Recommended Web Browser Settings
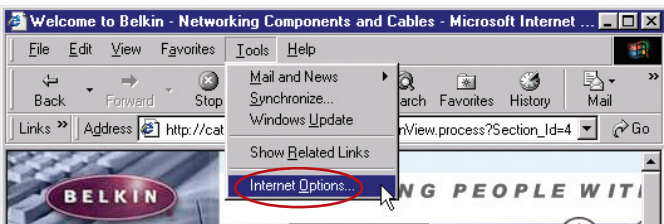
In most cases, you will not need to make any changes to your web browser's settings. If you are having trouble accessing the Internet or the advanced web-based user interface, then change your browser's settings to the recommended settings in this section.

Internet Explorer 4.0 or Higher

**1.** Start your web browser. Select "Tools" then "Internet Options".

2. In the "Internet Options" screen, there are three selections: "Never dial a connection", "Dial whenever a network connection is not present", and "Always dial my default connection". If you can make a selection, select "Never dial a connection". If you cannot make a selection, go to the next step.
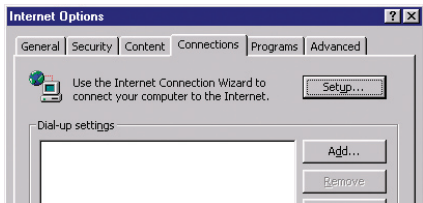
**3.** Under the "Internet Options" screen, click on "Connections" and select "LAN Settings…".

4. Make sure there are no check marks next to any of the displayed options: "Automatically detect settings", "Use automatic configuration script", and "Use a proxy server". Click "OK". Then click "OK" again in the "Internet Options" page.
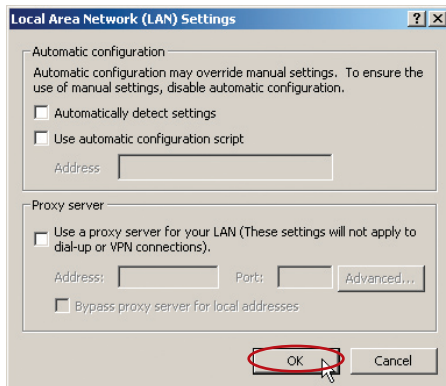
Netscape Navigator 4.0 or Higher

1. Start Netscape. Click on "Edit" then "Preferences".

2. In the "Preferences" window, click on "Advanced" then select "Proxies". In the "Proxies" window, select "Direct connection to the Internet".
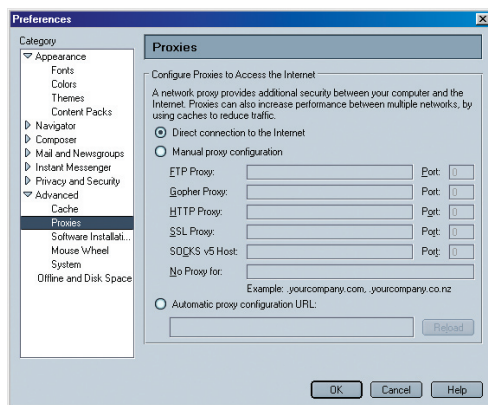
Using your Router with AOL Broadband

How to set up your network to operate with AOL® for Broadband and your new Belkin Router

There are two types of AOL connections available—either AOL DSL or AOL Cable. A third service is called AOL BYOA (Bring Your Own Access). This is used along with an existing broadband connection, supplied by your Internet Service Provider (ISP). If you have AOL DSL, please refer to "Directions for AOL DSL Users" below for setup instructions. If you have either AOL Cable or the AOL BYOA service, please go to the "Directions for AOL Cable Users" section of this guide, on page 104.

Directions for AOL DSL Users

STEP 1: Create AOL screen names for the Router and for each computer that will be using your AOL service.

STEP 2: Configure the Router for AOL for Broadband.

STEP 3: Configure your computers with the new AOL screen names you just created.

Step 1 | **Creating new AOL screen names**

Note: Your AOL connections must be set to operate on the TCP/IP standard. If you have designated another protocol, reset them to TCP/IP before proceeding.
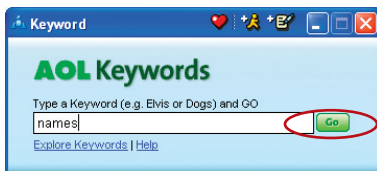
1. If your Router is currently connected to the network, remove it from the network and connect it directly to your broadband modem. Then, log on to AOL as you normally do.

2. Log on to your AOL master account.

3. Perform a keyword search on "names" by clicking "Keyword", and then "Go to Keyword".
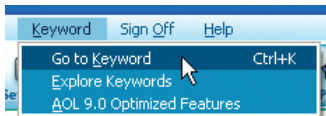
4. In the "Keyword" window, type in "names" then click "Go".

5. You will see the "AOL Screen Names" window. Click "CREATE a Screen Name".
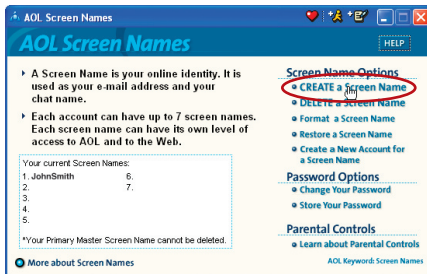
6. A window will appear that asks whether the screen name is for a child. If you are creating the screen name for the Router, click "Yes" or "No" (it doesn't matter which you select). If you are creating a screen name for an additional computer, select the appropriate answer.
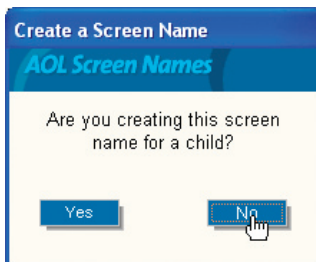
7. The "Choose a Screen Name" window will appear. Type in a screen name, and click "Continue". If this screen name is for the Router, the name you choose should be something like your master screen name followed by the word Router. For instance "JohnSmithRouter". If the screen name is for a computer, type in the screen name of the computer for which you are creating this screen name. Click "Continue".
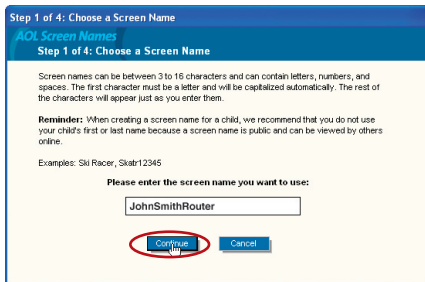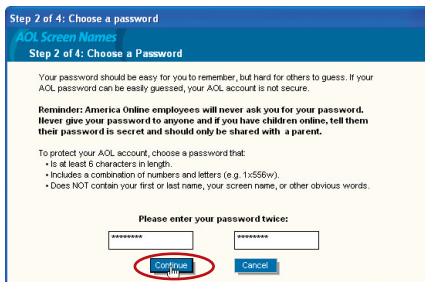
Step 1 of 4: Choose a Screen Name

AOL Screen Names
Step 1 of 4: Choose a Screen Name

Screen names can be between 3 to 16 characters and can contain letters, numbers, and spaces. The first character must be a letter and will be capitalized automatically. The rest of the characters will appear just as you enter them.

Reminder: When creating a screen name for a child, we recommend that you do not use your child's first or last name because a screen name is public and can be viewed by others online.

Examples: Ski Racer, Skstr12345

Please enter the screen name you want to use:

JohnSmithRouter

Continue   Cancel

8. The "Choose a password" screen will appear. Enter the password for this screen name twice, and click "Continue".

Step 2 of 4: Choose a password

AOL Screen Names
Step 2 of 4: Choose a Password

Your password should be easy for you to remember, but hard for others to guess. If your AOL password can be easily guessed, your AOL account is not secure.

Reminder: America Online employees will never ask you for your password. Never give your password to anyone and if you have children online, tell them their password is secret and should only be shared with a parent.

To protect your AOL account, choose a password that:
• Is at least 6 characters in length.
• Includes a combination of numbers and letters (e.g. 1x556w).
• Does NOT contain your first or last name, your screen name, or other obvious words.

Please enter your password twice:

********   ********

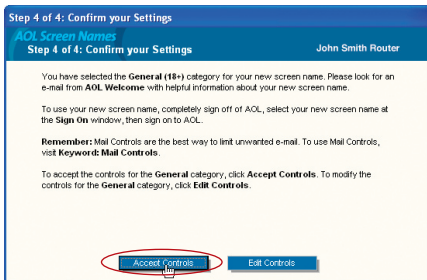Continue   Cancel

9. The "Select a Parental Controls setting" window will appear. If this screen name is for the Router, choose any one of the settings (it doesn't matter which). If this screen name is for a computer, choose the desired setting and click "Continue".
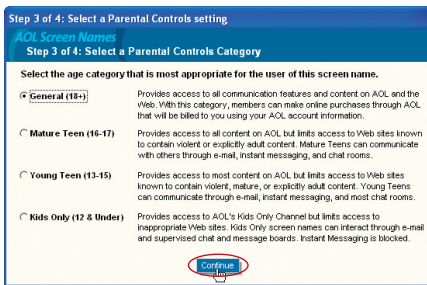
10. The "Confirm your Settings" window will appear. Select "Accept Controls".

11. The "AOL Screen Names" window appears. This window will include all the screen names you have created to this point.
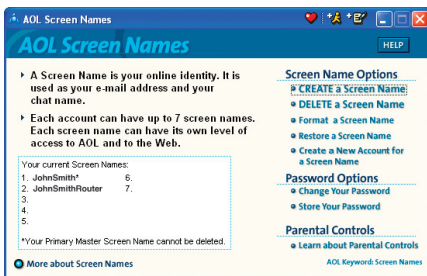

12. Repeat steps 1-11 to add an additional screen name for each computer that will be using AOL and that will be connected to the Router. When you are finished adding screen names, go to Step 2.

Using your Router with AOL Broadband

| **Step 2** | **Configuring the Router** |

Follow this step only if you use AOL DSL. This procedure is for Belkin Router models F5D5231-4, F5D6231-4, F5D7230-4, and F5D7231-4.

1. Connect your Router to your network per the instructions in your User Manual.

2. Open your Web browser.

3. In the address bar of your browser, type http://192.168.2.1 and click "Go". You will be directed to the Router's home page. Click on "Connection Type" in the left-hand column under "Internet WAN" heading.
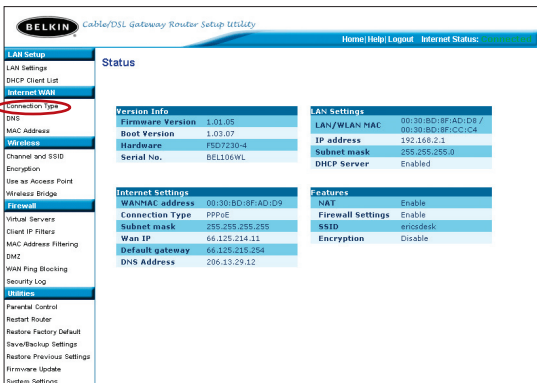
4. You will see the Router's login page. Leave the password field blank and click "Submit".

5. You will now see the "Connection Type" page. Select "PPPoE" and click "Next". You will now see the PPPoE setup page.

6. In the "User Name" field, type in the screen name that you created for your Router **(1)**.

7. In the password fields, type in the password you created for the Router's screen name **(2)**.

8. Leave the "Service Name" field blank **(3)**. Do not change the MTU setting.

9. Click on "Apply Changes" **(4)**.

10. Click on the Home link at the top of the screen. The Internet Status indicator should read "Connected" **(5)**.

11. Go to Step 3.

Step 3	**Configure your computers with the AOL screen names you just created**

This step consists of installing the AOL software on each computer and configuring it to use one of the screen names you created in Step 1. Remember that each computer MUST use a different screen name. For help installing and configuring the AOL software, contact AOL's technical support department.

Network Configuration
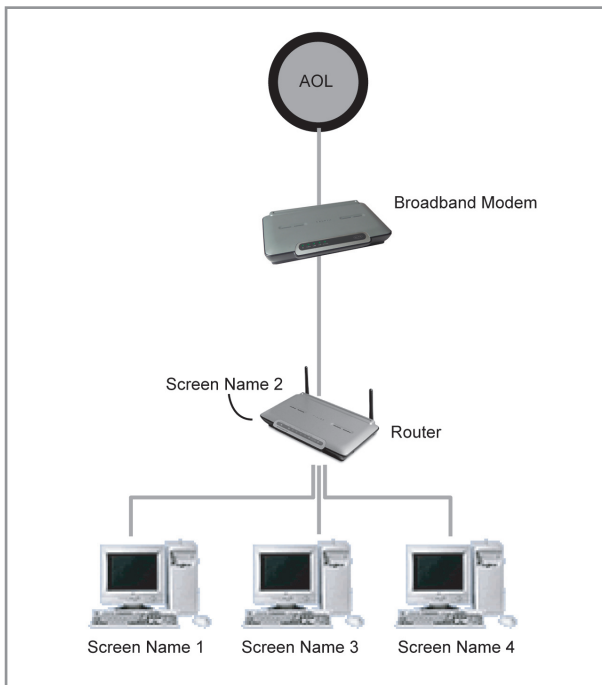
AOL Cable or AOL BYOA (Bring Your Own Access) Users Directions

AOL Cable users need to follow these directions. If you have AOL DSL, go to the "Directions for AOL DSL" section beginning on page 97.

AOL Cable Users STEP 1:
Create AOL screen names for each computer that will be using your AOL service.

AOL DSL Users STEP 2:
Configure your computers with the new AOL screen names you just created.

AOL Cable or AOL BYOA Users

Step 1 | **Creating new AOL screen names**

Note: Your AOL connections must be set to operate on the TCP/IP standard. If you have designated another protocol, reset them to TCP/IP before proceeding.

1. Connect the Router to the network per the instructions in your User Manual. Once the Router is installed properly, go to the next step.

2. Log on to your AOL master account.

3. Perform a keyword search on "names" by clicking "Keyword", and then "Go to Keyword".
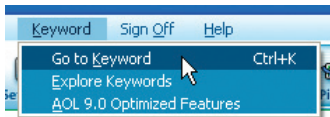
4. In the "Keyword" window, type in "names" then click "Go".
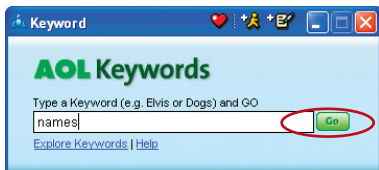
5. You should see the "AOL Screen Names" window. Click "CREATE a Screen Name".
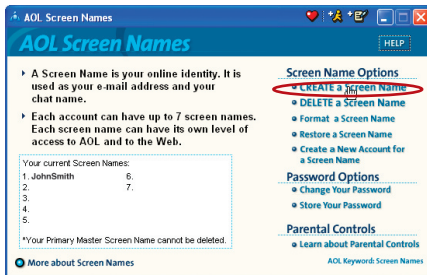
6. A window will appear that asks whether the screen name is for a child. Click "Yes" or "No" to answer.
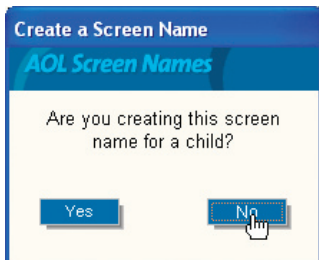
7. The "Choose a Screen Name" window will appear. Type in the screen name of the computer for which you are creating this screen name. Click "Continue".

8. The "Choose a password" screen will appear. Enter the password for this screen name twice, and click "Continue".

Step 2 of 4: Choose a password

AOL Screen Names
Step 2 of 4: Choose a Password

Your password should be easy for you to remember, but hard for others to guess. If your AOL password can be easily guessed, your AOL account is not secure.

Reminder: America Online employees will never ask you for your password. Never give your password to anyone and if you have children online, tell them their password is secret and should only be shared with a parent.

To protect your AOL account, choose a password that:
• Is at least 6 characters in length.
• Includes a combination of numbers and letters (e.g. 1x556w).
• Does NOT contain your first or last name, your screen name, or other obvious words.

Please enter your password twice:

[********]   [********]

[Continue]   [Cancel]

9. The "Select a Parental Controls setting" window will appear. Choose the appropriate setting for this screen name. Click "Continue".

Step 3 of 4: Select a Parental Controls setting

AOL Screen Names
Step 3 of 4: Select a Parental Controls Category

Select the age category that is most appropriate for the user of this screen name.

○ **General (18+)** — Provides access to all communication features and content on AOL and the vWeb. With this category, members can make online purchases through AOL that will be billed to you using your AOL account information.

○ **Mature Teen (16-17)** — Provides access to all content on AOL but limits access to Web sites known to contain violent or explicitly adult content. Mature Teens can communicate with others through e-mail, instant messaging, and chat rooms.

○ **Young Teen (13-15)** — Provides access to most content on AOL but limits access to Web sites known to contain violent, mature, or explicitly adult content. Young Teens can communicate through e-mail, instant messaging, and most chat rooms.

○ **Kids Only (12 & Under)** — Provides access to AOL's Kids Only Channel but limits access to inappropriate Web sites. Kids Only screen names can interact through e-mail and supervised chat and message boards. Instant Messaging is blocked.

[Continue]

10. The "Confirm your Settings" window will appear. Select "Accept Controls".

Step 4 of 4: Confirm your Settings

AOL Screen Names
Step 4 of 4: Confirm your Settings   John Smith Router

You have selected the **General (18+)** category for your new screen name. Please look for an e-mail from **AOL Welcome** with helpful information about your new screen name.

To use your new screen name, completely sign off of AOL, select your new screen name at the **Sign On** window, then sign on to AOL.

Remember: Mail Controls are the best way to limit unwanted e-mail. To use Mail Controls, visit **Keyword: Mail Controls**.

To accept the controls for the **General** category, click **Accept Controls**. To modify the controls for the **General** category, click **Edit Controls**.

[Accept Controls]   [Edit Controls]

11. The "AOL Screen Names" window appears. This window will include all the accounts you have created to this point.

12. Repeat steps 1-11 for each computer that will be using AOL and that will be connected to your Belkin Router. When you are finished adding screen names, go to Step 2.

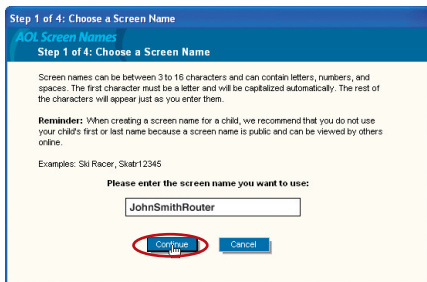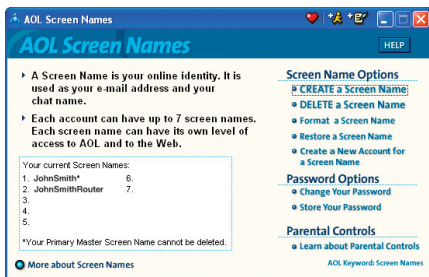| Step 2	Configure your computers with the new AOL screen names you just created

This step consists of installing the AOL software on each computer and configuring it to use one of the screen names you created in Step 1. Remember that each computer MUST use a different screen name. For help installing and configuring the AOL software, contact AOL's technical support department.

Network Configuration

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11

section
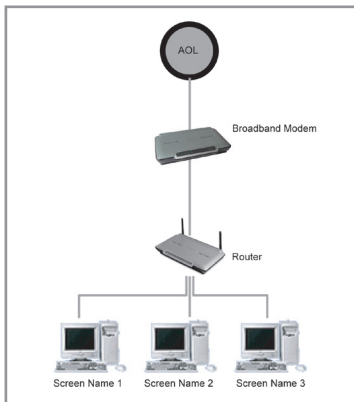
Troubleshooting

Installation CD does not automatically start

If the CD-ROM does not start the Easy Install Wizard automatically, it could be that the computer is running other applications that are interfering with the CD drive.

1. If the Easy Install Wizard screen does not appear within 15-20 seconds, open up your CD-ROM drive by double clicking on the "My Computer" icon that is located on your desktop.

2. Next, double-click on the CD-ROM drive that the Easy Installation CD has been placed in to start the installation.
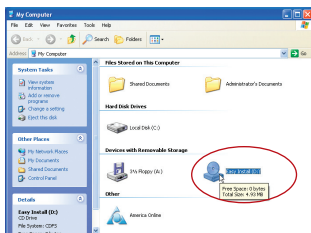
3. Easy Install should start within a few seconds If, instead, a window appears showing the files on the CD, double-click on the icon labeled "EasyInstall.exe".
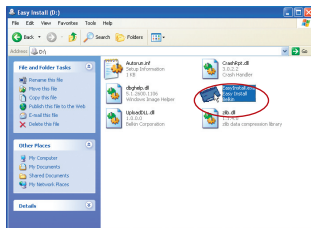
4. If the Easy Install Wizard is still does not start, reference the section titled "Manually Configuring Network Settings" (page 89 of this manual for alternative setup method).

Troubleshooting

Problem:

Easy Install cannot find my Router

Solution:

If the Easy Install Wizard is not able to find the Router during the installation process please check the following items:

1. If the Easy Install Wizard is not able to find the Router during the installation process, there may be 3rd party firewall software installed on the computer attempting to access the Internet. Examples of third party firewall software are ZoneAlarm, BlackICE PC Protection, McAfee Personal Firewall, and Norton Personal Firewall.

If you do have firewall software installed on your computer, please make sure that you properly configure it. You can determine if the firewall software is preventing Internet access by temporarily turning it off. If, while the firewall is disabled, Internet access works properly, you will need to change the firewall settings to function properly when it is turned on.

Please refer to the instructions provided by the publisher of your firewall software for instructions on configuring the firewall to allow Internet access.

2. Unplug power to the Router for 10 seconds, and then plug the power back into the router. Ensure that the router's Power light is on; it should be solid green. If not, check to make sure that the AC adapter is connected to the router and plugged into a wall outlet.

3. Ensure that you have a cable (use the cable included with the router) connected between (1) the network (Ethernet) port on the back of the computer and (2) one of the LAN ports, labeled "1" through "4", on the back of the router.

Note: the computer should NOT be connected to the port labeled "Internet/WAN" on the back of the router.

4. Try shutting down and restarting your computer, then re-running the Easy Install.

If the Easy Install Wizard is still unable to find the Router, reference the section titled "Manually Configuring Network Settings" for installation steps.

Troubleshooting

Easy Install cannot connect my Router to the Internet

Solution:

If the Easy Install Wizard is not able to connect the Router to the Internet, please check the following items:

1. Use the troubleshooting suggestions within the Easy Install Wizard. If the troubleshooting screen does not open automatically, click on the "Troubleshoot" button in the lower right-hand corner of the Easy Install Wizard window.

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.

   If you continue to have no Internet connection, reference the section titled "Manually Configuring Network Settings" (page 87 of this manual for alternative setup method).

Problem:

- The Easy Install Wizard completed installation, but my web browser doesn't work

- I am unable to connect to the Internet. The Routers "WAN" light on my Router is off, and the "Connected" light is blinking

Solution:

If you cannot connect to the Internet, and the "WAN" light is off, and the "Connected" light is blinking, the problem may be that your modem and router are not connected properly.

1. Make sure the network cable between the modem and the Router is connected. We strongly recommend using the cable that was supplied with your Cable or DSL modem for this purpose. The cable should be connected at one end to the Router's "Internet/WAN" port, and at the other end to the network port on your modem.

2. Unplug the Cable or DSL modem from its power source for 3 minutes. After 3 minutes plug the modem back into its power source. This may force the modem to properly recognize the router.

3. Unplug the power to your Router, wait 10 seconds, and then reconnect the power. This will cause the router to re-attempt communication with the modem.

If the "WAN" light on the Router is not lit after completing these steps, please contact Belkin Technical Support.

4. Try shutting down and restarting your computer.

Problem:

• The Easy Install Wizard completed installation, but my web browser doesn't work

• I am unable to connect to the Internet. The Routers "WAN" light on my Router is on, and the "Connected" light is blinking

Solution:

If you cannot connect to the Internet, the "WAN" light is on, and the "Connected" light is blinking, the problem may be that your connection type may not match the ISP's connection.

• If you have a "static IP address" connection, your ISP must assign you the IP address, subnet mask, and gateway address. Please refer to the section entitled "Alternate Setup Method" for details on changing this setting.

• If you have a "PPPoE" connection, your ISP will assign you a user name and password and sometimes a service name. Make sure the Router connection type is configured to PPPoE and the settings are entered properly. Please refer to your Router's User Guide section entitled "Alternate Setup Method" for details on changing this setting.

- 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://web.belkin.com/support and type in "ISP"

If you are still unable to access the Internet after verifying these settings, please contact Belkin Technical Support.

Problem:

- The Easy Install Wizard completed, but my web browser doesn't work

- I am unable to connect to the Internet. The "WAN" light on my router is blinking, and the "Connected" light is solid

Solution:

If the "WAN" light is blinking, and the "Connected" light is solid, but you are unable to access the Internet, there may be 3rd party firewall software installed on the computer attempting to access the Internet. Examples of third party firewall software are ZoneAlarm, BlackICE PC Protection, McAfee Personal Firewall, and Norton Personal Firewall.

If you do have firewall software installed on your computer, please make sure that you properly configure it. You can determine if the firewall software is preventing Internet access by temporarily turning it off. If, while the firewall is disabled, Internet access works properly, you will need to change the firewall settings to function properly when it is turned on.

Please refer to the instructions provided by the publisher of your firewall software for instructions on configuring the firewall to allow Internet access.

If you are still unable to access the Internet after disabling any Firewall software, please contact Belkin Technical Support.

Troubleshooting

Problem:

I can't connect to the Internet wirelessly

Solution:

If you are unable to connect to the Internet from a wireless computer, please check the following items:

1. Look at the lights on your Router. If you're using a Belkin Router, the lights should be as follows:

- The "Power" light should be on.

- The "Connected" light should be on, and not blinking.

- The "WAN" light should be either on or blinking.

2. Open your wireless utility software by clicking on the icon in the system tray at the bottom right-hand corner of the screen. If you're using a Belkin wireless card, the tray icon should look like this (the icon may be red or green):

3. The exact window that opens will vary depending on the model of wireless card you have; however, any of the utilities should have a list of "Available Networks" – those wireless networks it can connect to.

Does the name of your wireless network appear in the results?

Yes, my network name is listed – go to the troubleshooting solution titled " I can't connect to the Internet wirelessly, but my network name is listed"

No, my network name is not listed - go to the troubleshooting solution titled " I can't connect to the Internet wirelessly, and my network name is not listed"

Troubleshooting

I can't connect to the Internet wirelessly, but my network name is listed

Solution:

If the name of your network is listed in the "Available Networks" list, please follow the steps below to connect wirelessly:

1. Click on the correct network name in the "Available Networks" list.

2. If the network has security (encryption) enabled, you will need to enter the network key. For more information regarding security, see the page entitled: Setting up wireless security

3. Within a few seconds, the tray icon in the lower left-hand corner of your screen should turn green, indication a successful connection to the network.

Problem:

I can't connect to the Internet wirelessly, and my network name is not listed

Solution

If the correct network name is not listed under "Available Networks" in the wireless utility, please attempt the following troubleshooting steps:

1. Temporarily move computer, if possible, five to ten feet from the Router. Close the wireless utility, and re-open it. If the correct network name now appears under "Available Networks", you may have a range or interference problem. Please see the suggestions discussed in the section titled "Placement of your Wireless Networking Hardware" of this user manual.

Troubleshooting

2. Using a computer that is connected to the Router via a network cable (as opposed to wirelessly), ensure that "Broadcast SSID" is enabled. This setting is found on the Router's wireless "Channel and SSID" configuration page.

If you are still unable to access the Internet after completing these steps, please contact Belkin Technical Support.

Problem:

My wireless network performance is inconsistent

Data transfer is sometimes slow

Signal strength is poor

Difficulty establishing and/or maintaining a Virtual Private Network (VPN) connection

Solution:

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. As a result, the typical indoor range of your wireless devices will be between 100 to 200 feet. Note also that connection speed may decrease as you move further from the Router or Access Point.

In order to determine if wireless issues are related to range, we suggest temporarily moving the computer, if possible, five to ten feet from the router.

Changing the wireless channel - Depending on local wireless traffic and interference, switching the wireless channel of your network can improve performance and reliability. The default channel the router is shipped with is channel 11, you may choose from several other channels depending on your region; see page 45 - "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 the maximum wireless range, and connection stability. Most wireless cards have the ability to limit the transmission rate. To change this property, go to the Windows Control Panel, open the Network Connections and double-click on

your wireless card's connection. In the properties dialog, select the configure button on the General tab (Windows 98 users will have to select the wireless card in the list box and then click properties), 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.

Problem:

How do I extend the range of my wireless network

Solution:

Belkin recommends using one of the following products to extend wireless network coverage throughout large homes or offices:

• Wireless Access Point: A wireless access point can effectively double the coverage area of your wireless network. An Access Point is typically placed in the area not currently covered by your wireless router, and connected to the router using either an Ethernet cable, or through your home's power lines using two Powerline Ethernet Adapters.

• For 802.11g (54g) wireless networks, Belkin offers a Wireless Range Extender/Access Point that can be connected wirelessly to a Belkin 802.11g Wireless Router, without requiring an Ethernet cable or Powerline Ethernet Adapters.

These Belkin products are available at your local retailer, or can be ordered from Belkin directly.

For network/range extension information, please visit: www.belkin. com/networking to find out more about:

802.11g Wireless Range Extender/Access Point (F5D7130)

Powerline Ethernet Adapter (F5D4070)

Powerline USB Adapter (F5D4050)

Troubleshooting

Problem:

I am having difficulty setting up Wired Equivalent Privacy (WEP) security on a Belkin Router or Belkin Access Point

Solution

1. Log into your Wireless Router or Access Point.

   Open your web browser and type in IP address of the Wireless Router or Access Point. (The Router default is 192.168.2.1, the 802.11g Access Point is 192.168.2.254). Log into your router by clicking on the "Login" button in the top right-hand corner of the screen. You will be asked to enter your password. If you never set a password, leave the password field blank and click "Submit".

   Click the "Wireless" tab on the left of your screen. Select the "Encryption" or "Security" tab to get to the security settings page.

2. Select "128-bit WEP" from the drop-down menu.

3. After selecting your WEP encryption mode, you can type in your hex WEP key manually, or you can type in a passphrase in the "Passphrase" field and click "Generate" to create a WEP key from the passphrase. Click "Apply Changes" to finish. You must now set all of your clients to match these settings. A hex (hexadecimal) key is a mixture of numbers and letters from A-F and 0-9. For 128-bit WEP, you need to enter 26 hex keys.

   For example:

   C3030FAF4BB2C3D44BC3D4E7E4 = 128-bit key

4. Click "Apply Changes" to finish. Encryption in the Wireless Router is now set. Each of your computers on your wireless network will now need to be configured with the same security settings.

WARNING: If you are configuring the Wireless Router or Access Point from a computer with a wireless client, you will need to ensure that security is turned on for this wireless client. If this is not done, you will lose your wireless connection.

Note to Mac users: Original Apple Airport® products support 64-bit encryption only. Apple Airport 2 products can support 64-bit or 128-bit encryption. Please check your Apple Airport product to see which version you are using. If you cannot configure your network with 128-bit encryption, try 64-bit encryption.

Problem:

I am having difficulty setting up Wired Equivalent Privacy (WEP) security on a Belkin client card

Solution:

The client card must use the same key as the Wireless Router or Access Point. For instance, if your Wireless Router or Access Point uses the key 00112233445566778899AABBCC, then the client card must be set to the exact same 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. The "Advanced" button will allow you to view and configure more options of the card.

3. Once the advanced button is clicked the Belkin Wireless LAN Utility will appear. This Utility will allow you to manage all the advanced features of the Belkin wireless card.

4. Under the "Wireless Network Properties" tab, select a network name from the "Available networks" list and click the "Properties" button

5. Under "Data Encryption" select "WEP"

6. Ensure the check box "The 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.

7. Type you 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. This Network key needs to match the key you assign to your Wireless Router or Access Point.

    For example:
    C3030FAF4BB2C3D44BC3D4E7E4 = 128-bit key

8. Click "OK", and then "Apply" to save the settings.

For non-Belkin wireless client cards please consult the manufacturer for that wireless client card's user manual

Troubleshooting

Problem:

Do Belkin products support WPA?

Solution

Note: To use WPA security, all your clients must be upgraded to drivers and software that support it. At the time of this FAQ publication, a security patch download is available, for free, from Microsoft. This patch works only with the Windows XP operating system.

Download the patch here:

http://www.microsoft.com/downloads/details. aspx?FamilyID=009d8425-ce2b-47a4-abec-274845dc9e91&displayl ang=en

You also need to download the latest driver for your Belkin Wireless 802.11g Desktop or Notebook Network Card from the Belkin support site. Other operating systems are not supported at this time. Microsoft's patch only supports devices with WPA-enabled drivers such as Belkin 802.11g products

Download the latest driver at http://web.belkin.com/support for the following products:

F5D7000, F5D7001, F5D7010, F5D7011, F5D7230-4, F5D7231-4, F5D7130

Troubleshooting

Problem:

I am having difficulty setting up Wi-Fi Protected Access (WPA) security on a Belkin Wireless Router or Belkin Access Point for a home network.

Solution:

1. From the "Security Mode" drop-down menu, select "WPA-PSK (no 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 your pre-shared key. This can be from 8 to 63 characters and can be letters, numbers, or symbols or spaces. This same key must be used on all of the clients that you set up. For example, your PSK might be something like: "Smith family network key".

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

Troubleshooting

Problem:

I am having difficulty setting up Wi-Fi Protected Access (WPA) security on a Belkin Wireless Router or Belkin Access Point for a business.

Solution:

If your network uses a radius server to distribute keys to the clients, use this setting. This is typically used in a business environment.

1. From the "Security Mode" drop-down menu, select "WPA (with 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.

Troubleshooting

I am having difficulty setting up Wi-Fi Protected Access (WPA) security on a wireless Belkin client card for a home network.

Clients must use the same key that the Wireless Router or Access Point uses. For instance if the key is "Smith Family Network Key" in the Wireless Router or Access point, the clients must also use that same key.

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.

The "Advanced" button will allow you to view and configure more options of the card.

Once the advanced button is clicked the Belkin Wireless LAN Utility will appear. This Utility will allow you to manage all the advanced features of the Belkin wireless card.

Under the "Wireless Network Properties" tab, select a network name from the "Available networks" list and click the "Properties" button

Under "Network Authentication" select "WPA-PSK (no server)

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 characters. This Network key needs to match the key you assign to your Wireless Router or Access Point.

Click "OK, then "Apply" to save the settings

Troubleshooting

Problem:

I am having difficulty setting up Wi-Fi Protected Access (WPA) security on a Belkin wireless client card for a business.

Solution:

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.

The "Advanced" button will allow you to view and configure more options of the card.

Once the advanced button is clicked the Belkin Wireless LAN Utility will appear. This Utility will allow you to manage all the advanced features of the Belkin wireless card.

Under the "Wireless Network Properties" tab, select a network name from the "Available networks" list and click the "Properties" button

Under "Network Authentication" select WPA

In the " Authentication" tab, select the settings that are indicated by your network administrator.

Click "OK, then "Apply" to save the settings

Problem:

I am having difficulty setting up Wi-Fi Protected Access (WPA) security on a non-Belkin client card for a home network.

Solution:

For non-Belkin WPA Wireless Desktop and Wireless Notebook Network 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:

www.microsoft.com/downloads/details.aspx?FamilyID=009d8425-ce2b-47a4-abcc-2748dc9e91diplaylang=en

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

Enabling WPA-PSK (no server)

1. Under Windows XP, click "Start > Control Panel > Network Connections".

2. Right-click on "Wireless Networks" tab will display the following screen. Ensure the "Use Windows to configure my wireless network settings" check box is checked.

3. Under the Wireless Networks tab, click the "Configure" button, and you will see the following screen.

4. For a home or small business user, select "WPA-PSK" under "Network Administration".

    Note: Select WPA (with radius server) 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.

5. Select "TKIP" or "AES" under "Date Encryption". This setting will have to be identical to the Wireless Router or Access Point that you set up.

6. 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.

7. Click "OK" to apply settings.

What's the difference between 802.11b, 802.11g and 802.11a?

Currently there are three levels of wireless networking standards, which transmit data at very different maximum speeds. Each is based on the designation 802.11x, so named by the IEEE, the board that is responsible for certifying networking standards. The most common wireless networking standard, 802.11b, transmits information at 11Mbps; 802.11a and 802.11g work at 54Mbps. See the following chart for more detailed information.

Wireless Comparison

Wireless Technology	802.11b	802.11g	802.11a
Speed	11Mbps	54Mbps	54Mbps
Frequency	Common household devices such as cordless phones and microwave ovens. May interfere with the 2.4GHz unlicensed band	Common household devices such as cordless phones and microwave ovens. May interfere with the 2.4GHz unlicensed band	5GHz - uncrowded band
Compatibility	Compatible with 802.11g	Compatible with 802.11b	Incompatible with 802.11b or 802.11g
Range	Depends on interference - typically 50-300 ft. indoors	Depends on interference - typically 50–300 ft. indoors	Less interference - range is typically 50-100 feet
Adoption	Mature - widely adopted	Expected to continue to grow in popularity	Slow adoption for consumers - more popular in business
Price	Inexpensive	More expensive	Most expensive