BELKIN®

Enhanced Wireless USB Adapter

User Manual

8820-00050 F6D4050

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INTRODUCTION

Thank you for purchasing the Belkin Enhanced Wireless USB 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 notebook computer to your network. 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".

Benefits of a Home Network

Your Belkin 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

- 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 – Belkin 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 Belkin networking products let 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 Belkin 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 Belkin Adapters or Cards):

• 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 Belkin 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 Belkin 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 in the previous pages to be sure you have addressed these issues.

These guidelines should allow you to cover the maximum possible area with your wireless router. Should you need to cover an even wider area, we suggest the Belkin Wireless Range Extender/Access Point.

For more information regarding our networking products, visit our website at www.belkin.com/networking or call Belkin Technical Support.

Product Features

The Adapter complies with the IEEE 802.11g specification to communicate with other 802.11g-compliant wireless devices at up to 54Mbps*. The Adapter is also compatible with draft-802.11n devices at 150Mbps as well as 802.11b products at 11Mbps. The Adapter operates on the same 2.4GHz frequency band as 802.11b/g Wi-Fi® products.

- 2.4GHz ISM (Industrial, Science, and Medical) band operation

- Integrated easy-to-use Belkin Wireless Networking Utility

- USB 2.0 interface, for operation in virtually any computer with a USB 2.0 bus-power port

- WPA, WPA2, 64-bit WEP (Wired Equivalent Privacy), or 128-bit encryption

- Wireless access to networked resources

- Data rate of up to 150Mbps* (draft 802.11n), 54Mbps (802.11g), or 11Mbps (802.11b)

- Easy installation and use

- LED power and network link/activity indicator

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 150Mbps*

Provides immediate high-speed wireless connectivity at home, work, and hotspot locations without compromising the use of existing 802.11b/g products

• Compatibility with 802.11b/g products

The Adapter is backward-compatible with existing Wi-Fi (IEEE 802.11b/g) products

• 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

• 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

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: Up to 1,000 ft.**

*NOTE: The standard transmission rate—150Mbps—is the physical data rate. Actual data throughput will be lower.

**Wireless performance may vary depending on the networking environment.

(a) Protective Cap

The cap is provided to protect the USB connector during transportation. Remove the cap before inserting the Adapter to your computer's USB port.

(b) Power/Activity LED

Lights when the Adapter is powered on and flashes when it is active.

(c) USB Connector

Part of the Adapter that fits into your computer's USB port.

System Requirements

- PC-compatible laptop with one available USB 2.0 bus-power port
- Windows® 2000, XP with SP2, or Vista®***

Package Contents

- Enhanced Wireless USB Adapter
- Quick Installation Guide
- CD with Installation Software and User Manual

INSTALLING AND SETTING UP THE ADAPTER

A. Installation Process for Windows Vista

***NOTE: For information on updated drivers, please visit the Belkin website at www.belkin.com/support.

IMPORTANT: INSTALL THE SOFTWARE BEFORE INSERTING THE ADAPTER.

A.1 Insert the Installation Software CD into your CD-ROM drive.

A.2 Click "Next" to begin the installation process.

Note: If the Belkin Wireless Card Installer screen does not appear within 20 seconds, access your CD-ROM by double-clicking on the "My Computer" icon; then double-click on the CD-ROM drive into which the installation CD has been placed. If the Installer does not start automatically, double-click on the icon named "Installer.exe".

A.3 The InstallShield Wizard will start the installation process.
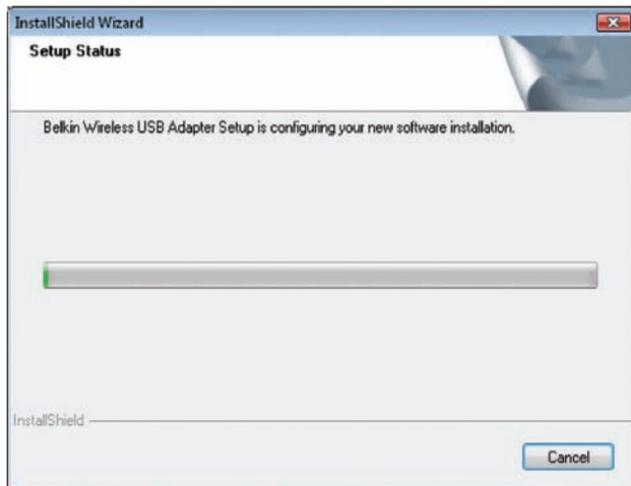
A.4 A window may appear showing the message, "Windows can't verify the publisher of this driver software". This DOES NOT indicate a problem. Our software has been fully tested and is compatible with this operating system. Click on "Install this driver software anyway" to continue.

A.5 When prompted, plug in your Adapter.

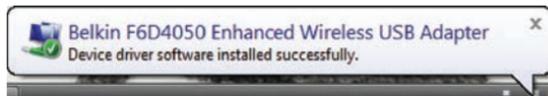Please plug in your USB Adapter now.

A.6 When the installation completes, you will see the following pop-up message on your Windows taskbar.

Belkin F6D4050 Enhanced Wireless USB Adapter
Device driver software installed successfully.

A.7 Click "Finish" to restart your computer.

InstallShield Wizard

Setup has finished installing the Belkin Wireless Utility.

The InstallShield Wizard has successfully installed Belkin Wireless USB Adapter Setup. Before you can use the program, you must restart your computer.

○ Yes, I want to restart my computer now.

○ No, I will restart my computer later.

Remove any disks from their drives, and then click Finish to complete setup.

< Back   Finish   Cancel

A.8 To connect to the Internet, open the Network and Sharing Center by first opening the Control Panel from the "Start" menu.
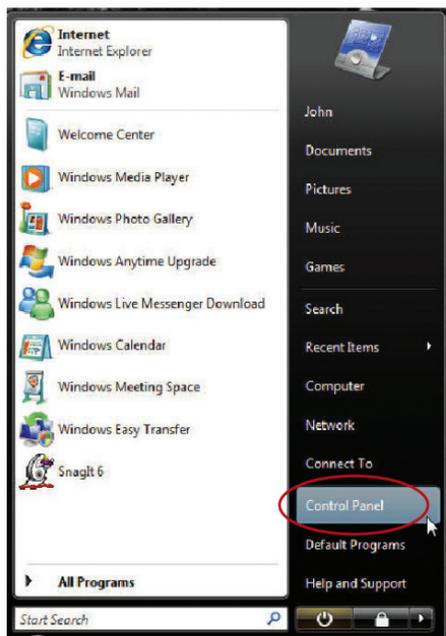
A.9 In the Control Panel, click on "View network status and tasks".
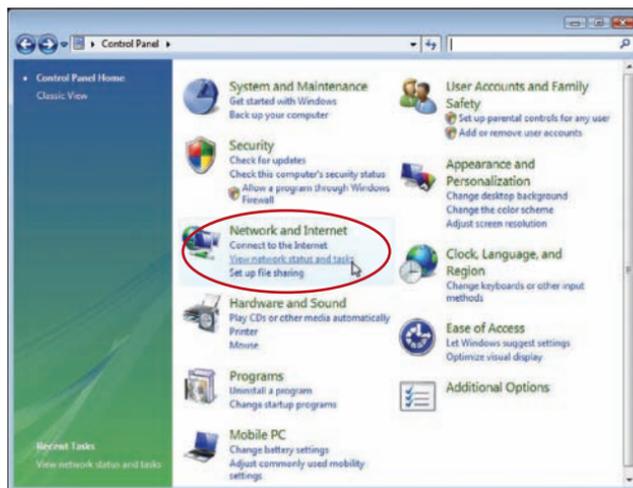
A.10 In the Network and Sharing Center, click on "Connect to a network".
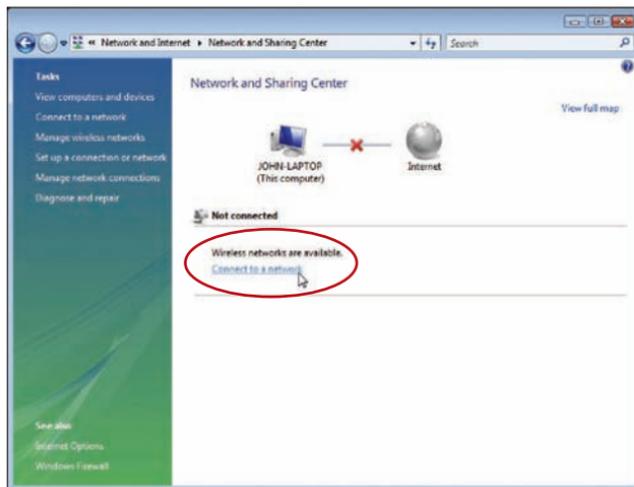
A.11 In the next screen, select an available wireless network and click "Connect".

A.12 Your Adapter will attempt to connect to the selected network.
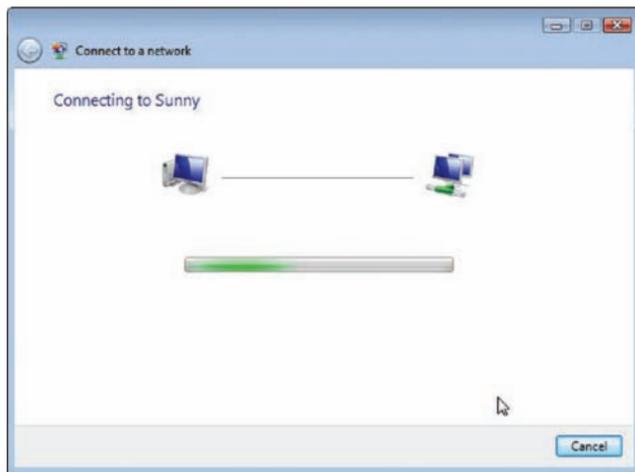
A.13 Depending on the security settings of your wireless network, you may be prompted to enter a network security key or a passphrase. Click "Connect" after you have done so.

A.14 After connecting to the network, you can choose to save this network and connect automatically when your Adapter is in range.
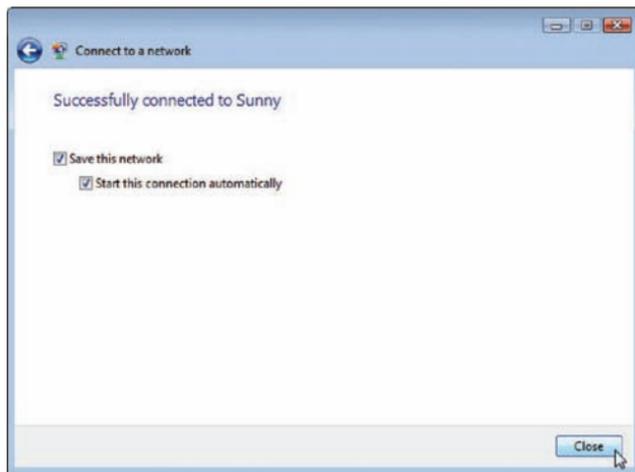
A.15 The Network and Sharing Center now indicates the network connection that you have just established. The links on the left of the window allow you to configure your network connections.

B. Installation Process for Windows Operating Systems other than Windows Vista

IMPORTANT: INSTALL THE SOFTWARE BEFORE INSERTING THE ADAPTER.

B.1 Insert the Installation Software CD into your CD-ROM drive.

B.2 The Belkin Wireless Card Installer screen will automatically appear within up to 20 seconds. Click "Install Software" or "Next" to start the installation.

Note: If the Belkin Wireless Card Installer screen does not appear within 20 seconds, access your CD-ROM by double-clicking on the "My Computer" icon; then double-click on the CD-ROM drive into which the installation CD has been placed. Then, double-click on the icon named "Installer.exe".

B.3 Select a destination folder for the software installation by clicking "Browse"; or, simply click "Next" to install to the default location.

InstallShield Wizard

Choose Destination Location

Setup will install Belkin Wireless USB Adapter in the following folder.

To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

Destination Folder
C:\Program Files\Belkin\F6D4050\v1   Browse...

InstallShield

< Back   Next >   Cancel
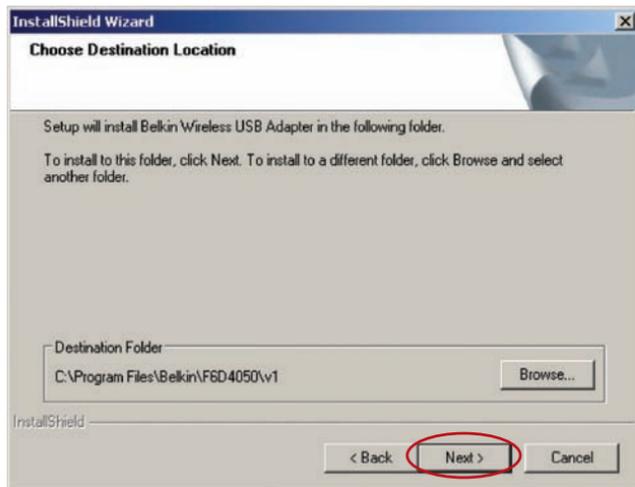
B.4 A Setup Status screen lets you know where you are in the setup process.

InstallShield Wizard

Setup Status

Belkin Wireless USB Adapter Setup is configuring your new software installation.

InstallShield

Cancel
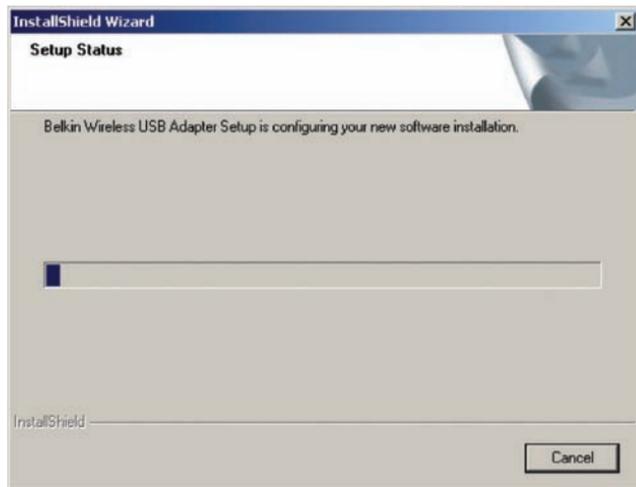
B.5 A window may appear showing the message, "The software you are installing…" This DOES NOT indicate a problem. Our software has been fully tested and is compatible with this operating system. Click on "Continue Anyway" to continue.

B.6 When prompted, plug in your Adapter.

Please plug in your USB Adapter now.

Software Installation

⚠ The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)

Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
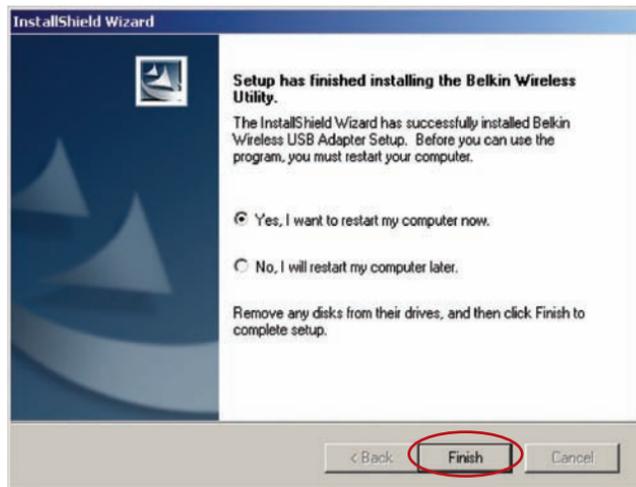
Continue Anyway | STOP Installation

B.7 The Found New Hardware Wizard might appear in 3–15 seconds. If it does, select "Install the software automatically" and click "Next" to install the software.

B.8 Click "Finish" to restart your computer.

Found New Hardware Wizard

Welcome to the Found New Hardware Wizard

This wizard helps you install software for:

Belkin F6D4050 Enhanced Wireless USB Adapter

If your hardware came with an installation CD or floppy disk, insert it now.

What do you want the wizard to do?

- Install the software automatically (Recommended)
- Install from a list or specific location (Advanced)

Click Next to continue.

< Back   Next >   Cancel

InstallShield Wizard

Setup has finished installing the Belkin Wireless Utility.

The InstallShield Wizard has successfully installed Belkin Wireless USB Adapter Setup. Before you can use the program, you must restart your computer.

- Yes, I want to restart my computer now.
- No, I will restart my computer later.

Remove any disks from their drives, and then click Finish to complete setup.

< Back   Finish   Cancel

C. Configuration

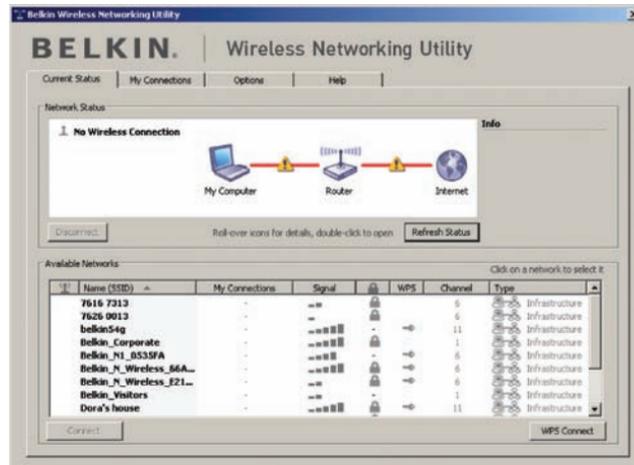**Using the Belkin Wireless Networking Utility**

C.1 After restarting your computer, double-click the Belkin Wireless Networking Utility icon on the desktop screen.

Note: The Belkin Wireless Networking Utility icon can also be found on the system tray.

C.2 The Belkin Wireless Networking Utility screen will appear.

C.3 Select a network to which to connect from the "Available Networks" list and click "Connect".

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

Installation is now complete.