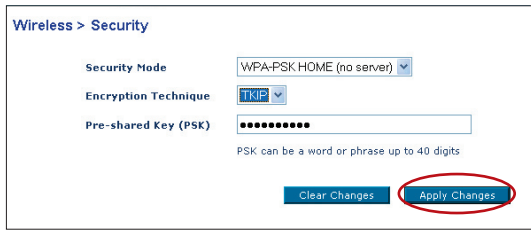
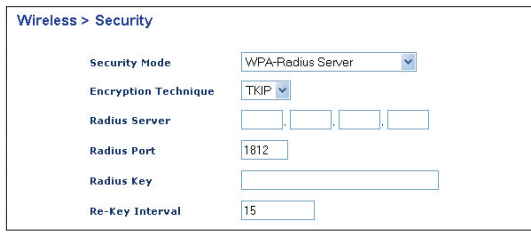
4. Click “Apply Changes” to finish. You must now set all clients to match these settings.



Setting WPA (with radius server) Settings

If your network uses a radius server to distribute keys to the clients, use this setting.

1. From the “Security Mode” drop-down menu, select “WPA—Radius Server”.
2. For Encryption Technique, select “TKIP” or “AES”. This setting will have to be identical on the clients that you set up.
3. Enter the IP address of the radius server into the “Radius Server” fields.
4. Enter the radius key into the “Radius Key” field.
5. Enter the key interval. Key interval is how often the keys are distributed (in packets).
6. Click “Apply Changes” to finish. You must now set all clients to match these settings.



Configuring your Belkin Wireless G Network Cards to Use Security

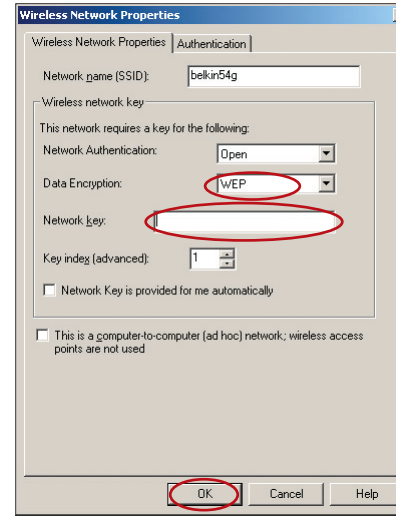
Please Note: This section is to provide you with the information on how to configure your Belkin Wireless G Network Cards to use security.

At this point, you should already have your Wireless Router or Access Point set to use WPA or WEP. In order for you to gain a wireless connection, you will need to set your wireless notebook card and wireless desktop card to use the same security settings.

Connecting your Computer to a Wireless Network that Requires a 64-bit or 128-bit WEP key:

1. Double-click the Signal Indicator icon to bring up the Wireless Network screen. The Advanced button will allow you to view and configure more options of your card.
2. Under the “Wireless Network Properties” tab, select a network name from the “Available networks” list and click “Configure”.
3. Under “Data Encryption” select “WEP”.
4. Ensure the check box “Network key is provided for me automatically” at the bottom is unchecked. If you are using this computer to connect to a corporate network, please consult your network administrator if this box needs to be checked.
5. Type your WEP key in the “Network key” box.

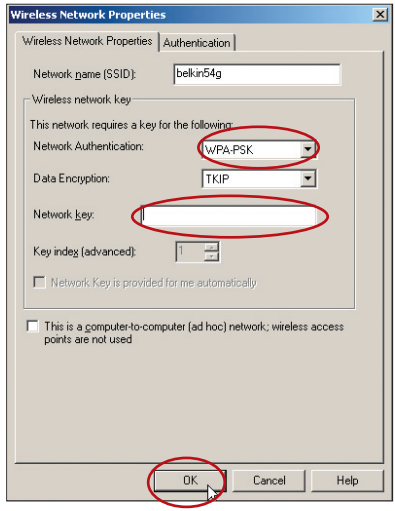
Important: A WEP key is a mixture of numbers and letters from A–F and 0–9. For 128-bit WEP, you need to enter 26 keys. For 64-bit WEP, you need to enter 10 keys. This Network key needs to match the key you assign to your Wireless Router or Access Point.



6. Click “OK” to save the settings.

Connecting your Computer to a Wireless Network that Requires WPA-PSK (no server)

1. Double-click the “Signal Indicator” icon to bring up the “Wireless Network” screen. The Advanced button will allow you to view and configure more options of your card.
2. Under the “Wireless Networks” tab, select a network name from the “Available networks” list and click “Configure”.
3. Under “Network Authentication” select “WPA-PSK (No Server)”.
4. Type your WPA key in the “Network key” box.



Important: WPA-PSK is a mixture of numbers and letters from A–Z and 0–9. For WPA-PSK you can enter 8 to 63 keys. This Network key needs to match the key you assign to your Wireless Router or Access Point.

5. Click “OK” to save the settings.

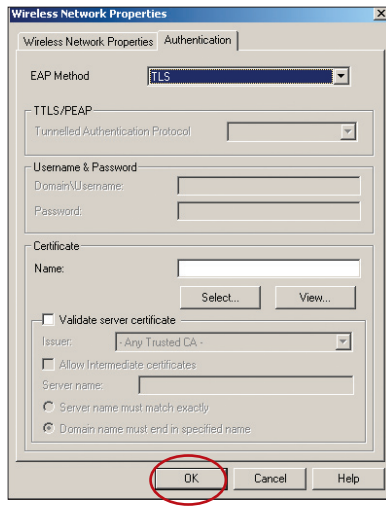
Connecting your Computer to a Wireless Network that Requires WPA (with radius server)

1. Double-click the Signal Indicator icon to bring up the “Wireless Network” screen. The “Advanced” button will allow you to view and configure more options of your Card.

2. Under the “Wireless Networks” tab, select a network name from the “Available networks” list and click “Configure”.

3. Under “Network Authentication” select WPA.

4. Under the “Authentication” tab, select the settings that are indicated by your network administrator.



5. Click “OK” to save the settings.

Setting Up WPA for a Non-Belkin Wireless Desktop and Wireless Notebook Cards

For non-Belkin WPA Wireless Desktop and Wireless Notebook Cards that are not equipped with WPA-enabled software, a file from Microsoft called “Windows XP Support Patch for Wireless Protected Access” is available for free download.

Please Note: The file that Microsoft has made available works only with Windows XP. Other operating systems are not supported at this time.

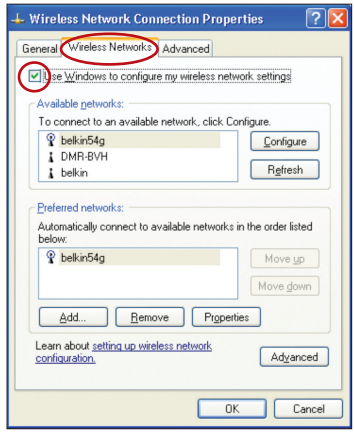
Important: You also need to ensure that the wireless card manufacturer supports WPA and that you have downloaded and installed the latest driver from their support site.

Supported Operating Systems:
- Windows XP Professional
- Windows XP Home Edition

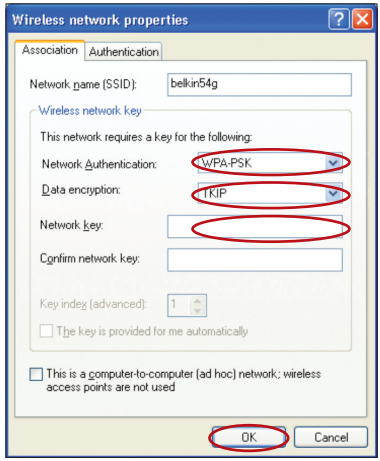
Setting Up Windows XP Wireless Network Utility to Use WPA-PSK

In order to use WPA-PSK, ensure you are using Windows Wireless Network Utility by doing the following:

1. Under Windows XP, click “Start > Control Panel > Network Connections”.
2. Right-click on “Wireless Network Connection”, and select “Properties”.
3. Clicking on the “Wireless Networks” tab will display the following screen. Ensure the “Use Windows to configure my wireless network settings” check box is checked.



4. Under the Wireless Networks tab, click the “Configure” button, and you will see the following screen.



5. For a home or small business user, select “WPA-PSK” under “Network Authentication”.

   Note: Select “WPA” if you are using this computer to connect to a corporate network that supports an authentication server such as a radius server, please consult your network administrator for further information.

6. Select “TKIP” or “AES” under “Data Encryption”. This setting will have to be identical to the Router that you set up.

7. Type in your encryption key in the “Network Key” box.

Important: Enter your Pre-Shared key. This can be from 8 to 63 characters and can be letters, numbers, or symbols. This same key must be used on all of the clients that you set up.

8. Click “OK” to apply settings.

Using the Access Point Mode

Note: This advanced feature should be employed by advanced users only. The Router can be configured to work as a wireless network access point. Using this mode will defeat the NAT IP sharing feature and DHCP server. In Access Point (AP) mode, the Router will need to be configured with an IP address that is in the same subnet as the rest of the network that you will bridge to. The default IP address is 192.168.2.254 and subnet mask is 255.255.255.0. These can be customized for your need.

1. Enable the AP mode my selecting “Enable” in the “Use as Access Point only” page. When you select this option, you will be able to change the IP settings.
2. Set your IP settings to match your network. Click “Apply Changes”.
3. Connect a cable from the WAN port on the Router to your existing network.

The Router is now acting as an access point. To access the Router’s advanced user interface again, type the IP address you specified into your browser’s navigation bar. You can set the encryption settings, MAC address filtering, SSID, and channel normally.

Wireless Range Extension and Bridging

Wireless Range Extension and Bridging works with the following models only:

F5D7231-4P High-Speed Mode Wireless G Router with Built-In USB Print Server
F5D7231-4 High-Speed Mode Wireless G Router
F5D7230-4 Wireless Router
F5D7235-4 High-Speed Mode Wireless G Gigabit Router
F5D7130 Wireless Range Extender/Access Point

Please make sure to download the latest firmware version for the Router or Access Point for optimal performance: **http://web.belkin.com/support**

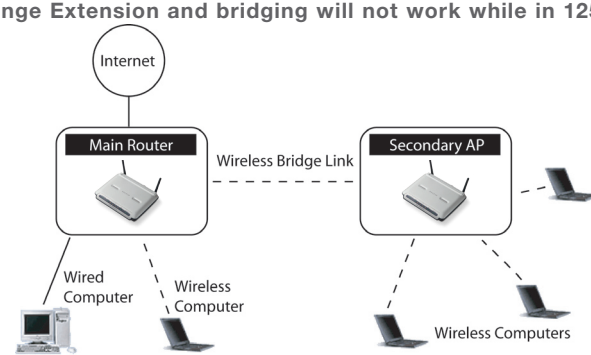
What is a Wireless Bridge?

A wireless bridge is actually a “mode” in which your Wireless Router can directly connect to a secondary Wireless Access Point. Note that you can only bridge your Wireless G Router (model F5D7230-4, F5D7235-4, F5D7231-4P, F5D7231-4) to a Belkin Wireless G Range Extender/Access Point (model F5D7130). Bridging with access points of other manufacturers is not supported at this time. You can use the bridge mode to extend the range of your wireless network, or add an extension of your network in another area of your office or home without running cables.

Range Extension

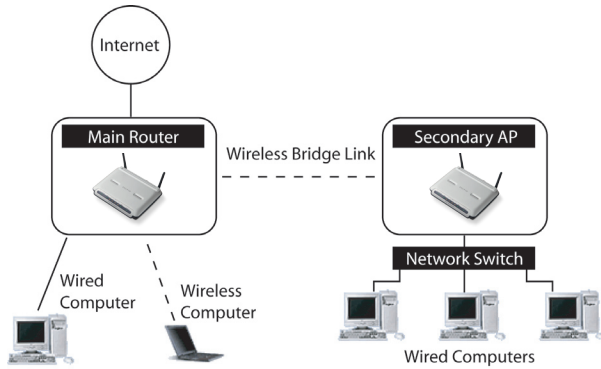
Range extension will extend the wireless coverage area in your home or office. The example on the next page illustrates use of bridging to extend the range of your wireless network. In this example, the Router is set up to connect to an Access Point located in another area. Laptops can roam, or move between the two wireless coverage areas.

***Wireless Range Extension and bridging will not work while in 125 HSM mode.**



Adding Another Network Segment Wirelessly

Bridging an Access Point to your Wireless Router allows you to add another network segment in another area in the home or office without running wires. Connecting a network switch or hub to the Access Point's RJ45 jack will allow a number of computers connected to the switch access to the rest of the network.



Setting Up a Bridge Between your Wireless Router and a Secondary Access Point

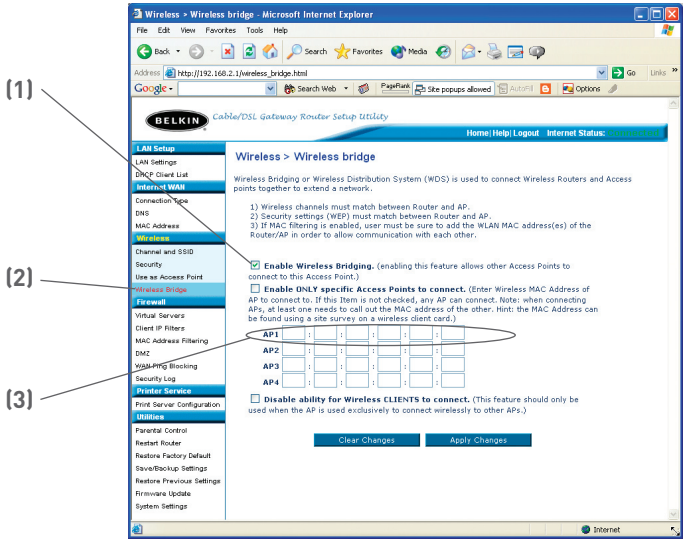
Bridging your Belkin Router to a secondary Access Point requires that you access the Router's Advanced Setup Utility and enter the MAC address of the Access Point in the appropriate area. There are also a few other requirements. **PLEASE BE SURE TO FOLLOW THE STEPS BELOW, CAREFULLY.**

1. Set your Access Point to the same channel as the Router. By default, the Router and Access Point channels are set to channel 11 at the factory. If you have never changed the channel, you don't need to do anything (for more information on changing channels, see page 47 of this manual).
2. Find the Access Point's MAC address on the bottom of the Access Point. There are two MAC addresses on the bottom label. You will need the MAC address named "WLAN MAC Address". The MAC address starts with 0030BD or 001150 and is followed by six other numbers or letters (i.e. 0030BD-XXXXXX). Write the MAC address below. Go to the next step.

3. Place your secondary Access Point within range of your Wireless Router and near the area where you want to extend the range or add the network segment. Typically, indoor range should be between 100 and 200 feet.
4. Connect power to your Access Point. Make sure the Access Point is on and proceed to the next step.

5. From a computer already connected to your Router, access the Advanced Setup Utility by opening your browser. In the address bar, type in “192.168.2.1”. Do not type in “www” or “http://” before the number. **Note:** If you have changed your Router’s IP address, use that IP address.

6. You will see the Router’s user interface in the browser window. Click “Wireless Bridge” **(2)** on the left-hand side of the screen. You will see the following screen.



7. Check the box that says “Enable ONLY specific Access Points to connect” **(1)**.

8. In the field named AP1 **(3)**, type in the MAC address of your secondary Access Point. When you have typed in the address, click “Apply Changes”.

9. Bridging is now set up.