Dynex

Wireless G USB Network Adapter

Connect your desktop or notebook computer to a wireless network

User Manual

Table of Contents

Introduction
Thank you for purchasing the Dynex Wireless G USB Network Adapter (the Adapter). Now you can take advantage of this great new technology and gain the freedom to network your home and office computers wirelessly. This Adapter allows you to connect a desktop or notebook computer to your network. The easy installation and setup will have you networking wirelessly in minutes. Please be sure to read through this User Manual completely, and pay special attention to the section entitled "Placement of your Wireless Networking Hardware for Optimal Performance" on page 2.

Benefits of a Home Network
Your Dynex Home Network will allow you to:

• Share one high-speed Internet connection with all the computers in your home
• Share resources, such as files, and hard drives among all the connected computers in your home
• Share a single printer with the entire family
• Share documents, music, video, and digital pictures
• Store, retrieve, and copy files from one computer to another
• Simultaneously play games online, check Internet email, and chat

Advantages of a Wireless Network
Here are some of the advantages of setting up a Dynex wireless network:

• **Mobility** –you'll no longer need a dedicated "computer room"— now you can work on a networked laptop or desktop computer anywhere within your wireless range
• **Easy installation** – Dynex Easy Installation Wizards make setup simple
• **Flexibility** – set up and access printers, computers, and other networking devices from anywhere in your home
• **Easy expansion** – the wide range of Dynex networking products lets you expand your network to include devices such as printers and gaming consoles
• **No cabling required** – you can spare the expense and hassle of retrofitting Ethernet cabling throughout the home or office
• **Widespread industry acceptance** – choose from a wide range of interoperable networking products

Placement of your Wireless Networking Hardware for Optimal Performance

Your wireless connection will be stronger the closer your computer is to your wireless router (or access point). Typical indoor operating range for your wireless devices is between 100 and 200 feet. In the same way, your wireless connection and performance will degrade somewhat as the distance between your wireless router (or access point) and connected devices increases. This may or may not

be noticeable to you. As you move farther from your wireless router (or access point), connection speed may decrease. Factors that can weaken signals simply by getting in the way of your network's radio waves are metal appliances or obstructions, and walls.

If you have concerns about your network's performance that might be related to range or obstruction factors, try moving the computer to a position between five and 10 feet from the wireless router (or access point) in order to see if distance is the problem. If difficulties persist even at close range, please contact Dynex Technical Support.

Note: While some of the items listed below can affect network performance, they will not prohibit your wireless network from functioning; if you are concerned that your network is not operating at its maximum effectiveness, this checklist may help.

1. Placement of your Wireless Router (or Access Point)
Place your wireless router (or access point), the central connection point of your network, as close as possible to the center of your wireless network devices.

To achieve the best wireless network coverage for your "wireless clients," (i.e. computers enabled by Dynex Wireless Notebook Cards, Wireless Desktop Cards, and Wireless USB Adapters):

• Ensure that your wireless router's (or access point's) antennas are parallel to each other, and are positioned vertically (toward the ceiling). If your wireless router (or access point) itself is positioned vertically, point the antennas as much as possible in an upward direction.

• In multistory homes, place the wireless router (or access point) on a floor that is as close to the center of the home as possible. This may mean placing the wireless router (or access point) on an upper floor.

• Try not to place the wireless router (or access point) near a cordless 2.4GHz phone

2. Avoid Obstacles and Interference
Avoid placing your wireless router (or access point) near devices that may emit radio "noise", such as microwave ovens. Other objects that can inhibit wireless communication can include:

• Refrigerators

• Washers and/or dryers

• Metal cabinets

• Large aquariums

• Metallic-based, UV-tinted windows

If your wireless signal seems weak in some spots, make sure that objects such as these are not blocking the signal's path between your computers and wireless router (or access point).

3. Cordless Phone Placement
If the performance of your wireless network is impaired after attending to the above issues, and you have a cordless phone:

• Try moving cordless phones away from the wireless router (or access point) and your wireless-enabled computers.
• Unplug and remove the battery from any cordless phone that operates on the 2.4GHz band (check manufacturer's information). If this fixes the problem, your phone may be interfering.
• If your phone supports channel selection, change the channel on the phone to the farthest channel from your wireless network as possible. For example, change the phone to channel 1 and move your wireless router (or access point) to channel 11. (Your channel selection will vary depending on your region.) See your phone's user manual for detailed instructions.
• If necessary, consider switching to a 900MHz or 5GHz cordless phone.

4. Choose the "Quietest" Channel for your Wireless Network
In locations where homes or offices are close together, such as apartment buildings or office complexes, there may be wireless networks nearby that can conflict with yours. Use the Site Survey capabilities of your Wireless Networking Utility to locate any other wireless networks, and move your wireless router (or access point) and computers to a channel as far away from other networks as possible.

Experiment with more than one of the available channels, in order to find the clearest connection and avoid interference from neighboring cordless phones or other wireless devices.

For more Dynex wireless networking products, use the detailed Site Survey and wireless channel information included in your User Manual.

5. Secure Connections, VPNs, and AOL
Secure connections typically require a user name and password, and are used where security is important. Secure connections include:

• Virtual Private Network (VPN) connections, often used to connect remotely to an office network
• The "Bring Your Own Access" program from America Online (AOL), which lets you use AOL through broadband provided by another cable or DSL service
• Most online banking websites

• Many commercial websites that require a user name and password to access your account

Secure connections can be interrupted by a computer's power management setting, which causes it to "go to sleep." The simplest solution to avoid this is to simply reconnect by re-running the VPN or AOL software, or by re-logging into the secure website.

A second alternative is to change your computer's power management settings so it does not go to sleep; however, this may not be appropriate for portable computers. To change your power management setting in Windows, see the "Power Options" item in the Control Panel.

If you continue to have difficulty with Secure Connections, VPNs, and AOL, please review steps 1–4 above to be sure you have addressed these issues.

For more information regarding our networking products, visit our website at www.Dynexsupport.com or call Dynex Technical Support.

Overview

Product Features

The Adapter complies with the IEEE 802.11g standard in order to communicate with other 802.11g-compliant wireless devices at 54Mbps. The Adapter is compatible with all 802.11g devices as well as other 802.11b products at 11Mbps. 802.11g products operate on the same 2.4GHz frequency band as 802.11b Wi-Fi® products.

• 2.4GHz ISM (Industrial, Science, and Medical) band operation
• Integrated easy-to-use Wireless Networking Utility
• USB 2.0 interface, for operation in virtually any desktop or notebook computer
• WPA, WPA2, 64-bit WEP (Wired Equivalent Privacy), or 128-bit encryption
• Wireless access to networked resources
• Support for both Infrastructure and Ad-Hoc (peer-to-peer) networking modes
• Data rate of up to 54Mbps (802.11g), or 11Mbps (802.11b)
• Easy installation and use
• External antenna
• LED power and network link indicators

Applications and Advantages
• Wireless roaming with a laptop around the home or office
Offers the freedom of networking—without cables
• Connection rates of up to 54Mbps
Provides immediate wireless connectivity at home, work, and hotspot locations
without compromising the use of existing 802.11b and 802.11g products
• Compatibility with 802.11b products
802.11g wireless LAN solutions are backward-compatible with existing Wi-Fi
(IEEE 802.11b) products and with other products that display the 54g logo
• Difficult-to-wire environments
Enables networking in buildings with solid or finished walls, or open areas where
wiring is difficult to install
• Frequently changing environments
Adapts easily in offices or environments that frequently rearrange or change
locations
• Temporary LANs for special projects or peak time
Sets up temporary networks such as at trade shows, exhibitions, and
construction sites, which need networks on a short-term basis; also companies
who need additional workstations for a peak activity period
• SOHO (Small Office/Home Office) networking needs
Provides the easy and quick, small network installation SOHO
users need

Product Specifications

Host Interface: USB 2.0 interface
Power Consumption: Tx/Rx peak 510/250mA @ 3.3VDC (max.)
Operating Temperature: 32–140 degrees F (0–60 degrees C)
Storage Temperature: -4–176 degrees F (-20–80 degrees C)
Humidity: Max. 90% (non-condensing)
Typical Operating Range: 100–200 ft. (30–60m) indoors

[insert image from P74471-A, p.8]

(a) Protective Cap
The cap can be stored on the opposite end of the USB connector.

Insert image from P74471-A, p.8

The cap snaps over the USB connector for protection.

Insert image from P74471-A, p.8

(b) Activity LED
Lights up and flashes when the Adapter is active
Blinking Green: Active
Off: Not connected to network
On: Connected to network

(c) USB Adapter
Fits securely into your computer's USB slot or into the Desktop Adapter Base (included).

(d) Desktop Adapter Base
Lets you extend the USB Adapter away from interfering objects around your computer.

System Requirements

- PC-compatible desktop computer with one available USB slot and CD-ROM drive

- Windows® 98SE, Me, 2000, or XP

Package Contents

- Wireless G USB Network Adapter

- Desktop Adapter Base

- Quick Installation Guide

- Installation Software CD

- User Manual

3 Installing and Setting up the Adapter

Step 1. Install
Important Note: Install the software before connecting the Adapter.

1.1 Insert the Installation Software CD into your CD-ROM drive.

1.2 The Dynex Wireless Networking Utility setup screen will automatically appear (may take 15–20 seconds to appear).

[insert splash page of Dynex Wireless Networking Utility setup screen, image 7050v4000-1]

1.3 Click "install" from the menu.

Note: If the Dynex Wireless Networking Utility setup screen does not appear within 20 seconds, access your CD-ROM, double-click on the "My Computer" icon, and then double-click on the CD-ROM drive into which you have placed the installation CD. Double-click on the folder named "Files", then double-click on the icon named "setup.exe".

1.4 Choose an installation location, and click "Next" to accept the default location or click "Browse" to select a different location before clicking "Next".

(insert image DX-BUSBv4000-2)
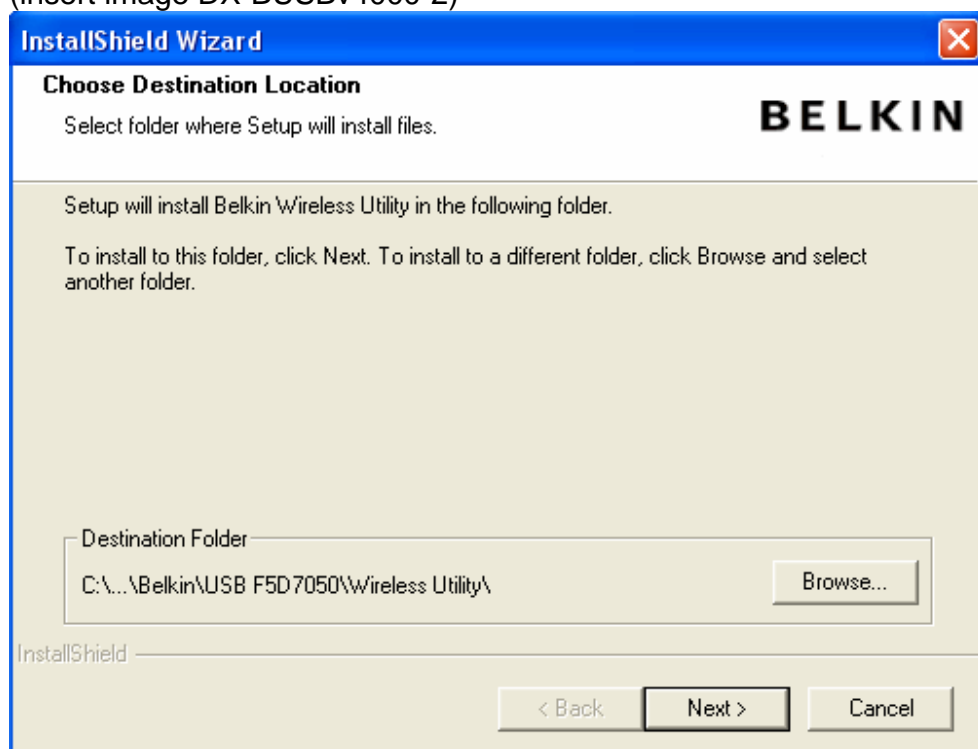
Step 2. Connect
Plug the Adapter into an Available USB Slot on your Notebook Computer

2.1 During the install process, you will be prompted to insert your Adapter. Plug the Adapter into an available USB port on your computer and follow the on-screen instructions.
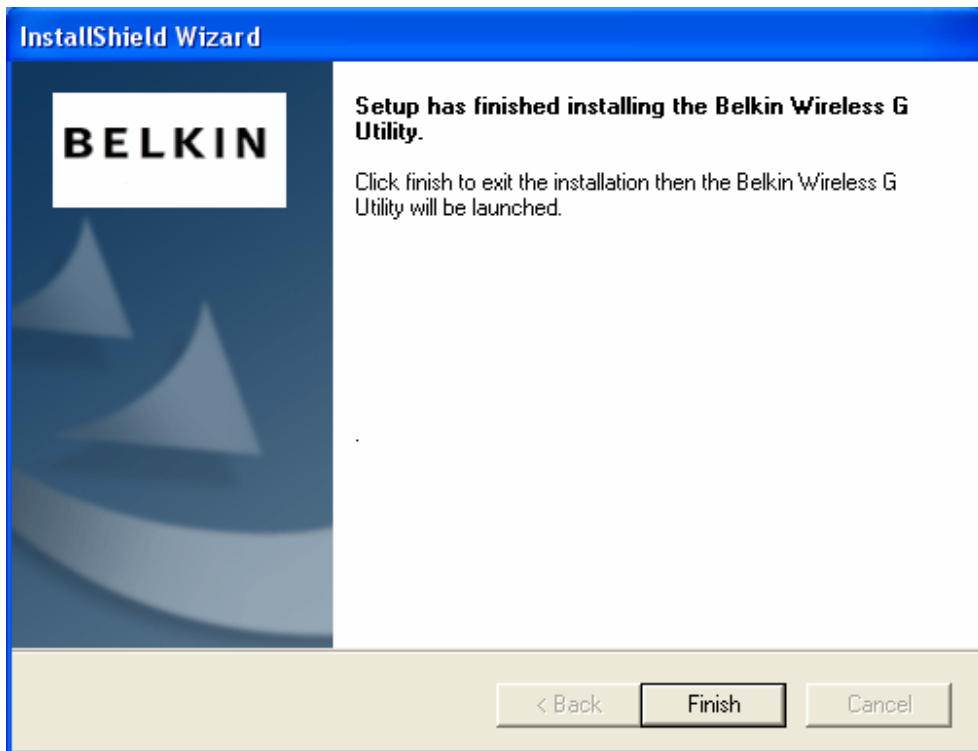
[insert F5D7010 QIG 01.jpg]

Please plug in your Belkin wireless card now.

(Insert image from P74472-A, p.4)

Note: If your system did not prompt you to insert your Adapter after the installation is completed, please do so now.

2.2 Dynex Wireless Networking Utility installation is now complete. Click "Finish" to close the Wizard.

Insert DX-BUSBv4000-5]

Step 3. Configure
Use the Dynex Wireless Networking Utility

3.1 After successfully installing the Adapter, double-click the Dynex Wireless Networking Utility icon located on the desktop screen.
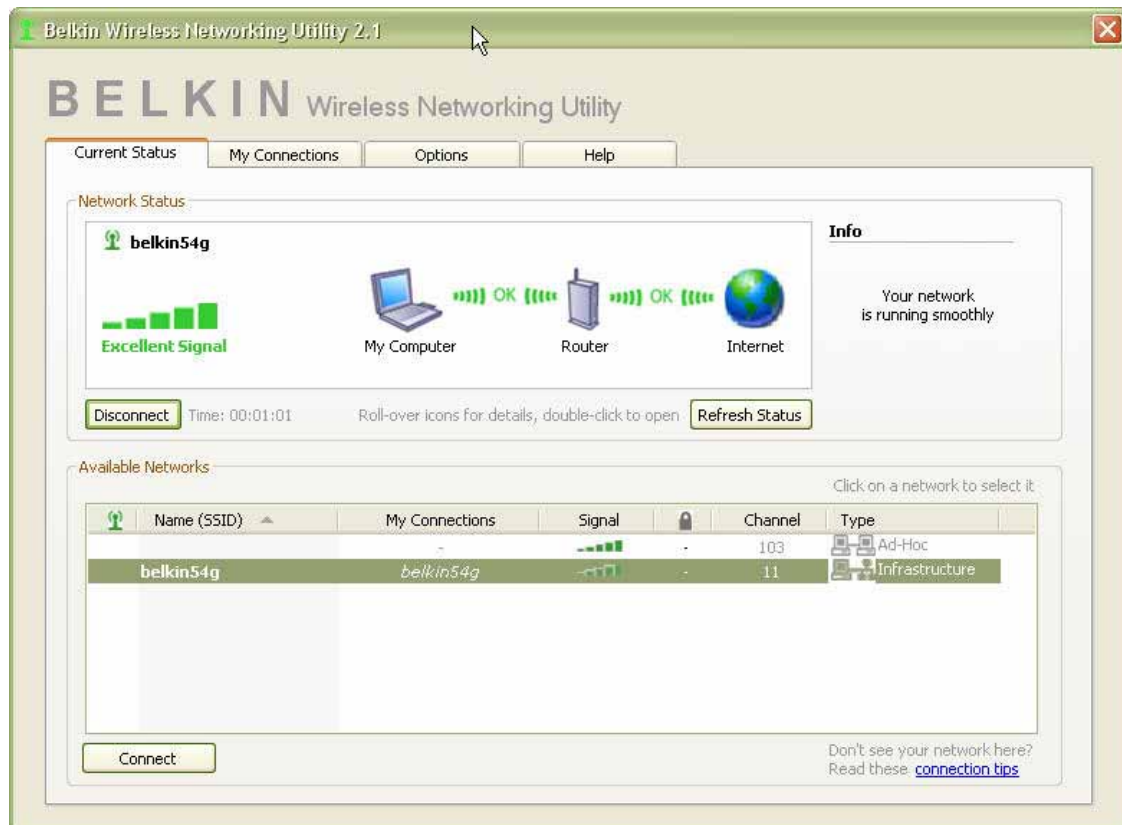
[insert F5D7000 QIG 06.jpg]

3.2 The Wireless Networking Utility screen will appear.

Select a network to connect to by selecting a network from the "Available Networks" list. Then, click "Connect".

[insert F5D7000 QIG 09.jpg]

Note: In order to see your available networks, you must be near a working wireless router or access point.

3.3 The Dynex Wireless Networking Utility icon can also be found on the system tray.

[insert F5D7000 QIG 10.jpg]

(Note at bottom of page) **Note:** Double-clicking on the Dynex Wireless Networking Utility icon on the system tray will bring up the "Utility" screen.

Installation is now complete.
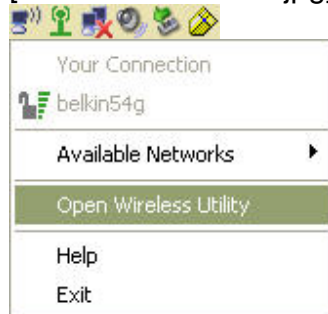
Using the Dynex Wireless Networking Utility

After successfully installing the Dynex Wireless Networking Utility (WNU), configurations for wireless connection and security are just a few easy clicks away.

**Accessing the Dynex Wireless Networking Utility from the Windows
System Tray**

To access the WNU, simply place your mouse pointer and right-click over the
WNU icon on the Windows system tray on the lower right-hand corner of your
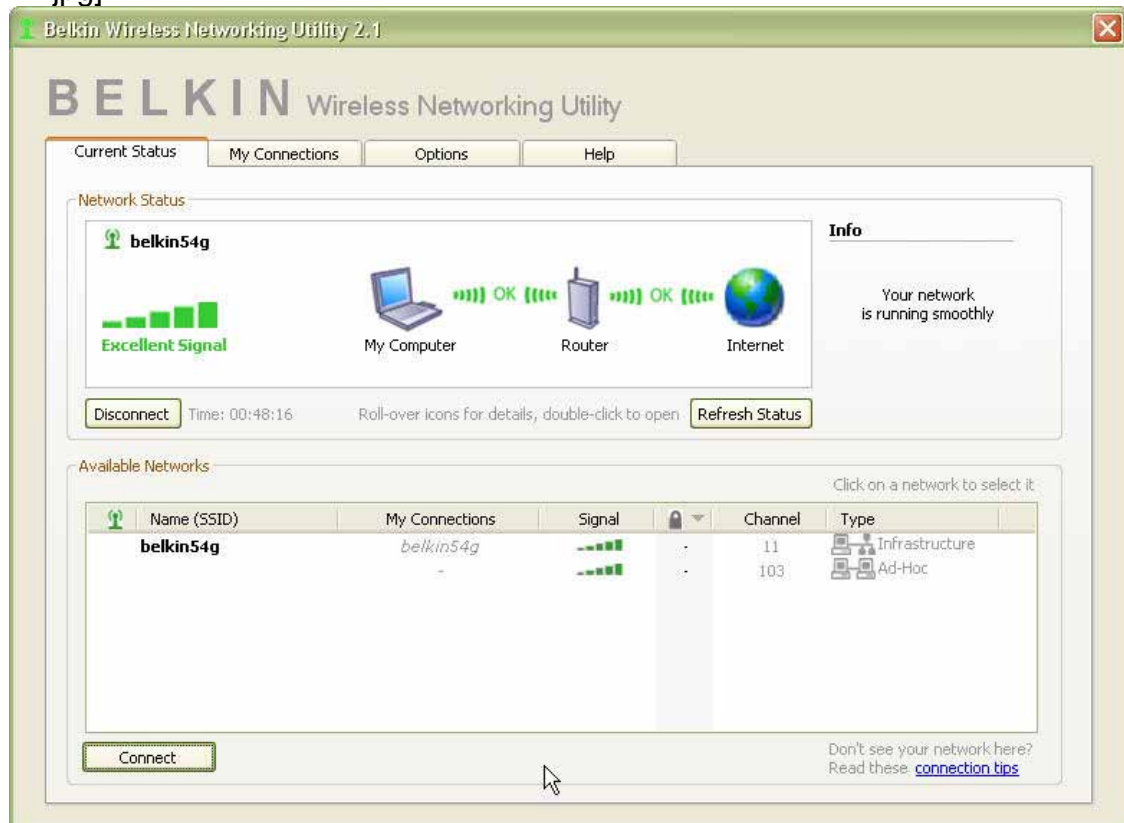computer's desktop.
[insert F5D7000-10.jpg]   [insert F5D7000-11.jpg]

If the icon is not present, click on "Start > Programs > Dynex > Wireless
Networking Utility".

[insert F5D7000
22.jpg]

The WNU's default screen is the "Current Status" tab. The "Current Status" tab
displays the current network status and available networks.

Network Status

This window displays the connectivity status of the current network, between the computer and router, and between the router and the Internet. In the event of a problem, use the "Network Status" window to determine the source (e.g., computer, router, or Internet/modem).

Available Networks

This window displays the available networks at the current location as well as their SSID, Signal Strength, Security Type, Channel, and Network Type.
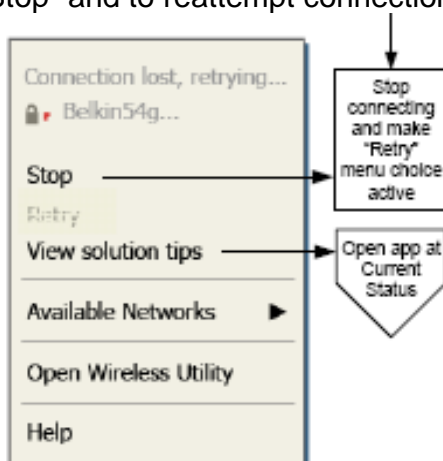
Lost Wireless Connection

If the current wireless connection is lost, a window will pop up and the WNU will attempt to reconnect.

Connection Failure

Other options will appear during attempts to reconnect. To stop connecting, click "Stop" and to reattempt connection, click "Retry".
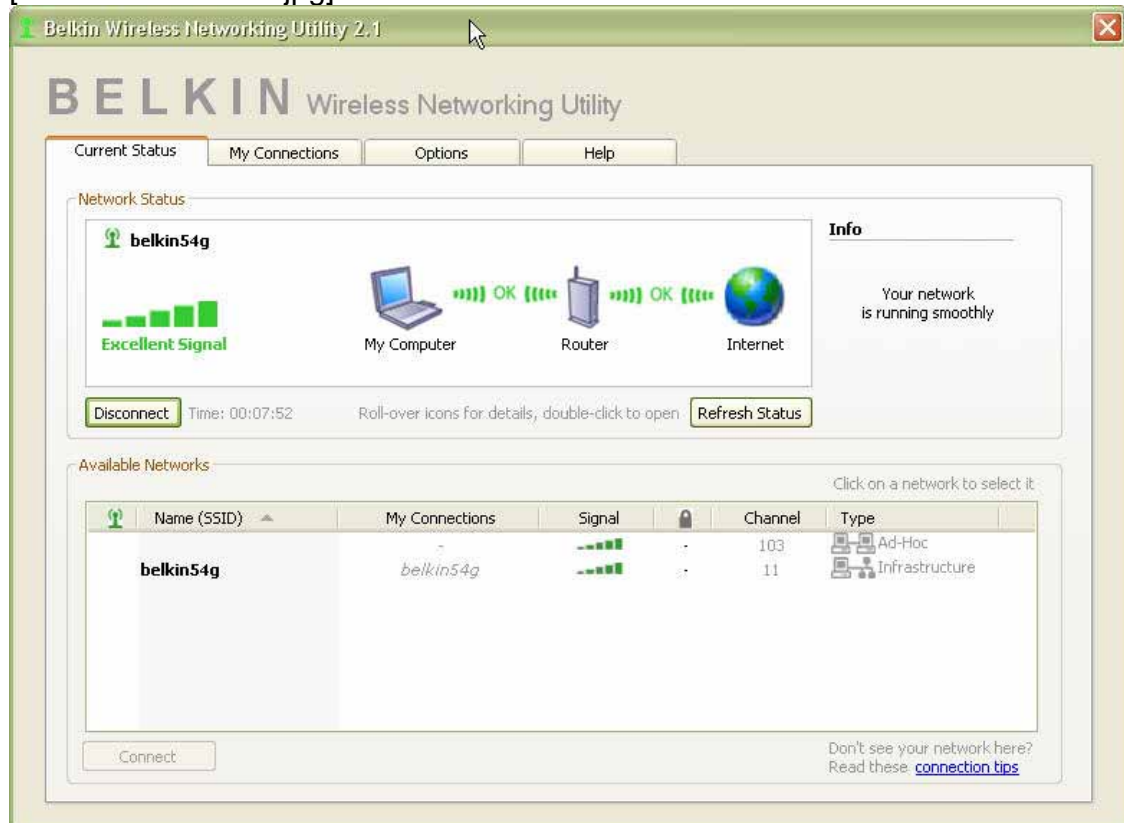

Right-Click during connection failure

Network Status and Solution Tips

To further understand the current Network Status, click "Open Wireless Utility". The default screen will be the "Current Status" tab and the "Network Status" section determines which connections are good and/or faulty.

[insert F5D7000-12.jpg]

The WNU also features a "Solution Tips" section that provides troubleshooting guidelines.

Setting Wireless Network Profiles

The "My Connections" tab on the WNU allows you to add, edit, and delete connection profiles. It also displays signal strength, security, and network type.

[insert F5D7000-13.jpg]
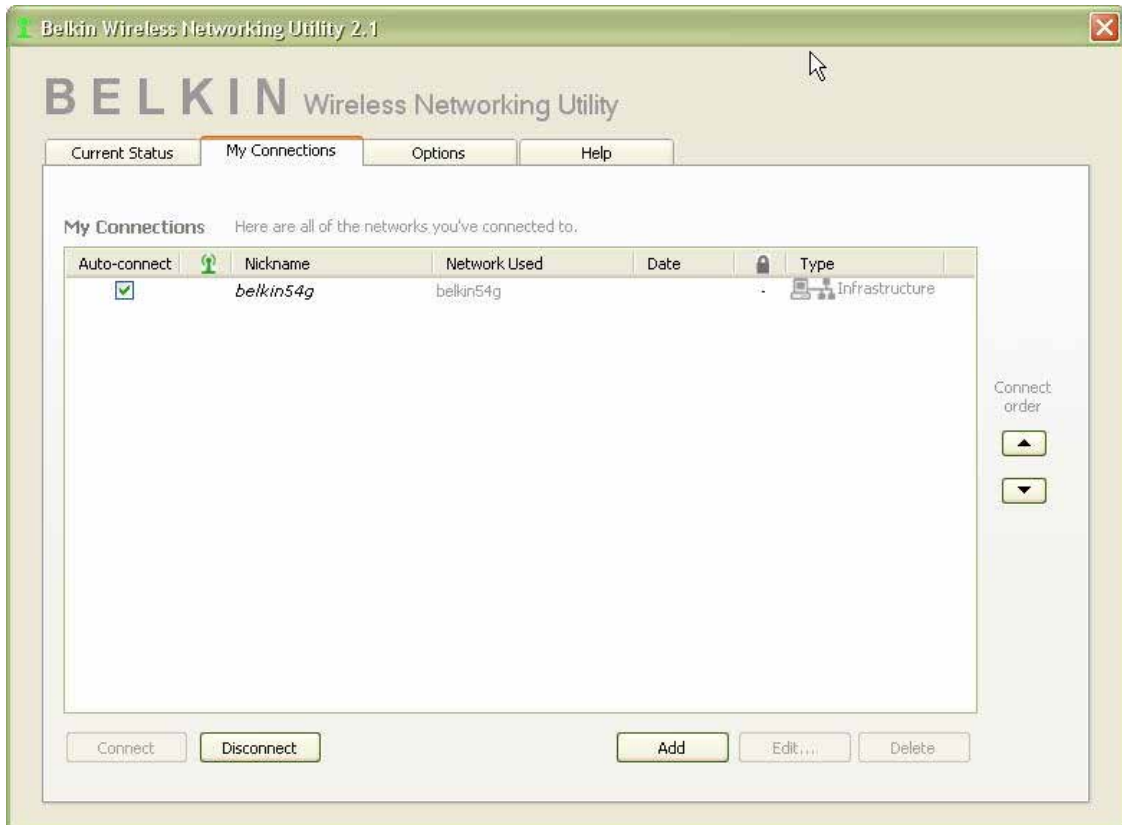
Securing your Wi-Fi® Network

If you choose to connect to a secure network, determine the type of security *(WPA or WEP*)* and use the appropriate field in the dialog box.
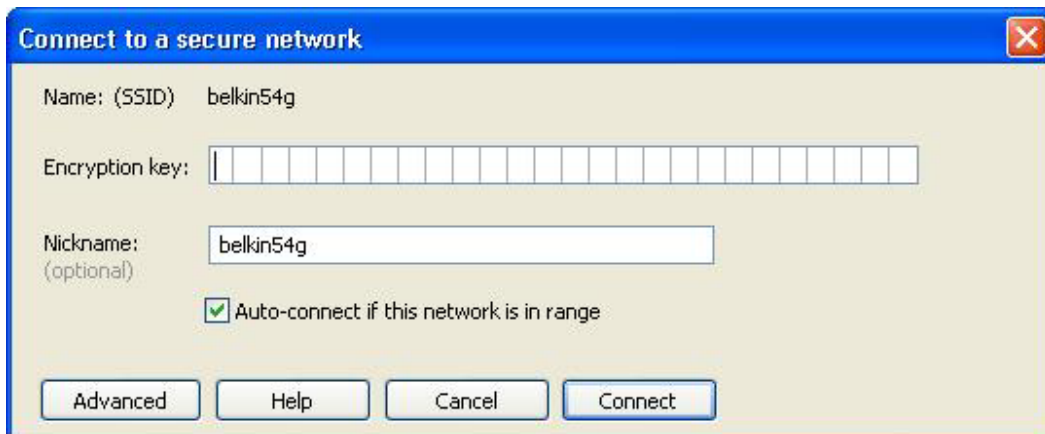
*Note: Types of security

Note: When you select a network using encryption, you will first see the simple security screen. Click the "Advanced" button to see other security options (below).

[insert F5D7000-14.jpg]

Wired Equivalent Privacy (WEP) is a less secure, but more widely adopted wireless security protocol. Depending on the security level (64- or 128-bit), the user will be asked to input a 10- or 26-character hex key. A hex key is a combination of letters, a–f, and numbers, 0–9.

Wireless Protected Access (WPA) is the new standard in the wireless security. However, not all wireless cards and adapters support this technology. Please check your wireless adapter's user manual to check if it supports WPA. Instead of a hex key, WPA uses only passphrases, which are much easier to remember.

The following section, intended for the home, home office, and small office user, presents a few different ways to maximize the security of your wireless network.

At the time of publication, four encryption methods are available:

Encryption Methods:

Name	64-Bit Wired Equivalent Privacy	128-Bit Wired Equivalent Privacy	Wi-Fi Protected Access-TKIP	Wi-Fi Protected Access 2
Acronym	64-bit WEP	128-bit WEP	WPA-TKIP/AES (or just WPA)	WPA2-AES (or just WPA2)
Security	Good	Better	Best	Best
Features	Static keys	Static keys	Dynamic key encryption and mutual authentication	Dynamic key encryption and mutual authentication
	Encryption keys based on RC4 algorithm (typically 40-bit keys)	More secure than 64-bit WEP using a key length of 104 bits plus 24 additional bits of system-generated data	TKIP (Temporal Key Integrity Protocol) added so that keys are rotated and encryption is strengthened	AES (Advanced Encryption Standard) does not cause any throughput loss

Wired Equivalent Privacy (WEP)

WEP is a common protocol that adds security to all Wi-Fi-compliant wireless products. WEP gives wireless networks the equivalent level of privacy protection as a comparable wired network.

64-Bit WEP
64-bit WEP was first introduced with 64-bit encryption, which includes a key length of 40 bits plus 24 additional bits of system-generated data (64 bits total). Some hardware manufacturers refer to 64-bit as 40-bit encryption. Shortly after the technology was introduced, researchers found that 64-bit encryption was too easy to decode.

128-Bit WEP
As a result of 64-bit WEP's potential security weaknesses, a more secure method of 128-bit encryption was developed. 128-bit encryption includes a key length of 104 bits plus 24 additional bits of system-generated data (128 bits total). Some hardware manufacturers refer to 128-bit as 104-bit encryption.

Most of the new wireless equipment in the market today supports both 64-bit and 128-bit WEP encryption, but you might have older equipment that only supports 64-bit WEP. All Dynex wireless products will support both 64-bit and 128-bit WEP.

Encryption Keys

After selecting either the 64-bit or 128-bit WEP encryption mode, it is critical that you generate an encryption key. If the encryption key is not consistent throughout the entire wireless network, your wireless networking devices will be unable to communicate with one another.

You can enter your key by typing in the hex key manually, or you can type a passphrase into the "Passphrase" field and click "Generate" to create a key. A hex (hexadecimal) key is a combination of numbers and letters from A–F and 0–9. For 64-bit WEP, you need to enter 10 hex keys. For 128-bit WEP, you need to enter 26 hex keys.

For instance:
AF 0F 4B C3 D4 = 64-bit WEP key

C3 03 0F AF 0F 4B B2 C3 D4 4B C3 D4 E7 = 128-bit WEP key

The WEP passphrase is NOT the same as a WEP key. Your Adapter uses this passphrase to generate your WEP keys, but different hardware manufacturers might have different methods on generating the keys. If you have multiple vendors' equipment in your network, the easiest thing to do is to use the hex WEP key from your wireless router (or

access point) and enter it manually into the hex WEP key table in your Adapter's configuration screen.

Wi-Fi Protected Access (WPA)

WPA is a new Wi-Fi standard that improves upon the security features of WEP. To use WPA security, the drivers and software of your wireless equipment must be upgraded to support it. These updates will be found on your wireless vendor's website. There are three types of WPA security: WPA-PSK (no server), and WPA (with radius server), and WPA2.

WPA-PSK (no server) uses what is known as a pre-shared key as the network key. A network key is a password that is between eight and 63 characters long. It can be a combination of letters, numbers, or characters. Each client uses the same network key to access the network. Typically, this is the mode that will be used in a home environment.

WPA (with radius server) is a system where a radius server distributes the network key to the clients automatically. This is typically found in a business environment.

WPA2 requires Advanced Encryption Standard (AES) for encryption of data, which offers much greater security than WPA. WPA uses both Temporal Key Integrity Protocol (TKIP) and (AES) for encryption.

For a list of Dynex wireless products that support WPA, please visit our website at www.Dynex.com/networking.

Most Wi-Fi products ship with security turned off. So once you have your network working, you need to activate WEP or WPA and make sure all your wireless devices are sharing the same network key.

IMPORTANT: You must now set all wireless network cards/adapters to match these settings.

**Configuring your Dynex Wireless G USB Network Adapter to use Security**

At this point, you should already have your wireless router (or access point) set to use WPA or WEP. In order for you to gain a wireless connection, you will need to set your Wireless G USB Network Adapter to use the same security settings.

Changing the Wireless Security Settings

The Dynex Wireless G USB Network Adapter supports the latest WPA security feature as well as the legacy WEP security standard. By default, wireless security is disabled.

To enable security, you will first need to determine which standard is used by the router or access point. (See your wireless router's or access point's manual for directions on how to access the security settings.)

[insert F5D7000-18.jpg]
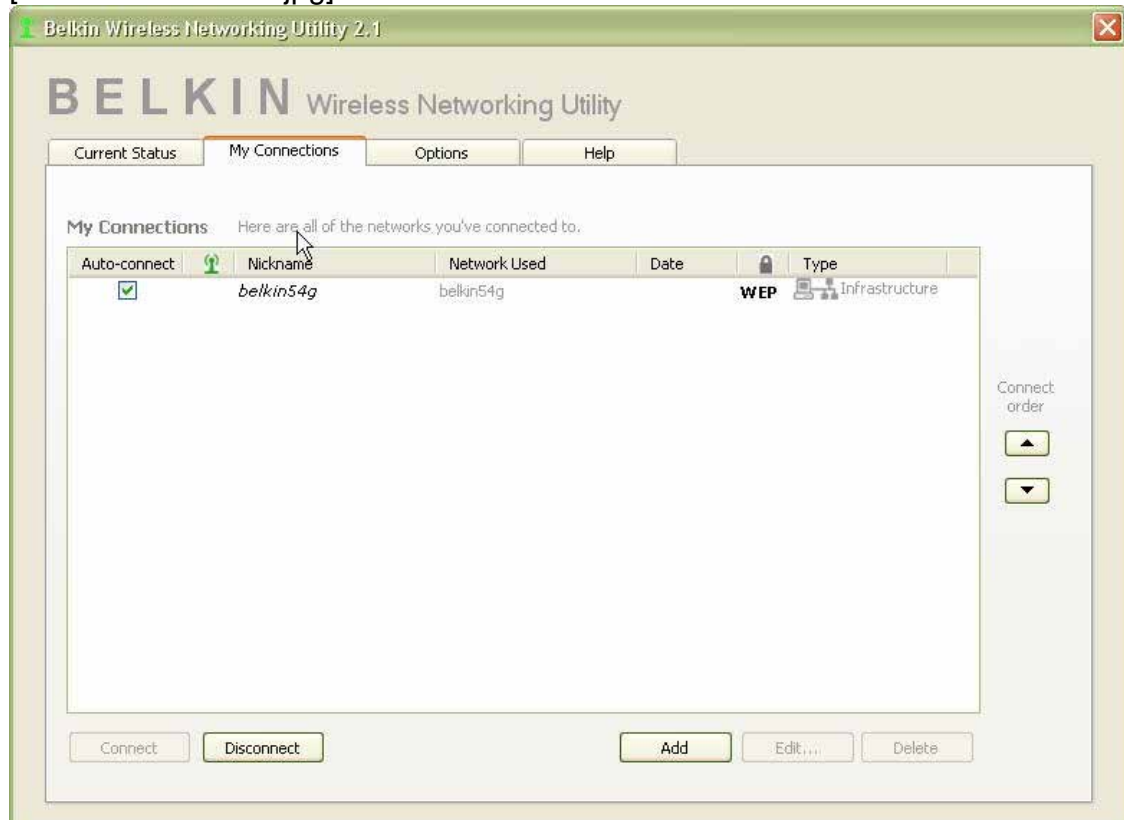
To access the security settings on your Adapter, click the "My Connections" tab and point to the connection for which you want to change security settings. Click "Edit" to change settings.

WEP Setup
64-Bit WEP Encryption
1. Select "WEP" from the drop-down menu.
2. After selecting your WEP encryption mode, you can enter your key by typing in the hex key manually, or you can type in a passphrase in the "Passphrase" field and click "Generate" to create a key.

A hex (hexadecimal) key is a combination of numbers and letters from A–F and 0–9. For 64-bit WEP, you need to enter 10 hex keys.

For instance:
AF 0F 4B C3 D4 = 64-bit WEP key
[insert F5D7000-15.jpg]
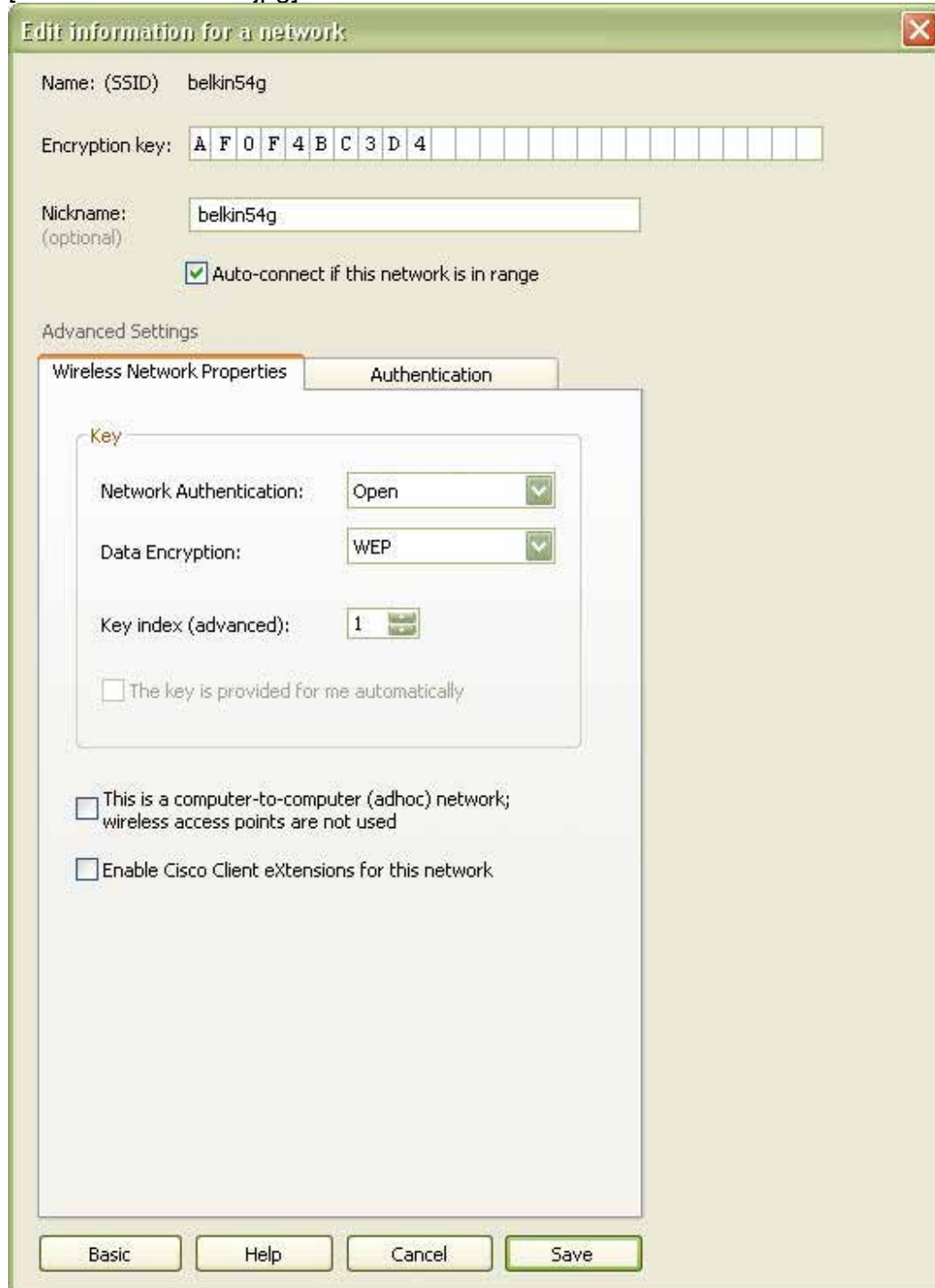
3. Click "Save" to finish. Encryption in the wireless router
(or access point) is now set. Each of your computers on your
wireless network will now need to be configured with the same

security settings.

WARNING: If you are using a wireless client to turn on the security settings in your wireless router (or access point), you will temporarily lose your wireless connection until you activate security on your wireless client. Please record the key prior to applying changes in the wireless router (or access point). If you don't remember the hex key, your client will be locked out of the wireless router (or access point).

128-Bit WEP Encryption
1. Select "WEP" from the drop-down menu.
2. After selecting your WEP encryption mode, you can enter your key manually by typing in the hex key manually, or you can type in a passphrase in the "Passphrase" field and click "Generate" to create a key.

A hex (hexadecimal) key is a combination of numbers and letters from A–F and 0–9. For 128-bit WEP, you need to enter 26 hex keys.

For instance:
C3 03 0F AF 0F 4B B2 C3 D4 4B C3 D4 E7 = 128-bit WEP key
[insert F5D7000-16.jpg]

Edit information for a network   ✕

Name: (SSID)   belkin54g

Encryption key: | C | 3 | 0 | 3 | 0 | F | A | F | 0 | F | 4 | B | B | 2 | C | 3 | D | 4 | 4 | B | C | 3 | D | 4 | E | 7 |

Nickname: belkin54g
(optional)

☑ Auto-connect if this network is in range

Advanced Settings

| Wireless Network Properties | Authentication |

Key

Network Authentication: Open ▾

Data Encryption: WEP ▾

Key index (advanced):   1

☐ The key is provided for me automatically

☐ This is a computer-to-computer (adhoc) network;
   wireless access points are not used

☐ Enable Cisco Client eXtensions for this network

| Basic | Help | Cancel | Save |

3. Click "Save" to finish. Encryption in the wireless router
(or access point) is now set. Each of the computers on your
wireless network will now need to be configured with the same
security settings.

WARNING: If you are using a wireless client to turn on the security settings in your wireless router (or access point), you will temporarily lose your wireless connection until you activate security on your wireless client. Please record the key prior to applying changes in the wireless router (or access point). If you don't remember the hex key, your client will be locked out of the wireless router (or access point).
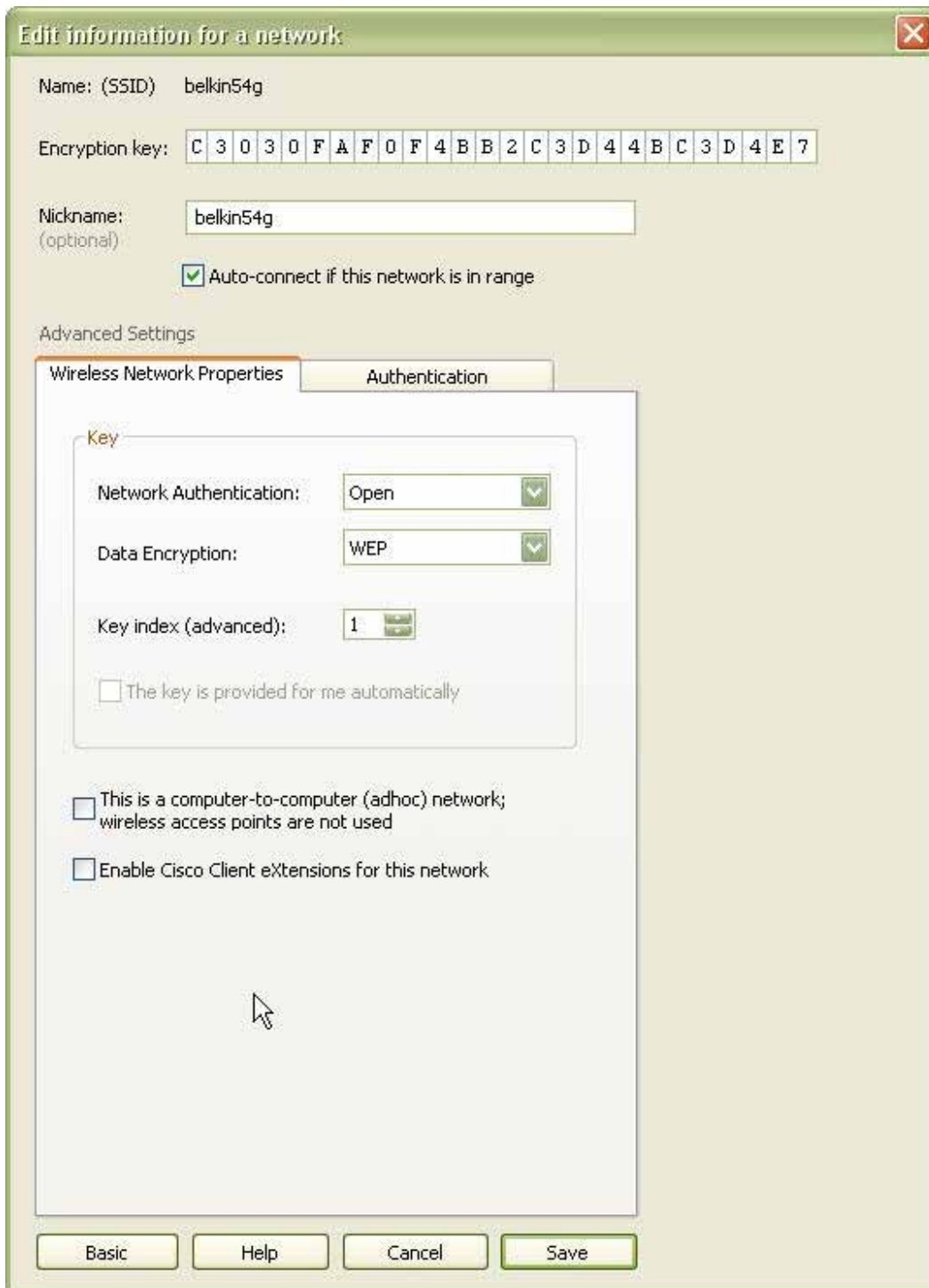
WPA-PSK (no server)
Choose this setting if your network does not use a radius server. WPA-PSK (no server) is typically used in home and small office networking.

1. From the "Network Authentication" drop-down menu, select "WPA-PSK (no server)".
2. Enter your network key. This can be from eight to 63 characters and can be letters, numbers, or symbols. This same key must be used on all of the clients (network cards) that you want to include in your network.
[insert F5D7000-17.jpg]
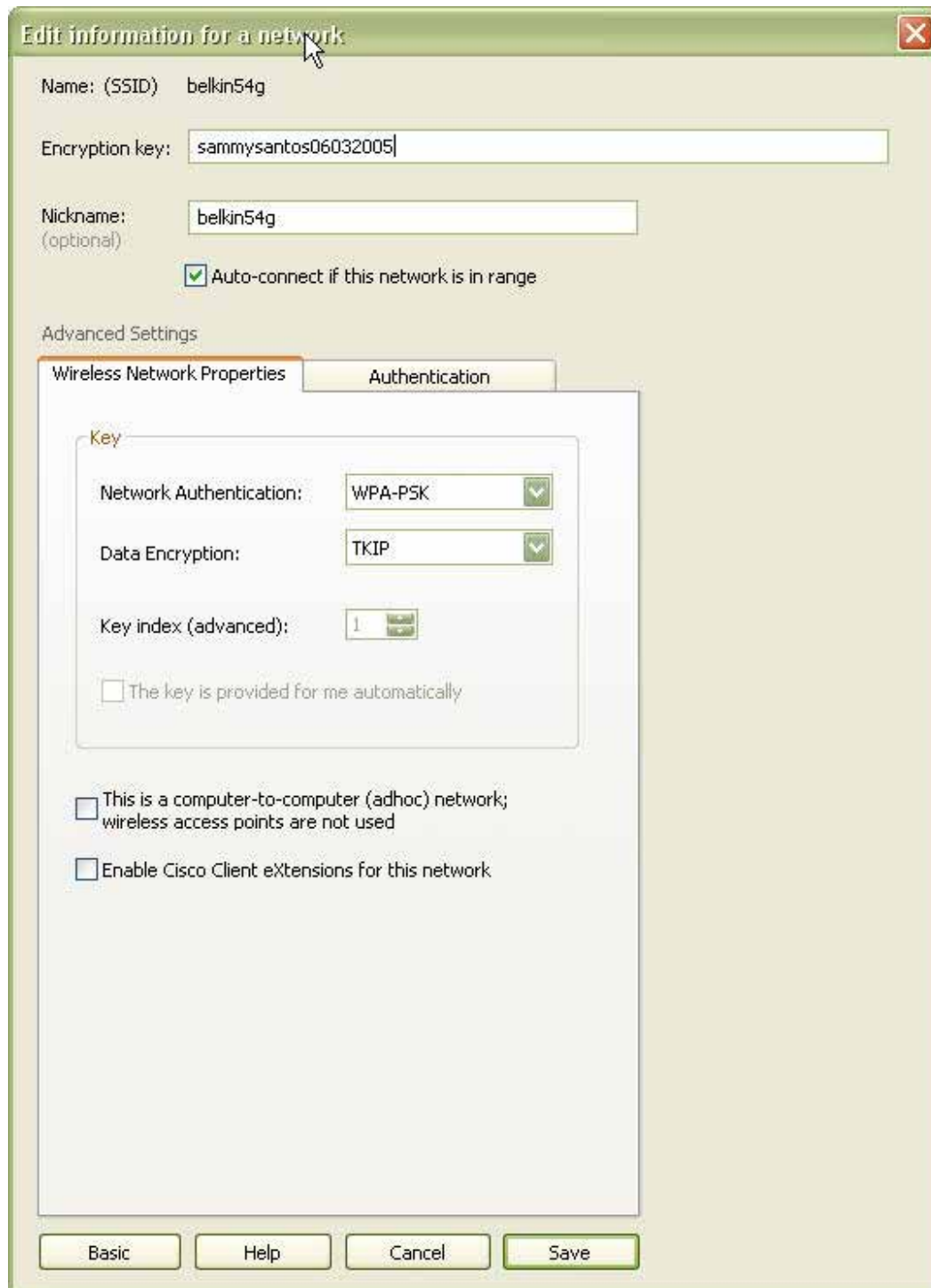
3. Click "Save" to finish. You must now set all clients (network cards) to match these settings.

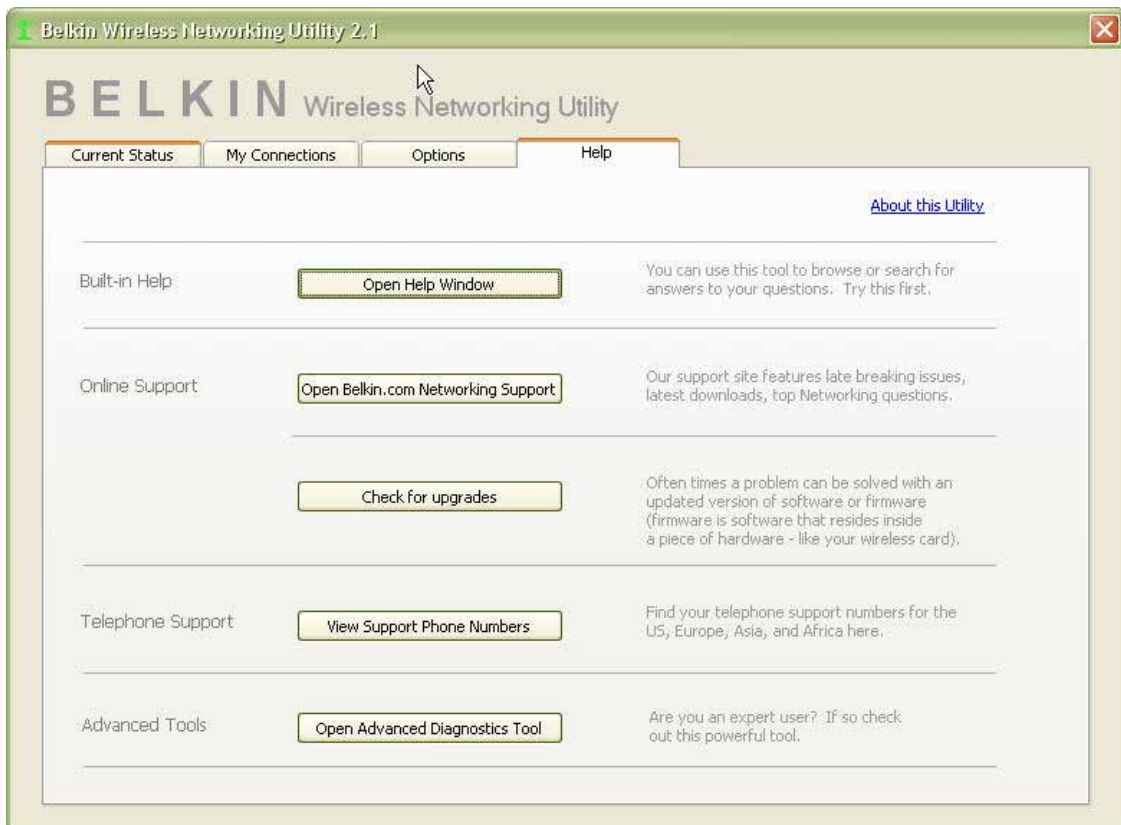**Wireless Networking Utility Options**

[insert F5D7000-19.jpg]
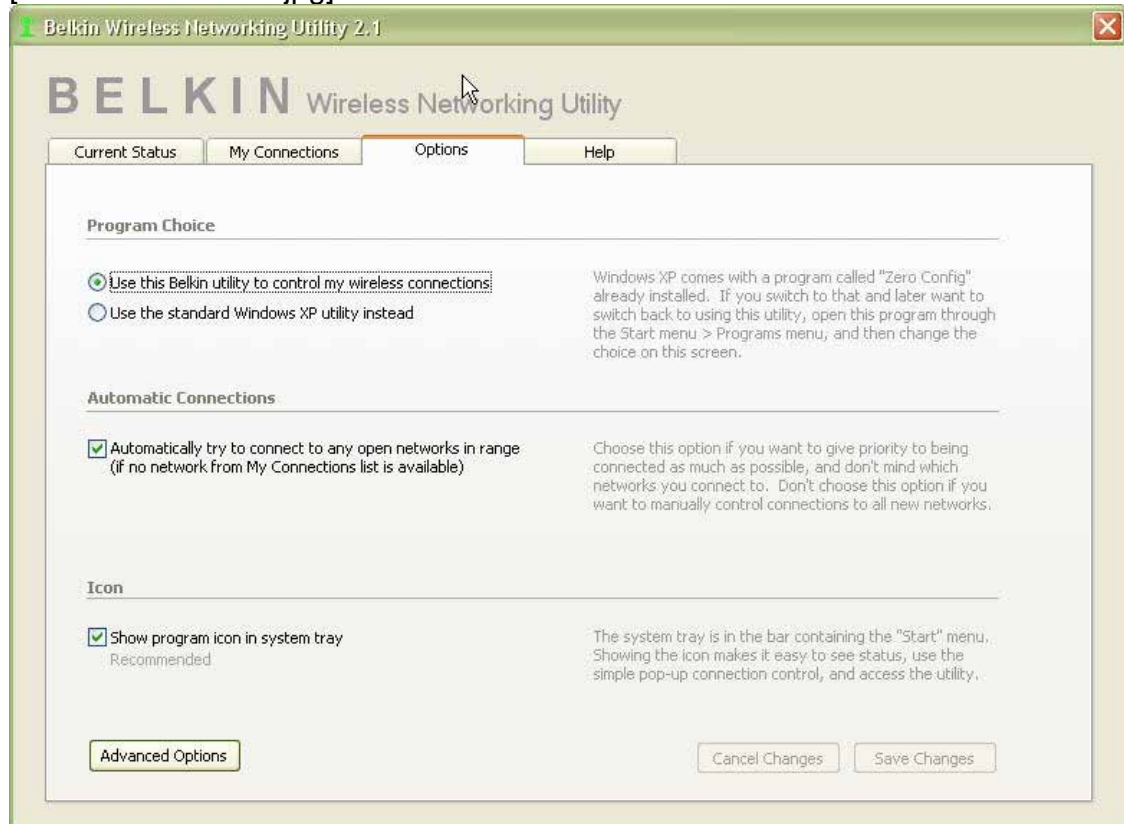
The "Options" tab on the WNU provides the user the ability to customize his or her WNU settings.

Wireless Networking Utility Help

The WNU "Help" tab provides users with access to online and telephone support, as well as advanced diagnostic tools.
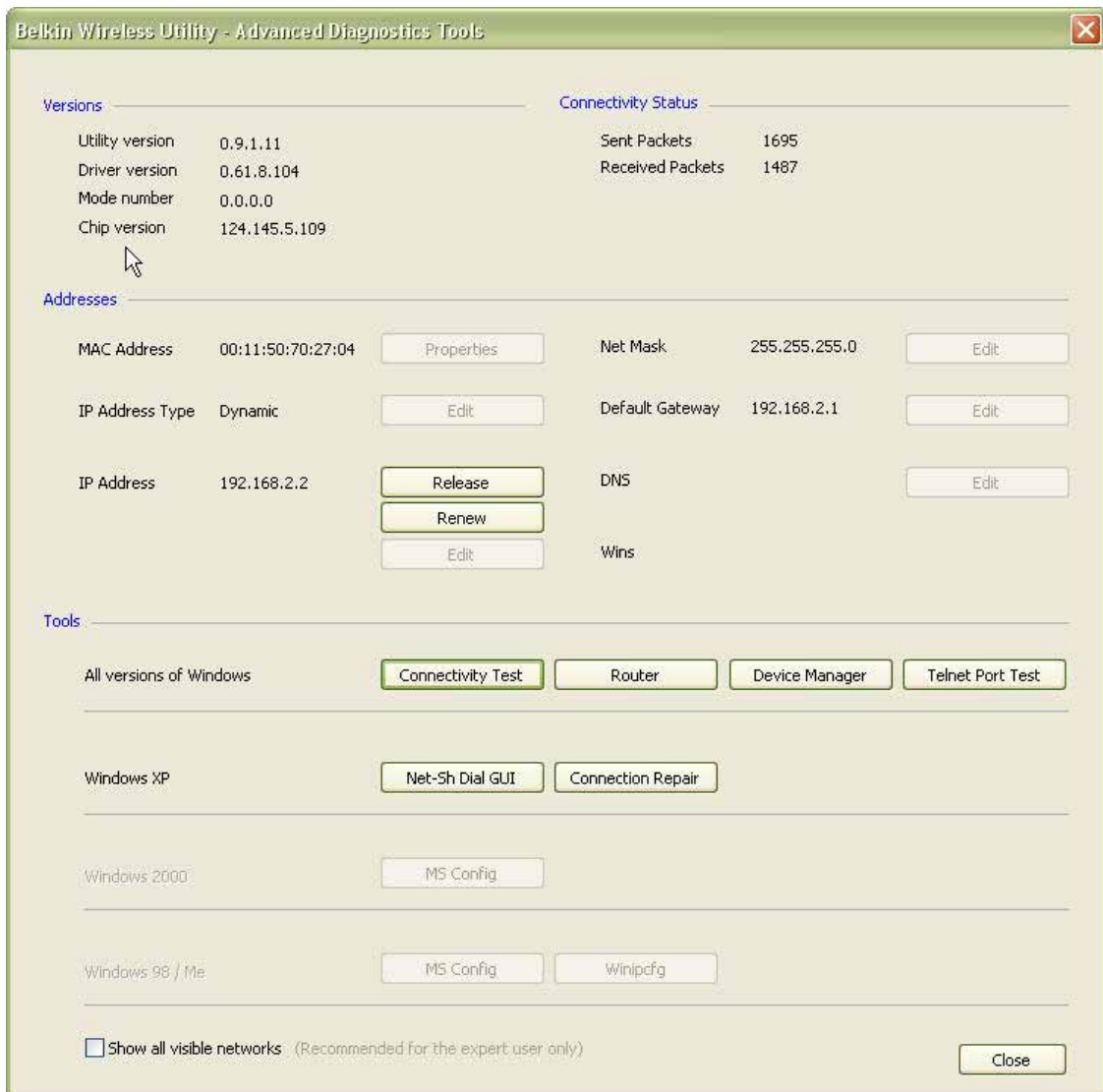
[insert F5D7000-20.jpg]

Advanced Diagnostic Tools

The "Advanced Diagnostic Tools" section is the central control panel for all the settings of the hardware and software components of the wireless network. It provides an array of tests and connectivity services to ensure optimal network performance.

[insert F5D7000-21.jpg]

Troubleshooting

I can't connect to the Internet wirelessly.

If you are unable to connect to the Internet from a wireless computer, please check the following items:

1. Look at the lights on your wireless router. If you're using a Dynex Wireless Router, the lights should be as follows:

• The "Power" light should be on.
• The "Connected" light should be on, and not blinking.
• The "WAN" light should be either on or blinking.

If your Dynex Wireless Router's lights match these descriptions, go to number 2, below.

If this is NOT the case, please contact Dynex technical support.

If you are not using a Dynex Wireless Router, consult that router manufacturer's user guide.

2. Open your Wireless Networking Utility software by clicking on the icon in the system tray at the bottom right-hand corner of the screen; the tray icon should look like this (the icon may be red or green):

3. The window that opens will show a list of "Available Networks". Available networks are wireless networks you can connect to.

If you are using a Dynex 802.11g (54g) Router, "Dynex54g" is the default name.

If you are using a Dynex 802.11b Router, the default name should be "WLAN".

If you are NOT using a Dynex Router, please consult your router manufacturer's user manual for the default name.

The name of your wireless network appears in "Available Networks".

If the correct network name is listed in the "Available Networks" list, please follow the steps below to connect wirelessly:

1. Click on the correct network name in the "Available Networks" list.
2. If the network has security (encryption) enabled, you will need to enter the network key. For more information regarding security, please see "Securing your Wi-Fi Network" on page xx of this manual.
3. Within a few seconds, the tray icon in the lower right-hand corner of your screen should turn green, indicating a successful connection to the network.

If you are still unable to access the Internet after connecting to the wireless network, please contact Dynex Technical Support.

The name of your wireless network DOES NOT appear in the list of "Available Networks".

If the correct network name is not listed under "Available Networks" in the Wireless Networking Utility, please attempt the following troubleshooting steps:

1. Temporarily move computer, if possible, to five to 10 feet away from the Wireless Router (or Access Point). Close the Wireless Networking Utility, and reopen it. If the correct network name now appears under "Available Networks", you may have a range or interference problem. Please see the suggestions listed in the "Placement of your Wireless Networking Hardware for Optimal Performance" section on page 2.
2. Using a computer that is connected to the Wireless Router (or Access Point) via a network cable (as opposed to wirelessly), ensure that "Broadcast SSID" is enabled. This setting is found on the Router's wireless "Channel and SSID" configuration page. For detailed instructions on accessing this page and changing settings, please see your Wireless Router's (or Access Point's) User Manual.

If you are still unable to access the Internet after completing these steps, please contact Dynex Technical Support.

Installation CD-ROM does not start Wireless Networking Utility.

If the CD-ROM does not start the Wireless Networking Utility automatically, it could be that the computer is running other applications that are interfering with the CD drive.

If the Wireless Networking Utility screen does not appear within 15-20 seconds, open up your CD-ROM drive by double-clicking on the "My Computer" icon. Next, double-click on the CD-ROM drive that the Installation CD has been placed in to start the installation. Then, double-click on the folder named "Files". Next, double-click on the icon named "Setup.exe".

Power LED does not come ON; Adapter is not working.
If the LED indicators are not ON, the problem may be that the Adapter is not connected or installed properly.

Verify that the Adapter is plugged firmly into the USB slot of your computer. Check to see that the drivers for the Adapter have been installed. Right-click on the "My Computer" icon on your desktop. Choose "Properties" and navigate to the "Device Manager" and see if your Adapter is listed without any errors. If an error is indicated, contact Dynex Technical Support.

Link LED is blinking slowly; cannot connect to a wireless network or the Internet.

If your Adapter appears to be functioning properly, but you cannot connect to a network or you have a red wireless icon at the bottom of your screen, the problem may be that there is a mismatch between the network name (SSID) settings in your wireless network properties.

Check the SSID settings to see if they match. The SSID is case-sensitive and the spelling on each computer must be exactly the same in order for the Adapter to connect to the wireless router (or access point).

Note: To check the SSID settings or look for an available network, double-click the Signal Indicator icon to bring up the "Wireless Networks" screen. Click "Add" if you do not see the network you are trying to connect to and type in the SSID.

For more information about setting up an SSID, please refer to your router manufacturer's user manual.

If issues persist even at close range, please contact Dynex Technical Support.

Link LED is solid but I cannot connect to the Internet.

If you have a signal but can't get online or obtain an IP address, the problem may be that there is a mismatch between the encryption key settings in your computer and wireless router (or access point).

Check the WEP key settings to see if they match. The key is case-sensitive and the spelling on each computer and wireless router (or access point) must be exactly the same in order for the Adapter to connect to the router. For more information about encryption, please see the "Securing your Wi-Fi Network" section in this manual.

If issues persist even at close range, please contact Dynex Technical Support.

Data transfer is sometimes slow.
Wireless technology is radio-based, which means connectivity and the throughput performance between devices decreases when the distance between devices increases. Other factors that will cause signal degradation (metal is generally the worst culprit) are obstructions such as walls and metal appliances. As a result, the typical indoor range of your wireless devices will be between 100 to 200 feet. Note also that connection speed may decrease as you move farther from the wireless router (or access point).
In order to determine if wireless issues are related to range, we suggest temporarily moving the computer, if possible, to five to 10 feet away from the wireless router (or access point). Please see the section titled "Placement of your Wireless Networking Hardware for Optimal Performance" in this manual.

If issues persist even at close range, please contact Dynex Technical Support.

Signal strength is poor.

Wireless technology is radio-based, which means connectivity and the throughput performance between devices decreases when the distance between devices increases. Other factors that will cause signal degradation (metal is generally the worst culprit) are obstructions such as walls and metal appliances. As a result, the typical indoor range of your wireless devices will be between 100 to 200 feet. Note also that connection speed may decrease as you move farther from the wireless router (or access point). Please see the section titled "Placement of your Wireless Networking Hardware for Optimal Performance" in this manual.

If issues persist even at close range, please contact Dynex Technical Support.

Why are there two wireless utilities in my system tray? Which one should I use?

There are several features and advantages to using the Dynex Wireless Networking Utility over the Windows XP Wireless Zero Configuration utility. We offer a site survey, detailed link information, and adapter diagnosis, to name a few.

It's essential to know which utility is managing your adapter. We recommend using the Dynex Wireless Networking Utility. To use the Dynex Wireless Networking Utility, follow the steps below:

Step 1 Right-click on the network status icon in the system tray and select "View Available Wireless Networks".
Step 2 Click on the "Advanced" button in the lower left-hand corner of the "Available Wireless Networks" window.
Step 3 From the "Advanced" tab, uncheck "Use Windows to configure my wireless network". Once the box is unchecked, click
"OK" to close the window.

You are now using the Dynex Wireless Networking Utility to configure the Adapter.

What's the difference between 802.11b, 802.11g, 802.11a, and Pre-N?

Currently there are four levels of wireless networking standards, which transmit data at very different maximum speeds. Each is based on the designation for certifying network standards. The most common wireless networking standard, 802.11b, transmits information at 11Mbps; 802.11a and 802.11g work at 54Mbps; and Pre-N works at 108Mbps. Pre-N, the precursor to the upcoming 802.11n

release, promises speeds that exceed 802.11g, and up to twice the wireless coverage area. See the following chart for more detailed information.

Wireless Comparison Chart

Wireless Technology	802.11b	802.11g	802.11a	Dynex Pre-N
Speed	11Mbps	54Mbps	54Mbps	600% faster than standard 802.11g*
Frequency	Common household devices such as cordless phones and microwave ovens may interfere with the unlicensed band 2.4GHz	Common household devices such as cordless phones and microwave ovens may interfere with the unlicensed band 2.4GHz	5GHz— uncrowded band	Common household devices such as cordless phones and microwave ovens may interfere with the unlicensed band 2.4GHz
Compatibility	Compatible with 802.11g	Compatible with 802.11b	Incompatible with 802.11b or 802.11g	Compatible with 802.11g or 802.11b
Coverage*	Depends on interference— typically 100–200 ft. indoors	Depends on interference— typically 100–200 ft. indoors	Interference range is typically 50–100 ft.	Up to 800% wider coverage than standard 802.11g*
Advantage	Mature—legacy technology	Common— widespread use for Internet sharing	Less interference— great for multimedia application	Leading edge— best coverage and throughput

*Distance and connection speeds will vary depending on your networking environment.

Technical Support

You can find technical support information at www.Dynex.com or
www.Dynex.com/networking. If you want to contact technical support
by phone, please call:
(800) 305-2204

Information

Wi-Fi® Interoperability Certificate

FCC Statement
DECLARATION OF CONFORMITY WITH FCC RULES
FOR ELECTROMAGNETIC COMPATIBILITY

We, Best Buy,,of 7601 Penn Avenue South Richfield, MN USA 55423-3645,
declare under our sole responsibility that the product,
DX-BUSB, to which this declaration relates, 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.

Caution: Exposure to Radio Frequency Radiation.

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. This device complies with FCC RF Exposure limits set
forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).
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. The average SAR value of CCK
is 0.825W/kg; the average SAR value of OFDM is 0.704W/kg.
Operation of this product marketed in the USA is firmware-limited to 2.4GHz
channel 1 to 11.

Federal Communications Commission Notice
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 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 and correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the distance between the equipment and the 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.
FCC Statement

Modifications
The FCC requires the user to be notified that any changes or modifications to
this device that are not expressly approved by Best Buy may void
the user's authority to operate the equipment.

Canada-Industry Canada (IC)
The wireless radio of this device complies with RSS 139 & RSS 210 Industry
Canada. This Class B digital apparatus complies with Canadian ICES-003.

Operation is subject to the following two conditions:
1) this device may not cause interference and
2) this device must accept any interference, including interference that may
   cause undesired operation of the device.

Cet appareil numérique de la classe B conforme á la norme NMB-003
du Canada.

Dynex Corporation Limited Lifetime Product Warranty

What this warranty covers.
Dynex Corporation warrants to the original purchaser of this Dynex product that
the product shall be free of defects in design, assembly, material, or
workmanship.

What the period of coverage is.
Dynex Corporation warrants the Dynex product for the lifetime of the product.

What will we do to correct problems?
Product Warranty.
Dynex will repair or replace, at its option, any defective product free of charge
(except for shipping charges for the product).

What is not covered by this warranty?
All above warranties are null and void if the Dynex product is not provided to
Dynex Corporation for inspection upon Dynex's request at the sole expense of
the purchaser, or if Dynex Corporation determines that the Dynex product has

been improperly installed, altered in any way, or tampered with. The Dynex Product Warranty does not protect against acts of God (other than lightning) such as flood, earthquake, war, vandalism, theft, normal-use wear and tear, erosion, depletion, obsolescence, abuse, damage due to low voltage disturbances (i.e. brownouts or sags), non-authorized program, or system equipment modification or alteration.

How to get service.
To get service for your Dynex product you must take the following steps:

1.   Contact Dynex Corporation at 501 W. Walnut St., Compton CA 90220, Attn: Customer Service, or call (800)-223-5546, within 15 days of the Occurrence. Be prepared to provide the following information:
> a. The part number of the Dynex product.
> b. Where you purchased the product.
> c. When you purchased the product.
> d. Copy of original receipt.

2.   Your Dynex Customer Service Representative will then instruct you on how to forward your receipt and Dynex product and how to proceed with your claim.

Dynex Corporation reserves the right to review the damaged Dynex product. All costs of shipping the Dynex product to Dynex Corporation for inspection shall be borne solely by the purchaser. If Dynex determines, in its sole discretion, that it is impractical to ship the damaged equipment to Dynex Corporation, Dynex may designate, in its sole discretion, an equipment repair facility to inspect and estimate the cost to repair such equipment. The cost, if any, of shipping the equipment to and from such repair facility and of such estimate shall be borne solely by the purchaser. Damaged equipment must remain available for inspection until the claim is finalized. Whenever claims are settled, Dynex Corporation reserves the right to be subrogated under any existing insurance policies the purchaser may have.

How state law relates to the warranty.
THIS WARRANTY CONTAINS THE SOLE WARRANTY OF DYNEX CORPORATION, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR, EXCEPT AS REQUIRED BY LAW, IMPLIED, INCLUDING THE IMPLIED WARRANTY OR CONDITION OF QUALITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND SUCH IMPLIED WARRANTIES, IF ANY, ARE LIMITED IN DURATION TO THE TERM OF THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

IN NO EVENT SHALL DYNEX CORPORATION BE LIABLE FOR INCIDENTAL, SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL OR MULTIPLE DAMAGES SUCH AS, BUT NOT LIMITED TO, LOST BUSINESS OR PROFITS ARISING OUT OF THE SALE OR USE OF ANY DYNEX PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state. Some states do not allow the exclusion or limitation of incidental, consequential, or other damages, so the above limitations may not apply to you.

DYNEX
Wireless G USB Network Adapter

Dynex Tech Support
(800) 305-2204

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