



SureConnect™

ADSL USB/Ethernet Modem

Quick Installation Guide for
Windows 95B (OSR2), 98, NT 4.0, 2000, Me, XP (or
later), Linux, and Macintosh Operating Systems *

English

Model 9002



Part Number R24.0265.00

* USB is not supported in Windows 95 and NT 4.0

Ready. Set. Connect.

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Thank you for purchasing the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem, Model 9002. The following instructions will walk you through the installation of the modem and the U.S. Robotics *SureConnect* ADSL Utility. After the installation is complete, you will have installed the following items:

- U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem
- U.S. Robotics *SureConnect* ADSL Utility



It is important that you have your serial number written down for future reference. If you ever need to call our Technical Support department, you will need this number to receive assistance. You can find your 12-character serial number on a bar code sticker located on the bottom of the modem and also on the box. You will also need your model number; it is noted below.

Write your serial number in the space provided below.

9002	
Model Number	Serial Number

Installation Overview & System Requirements

What You Need Before You Begin

- ADSL and Internet service from your local telephone company or Internet Service Provider (ISP) or access to an ADSL DSLAM (Digital Subscriber Line Access Multiplexer).
- A microfilter may be required for each telephone device (telephones, answering machines, and fax machines) that shares the same phone line as the ADSL signal. Make sure there isn't a microfilter installed between the ADSL modem and the telephone wall jack, unless your microfilter has a connection for both the telephone and the DSL device.
- Your user name and password if they were assigned by your ISP.

Computer Requirements

Minimum System Requirements – Ethernet Port

- Pentium or faster compatible CPU
- Any computer with an Ethernet 10/100 RJ-45 interface

- 32 MB RAM
- 10 MB hard disk space
- Internet Explorer or Netscape Navigator 4.0 or later Web browser
- A host computer running Windows 95 (With Service Pack 2 installed), 98, NT 4.0, 2000, Me, XP (or later), Linux, or a Macintosh OS 8.6 - 9.x computer
- Any operating system that supports an Ethernet connection with an IP stack
- *SureConnect* Installation CD-ROM requires Windows 95, 98, Me, NT4.0, 2000, or XP. Computers running Windows 95 or NT 4.0 are required to have Internet Explorer 4.0 or later installed. After Internet Explorer is installed, Netscape Navigator can be used.

Minimum System Requirements – USB Port

- Pentium 200 MHz or faster compatible CPU
- Host PC with Universal Serial Bus (USB) support
- A host computer running Windows 98, 2000, Me, XP (or later), Macintosh OS 8.6 - 9.x, or Linux
- 32 MB RAM
- 10 MB hard disk space
- Internet Explorer or Netscape Navigator 4.0 or later Web browser
- *SureConnect* Installation CD-ROM requires Windows 98, Me, 2000, XP, Linux or Macintosh OS 8.6 - 9.x

Power Requirements

The U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem obtains power from the included AC power adapter. Be sure to only use the included power adapter when operating this device. The power adapter must be connected in order for the modem to function properly.

Windows 95 and Windows NT 4.0 Users

If you are installing the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem and have a PC running Windows 95 or NT 4.0, you will have to install the modem using the Ethernet option.



Be sure that your computer is on and you have your operating system CD-ROM readily available. If you are installing via the USB port, be sure to install the software first.

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This U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem package includes the following items:

	U.S. Robotics <i>SureConnect</i> ADSL USB/Ethernet Modem Model 9002
	RJ-11 Phone Cord (4 wire)(26 AWG)
	AC Power Adapter
	USB Cable (3 ft/1.5 m)
	Ethernet Cable (6 ft/1.8 m)
	Quick Installation Guide
	U.S. Robotics <i>SureConnect</i> Installation CD-ROM with User Guide
Optional Components	
	In some models there may be a microfilter included in the box, or a microfilter may be supplied by your ISP. Check with your ISP to see if a microfilter is needed. If you are required to install a microfilter, the next section discusses installation.

Inform your dealer if there are any incorrect, missing, or damaged parts.

Macintosh and Linux Users

Refer to the installation instructions specific to your operating system in this Quick Installation Guide.

Should You Connect via Ethernet or USB?

The U.S. Robotics ADSL USB/Ethernet Modem gives you the option to connect through a USB or an Ethernet port. Selecting how to connect your modem is mostly a matter of preference and also depends on what ports are available on your computer.

Windows Installation

Step 1. Connect Microfilters (If Necessary)

If there are no microfilters included in your package and your ISP did not provide any, skip to Step 2 of these installation instructions.

If microfilters are required, install one on each telephone device (telephones, answering machines, and fax machines) that shares the same phone line as the ADSL signal.

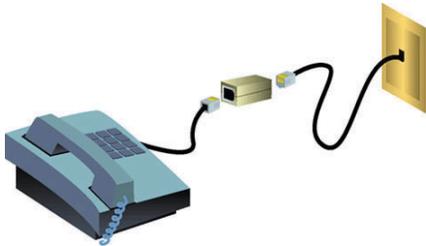
A microfilter is a small device used to lessen the amount of interference between ADSL signals and telephone signals. Microfilters only need to be used if the ADSL modem and a telephone device are sharing the same phone line. If microfilters are not used, you may experience background noise on your telephone while data is being transmitted. Data transmissions may experience interruption by telephone calls if a microfilter is not used.

Connect Microfilters to Telephone Devices

To install the microfilter, plug the phone into the microfilter, and then plug the microfilter into the telephone wall jack. Do not install a microfilter on the cable that connects your modem to the telephone jack unless your microfilter has a connection for both the telephone and the ADSL device.

Step 2. Install the ADSL USB/Ethernet Modem

To install the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem, insert the Installation CD-ROM into the CD-ROM drive of your computer. If the installation does not start automatically, go to your desktop and double-click **My Computer**, double-click the drive letter associated with your CD-ROM drive, and then double-click **Setup**.



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- A qualification test will run to verify that your system meets the minimum requirements for installation. The Results screen will display those items in your configuration that passed with a green flag and the ones that failed with a red flag. If your system passed the qualification, click **Next** and the necessary files will be copied to your system.



If you are notified that your system has failed the qualification test, click the **View Report** button to identify which component(s) failed. Once you have identified which component(s) failed, refer to the "Troubleshooting" section of this Quick Installation Guide for further instructions.

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The U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem Installer Welcome window will display; click **Next** to continue installing the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem.



- Select the connection type (USB or Ethernet) you will be utilizing to connect the modem to your computer; click **Next**. If you are running Windows 95 or NT 4.0 you will not have the option to select. In those operating systems you must connect via Ethernet.



- You will then be prompted to select a location to install the files. If you would like to change the default location, click **Browse** to select a new folder. If you accept the default location, click **Next**.

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Windows 95

Some Windows 95 users may require a necessary Windows component (Winsock 2) to be installed at this time. Click **Next** to launch the installation of this component, and follow the on-screen instructions. Once the installation is complete, you will need to restart the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem installation.

For USB Users Only: The necessary files will be copied to your system. Select your Internet Service Provider (ISP) from the list and click **Next**.



Step 3. Connect the Cables

Connect the Power Adapter

Be sure to only use the included power supply. Connect the power adapter cord to the "10VDC" jack at the rear of the modem. Connect the power adapter to a standard wall outlet. Click **Next**.



Connect the Telephone Cable

Connect one end of the included telephone cable to the telephone port on the back of your modem labeled "ADSL" and connect the other end into the telephone jack. Click **Next**.

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Connect the Ethernet or USB Cable

Follow the instructions below for the connection type (Ethernet or USB) you selected in Step 2.

Ethernet

- Insert one end of the Ethernet cable to the "ENET" port on the back of the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem. Connect the other end of the Ethernet cable to the Ethernet port on your computer's 10/100 network interface card.
- The modem will begin an initialization sequence. This may take a minute.
- The installation of the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem is complete. Click **Finish**, and remove the CD-ROM from the CD-ROM drive of your computer.



If your ISP gave you software to install, do so at this time. Be sure to read and follow all of the installation instructions provided. Once the software is installed, you may need to establish a dial-up connection in order to access the Internet. If your ISP gave you software to install, a user name and password should have also been assigned.

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Windows XP, 2000



Windows XP
A Found New Hardware Wizard screen for both the Loader and the Adapter will display. Select the **Install Software Automatically** option and click **Next**.

Windows 2000
A screen will confirm when each device has been installed. Click **Finish** to continue to install the software required to operate the modem.

- After the modem is detected, you will need to restart your computer. Select **Yes, I would like to restart my computer now** then click **Finish**.



- After restart, a window will display confirming that the modem driver has been installed, click **Next**.
- The installation of the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem is complete. Click **Finish** and remove the CD-ROM from the CD-ROM drive of your computer.

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Some Internet Service Providers require additional software be installed for optimum performance. If your ISP requires additional software, it will be installed when you click **Finish**.

The Registration screen displays once you have established a connection. You can test your connection by registering your modem. Click **Yes** to register your modem, and you will be brought to the U.S. Robotics Web site.



USB

- If you have chosen to connect via the USB port, insert the rectangular end of the included USB cable into the USB port of the computer, and the square end of the cable into the port labeled "USB" on the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem.
- The Found New Hardware Wizard will display, and the new hardware will begin to install. Follow the New Hardware Wizard's on-screen instructions to complete the installation of the hardware. If the New Hardware Wizard does not display, refer to the "Troubleshooting" section of this Quick Installation Guide.

Windows XP, 2000, & Me



Windows XP
A software installation warning will display stating that the software you are installing has not passed the Windows logo testing. Click the **Continue Anyway** button.

Windows 2000 and Me
A Digital Signature Not Found screen may appear. Click **Yes** to continue with the installation.

U.S. Robotics has thoroughly tested this driver in conjunction with the support hardware and has verified compatibility with Windows XP, 2000, & Me.

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If your ISP gave you software to install, do so at this time. Be sure to read and follow all of the installation instructions provided. Once the software is installed, you may need to establish a dial-up connection in order to access the Internet. If your ISP gave you software to install, a user name and password should have also been assigned.



Some Internet Service Providers require additional software be installed for optimum performance. If your ISP requires additional software, it will be installed when you click **Finish**.

Establish a Dial-up Connection



Double-click the dial-up networking icon that has just been created. It will be located on your desktop. If the networking icon is not available on your desktop, follow the instructions below for your operating system in order to locate the networking icon.

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Windows 2000	Click Start, select Settings, and then double-click Network and Dial Up Connections.
Windows 98 and Windows Me	Double-click My Computer and then double-click Dial Up Networking.
Windows XP	Click Start, click Control Panel, and then double-click Network Connections.

1. Look for your ISP's dial-up connection icon and double-click it.
2. In the Dial-up Connection screen, enter your user name and password. Your ISP should have supplied your user name and password to you. The Save password option remembers your password so you won't have to enter it every time you initiate your dial-up connection.



The characters in the Dial text field are the VPI/VCI values. The VPI/VCI values will automatically display and you should not need to change them unless instructed to do so by your ISP.

3. Click the **Dial** button to initiate your connection.

The Registration screen displays once you have established a connection. You can test your connection by registering your modem. Click **Yes** to register your modem, and you will be brought to the U.S. Robotics Web site.

Macintosh OS 8.6 - 9.x Installation (USB Only)

Step 1: Install the Drivers

1. Insert the Installation CD-ROM into the CD-ROM drive of the Macintosh.
2. The Macintosh will recognize the CD-ROM and place an icon called **Combo ADSL 1.0** on the desktop. Double-click the **Combo ADSL 1.0** icon.
3. A window will display; if you are using ADSL Annex A, which works over a standard telephone line, double-click **USRxx9002 (POTS) ADSL Modem**. If you are using ADSL Annex B, which works over an ISDN line, double-click **USR029002 (ISDN) ADSL Modem**.



4. The Installation window will display; click the **Install** button.



5. A prompt will display to remind you to plug in the USB cable when the computer restarts; click **OK**.



6. Once the modem has been installed, you will need to restart your computer; click **Restart**.



Step 2: Connecting the Cables

Connect the USB Cable

1. Plug the flat end of the provided USB cable into an available USB port on your Macintosh.
2. Plug the square end of the USB cable into the port of the modem labeled USB.

Connect the Telephone Cable

1. Plug one end of the provided RJ-11 telephone cable into the telephone jack or the ADSL splitter box provided by your Internet Service Provider.
2. Plug the other end of the RJ-11 telephone cable into the ADSL port of the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem.

Once you have connected both the USB and the RJ-11, your Macintosh will detect the modem and load the installed software. This will enable you to use your new high-speed U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem.

Step 3: Configuring the Modem

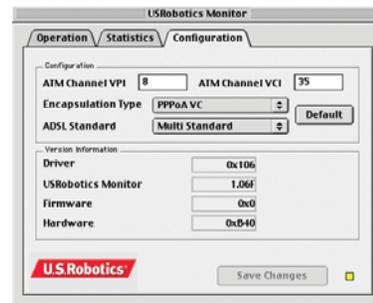
In most cases, you will not have to change the ADSL-specific configuration parameters for your modem. Your ISP will have customized the software so that the modem installs with the defaults required for connecting to their own equipment. If the ADSL parameters need to be changed, they can be changed on the Configuration page of U.S. Robotics Monitor.

U.S. Robotics Monitor

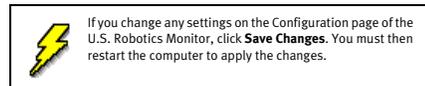
Each parameter setting is specific to your ISP's network configuration; therefore, either keep the default settings or obtain alternate settings from your ISP. The settings that can be changed on the Configuration page of U.S. Robotics Monitor are:

- ATM Channel VPI
- ATM Channel VCI
- Encapsulation Type
- ADSL Standard

1. To access the U.S. Robotics Monitor, go to the Desktop and double-click the **USR ADSL Modem** icon.
2. The U.S. Robotics Monitor will display; click the Configuration tab.



The value that you choose for Encapsulation Type will determine whether your modem is exposed to the operating system as a network-type device or as a modem-type device. The choices that begin with PPP will cause the operating system to view your modem as a modem-type device, and the remaining options will cause the operating system to view your modem as an Ethernet-type device.



Step 4: Configuring the Operating System

Once the modem has been properly configured, the Macintosh OS 8.6 -9.x operating system must also be configured so that it knows how to properly communicate with your modem's software. You should configure the system software based on whether your ISP expects your modem to communicate as an Ethernet device or as a "regular" modem.

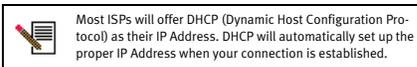
The Encapsulation Type you selected will dictate which components need to be configured. Use the table below to help you identify which components you will need to configure, and how you will need to configure them, depending on your Encapsulation and Connection Type.

Encapsulation Type	TCP/IP	Remote Access	Communication Mode	Connect Via	Configure
Bridged LLC SNAP	X	-	Ethernet	ADSL USB Modem	Manually, Using Boot Server, Using DHCP Server, Using RARP Server
Bridged VC MUX	X	-	Ethernet	ADSL USB Modem	Manually, Using Boot Server, Using DHCP Server, Using RARP Server
Routed LLC SNAP	X	-	Ethernet	ADSL USB Modem	Manually, Using Boot Server, Using DHCP Server, Using RARP Server
Routed VC MUX	X	-	Ethernet	ADSL USB Modem	Manually, Using Boot Server, Using DHCP Server, Using RARP Server
PPPoA LLC	X	X	Modem	PPP	Manually, Using PPP Server, Using BootP Server, Using DHCP Server
PPPoA VC	X	X	Modem	PPP	Manually, Using PPP Server, Using BootP Server, Using DHCP Server
PPPoE LLC	X	X	Modem	PPP	Manually, Using PPP Server, Using BootP Server or Using DHCP Server
PPPoE VC	X	X	Modem	PPP	Manually, Using PPP Server, Using BootP Server or Using DHCP Server

Configuring TCP/IP

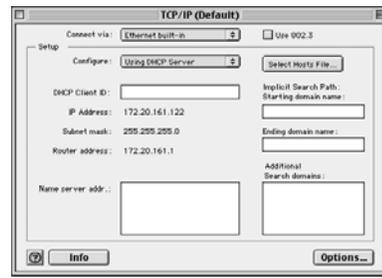
The most commonly used language, or protocol, used to communicate over the Internet is called TCP/IP (Transmission Control Protocol / Internet Protocol).

- Go to the **Control Panels** submenu of the **Apple** menu. Click **TCP/IP** in the menu to display the Connect Via pull-down menu. The TCP/IP screen will display.
- From the **Connect Via** pull-down menu, click **ADSL USB Modem** for Ethernet Mode or select **PPP** for Modem Mode.



Most ISPs will offer DHCP (Dynamic Host Configuration Protocol) as their IP Address. DHCP will automatically set up the proper IP Address when your connection is established.

- Select **Using DHCP Server** from the Configure pull-down menu for Ethernet Mode and **Using PPP Server** for PPP Mode. If your ISP requires you to use a specific IP address, select **Manually** from the **Configure** pull-down menu, and then enter the IP Address provided by your ISP.
- Once you have selected the above options, close the window by clicking the small square in the upper-left corner, then click **Save**.



Remote Access

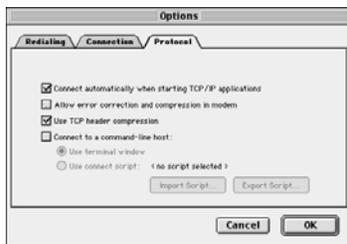
When the Macintosh operating system is configured for Modem mode, it actually views your ADSL modem as a "regular" modem. This does not affect the performance of your high-speed Internet connection; however, it does affect the way you configure the operating system to complete the connection setup. Because the operating system thinks that you have a "regular" modem attached to your computer, you must configure the Apple Remote Access Dialer application to connect to the Internet.

- Go to the **Control Panels** submenu of the **Apple** menu.
- Click the **Remote Access** icon on the **Control Panels** menu.



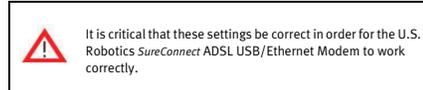
- Click the **Options** button to access the Remote Access options dialog box. In the Options dialog box, click the **Protocol** tab and select the following Protocol options:

- Connect automatically when starting TCP/IP applications.
- Use TCP header compression



- Click **OK** to save the options and return to the Remote Access Options dialog box.
- With the current window open, go to the **Remote Access** menu located at the top of the screen and click **Modem**. You can only access this menu if you are in the Remote Access window. The Modem screen will display. Select the following options:

- Select **ADSL USB Modem** from the **Connect Via**: pull-down menu.
- Select **ADSL USB Modem** in the **Modem**: pull-down menu.
- Confirm the Sound option is set to **On**.
- Confirm the Dialing option is set to **Tone**.



It is critical that these settings be correct in order for the U.S. Robotics SureConnect ADSL USB/Ethernet Modem to work correctly.

Once you have selected the above options, close the window by clicking the small square in the upper-left corner, then click **Save**. This will return you to the Remote Access setup screen.

- Enter the following information in the Remote Access screen:

- Select the **Registered User** option.
- Enter your user name and password as provided by your ISP.
- Enter a numeric value of "1" in the Number box. The driver does not dial the number "1," but the dialer needs to see a number there in order for the dialing process to work.



Once you have verified that all of the information is correct, click the square in the upper-left corner, then click **Save** to save the configuration.

Operating the Modem

Your system should now be ready to connect to the Internet. If you have not already done so, make sure that you have properly configured your ADSL settings and Macintosh system software.

Ethernet Mode

If you are configured to operate in Ethernet mode, you should already be connected to the Internet. Open your Web browser to confirm proper network operation.

A list will display all interfaces on your system. Locate the ADIModem interface. Once the interface is located, you can configure it using either one of the following methods:

- DHCP
- Static IP Address

Configure Interface Using DHCP

1. Confirm that your server provides a DHCP server.
2. If it does, then run the following script:


```
USR_USB/ADI_PPPOE/./godhcp
```
3. To confirm the interface is operational and it has an IP address assigned, run the following script:

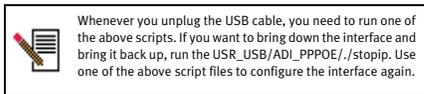
```
ifconfig
```

Configure Interface Using a Static IP Address

1. Run the following script to configure the interface using a Static IP Address:
 - ✓ `USR_USB/ADI_PPPOE/./gostatic ADIModem IPAddress Netmask`
 - ✓ `route add default gw ipaddress` (this is the gateway provided by your ISP)
 - ✓ `pico/etc/resolv.conf`
`nameserver ipaddress` (insert your DNS Address as provided by your ISP)
2. Run the following command to confirm the interface is operational and an IP address has been assigned:

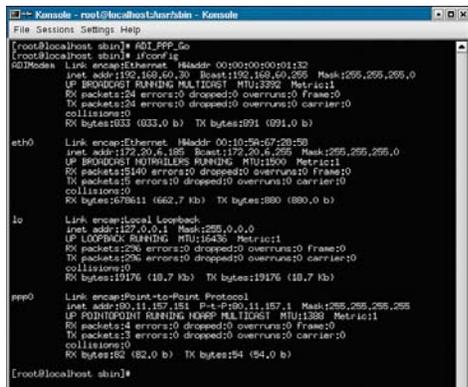
```
ifconfig
```

Once the interface is properly configured, you can start sending and receiving data.



8. To disconnect from the server, run `ADI_PPP_Stop` at the same directory and PPP will disconnect from the server.

The graphic below shows the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem connected to an ISP. The ADIModem interface is loaded (local IP 192.168.60.30), and the pppo interface is up and running with an IP address (80.11.157.151) and a gateway (80.11.157.1).

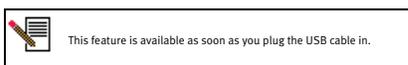


Modem Status

To view various statistics about the modem and the connection, run the following script:

```
USR_USB/ADI_PPPOE/./showstat
```

The statistical information will be available through `ADIModem` in `/proc` directory.



PPPoA Interface

1. After you have built the driver, run the following script:


```
USR_USB/./inst_pppoa
```
2. The script will compile, build, and install the PPPoA module. Upon completion, the script will copy the needed scripts and configuration files into the `/usr/sbin` and `/etc/ppp` directories.



3. If you are using ADSL Annex A, confirm that the VPI/VCI and Encapsulation type parameters located in the `/etc/analog/usradslpots.conf` are the same as the ones provided to you by your ISP. If you are using ADSL Annex B, which works over an ISDN line, confirm that the VPI/VCI and Encapsulation type parameters located in the `/etc/analog/usradslisdn.conf` are the same as the ones provided to you by your ISP.
4. Plug the USB cable into the modem and computer.
5. Modify the user name and password in `pap-secrets`, `chap-secrets`, and `options` files in `/etc/ppp` directory with the values provided by your ISP. For example, the format of the `pap-secrets` and `chap-secrets` files:

```

*Secrets for authentication using CHAP
*Client  server  secret  IP address
ISP username *      ISP password *
  
```

In the Options file, you need to change the user "*****" with the username provided by your ISP.

6. Go into `/usr/sbin` directory and run the following script:


```
ADI_PPP_Go
```
7. Once the script has completed, run `ifconfig` and confirm that you are connected to your provider. PPP will create an interface called "pppo" whenever it connects to a server.

Troubleshooting

Troubleshooting Checklist

To help diagnose the problem, use the checklist below.

- ✓ Confirm that you have secured the power adapter to the modem and to an active wall outlet. The "PWR" LED should be illuminated.
- ✓ Confirm that you have secured the telephone cable to the telephone jack and to the modem. The "ADSL" LED should be illuminated.
- ✓ If you connected using a USB cable, confirm that you have secured the USB cable to the "USB" port on the back of the modem and to the "USB port on your computer. If you connected using an Ethernet cable, confirm that you have secured the Ethernet cable to the "ENET" port on the modem and to the "ENET" port on your computer. The "ENET" or the "USB" LED should be illuminated.
- ✓ Have you contacted your Internet Service Provider to order ADSL service to your home? If you have yet to contact your ISP, you must do so, as the modem will be inoperable without acquiring proper service from an ISP.
- ✓ Verify that you are installing your ADSL equipment AFTER the "Service Completion Date" given to you when you ordered your ADSL Internet Service. If you have yet to contact your ISP, you must do so, as the modem will be inoperable without acquiring proper service from an ISP.
- ✓ Confirm that you do not have a microfilter installed on the RJ-11 cable that connects your modem to the telephone wall jack. If you do, remove it.
- ✓ If you were given software by your ISP to install, you need to install it.
- ✓ If your ISP did not give you any software to install, you will need to connect using the dial-up connection on the desktop.
- ✓ **(For Windows Users Only)** Run a test using the U.S. Robotics *SureConnect* ADSL Utility to identify any possible problems. For more information about how to run a test, refer to the "U.S. Robotics *SureConnect* ADSL Utility" section of this Quick Installation Guide.

Status LEDs

The U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem has four LEDs on the front of the modem. The first from the left is the "PWR" LED, the second is the data transfer "ENET" LED, the third is the "USB," and the last is the "ADSL" LED. The operational status of the modem is indicated by the LED conditions listed below.

PWR	On Green	Power is being received from the power supply in the wall jack.
	Off	No power is detected.
ENET	On Green	A physical connection between the modem and the computer, through the Ethernet cable, has been established and detected.
	Flashing Green	Data traffic is flowing.
	Off	A physical connection between the modem and the computer, through the Ethernet cable, has not been established.
USB	On Green	A physical connection between the modem and the computer, through the USB cable, has been established and detected.
	Flashing Green	Data traffic is flowing.
	Off	A physical connection between the modem and the computer, through the USB cable, has not been established.
ADSL	On Green	A DSL link has been established.
	Flashing Green	A DSL link is being negotiated.
	Off	The DSL link has failed.

Troubleshooting Tips

Windows Only

None of the LEDs are illuminated when the ADSL modem is powered on.

Check the connection of the power adapter to the modem and to the wall outlet. Confirm that you are using the power adapter that was included with your U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem.

When I plugged in my modem using a USB connection, the New Hardware Wizard did not display.

- Review the Troubleshooting Checklist at the beginning of this section.
- If a second USB port is available on your computer, try connecting the USB cable into that USB port.
- If the USB device is not recognized, check the computer manufacturer's documentation.

I ran a test using the U.S. Robotics *SureConnect* ADSL Utility, and the Modem test failed.

The Modem test will fail if the computer is unable to communicate with the modem or if the modem does not successfully complete the self-test. Take the following steps to ensure your computer can communicate with the modem:

- Confirm that you have secured the Ethernet cable to the "ENET" port on the modem and to the network interface card. The "ENET" LED should be illuminated or confirm that you have secured the USB cable to the USB port. The USB LED should be illuminated.

- Confirm that you are using the power adapter that came with the U.S. Robotics ADSL USB/Ethernet Modem and that it is securely plugged into a wall outlet and the modem.
- If you are connecting via Ethernet, confirm the network interface card (NIC) did acquire an IP address. Restart the computer and then run the test again.
- If the Modem test still fails, contact your ISP to verify the operational status of the modem.

I ran a test using the U.S. Robotics *SureConnect* ADSL Utility, and the Line test failed.

The modem is unable to communicate with the telephone company. In technical terms, the modem was not able to confirm a physical connection to the Digital Subscriber Line Access Multiplexer (DSLAM) located in the telephone company's central office.

- Confirm that the telephone cable is securely plugged into the modem and to an active telephone jack.
- Confirm that you do not have a microfilter installed on the RJ-11 cable that connects your modem to the telephone jack. If you do, remove it.
- Reset the telephone line by unplugging all devices that share that phone number from their respective telephone jacks. Once they are all unplugged, plug them back in.
- If the line test still fails, call your ISP to ensure the ADSL line is properly configured.

I ran a test using the U.S. Robotics *SureConnect* ADSL Utility, and the Internet Connection Test failed.

The modem was able to connect to the telephone company but was unable to reach the ISP. There may be a problem connecting to the Gateway or to the Domain Name Service (DNS) maintained by the ISP.

- Try disconnecting the dial-up connection and dialing it again. If the test still fails, call your ISP for assistance.
- If you are using a firewall, confirm that the *SureConnect* Utility has permission to access the Internet.
- If you have a router between the modem and the computer, this version of *SureConnect* will not detect the modem. In order for *SureConnect* to detect the modem and display its status, the modem must be connected directly to the computer. The modem will still function properly; however, the *SureConnect* Utility cannot be used. You may safely delete the *SureConnect* Utility shortcut from your Startup folder or use Add/Remove Programs to uninstall the *SureConnect* Utility.

When I complete my installation, the Test tab of the U.S. Robotics *SureConnect* ADSL Utility displays and I can't surf the Internet.

Click the **Test** button in the Test tab to initiate a test on the modem. The cause of the failure will be identified in the lower half of the screen.

The Registration screen did not display.

The Registration screen will only display if a connection to the Internet has been established. If your ISP gave you software to install, do so at this time. Be sure to read and follow all of the installation instructions provided. Once the software is installed, you may need to establish a dial-up connection in order to access the Internet. If your ISP gave you software to install, they should have assigned you a user name and password as well.

How do I uninstall the modem?

Windows XP

- Click the **Start** button and then click **Control Panel**.
- Double-click **Add/Remove Programs**.
- The Install/Uninstall tab will display all the programs you currently have installed. Locate and select the **U.S. Robotics *SureConnect* ADSL Modem**. You may have to scroll down to locate this program.
- Click the **Add/Remove** button.
- The Modify, Reinstall or Uninstall screen will display. Click the **Uninstall** option and then click **Next**.
- If you installed the modem via the USB port, unplug the USB cable from the computer and the modem, click **Next**.

Windows 98 and 2000

- Click **Start**, select **Settings**, and click **Control Panel**.
- Double-click the **Add/Remove Programs**.
- The Add/Remove Programs screen will display all the programs you currently have installed. Locate and select the **U.S. Robotics *SureConnect* ADSL Modem**. You may have to scroll down to locate this program.
- Click **Change/Remove** in Windows 2000 or **Add/Remove** in Windows 98.
- The Modify, Reinstall or Uninstall screen will display. Click the **Uninstall** option and then click **Next**.
- Click **Yes** to confirm the uninstallation.
- If you installed the modem via the USB port, unplug the USB cable from the computer and the modem, click **Next**.
- Click **Finish** to complete the uninstallation.

Windows NT

- Click the **Start** button and select **Settings**, then click **Control Panel**.
- Double-click the **Add/Remove Program** icon.

- The Add/Remove Programs screen will display all the programs you currently have installed. Locate and select the **U.S. Robotics *SureConnect* ADSL Modem**. You may have to scroll down to locate this program.
- Click the **Add/Remove** button.
- The Modify, Reinstall or Uninstall screen will display. Click the **Uninstall** option and then click **Next**.

Windows 95

- Click **Start**, select **Settings**, and click **Control Panel**.
- Double-click **Add/Remove Programs** icon.
- On the Install/Uninstall tab, select **U.S. Robotics *SureConnect* ADSL Modem**. You may have to scroll down to locate this program.
- Click the **Remove** button.
- The Modify, Reinstall or Uninstall screen will display. Click **Uninstall** and select **Yes** if asked to confirm the uninstall.

My computer failed the system qualification test.

The setup verifies that your computer has the minimum system requirements for several resources including hard drive space, RAM, operating system level, and processor speed.

If any of these resources are under the required value, the Results screen will identify which resources did not meet the requirement. In the case of a resource being under the required value, update your computer to the recommended resource level. Refer to your computer's documentation for instructions on how to upgrade your system.

I can't connect to the Internet.

- Review the Troubleshooting Checklist at the beginning of this section.
- Open up the U.S. Robotics *SureConnect* ADSL Utility by clicking the icon on the task bar. Go to the Test tab and run a test on the modem in order to identify the cause of failure.
- Verify that you have entered your correct user name and password for your DSL service provider.
- Make sure that your TCP/IP property settings match the information supplied by your ISP. Most ISPs require that the computer obtain an IP address directly from the provider using DHCP.

Call your ISPs help desk for further information on their connection and registration.

I password protected my SureConnection lock and I don't remember my password.

You will need to uninstall the *SureConnect* Utility and reinstall it in order to deactivate the password. Once you reinstall the *SureConnect* Utility, there will be no password activated. Refer to the uninstallation instructions located on the Installation CD-ROM or by clicking the **Help** button in the *SureConnect* Utility.

When I complete my installation, the Test tab of the U.S. Robotics *SureConnect* ADSL Utility displays and states that the modem test failed but I can still surf the Internet.

If you have a router between the modem and the computer, this version of *SureConnect* will not detect the modem. In order for *SureConnect* to detect the modem and display its status, the modem must be connected directly to the computer. The modem will still function properly; however, the *SureConnect* Utility cannot be used. You may safely delete the *SureConnect* Utility shortcut from your Startup folder or use Add/Remove Programs to uninstall the *SureConnect* Utility.

The modem installed properly, the "PWR" LED is on, the phone line is connected, but the "ADSL" LED is off or keeps flashing.

- Review the Troubleshooting Checklist at the beginning of this section.
- Go to the U.S. Robotics *SureConnect* ADSL Utility Monitor tab and press the **Reset** button once. The modem will re-establish the connection; this may take a moment.
- Open the U.S. Robotics *SureConnect* ADSL Utility by clicking the icon on the task bar. Go to the Test tab and run a test on the modem in order to identify the cause of the failure.
- Call your ISP.

Macintosh and Linux

I installed the modem on a Macintosh and I need to connect using PPP, but the only choice I have for connecting in the Modem configuration is "Internal Modem."

Most likely, your modem is not properly installed.

I installed the modem on a Macintosh and have followed the instructions for installing the software and the hardware; however, when I plug the modem in, nothing happens.

- This could be one of a number of things. First, try to run the Uninstall script. If you are using ADSL Annex A, which works over a standard telephone line, double-click **USRxx9002 (POTS) ADSL Modem**. If you are using ADSL Annex B, which works over an ISDN line, double-click **USR029002 (ISDN) ADSL Modem**.

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While trying to surf the Internet, I received a "Page Not Found" or similar error.

Your computer may not have acquired an IP address from your provider's DHCP server when you established the connection. Disconnect your dial-up connection, and then reconnect it to force a new request. If you are still receiving an error, restart the computer.

The ADSL LED is flashing or is not illuminated.

Make sure that the RJ-11 cable is properly connected in the "ADSL" port on the rear of the modem and in the phone wall jack in your home. The "ADSL" LED on the front of the modem should be illuminated.

Technical Support

- Go to the Support section of the U.S. Robotics Web site at www.usr.com/broadbandsupport. Many of the most common difficulties users experience have been addressed in the FAQ and Troubleshooting Web pages for your specific product.
- If you can't connect to the Internet, contact your ISP for assistance.

For current support contact information, go to the following Web site:

<http://www.usr.com/broadbandsupport>

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- Your corresponding window will display. Select **Uninstall** and click the **Uninstall** button located in the lower-right corner of the screen.
- Once the modem is uninstalled, remove the cables and restart the installation process from the beginning. If that does not work, you should contact your ISP.

I installed the modem on a Macintosh and want to make sure that I'm getting the throughput that I should expect from this ADSL connection. How can I get this information?

Open the USR ADSL Modem from the desktop and click the Statistics tab. This will display information such as: how much data is being transmitted, how many errors have been encountered, and the line speed at which you are connected.

How can I verify my modem's installation on a Macintosh?

Before proceeding with Configuration, you should verify that your modem has been successfully identified by the operating system and that the modem has successfully connected to your ADSL provider.

1. Go to the Desktop and double-click the **USR ADSL Modem** icon.
2. Go to the Operation page of the U.S. Robotics Monitor screen. If the screen shows ADSL / Modem status as "Modem is operational," then the modem has been successfully identified by the operating system and has connected to the DSLAM (Digital Subscriber Line Access Multiplexer) in the Central Office (CO).

How do I uninstall the modem on a Macintosh?

1. If you are using ADSL Annex A, which works over a standard telephone line, double-click **USRxx9002 (POTS) ADSL Modem**. If you are using ADSL Annex B, which works over an ISDN line, double-click **USR029002 (ISDN) ADSL Modem**.
2. Your corresponding window will display. Select the **Uninstall** option and click the **Uninstall** button located in the lower-right corner of the screen.
3. Once the modem is uninstalled, remove the cables.

How do I disable the modem driver on a Linux system?

Unplug the USB cable from the computer and run the following command to remove the driver.

```
rmmod adiusbadsl
```

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Regulatory Information

Manufacturer's Declarations of Conformity

FCC Declaration of Conformity

We declare under our sole responsibility that the U.S. Robotics *SureConnect* ADSL USB/Ethernet Modem to which this declaration relates, is in conformity with the following standards or other normative documents:

- ANSI C63.4-1992 Methods of measurement
- Federal Communications Commission 47 CFR Part 15, subpart B
- 1) 15.107 (e) Class B Conducted Limits
- 2) 15.109 (g) Class B Radiated Emissions Limits

FCC Class B Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- a) this device may not cause harmful electromagnetic interference, and
- b) this device must accept any interference received including interference that may cause undesired operations.

Radio and Television Interference

Note: 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 and uses radio frequency energy and, if not installed and used in accordance with the instructions, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna or cable input device.
- 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.

The user may find the following information prepared by the Federal Communications Commission helpful:

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

Telephone Interference Bulletin

This document is available on the Internet through the FCC Consumer Information Bureau Home Page at <http://www.fcc.gov/cib>. Under Consumer Information Directory→Telephone→Miscellaneous Telephone Information, select Interference to Telephones.

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

In order to maintain compliance with the limits of a Class B digital device, U.S. Robotics requires that you use a quality interface cable when connecting to this device. Suggested cable type is 90-ohm USB cable for the USB port, and standard telephone cable for the RJ-11 port. The telco cable needs to be connected with a minimum 26AWG telephone cable.

UL Listing/C-UL Listing

This information technology equipment is UL Listed and C-UL Listed for the uses described in the User Guide.

FCC Part 68 Registration

Customer Information

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the bottom of this equipment is a label that contains, among other information, a product identifier in the format US: AAAEQ#TXXXX. If requested, this number must be provided to the telephone company. This equipment uses the following Universal Service Order Code (USOC) jacks: RJ-11.

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A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See this document for details.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US: AAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., .03 is a REN of 0.3).

If this equipment, U.S. Robotics ADSL USB/Ethernet Modem, causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact:

USR - Walnut
528 Spanish Lane
Walnut, CA 91789

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

There are no serviceable parts in this equipment.

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

For Canadian Modem Users
Utilisateurs de modems au Canada
Industry Canada (IC)

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

Le présent appareil numérique n'émet pas de bruits radio-électriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par l'Industrie, NMB-003

Customer Information

Notice: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

Notice: The Ringer Equivalence Number (REN) for this terminal equipment is 0.1B. The REN assigned to each terminal equipment 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 five.

AVIS : Le nombre équivalent de sonneries (REN) affecté à chaque terminal indique le nombre maximal

de terminaux qui peuvent être branchés à une interface téléphonique. L'équipement terminal d'une interface peut comporter toute combinaison d'appareils, à la condition unique que le nombre équivalent total des sonneries de tous les appareils ne dépasse pas 5. Le nombre équivalent des sonneries se trouve sur la base du modem.

AVIS: L'étiquette d'Industrie Canada (IC) permet d'identifier le matériel homologué. Cette homologation signifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents qui portent sur les exigences techniques relatives à l'équipement terminal. Cependant, le Ministère ne garantit pas que l'appareil fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé selon une méthode de raccordement autorisée. Dans certains cas, le câblage intérieur de la compagnie étant associé à une ligne individuelle, le service individuel peut être étendu au moyen d'un connecteur certifié (rallonge téléphonique). L'abonné ne doit pas oublier que la conformité aux conditions susmentionnées n'empêchera peut-être pas la dégradation du service dans certains cas. À l'heure actuelle, les compagnies de téléphone n'autorisent pas les utilisateurs à raccorder leur appareil au jack sauf dans des circonstances précises énoncées dans les contrats et tarifs de ces compagnies.

Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause d'un mauvais fonctionnement de l'appareil.

AVIS: L'étiquette d'Industrie Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur. Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations. Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement. Canadian Modem Users, your warranty and repair centre is:

U.S. Robotics
Unit - 100
13751 Mayfield Place
Richmond, B.C. Canada V6V 2G9

Product Specifications for U.S. Robotics SureConnect USB/Ethernet Modem Standard Conformance Basic ADSL

Standards and Specifications

- Analog Devices 6484/6480 Eagle ADSL Chipset
- Supports full-rate G.DMT (ITU-T G.992.1) and T1.413 Issue 2 ADSL: up to 8 Mbps downstream and up to 1 Mbps upstream
- Supports G.Lite (ITU-T G.992.2) ADSL: up to 1.5 Mbps downstream and up to 512 Kbps upstream
- Supports DSL handshaking (ITU-T G.994.1)
- Multi-DSLAM interoperability including Alcatel, Globespan, Texas Instruments, and Analog Devices-based DSLAMs (results available upon request)

Transport Protocols:

- RFC 2364 - PPP over ATM
- RFC 2684 (formerly RFC - 1483) Multi-protocol over ATM (Bridged and Routed)
- RFC 2516 - PPP over Ethernet (drivers included, no third-party client needed)
- Local loop to central office at up to 18,000 feet (5400 meters) when coexisting with plain old telephone service (POTS)

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ATM Attributes: 36

- AAL Type: AAL 5
- ATM Service Class: UBR
- Virtual Circuit Support: 1 PVC
- DSL Auto-provisioning & ILM1 V4.0
- End-to-end loopback: OAM

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:

- (2) RJ-45 10/100 Ethernet ports
- (1) USB 1.1 compliant port
- ADSL port (RJ-11)
- Console port (RS-232)
- AC into power supply

Ethernet cable connection to computer, RJ-11 connection to ADSL provider

Computer Requirements: Host Interface: Network Interface Card 10/100 (RJ-45)

Minimum System Requirements - USB Port

- Pentium 200 MHz or faster compatible CPU
- Host PC with Universal Serial Bus (USB) support
- 32 MB RAM
- 10 MB hard disk space
- U.S. Robotics SureConnect Installation CD-ROM requires Windows 98, Windows Me, Windows 2000, Windows XP, Mac OS 8.6 - 9.x, or Linux

Minimum System Requirements - Ethernet Port

- Pentium or faster compatible CPU
- Any computer with Ethernet 10/100 RJ-45 interface
- 32 MB RAM
- 10 MB hard disk space
- Any operating system that supports an Ethernet connection with an IP stack
- SureConnect Installation CD-ROM requires Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, or Windows XP

Minimum System Requirements - ADSL Network

ADSL and Internet service from your local telephone company or Internet Service Provider (ISP)

Physical Characteristics:

- LEDs/Indicators:
- Power
- ADSL
- USB
- Ethernet

Dimensions:

- Length 4.3 in. (10.9 cm)
- Width 7.1 in. (18.0 cm)
- Height 1.7 in. (4.3 cm)
- Weight: 8.2 oz (0.25 kg)

Power Consumption: Input: 120 V AC 60 Hz, Output: 19 AC DC 510 MA

Environmental

- Operating Temperature Conditions: 32 - 122 °F (0 - 50 °C)
- Operating Humidity: 5% to 90% non-condensing

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U.S. Robotics Corporation Limited Warranty

HARDWARE: U.S. Robotics warrants to the end user ("Customer") that this hardware product will be free from defects in workmanship and materials, under normal use and service, for the following length of time from the date of purchase from U.S. Robotics or its authorized reseller:

Two (2) Years

U.S. Robotics's sole obligation under this express warranty shall be, at U.S. Robotics option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, U.S. Robotics may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of U.S. Robotics. Replacement products may be new or reconditioned.

U.S. Robotics warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

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