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802.11g Wireless USB Adapter User Guide

About the 802.11g Wireless USB Adapter

The 802.11g Wireless USB Adapter is compatible with a USB port of any standard laptop or desktop computer. As the 802.11g Wireless USB Adapter is a Plug and Play device, Windows 98, 2000, Me, and XP will automatically recognize it and initiate the installation process. Upon successful installation, the 802.11g Wireless USB Adapter will be able to communicate with other home and office networking products.

FEATURES

802.11g Wireless USB Adapter

- Supports up to 54 Mbps data rate
- Working range of up to 800 ft. in an open environment enhances mobility
- Supports point-to-point and point-to-multipoint access which provides increased flexibility
- Seamless connectivity to wired Ethernet and PC network LANs allowing quick, trouble-free integration with existing networks
- Direct Sequence Spread Spectrum (DSSS) technology provides secure, interference-resistant wireless connection
- Eliminate the hassle and cost of cabling
- Supports a wide range of LAN (Local Area Network) Network Operating Systems (NOS)
- Easy Plug and Play installation
- Omni-directional antenna included
- Greater flexibility to locate or move networked PCs

LED Information

USB LED: The USB LED is lighted greed when the 802.11g Wireless USB Adapter is receiving power and is unlighted when there is no USB power source or when the 802.11g Wireless USB Adapter is not plugged in.

WLAN TX/RX LED: The WLAN TX/RX LED blinks green when traffic is being processed and is unlighted when there is no wireless network activity.

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Network Configuration and Planning

The 802.11g Wireless USB Adapter supports legacy Ethernet LAN network configuration options as defined by the IEEE 802 standards committee.

The 802.11g Wireless USB Adapter can be configured as one of the following:

- 802.11g AdHoc for departmental or Small Office and Home Office (SOHO) LANs
- Infrastructure for enterprise LANs
- LAN Interconnection for point-to-point link as a campus backbone

NETWORK TOPOLOGY

An 802.11g AdHoc wireless LAN is a group of computers, each equipped with one Wireless Access Card or Adapter, that is connected as an independent wireless LAN. Computers in a specific 802.11g AdHoc wireless LAN must be configured to share the same radio channel.

802.11g AdHoc wireless LAN configurations are appropriate for branch level departments or SOHO operations.

The 802.11g Wireless USB Adapter provides access to a wired LAN for wireless workstations. An integrated wireless and wired LAN is called an Infrastructure configuration. A group of 802.11g Wireless USB Adapter users and a Wireless Access Point compose a Basic Service Set (BSS). Each 802.11g Wireless USB Adapter in a BSS can talk to any computer in the wired LAN infrastructure through the Wireless Access Point.

An Infrastructure configuration extends the accessibility of a PC to a wired LAN and doubles the effective wireless transmission range for two 802.11g Wireless USB Adapters. Since the Wireless Access Point is able to forward data within its BSS, the effective transmission range in an infrastructure LAN is doubled.

The use of a unique ID in a BSS is essential. Any PCs equipped with 802.11g Wireless USB Adapters and configured without roaming options in an independent BSS must be configured with a BSS ID that corresponds to the 802.11g Wireless USB Adapter used in the BSS. Check your 802.11g Wireless USB Adapter for its BSS ID or use the Access Point Configuration Utility program to determine the BSS ID.

The Infrastructure Wireless Access LAN configuration is appropriate for enterprise-scale wireless access to a central database or as a wireless application for mobile users.

A point-to-point LAN configuration is possible when two Wireless Access Points are linked with an optional directional antenna (the directional antenna is an optional accessory; please contact your dealer for information). The optional directional antenna makes LAN Interconnection to a wireless backbone between buildings possible.

ROAMING

Infrastructure configuration also supports roaming capabilities for mobile users. More

than one BSS can be configured as an Extended Service Set (ESS). The continuous network allows users to roam freely within an ESS. All 802.11g Wireless USB Adapters and Wireless Access Points within one ESS must be configured with the same ESS ID and use the same radio channel.

Before enabling an ESS with roaming capability, choose a feasible radio channel and optimum Access Point position. Proper Wireless Access Point positioning and a clear radio signal will greatly enhance the performance.

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Adapter Installation and Configuration for Windows 98SE/2000/Me/XP

SYSTEM REQUIREMENTS

In order to install and use the 802.11g Wireless USB Adapter, your computer must meet the following requirements:

- An available USB port
- 500 Kb free disk space for utility and driver installation

802.11g Wireless USB Adapter Installation

Prepare for installation

ATTENTION: You must install your software and drivers before you physically connect the 802.11g Wireless USB Adapter.

Note: For the most updated information, visit: **http://www.usr.com/support**

Turn on your desktop or laptop computer. Type your password if you are prompted to do so.

Attention Windows XP Users: Before you install the 802.11g Wireless USB Adapter, you must have Service Pack 1 installed on your computer. If you do not have Service Pack 1 installed, the 802.11g Wireless USB Adapter software will not be properly installed and the adapter will not function correctly.

Note: Be sure to find out what letter your CD-ROM drive uses before you begin installing your new product. You will need to know this to properly install your software.

Note: During the Installation procedure, you may be prompted for your Windows Operating system CD-ROM. Make sure you have it available in case you need it.

Step One: Install your software and drivers

Insert your U.S. Robotics Installation CD-ROM into your CD-ROM drive.

Note: If your CD-ROM does not automatically launch, click Windows Start, Run, and type D:\setup (if your CD-ROM drive uses a different letter, type that letter in place of "D") and click OK.

The Installation CD Graphic User Interface (GUI) will appear on your screen. If prompted, select your preferred language. Read the license agreement and click **Yes**.

Click **Software**.

Click **802.11g Wireless USB Adapter Utility and Drivers**. Follow the on-screen instructions to finish the installation procedure.*

If you are prompted, select **Yes, I want to restart my computer now** and click **Finish**.

You are now ready to connect the 802.11g Wireless USB Adapter. If you had to restart your computer, wait until it finishes rebooting before proceeding to Step Two.

***Note**: You may receive a “Digital Signature Not Found” or “Windows Logo testing” screen. Click Yes or Continue Anyway. U.S. Robotics has thoroughly tested this driver in conjunction with the supported hardware and has verified compatibility with Windows 2000, Me, and XP. Because U.S. Robotics wants its customers to take full advantage of the network card’s functionality, it has made the drivers available.

Step Two: Connect the 802.11g Wireless USB Adapter to your computer

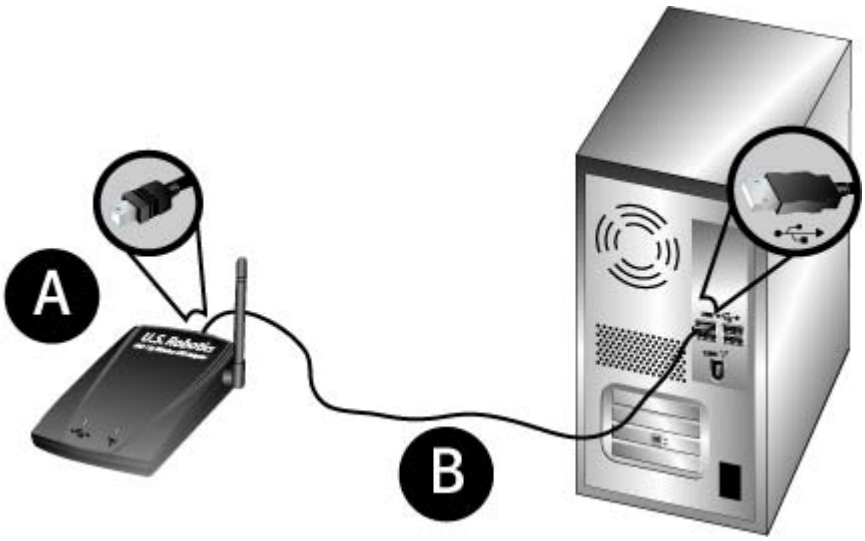
A. Plug the small square end of the included USB cable into the USB port on the 802.11g Wireless USB Adapter.

B. Locate an available USB port on your computer and insert the thin rectangular end of the included USB cable.

Note: Your computer will not detect the 802.11g Wireless USB Adapter if the USB cable is loose on either end. Make sure the USB cable is fully inserted into the USB port on your computer and to the USB port on the 802.11g Wireless USB Adapter.

When Windows detects the new hardware, follow the on-screen instructions to complete the installation procedure.* If you are prompted, restart your computer.

Note: If you are prompted at any time for your Windows Operating System CD-ROM, remove the U.S. Robotics Installation CD-ROM and insert your Windows CD-ROM into the CD-ROM drive. When all of the files are copied, remove the Windows CD-ROM, and reinsert the U.S. Robotics Installation CD-ROM.



***Note**: You may receive a “Digital Signature Not Found” or “Windows Logo testing” screen. Click Yes or Continue Anyway. U.S. Robotics has thoroughly tested this driver in conjunction with the supported hardware and has verified compatibility with Windows 2000, Me, and XP. Because U.S. Robotics wants its customers to take full advantage of the network card’s functionality, it has made the drivers available.

Step Three: Connect the 802.11g Wireless USB Adapter to a wireless network

You should now see a small icon for the Configuration Utility in the system tray by your clock on your computer desktop. The Configuration Utility is used to change or verify the configuration information that relates to your 802.11g Wireless USB

Adapter. The Configuration Utility icon will be colored to indicate the status of your wireless network: red for disconnected and green for connected with good quality.

Double-click the Configuration Utility icon. When the Configuration Utility launches, you can either scan for a network to connect to or enter the information for a specific network.

To scan for a network, click the Available Networks tab. Locate the network you want to connect to in the list, select it, and then click **Connect**. If you do not see the network in the list, click **Refresh** to scan for the network.

If security is enabled in the wireless network you want to connect to or if you want to manually enter the network information, you will need to set up a profile. For information about how to do this, refer to the **Navigating the Wireless Configuration Utility** section of this User Guide.

When you have connected to an existing wireless network, click the Link Information tab. You will see a picture with a computer, a wireless device in the middle, and an icon representing the Internet. If you see a moving graphic of ones and zeroes moving between all three icons, you are connected to the wireless network and to the Internet. If you only see ones and zeroes moving between the computer and the middle wireless device, you are connected to the wireless network, but not to the Internet.

If you can't connect to a network or if that network has security enabled, refer to the User Guide on the installation CD-Rom for Configuration and Troubleshooting information.

Congratulations! You have finished installing the 802.11g Wireless USB Adapter.

For troubleshooting and technical support information, refer to the Troubleshooting section in this guide or to the U.S. Robotics Web site at www.usr.com

Register your product

• At the Installation CD-ROM interface, click the **Support** link. Click **Registration and Warranty** and then click **http://www.usr.com/productreg** If the Installation CD-ROM interface does not run automatically, click Windows **Start** and then click **Run**. In the "Run" dialog box, type **D:\setup.exe**. If your CD-ROM drive uses a different letter, type that letter in place of "D."

• Or register your product online at http://www.usr.com/productreg

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Navigating the Wireless Configuration Utility

Wireless Configuration Utility

The following section describes the various functions of the Wireless Configuration Utility. This utility provides quick access to all adapter settings.

After installation is complete, the Wireless Configuration Utility icon will appear in the taskbar on the right side near the clock. Double-clicking the icon in the Quick Launch bar will open the Wireless Configuration Utility main menu, providing quick access to all adapter settings.

There are four sections to the Wireless Configuration Utility: **Link Information**, **Available Networks**, **Profile Setting**, and **About**.

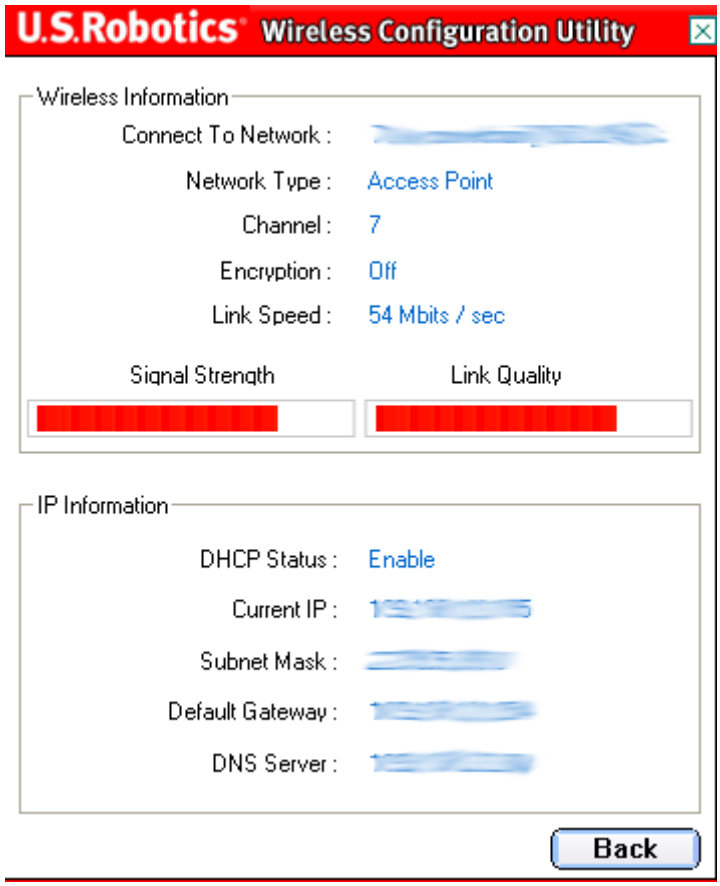
Link Information:

The **Link Information** area shows a graphical representation of your connection status.

If you see moving 1's and 0's flowing between the computer on the left and the wireless device in the center, you are connected to a wireless network.

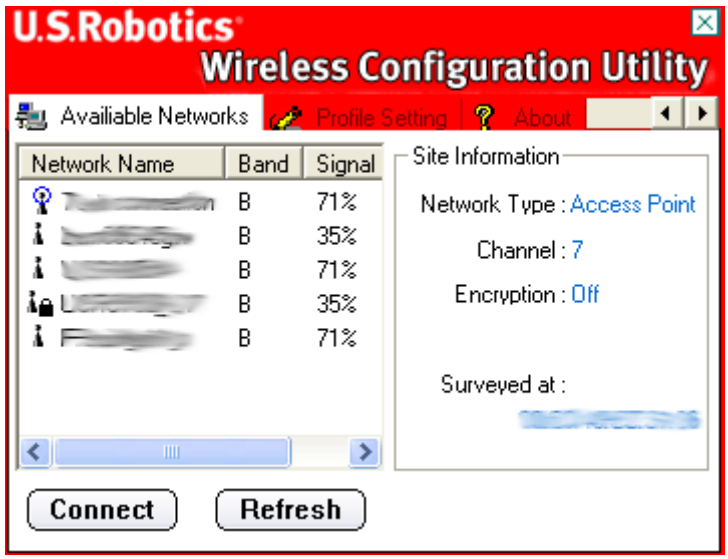
If you see moving 1's and 0's flowing between the computer on the left, the wireless device in the center, and the cloud representing the Internet on the right, you are connected to a wireless network and to the Internet.

You can click **More** to view more information regarding your wireless connection.



Click **Back** to return to the main Link Information screen.

Available Networks:



Selecting this tab opens the **Available Networks** area. This is where you will find options for configuring your 802.11g Wireless USB Adapter.

On the left, you will see a list of the available wireless networks to which you can connect. Select the appropriate network name and click **Connect**.

Next to the Network Name list is the Band column. This lets you know what frequency each wireless network is operating on. The 802.11g Wireless USB

Adapter is backwards compatible with earlier 802.11 versions.

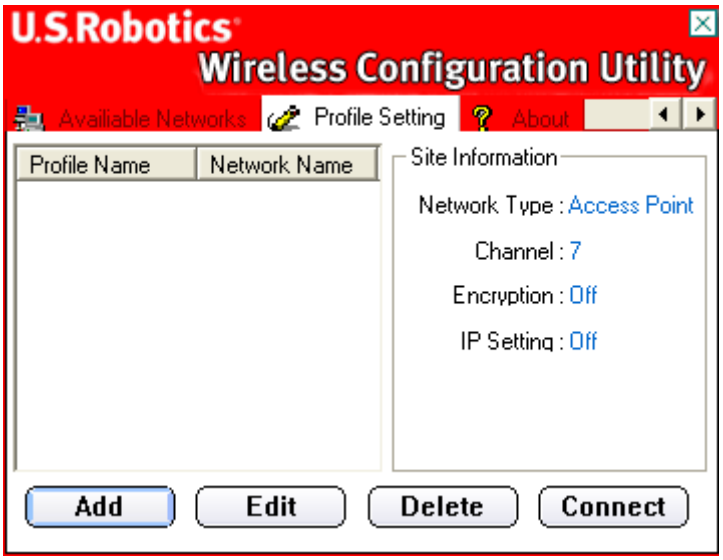
Next to this column is the Signal column. This provides a percentage indicator of how strongly you are receiving the signal from each wireless network to which you can connect.

When you select a network, you will see the available information regarding this network in the site information window on the right.

If you attempt to connect to a network that has security settings enabled, you will need to create a profile and supply the necessary information. Refer to your wireless router's or access point's documentation for instructions on how to locate the necessary security information.

Note: *If you are connecting to a Wireless Access Point, it must support the Transmit Rate setting. If the Wireless Access Point does not support the Transmit Rate, undesired results may occur.*

Profile Setting:



If you will be connecting to different wireless networks in different areas or will be conecting to wireless networks that have security settings enabled, you can create profiles so that you can easily switch between networks depending on your location or situation.

If you attempt to connect to a network that has security settings enabled, you will need to create a profile and supply the necessary information. Refer to your wireless router's or access point's documentation for instructions on how to locate the necessary security information.

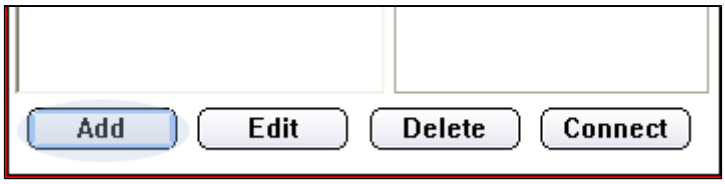
If you click **Add**, you will need to go through a series of screens to create a new profile.

Select a profile and click **Edit** to modify any profiles that you have already created.

If you want to remove a profile, select it in the list and click **Delete**.

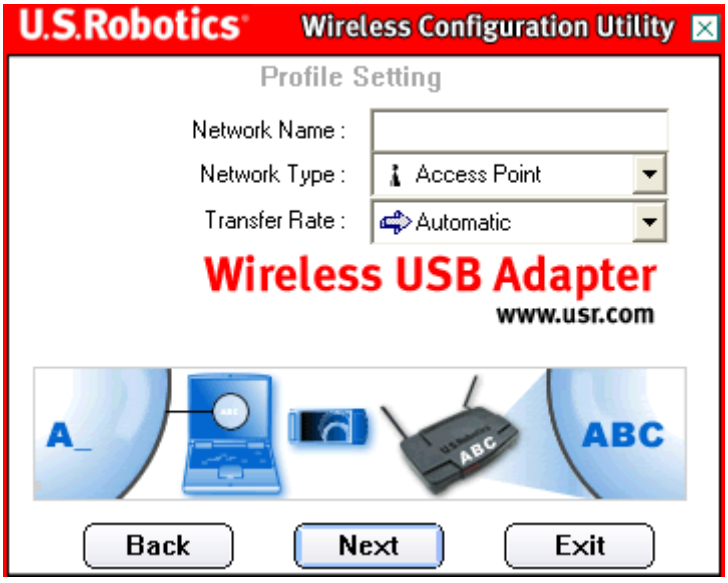
Select a profile from the list and click **Connect** to establish a connection with that wireless device or network.

Creating a Profile



After you click **Add**, the first screen you see will prompt you for a Profile Name.

Supply a name that will allow you to easily identify the profile in the Profile Setting screen. After you have entered a name, click **Next**.



On the next screen, you will need to enter the name of the network you which you want to connect.

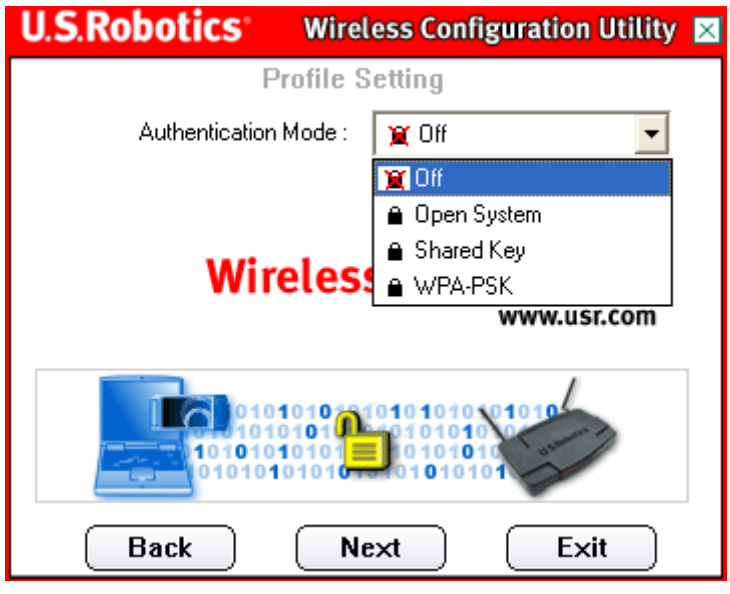
You will then need to select the network type: **Access Point** or **Peer to Peer**.

Access Point: Select this mode if you will be connecting to an access point or wireless router. This type of mode is also called Infrastructure. Infrastructure mode provides additional features, such as WEP security, power saving, and extended range.

Peer to Peer: Select this mode if you will be connecting to another wireless device without the use of an access point or wireless router. This type of mode is also called Ad-Hoc.

You can then select the transfer rate or you can leave it set to Automatic. On Automatic, the 802.11g Wireless USB Adapter will match the fastest speed of the wireless network to which you are connected. This means that the 802.11g Wireless USB Adapter will not achieve its maximum speed if the wireless network does not support the same maximum speed.

When you are finished, click **Next**.



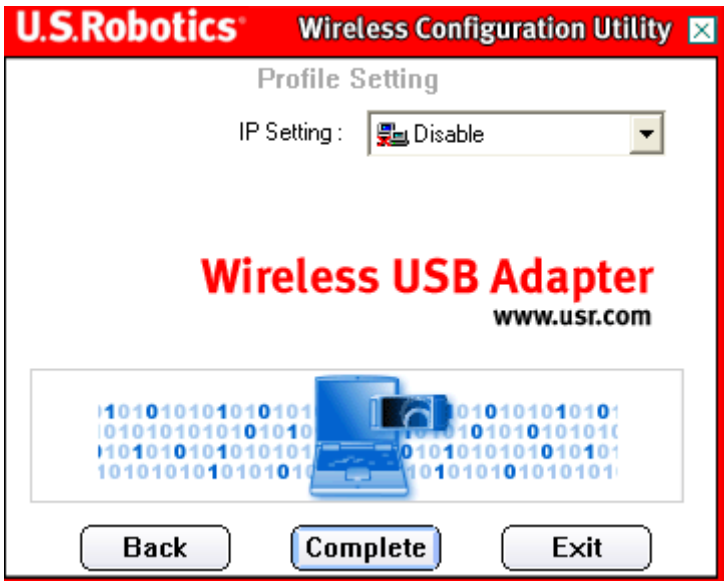
On the next screen, you can select the Authentication Mode. Your options are Off, Open System, Shared Key, and WPA-PSK. The type of authentication you choose will determine how much more you will need to set up for your profile. Click the name of an authentication mode for instructions on how to complete each version.

Authentication Off

If you select **Off**, no security settings will be enabled.

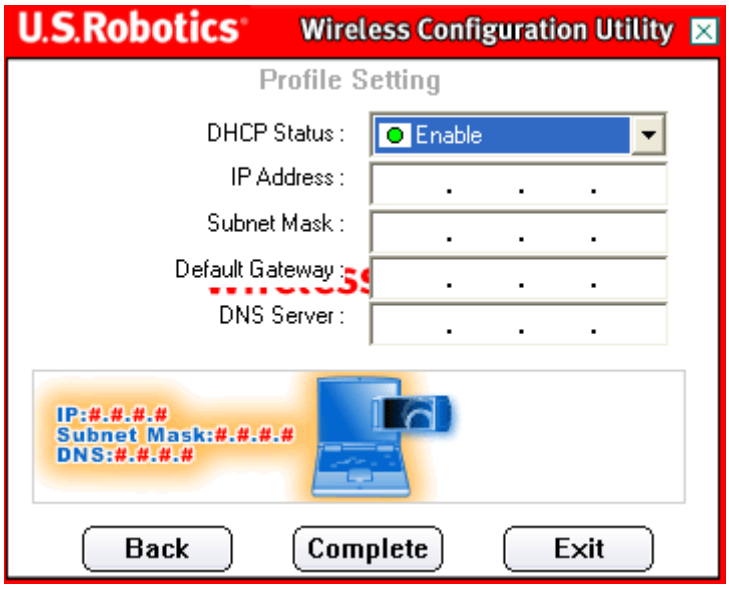
Click **Next**.

On the next screen, you can select either **Enable** or **Disable** for the IP Setting.

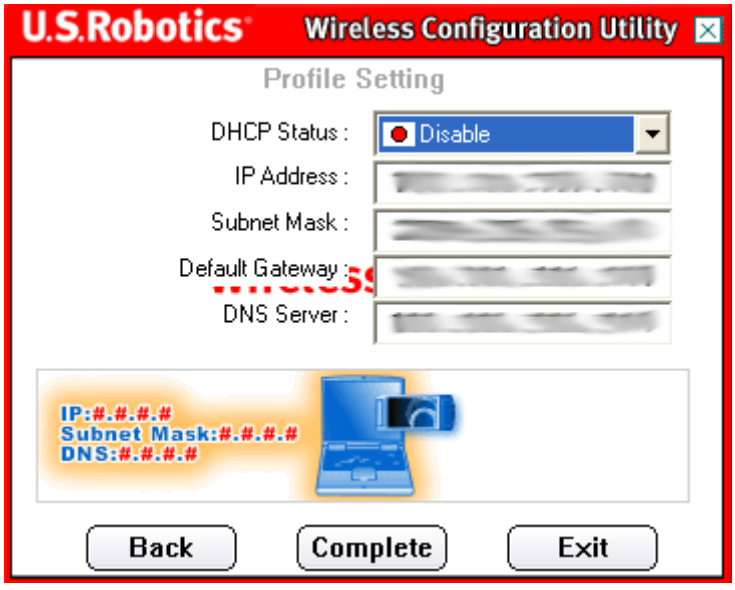


If you select **Disable**, click **Complete** to finish the profile setup.

If you select **Enable**, click **Next** to proceed to the next screen, where you can select or specify the IP address information.



If you select **Enable** for the DHCP Status, the 802.11g Wireless USB Adapter will automatically obtain an IP address. Click **Complete** to finish the profile setup.



If you select **Disable** for the DHCP Status, you will need to enter the appropriate IP address information. You will need to do this if your computer cannot automatically obtain an IP address for the 802.11g Wireless USB Adapter. When you have entered all the information, click **Complete** to finish the profile setup.

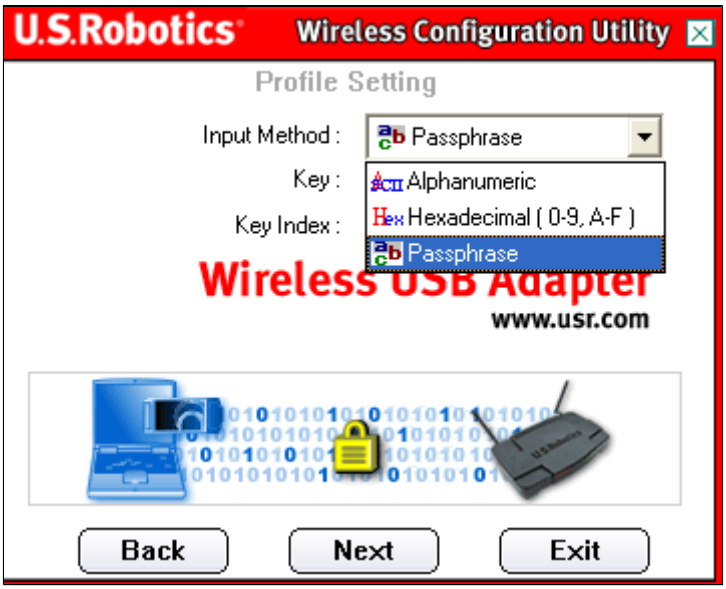
Open System

If you select **Open System**, you will then need to select the level of Encryption. You can select either 64 bit or 128 bit. This encryption is known as WEP.

WEP is an encryption scheme that is used to protect your wireless data communications. WEP uses a combination of 64-bit keys or 128-bit keys to provide access control to your network and encryption security for every data transmission. To decode a data transmission, each wireless client on the network must use an identical 64-bit or 128-bit key.

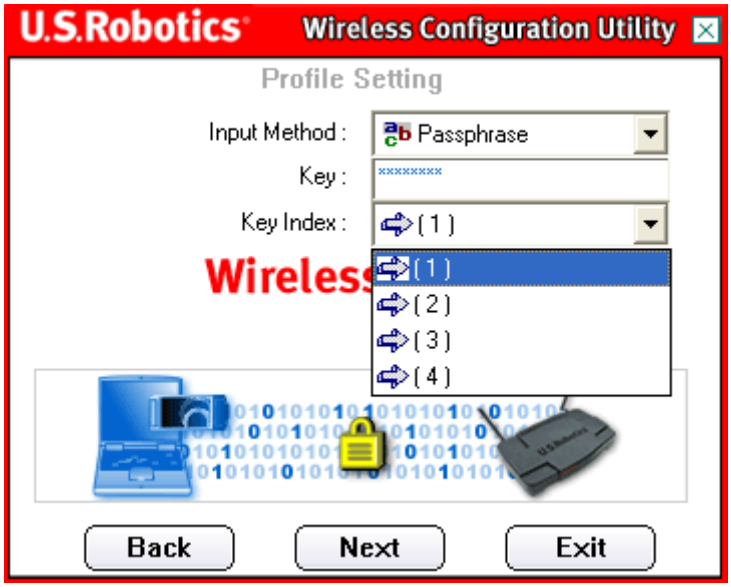
When you have made your selection, click **Next**.

You will then need to select your Input Method.



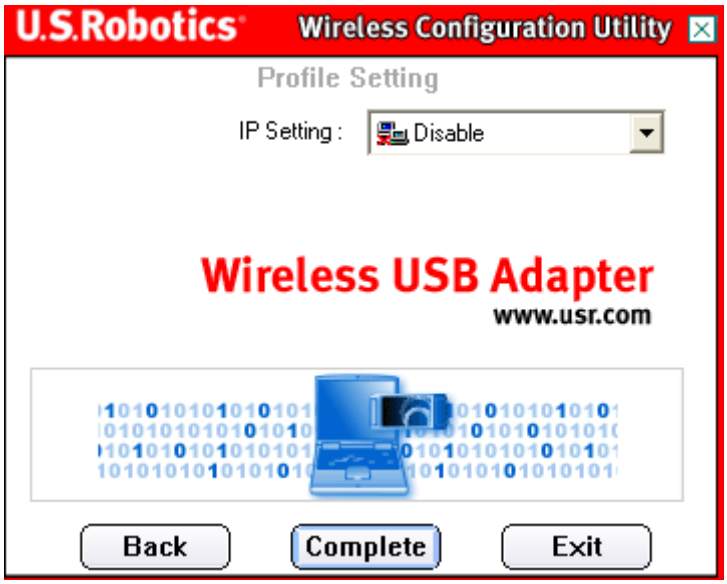
You can select either **Alphanumeric**, **Hexadecimal (0-9, A-F)**, or **Passphrase**. The Passphrase is any text string with a maximum of 32 characters. Enter your key or passphrase in the Key line.

After you have selected the Input Method, you will need to select the Key Index.



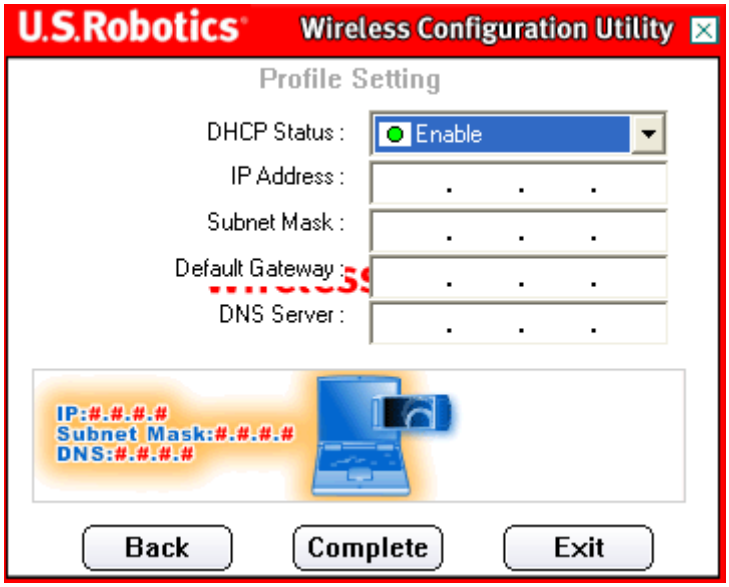
When you are finished, click **Next**.

On the next screen, you can select either **Enable** or **Disable** for the IP Setting.



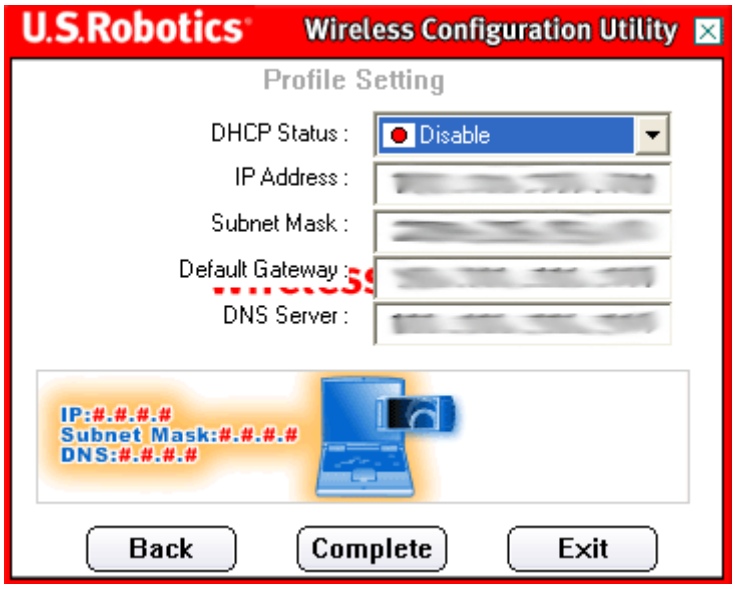
If you select **Disable**, click **Complete** to finish the profile setup.

If you select **Enable**, click **Next** to proceed to the next screen, where you can select or specify the IP address information.



If you select **Enable** for the DHCP Status, the 802.11g Wireless USB Adapter will automatically obtain an IP address. Click **Complete** to

finish the profile setup.



If you select **Disable** for the DHCP Status, you will need to enter the appropriate IP address information. You will need to do this if your computer cannot automatically obtain an IP address for the 802.11g Wireless USB Adapter. When you have entered all the information, click **Complete** to finish the profile setup.

Shared Key

If you select **Shared Key**, you will then need to select the Input Method level. You can select either 64 bit or 128 bit.

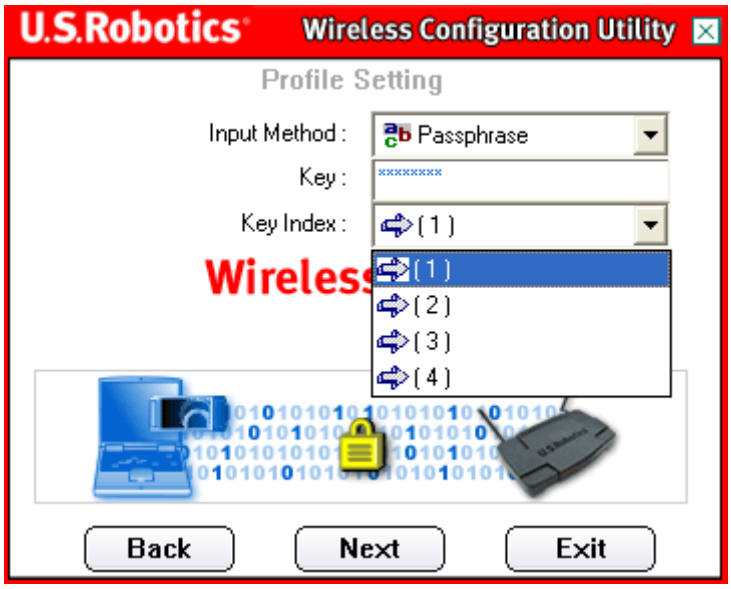
WEP is an encryption scheme that is used to protect your wireless data communications. WEP uses a combination of 64-bit keys or 128-bit keys to provide access control to your network and encryption security for every data transmission. To decode a data transmission, each wireless client on the network must use an identical 64-bit or 128-bit key.

When you have made your selection, click **Next**.

You will then need to select your Input Method.

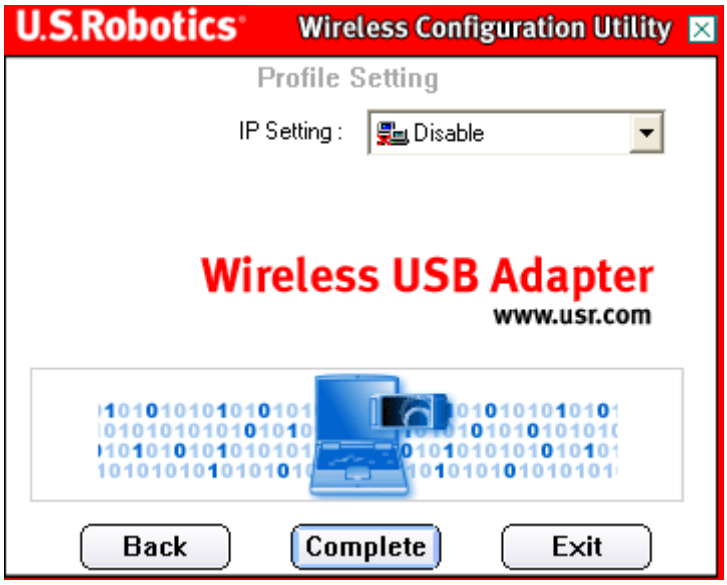
You can select either **Alphanumeric**, **Hexadecimal (0-9, A-F)**, or **Passphrase**. The Passphrase is any text string with a maximum of 32 characters. Enter your key or passphrase in the Key line.

After you have selected the Input Method, you will need to select the Key Index.



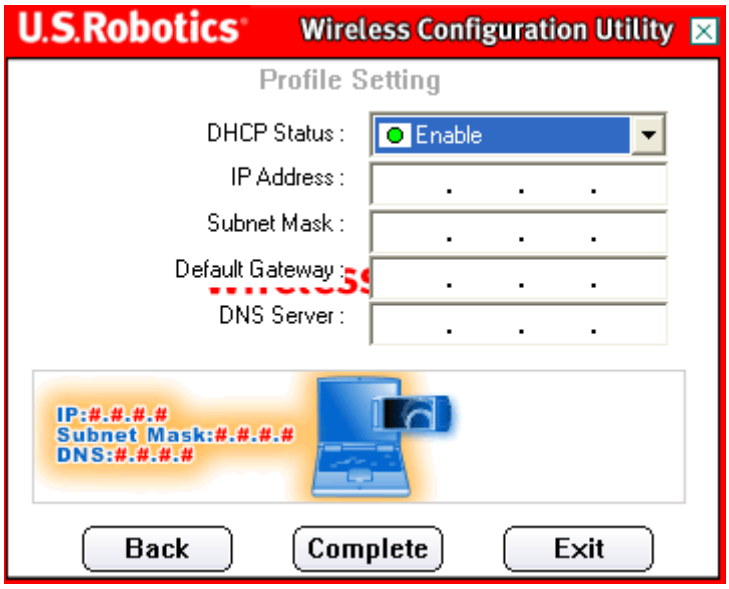
When you are finished, click **Next**.

On the next screen, you can select either **Enable** or **Disable** for the IP Setting.

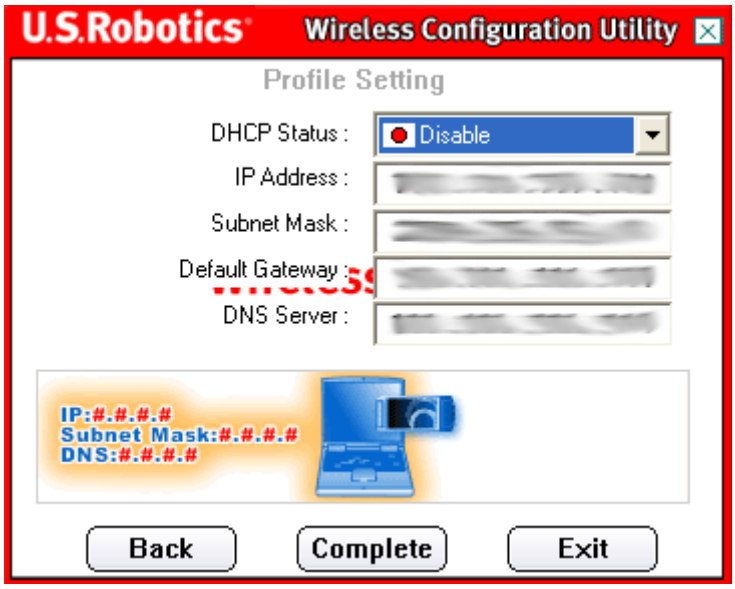


If you select **Disable**, click **Complete** to finish the profile setup.

If you select **Enable**, click **Next** to proceed to the next screen, where you can select or specify the IP address information.



If you select **Enable** for the DHCP Status, the 802.11g Wireless USB Adapter will automatically obtain an IP address. Click **Complete** to finish the profile setup.



If you select **Disable** for the DHCP Status, you will need to enter the appropriate IP address information. You will need to do this if your computer cannot automatically obtain an IP address for the 802.11g Wireless USB Adapter. When you have entered all the information, click **Complete** to finish the profile setup.

WPA-PSK

If you select **WPA-PSK**, you will then need to select the Input Method level. You can select either **TKIP** or **AES**.

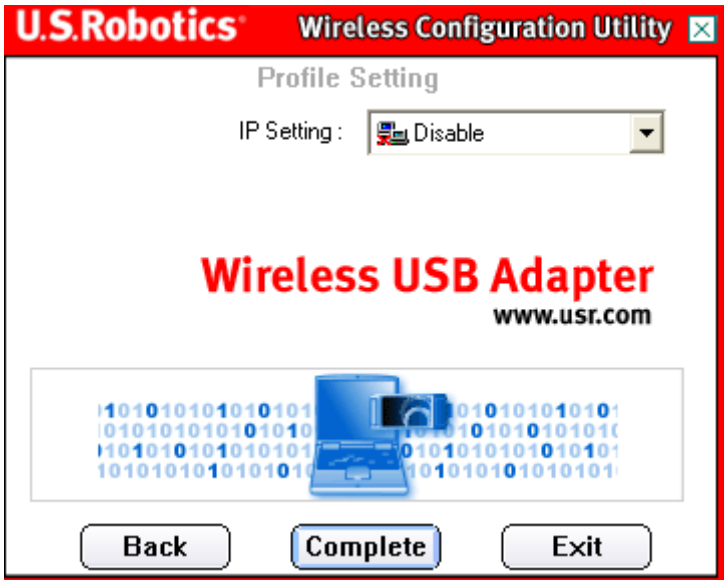
Note: WPA-PSK can only be used if the wireless network you want to connect to is capable of employing WPA-PSK as an authentication mode. Many older wireless devices may not be able to use WPA-PSK, so this should be verified before WPA-PSK is selected. Non-matching authentication modes will keep you from being able to connect to a wireless network.

When you have made your selection, click **Next**.

You will then need to enter a Key.

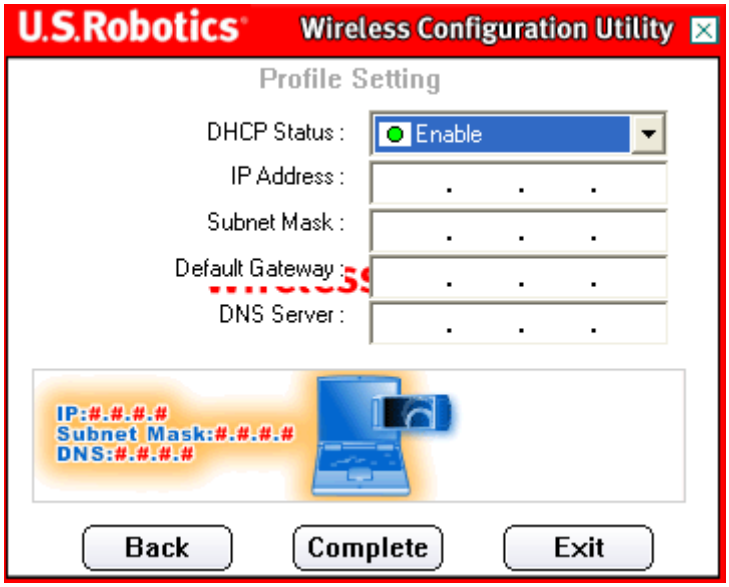
When you are finished, click **Next**.

On the next screen, you can select either **Enable** or **Disable** for the IP Setting.



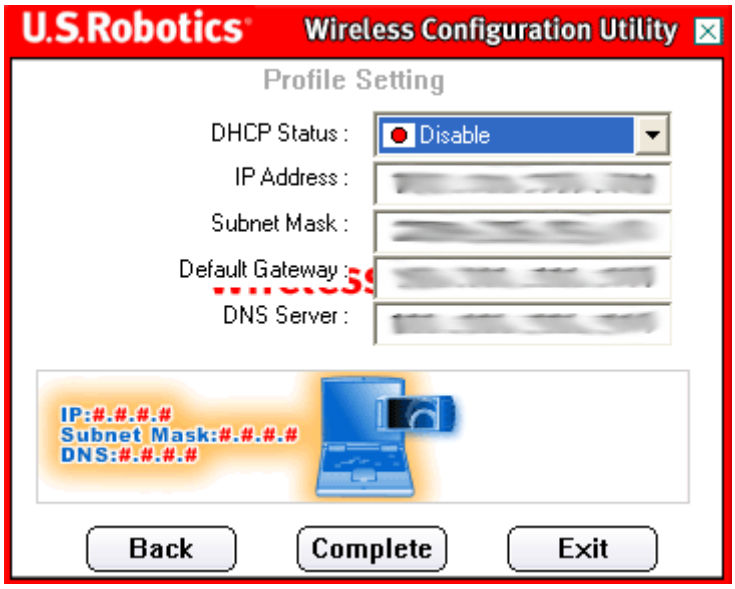
If you select **Disable**, click **Complete** to finish the profile setup.

If you select **Enable**, click **Next** to proceed to the next screen, where you can select or specify the IP address information.



If you select **Enable** for the DHCP Status, the 802.11g Wireless USB Adapter will automatically obtain an IP address. Click **Complete** to

finish the profile setup.



If you select **Disable** for the DHCP Status, you will need to enter the appropriate IP address information. You will need to do this if your computer cannot automatically obtain an IP address for the 802.11g Wireless USB Adapter. When you have entered all the information, click **Complete** to finish the profile setup.

About:

Within this section, you can view the version information for your 802.11g Wireless USB Adapter.

Regulatory Channel Frequency					
Channel	**Frequency (MHz)**	**FCC**	**Canada**	**ETSI**	**Japan**

1	2412	X	X	X	
2	2417	X	X	X	
3	2422	X	X	X	
4	2427	X	X	X	
5	2432	X	X	X	
6	2437	X	X	X	
7	2442	X	X	X	
8	2447	X	X	X	
9	2452	X	X	X	
10	2457	X	X	X	
11	2465	X	X	X	
12	2467			X	
13	2472			X	
14	2484				X

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Troubleshooting

Windows could not locate the drivers for the 802.11g Wireless USB Adapter.
Possible Solution:
The software must be installed before the 802.11g Wireless USB Adapter is connected to your computer. Click Cancel on the Windows driver screen, unplug the 802.11g Wireless USB Adapter from your computer, and perform the Installation Procedure again, making sure to install the software and drivers first.

I cannot connect to the Internet.
Possible Solution:
Check the Configuration Utility icon in the system tray to confirm the connection status. If you are connected to your Access Point or Wireless Router, the icon will be green. If the icon is red, open the Configuration Utility and scan the area so that you can connect to the correct wireless network.

Security is enabled on my wireless network and my 802.11g Wireless USB Adapter cannot connect.
Possible Solution:
The 802.11g Wireless USB Adapter supports 64 and 128 bit encryption. Make sure your wireless network is not using a higher encryption rate, such as 256 bit. Verify that all of the security features you have entered for the profile of your 802.11g Wireless USB Adapter match the settings for your wireless network. For more information about setting up connection profiles and security features, refer to the User Guide on the U.S. Robotics Installation CD-ROM.

The 802.11g Wireless USB Adapter cannot communicate with other computers linked via Ethernet in the Infrastructure configuration.
Possible Solution:
Ensure that each computer in the wireless network is powered on.

Possible Solution:
Ensure that each 802.11g Wireless USB Adapter is configured with the same settings.

Possible Solution:
Ensure that each 802.11g Wireless USB Adapter is configured with the same security options.

Possible Solution:
Ensure that the SSID is the same on each station with an 802.11g Wireless USB Adapter installed.

Possible Solution:
Ensure TCP/IP is installed. Ensure you are a part of the same domain or workgroup as the 802.11g Wireless USB Adapter. Ensure that you are automatically obtaining an IP address or that you have a correct IP address and subnet mask for the wireless network. Restart the computer that has a connectivity issue. Ensure that you have some files available to be shared.

The U.S. Robotics Installation CD-ROM did not automatically launch when I inserted the Installation CD-ROM.
Possible Solution:
Some programs may keep the autolaunch feature of the Installation CD-ROM from beginning. Close any open applications and reinsert the Installation CD-ROM. If your CD-ROM still does not automatically launch, click Windows Start, Run, and type

D:\setup (if your CD-ROM drive uses a different letter, type that letter in place of “D”) and click OK.

I accidentally clicked Cancel during the installation procedure.
Possible Solution:
Remove and reinsert the U.S. Robotics Installation CD-ROM into your CD-ROM drive. Repeat the installation procedure of the software before you install any hardware.

My computer does not recognize the 802.11g Wireless USB Adapter.
Possible Solution:
The 802.11g Wireless USB Adapter may not be properly connected. Check the connections of the USB cable to the 802.11g Wireless USB Adapter and to the USB port on your computer.

The 802.11g Wireless USB Adapter is not receiving any power.
Possible Solution:
If you have the 802.11g Wireless USB Adapter plugged into a peripheral device, such as a USB hub or a keyboard, the 802.11g Wireless USB Adapter may not be powered. Plug the 802.11g Wireless USB Adapter directly into a USB port on your computer.

The 802.11g Wireless USB Adapter does not work properly, and I may need to uninstall the device.
Possible Solution:
Check to be certain the 802.11g Wireless USB Adapter is not in use before removing it. The computer may lock up if the 802.11g Wireless USB Adapter is removed while in use. If the 802.11g Wireless USB Adapter is not functioning correctly, perform the following steps:

> **Windows XP Users:** Click Windows **Start**, **All Programs**, **U.S.R. Wireless Network**, and then **Uninstall**.
>
> **Windows 2000 Users:** Click Windows **Start**, **Programs**, **U.S.R. Wireless Network**, and then **Uninstall**.

Are You Still Having Problems?

1. Go to the U.S. Robotics Web site at www.usr.com.

Many of the most common difficulties users experience have been addressed in the FAQ and Troubleshooting Web pages for your specific product.

2. Call the U.S. Robotics Technical Support Department.

Technical questions about U.S. Robotics products can also be answered by technical support specialists.

Country	Voice	Online	Support Hours
United States	(801) 401-1143	http://www.usr.com/emailsupport	9:00 A.M. - 5:00 P.M., Monday - Friday CST
Canada	(801) 401-1143	http://www.usr.com/emailsupport	9:00 A.M. - 5:00 P.M., Monday - Friday CST

Country	Telephone	Online	Hours
	07110		7:45 - 16:45

Austria	900116	http://www.usr.com/emailsupport/de	Monday - Friday
Belgium (Flemish) (French)	+32 (0) 7 023 3545 (Flemish) +32 (0) 7 023 3546 (French)	emea_modemsupport@usr.com	9:00 - 18:00 Monday - Friday
Denmark	+45 70 10 4030	emea_modemsupport@usr.com	9:00 - 17:00 Monday - Friday
Finland	+358 981710015	emea_modemsupport@usr.com	10:00 - 18:00 Monday - Friday
France	+33 082 507 0693	http://www.usr.com/emailsupport/fr	8:00 - 17:00 Monday - Friday
Germany	0180 567 1548	http://www.usr.com/emailsupport/de	7:45 - 16:45 Monday - Friday
Hungary	0180 567 1548	emea_modemsupport@usr.com	8:00 - 18:00 Monday - Friday
Ireland	+44 870 844 4546	emea_modemsupport@usr.com	9:00 - 18:00 Monday - Friday
Italy	+848 80 9903	http://www.usr.com/emailsupport/it	9:00 - 18:00 Monday - Friday
Luxembourg	+352 342 080 8318	emea_modemsupport@usr.com	9:00 - 18:00 Monday - Friday
Middle East/Africa	+44 870 844 4546	me_modemsupport@usr.com	9:00 - 18:00 Monday - Friday
Netherlands	0900 202 5857	emea_modemsupport@usr.com	9:00 - 18:00 Monday - Friday
Norway	+47 23 50 0097	emea_modemsupport@usr.com	9:00 - 17:00 Monday - Friday
Poland	---	emea_modemsupport@usr.com	8:00 - 18:00 Monday - Friday
Portugal	+351 (0) 21 415 4034	http://www.usr.com/emailsupport/pt	9:00 - 17:00 Monday - Friday
Russia	8-800-200-200-1	usrsupport@usrobotics.ru	10:00 - 18:00 Monday - Friday
Spain	902 11 7964	http://www.usr.com/emailsupport/es	9:00 - 17:00 Monday - Friday
Switzerland	0848 840 200	emea_modemsupport@usr.com	9:00 - 17:30 Monday - Friday
Sweden	+46 (0) 77 128 1020	emea_modemsupport@usr.com	8:00 - 17:00 Monday - Friday
United Kingdom	0870 844 4546	http://www.usr.com/emailsupport/uk	8:45 - 17:45 Monday - Friday

To obtain the most current support information, including procedures to obtain Service Repair Orders, visit the U.S.Robotics Web site: http://www.usr.com.

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Glossary

Access Point	A networking device that seamlessly connects wired and wireless networks together.
AdHoc	An AdHoc wireless LAN is a group of computers, each with wireless adapters, connected as an independent wireless LAN.
Backbone	This is the core infrastructure of a network, the portion of the network that transports information from one central location to another central location. The information is then off-loaded onto a local system.
Base Station	In mobile telecommunication, a base station is the central radio transmitter/receiver that maintains communication with the mobile radio telephone sets within range. In cellular and personal communications applications, each cell or microcell has its own base station; each base station in turn is interconnected with other cells' bases.
Bridge	An internetworking function that incorporates the lowest two layers of the OSI network protocol model.
BSS	An acronym for Basic Service Set, this is an Access Point that is associated with several wireless stations.
ESS	An acronym for Extended Service Set, this is a roaming domain. More than one BSS can be configured as an Extended Service Set.
Ethernet	A popular local area data communications network that accepts transmission from computers and terminals. An Ethernet operates on a 10-Mbps baseband transmission over shielded coaxial cable or over shielded, twisted-pair telephone wire.
Infrastructure	This is an integrated wireless and wired LAN configuration.
PCMCIA (Personal Computer Memory Card International Association)	This association develops standards for PC cards, formerly known as PCMCIA cards. PC cards are available in three "types," which are about the same length and width as credit cards, but range in thickness from 3.3 mm (Type I) to 5.0 mm (Type II) to 10.5 mm (Type III). These cards can be used for many functions, including memory storage, as landline modems, and as wireless LAN devices.
Roaming	A function that allows one to travel with a mobile end system (wireless LAN mobile station, for example) through the territory of a domain (an ESS, for example) while continuously connecting to the infrastructure.

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Product Specifications for the 802.11g Wireless USB Adapter

Radio:	Complies with IEEE 802.11g
Frequency Band:	• 2400 ~ 2483.5MHz (for US, Canada, and ETSI)
Modulation Type:	BPSK, QPSK, CCK, OFDM
Operating Channels:	• 11 channels (US, Canada) • 13 channels (ETSI)
Radio Technology:	Direct Sequence Spread Spectrum (DSSS)
Data Rate:	54/48/36/24/18/12/9/6/11/5.5/2/11 Mbps with auto fallback
Output Power:	> 16 - 18 dBm
Receive sensitivity:	-80dBm
Antenna Type:	Built-in diversity patch antenna
Current Consumption:	450mA/5 V (TX) 320mA/5 V (RX) 300mA/5 V (Standby) 20mA/5 V (Sleep)
Interface:	USB Type 2.0 compliant, backward compatible with USB1.1
LED:	Power, WLAN TX/RX
Package:	USB
Certification:	• FCC Part 15 • ETSI 300.328 • ARIB STD33 & T66
Driver:	Windows 98/2000/Me/XP

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802.11g Wireless USB Adapter User Guide

U.S. Robotics Corporation Two (2) Year Limited Warranty

1.0 GENERAL TERMS:
1.1 This Limited Warranty is extended only to the original end-user purchaser (CUSTOMER) and is not transferable.
1.2 No agent, reseller, or business partner of U.S. Robotics Corporation (U.S. ROBOTICS) is authorised to modify the terms of this Limited Warranty on behalf of U.S. ROBOTICS.
1.3 This Limited Warranty expressly excludes any product that has not been purchased as new from U.S. ROBOTICS or its authorised reseller.
1.4 This Limited Warranty is only applicable in the country or territory where the product is intended for use (As indicated by the Product Model Number and any local telecommunication approval stickers affixed to the product).
1.5 U.S. ROBOTICS warrants to the CUSTOMER that this product will be free from defects in workmanship and materials, under normal use and service, for TWO (2) YEARS from the date of purchase from U.S. ROBOTICS or its authorised reseller.
1.6 U.S. ROBOTICS sole obligation under this warranty shall be, at U.S. ROBOTICS sole discretion, to repair the defective product or part with new or reconditioned parts; or to exchange the defective product or part with a new or reconditioned product or part that is the same or similar; or if neither of the two foregoing options is reasonably available, U.S. ROBOTICS may, at its sole discretion, provide a refund to the CUSTOMER not to exceed the latest published U.S. ROBOTICS recommended retail purchase price of the product, less any applicable service fees. All products or parts that are exchanged for replacement will become the property of U.S. ROBOTICS.
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1.8 U.S. ROBOTICS makes no warranty or representation that this product will meet CUSTOMER requirements or work in combination with any hardware or software products provided by third parties.
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1.10 U.S. ROBOTICS shall not be responsible for any software or other CUSTOMER data or information contained in or stored on this product.
2.0 CUSTOMER OBLIGATIONS
2.1 CUSTOMER assumes full responsibility that this product meets CUSTOMER specifications and requirements.
2.2 CUSTOMER is specifically advised to make a backup copy of all software provided with this product.
2.3 CUSTOMER assumes full responsibility to properly install and configure this product and to ensure proper installation, configuration, operation and compatibility with the operating environment in which this product is to function.
2.4 CUSTOMER must furnish U.S. ROBOTICS a dated Proof of Purchase (copy of original purchase receipt from U.S. ROBOTICS or its authorised reseller) for any warranty claims to be authorised.
3.0 OBTAINING WARRANTY SERVICE:
3.1 CUSTOMER must contact U.S. ROBOTICS Technical Support or an authorised U.S. ROBOTICS Service Centre within the applicable warranty period to obtain warranty service authorisation.
3.2 Customer must provide Product Model Number, Product Serial Number and dated Proof of Purchase (copy of original purchase receipt from U.S. ROBOTICS or its authorised reseller) to obtain warranty service authorisation.
3.3 For information on how to contact U.S. ROBOTICS Technical Support or an authorised U.S. ROBOTICS Service Centre, please see the U.S ROBOTICS corporate Web site at: www.usr.com

3.4 CUSTOMER should have the following information / items readily available when contacting U.S. ROBOTICS Technical Support:
· Product Model Number
· Product Serial Number
· Dated Proof of Purchase
· CUSTOMER contact name & telephone number
· CUSTOMER Computer Operating System version
· U.S. ROBOTICS Installation CD-ROM
· U.S. ROBOTICS Installation Guide
4.0 WARRANTY REPLACEMENT:
4.1 In the event U.S. ROBOTICS Technical Support or its authorised U.S. ROBOTICS Service Centre determines the product or part has a malfunction or failure attributable directly to faulty workmanship and/or materials; and the product is within the TWO (2) YEAR warranty term; and the CUSTOMER will include a copy of the dated Proof of Purchase (original purchase receipt from U.S. ROBOTICS or its authorised reseller) with the product or part with the returned product or part, then U.S. ROBOTICS will issue CUSTOMER a Return Material Authorisation (RMA) and instructions for the return of the product to the authorized U.S. ROBOTICS Drop Zone.
4.2 Any product or part returned to U.S. ROBOTICS without an RMA issued by U.S. ROBOTICS or its authorised U.S. ROBOTICS Service Centre will be returned.
4.3 CUSTOMER agrees to pay shipping charges to return the product or part to the authorised U.S. ROBOTICS Return Centre; to insure the product or assume the risk of loss or damage which may occur in transit; and to use a shipping container equivalent to the original packaging.
4.4 Responsibility for loss or damage does not transfer to U.S. ROBOTICS until the returned product or part is received as an authorised return at an authorised U.S. ROBOTICS Return Centre.
4.5 Authorised CUSTOMER returns will be unpacked, visually inspected, and matched to the Product Model Number and Product Serial Number for which the RMA was authorised. The enclosed Proof of Purchase will be inspected for date of purchase and place of purchase. U.S. ROBOTICS may deny warranty service if visual inspection of the returned product or part does not match the CUSTOMER supplied information for which the RMA was issued.
4.6 Once a CUSTOMER return has been unpacked, visually inspected, and tested U.S. ROBOTICS will, at its sole discretion, repair or replace, using new or reconditioned product or parts, to whatever extent it deems necessary to restore the product or part to operating condition.
4.7 U.S. ROBOTICS will make reasonable effort to ship repaired or replaced product or part to CUSTOMER, at U.S. ROBOTICS expense, not later than TWENTY ONE (21) DAYS after U.S. ROBOTICS receives the authorized CUSTOMER return at an authorised U.S. ROBOTICS Return Centre.
4.8 U.S. ROBOTICS shall not be liable for any damages caused by delay in delivering or furnishing repaired or replaced product or part.
5.0 LIMITATIONS
5.1 THIRD-PARTY SOFTWARE: This U.S. ROBOTICS product may include or be bundled with third-party software, the use of which is governed by separate end-user license agreements provided by third-party software vendors. This U.S. ROBOTICS Limited Warranty does not apply to such third-party software. For the applicable warranty refer to the end-user license agreement governing the use of such software.
5.2 DAMAGE DUE TO MISUSE, NEGLECT, NON-COMPLIANCE, IMPROPER INSTALLATION, AND/OR ENVIRONMENTAL FACTORS: To the extent permitted by applicable law, this U.S. ROBOTICS Limited Warranty does not apply to normal wear and tear; damage or loss of data due to interoperability with current and/or future versions of operating system or other current and/or future software and hardware; alterations (by persons other than U.S. ROBOTICS or authorized U.S. ROBOTICS Service Centres); damage caused by operator error or non-compliance with instructions as set out in the user documentation or other accompanying documentation; damage caused by acts of nature such as lightning, storms, floods, fires, and earthquakes, etc. Products evidencing the product serial number has been tampered with or removed; misuse, neglect, and improper handling; damage caused by undue physical, temperature, or electrical stress; counterfeit products; damage or loss of data caused by a computer virus, worm, Trojan horse, or memory content corruption; failures of the product which result from accident, abuse, misuse (including but not limited to improper installation, connection to incorrect voltages, and power points); failures caused by products not supplied by U.S. ROBOTICS; damage cause by moisture, corrosive environments, high voltage surges, shipping, abnormal working conditions; or the use of the product outside the borders of the country or territory intended for use (As indicated by the Product Model Number and any local telecommunication approval stickers affixed to the product).

5.3 TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. U.S. ROBOTICS NEITHER ASSUMES NOR AUTHORISES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, WARRANTY, OR USE OF ITS PRODUCTS.
5.4 LIMITATION OF LIABILITY. TO THE FULL EXTENT ALLOWED BY LAW, U.S. ROBOTICS ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF U.S. ROBOTICS OR ITS AUTHORISED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT U.S. ROBOTICS OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.
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7.0 GOVERNING LAW: This Limited Warranty shall be governed by the laws of the State of Illinois, U.S.A. excluding its conflicts of laws principles and excluding the United Nations Convention on Contracts for the International Sale of Goods.

U.S. Robotics Corporation
935 National Parkway
Schaumburg, IL 60173
U.S.A

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Regulatory Information

FCC Declaration of Conformity
These devices comply with FCC Rules Part 15. Operation is subject to the following two conditions:
These devices may not cause harmful interference.
These devices must accept any interference received, including interference that may cause undesired operation.
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. If this equipment is not installed and used in accordance with the manufacturer's instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment to 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 use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Modifications to these devices not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

Industry Canada Statement
The term "IC" before the radio certification number only signifies that Industry Canada Technical specifications were met. This equipment complies with the Industry Canada Spectrum Management and Telecommunications policy, RSS-210 standard, Low Power License-Exempt Radio Communication Devices.

Operation is subject to the following two conditions:

1. This device may cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotopically radiated power(EIRP) is not more than required for successful communication. This device has been designed to operate with an antenna having a maximum gain of 2dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

UL Listing/CUL Listing
This information technology equipment is UL Listed and C-UL Listed for both the US and Canadian markets respectively. Suggested cable type is 90-ohm USB cable for the USB port.

CE Declaration of Conformity

We, U.S. Robotics Corporation of 935 National Parkway, Schaumburg, Illinois, 60173-5157,USA, declare under our sole responsibility that the U.S. Robotics 802.11g Wireless USB Adapter, to which this declaration relates is in conformity with the following standards and/or other normative documents:
EN300 328-2
EN301 489-1
EN301 489-17
EN50371
EN60950

This equipment is in compliance with the European recommendation 1999/519/ECC, governing the exposure to the electromagnetic radiation.

We, U.S. Robotics Corporation, hereby declare that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

This product can be used in the following countries:
Germany, Austria, Belgium, Switzerland, Netherlands, Luxembourg, Italy, France, UK, Ireland, Spain, Portugal, Sweden, Norway, Denmark, Finland, Iceland, and Greece

Regarding IEEE 802.11b we currently have the following information about restrictions in the R&TTE countries:

Country	Frequency Band	Output Power
France	2446.5-2483.5 MHz	10 mW EIRP outdoor

U.S.Robotics declares that USR5420 (FCC ID: MXF-U921201G) is limited in CH1~CH11 by specified firmware controlled in U.S.A.

EU Health Protection

This device complies with the European requirements governing exposure to electromagnetic radiation. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. This wireless device is a transmitter/receiver and has been designed and manufactured to comply with the exposure limits recommended by the Council of the European Union and the International Commission on Non-Ionizing Radiation Protection (ICNIRP, 1999) for the entire population. The exposure standard for portable equipment uses the "Specific Absorption Rate" as unit of measure. The maximum SAR value of this wireless device measured in the conformity test is x.xxx W/kg.

EU Detachable Antenna Information

This USR wireless device has been designed to operate with the antenna included in this package only. Together this device and antenna combination has been tested and approved by a European Agency conforming with the European R&TTE directive 1999/5/EC to meet the radiated power level requirement of 100mW e.i.r.p. Replacement of this antenna must only done with an authorized USR component that has been designed and tested with the unit to the requirements of directive 1999/5/EC. Please refer to the USR web site to get product antenna ordering information.

Operating Channels:	• IEEE 802.11b compliant • 11 channels (US, Canada) • 13 channels (ETSI) 14 channels (Japan)

Go to **www.usr.com** to see the most recent channel restriction information.

Manufacturer's Disclaimer Statement

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Please contact our support center for an RMA number before sending your product to the repair address. Product sent to the repair address without an RMA number will be returned unopened.

In North America and South America:
U.S. Robotics/Chino
14430 Monte Vista Avenue
Chino, CA 91710
United States

In Europe:
FRS Europe BV.
Draaibrugweg 2
1332 AC Almer
The Netherlands

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