

**BELKIN.**

# **N+ Wireless Router**

**User Manual**

F5D8235-4 v2



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# INTRODUCTION

Thank you for purchasing the Belkin N+ Wireless Router (the Router). Following are two short sections—the first discusses the benefits of home networking, and the other outlines best practices that maximize your wireless home network range and performance. 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 the next page. By following our simple setup instructions you will be able to use your Belkin Home Network to:

- Share one high-speed Internet connection with all the computers in your home
- Share a USB storage device (not included) within your network
- 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 Belkin 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’s Easy Installation Wizard makes 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.

## Revolutionary N+ Wireless Technology with MIMO (N MIMO)

Your Belkin N+ Wireless Router uses a new smart-antenna technology called Multiple Input Multiple Output (MIMO). N MIMO complies with the IEEE draft 802.11n specification. It increases speed, range, reliability, and spectral efficiency for wireless networking systems.

The element that makes Belkin's N MIMO technology different from a conventional radio is the use of multiple antennas and two simultaneous data streams to deliver wireless transfers around your home or office. A conventional radio uses one antenna to transmit a data stream. Belkin's N MIMO, on the other hand, uses two antennas. This design helps combat distortion and interference. Belkin's N MIMO is multidimensional. It builds on one-dimensional smart-antenna technology by simultaneously transmitting two data streams through the same channel, which increases wireless capacity.

Another element that enhances Belkin's N MIMO is the use of aggregation as specified in the draft 802.11n specification. By shortening the space between packets and combining multiple smaller packets into one larger packet, Belkin's N MIMO can transmit more data through available bandwidth.

Think of conventional radio transmission as a two-lane highway. The speed limit governs the maximum allowable flow of traffic through that lane. Compared with conventional radios, one-dimensional smart antenna systems help move traffic through that lane faster and more reliably—analogueous to a four-lane road on which traffic consistently moves at a rate closer to the speed limit. Belkin's N MIMO helps traffic move at the speed limit and opens more lanes—to become the superhighway in this example. The rate of traffic flow is multiplied by the number of lanes that are opened.

## Placement of your N+ Wireless Router

### Important Factors for Placement and Setup

Your wireless connection will be stronger the closer your computer is to your Router. Typical indoor operating range for 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 Router and connected devices increases. This may or may not be noticeable to you. As you move further from your Router, 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 Router 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. Router Placement

Place your Router, 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 Wireless Notebook Network Cards, Wireless Desktop Network Cards, and Wireless USB Adapters):

- Ensure that your Router’s networking antennas are parallel to each other, and are positioned vertically (toward the ceiling). If your Router itself is positioned vertically, point the antennas as much as possible in an upward direction.
- In multistory homes, place the Router on a floor that is as close to the center of the home as possible. This may mean placing the Router on an upper floor.
- Try not to place the Router near a cordless 2.4GHz phone.

## 2. Avoid Obstacles and Interference

Avoid placing your Router near devices that may emit radio “noise,” such as microwave ovens. Dense objects that can inhibit wireless communication 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 Router).

## 3. Cordless Phones

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 your Router 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. For example, change the phone to channel 1 and move your Router to channel 11. 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 found in the Wireless Utility of your wireless adapter to locate any other wireless networks that are available (see your wireless adapter’s user manual), and move your Router 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 Belkin wireless networking products, use the detailed Site Survey and wireless channel information included with your wireless network card. See your network card’s user guide for more information.

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

## 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 rerunning 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 under Windows, see the “Power Options” item in the Control Panel.

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

For more information regarding our networking products, visit our website at [www.belkin.com/networking](http://www.belkin.com/networking)

# PRODUCT OVERVIEW

## Product Features

In minutes you will be able to share your Internet connection and network your computers. The following is a list of features that make your new Belkin N+ Wireless Router an ideal solution for your home or small office network.

### Works with Both PCs and Mac® Computers

The Router supports a variety of networking environments including Mac OS® 8.x, 9.x, X v10.x, Linux®, Windows® 98, Me, NT®, 2000, XP, Vista™, and others. All that is needed is an Internet browser and a network adapter that supports TCP/IP (the standard language of the Internet).

### USB Port for External Storage Devices

The Router includes a USB port in the back panel for one storage device (flash drive or external hard drive). You can now have network-attached storage capabilities without having to purchase an expensive NAS.

### Patent-Pending Network Status Display

Lighted LEDs on the front of the Router indicate which functions are in operation. You'll know at-a-glance whether your Router is connected to the Internet. This feature eliminates the need for advanced software and status-monitoring procedures.

### Web-Based Advanced User Interface

You can set up the Router's advanced functions easily through your web browser, without having to install additional software onto the computer. There are no disks to install or keep track of and, best of all, you can make changes and perform setup functions from any computer on the network quickly and easily.

### NAT IP Address Sharing

Your Router employs Network Address Translation (NAT) to share the single IP address assigned to you by your Internet Service Provider while saving the cost of adding additional IP addresses to your Internet service account.

### SPI Firewall

Your Router is equipped with a firewall that will protect your network from a wide array of common hacker attacks including IP Spoofing, Land Attack, Ping of Death (PoD), Denial of Service (DoS), IP with zero length, Smurf Attack, TCP Null Scan, SYN flood, UDP flooding, Tear Drop Attack, ICMP defect, RIP defect, and fragment flooding.

### Integrated 10/100/1000 4-Port Switch

The Router has a built-in, Gigabit Ethernet, four-port network switch to allow your wired computers to share printers, data and MP3 files, digital photos, and much more. The switch features automatic detection so it will adjust to the speed of connected devices. The switch will transfer data between computers and the Internet simultaneously without interrupting or consuming resources.

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### Universal Plug and Play (UPnP)

UPnP is a technology that offers seamless operation of voice messaging, video messaging, games, and other applications that are UPnP-compliant.

### Support for VPN Pass-Through

If you connect to your office network from home using a VPN connection, your Router will allow your VPN-equipped computer to pass through the Router and to your office network.

### Built-In Dynamic Host Configuration Protocol (DHCP)

Built-In Dynamic Host Configuration Protocol (DHCP) on-board makes for the easiest possible connection of a network. The DHCP server will assign IP addresses to each computer automatically so there is no need for a complicated networking setup.

### Setup Assistant

The Setup Assistant, second generation of Belkin's renowned Easy Install Wizard, takes the guesswork out of setting up your Router. This automatic software determines your network settings for you and sets up the Router for connection to your Internet Service Provider (ISP). In a matter of minutes, your Router will be up and running on the Internet.

**NOTE:** Setup Assistant software is compatible with Windows 2000, XP, and Vista; and Mac OS X v10.x. If you are using another operating system, the Router can be set up using the Alternate Setup Method described in this User Manual (see page 22).

### Integrated N+ Wireless Access Point

N MIMO is an exciting new wireless technology based on the draft IEEE 802.11n specification. It employs MIMO (Multiple Input Multiple Output) smart-antenna technology that achieves data rates of up to 300Mbps.\* Actual throughput is typically lower than the connected data rate and will vary depending on your networking environment.

**\*NOTE:** The standard transmission rate—300Mbps—is the physical data rate. Actual data throughput will be lower.

### MAC Address Filtering

For added security, you can set up a list of MAC addresses (unique client identifiers) that are allowed access to your network. Every computer has its own MAC address. Simply enter these MAC addresses into a list using the Web-Based Advanced User Interface and you can control access to your network.

# KNOWING YOUR ROUTER

## Package Contents

- Belkin N+ Wireless Router
- Quick Installation Guide
- Belkin Setup Assistant Software CD
- RJ45 Ethernet Networking Cable
- Power Supply
- User Manual on the Setup Assistant CD
- Network Status Display Guide
- Wireless Security Setup Guide

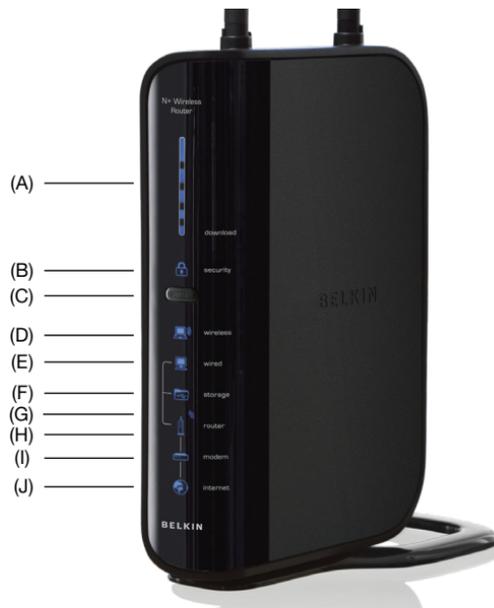
## System Requirements

- Broadband Internet connection such as a cable or DSL modem with RJ45 (Ethernet) connection
- At least one computer with an installed network interface adapter
- TCP/IP networking protocol installed on each computer
- RJ45 Ethernet networking cable
- Internet browser

## Setup Assistant Software System Requirements (including Storage Manager)

- A computer running Windows® 2000, XP, or Vista®; or Mac OS® X v10.x
- Minimum 1GHz processor and 128MB RAM
- Internet browser

The Router has been designed to be placed on a desktop. All of the cables exit from the rear of the Router for better organization and utility. The LED indicators are easily visible on the front of the Router to provide you with information about network activity and status.



## KNOWING YOUR ROUTER

### A. Broadband Download Speedometer

These lights will display a graphic representation of the current download speed being transferred through the Internet connection. The speed will be measured on the speedometer against the fastest speed that has been measured by the N+ since being activated.

### B. Wireless Security

These lights will display a graphic representation of the current download speed being transferred through the Internet connection. The speed will be measured on the speedometer against the fastest speed that has been measured by the N+ since being activated.

Off	Wireless security is off
Blinking Blue	WPS handshaking in process
Solid Blue	Wireless security is on

### C. WPS Push Button

This button is set aside for the Wi-Fi Protected Setup feature. Refer to the “Changing the Wireless Security Settings” section for more details.

### D. Wireless-Computer Status

Off	Wireless computer is not present
Solid Blue	Wireless computer is connected to the Router
Blinking Amber	Problem with wireless computer connecting properly to the Router

### E. Wired-Computer Status

Off	Wired computer is not present
Solid Blue	Wired computer is connected to the Router
Blinking Amber	Problem with wired computer connecting properly to the Router

### F. USB Port Status

Off	No device is plugged into the USB port
Flashing Blue	Data is being read/written to the storage device
Flashing Amber	Unsupported device is plugged into the USB port
Solid Blue	Storage device is plugged in and ready to be accessed

## G. Router/Power Status

When you apply power to the Router or restart it, a short period of time elapses while the Router boots up. During this time, the “router” icon blinks. When the Router has completely booted up, the “router” icon becomes a solid light, indicating the Router is ready for use.

Off	Router is off
Blinking Blue	Router is booting up
Solid Blue	Router is on and ready

## H. Wireless Status

Off	Wireless is off
Solid Blue	Wireless is on

## I. Modem Status

This icon lights in blue to indicate that your Router is connected properly to the modem. It turns amber when a problem is detected.

Off	Router is NOT connected to modem
Solid Blue	Router is connected to modem and functioning properly
Blinking Amber	Problem with modem

## J. Internet Status

This unique icon shows you when the Router is connected to the Internet. When the light is off, the Router is NOT connected to the Internet. When the light is blinking amber, the Router is attempting to connect to the Internet. When the light is solid blue, the Router is connected to the Internet. When using the “Disconnect after x minutes” feature, this icon becomes extremely useful in monitoring the status of your Router’s connection.

Off	Router is NOT connected to the Internet
Blinking Blue	Router is attempting to connect to the Internet
Solid Blue	Router is connected to the Internet
Blinking Amber	Problem with connecting to the Internet

## K. Connections to Wired Computers

Connect your wired (non-wireless) computers to these ports. These ports are RJ45, 10/100/1000 auto-negotiation, auto-uplinking ports for standard UTP category 5 or 6 Ethernet cable. The ports are labeled 1 through 4.

## L. USB Port

Plug in your USB storage device here.

## M. Connection to Modem

This port is for connection to your cable or DSL modem. Use the cable that was provided with the modem to connect the modem to this port. Use of a cable other than the one supplied with the cable modem may not work properly.

## N. Reset Button

The “Reset” button is used in rare cases when the Router may function improperly. Resetting the Router will restore the Router’s normal operation while maintaining the programmed settings. You can also restore the factory default settings by using the “Reset” button. Use the restore option in instances where you may have forgotten your custom password.

### i. Resetting the Router

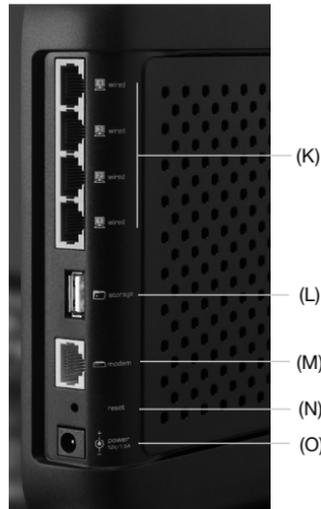
Push and release the “Reset” button. The lights on the Router will momentarily flash. The “Power/Ready” light will begin to blink. When the “Power/Ready” light becomes solid again, the reset is complete.

### ii. Restoring the Factory Defaults

Press and hold the “Reset” button for at least 10 seconds, then release it. The lights on the Router will momentarily flash. The “Power/Ready” light will begin to blink. When the “Power/Ready” light becomes solid again, the restore is complete.

## O. Power Jack – Black

Connect the included 12V/1.5A DC power supply to this jack.



# CONNECTING AND CONFIGURING YOUR ROUTER

## Verify the contents of your box. You should have the following:

- Belkin N+ Wireless Router
- RJ45 Ethernet Networking Cable
- Power Supply
- Belkin Setup Assistant Software CD
- User Manual on the Setup Assistant CD
- Network Status Display Guide
- Wireless Security Setup Guide

## Modem Requirements

Your cable or DSL modem must be equipped with an RJ45 Ethernet port. Many modems have both an RJ45 Ethernet port and a USB connection. If you have a modem with both Ethernet and USB, and are using the USB connection at this time, you will be instructed to use the RJ45 Ethernet port during the installation procedure. If your modem has only a USB port, you can request a different type of modem from your ISP, or you can, in some cases, purchase a modem that has an RJ45 Ethernet port on it.



Ethernet



USB

## Setup Assistant

Belkin has provided our Setup Assistant software to make installing your Router a simple and easy task. You can use it to get your Router up and running in minutes. The Setup Assistant requires that your computer be connected directly to your cable or DSL modem and that the Internet connection is **active and working** at the time of installation. If it is not, you must use the “Alternate Setup Method” section of this User Manual to configure your Router. Additionally, if you are using an operating system other than Windows 2000, XP, or Vista, or Mac OS X v10.x, you must set up the Router using the “Alternate Setup Method” section of this User Manual.

## CONNECTING AND CONFIGURING YOUR ROUTER

### Step 1: Hardware Connections



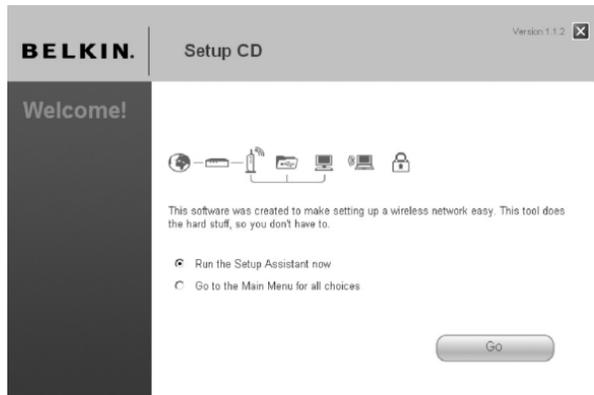
1. Find the cable connecting your modem and computer\*. Unplug it from the computer and plug it into the yellow port on the Belkin Router.
2. Connect the new cable (provided in the box) to any gray port on the Router. Plug the other end into a network (Ethernet) port on your computer.
3. Plug the power supply into a wall outlet, and the other end into the black port on the Belkin Router. As the Router wakes up, lights will come on; recheck your connections if the "Wired" and "Router" lights are not a steady blue after 20 seconds.
4. Rotate the antennas up.
5. Locate the CD in this guide and insert it into your computer. The Setup Wizard should appear automatically. If it doesn't, open the CD in My Computer (Windows) or the Finder (Mac OS X) and double-click the "Router Setup" icon.

\*If you are replacing an existing router, find the cable connecting the modem and old router. Disconnect it from the old router and plug it into the yellow port on the new router.

## Step 2: Set Up the Router – Run the Setup Assistant Software

- A. Shut down any programs that are running on your computer at this time. Turn off any firewall or Internet-connection-sharing software on your computer.
- B. Insert the CD into your computer. The Setup Assistant will automatically appear on your computer's screen within 15 seconds. Click on "Go" to run the Setup Assistant. Follow the instructions there.

**IMPORTANT:** Run the Setup Assistant from the computer that is directly connected to the Router from Step 1 – B.



**Note for Windows Users:** If the Setup Assistant does not start up automatically, select your CD-ROM drive from "My Computer" and double-click on the file named "SetupAssistant" to start the Setup Assistant.

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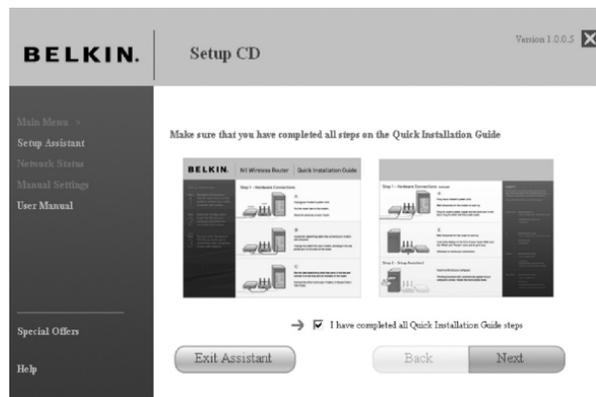
### Select Country

Select your country from the drop-down box. Click “Begin” to continue.



### Confirmation Screen

Verify that you have completed all QIG steps by checking the box to the right of the arrow. Click “Next” to continue.



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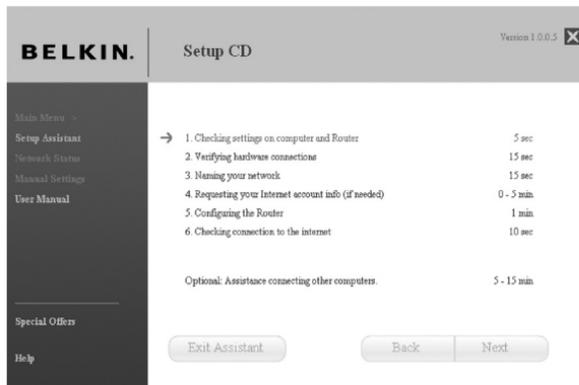
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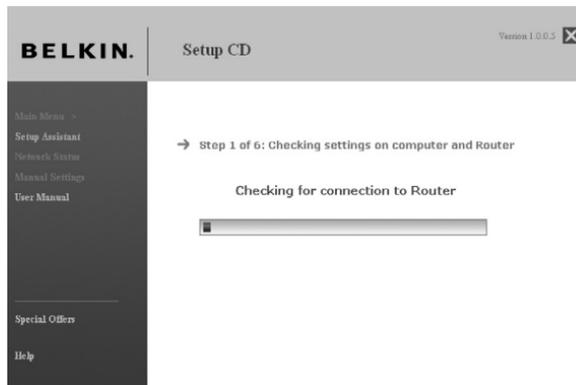
### Progress Screen

Setup Assistant will show you a progress screen each time a step in the setup has been completed.



### 1.1 Checking Settings

The Setup Assistant will now examine your computer's network settings and gather information needed to complete the Router's connection to the Internet.



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## 1.2 Verifying Hardware Connections

The Setup Assistant will now verify your hardware connection.

The screenshot shows the Belkin Setup CD interface. The top bar includes the Belkin logo, "Setup CD", and "Version 1.0.0.3". A sidebar on the left contains links for "Main Menu", "Setup Assistant", "Network Status", "Manual Settings", "User Manual", "Special Offers", and "Help". The main content area displays a progress list:

✓ 1. Checking settings on computer and Router	OK
→ 2. Verifying hardware connections	15 sec
3. Naming your network	15 sec
4. Requesting your Internet account info (if needed)	0 - 5 min
5. Configuring the Router	1 min
6. Checking connection to the internet	10 sec

Below the list, it says "Optional: Assistance connecting other computers: 5 - 15 min". At the bottom, there are three buttons: "Exit Assistant", "Back", and "Next".

## 1.3 Naming your Wireless Network

The Setup Assistant will display the default wireless network name or Service Set Identifier (SSID). This is the name of your wireless network to which your computers or devices with wireless network adapters will connect. You can either use the default or change it to something unique. Write down this name for future reference. Click "Next" to continue.

The screenshot shows the Belkin Setup CD interface at Step 3 of 6: Naming your network. The top bar includes the Belkin logo, "Setup CD", and "Version 1.0.0.3". The sidebar on the left is identical to the previous screenshot. The main content area displays:

Step 3 of 6: Naming your network

This will be the name you will look for when connecting to your Router from wireless computers. It's a good idea to change it to something unique, in case there are other Belkin Routers with the same name in your neighborhood.

Network Name:

SSID: Examples: Jan's Network, XYZ Corp. Platoon #571

At the bottom, there are three buttons: "Exit Assistant", "Back", and "Next".

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### 1.4 Requesting Internet Account Info (if needed)

If your Internet account requires a login and password, you will be prompted with a screen similar to the illustration below. Select your country or ISP from the drop-down boxes.

The screenshot shows the BELKIN Setup CD interface at Step 4 of 6, titled "Internet account info". The page includes a navigation menu on the left with options: Main Menu, Setup Assistant, Network Status, Manual Settings, User Manual, and Help. The main content area contains the following text: "The router needs a bit more information to connect to the Internet. When you tell us who provides your service, we can configure most of it." Below this is a "Country" label and a dropdown menu currently set to "United States of America". A link "Don't you see your ISP in the list? Click Here." is provided. At the bottom, there are three buttons: "Exit Assistant", "Back", and "Next". The version number "Version 1.0.0.4" is displayed in the top right corner.

### 1.5 Configuring the Router

The Setup Assistant will now configure your Router by sending data to the Router and restarting it. Wait for the on-screen instructions.

The screenshot shows the BELKIN Setup CD interface with a progress summary. The navigation menu on the left is the same as in the previous screenshot. The main content area displays a list of steps with their completion status and estimated time: "1. Checking settings on computer and Router" (OK), "2. Verifying hardware connections" (OK), "3. Naming your network" (OK), "4. Requesting your Internet account info (if needed)" (Info Needed), "5. Configuring the Router" (1 min), and "6. Checking connection to the Internet" (10 sec). Below this list, it says "Optional: Assistance connecting other computers." with a time of "5 - 15 min". At the bottom, there are three buttons: "Exit Assistant", "Back", and "Next". The version number "Version 1.0.0.5" is displayed in the top right corner.

**Note:** Do not disconnect any cable or power off the Router while the Router is rebooting. Doing so will render your Router inoperable.

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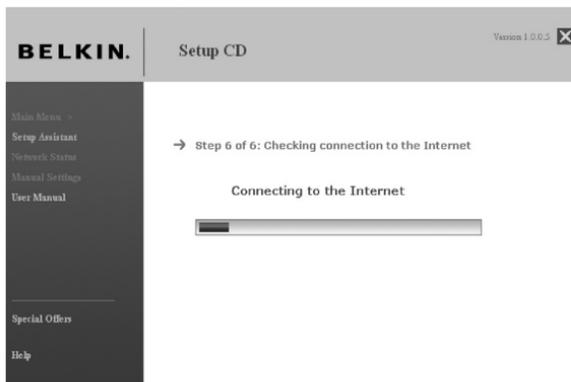
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### 1.6 Checking Internet Connection

We are almost done. The Setup Assistant will now check your connection to the Internet.



### Congratulations

You have finished installing your new Belkin Router. You will see the Congratulations screen when your Router can connect to the Internet. You can begin surfing by opening your browser and going to any website.



You can use the Setup Assistant to set up your other wired and wireless computers to connect to the Internet by clicking "Next". If you decide to add computers to your Router later, select "Exit the Assistant" and then click "Next".

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### Troubleshooting

If the Setup Assistant is not able to connect to the Internet, you will see the following screen. Follow the on-screen instructions to go through the troubleshooting steps.



### 1.7 Optional: Assistance Connecting Other Computers

This optional step will help you to connect additional wired and wireless computers to your network. Follow the on-screen instructions.



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### Congratulations

Once you have verified that your other wired and wireless computers are properly connected, your network is set up and working. You can now surf the Internet. Click “Next” to take you back to the main menu.



### Storage Manager

The Storage Manager is an application that provides easy access to your USB storage device. Once this is installed, your storage device will appear as a drive letter (e.g., D:) in your “My Computer” folder. You may read and write to this drive as if it were directly attached to your computer. Note that the Router currently supports FAT, FAT32, and NTFS file systems.



Click “Next” to install the Storage Manager application.

## CONNECTING AND CONFIGURING YOUR ROUTER

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Click "Finish" to go back to the main menu. You may now access the drive as if it were directly attached to your computer. Once installed, please use the CD to install this application on all computers on which you wish to access the storage device.

Storage Manager also allows you to safely eject the storage device before unplugging it from your Router. This is recommended before unplugging the USB storage device as there might be another user on your network who is accessing the drive. Simply right-click on the "Storage Manager" icon in the system tray and select the appropriate button.

Alternatively, you do not need to install the Storage Manager in order to access your storage device. Open a file explorer window and type in the address field:

```
\\192.168.2.1\DeviceName
```

where "DeviceName" is the name that was assigned to the storage device.

Your Belkin N+ Wireless Modem Router supports up to four USB storage devices through a separate USB hub (not included). Note that the Router can supply a maximum of 500mA of current to the port, so it is recommended that the hub be externally powered. Additionally, some USB hard drives require more than 500mA and must be externally powered to function.

## ALTERNATE SETUP METHOD

### Step 1: Hardware Connections – Follow the Quick Installation Guide

See the QIG or Step 1: Hardware Connections from the previous section.

### Step 2: Set your Computer's Network Settings to Work with a DHCP Server

See the section in this User Manual called “Manually Configuring Network Settings” for directions.

### Step 3: Configuring the Router Using the Web-Based Advanced User Interface

Using your Internet browser, you can access the Router's Web-Based Advanced User Interface. In your browser, type “192.168.2.1” (do not type in anything else such as “http://” or “www”). Then press the “Enter” key.

Address	192.168.2.1
---------	-------------

### Logging into the Router

You will see the Router's home page in your browser window. The home page is visible to any user who wants to see it. To make any changes to the Router's settings, you have to log in. Clicking the “Login” button or clicking on any one of the links on the home page will take you to the login screen. The Router ships with no password entered. In the login screen, leave the password blank and click the “Submit” button to log in.

#### Login

Before you can change any settings, you need to login with a password. If you have not yet set a custom password, then leave this field blank and click “Submit.”

Password

Default = leave blank

Clear

Submit

### Logging out of the Router

One computer at a time can log into the Router for the purposes of making changes to the settings of the Router. Once a user has logged in to make changes, there are two ways that the computer can be logged out. Clicking the “Logout” button will log the computer out. The second method is automatic. The login will time out after a specified period of time. The default login time-out is 10 minutes. This can be changed from one to 99 minutes. For more information, see the section in this manual titled “Changing the Login Time-Out Setting”.

## Understanding the Web-Based Advanced User Interface

The home page is the first page you will see when you access the Advanced User Interface (UI). The home page shows you a quick view of the Router's status and settings. All advanced setup pages can be reached from this page.

The screenshot shows the Belkin Router Setup web interface. The page is titled "Router Setup" and includes a navigation menu on the left, a status bar at the top, and several configuration sections. Numbered callouts (1) through (12) point to specific elements:

- (1) Points to the left-hand navigation menu.
- (2) Points to the "Router Setup" title bar.
- (3) Points to the "Home/Help/Logout" links.
- (4) Points to the "Internet Status: Not Connected" indicator.
- (5) Points to the "Status" link in the top navigation.
- (6) Points to the "Language" section, which lists available languages: English, Français, Español, Deutsch, 简体中文, 繁體中文, 日本語, 한국어, Italiano, and Nederlands.
- (7) Points to the "Version Info" section, including Hardware (F5D9235-4 v1000), Firmware Version (1.01.11), Root Filesystem (version 2.02 - built 09:22:06, Apr 24 2006), Wireless driver (1.01.11), Firewall (1.01.11), and GUI (1.01.11).
- (8) Points to the "LAN Settings" section, including LAN MAC (09:90:4B:41:35:28), IP address (192.168.2.1), Subnet mask (255.255.255.0), and DHCP Server (Enabled).
- (9) Points to the "WLAN Settings" section, including Wireless (Enabled), SSID (Belkin\_M\_413528), Wireless Security (Enabled), Security Mode (WPA-PSK), and Wi-Fi Protected Setup (Enabled).
- (10) Points to the "Internet Settings" section, including WAN MAC address (00:90:4B:41:35:29), Connection Type (Dynamic), Subnet mask (0.0.0.0), Wan IP (0.0.0.0), Default gateway (0.0.0.0), DNS Address (0.0.0.0), and Condition (Not Connected).
- (11) Points to the "Router Status" section, including Full Power (Full Power / ECO), Wireless (On), Firewall Settings (On), Access Control (Off), DDNS (Off), and USB (Connected).
- (12) Points to the top of the browser window, including the address bar and scroll bar.

### 1. Quick-Navigation Links

You can go directly to any of the Router's advanced UI pages by clicking directly on these links. The links are divided into logical categories and grouped by tabs to make finding a particular setting easier to find. Clicking on the purple header of each tab will show you a short description of the tab's function.

### 2. Home Button

The home button is available in every page of the UI. Pressing this button will take you back to the home page.

### 3. Help Button

The "Help" button gives you access to the Router's help pages. Help is also available on many pages by clicking "more info" next to certain sections of each page.

### 4. Login/Logout Button

This indicator is visible in all pages of the Router, indicating the connection status of the Router. When the indicator says "Connected" in blue, the Router is connected to the Internet. When the Router is not connected to the Internet, the indicator will read "No Connection" in RED. The indicator is automatically updated when you make changes to the settings of the Router.

### 5. Internet-Status Indicator

The "Help" button gives you access to the Router's help pages. Help is also available on many pages by clicking "more info" next to certain sections of each page.

### 6. Language

Shows the active language for the Advanced User Interface. Select a desirable language by clicking one of the available languages.

## ALTERNATE SETUP METHOD

### 7. Version Info

The “Help” button gives you access to the Router’s help pages. Help is also available on many pages by clicking “more info” next to certain sections of each page.

### 8. LAN Settings

The “Help” button gives you access to the Router’s help pages. Help is also available on many pages by clicking “more info” next to certain sections of each page.

### 9. WLAN Settings

Shows the settings of the Wireless Local Area Network (WLAN) side of the Router, including the SSID and security settings.

### 10. Internet Settings

Shows the settings of the Internet/WAN side of the Router that connects to the Internet. Changes to any of these settings can be made by clicking on the links or by clicking on the “Internet/WAN” quick-navigation link on the left side of the screen.

### 11. Router Status

Shows the status of the Router’s firewall and wireless features. Changes can be made to the settings by clicking on any one of the links or by clicking the quick-navigation links on the left side of the screen.

### 12. Page Name

The page you are on can be identified by this name. This User Manual will sometimes refer to pages by name. For instance “LAN > LAN Settings” refers to the “LAN Settings” page.

## Step 4 Configuring your Router for Connection to your Internet Service Provider (ISP)

The “Internet/WAN” tab is where you will set up your Router to connect to your Internet Service Provider (ISP). The Router is capable of connecting to virtually any ISP’s system provided you have correctly configured the Router’s settings for your ISP’s connection type. Your ISP connection settings are provided to you by your ISP. To configure the Router with the settings that your ISP gave you, click “Connection Type” (A) on the left side of the screen. Select the connection type you use. If your ISP gave you DNS settings, clicking “DNS” (B) allows you to enter DNS address entries for ISPs that require specific settings. Clicking “MAC Address” (C) will let you clone your computer’s MAC address or type in a specific WAN MAC address, if required by your ISP. When you have finished making settings, the “Internet Status” indicator will read “connection OK” if your Router is set up properly.

### Setting your Connection Type

From the “Connection Type” page, you can select the type of connection you use. Select the type of connection you use by clicking the button (1) next to your connection type and then clicking “Next” (2).

**BELKIN** Router Setup

LAN Setup  
WAN >  
Internet/WAN  
WAN Settings  
Wireless  
Firewall  
DNS  
MAC  
WAN Ping Blocking  
Utilities  
Router Status

**WAN >**

The Internet/WAN Tab is where you will set up your Router to connect to your Internet Service Provider. The Router is capable of connecting to virtually any Internet Service Provider's system provided that you have correctly configured the Router's settings for your ISP's connection type. To configure the Router to connect to your ISP, click on "Connection type" on the Internet/WAN Tab on the left of the screen.

Connection types supported:

- **Dynamics** including ISPs that require a host name and ISPs that bind the connection to a specific MAC address.
- **Static IP address:** the Router supports a connection to an ISP which assigns a static IP address.
- **PPPoE:** the Router supports a dynamic connection type which requires a PPPoE login for authentication.
- **PPP:** For European users ONLY. The Router supports connections to European ISPs which connect via PPP.
- **Telstra BigPond:** Australian users ONLY. The router supports connection to Telstra BigPond.

Next >

**BELKIN** Router Setup

LAN Setup  
WAN >  
Internet/WAN  
WAN Settings  
Wireless  
Firewall  
DNS  
MAC  
WAN Ping Blocking  
Utilities  
Router Status

**WAN > Connection Type**

Select your connection type:

- Dynamic:**  
A Dynamic type of connection is the most common. If you use a cable modem, then most likely you will have a dynamic connection. If you have a cable modem or you are not sure of your connection type, use this.
- Static:**  
A Static IP address connection type is less common than others. Use this selection only if your ISP gave you an IP address that never changes.
- PPPoE:**  
If you use a DSL modem and/or your ISP gave you a User Name and Password, then your connection type is PPPoE. Use this connection type.
- PPP:**  
[European Countries Only] This type of connection is most common in European countries. If your ISP has specifically told you that you use PPP and has supplied you with the proper PPP information, then use this option.
- Telstra BigPond/OptusNet Cable**  
Use this option for BigPond Cable and OptusNet Cable connections only.
- L2TP**  
[Israel Only] This type of connection is most common in Israel. If your ISP has specifically told you that you use L2TP and has supplied you with the proper L2TP information, then use this option.

Next >

## ALTERNATE SETUP METHOD

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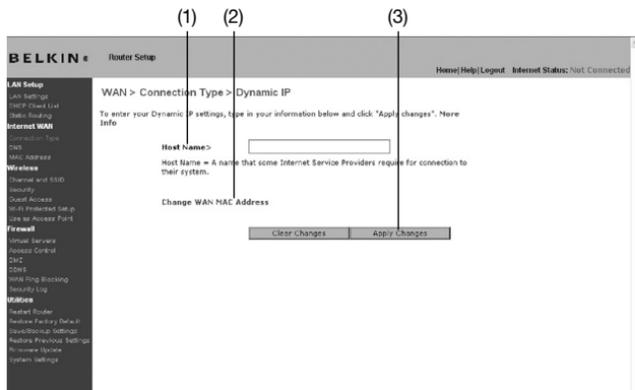
8

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### Setting your Internet Service Provider (ISP) Connection Type to Dynamic IP

A dynamic connection type is the most common connection type found with cable modems. Setting the connection type to “dynamic” in many cases is enough to complete the connection to your ISP. Some dynamic connection types may require a host name. You can enter your host name in the space provided if you were assigned one. Your host name is assigned by your ISP. Some dynamic connections may require that you clone the MAC address of the PC that was originally connected to the modem.



#### 1. Host Name (1)

This space is provided to enter a host name that needs to be visible to your ISP. Enter your host name here and click “Apply Changes” (3). If your ISP did not assign you a host name, or you are not sure, leave this blank.

#### 2. Change WAN MAC Address (2)

If your ISP requires a specific MAC address to connect to the service, you can enter a specific MAC address or clone the current computer’s MAC address through this link.

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### Setting your Internet Service Provider (ISP) Connection Type to Static IP

A static IP address connection type is less common than other connection types. If your ISP uses static IP addressing, you will need your IP address, subnet mask, and ISP gateway address. This information is available from your ISP or on the paperwork that your ISP left with you. Type in your information, then click "Apply Changes" (4). After you apply the changes, the Internet Status indicator will read "connection OK" if your Router is set up properly.

(1)

(2)(3)

**BELKIN** Router Setup Home Help Logout Internet Status: Not Connected

**LAN Setup**  
LAN Settings  
DHCP Filter List  
Static Routing

**Internet WAN**  
WAN > Connection Type > Static IP  
To enter your Static IP settings, type in your information below and click "Apply changes". Here Info

**IP Address >** 0 . 0 . 0 . 0

**Subnet Mask >** 0 . 0 . 0 . 0

**ISP Gateway Address >** 0 . 0 . 0 . 0

Click here to enter your DNS Settings

Clear Changes Apply Changes

**Wireless**  
Channel and SSID  
Security  
Guest Access  
WPA Protected Setup  
Link for Access Point

**Firewall**  
Internet Services  
Access Control  
DMZ  
CISAT  
WMI Ping Blocking  
Security Log

**Utilities**  
Reboot Router  
Reboot Factory Default  
Save/Backup Settings  
Restore Previous Settings  
Firmware Update  
System Settings

#### 1. IP Address

Provided by your ISP. Enter your IP address here.

#### 2. Subnet Mask

Provided by your ISP. Enter your subnet mask here.

#### 3. ISP Gateway Address

Provided by your ISP. Enter the ISP gateway address here.