



WIRELESS AC+ GIGABIT ROUTER

AC1600 DB

USER MANUAL

F9K1119 • 8860-00004 Rev. A01

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GETTING STARTED

What's in the Box

AC1600 DB Wi-Fi AC+ Gigabit Router

Ethernet cable (attached to router)

Power supply (attached to router)

Network information card (attached to router)

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

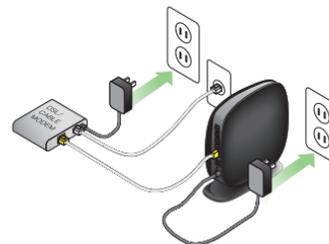
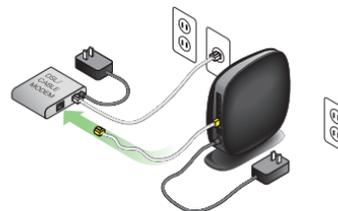
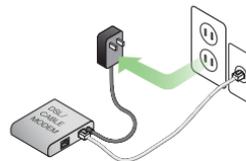
Connect Your AC1600 DB Router

Turn off your modem by disconnecting its power supply. Some modems have a battery backup; this will need to be disconnected at this time as well.

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

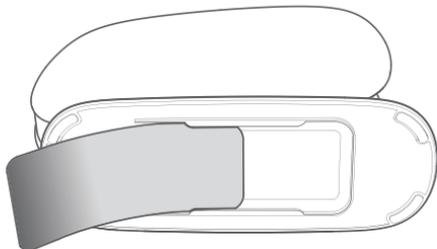
Power up your modem by plugging in its power supply. If your modem has a battery backup, it can be reconnected at this time; you may need to hold the reset button for 10 seconds.

Power up your Router by plugging in its power supply.



Connect to Your Router

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



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.

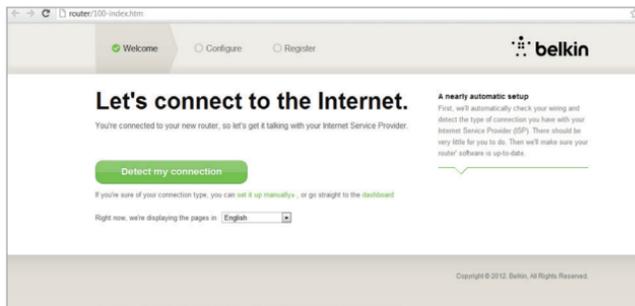
For information on how to connect your wireless devices, please see the "Connect Your Wireless Devices" section on page 20.



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

When your device has connected to the Router, use a browser to visit <http://router/>. The router homepage will appear.

GETTING STARTED

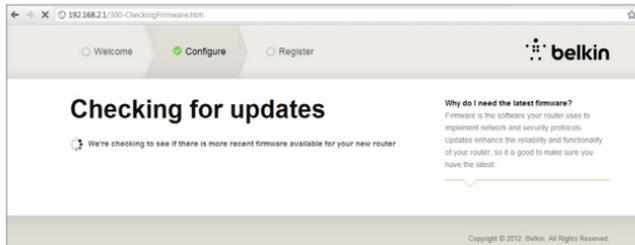


If the page does not load, then try visiting <http://192.168.2.1> to see the router homepage.

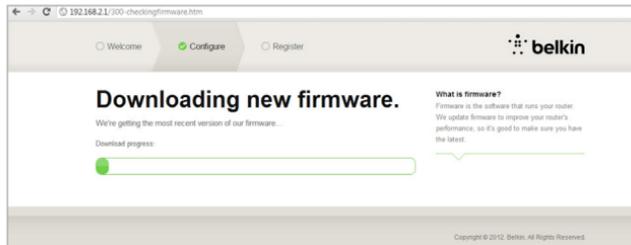
Click the “Detect my connection” button in green. (If you would rather set up the Router manually, click the “set it up manually” link and proceed to page 10.)

After several moments, your Router should automatically detect your Internet connection and restart. This can take anywhere from 30 seconds to 3 minutes depending on your connection type.

If your Router is unable to establish an Internet connection on its own, you may be asked to restart your modem or provide a username and password if your connection requires one. Follow the on-screen instructions provided.



Once your Router is online, it will determine if there is a firmware update available and offer to install it. Please allow up to 5 minutes for the firmware to update.



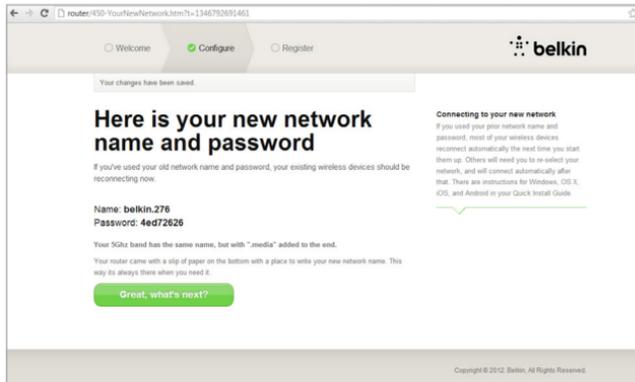
If there are no updates available, then setup will proceed.

The screenshot shows a web browser window at the address 192.168.2.1/400-ChangeSSID.htm. The page has a navigation bar with 'Welcome', 'Configure' (highlighted with a green checkmark), and 'Register'. The Belkin logo is in the top right. The main heading is 'Get everything connected quicker.' Below it, a paragraph explains that using the same network name and password as the old router helps devices connect. There are three input fields: 'Network Name' (containing 'belkin.303'), 'Password' (containing '6ed22096'), and 'Security Type' (a dropdown menu with 'WPA2' selected). A note below the security type says 'Your 802.11n band will have the same name, but with "media" added to the end. You can change this later if you like.' A green 'Save and Continue' button is at the bottom left. A 'Why should I rename?' section on the right explains that unique network names are easier to find and remember, and that using the same name and password on a new router might cause confusion for devices that haven't updated their settings. The footer contains the text 'Copyright © 2012, Belkin. All Rights Reserved.'

At the next screen you will be invited to change your network name and password. Re-using your previous network name (SSID) and password makes connecting your existing devices to the new router much easier.

If you decide to change these settings, then enter the new values and click "Save and Continue." (Note: The password must be at least 8 characters long.)

If you changed your network name and password, make note of it on the service card located on the foot of the Router. You will then have to connect to the new network.



router/450-YourNewNetwork.htm?i=1346792691461

Welcome **Configure** Register

Your changes have been saved.

Here is your new network name and password

If you've used your old network name and password, your existing wireless devices should be reconnecting now.

Name: belkin.276
Password: 4e072626

Your 5GHz band has the same name, but with "media" added to the end.

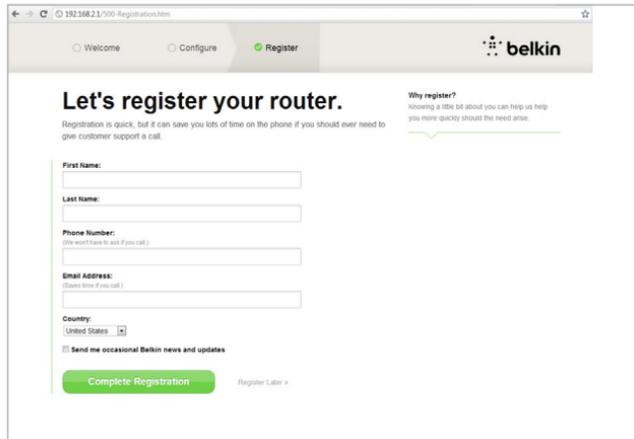
Your router came with a slip of paper on the bottom with a place to enter your new network name. This way it's always there when you need it.

Great, what's next?

Connecting to your new network
If you used your prior network name and password, most of your wireless devices reconnect automatically the next time you start them up. Others will need you to re-configure your network, and will connect automatically after that. There are instructions for Windows, OS X, iOS, and Android in your Quick Install Guide.

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Please take this opportunity to register your Router. This will help technical support if there is a problem with your Router.



192.168.2.1/100-Registration.htm

Welcome **Configure** **Register**

Let's register your router.

Registration is quick, but it can save you lots of time on the phone if you should ever need to give customer support a call.

Why register?
Knowing a little bit about you can help us help you more quickly should the need arise.

First Name:

Last Name:

Phone Number:
(We won't make a call if you call.)

Email Address:
(Select one if you call.)

Country:
United States

Send me occasional Belkin news and updates

Complete Registration Register Later >

Simply complete each of the required fields and click "Complete Registration." If you don't want to register right now, click "Register Later" to proceed.

Optional Software

Get the most out of your router.

**Belkin MediaPlay**

Your router ships with Belkin MediaPlay powered by Tivoli. Download this app to play media on your phone or tablet directly from your router.

Mobile

**Belkin USB Print and Storage Center**

Take better advantage of your router's USB ports. This app allows you to share printers and storage devices between all of your Windows and OS X computers.

Desktop

 Windows
Windows 7 or earlier

 OS X
OS X 10.8 or earlier

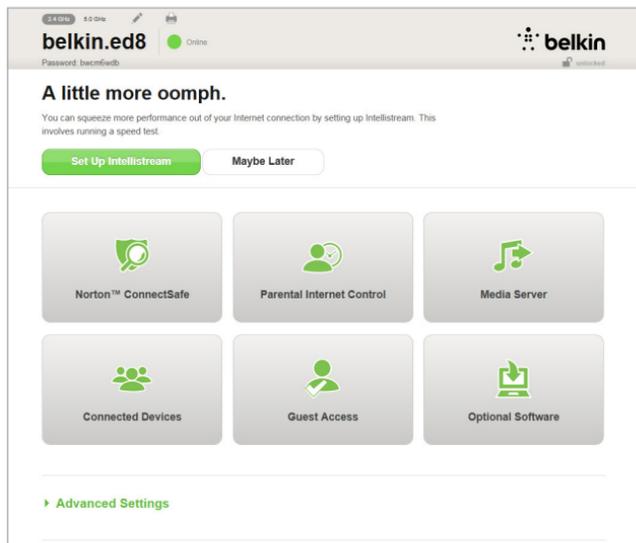
**Device Manual**

[Download the manual for your device.](#)

To download these software apps for your other computers and mobile devices, visit this [Optional Software](#) page from those devices.

At the next screen you can download optional software that was bundled with your Router.

This screen shows you optional software that is available for your Router, such as the USB software to allow you to print through the Router's USB port. If you wish to download and install any of these software programs, simply click on the button appropriate for your device.



When finished installing optional software, click “Thanks, take me to the dashboard.”

Congratulations! You are now at your Router's dashboard. Your Router is set up and ready to use.

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.

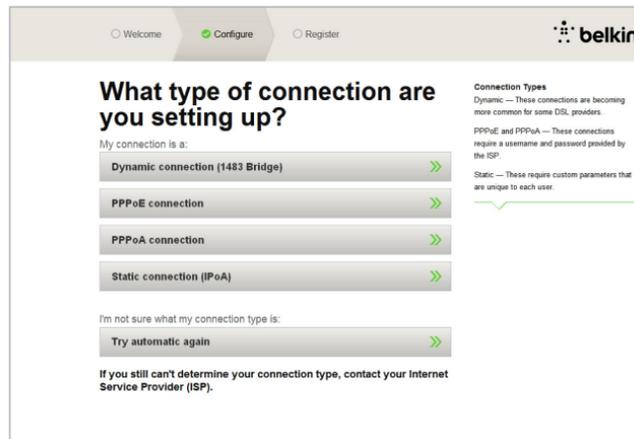
The WPS light (small light above WPS button) will blink blue while it listens for your Wi-Fi device. Once a connection is established, the light will turn blue and then go out. If a connection is not established, the light will blink amber. You may repeat the process to try again.

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

Manually Set Up Your Internet Connection

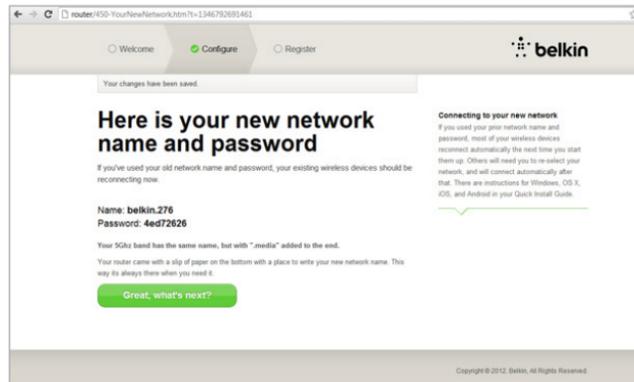
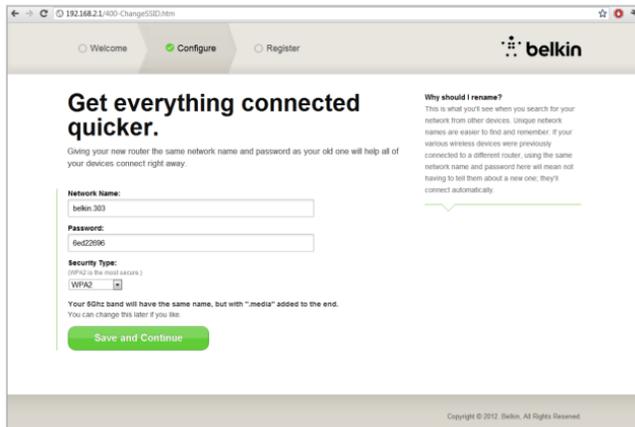
Use a browser to visit <http://router/>. You can also try visiting <http://192.168.2.1/>. The Router's Welcome page should appear.

Click the "Set it up manually" link. Please select the type of connection your ISP provides. Refer to page 16 for a description of the connection types.



If the selected connection type requires additional information (such as an ISP username and password), the system will ask you for it.

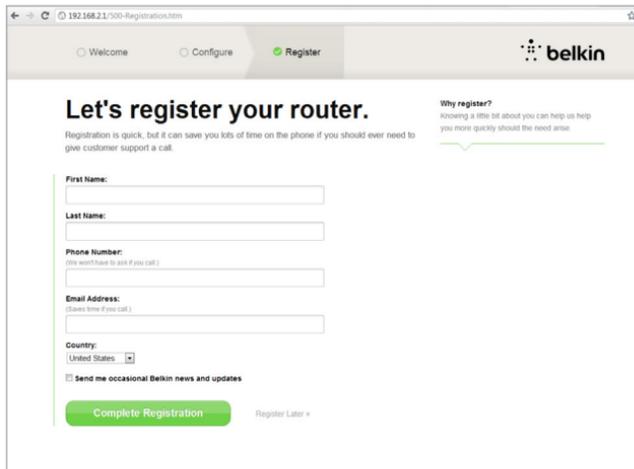
At the next screen you will be invited to change your network name and password. Reusing your previous network name (SSID) and password makes connecting your existing devices to the new router much easier.



Click "Great, what's next?"

If you decide to change these settings, then enter the new values and click "Save and Continue." (Note: The password must be at least 8 characters long.)

If you changed your network name and password, make note of it on the service card located on the foot of the Router. You will then have to connect to the new network. Please refer to page 20 to do this.



The screenshot shows a web browser window with the address bar displaying "192.168.2.1/500-Registration.htm". The page has a navigation bar with three tabs: "Welcome", "Configure", and "Register" (which is active and highlighted in green). The Belkin logo is in the top right corner. The main heading is "Let's register your router." Below this, a sub-heading reads "Registration is quick, but it can save you lots of time on the phone if you should ever need to give customer support a call." To the right, a section titled "Why register?" explains that providing a little information can help support teams respond more quickly. The registration form includes fields for "First Name", "Last Name", "Phone Number" (with a note "We won't have to ask if you call."), "Email Address" (with a note "We won't have to ask if you call."), and "Country" (a dropdown menu currently set to "United States"). There is a checkbox for "Send me occasional Belkin news and updates" which is checked. At the bottom of the form are two buttons: a green "Complete Registration" button and a "Register Later" link.

Please take this opportunity to register your Router. This will help technical support if there is a problem with your Router.

Simply complete each of the required fields and click "Complete Registration." If you don't want to register right now, click "Register Later" to proceed.

At the next screen you can download optional software that was bundled with your Router.

Optional Software

Get the most out of your router.

**Belkin MediaPlay**

Your router ships with Belkin MediaPlay powered by Tivoli. Download this app to play media on your phone or tablet directly from your router.

Mobile

**Belkin USB Print and Storage Center**

Take better advantage of your router's USB ports. This app allows you to share printers and storage devices between all of your Windows and OS X computers.

Desktop

 Windows
Windows 3 or earlier

 OS X
OS X 10.8 or earlier

**Device Manual**

[Download the manual for your device.](#)

To download these software apps for your other computers and mobile devices, visit this [Optional Software page](#) from those devices.

This screen shows you optional software that is available for your Router, such as the USB software to allow you to print through the Router's USB port. If you wish to download and install any of these software programs, simply click on the button appropriate for your device.

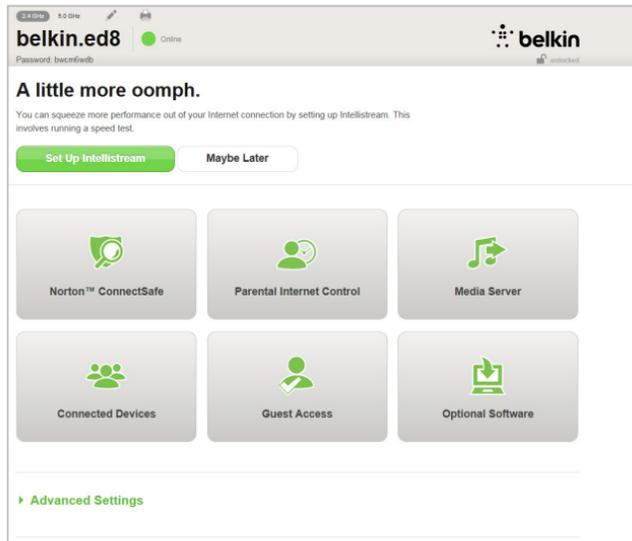
When finished installing optional software, click "Thanks, take me to the dashboard."

GETTING STARTED

Congratulations! You are now at your Router's dashboard. Your Router is now set up and ready to use.

The status of your Internet connection is shown in the upper left corner of the Router's homepage.

If it does not say "Online," troubleshooting information will be displayed.



GETTING STARTED

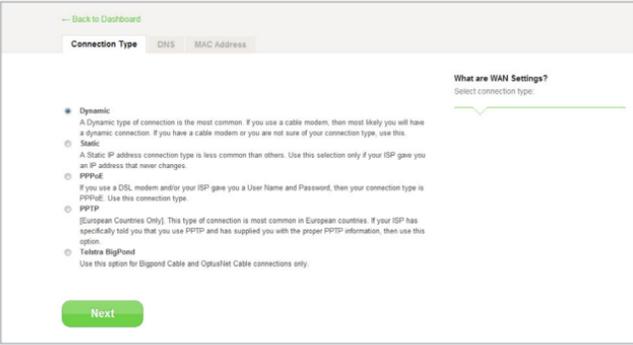
| | | | |
|---|--|---|---|
| ▼ Advanced Settings | | | |
| LAN Settings | WAN Settings | IPv6 | WiFi |
| Local Network Settings Connected Devices | ISP Connection Type DNS MAC Address | IPv6 Connection | Network Name Security Wi-Fi Protected Setup Guest Access Use as an Access Point |
| Parental Controls | Media | Firewall | Utilities |
| Website Filter | Instantstream Traffic Chart Media Server | Firewall Port Forwarding MAC Address Filtering DMZ DNS WAN Ping Blocking Security Log | Reboot Router Restore Factory Defaults Save/Backup Settings Restore Previous Settings Firmware Update System Settings Self-Healing Optional Software |

Manually Configuring Your Router's Internet from the Dashboard

To set up your ISP connection manually, select “ISP Connection Type” from the list under the header “WAN Settings.”

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."

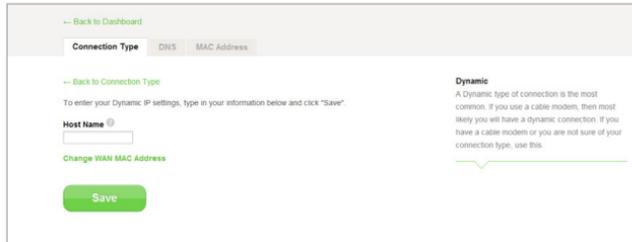


The screenshot shows a web-based configuration interface. At the top left, there is a link that says "-- Back to Dashboard". Below this, there are three tabs: "Connection Type" (which is selected), "DNS", and "MAC Address". The main content area contains a list of radio button options for connection types:

- 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.
- PPPoP**
(European Countries Only) This type of connection is most common in European countries. If your ISP has specifically told you that you use PPPoP and has supplied you with the proper PPPoP information, then use this option.
- Telstra BigFiber**
Use this option for Bigpond Cable and OptusNet Cable connections only.

At the bottom left of the form is a green button labeled "Next". On the right side of the form, there is a section titled "What are WAN Settings?" with the instruction "Select connection type" and a green arrow pointing downwards.

GETTING STARTED



← Back to Dashboard

Connection Type DNS MAC Address

← Back to Connection Type

To enter your Dynamic IP settings, type in your information below and click "Save".

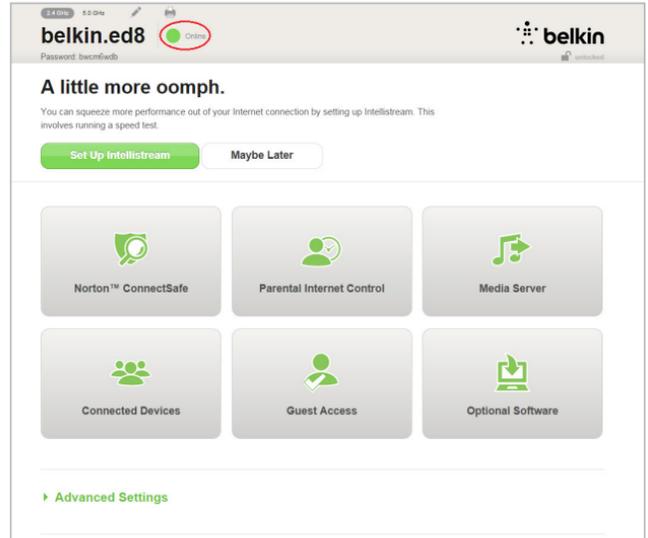
Host Name

Change WAN MAC Address

Save

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.

A host name is generally not required. Hit "Save." The Router will restart.



belkin.ed8 Online belkin

Password: bccmf1ad5

A little more oomph.

You can squeeze more performance out of your Internet connection by setting up Intellistream. This involves running a speed test.

Set Up Intellistream Maybe Later

- Norton™ ConnectSafe
- Parental Internet Control
- Media Server
- Connected Devices
- Guest Access
- Optional Software

▶ Advanced Settings

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

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

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

GETTING STARTED

The screenshot shows a web-based configuration interface. At the top left, there is a link that says "← Back to Dashboard". Below this, there are three tabs: "Connection Type" (which is active), "DNS", and "MAC Address". On the right side, there is a section titled "What are WAN Settings?" with the instruction "Select connection type". A green line is drawn under this section. On the left side, there is a list of radio button options for connection types:

- 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.
- PPTP
[European Countries Only] This type of connection is most common in European countries. If your ISP has specifically told you that you use PPTP and has supplied you with the proper PPTP information, then use this option.
- Telstra BigPond
Use this option for Bigpond Cable and OptusNet Cable connections only.

At the bottom left, there is a green button with the text "Next".

PPPoE Connection

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

GETTING STARTED

← Back to Dashboard

Connection Type DNS MAC Address

← Back to Connection Type

To enter your PPPoE settings, type in your information below and click "Save".

User Name

Password

Retype Password

Service Name (Optional)

IP assigned by ISP
 Yes No

MTU (800-1800)

Disconnect after

minutes of no activity

[Save](#)

PPPoE Settings
To set the router to use PPPoE, type in the user name and password from your ISP in the spaces provided. If you do not have a service name or do not know it, leave the "Service Name" field blank. After you have typed in your information, click "Save". After you save, the status indicator will read "Online" if your router is set up properly.

Enter the username and password supplied by your Internet provider and click "Save." Ignore the other fields unless required by your ISP. The Router will restart.

2.4 GHz 5.0 GHz Online

belkin.ed8 Password: belkinfwb

belkin

A little more oomph.
You can squeeze more performance out of your Internet connection by setting up Intellistream. This involves running a speed test.

[Set Up Intellistream](#) [Maybe Later](#)

Norton™ ConnectSafe Parental Internet Control Media Server

Connected Devices Guest Access Optional Software

[Advanced Settings](#)

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

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

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

Adding USB Devices



Adding a Drive

You can share a USB hard drive or flash drive to your network via your Router's USB port. Once connected, you can share files and music with other computers and devices within your network.

Plug your USB hard drive into the USB port on the back of your Router.

You can manually check the status of your shared drive by visiting the USB Print and Storage Manager. If you have difficulty sharing a drive on your network, please see the "Troubleshooting" section of this manual.

A few USB hard disks require more power than the Router's USB port provides. In these cases, you may notice the drive failing to come on or remaining on for a short time. If your disk has an optional power supply, please use it while the disk is attached to your Router.

Adding a Printer

You can add a printer to your network via your Router's USB port. Once connected, you can print from various computers and wireless devices within your network.

Plug your printer's USB cable into the USB port located on the back of your Router.

You can manually check the status of your printer by visiting the USB Print and Storage Manager, found under the Belkin icon displayed in your system tray (Windows) or menu bar (Mac). If you have difficulty sharing a printer on your network, please see the "Troubleshooting" section of this manual.

Note: Each computer that will use the printer must have both the Belkin software and the printer's driver installed. If the print driver is not installed, you will be asked to install it by the Belkin USB Print and Storage Manager.

Adding Other USB Devices

Other USB devices may also be shared via your Router. Plug your device into the USB port located on the back of your Router.

Computers running the Belkin USB Print and Storage Manager will be able to make use of the shared device.

Optional Software

USB Print and Storage Center

The USB Print and Storage Center helps to manage and monitor the use of your USB printers, scanners, hard drives, and other devices that are connected to your Router's USB port and shared across your network.

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.

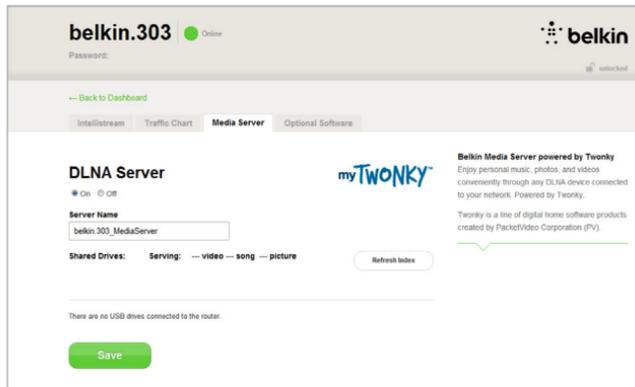
Media Server by myTwonky

Media Server by myTwonky lets your Router stream music, movies, and photos to different DLNA/UPnP devices on your network.

In order to use Media Server by myTwonky, you will need to insert a USB storage device with media content into a free USB port on the back of your Router. Your Router will begin to make your content available to other devices on your network automatically.

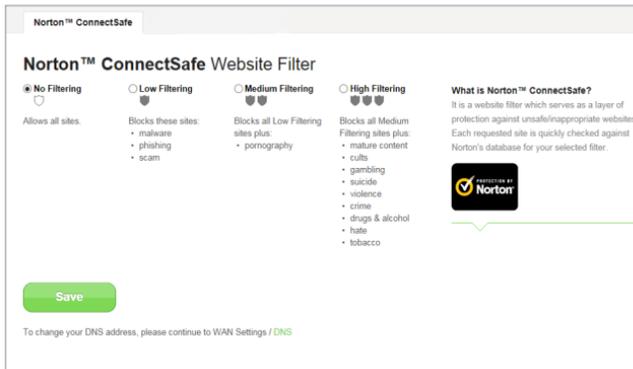
If you want to configure Media Server by myTwonky, visit <http://router/> and choose “Media Server.”

There are several settings in the configuration page:



- DLNA Server:** Enables or disables your media server
- Server Name:** The name under which other devices will see your content
- Refresh:** Re-scans your USB storage devices for media content
- Shared Drives:** Shows information about and status of each of your attached drives. You can see the name of the drive, its capacity, and whether media is being served from it or not.

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



Website Filters. Powered by Norton

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

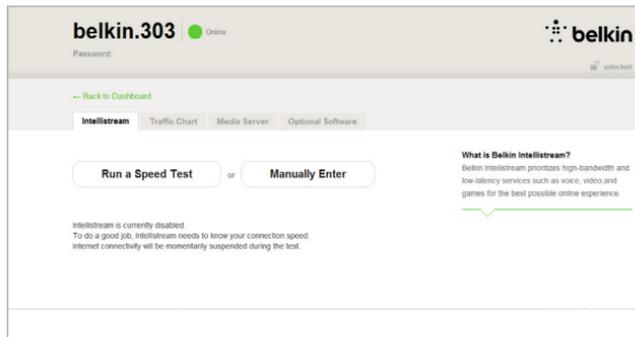
There are four different filtering options:

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 a site should be added to the filtering list, 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 computer, tablet, or smartphone.



Intellistream QoS

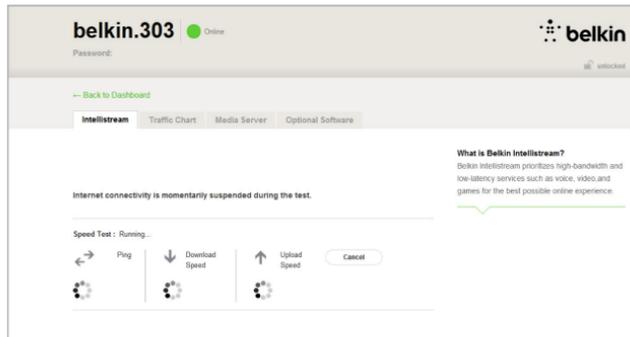
Intellistream prioritizes video and gaming traffic for a better online entertainment experience.

There are two ways to enable Intellistream:

Run a Speed Test:

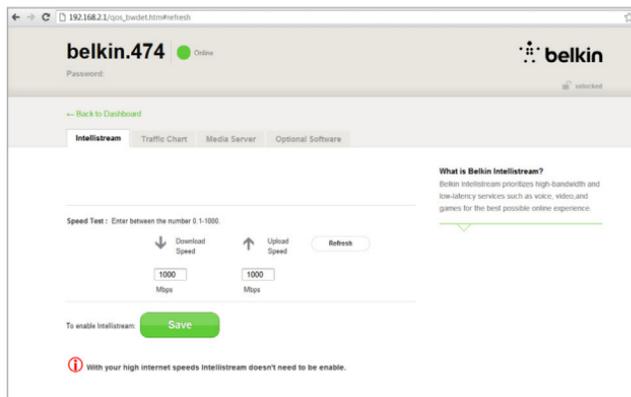
In order for Intellistream to provide you the best media experience, your Router needs to know what your approximate Internet speeds are.

Click "Run a Speed Test" and the test will begin.



Once complete you will see the results.

ADDITIONAL CAPABILITIES



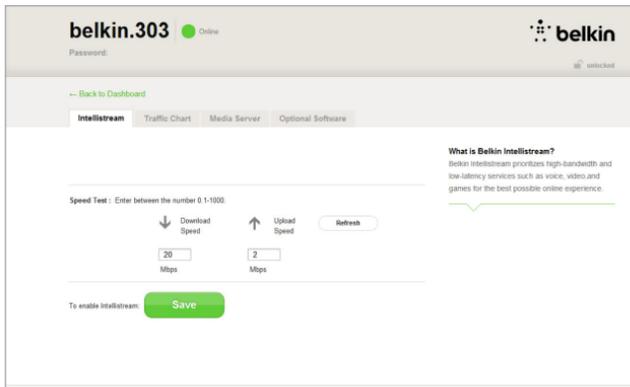
If your Internet speed is greater than 70Mbps when downloading, Intellistream QoS will only improve your uploading experience.

Refresh – This will retest your Internet speed.

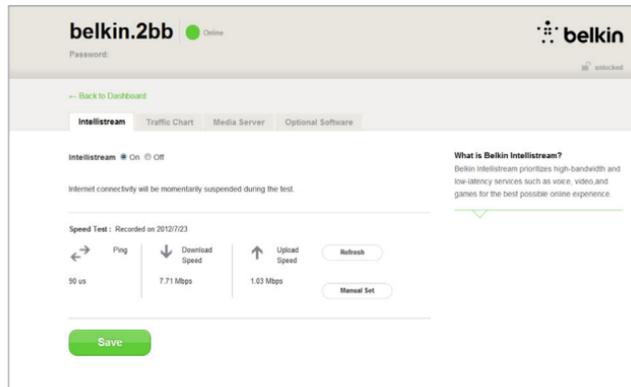
When you click “Save,” your Router will save your changes.

ADDITIONAL CAPABILITIES

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



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

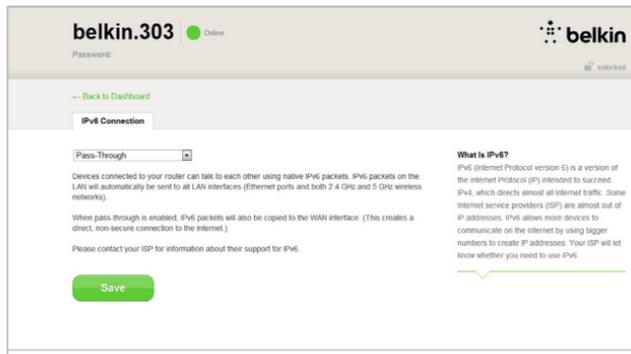


IntelliStream is now enabled.

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.

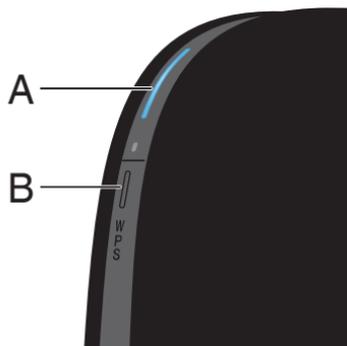


Pass-Through

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



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 WPS, refer to page 9.

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

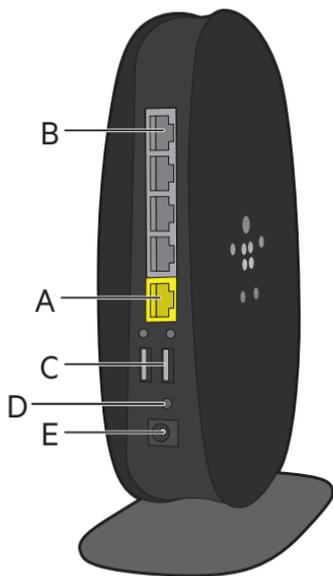
Off: Idle

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



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) USB Port

USB printers, disks, and other USB devices plugged into this port will be shared on your network. Each USB port has a light that indicates its status.

Off: No USB device is connected or the attached USB device is not in use.

Blinking: Please wait to unplug the device until the light turns off.

On: The USB device is connected and being shared on your network.

D) 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.

E) Power Connector

Connect the included power supply to this jack.

TECHNICAL DETAILS

Technical Features

Integrated 802.11AC Wireless Access Point

Utilizing Dual-Band Network technology, your Router creates two separate networks (one at 2.4GHz band and the other at 5GHz band), 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.

Universal Plug-and-Play (UPnP) Compatibility

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

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.

Integrated 4-Port Gigabit Switch

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

USB Port

The USB port lets you plug in printers, hard drives, and other USB devices to share across your network.

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

A computer running Internet Explorer® 8 or higher, Firefox®, Google Chrome™, or Safari®

Minimum 1GHz processor and 512MB RAM

Or a smart device running iOS or Android operating systems

USB Print and Storage Manager

Windows XP SP3 or higher, Windows Vista, or Windows 7; or Mac OS X v10.5 or above

Minimum 1GHz processor and 512MB RAM

50MB of free hard-drive space for installation

Auto Update on Your Belkin Router

The Router will automatically check for a newer version of firmware every time you log into the dashboard and alert you with a message at the top of the screen if there is an update available. You can choose to download the new version or ignore it.

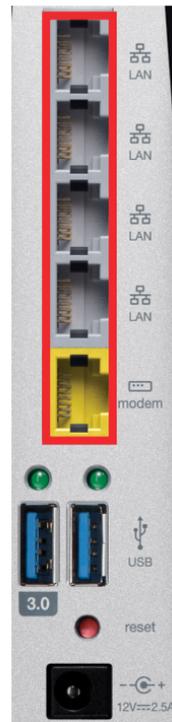
You will see a series of prompts warning you that the firmware is about to be updated. Please do not disconnect the power from the Router at this time as it could cause the system to fail.

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.

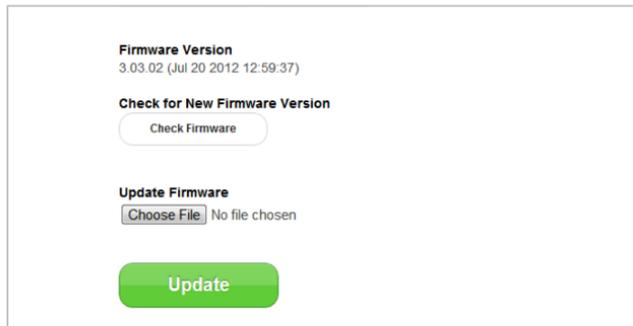
Setup steps:

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 (refer to image).
4. Open a web browser on the computer.
5. In the address bar of the web browser, type "http://router" or "http://192.168.2.1" and press "Enter" on your keyboard.



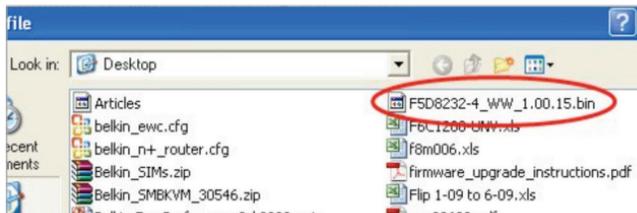


6. Click on “Firmware Update” toward the bottom.

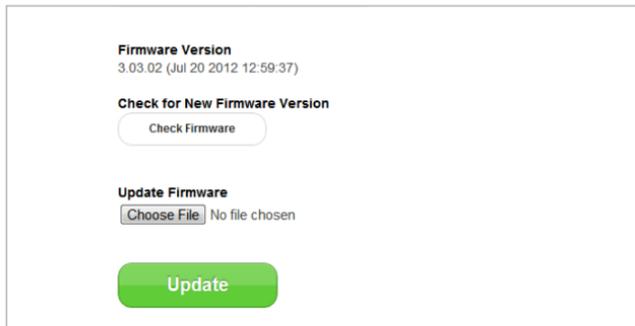


7. Click the “Choose File” button toward the middle of the screen to search for the file you saved previously.

Note: The firmware version in the image above is depicted as an example. Your file name will vary depending on your model and version.



8. 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.



9. Click the “Update” button.
10. A prompt asking, “Are you sure you want to continue with upgrading?” will appear. Click “OK”.
11. 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 5 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

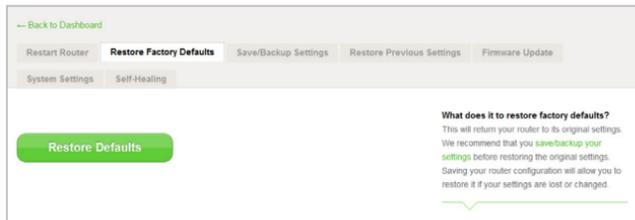
You need to restore the factory defaults using the web interface. This may be because the Router is not performing as expected or you wish to remove all previously configured settings.

Setup steps

1. Open a web browser on the computer.
2. In the address bar of the web browser, type “http://router” or “http://192.168.2.1”.



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



4. Click on the "Restore Defaults" button.



5. A warning box will open that says, "Warning: All your settings will be lost. Are you sure you want to do this?" Click "OK".
6. 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 been successfully restored to its factory settings.

Troubleshooting

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 "Connect Your Wireless Devices" on page 20 of 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/” or “http://192.168.2.1” with your web browser. Click “Security” under the WiFi heading. You should now be on the Security page.
2. Under Security Mode, select WPA/WPA2-Personal (PSK).
3. Select “WPA/WPA2” from the drop-down menu under the Authentication heading.
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 “Save” 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/" or "http://192.168.2.1" with your web browser. Click "Security" under the WiFi heading. You should now be on the Security page.
2. Under Security Mode, select the "128-bit WEP" option.
3. 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.
4. Click "Save" 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.

A disk I plugged into the USB port is not showing up on my computer.

1. Try unplugging and re-plugging the disk. Please check that the USB connector is firmly plugged into the Router.
2. If your disk has an optional power supply, please use it while the disk is attached to your Router.
3. The Router supports FAT16, FAT32-, or NTFS-formatted disks. Disks in other formats will not appear in the Finder (Mac OS X) or Windows Internet Explorer*.

A disk I plugged into the USB port is not coming on or remains on only for a short time.

Some drives require more power than the Router's USB port provides. If your disk has an optional power supply, please use it while the disk is attached to your Router.

A printer I plugged into the USB port is not showing up on my computer.

1. Try unplugging and re-plugging the printer. Please check that the USB connector is firmly plugged into the Router.
2. To print to a printer attached to the Router, your computer must have that printer's driver installed. Please check that the driver is installed.
3. The printer may not be set to auto-connect. Open the USB Print and Storage Center. Check that the printer appears in the list of available devices. View the properties of the printer, and check that "auto-connect" is selected.

A different sort of USB device that I plugged into the USB port is not showing up on my computer.

Most USB devices other than disks and printers must be accessed via the USB Print and Storage Center.

1. Try unplugging and re-plugging the device. Please check that the USB connector is firmly plugged into the Router.
2. Open the USB Print and Storage Center. Check that the device appears in the list of available devices.
3. Select the device and click the "Use" button. The device will be virtually connected to your computer until you choose to "Stop Using" the device, or another person requests use of the device.

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.

FCC Statement

DECLARATION OF CONFORMITY WITH FCC RULES FOR ELECTROMAGNETIC COMPATIBILITY

We, Belkin International, Inc., of 12045 E. Waterfront Drive, Playa Vista, CA 90094, declare under our sole responsibility that the device, **F9K1119 V1**, 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.

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy, 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 and correct the interference by one or more of the following measures:

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

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

IMPORTANT NOTICE:

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 a minimum distance of 20cm between the radiator and your body.

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

belkin.com

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