

About the 802.11g 54Mbps USB Adapter >

Network Configuration and Planning

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

Navigating the Wireless
Configuration Utility

**Troubleshooting** 

Glossary

Product Specifications for 802.11g 54Mbps USB Adapter

U.S. RoboticsCorporation LimitedWarranty

Regulatory Information

## 802.11g 54Mbps USB Adapter User Guide



# About the 802.11g 54Mbps USB Adapter

The 802.11g 54Mbps USB Adapter is compatible with a USB port of any standard Windows laptop or desktop computer. As the 802.11g 54Mbps USB Adapter is a Plug and Play device, Windows 98SE, 2000, Me, and XP will automatically recognise it in the installation process. Upon successful installation, the 802.11g 54Mbps USB Adapter will be able to communicate with other home and office wireless networking products.

#### **LED Information**

(WLAN TX/RX) LED: The WLAN TX/RX LED is lighted green when the 802.11g 54Mbps USB Adapter driver is correctly installed and blinks green when traffic is being processed. If the driver is not correctly installed, this LED will be off.

rev 1.0 9-04 R46.0764.00



About the 802.11g 54Mbps USB Adapter

Network Configuration and Planning >

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

Navigating the Wireless
Configuration Utility

Troubleshooting

Glossary

Product Specifications for 802.11g 54Mbps USB Adapter

U.S. Robotics
Corporation Limited
Warranty

**Regulatory Information** 

# 802.11g 54Mbps USB Adapter User Guide

## **Network Configuration and Planning**

The 802.11g 54Mbps USB Adapter supports legacy Ethernet LAN network configuration options as defined by the IEEE 802 standards committee.

The 802.11g 54Mbps USB Adapter can be configured in one of the following modes:

**Infrastructure** - Used for home networks, business networks, and public hotspots when connecting to a wireless router or access point **Ad Hoc** - Used for peer-to-peer network connections when connecting directly to another wireless adapter

### **NETWORK TOPOLOGY**

An Infrastructure configuration extends the accessibility of a PC to a wired LAN and doubles the effective wireless transmission range for two 802.11g 54Mbps USB Adapters. Since the Wireless Router or Access Point is able to forward data within its BSS, the effective transmission range in an infrastructure LAN is doubled.

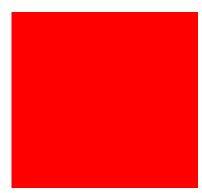
The use of a unique SSID is essential. All 802.11g 54Mbps USB Adapters that are in the wireless network must be configured with the same SSID that is used by the access point or wireless router.

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

An 802.11g Ad Hoc wireless LAN is a group of computers, each equipped with one 802.11g 54Mbps USB Adapter, that are connected as an independent wireless LAN. The wireless devices in a specific 802.11g Ad Hoc wireless LAN must be configured to share the same radio channel.

802.11g Ad Hoc wireless LAN configurations are appropriate for small departments or SOHO environments.

The 802.11g 54Mbps USB Adapter provides access to a wired LAN for workstations. An integrated wireless and wired LAN is called an Infrastructure configuration. A group of 802.11g 54Mbps USB Adapter users and a Wireless Router or Access Point compose a Basic Service Set (BSS). Each 802.11g 54Mbps USB Adapter in a BSS can talk to any computer in the wired LAN infrastructure through the Wireless Router or Access Point.





About the 802.11g 54Mbps USB Adapter

Network Configuration and Planning

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

Navigating the Wireless
Configuration Utility

**Troubleshooting** 

Glossary

Product Specifications for 802.11g 54Mbps USB Adapter

U.S. Robotics
Corporation Limited
Warranty

**Regulatory Information** 

## 802.11g 54Mbps USB Adapter User Guide

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

## **System Requirements**

In order to install and use the 802.11g 54Mbps USB Adapter, your computer must meet the following requirements:

An available USB port 10 Mb free disk space for utility and driver installation Windows 98SE, 2000, Me, or XP

## 802.11g 54Mbps USB Adapter Installation

#### Prepare for installation

**ATTENTION:** You must install your software and drivers before you physically connect the 802.11g 54Mbps USB Adapter.

Note: Your model number is 5422.

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.

**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.

**Note:** If the 802.11g 54Mbps USB Adapter does not fit into an available USB port on your computer because of other USB devices that are connected, use an USB extension cable or a USB hub to connect the 802.11g 54Mbps USB Adapter.

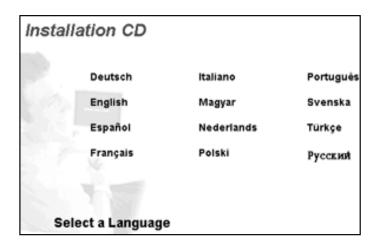
**Note:** If you are connecting the 802.11g 54Mbps USB Adapter to a 1.1 USB port, you may see a message informing you that a Hi-Speed USB device is being connected to a USB port that is not Hi-Speed. This will not affect the installation procedure.

### 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**.

Select the 802.11g 54Mbps USB Adapter and click **Software**. Click **Wireless USB Adapter Utility and Drivers**. Follow the on-screen instructions to finish the installation procedure.

**Windows Me:** If you are prompted, restart your computer and continue to follow the on-screen instructions.

# Step Two: Install the 802.11g 54Mbps USB Adapter to your computer

When you are prompted, insert the 802.11g 54Mbps USB Adapter into an available USB port on your computer.



**Note:** Make sure the 802.11g 54Mbps USB Adapter is fully inserted into the USB port on your computer so that the 802.11g 54Mbps USB Adapter is detected.

Select your country. Windows will detect the new hardware. If prompted for the location of the drivers, select **Install the software automatically (Recommended)** and click **Next**.

Follow the on-screen instructions to complete the installation procedure.\* If you are prompted, select **No, I will restart my computer later**, close all open screens, and then restart your computer.

\*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 adapter's functionality, it has made the drivers available.

**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.

Step Three: Connect the 802.11g 54Mbps 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 54Mbps USB Adapter. The Configuration Utility icon will be colored to indicate the status of your wireless connection: red for disconnected, yellow for connected with fair quality, and green for connected with good quality. The 802.11g 54Mbps USB Adapter will automatically connect to an available Wireless Router. You will need to verify that you are connected to the correct Wireless Router.



Double-click the Configuration Utility icon. When the Configuration Utility launches, you can view the connection information in the Configuration tab and in the Link Information tab. If you are not connected to the correct Wireless Router, you can either scan for a Wireless Router to connect to or enter the information for a specific Wireless Router.

To scan for a Wireless Router, click the Site Survey tab. Locate the Wireless Router you want to connect to in the list and double-click it. If you do not see the Wireless Router in the list, click **Scan** to search for the Wireless Router. The default SSID of the 802.11g 54Mbps Router is **USR5562**.

If security is enabled in the wireless network you want to connect to or if you want to manually enter the configuration 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 and a wireless device. If you see a graphic representing signal waves between the computer and the wireless device, you are connected to the wireless network.



If you cannot connect to the Internet or to the correct Wireless Router, verify your configuration settings and then refer to the Troubleshooting section in this User Guide.

**Congratulations!** You have finished installing the 802.11g 54Mbps USB Adapter.

For troubleshooting and technical support information, refer to the Troubleshooting section in this User Guide or to the U.S. Robotics Web site at <a href="https://www.usr.com">www.usr.com</a>

## Register your product

- At the Installation CD-ROM user interface, click the **Support** link. Click **Product Registration** and then click **http://www.usr.com/productreg**
- You can also launch a Web browser and type in <a href="http://www.usr.com/productreg">http://www.usr.com/productreg</a>

## **Advanced Options**

### **Enabling File and Print Sharing**

To enable file and print sharing over the wireless network, perform the following steps on the computers with a Wireless USB Adapter installed.

Windows 98 and Me Users: Click Windows Start, Settings, and then Control Panel. Double-click Network and then click the File and Print Sharing button. Select both boxes in the File and Print Sharing window and then click OK. File and print sharing is now enabled.

**Note:** If your computer is connected directly to the Internet, there is a security risk if you are not using a firewall program or some form of hardware firewall.

Windows 2000 and XP Users: File and print sharing are automatically enabled in Windows 2000 and Windows XP in Administrator mode.

## **Enabling Internet Sharing**

To enable Internet sharing over the wireless network, perform the following steps on each machine that has a Wireless USB Adapter installed.

Windows 98 Users: Click Windows Start, Settings, and then Control Panel. Double-click Add/Remove Programs and then click the Windows Setup tab. Select Internet Tools and then click Details. Select Internet Connection Sharing and click OK. Click Apply and the Internet Connection Sharing Wizard will launch. Click Next, select the Wireless USB Adapter to connect to the Internet, and click Next. Click Next to create a Client Configuration Disk, insert a blank disk into the 3.5-inch disk drive, and click OK. This disk will be used to configure Internet sharing in Windows 98. Click Finish to complete the configuration of Internet sharing. You will then need to restart your computer.

Windows 2000 Users: There must be two network adapters or one network adapter and one modem installed in order to use Internet sharing. Click Windows Start,

Settings, and then Network and Dial-up Connections. Right-click the LAN connection used to connect to the Internet and click Properties. Click the Sharing tab. Click the box in this window to enable Internet sharing and click Apply. Right-click the LAN connection in the list and click Properties. Select Internet Protocol and click Properties. Click the DNS tab, write down the DNS address that is listed, and return to the Networking and Dial-up Connections window. Right-click the wireless adapter in the list and click Properties. Select Internet Protocol and click Properties. Click the DNS tab and enter the same DNS address as the one listed under the LAN connection.

Windows Me Users: Click Windows Start, Settings, and then Control Panel. Double-click Add/Remove Programs and then click the Windows Setup tab. Select Communications and then click Details. Select Internet Connection Sharing and click OK. Click Apply and the Home Networking Wizard will launch. Click Next and then select Yes this computer uses the following. Select the direct connection to the Internet from the drop-down menu and click Next. When prompted, create a Home Networking Setup disk to be used for the configuration of Internet sharing in Windows 98, and Me. After you have created the disk, click Next. Click Finish to complete the configuration of Home Networking. You will then need to restart your computer.



About the 802.11g 54Mbps USB Adapter

Network
Configuration
and Planning

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

Navigating the Wireless Configuration Utility

**Troubleshooting** 

Glossary

Product
Specifications for
802.11g 54Mbps
USB Adapter

U.S. Robotics
Corporation
Limited Warranty

Regulatory Information

## 802.11g 54Mbps USB Adapter User Guide

# **Navigating the Wireless Configuration Utility**



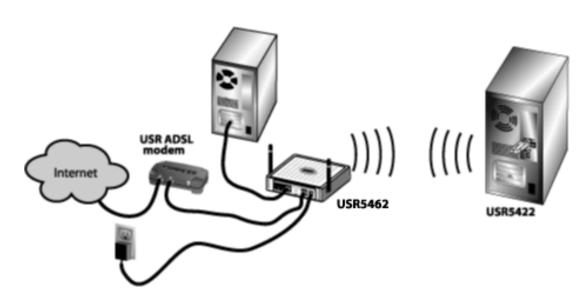
## **Wireless Configuration Utility**

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 task will open the Wireless Configuration Utility main menu, providing quick access to all adapter settings. The Configuration Utility icon will be colored to indicate the status of your wireless network: red for disconnected and green for connected.

There are two types of network connections you can make with the 802.11g 54Mbps USB Adapter: **Infrastructure** and **Ad Hoc**.

If you will be connecting to a wireless router or access point, you will need to create an **Infrastructure** connection.



If you will be connecting directly to another wireless adapter, you will need to create an Ad

**Hoc** connection.





There are five sections to the Wireless Configuration Utility: <u>Configuration</u>, <u>Link Information</u>, <u>IP Information</u>, <u>Site Survey</u>, and <u>Version Information</u>.

At the bottom of each page you will see a button that says either **Turn Radio On** or **Turn Radio Off**.

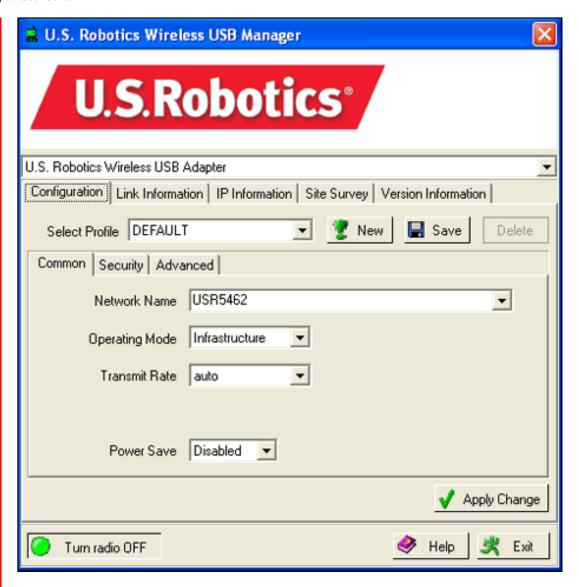
If it says **Turn Radio Off**, the wireless functionality of the 802.11g 54Mbps USB Adapter is enabled. Clicking this button will disable it.

If it says **Turn Radio On**, the wireless functionality of the 802.11g 54Mbps USB Adapter is disabled. Clicking this button will enable it.

If you make any changes to any of the settings on the Utility pages, click **Apply** in order for the changes to be implemented. Click **Exit** when you are finished viewing the information or making any changes.

## Configuration

In the Configuration tab, you can create or edit the connection settings of the 802.11g 54Mbps USB Adapter.



If you will be connecting to different wireless networks in different areas, 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.

You must have the following configuration information for your network before you make a wireless connection:

SSID: This is the network name

Network Type: Infrastructure or Ad Hoc

If security is enabled on the network, you will also need the following information:

**Authentication Mode**: Open System or Shared Key

Encryption: 40/64bits WEP, 104/128bits WEP, or WPA-PSK

Data Encryption Key Type: ASCII (Alphanumeric), HEX (Hexadecimal), or Passphrase

**Encryption Key** 

You can create a new profile by clicking **New** next to the Select Profile line and then entering a Profile Name in the window that opens up. After creating a profile, you can select it at any time in the dropdown menu for Select Profile. If you have Default selected, the 802.11g 54Mbps USB Adapter will not use any specific configuration information when attempting to connect to a network. If you select a profile you created, you will only be able to connect to a network that has the same configuration information.

If you create a profile and supply some unique configuration information, click **Save** after you have changed the configuration settings. This will save the changes to the new profile.

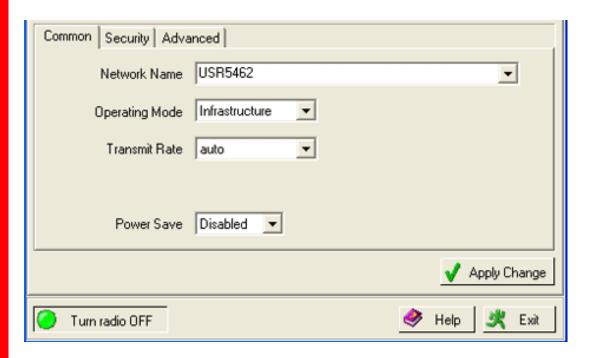
If you want to remove a profile you have created, select it and then click **Delete**.

If you select a new profile, click **Apply** for the change to take effect.

If you make any changes to the configuration settings or select a new profile, click **Apply** for the new settings to take effect.

There are three areas within the Configuration tab where you can make changes to the settings: **Common, Security**, and **Advanced**.

#### Common



In this area you can select the **SSID** of a detected network, or type ANY to be able to connect to any available network.

You will then need to select the **Operating Mode**: either **Infrastructure** or **Ad Hoc**.

**Infrastructure:** Select this mode if you will be connecting to a wireless router or access point. Infrastructure mode provides additional features, such as power saving and extended range.

**Ad hoc:** Select this mode if you will be connecting to another wireless device without the use of a wireless router or access point.

For **Transmit Rate**, you can select the speed at which you want to connect to the wireless network. If you select **auto**, the 802.11g 54Mbps USB Adapter will connect at the highest possible speed for the chosen network.

For **Power Save**, you can select either **Disabled** or **Enabled**. If you select **Enabled** on a laptop computer, the **Power Save** mode can reduce power consumption by the 802.11g 54Mbps USB Adapter and extend the battery life of your laptop. By default, **Disabled** is selected.

#### Security

In the Security area, you can specify the security settings of the 802.11g 54Mbps USB Adapter.

On each page, you will see a button that says either **Turn Security On** or **Turn Security Off**.

If it says **Turn Security Off**, click this button to disable the wireless security functions of the 802.11g 54Mbps USB Adapter.

If it says **Turn Security On**, click this button to enable the wireless security functions of the 802.11g 54Mbps USB Adapter.

For Authentication Type, you can select either WPA-PSK or WEP.



**WEP** 

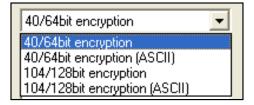


WEP is an encryption scheme that is used to protect your wireless data communications. WEP uses a combination of 40/64-bit keys or 104/128-bit keys to provide access control to your network and encryption security for every data transmission. To decode a data transmission, each wireless client on the network must use an identical 64-bit or 128-bit.

If you select **WEP**, you will need to select the **Authentication Mode**. You can select either **Open** or **Shared**. The default setting of the 802.11g 54Mbps Router is **Open**.

You can set the **Default Key** to either 1, 2, 3, or 4. If you enter multiple Keys, this will determine which one should be used. This is a simple way to switch between different networks that have the same configuration information except for the WEP key.

You will then need to select the **Key Type** from one of the following: **40/64bit encryption**, **40/64bit encryption** (**ASCII**), **104/128bit encryption**, or **104/128bit encryption** (**ASCII**). If you select one of the Key Type options that does not say **ASCII**, it is a **Hex (Hexidecimal)** Key Type.



You can also select **Use Passphrase** and then enter a Passphrase to use in the place of keys. If you choose this option, the wireless network or wireless devices you are going to connect to must also support this option.

When you are finished entering the information, click **Apply**.

#### **WPA-PSK**



If you select **WPA-PSK**, you will then need to enter a **Shared Secret Key (PSK)**. The Key should be between 8 and 63 characters long.

WPA's use of keys is very similar to WEP, but the key is only used once to start the

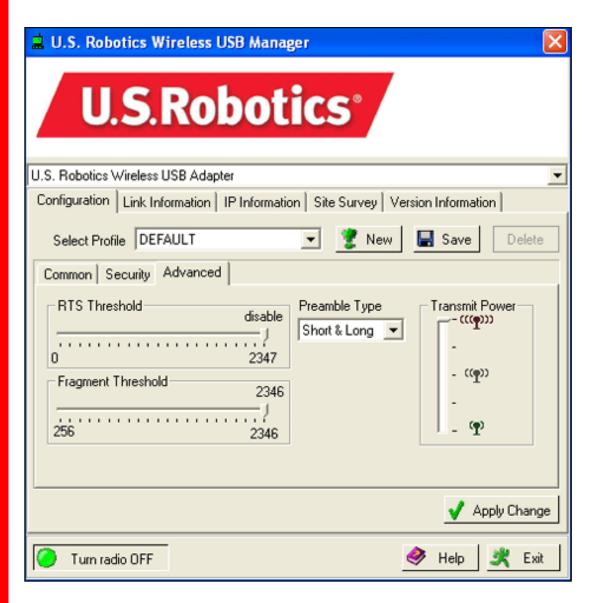
process. Once communication is established, the key will randomly change. This provides a higher level of security. It is recommended that you use the most secure mechanism available on your 802.11g 54Mbps USB Adapter.

**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 entered the information, click Apply.

#### **Advanced**

It is recommended that you don't change any of these settings unless directed to by a network administrator.



In the Advanced area, you can modify the following fields:

RTS Threshold Fragment Threshold Preamble Type Transmit Power

**RTS Threshold** is the packet size threshold at which a Request to Send (RTS) signal must be sent to the wireless receiving unit prior to the wireless sending unit opening communications. The default is 2347.

**Fragment Threshold** determines how large a fragment is that is being sent before it is broken into multiple fragments to increase throughput. The default is 2346.

**Preamble Type** defines the length of the CRC (Cyclic Redundancy Check) block for communication between the 802.11g 54Mbps USB Adapter and the wireless router or access point. This is used to detect data transmission errors. If your wireless network has a lot of traffic, you should select Short & Long.

**Transmit Power** determines the radio level output of the 802.11g 54Mbps USB Adapter. This determines the extent of the range that the 802.11g 54Mbps USB Adapter will emit a signal to and receive a signal from. If you want a smaller transmission range for security purposes and to reduce interference, select a lower level. If you want a larger transmission range, select a higher level.

When you are finished modifying these settings, click **Apply**.

#### **Link Information:**

The **Link Information** area shows the network information and a graphical representation of your connection status.

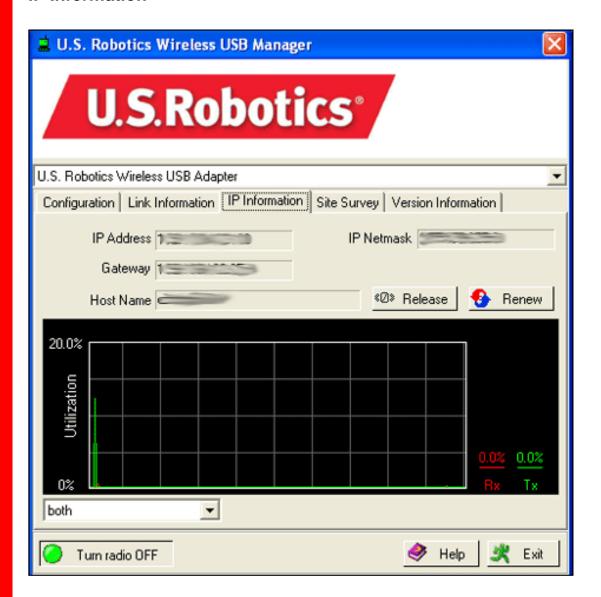


You will see a picture with a computer and a wireless device. If you see a graphic representing signal waves between the computer and the wireless device, you are connected to the wireless network.

If you see a large **X** between the two icons, you are not connected to a wireless network.

The first lines tell you the **SSID** (Network Name) of the wireless network you are connected to and the **Base Station Name ID** (**MAC address**) of the wireless router or access point that you are connected to. The **Channel** line tells you what channel you are wirelessly communicating on. The **Current Connection Speed** line tells you at what speed you are currently connected. The **Throughput** area tells you the amount of information fragments that have been transmitted and received on your wireless network connection. The **Signal Strength** bar indicates how well you are connecting to a wireless network. The higher percentage that is listed, the better your connection is.

#### **IP** Information



In this screen you can view the following information for your 802.11g 54Mbps USB Adapter:

- **IP Address** This is the address that is assigned to a client on a network.
- **IP Netmask** This is the address used to mask the internal IP addresses of a network from anyone outside of the network. 255.255.255.0 is commonly used and is the binary equivalent of eight 0's.
- **Gateway** This is the address assigned to a network device that is used to access the Internet or another network.
- **Host Name** This is the name of the computer that your 802.11g 54Mbps USB Adapter is installed on.

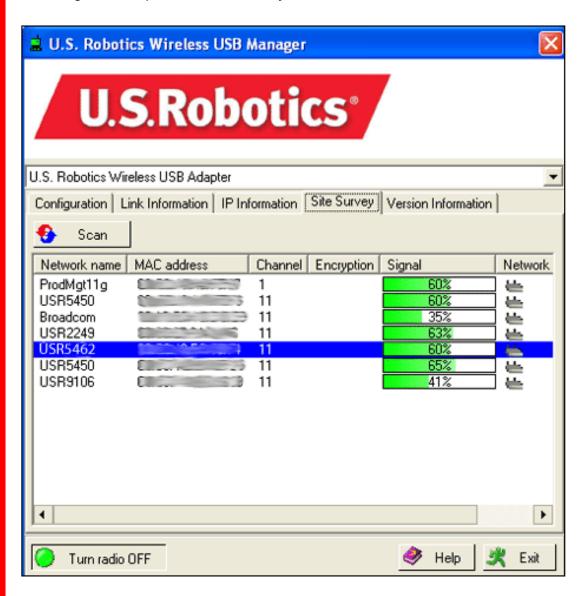
Click **Release** if you want to release the IP Address that has been assigned to the 802.11g 54Mbps USB Adapter. Click **Renew** to obtain a new IP Address for the 802.11g 54Mbps USB Adapter from a DHCP server

You can also see a graph that represents the flow of information to and from your 802.11g 54Mbps USB Adapter. Under the graphic, you can select either **both**, **incoming**, or **outgoing**. **Incoming** (Receiving) shows you just the information coming into the 802.11g 54Mbps USB Adapter. **Outgoing** (Transmitting) shows you just the information going out from the 802.11g

54Mbps USB Adapter. **Both** shows the incoming information and the outgoing information.

### **Site Survey:**

Selecting this tab opens the **Site Survey** area.



You will see a list of the available wireless networks to which you can connect. Double-click the appropriate network to connect to it. If you do not see the desired wireless network, click **Scan** to perform another search of the area.

If you still do not see the desired wireless network when you perform a Site Survey, try creating a

profile with the necessary connection information for the appropriate wireless network and then selecting this profile. Refer to the <u>Profile</u> section in this User Guide for more information about creating a profile.

The first column is the **SSID** (Network Name) column, which lists the SSID, or Network Name, for each available wireless network that does not have SSID Broadcast disabled. If an SSID is not listed, that means SSID Broadcast is disabled for that device and you will need to know specific security information to connect to it.

The second column is the **MAC Address** column. This is a list of the MAC addresses of each available wireless network.

Next to the MAC Address list is the **Channel** column. This lets you know what channel each wireless network is operating on. The 802.11g 54Mbps USB Adapter is compatible with both 802.11g products and the earlier 802.11b versions.

The next column is the **Encryption** column. If a wireless network has encryption enabled, you will see a gold key on the network line. The only way to connect to a network that has encryption enabled is to create a Profile using the specific security information for that network.

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.

The last column is the **Network Type** column. You will see one of two icons in this column indicating if the network is in Infrastructure mode or in Ad Hoc mode. If it is an Infrastructure network, you will see an icon representing a wireless router or access point. If it is an Ad Hoc network, you will see an icon representing a wireless adapter.

If you attempt to connect to a network that has security settings enabled, you will need to <u>create a profile</u> 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. Some examples of security information you may need are the SSID, the Authentication Mode, and the Encryption Level.

#### **Version Information:**

Within this section, you can view the version information for your 802.11g 54Mbps USB Adapter. Click the Web link to go to the U.S. Robotics Web site, where you can see if any driver or utility updates are available.



About the 802.11g
54Mbps USB Adapter

Network Configuration and Planning

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

Navigating the Wireless
Configuration Utility

**Troubleshooting** 

Glossary

Product Specifications for 802.11g 54Mbps USB Adapter

U.S. Robotics

Corporation Limited

Warranty

**Regulatory Information** 

# 802.11g 54Mbps USB Adapter User Guide

## **Troubleshooting**

I plugged in the 802.11g 54Mbps USB Adapter but I do not see the Configuration Utility icons.

#### **Possible Solution:**

If you installed the 802.11g 54Mbps USB Adapter without installating the software and drivers first, you will not see the Configuration Utlity. If the Installation CD-ROM is in your CD-ROM drive, remove it. Insert the Installation CD-ROM into your CD-ROM drive, select your product, and then click **Software**. Click **802.11g 54Mbps USB Adapter Utility and Drivers**. Follow the on-screen instructions to finish the installation procedure. If you are prompted, restart your computer.

# Windows could not locate the drivers for the 802.11g 54Mbps USB Adapter. Possible Solution:

The software must be installed before the 802.11g 54Mbps USB Adapter is connected to your computer. Click **Cancel** on the Windows driver screen, unplug the 802.11g 54Mbps 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 for the 802.11g 54Mbps USB Adapter in the system tray to confirm the connection status. If you are connected to your Wireless Router, the icon will be green or yellow. If the icon is red, open the Configuration Utility and scan the area so that you can connect to the correct wireless network.

#### **Possible Solution:**

Try performing the ping procedure to make sure you can connect with different areas of the wireless network and the Internet. If at any time during the ping procedure you do not receive a return message for a successful ping, this means that you cannot connect to that IP address. After you have made the corrections, continue with the ping procedure.

- Click Windows Start and then click Run. In the Run dialog box, Windows 98 and Me users should type command and click OK. Windows 2000 and XP users should type cmd and click OK.
- 2. At the command prompt, type **Ping 127.0.0.1** This is your local host address and this will ensure that the TCP/IP protocol is installed and functioning properly. If you cannot complete this ping, reinstall the TCP/IP protocol on your computer. Refer to your operating system's documentation for instructions.

- 3. Type Ping followed by your IP address. To determine your IP address, refer to the previous Possible Solution. This will ensure that your computer is responding to requests and that the 802.11g 54Mbps USB Adapter is properly installed. If you cannot complete this ping, uninstall the 802.11g 54Mbps USB Adapter and repeat the installation procedure.
- 4. Type **Ping** followed by your gateway address to check the communication with your gateway. The default gateway address is the IP address of your wireless router or access point. Check your Wireless Router to verify this address. This will ensure that you can connect to the Wireless Router. If you cannot complete this ping, make sure your wireless settings are correct and that the 802.11g 54Mbps USB Adapter is fully inserted into a USB port on your computer.
- 5. Type **Ping** followed by the outside Internet address that is provided by your ISP. This procedure will ensure that your wireless network can connect to the Internet. If you cannot complete this ping, verify your Internet connection between your modem and your wireless router or access point.
- 6. Type **Ping** followed by your known DNS server address. This will allow you to resolve valid Internet host names to IP addresses and to verify that you can access the Internet.

# Security is enabled on my Wireless Router and my 802.11g 54Mbps USB Adapter cannot connect.

#### **Possible Solution:**

The 802.11g 54Mbps USB Adapter supports 64 and 128 bit encryption. Verify that all of the security features you have entered for the profile of your 802.11g 54Mbps USB Adapter match the settings for your Wireless Router. For more information about setting up connection profiles and security features, refer to the <a href="Navigating the Wireless">Navigating the Wireless</a> Configuration Utility section of this User Guide.

#### **Possible Solution:**

If you created a Profile Setting, unplug the 802.11g 54Mbps USB Adapter and then plug it back in.

# 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 recognise the 802.11g 54Mbps USB Adapter.

#### **Possible Solution:**

The 802.11g 54Mbps USB Adapter may not be properly connected. Make sure the 802.11g 54Mbps USB Adapter is fully inserted into the USB Port on your computer.

The 802.11g 54Mbps USB Adapter does not work properly, and I may need to uninstall the device.

#### **Possible Solution:**

Check to be certain the 802.11g 54Mbps USB Adapter is not in use before removing it. The computer may lock up if the 802.11g 54Mbps USB Adapter is removed while in use. If the 802.11g 54Mbps USB Adapter is not functioning correctly, perform the following steps:

Windows XP Users: Click Windows Start, All Programs, 802.11g Wireless USB Adapter Utility, and then Uninstall.

Windows 2000 Users: Click Windows Start, Programs, 802.11g Wireless USB Adapter Utility, and then Uninstall.

I uninstalled the Configuration Utility and my computer doesn't detect the 802.11g 54Mbps USB Adapter when I attempt to reinstall the Configuration Utility.

#### **Possible Solution:**

If you uninstalled the Configuration Utility and then reinstalled it, you will need to unplug and then plug back in the 802.11g 54Mbps USB Adapter. Your computer will then detect the 802.11g 54Mbps USB Adapter.

When I perform a Site Survey, I cannot locate the wireless network to which I want to connect.

#### **Possible Solution:**

If you do not see the correct wireless network, click Scan.

If you still do not see the correct wireless network when you perform a Site Survey, try creating a profile using the necessary connection information for the appropriate wireless network, selecting the profile, and then clicking **Apply** in the Configuration tab. Refer to the Profile section in the **Navigating the Wireless Configuration Utility** section of this User Guide for more information about creating a profile.

## 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	(888) 216-2850		9:00 A.M 5:00 P.M., Monday - Friday CST
Canada	(888) 216-2850	http://www.usr.com/emailsupport	9:00 A.M 5:00 P.M., Monday - Friday CST

Country	Telephone	Online	Hours
Austria	07110	http://www.usr.com/	9:00 - 17:00
	900116	emailsupport/de	Monday - Friday
Belgium (Flemish) (French)	+32 (0) 7 023 3545 (Flemish) +32 (0) 7 023 3546 (French)	http://www.usr.com/ emailsupport/ea	9:00 - 17:00 Monday - Friday
Denmark	+45 70 10	http://www.usr.com/	9:00 - 17:00
	4030	emailsupport/uk	Monday - Friday
Finland	+358	http://www.usr.com/	10:00 - 18:00
	981710015	emailsupport/ea	Monday - Friday
France	+33 082	http://www.usr.com/	9:00 - 17:00
	507 0693	emailsupport/fr	Monday - Friday
Germany	0180 567	http://www.usr.com/	9:00 - 17:00
	1548	emailsupport/de	Monday - Friday
Hungary	0180 567	http://www.usr.com/	9:00 - 17:00
	1548	emailsupport/hu	Monday - Friday
Ireland	+44 870	http://www.usr.com/	9:00 - 18:00
	844 4546	emailsupport/uk	Monday - Friday
Italy	+848 80	http://www.usr.com/	9:00 - 17:00
	9903	emailsupport/it	Monday - Friday
Luxembourg	+352 342	http://www.usr.com/	9:00 - 17:00
	080 8318	emailsupport/bn	Monday - Friday
Middle East/	+44 870	http://www.usr.com/	9:00 - 17:00
Africa	844 4546	emailsupport/me	Monday - Friday
Netherlands	0900 202	http://www.usr.com/	9:00 - 17:00
	5857	emailsupport/ea	Monday - Friday
Norway	+47 23 50	http://www.usr.com/	9:00 - 17:00
	0097	emailsupport/ea	Monday - Friday
Poland		http://www.usr.com/ emailsupport/pl	8:00 - 18:00 Monday - Friday
Portugal	+351 (0) 21	http://www.usr.com/	9:00 - 17:00
	415 4034	emailsupport/pt	Monday - Friday

Russia	8-800-200-	http://www.usr.com/	10:00 - 18:00
	200-1	emailsupport/ru	Monday - Friday
Spain	902 11	http://www.usr.com/	9:00 - 17:00
	7964	emailsupport/es	Monday - Friday
Switzerland	0848 840	http://www.usr.com/	9:00 - 17:00
	200	emailsupport/de	Monday - Friday
Sweden	+46 (0) 77	http://www.usr.com/	9:00 - 17:00
	128 1020	emailsupport/ea	Monday - Friday
United	0870 844	http://www.usr.com/	9:00 - 17:00
Kingdom	4546	emailsupport/uk	Monday - Friday

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

About the 802.11g
54Mbps USB Adapter

Network Configuration and Planning

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

Navigating the Wireless
Configuration Utility

**Troubleshooting** 

Glossary >

Product Specifications
for 802.11g 54Mbps
USB Adapter

U.S. Robotics

Corporation Limited

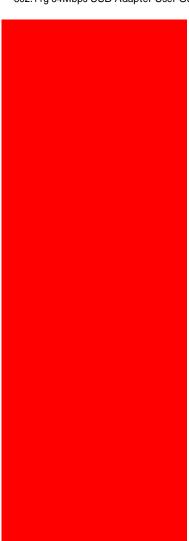
Warranty

**Regulatory Information** 

# 802.11g 54Mbps USB Adapter User Guide

# **Glossary**

Access Point	A networking device that seamlessly connects wired and wireless networks together.
Ad Hoc	An Ad Hoc wireless LAN is a group of computers, each with wireless adapters, connected as an independent wireless LAN.
AES	AES stands for Advanced Encryption System, which utilizes a symmetric 128-bit clock data encryption. This is an option within the WPA-PSK encryption method.
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. In this type of setup, a wireless network is created by wireless adapters connecting to a wireless router or access point. The wireless router or access point can be connected to a broadband modem or to an existing LAN to supply Internet connectivity to the wireless network.



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.
SSID	SSID stands for Service Set Identifier. This is the network name that is used to identify a specific wireless network.
PSK	PSK stands for Pre Shared Key. This is an element of the WPA encryption standard.
TKIP	TKIP stands for Temporal Key Integrity Protocol. TKIP utilizes a stronger encryption method and incorporates Message Integrity Code (MIC) to provide protection against hackers. This is an option within the WPA-PSK encryption method.
WEP	WEP stands for Wired Equivaent Privacy. This is an encryption standard that provides a level of security and privacy that is comparable to what is usually expected of a wired LAN.
WPA	WPA stands for Wi-Fi Protected Access. This is an encryption standard that is an improvement on the WEP standard. WPA provides more sophisticated encryption and user authentication.



About the 802.11g 54Mbps USB Adapter

Network Configuration and Planning

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

Navigating the
Wireless
Configuration Utility

**Troubleshooting** 

Glossary

Product Specifications for 802.11g 54Mbps USB Adapter >

U.S. Robotics

Corporation Limited

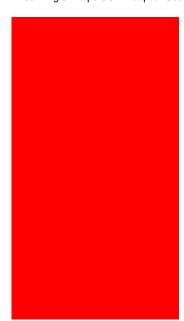
Warranty

**Regulatory Information** 

# 802.11g 54Mbps USB Adapter User Guide

# Product Specifications for the 802.11g 54Mbps USB Adapter

Radio:	Complies with IEEE 802.11g		
Frequency Band:	USA (FCC): 2412 ~ 2462 MHz, Ch1 ~ Ch11 Canada (IC): 2412 ~ 2462 MHz, Ch1 ~ Ch11 Europe (ETSI): 2412 ~ 2472 MHz, Ch1 ~ Ch13		
Modulation Type:	CCK, OFDM		
Operating Channels:	11 channels (US, Canada) 13 channels (ETSI)		
Radio Technology:	Direct Sequence Spread Spectrum (DSSS)		
Data Rate:	54/48/36/24/18/12/11/9/6/5.5/2/1 Mbps with auto fallback		
Output Power:	+16dBm max.		
Receive sensitivity:	-92dBm max.		
Antenna Type:	Integrated antenna		
Current Consumption:	455mA (TX) 330mA (RX)		
Interface:	USB Type 2.0 compliant, backward compatible with USB1.1		
LED:	(((***********************************		
Package:	USB		
Certification:	FCC Part 15 ETSI 300.328 ARIB STD33 & T66		



Onereting Temperature:	0 ~ 45 oC ambient -20 ~ 70 oC ambient
Driver:	Windows 98SE/2000/Me/XP



About the 802.11g 54Mbps USB Adapter

Network Configuration and Planning

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

Navigating the Wireless
Configuration Utility

**Troubleshooting** 

Glossary

Product Specifications for 802.11g 54Mbps USB Adapter

U.S. Robotics Corporation Limited Warranty >

**Regulatory Information** 

## 802.11g 54Mbps 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.
- 1.7 U.S. ROBOTICS warrants any replacement product or part for NINETY (90) DAYS from the date the product or part is shipped to Customer.
- 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.
- 1.9 U.S. ROBOTICS makes no warranty or representation that the operation of the software products provided with this product will be uninterrupted or error free, or that all defects in software products will be corrected.
- 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 authorised 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 authorised 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 authorised 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.

6.0 DISCLAIMER: Some countries, states, territories or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential



damages for certain products supplied to consumers, or the limitation of liability for personal injury, so the above limitations and exclusions may be limited in their application to CUSTOMER. When the implied warranties are not allowed by law to be excluded in their entirety, they will be limited to the TWO (2) YEAR duration of this written warranty. This warranty gives CUSTOMER specific legal rights, which may vary depending on local law.

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



About the 802.11g 54Mbps USB Adapter

Network Configuration and Planning

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

Navigating the Wireless
Configuration Utility

Troubleshooting

Glossary

Product Specifications for 802.11g 54Mbps USB Adapter

U.S. Robotics
Corporation Limited
Warranty

Regulatory Information>

# 802.11g 54Mbps USB Adapter User Guide

## **Regulatory Information**

#### **FCC Declaration of Conformity**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

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

#### FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment has been SAR-evaluated for use in laptops (notebooks) with side slot configuration.

#### FCC Channel Restriction

U.S. Robotics declares that USR5422 (FCC ID: RAXWN4501D-U5) is limited in CH1~CH11 by specified firmware controlled in U.S.A.

#### 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:

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

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. (Equipment (or its transmit antenna) that is installed outdoors is subject to licensing).

#### **UL Listing/CUL Listing**

This information technology equipment is UL Listed and C-UL Listed for both the US and Canadian markets respectively.

# CE05600 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 54Mbps USB Adapter, USR5422, 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

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, Poland, Portugal, Sweden, Norway, Denmark, Finland, Czech Republic, Hungary, and Greece

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

Country	Frequency Band	Output Power	
France	2454-2483.5 MHz	10 mW EIRP outdoor	

#### **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.

Operating Channels:

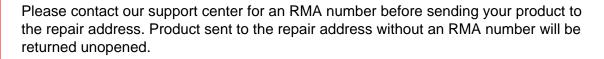
IEEE 802.11g compliant 11 channels (US, Canada) 13 channels (ETSI)

Regulatory Channel Frequency				
Channel	Frequency (MHz)	FCC	Canada	ETSI
1	2412	X	Х	X
2	2417	X	Х	X
3	2422	X	Х	X
4	2427	X	Х	Х
5	2432	X	Х	X
6	2437	X	Х	X
7	2442	X	Х	X
8	2447	X	Х	X
9	2452	X	Х	Х
10	2457	X	Х	Х
11	2462	X	Х	X
12	2467			X
13	2472			X
14	2484			

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

#### **Manufacturer's Disclaimer Statement**

The information in this document is subject to change without notice and does not represent a commitment on the part of the vendor. No warranty or representation, either expressed or implied, is made with respect to the quality, accuracy or fitness for any particular purpose of this document. The manufacturer reserves the right to make changes to the content of this document and/or the products associated with it at any time without obligation to notify any person or organisation of such changes. In no event will the manufacturer be liable for direct, indirect, special, incidental or consequential damages arising out of the use or inability to use this product or documentation, even if advised of the possibility of such damages. This document contains materials protected by copyright. All rights are reserved. No part of this manual may be reproduced or transmitted in any form, by any means or for any purpose without expressed written consent of its authors. Product names appearing in this document are mentioned for identification purchases only. All trademarks, product names or brand names appearing in this document are registered property of their respective owners.



In North America: U.S. Robotics c/o Innovate -It 935 McLaughlin San Jose, CA 95122 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