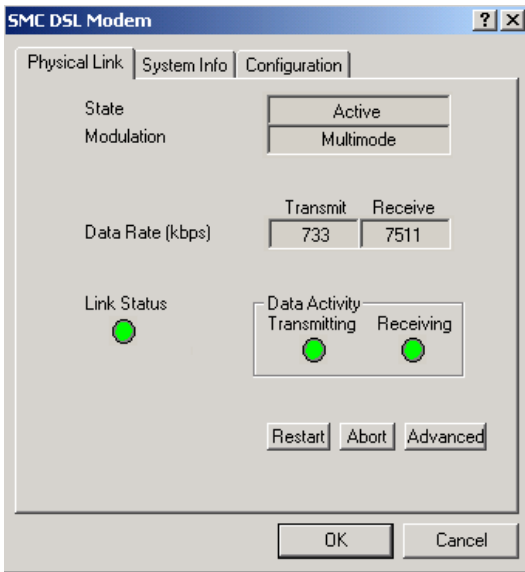
1. On the desktop, click Start/Settings/Control Panel.
2. From the Control Panel window, double-click the SMC DSL Modem icon to view the configuration settings.



Note: To access the modem, the driver must be running. Also, make sure the USB cable is plugged into the modem.

Physical Link

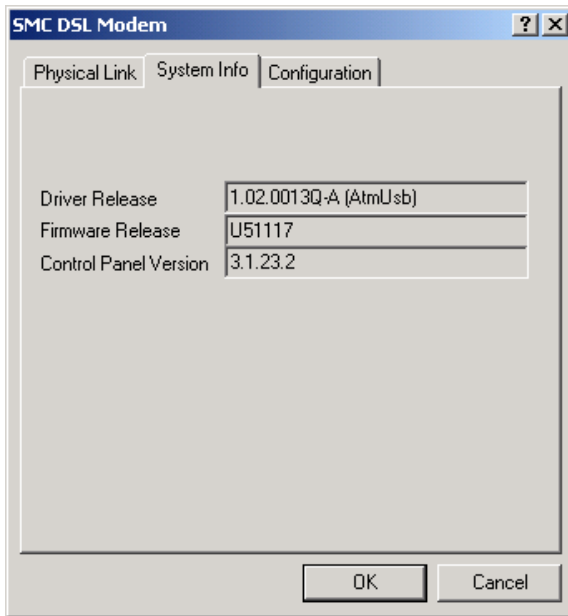
The Physical Link screen allows you to review the current state of the EZ Connect ADSL USB Modem and connection. When the green indicator is on in the Link Status field, it indicates that a connection has been made. This indicator blinks while a connection is being established. The Transmitting and Receiving data activity are shown separately by individual flashing green indicators.



Click Restart for reconnection, Abort for disconnection, and Advanced to view detailed information.

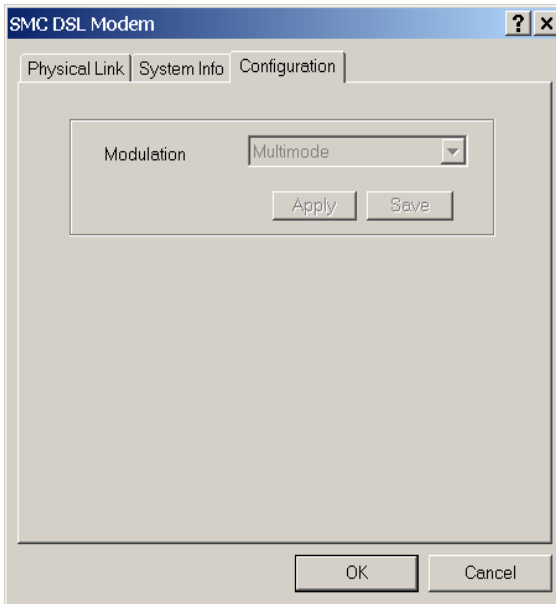
System Information

The System Information screen displays the release number of the EZ Connect ADSL USB Modem driver, the firmware release number, and the control panel version that you are currently using.

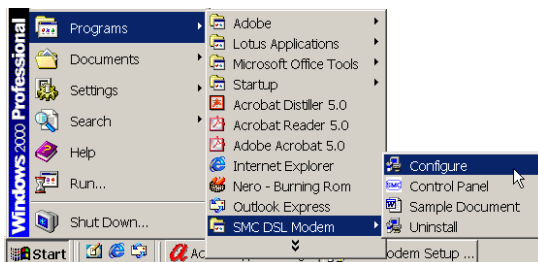


Configuration

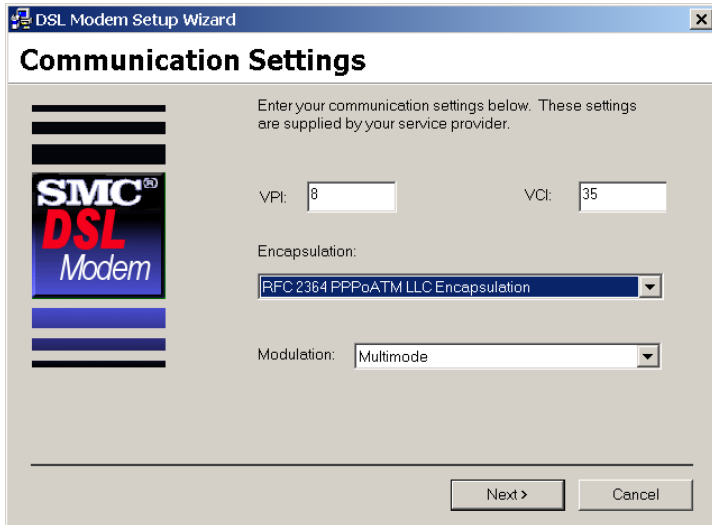
The Configuration screen displays the modulation settings applicable to your driver.



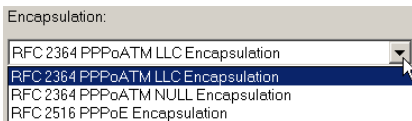
If you need to configure further settings, launch the Communication Settings window by clicking Start/Programs/SMC DSL Modem/Configure.



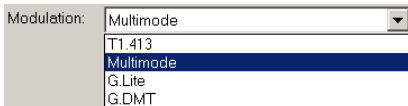
The Communication Settings window allows you to select the Encapsulation type of PPPoATM or PPPoE connection, and the modulation settings.



- Encapsulation (Default: RFC 2364 PPPoATM LLC Encapsulation)



- Modulation (Default: Multimode)



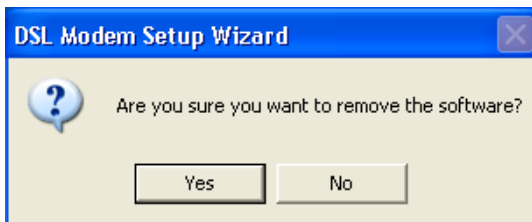
CHAPTER 6

UPGRADING THE MODEM SOFTWARE

Updating to a new version of the software requires removal of the currently installed version. Follow the instructions below to uninstall the current driver version, then go to “Driver Installation” on page 3-1 to install the updated driver.

Note: DO NOT unplug the USB cable from your computer until the uninstall process has been completed. For Windows applications, the cable must be unplugged immediately following Step 3 below.

1. From your PC desktop click Start/Programs/SMC DSL Modem/Uninstall. A message will be displayed asking you to confirm removal of the USB ADSL modem software. Click Yes.



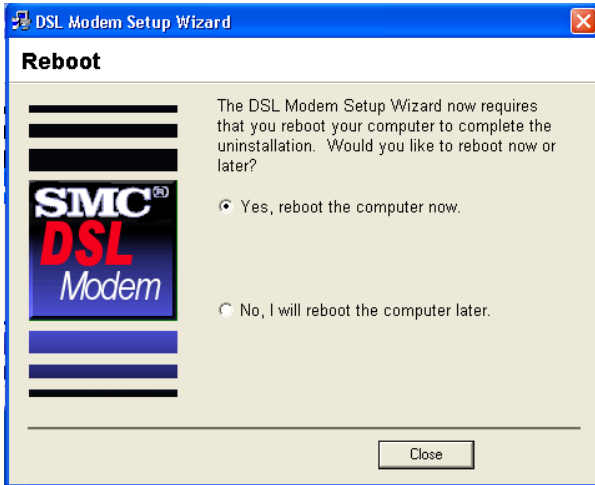
2. The Information window will be displayed reminding you not to unplug the USB cable until the uninstall process has been completed. Click OK to continue.



3. A message will display indicating that you can unplug the device. Remove the modem connection now. Then click OK.



4. The Setup Complete window indicates successful completion of the uninstall process. Click Finish to reboot your computer.



5. After your computer restarts, go to “Driver Installation” on page 3-1 for information on driver installations.

UPGRADING THE MODEM SOFTWARE

APPENDIX A

TROUBLESHOOTING

Check the following troubleshooting points before contacting SMC Technical Support.

You Cannot Connect to the Network

- Check the phone and USB cables for wear or loose wires and replace any defective cables if necessary. Make sure the cable is securely attached to the modem's RJ-11 port and that the modem is connected to your ADSL service provider via an RJ-11 wall socket or splitter.
- If your PPP connection fails to respond, hang up and dial again. PPP may fail to connect when you first dial in due to synchronization problems.
- If the Data LED is off, review the driver installation process to be sure that the driver was correctly installed. Make sure the correct software driver was installed for your operating system. A failed or aborted installation may leave some system files or drivers that interfere with a new installation. If necessary, remove the EZ Connect ADSL USB Modem driver, and try reinstalling it.

You Cannot Connect to the Internet

- Click the Network icon in the Control Panel and enter the required TCP/IP settings specified by your Internet Service Provider (ISP). Then reboot your computer to enable the new settings.

TROUBLESHOOTING

APPENDIX B

SPECIFICATIONS

ADSL Specifications

Standards Conformance

Basic ADSL:

ANSI T1.413 Issue II (full rate ADSL), ITU G.992.1 (G.dmt),
ITU G.992.2 (G.lite), G.994.1 (G.handshake)

Transport Protocols:

RFC 1557 (IP/ATM), RFC 2364 (PPP/ATM)

ATM Attributes:

ATM Transmission Convergence,
ATM Framing (with traffic shaping), ATM SAR/AAL5,
ATM Forum UNI3.1 signalling, ATM UBR Service Class

ADSL Service

Service Type:

Full rate Discrete Multi-Tone ADSL (G.dmt),
and Splitterless ADSL (G.lite)

Data Rate:

G.dmt: 8 Mbps (downstream), 1 Mbps (upstream)
G.lite: 1.5 Mbps (downstream), 512 Kbps (upstream)

Media Type:

Simultaneous data/voice (can coexist with HPNA)

Service Provider:

Digital Subscriber Line Access Multiplexer (DSLAM)

Media Connection

USB cable connection to PC -90-ohm shielded USB cable,
max length 5 m (16 ft)

RJ-11 phone wire connection to ADSL provider

PC Requirements

Host Interface:

USB Specification 1.1 or up

System Requirements:

A PC and Windows 98, 98SE, 2000, XP, or Mac OS 9.x

Physical Characteristics

Ports

Upstream: 1 USB Type-B

USB spec. 1.1 differential and bi-directional,
12 Mbps (high-speed device)

Downstream: RJ-11

Phone wire connection to ADSL service provider

LEDs

Power, Data

Dimensions

13.0 x 13.0 x 2.9 cm (5.12 x 5.12 x 1.14 in.)

Weight

150 g (5.29 oz)

Input Power

+5VDC, 500mA (maximum)

(bus powered from USB host controller or hub)

Power Consumption

2.50 Watts maximum (from USB host)

Temperature

Operating 0 to 40 °C (32 to 104 °F)

Storage -40 to 70 °C (-40 to 160 °F)

Humidity

5% to 95% (non-condensing)

Compliances

CE Mark

Emissions

FCC Class B

VCCI Class B

Industry Canada Class B

EN55022 (CISPR 22) Class B

C-Tick - AS/NZS 3548 (1995) Class B

Immunity

IEC 1000-4-2/3/4/6

Safety

UL 60950

EN60950 (TÜV)

CSA 22.2 No. 60950

IEC 60950

Warranty

Limited Lifetime

SPECIFICATIONS

GLOSSARY

Asymmetric Digital Subscriber Line (ADSL)

One of four DSL technologies. ADSL is designed to deliver more bandwidth downstream (from the central office to the customer site) than upstream. Downstream rates range from 1.5 to 9 Mbps, whereas upstream bandwidth ranges from 16 to 640 Kbps. ADSL transmissions work at distances up to 18,000 feet (5,488 meters) over a single copper twisted pair.

Asynchronous Transfer Mode (ATM)

A cell-based connection-oriented data service offering high speed (up to 2.488 Gbps) data transfer. ATM integrates circuit and packet switching to handle both constant and burst information. Frequently called cell relay.

Bandwidth

The difference between the highest and lowest frequencies available for network signals. Also synonymous with wire speed, the actual speed of the data transmission along the cable.

CSMA/CD

CSMA/CD (Carrier Sense Multiple Access/Collision Detect) is a communication method over shared medium that is employed by Ethernet and Fast Ethernet.

DSL Access Multiplexer (DSLAM)

A device at a phone company's central office that links many customer's DSL connections to a single high-speed ATM line.

Domain Naming System (DNS)

System used in the Internet for translating names of network nodes into addresses.

Dynamic Host Configuration Protocol (DHCP)

Issues IP addresses automatically within a specified range to devices such as PCs when they are first powered on. The device retains the use of the IP address for a specific license period that the system administrator can define. DHCP is available as part of the many operating systems including Microsoft Windows NT Server and UNIX.

Ethernet

A network communication system developed and standardized by DEC, Intel, and Xerox, using baseband transmission, CSMA/CD access, logical bus topology, and coaxial cable. The successor IEEE 802.3 standard provides for integration into the OSI model and extends the physical layer and media with repeaters and implementations that operate on fiber, thin coax and twisted-pair cable.

G.dmt

A standard that defines full-rate ADSL, which utilizes Discrete Multi-Tone (DMT) signaling to transmit data at up to 8 Mbps downstream and 640 Kbps upstream.

G.lite

A standard that defines the more economical splitterless ADSL connection that transmits data at up to 1.5 Mbps downstream and 512 Kbps upstream. This ADSL option can be installed without an on-site visit by the service provider.

IEEE

Institute of Electrical and Electronic Engineers.

IEEE 802.3

Defines carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications.

IEEE 802.3u

Defines CSMA/CD access method and physical layer specifications for 100BASE-TX Fast Ethernet.

Internet Service Provider (ISP)

A company that provides access to the Internet. This may be your local telephone company, or a dedicated Internet service company.

Local Area Network (LAN)

A group of interconnected computer and support devices.

LED

Light emitting diode used for monitoring a device or network condition.

Point-to-Point Protocol (PPP)

A protocol that provides router-to-router and host-to-network connections over both synchronous and asynchronous circuits. PPP is the successor to SLIP.

Quality of Service (QoS)

A network protocol used to specify a guaranteed throughput level. This protocol is often used by ATM providers to guarantee their customers a minimum end-to-end latency.

RFC 1483

An open standard that describes two encapsulation methods for carrying network interconnect traffic over ATM, specifically LLC/SNAP and VC multiplexing.

RFC 2364

An open standard that describes how to use ATM for framing PPP encapsulated packets.

RJ-45 Connector

A connector for twisted-pair wiring.

Splitter

A hardware device used in G.dmt to split the data and voice traffic before passing it on to the network and phone system.

Transmission Control Protocol/Internet Protocol (TCP/IP)

Protocol suite that includes TCP as the primary transport protocol, and IP as the network layer protocol.

Transmission Control Protocol (TCP)

A commonly used protocol for establishing and maintaining communications between applications on different computers. TCP provides full-duplex, acknowledged, and flow-controlled service to upper-layer protocols and applications.

UTP

Unshielded twisted-pair cable.

Virtual channel Identifier (VCI)

A 16-bit field in the header of an ATM cell. The VCI, together with VPI, is used to identify the next destination of a cell as it passes through a series of ATM switches on its way to its destination.

Virtual Path Identifier (VPI)

A 8-bit field in the header of an ATM cell.

FOR TECHNICAL SUPPORT, CALL:

From U.S.A. and Canada (24 hours a day, 7 days a week)
(800) SMC-4-YOU; (949) 679-8000; Fax: (949) 679-1481
From Europe (8:00 AM - 5:30 PM UK Time)
44 (0) 118 974 8700; Fax: 44 (0) 118 974 8701

INTERNET

E-mail addresses:

techsupport@smc.com
european.techsupport@smc-europe.com
support@smc-asia.com

Driver updates:

http://www.smc.com/index.cfm?action=tech_support_drivers_downloads

World Wide Web:

<http://www.smc.com>
<http://www.smc-europe.com>
<http://www.smc-asia.com>

FOR LITERATURE OR ADVERTISING RESPONSE, CALL:

U.S.A. and Canada:	(800) SMC-4-YOU;	Fax (949) 679-1481
Spain:	34-93-477-4935;	Fax 34-93-477-3774
UK:	44 (0) 1932 866553;	Fax 44 (0) 118 974 8701
France:	33 (0) 41 38 32 32;	Fax 33 (0) 41 38 01 58
Italy:	39 (0) 335 5708602;	Fax 39 02 739 14 17
Benelux:	31 33 455 72 88;	Fax 31 33 455 73 30
Central Europe:	49 (0) 89 92861-0;	Fax 49 (0) 89 92861-230
Nordic:	46 (0) 868 70700;	Fax 46 (0) 887 62 62
Eastern Europe:	34 -93-477-4920;	Fax 34 93 477 3774
Sub Saharian Africa:	27 0126610232;	Fax 27-11 314 9133
North West Africa:	216 71236616;	Fax 216 71751415
CIS:	7 (095) 789 35 73;	Fax 7 (095) 789 35 73
PRC (Beijing):	86-10-8251-1550;	Fax 86-10-8251-1551
PRC (Shanghai):	86-21-6485-9922;	Fax 86-21-6495-7924
Taiwan:	886-2-8797-8006;	Fax 886-2-8797-6288
Asia Pacific:	(65) 6 238 6556;	Fax (65) 6 238 6466
Korea:	82-2-553-0860;	Fax 82-2-553-7202
Japan:	81-3-5645-5715;	Fax 81-3-5645-5716
Australia:	61-2-8875-7887;	Fax 61-2-8875-7777
India:	91 22 5696 2790;	Fax 91 22 5696 2794
Middle East:	97 14 299 4466	Fax 97 14 299 4664
Thailand:	66 2 651 8733	Fax 66 2 651 8737

If you are looking for further contact information, please visit www.smc.com,
www.smc-europe.com, or www.smc-asia.com.



38 Tesla

Irvine, CA 92618

Phone: (949) 679-8000

Model Number: SMC7003USB V.2

Pub. Number: 150000039500A E042003-R01