

<NEW BELKIN LOGO>

Wireless_N ROUTER
N450 DB

USER MANUAL

8820-00843 Rev. F00
F9K1105V3

TABLE OF CONTENTS

Getting Started

What's in the Box
Initial Setup
Advanced Tools & Settings
The Belkin Router Manager
Adding Computers to Your Network
Manually Set Up Your Internet Connection

Additional Capabilities

Guest Access
Content Filtering by Norton
IntelliStream QoS
IPv6 Configuration

Getting to Know Your Router

Front Panel
Back Panel

Technical Details

Technical Features
System Requirements

Using Your Router

Enabling Auto Update on Your Router
Updating Your Router via Your System Tray
Updating the Router's Firmware via the Web Interface
Resetting the Router
Restoring Your Router to Factory Defaults
Restoring the Router to Default Settings Using the Web Interface

Troubleshooting, Support, and Warranty

Troubleshooting

Technical Support
Belkin International, Inc., Limited 2-Year Product Warranty

Regulatory Information

FCC Statement
CE Statement

Getting Started

What's in the Box
N450 DB Wireless N Router

Ethernet cable (attached to router)

Power supply (attached to router)

Network information card (attached to router)

Belkin Setup CD with User Manual

Quick Setup Guide

Initial Setup

Where to Place Your Router

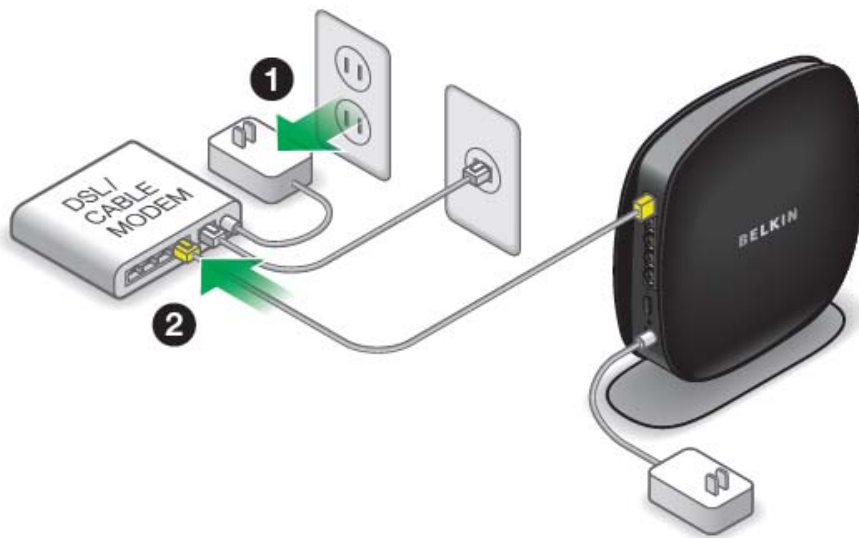
For the best results, place the Router next to your modem in an open location away from large metal objects and magnets such as those found in speakers. Raising the Router above floor level can improve the strength of your wireless signal.

How to Set It Up

[Connect Your N450 DB Router

Turn off your modem by disconnecting its power supply.

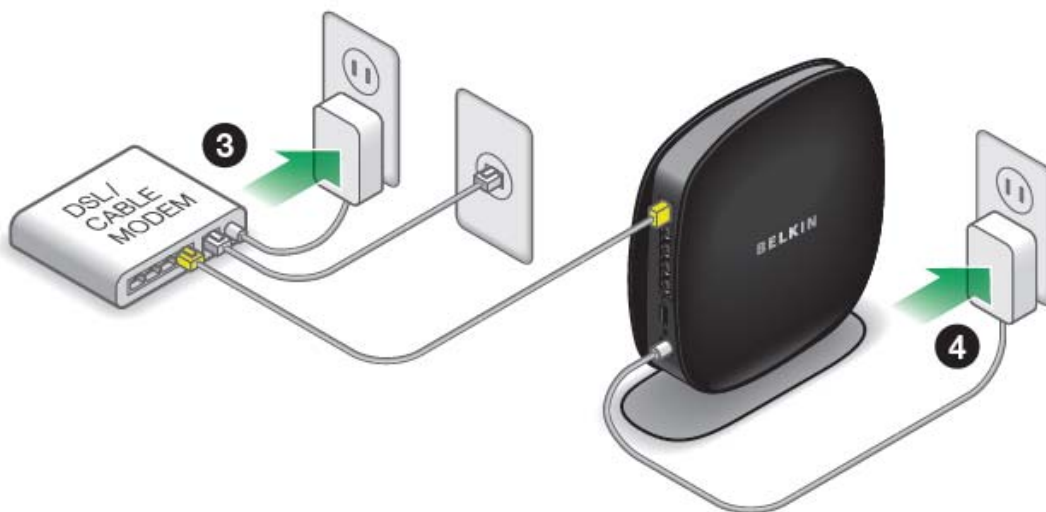
Connect your Router to your modem using the cable (already attached).



[You can get the actual artwork from the N900DB QIG “QIG_F9K1104_8830-06656_N900.pdf”]

Power up your modem by plugging in its power supply.

Power up your Router by plugging in its power supply.



[You can get the actual artwork from the N900DB QIG “QIG_F9K1104_8830-06656_N900.pdf”]

Run the Installer Software.

Insert the included CD into your computer. It should run automatically; if not, **find the setup program and open it**. Follow the prompts.

The setup software will configure your Internet connection and let you know when things are working.

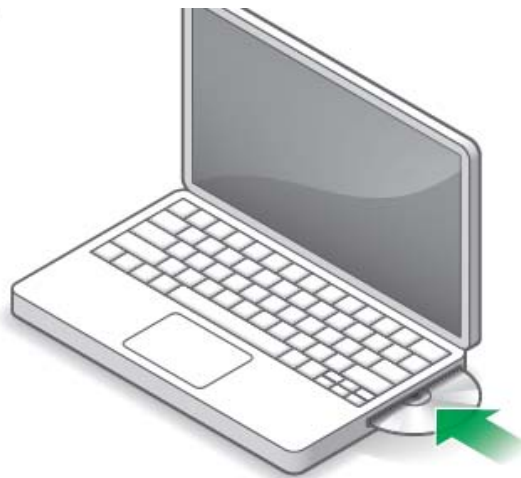
If you have DSL, you may need a username and password from your Internet provider.

[Image of laptop and CD]

username and password from your Internet provider.



Setup



[You can get the actual artwork from the N900DB QIG “QIG_F9K1104_8830-06656_N900.pdf”]

[SCREENSHOT OF SETUP MENU setup menu.png]

- 1) Click the Setup icon on the CD menu.**

[Diagram of bottom of the router showing service card – can be obtained from “Tested QIG 2011 07 14.pdf” provided]

- 2) After a brief installation, the setup software will ask you for the network name and password from the network information card that is stored in the foot of your new Belkin Router. Store the card under the base of your Router for future reference.**

[SCREENSHOT OF SUCCESS setup success.png]

- 3) A progress screen will appear while additional software is installed. This may take a few minutes to complete. Once finished, a “Success” message will appear indicating that you are connected to the Internet via your new Belkin Router.**

During setup you may be asked for additional information.

You may need to enter a username and password provided by your ISP. This username and password is likely to be found on materials that came from your ISP when you signed up for service. If necessary, you may need to contact your ISP to retrieve your username and password.

If you have a static IP address, you may need to enter additional information also provided by your ISP.

If your computer doesn't have a wireless adapter, or the setup software is unable to control it, you may be asked to connect your computer to the Router with a network cable.

Advanced Tools & Settings

[SCREENSHOT OF ADVANCED MENU setup advanced2.png]

After the initial setup is complete, you have the option to change settings like your network name, security type, and password. To make these changes and others, click on the Advanced Tools icon at the CD Setup menu and select one of the following settings that you would like to change:

Network Name & Security

Personalize your network name (SSID), password, and strength of wireless security.

Internet Service Provider & Login Settings

Have you moved or changed Internet Service Providers? If you'd like to change these settings without running through the setup process again, this is the place.

The Belkin Router Manager

[SHARE SCREENSHOT OF TRAY APP MENU (TBD)]

The Belkin Router Manager appears in your system tray (Windows) or menu bar (Mac). Its icon indicates the current status of your Router and also allows you to access your Router's settings to make changes. It also provides quick access to software that came bundled with your Router.

To access the Router settings, click on the icon and select from the menu that appears.

The status of your Router is shown by the Belkin Router Manager icon, which closely mimics the light on the front of the Router.

Blue: You are connected to your Belkin Router and it is connected to the Internet.

Amber: You are connected to your Belkin Router, but it is not connected to the Internet.

Wireless devices such as computers, network printers, and gaming systems can connect to your Router with a few simple steps.

Using the CD

- 1) Put the Setup CD into your computer. If the CD doesn't open automatically, browse to your CD drive and open the Belkin Setup CD icon.
- 2) Click the Setup icon on the CD menu.
- 3) After a brief installation, the setup software will ask you for the network name and password from the network information card that came with your Router. This card is most likely now located underneath the foot of your Router in the provided card slot.
- 4) A progress screen will appear while additional software is installed. This may take a few minutes to complete. Once finished, a "Success" message will appear indicating that you are connected to the Internet via your new Belkin Router.

Note: The setup software runs only on Windows and Mac OS X systems.

Manual Setup

If you know what sort of Internet service you have, you might try a manual setup. For this, you will need a Wi-Fi-enabled smartphone, tablet, or computer.

Connect to Your Router

Retrieve the network ID card from the foot of your new Belkin Router.

[Diagram of bottom of the router showing service card – can be obtained from "Tested QIG 2011 07 14.pdf" provided]

Can't find the card? The default network name and password are also printed on the foot of the Router.

Use your computer, tablet, or smartphone to connect to the wireless network shown on the network ID card.

[Diagram of connecting to SSID screenshot – needs creating, take direction from “Tested QIG 2011 07 14.pdf” provided]

When requested, please enter the password (security key) provided on the card.

Take a moment to look at the light on the front of the Router. If it is solid blue, your Router was able to connect to the Internet automatically.

[Image of front of the router with blue LED (needs creating)]

If not, please proceed **to** “Manually Set Up Your Internet Connection” on page XX.

Using the WPS Button

- 1) Start WPS Push Button Connection (WPS PBC) on your computer or other Wi-Fi device that you would like to connect wirelessly to your Router. Often there will be a button for this purpose in software that came with the device, or a physical “WPS,” “PBC,” or “Security” button on the device itself.**
- 2) Within two minutes, press the WPS button on your Router and hold for two seconds.**

The WPS light (small light above WPS button) will blink blue while it listens for your Wi-Fi device. Once a connection is established, the light will turn blue and then go out. If a connection is not established, the light will blink amber. You may repeat the process to try again.

You can repeat this process for each WPS-enabled device you'd like to add to your network.

Manually Set Up Your Internet Connection

Use a browser to visit <http://router/>. The router homepage should appear.

[Image of browser showing the router homepage – see “Tested QIG 2011 07 14.pdf” provided for guideline]

You can also try visiting <http://192.168.2.1/>.

The status of your Internet connection is shown in the upper right corner of the router homepage. If after a few moments it says “Connected,” you're done! You can surf the Internet.

[Image of browser showing “connected” homepage – see “Tested QIG 2011 07 14.pdf” provided for guideline]

If not, select “Connection Type” from the menu on the left.

[Zoomed in image of the “Connection Type” option in the homepage – see “Tested QIG 2011 07 14.pdf” provided for guideline]

If a password screen appears, press “Submit.”

[Image of the login screen showing the submit button – see “Tested QIG 2011 07 14.pdf” provided for guideline]

Dynamic Connection

Cable and fiber customers generally require a dynamic connection. Some DSL customers require a PPPoE connection. Let’s try dynamic first. Select “Dynamic” from the menu that appears and press “Next.”

[Image of the connection type screen with dynamic selected – see “Tested QIG 2011 07 14.pdf” provided for guideline]

A service name is generally not required. Hit “Apply Changes.” The Router will restart.

[Image of the service name page – see “Tested QIG 2011 07 14.pdf” provided for guideline]

If after a few minutes your Internet Status says “Connected,” you’re done! You can surf the Internet.

[Image of browser showing “connected” homepage – see “Tested QIG 2011 07 14.pdf” provided for guideline]

If these steps do not work, try restarting your modem and repeating the process.

If not, we'll try a PPPoE connection next.

PPPoE Connection

Some DSL customers require a PPPoE connection. Select PPPoE this time and press "Next."

[Image of the connection type screen with PPPoE selected – see "Tested QIG 2011 07 14.pdf" provided for guideline]

Enter the username and password supplied by your Internet provider and click "Apply Changes." Ignore the other fields. The Router will restart.

[Image of the PPPoE page – see "Tested QIG 2011 07 14.pdf" provided for guideline]

If after a few minutes your Internet Status says "Connected," you're done! You can surf the Internet.

[Image of browser showing "connected" homepage – see "Tested QIG 2011 07 14.pdf" provided for guideline]

If these steps do not work, try restarting your modem and repeating the process.

[Be sure to use the correct icons, see the QIG F9K1104_8830-06656_N900.pdf for an idea]

Connect Your Wireless Devices

iOS

(iPhone, iPad, and iPod touch)

1. Open the Settings app and select the Wi-Fi menu item.
2. Select your wireless network from the list that appears there. If asked to do so, enter the network password.

Mac OS® X

Your Mac® provides a menu of available wireless networks at the right end of the menu bar.

1. Click on the icon showing wireless waves.
2. Select your wireless network from the list that appears there. If asked to do so, enter the network password.

Android

(phones and tablets)

1. Open the Settings app and select Wireless and Network.
2. From there, select Wi-Fi to see the list of available networks.
3. Select your wireless network from the list. If asked to do so, enter your network password.

Windows® 7

Your computer provides a menu of available wireless networks at the right end of the task bar.

1. Left-click on the icon that looks like signal strength bars.
2. Select your wireless network from the list. If asked, enter your network password (network key).

Windows Vista® and Windows XP

Your device provides a menu of available wireless networks at the right end of the task bar.

1. Right-click on the icon that shows a computer with wireless waves (XP) or two computers (Windows Vista).
2. Choose View Available Wireless Networks (XP) or Connect to a network (Vista) from the menu.
3. Select your wireless network from the list. If asked, enter your network password (network key).

Additional Capabilities

Guest Access

You can allow guests to use your Internet connection without joining your personal network. The network name and password for the guest network is located on the network information card found under the foot of your Router.

A person using your guest network will be able to join without a password, but will be shown a login page when they attempt to surf the Web. They will need to enter the guest password into this page to continue.

Website Filters. Powered by Norton

Provides a first layer of whole-home Internet protection to guard you from unsafe and inappropriate websites on any device on your network.

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Home | Help | Logout Internet Status : **Connected**

LAN Setup
LAN Settings
DHCP Client List

Internet WAN
Connection Type
DNS
MAC Address

IPV6
Connection Settings

Wireless
Channel and SSID
Security
Wi-Fi Protected Setup
Guest Access
Use as an Access Point

Parental Controls
Website Filters **NEW**

Media Features
Intellistream **NEW**
Traffic Chart
Media Server **NEW**

Firewall
Virtual Servers

Parental Controls > Website Filters

Provides a first layer of whole-home internet protection to guard you from unsafe and inappropriate websites on any device on your network.

Filtering Options >

- Block Malicious, Adult and other non-family friendly sites**
Blocks malware, phishing, and scam sites, sites that contain sexually explicit material, mature content, abortion, alcohol, crime, cult, drugs, gambling, hate, sexual orientation, suicide, tobacco or violence..
- Block malicious and adult sites**
Blocks malware, phishing, scam sites and sites that contain sexually explicit content.
- Block malicious sites**
Blocks malware, phishing and scam sites.
- No Filters**

To change your DNS address please continue to Internet WAN > DNS

Apply Changes

There are four different filtering options:

1. Block malicious, adult, and other non-family-friendly sites
2. Block malicious and adult sites
3. Block malicious sites
4. No filters

If you think that there is a site that should be added to the filtering list, you can submit a request at safeweb.norton.com.

Content filtering may not work as intended if:

1. You are connecting through a VPN router.
2. You are routing traffic through a proxy server.
3. You have previously visited the site and it has been stored in your cache.
4. You manually set the DNS servers on your device.

IntelliStream QoS

IntelliStream is a feature of Belkin routers that prioritizes video and gaming traffic for a better online entertainment experience.

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Home | Help | Logout Internet Status : **Connected**

LAN Setup
LAN Settings
DHCP Client List

Internet WAN
Connection Type
DNS
MAC Address

IPV6
Connection Settings

Wireless
Channel and SSID
Security

Media Features > IntelliStream

IntelliStream prioritizes high-bandwidth and low-latency services such as voice, video, and games for the best possible online experience.

or

IntelliStream is currently disabled.
To do a good job, IntelliStream needs to know your connection speed.
Internet connectivity will be momentarily suspended during the test.

There are two ways to enable IntelliStream:

Run a Speed Test:

In order for IntelliStream to provide you the best media experience, your Router needs to know what your approximate Internet speeds are.

Click “Run a Speed Test” and the test will begin.

The screenshot shows the Belkin router's web interface. The top navigation bar includes the Belkin logo, links for Home, Help, and Logout, and the Internet Status: Connected. The left sidebar lists various settings categories: LAN Setup (LAN Settings, DHCP Client List), Internet WAN (Connection Type, DNS, MAC Address), IPV6 (Connection Settings), Wireless (Channel and SSID, Security, Wi-Fi Protected Setup, Guest Access, Use as an Access Point), Parental Controls (Website Filters, marked as NEW), and Media Features (Intellistream, marked as NEW). The main content area is titled "Media Features > Intellistream" and contains a description: "Intellistream prioritizes high-bandwidth and low-latency services such as voice, video, and games for the best possible online experience." Below this, a message states: "Internet connectivity is momentarily suspended during the test." The speed test progress is shown as "Speed Test : Running...". Three performance metrics are displayed with loading icons: Ping, Download Speed, and Upload Speed. A "Cancel" button is visible on the right.

Once complete you will see the results.

The screenshot shows the same Belkin router web interface as above, but the speed test is now completed. The status is "Speed Test : Completed." The performance metrics are now displayed with numerical values: Ping is 37 us, Download Speed is 113.00 Mbps, and Upload Speed is 109.20 Mbps. There are "Refresh" and "Manual Set" buttons next to the speed values. A message with an information icon states: "With your high internet speeds Intellistream doesn't need to be enable." Below this, it says "To enable Intellistream:" followed by an "Apply Changes" button.

If your Internet speed is greater than 70Mbps when downloading, IntelliStream QoS will only improve your uploading experience.

Refresh – This will retest your Internet speed.

When you click “Apply Settings,” your Router will save your changes.

Manual set – This will let you set your approximate Internet speeds. If you do not know your Internet speeds, call your ISP.

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Home | Help | Logout Internet Status : [Connected](#)

LAN Setup
LAN Settings
DHCP Client List

Internet WAN
Connection Type
DNS
MAC Address

IPV6
Connection Settings

Wireless
Channel and SSID
Security
Wi-Fi Protected Setup
Guest Access
Use as an Access Point

Parental Controls
Website Filters **NEW**

Media Features
Intellistream **NEW**

Media Features > Intellistream

Intellistream prioritizes high-bandwidth and low-latency services such as voice, video, and games for the best possible online experience.

Speed Test : Enter between the number 0.1-1000.

Download Speed: Mbps

Upload Speed: Mbps

To enable Intellistream:

When you click “Apply Settings,” your Router will save your changes.

LAN Setup[LAN Settings](#)[DHCP Client List](#)**Internet WAN**[Connection Type](#)[DNS](#)[MAC Address](#)**IPv6**[Connection Settings](#)**Wireless**[Channel and SSID](#)[Security](#)[Wi-Fi Protected Setup](#)[Guest Access](#)[Use as an Access Point](#)**Parental Controls**[Website Filters](#)**NEW****Media Features**[Intellistream](#)**NEW****Media Features > Intellistream**

Intellistream prioritizes high-bandwidth and low-latency services such as voice, video, and games for the best possible online experience.

Intellistream > Enable Disable

Internet connectivity will be momentarily suspended during the test.

Speed Test : Recorded on 2012/3/21

Ping

37 us

Download
Speed

113.00 Mbps

Upload
Speed

109.20 Mbps

[Refresh](#)[Manual Set](#)

With your high internet speeds Intellistream doesn't need to be enable.

[Apply Changes](#)

IntelliStream is now enabled.

IPv6 Configuration

A new version of Internet Protocol (IP) uses a 128-bit address to implement additional features that are not present in current IP addresses.

Contact your ISP to inquire about their support for IPv6.

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Home | Help | Logout Internet Status : **Connected**

LAN Setup
 LAN Settings
 DHCP Client List

Internet WAN
 Connection Type
 DNS
 MAC Address

IPv6
Connection Settings

Wireless
 Channel and SSID
 Security
 Wi-Fi Protected Setup
 Guest Access
 Use as an Access Point

Parental Controls
 Website Filters **NEW**

Media Features
 Intellistream **NEW**
 Traffic Chart
 Media Server **NEW**

Firewall
 Virtual Servers
 MAC Address Filtering
 DMZ
 DDNS

IPv6 > Connection Settings

Among other things, IPv6 allows many more devices to connect to each other via the Internet.

Connection Type > Auto-Config/DHCPv6 (default) ▾

The addresses below are provided by your ISP. DHCPv6 provides added features to enhance connectivity.

WAN >
WAN Address > -----
Gateway > -----

LAN >
 Use this section to configure the internal networking settings of your router. If you change the LAN IPv6 address here, you may need to adjust your computer's network settings to access the network again.

LAN Prefix > ----- **Interface ID >** -----

Link-Local > fe80::a86:3bff:fe7d:f6d0/64

DNS >
 Your IPv6 DNS default settings are from your Internet Service Provider if available in WAN router advertisements or DHCPv6 messages.

Pass-Through

Devices connected to your Router can talk to each other using native IPv6 packets, but information will be sent to all connected devices. Pass-through is not efficient and is not recommended for consistent use.

Getting to Know Your Router

Front Panel

[DIAGRAM front.ai]

A) Router Status Light

Your Router's status is shown by the light on the front.

Off: The Router is not plugged into a power source.

Blinking Blue: The Router is starting up.

Solid Blue: The Router is connected to the Internet.

Blinking Amber: The Router can't detect the modem. Either the modem is off, is not plugged into the Router, or is unresponsive.

B) Wi-Fi Protected Setup (WPS) Light and Button

The WPS button on the front of your Router can be used to help establish a secure connection between your Router and other WPS-enabled Wi-Fi devices such as computers. To use the WPS feature on your Router, see “Getting Started > Adding Computers to Your Network > Using the WPS Button”.

The small light near the WPS button shows what is happening while you are using WPS to establish a connection.

Off: Idle

Blinking Blue: The Router is listening for a WPS-enabled computer or other device.

Solid Blue: The Router has made a secure connection with the computer or other device.

Amber: A connection was not created.

Back Panel

[R DIAGRAM FOR N150 N300 N450_back.ai]

A) Modem (WAN) Connector

Connect your modem to this port using an Ethernet cable.

B) Wired (LAN) Connectors

Connect computers and other wired network devices to these ports using Ethernet cables.

C) Reset Button

This button is used to restart your Router in rare cases when it functions incorrectly. Resetting the Router will preserve your

settings. This button may also be used to restore the factory default settings. Please see the Troubleshooting section for more information.

D) Power Connector

Connect the included power supply to this jack.

Technical Details

Technical Features

Integrated 802.11n Wireless Access Point

Utilizing Dual-Band Network technology, your Router creates two separate networks (one at 2.4GHz band and the other at 5GHz), allowing increased bandwidth to all your connected wireless devices and computers.

NAT IP Address Sharing

To save you the cost of adding IP addresses per computer in your house, your Belkin Router uses Network Address Translation (NAT) technology, allowing you to share a single IP address across your network.

SPI Firewall

Your Router is equipped with a firewall that will protect your network from a wide array of common attacks and viruses.

Web-Based Advanced User Interface

You can easily make changes to your Router's advanced settings through your web browser. These changes can be made from any computer on your network.

Belkin Router Monitor

The Belkin Router Monitor application helps you to monitor your Router's status and change network settings.

Integrated 4-Port 10/100 Switch

Your Router has a built-in, 4-port 10/100 network switch to allow your wired computers to share: printers, data, MP3 files, digital photos, and much more.

System Requirements

Router

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 Software

A computer running Windows® XP SP3 (32-Bit) or higher, Windows Vista® (32+64-Bit), or Windows 7 (32+64-Bit); or Mac OS® X v10.5 or above
Minimum 1GHz processor and 512MB RAM
600MB of free hard-drive space for installation

Using Your Router

Enabling Auto Update on Your Belkin Router

The Router has the capability to automatically check for a newer version of firmware and alert you when it's available. You can choose to download the new version or ignore it. By default this feature is disabled. If you want to enable it, select "Enable" and click "Apply Changes".

Note: We recommend you use a computer that has a wired connection to the Router.

Setup steps:

1. Open a web browser on the computer.
2. In the address bar of the web browser, type "<http://192.168.2.1>".
3. Click "Login" in the upper right-hand corner of the page. The Router does not ship with a password, so just click "Submit".

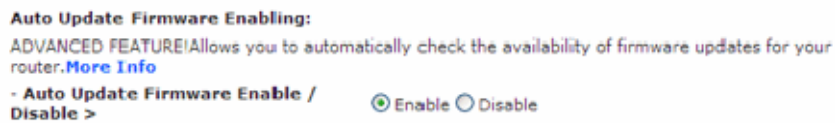


Status

4. Click on "System Settings" in the left-hand column under the "Utilities" heading.



5. Toward the lower-half side of the screen you will find "Auto Update Firmware Enabling".
6. Select "Enable" by clicking the radio button and then click "Apply Changes" at the bottom of the screen.



Updating Your Router via Your System Tray (Windows) or Menu Bar (Mac)

Once you have completed the setup process, you will need to update the new software for your Router. This can be done easily via your computer's system tray or menu bar.

Setup steps:

1. Click on the blue Belkin Router Manager icon (right-click for Windows) in your system tray (Windows) or menu bar (Mac).
2. Select "Check for Updates" or "Update Available" from the menu.
3. You should now see the Belkin Updater window.
4. Click on the "Install Update" icon.

Updating the Router's Firmware via the Web Interface

The following steps show you how to update your Router's firmware using its web interface. You do not need to be connected to the Internet as this interface is built into the Router itself.

Setup steps:

1. Locate and download the firmware file from the Belkin support site. (Type your part number into the search box in the top right corner and look for "Firmware" in the title.)
2. Save the file to a location on your computer where you can get to it easily, such as your desktop.

3. Connect the computer to one of the four LAN ports on the Router.



4. Open a web browser on the computer.
5. In the address bar of the web browser, type "<http://192.168.2.1>" and press "Enter" on your keyboard.
6. Click "Login" in the upper right-hand corner of the page. The Router does not ship with a password, so just click "Submit".



Status

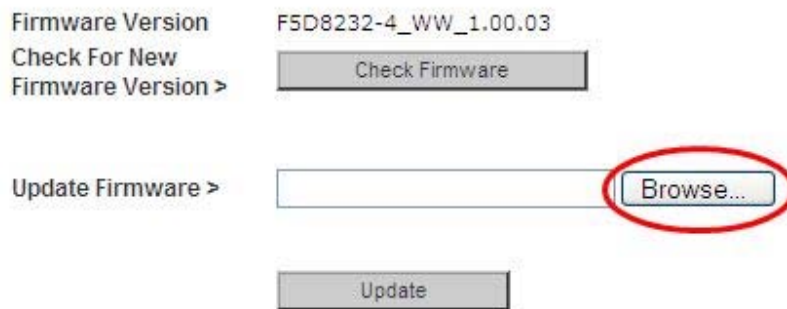
7. Click on "Firmware Update" toward the bottom of the left-hand menu.



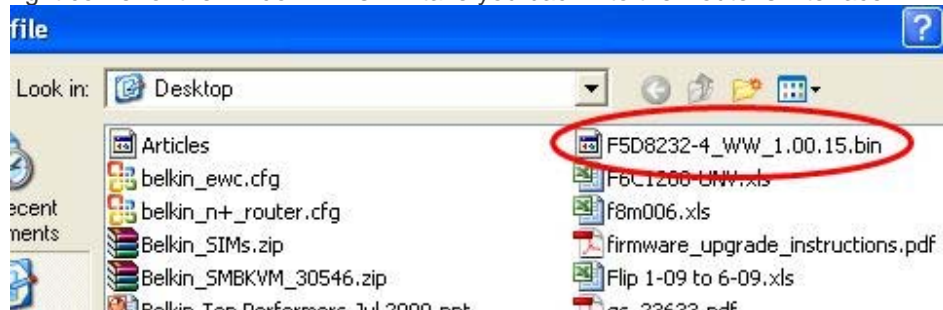
8. Click the "Browse" button toward the middle of the screen to search for the file you saved previously.

Note: The firmware version in the images below is depicted as an example. Your file name

will vary depending on your model and version.



9. Select the firmware file by left-clicking on it and then click the “Open” button in the lower-right corner of the window. This will take you back into the Router’s interface.



10. Click the “Update” button.



11. A prompt asking, “Are you sure you want to continue with upgrading?” will appear. Click “OK”.
12. A second prompt will open telling you the Router will not respond during the upgrade and warning you not to remove the power supply from the Router. Click “OK” once more.

Congratulations. The firmware has been updated successfully.

Resetting the Router

Reset Button – Red

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.

Resetting the Router

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

Restoring Your Router to Factory Defaults

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

Restoring the Router to Default Settings Using the Web Interface

Symptoms

You need to restore the factory defaults using the web interface. This may be because the Router is not performing as expected or you wish to remove all previously configured settings.

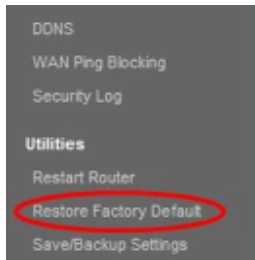
Setup steps:

1. Open a web browser on the computer.
2. In the address bar of the web browser, type “<http://192.168.2.1>”.
3. Click “Login” in the upper right-hand corner of the page. The Router does not ship with a password, so just click “Submit”.



Status

4. Click on “Restore Factory Defaults” in the left-hand column under the “Utilities” heading.

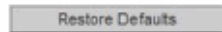


5. Click on the “Restore Defaults” button.

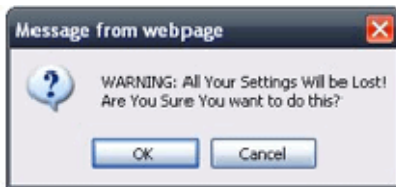
Restore factory defaults

Restore factory defaults

This function will restore all of the settings in the Router to the factory (default) settings. It is recommended that you backup your settings before you restore all of the defaults. To restore the defaults, click the “Restore Defaults” button below.



6. A warning box will open that says, “Warning: All your settings will be lost. Are you sure you want to do this?” Click “OK”.



7. The Router will begin the restoring process. Once the restore is complete, the Router will reboot.

Note: This may take several minutes.

Your Router has successfully been restored to its factory settings.

Troubleshooting, Support, and Warranty

Troubleshooting

The Setup CD does not automatically start.

If Belkin Setup does not run when you insert the CD-ROM, your computer may not be configured to open CDs automatically.

If Belkin Setup does not appear within 15 seconds, browse to your CD-ROM drive and open the “Belkin Setup” icon. Alternatively, you may visit <http://router/> and perform the setup manually. Please see “Manual Setup Using Your Browser” earlier in this manual for more information.

Belkin Setup cannot find my Router.

If Belkin Setup is not able to communicate with your Router during the installation process, please check the following items.

- 1) *Make sure that the wireless hardware on your computer is turned on, if available.*
- 2) *Try connecting your computer to one of the four “wired” ports on the Router with an Ethernet cable.*
- 3) *Ensure that the Router is on. The front-panel light should be on.*
- 4) *Unplug the Router’s power supply for 10 seconds, then plug it back in.*
- 5) *There may be firewall software on your computer preventing an outgoing connection. You may choose to temporarily disable this software before attempting setup.*

If Belkin Setup still cannot find the Router, you might choose to do a manual setup. Refer to “Manually Configuring Network Settings” in this manual for details.

Belkin Setup cannot connect my Router to the Internet.

If Belkin Setup is not able to connect the Router to the Internet, please check the following items:

- 1) Use the troubleshooting suggestions within Belkin Setup.**
- 2) If your ISP requires a user name and password, make sure that you have typed in your user name and password correctly. Some user names require that the ISP's domain may be at the end of the name. Example: "myname@myisp.com". The "@myisp.com" part of the user name may need to be typed as well as your user name.**
- 3) If you continue to have no Internet connection, refer to "Manually Configuring Network Settings" in this manual for an alternative setup method.**

Belkin Setup completed installation, but I cannot browse the Web. The light on the front of my Router is blinking amber.

- 1) Make sure the Router is connected to your modem with an Ethernet cable via the Router's one WAN (modem) port.**
- 2) Unplug the modem from its power source and make sure that it goes dark. Then reapply power to the modem.**
- 3) Unplug your Router's power supply, wait 10 seconds, and plug it back in. This will cause the Router to try to reestablish communication with the modem.**

Belkin Setup completed installation, but I cannot browse the Web. The light on the front of my Router is solid amber.

- 1) Use the troubleshooting suggestions within Belkin Setup.**
- 2) If your ISP requires a user name and password, make sure that you have typed in your user name and password correctly. Some user names require that the ISP's domain may be at the end of the name. Example: "myname@myisp.com". The "@myisp.com" part of the user name may need to be typed as well as your user name.**
- 3) If you have a static connection, your ISP will have assigned you an IP address, subnet mask, and gateway address. Please re-run Belkin Setup and enter this information when a static connection is mentioned.**

- 4) You may need to configure your Router to meet the specific requirements of your ISP. To search our knowledge base for ISP-specific issues, go to: <http://www.belkin.com/support> and type in "ISP".
- 5) If you continue to have no Internet connection, refer to "Manually Configuring Network Settings" in this manual for an alternative setup method.

I can't connect to the Internet wirelessly.

If the light on the front of the Router is solid blue, then your Router is connected to the Internet. You may not be connected to the Router's wireless network. Please refer to "Adding Computers to Your Network" in this manual for instructions.

If your Windows XP computer is running SP2, you will not be able to set up the Router via the wireless setup process. You will need to either update to Windows XP SP3 or complete the setup via a wired connection.

I can't connect to the Internet wirelessly and my network name is not listed in Available Networks.

- 1) Verify that your Router is on and the front-panel light shows solid blue.
- 2) If you are far from the Router, you might try moving closer to see if you might have been out of range.
- 3) Using a computer attached to the Router via a network cable, visit <http://router/> and ensure that "Broadcast SSID" is ON. This setting is found on the "Channel and SSID" page.

My wireless network performance is slow, inconsistent, suffers from weak signal, or I'm having difficulty maintaining a VPN connection.

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. Note also that connection speed may decrease as you move farther away from the Router.

In order to determine if wireless issues are related to range, we suggest temporarily moving the computer within 10 feet from the Router if possible.

Changing the wireless channel—Depending on local wireless traffic and interference, switching the wireless channel of your network can improve performance and reliability. See the section titled "Changing the Wireless Channel" for instructions on how to choose other channels.

Limiting the wireless transmit rate—Limiting the wireless transmit rate can help improve range and connection stability. Most wireless cards have the ability to limit the transmission rate. To change this property in Windows, go to the Windows Control Panel, open "Network Connections", and double-click on your wireless card's connection. In the properties dialog, select the "Configure" button on the "General" tab, then choose the "Advanced" tab and select the rate property.

Wireless client cards are usually set to automatically adjust the wireless transmit rate for you, but doing so can cause periodic disconnects when the wireless signal is too weak; as a rule, slower transmission rates are more stable. Experiment with different connection rates until you find the best one for your environment. Note that all available transmission rates should be acceptable for browsing the Internet. For more assistance, see your wireless card's user manual.

I've installed this new Router and some of my network clients (computers, game consoles, etc.) are now unable to connect.

Your new Router came pre-configured with a network name and password, found printed on an attached card. All clients must use this network name and password to connect wirelessly to your Router. You will need to find the network settings on your client, select the network name printed on the card from the list of available networks, and enter the password when prompted to join the wireless network.

Does the Router support Wireless Protected Access (WPA) security?

The Router ships with WPA/WPA2 security turned on. Windows XP and some older network hardware may require a software update to support WPA/WPA2.

I am having difficulty setting up WPA security on my Router.

- 1) Log in to your Router by visiting <http://router/> with your web browser. Click on the "Login" button in the top right-hand corner of the screen. You will be asked to enter your password. If you have never set a password, leave the "Password" field blank and click "Submit".**
- 2) Click "Wireless" in the left-hand menu. Then click "Security" just below that.**
- 3) Select the "WPA/WPA2" option.**

- 4) Enter a password. This can be from 8–63 characters of your choice, including spaces and punctuation, OR a 64-digit hexadecimal number (using only the numbers 0–9 and letters A–F).
- 5) Click “Apply Changes” to finish. Your wireless connection is now encrypted. Each computer using your wireless network will need to use the new key.

Note: If you are configuring the Router over a wireless connection, you will have to re-connect to the Router after changing any security settings.

Note: Some older networking hardware supports only WEP encryption. If your older computers cannot connect to your network, try 128-bit or 64-bit WEP, or seek software updates from their manufacturers.

I am having difficulty setting up Wired Equivalent Privacy (WEP) security on my Router.

- 1) Log in to your Router. Visit <http://router/> with your web browser. Click on the “Login” button in the top right-hand corner of the screen. You will be asked to enter your password. If you have never set a password, leave the “Password” field blank and click “Submit”.
- 2) Click “Wireless” in the left-hand menu. Then click “Security” just below that.
- 3) Select the “128-bit WEP” option.
- 4) You may type in a WEP key manually, or generate one from a passphrase. Type a phrase in the “Passphrase” field and click the “Generate” button. A WEP key is composed of 26 hexadecimal digits (0–9, A–F). For example, C3 03 0F AF 4B B2 C3 D4 4B C3 D4 EE 74 is a valid 128-bit WEP key.
- 5) Click “Apply Changes” to finish. Your wireless activity is now encrypted. Each computer using your wireless network will need to use the new key.

Note: If you are configuring the Router over a wireless connection, you will have to re-connect to the Router after changing any security settings.

Note: Some older networking hardware supports only 64-bit WEP encryption. If your older computers cannot connect to your network, try 64-bit WEP.

Technical Support

US

<http://www.belkin.com/support>

UK

<http://www.belkin.com/uk/support>

Australia

<http://www.belkin.com/au/support>

New Zealand

<http://www.belkin.com/au/support>

Singapore

1800 622 1130

Europe

<http://www.belkin.com/uk/support>

Belkin International, Inc., Limited 2-Year Product Warranty

What this warranty covers.

Belkin International, Inc. ("Belkin") warrants to the original purchaser of this Belkin product that the product shall be free of defects in design, assembly, material, or workmanship.

What the period of coverage is.

Belkin warrants the Belkin product for two years.

What will we do to correct problems?

Product Warranty.

Belkin will repair or replace, at its option, any defective product free of charge (except for shipping charges for the product). Belkin reserves the right to discontinue any of its products without notice, and disclaims any limited warranty to repair or replace any such discontinued products. In the event that Belkin is unable to repair or replace the product (for example, because it has been discontinued), Belkin will offer either a refund or a credit toward the purchase of another product from Belkin.com in an amount equal to the purchase price of the product as evidenced on the original purchase receipt as discounted by its natural use.

What is not covered by this warranty?

All above warranties are null and void if the Belkin product is not provided to Belkin for inspection upon Belkin's request at the sole expense of the purchaser, or if Belkin determines that the Belkin product has been improperly installed, altered in any way, or tampered with. The Belkin Product Warranty does not protect against acts of God such as flood, lightning, 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 Belkin product you must take the following steps:

1. Contact Belkin International, Inc., at 12045 E. Waterfront Drive, Playa Vista, CA 90094, 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 Belkin product.
 - b. Where you purchased the product.
 - c. When you purchased the product.
 - d. Copy of original receipt.
2. Your Belkin Customer Service Representative will then instruct you on how to forward your receipt and Belkin product and how to proceed with your claim.

Belkin reserves the right to review the damaged Belkin product. All costs of shipping the Belkin product to Belkin for inspection shall be borne solely by the purchaser. If Belkin determines, in its sole discretion, that it is impractical to ship the damaged equipment to Belkin, Belkin 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, Belkin 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 BELKIN. 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 BELKIN 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 BELKIN 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.

***Regulatory Information**

FCC Statement:

Federal Communication Commission Interference Statement

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

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

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

This device is going to be operated in 5.15~5.25GHz frequency range, it is restricted in indoor environment only.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

IC Statement

This Class B digital apparatus complies with Canadian ICES-003.

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

This device complies with Industry Canada license-exempt RSS standard(s). 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

Le dispositif pourrait automatiquement cesser d'émettre en cas d'absence d'informations à transmettre, ou une défaillance opérationnelle. Notez que ce n'est pas l'intention d'interdire la transmission des informations de contrôle ou de signalisation ou l'utilisation de codes répétitifs lorsque requis par la technologie.

The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

The maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

IMPORTANT NOTE:**IC Radiation Exposure Statement:**

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

CE Statement**Europe**

European Union Radio products with the CE or CE alert marking comply with the R&TTE Directive (1999/5/EC) issued by the Commission of the European Community.

Compliance with this directive implies conformity to the following European Norms (in brackets are the equivalent international standards).

- EN 60950-1:2006 (IEC60950-1) – Product Safety
- EN 300 328 Technical requirement for radio equipment
- ETS 301 489 General EMC requirements for radio equipment.

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the (R&TTE) Radio and Telecommunications Terminal Equipment Directive 1999/5/EC, (EMC) Electromagnetic compatibility Directive 2004/108/EC, and the (LVD) Low Voltage Directive 2006/95/EC. A copy of the European union CE marking “Declaration of Conformity” may be obtained at the website: www.belkin.com/doc.

Information

Products with the CE marking comply with the EMC Directive (2004/108/EC) and the Low Voltage Directive (2006/95/EC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Product Family Standards.

- EN 55022 (CISPR 22) – Electromagnetic Interference
- EN 55024-1 – Electromagnetic Immunity
- EN 61000-3-2 (IEC610000-3-2) – Power Line Harmonics
- EN 61000-3-3 (IEC610000) – Power Line Flicker
- EN 60950-1 (IEC60950-1) – Product Safety

Products that contain the radio transmitter are sometimes labeled with the Notified Body number (CE0560) or CE alert marking if the standard used in the conformity is not harmonized across the European Community.

***Back cover**

<NEW BELKIN FONTS>

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