

## USING THE WEB-BASED ADVANCED USER INTERFACE

### **Using the Accept “ANY” SSID Feature**

*Note: This advanced feature should be employed by advanced users only.* A feature of wireless networking is the ability to scan for networks and connect to them easily. For instance, you can set up a wireless-equipped computer to connect to and an SSID called “ANY”. This forces the wireless network adapter in the computer to look for any network in the area and connect to it. For ease-of-use this is very convenient, but in some cases you may want users to have to specify the name of the network. You can program the Router to reject a wireless-equipped computer looking for an SSID of “ANY”. Remove the check mark in the box next to “Accept ‘ANY’ SSID”, then click “Apply Changes”. The change is immediate. Each computer now needs to be set to connect to your specific SSID; an SSID of “ANY” will no longer be accepted. Refer to the documentation of your wireless network adapter for information on making this change.

### **Using the Broadcast SSID Feature**

*Note: This advanced feature should be employed by advanced users only.* For security, you can choose not to broadcast your network’s SSID. Doing so will keep your network name hidden from computers that are scanning for the presence of wireless networks. To turn off the broadcast of the SSID, remove the check mark from the box next to “Broadcast SSID”, then click “Apply Changes”. The change is immediate. Each computer now needs to be set to connect to your specific SSID; an SSID of “ANY” will no longer be accepted. Refer to the documentation of your wireless network adapter for information on making this change.

### **Changing the Wireless Encryption Settings**

Clicking on the “Encryption” link in the “Wireless” tab will take you to the Encryption settings screen. To make setting up your network for the first time easy, the Router ships with encryption turned off. If you wish to turn on encryption, you can do so from this page. Turning on encryption will require you to set each of your wireless-equipped computers with the same encryption settings that you make in the Router. Refer to the documentation of your wireless network adapter for information on making this change.

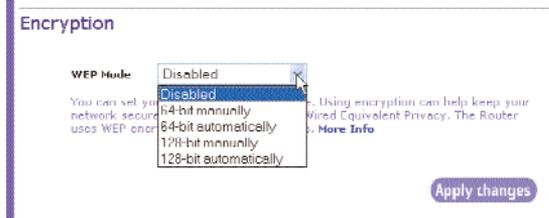
There are two types of encryption to choose from: 64-bit and 128-bit encryption. Using encryption will make your network more secure, but will slow down the network performance. Although network performance will be reduced, it is likely the change will not be detectable to users of the network.

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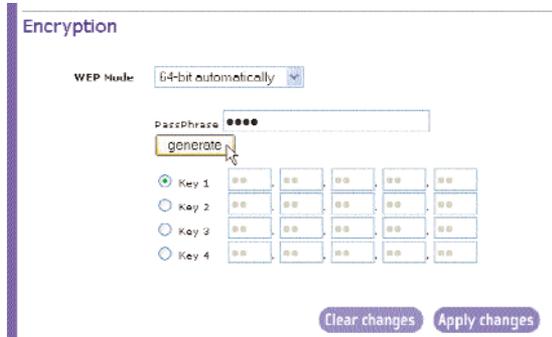
### Setting Encryption Automatically Using a Passphrase

*Note to Mac users: The Passphrase option will not operate with Apple® AirPort®. To configure encryption for your Mac computer, set the encryption using the manual method described in the next section.*

1. Select “64-bit automatically” or “128-bit automatically” from the drop-down menu.



2. Type in a passphrase. A passphrase is like a password. It can be a mixture of numbers and letters. After you type in your passphrase, click “Generate”. When you click “Generate”, the key fields below will become populated. *Note: 64-bit encryption will generate four keys and 128-bit encryption will generate only one key.* Select the key you want to use by clicking the radio button next to it. Click “Apply Changes”.



3. Encryption in the Router is now set. Each of your computers on your wireless network will now need to be configured with the same passphrase. Refer to the documentation of your wireless network adapter for information on making this change.

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### Setting Encryption Manually Using a Hexadecimal Key

A hexadecimal key is a mixture of numbers and letters from A–F and 0–9. 64-bit keys are five 2-digit numbers. 128-bit keys are 13 2-digit numbers.

For instance:

AF 0F 4B C3 D4 = 64-bit key

C3 03 0F AF 0F 4B B2 C3 D4 4B C3 D4 E7 = 128-bit key

In the boxes below, make up your key by writing in two characters between A–F and 0–9. You will use this key to program the encryption settings on your Router and your wireless computers.

Example:

64-bit:

128-bit:

*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 product to see which version you are using. If you cannot configure your network with 128-bit encryption, try 64-bit encryption.*

1. Select “64-bit manually” or “128-bit manually” from the drop-down menu.
2. If using 64-bit encryption, there will be four key fields. If using 128-bit encryption, there will be one key field. In

#### Encryption

WEP Mode: 64 bit manually

#1

#2

#3

#4

[Clear changes](#) [Apply changes](#)

the key field(s), type in the hexadecimal key(s) that you wish to use. When finished typing in your keys, select which key you want to use by clicking the radio button next to it. Click “Apply Changes”.

3. Encryption in the Router is now set. Each of your computers on your wireless network will now need to be configured with the same hexadecimal key. Refer to the documentation of your wireless network adapter for information on making this change.

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### 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 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 by 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 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.

# USING THE WEB-BASED ADVANCED USER INTERFACE

## Configuring the Firewall

Your Router is equipped with a firewall that will protect your network from a wide array of common hacker attacks including:

- IP Spoofing
- Land Attack
- Ping of Death (PoD)
- Denial of Service (DoS)
- IP with zero length
- Smurf Attack
- TCP Null Scan
- SYN flood
- UDP flooding
- Tear Drop Attack
- ICMP defect
- RIP defect
- Fragment flooding

The firewall also masks common ports that are frequently used to attack networks. These ports appear to be “Stealth” meaning that for all intents and purposes, they do not exist to a would-be hacker. You can turn the firewall function off if needed, however, it is recommended that you leave the firewall enabled. Disabling the firewall protection will not leave your network completely vulnerable to hacker attacks, but it is recommended that you leave the firewall enabled.



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## Configuring the Port Forwarding Settings

Application gateways let you select ports to be open for certain applications to work properly with the Network Address Translation (NAT) feature of the Router. A list of popular applications has been included to choose from. You can select an application from the drop-down list and the proper settings will be programmed into the Router. If the application you want to set up for is not here, check the “Virtual Servers” page by clicking “Virtual Servers” on the left side of the screen. If you cannot find your application in either the “Application Gateways” screen or the “Virtual Servers” screen, you will need to check with the application vendor to determine which ports need to be configured. You can manually input this port information into the Router.

The screenshot shows the Belkin 4 Port Router Setup interface. The left sidebar contains navigation links for LAN, Internet / WAN, Firewall, and Utilities. The main content area is titled 'Setup' and 'Application gateways'. It includes a breadcrumb trail 'Firewall > Application gateways', navigation buttons for Home, Help, and Log-out, and a status indicator for Internet Status: no connection. The 'Application gateways' section contains a note about configuring ports for applications, a 'Clear changes' button, an 'Apply changes' button, and a 'Popular Applications' dropdown menu set to 'Select One'. Below this is a 'clear entry' dropdown set to '1' and a 'Clear' button. A table lists application gateway settings with columns for Trigger Start Port, Trigger End Port, Trigger Type, Public Port, Public Type, and Enable.

	Trigger Start Port	Trigger End Port	Trigger Type	Public Port	Public Type	Enable
1.	22	24	TCP	100-102	TCP	<input checked="" type="checkbox"/>
2.			BOTH		BOTH	<input type="checkbox"/>
3.			BOTH		BOTH	<input type="checkbox"/>

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## Choosing an Application

Select your application from the drop-down list. Click “Add”. The settings will be transferred to the next available space in the screen. Click “Apply Changes” to save the setting for that application. To remove an application, select the number of the row that you want to remove then click “Clear”.

The screenshot shows the 'Setup' page for a Belkin 4 Port Router. The 'Firewall > Application gateways' section is active. A dropdown menu is open for selecting an application. The table below shows the current state of the application gateways.

	Trigger Start Port	Trigger End Port	Trigger	Application	Public	Type	Enable
1.	22	24	TC	ICQ		TCP	<input checked="" type="checkbox"/>
2.			BC	Napster		BOTH	<input type="checkbox"/>
3.				Net2Phone			<input type="checkbox"/>
4.				QuickTime 4 Client			<input type="checkbox"/>
5.				Rainbow Six / Rogue Spear			<input type="checkbox"/>

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### **Configuring Internal Forwarding Settings**

The Virtual Servers function will allow you to route external (Internet) calls for services such as a web server (port 80), FTP server (Port 21), or other applications through your Router to your internal network. Since your internal computers are protected by a firewall, computers outside your network (over the Internet) cannot get to them because they cannot be “seen”. A list of common applications has been provided in case you need to configure the Virtual Server function for a specific application. If your application is not listed, you will need to contact the application vendor to find out which port settings you need.

## USING THE WEB-BASED ADVANCED USER INTERFACE

### Choosing an Application

Select your application from the drop-down list. Click “Add”. The settings will be transferred to the next available space in the screen. Click “Apply Changes” to save the setting for that application. To remove an application, select the number of the row that you want to remove then click “Clear”.

### Manually Entering Settings into the Virtual Server

To manually enter settings, enter the IP address in the space provided for the internal (server) machine, the port(s) required to pass (use a comma between multiple ports), select the port type (TCP or UDP), and click “Apply Changes”. You can only pass one port per internal IP address. Opening ports in your firewall can pose a security risk. You can enable and disable settings very quickly. It is recommended that you disable the settings when you are not using a specific application.

## USING THE WEB-BASED ADVANCED USER INTERFACE

### Setting Client IP Filters

The Router can be configured to restrict access to the Internet, e-mail, or other network services at specific days and times. Restriction can be set for a single computer, a range of computers, or multiple computers.

To restrict Internet access to a single computer for example, enter the IP address of the computer you wish to restrict access to in the IP fields **(1)**. Next, enter “88” in both the port fields **(2)**. Select “Both” **(3)**. Select “Block” **(4)**. You can also select “Always” to block access all of the time. Select the day to start on top **(5)**, the time to start on top **(6)**, the day to end on the bottom **(7)**, and the time to stop **(8)** on the bottom. Select “Enable” **(9)**. Click “Apply Changes”. The computer at the IP address you specified will now be blocked from Internet access at the times you specified. Note: Be sure you have selected the correct time zone under “Utilities> System Settings> Time Zone”.

The screenshot shows a configuration form for Client IP Filters. The form is divided into several sections: IP, Port, Type, Block Time, Day, Time, and Enable. The IP section contains the address 192.168.2.22. The Port section contains 88. The Type section has radio buttons for TCP, UDP, and BOTH, with BOTH selected. The Block Time section has radio buttons for Always and Block, with Block selected. The Day section has two dropdown menus, both set to SUN. The Time section has two dropdown menus, both set to 12:00 A.M. The Enable section has a checked checkbox. Numbered callouts (1-9) point to the following elements: (1) IP address field, (2) Port fields, (3) BOTH radio button, (4) Block radio button, (5) top Day dropdown, (6) top Time dropdown, (7) bottom Day dropdown, (8) bottom Time dropdown, and (9) Enable checkbox.

IP	Port	Type	Block Time	Day	Time	Enable
192.168.2.22	88	<input checked="" type="radio"/> BOTH	<input type="radio"/> Always <input checked="" type="radio"/> Block	SUN	12:00 A.M.	<input checked="" type="checkbox"/>

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## Setting MAC Address Filtering

The MAC address filter is a powerful security feature that allows you to specify which computers are allowed on the network. Any computer attempting to access the network that is not specified in the filter list will be denied access. When you enable this feature, you must enter the MAC address of each client (computer) on your network to allow network access to each. The “Block” feature lets you turn on and off access to the network easily for any computer without having to add and remove the computer’s MAC address from the list.

The screenshot shows the Belkin 4 Port Router Setup page. The main content area is titled "MAC address filtering" and includes a description: "This feature lets you set up a list of allowed clients. When you enable this feature, you must enter the MAC address of each client on your network to allow network access to each." Below this is a checkbox labeled "Enable MAC Address Filtering" with a callout (1) pointing to it. Underneath is a table titled "MAC Address Filtering List" with columns for "Block", "Host", and "MAC Address". The "MAC Address" column has an input field and a "<< Add" button with a callout (3) pointing to it. Callout (2) points to the input field. At the bottom right are "Clear changes" and "Apply changes" buttons.

To enable this feature, select “Enable MAC Address Filtering” (1). Next, enter the MAC address of each computer on your network by clicking in the space provided (2) and entering the MAC address of the computer you want to add to the list. Click “Add” (3), then “Apply Changes” to save the settings. To delete a MAC address from the list, simply click “Delete” next to the MAC address you wish to delete. Click “Apply Changes” to save the settings.

*Note: You will not be able to delete the MAC address of the computer you are using to access the Router's administrative functions (the computer you are using now).*

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## Enabling the Demilitarized Zone (DMZ)

The DMZ feature allows you to specify one computer on your network to be placed outside of the firewall. This may be necessary if the firewall is causing problems with an application such as a game or video conferencing application. Use this feature on a temporary basis. The computer in the DMZ is NOT protected from hacker attacks.

The screenshot shows the Belkin 4 Port Router web-based advanced user interface. The page title is "Setup" and the internet status is "no connection". The navigation menu includes "LAN", "Internet / WAN", "Firewall", and "Utilities". The "Firewall" section is expanded to show "DMZ". The "DMZ" section contains a description of the feature and a table for configuring virtual DMZ hosts.

**DMZ**

The DMZ feature allows you to specify one computer on your network to be placed outside of the NAT firewall. This may be necessary if the NAT feature is causing problems with an application such as a game or video conferencing application. Use this feature on a temporary basis. **The computer in the DMZ is not protected from hacker attacks.** To put a computer in the DMZ, enter the last digits of its IP address in the field below and select "Enable". Click "Submit" for the change to take effect. [More Info](#)

IP Address of Virtual DMZ Host >

	Static IP	Private IP	Enable
1.		192. 168. 2. <input type="text"/>	<input type="checkbox"/>

[Clear changes](#) [Apply changes](#)

To put a computer in the DMZ, enter the last digits of its IP address in the IP field and select "Enable". Click "Apply Changes" for the change to take effect. If you are using multiple static WAN IP addresses, it is possible to select which WAN IP address the DMZ host will be directed to. Type in the WAN IP address you wish the DMZ host to direct to, enter the last two digits of the IP address of the DMZ host computer, select "Enable" and click "Apply Changes".

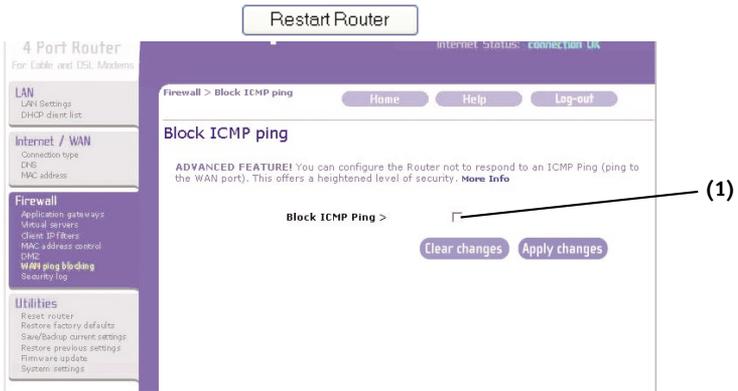
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## Blocking an ICMP Ping

Computer hackers use what is known as “pinging” to find potential victims on the Internet. By pinging a specific IP address and receiving a response from the IP address, a hacker can determine that something of interest might be there.

### Restart router

Sometimes it may be necessary to Restart or Reboot the router if it begins working improperly. Restarting or Rebooting the Router will not delete any of your configuration settings. Click the “Restart Router” button below to Restart the Router.



The Router can be set up so it will not respond to an ICMP ping from the outside. This heightens the level of security of your Router.

To turn off the ping response, select “Block ICMP Ping” (1) and click “Apply Changes”. The Router will not respond to an ICMP ping.

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### Utilities Tab

#### **Utilities**

This screen lets you manage different parameters of the Router and perform certain administrative functions.

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### Restarting the Router

Sometimes it may be necessary to restart or reboot the Router if it begins working improperly. Restarting or rebooting the Router will NOT delete any of your configuration settings.

#### Restart router

Sometimes it may be necessary to Restart or Reboot the router if it begins working improperly. Restarting or Rebooting the Router will not delete any of your configuration settings. Click the "Restart Router" button below to Restart the Router.

Restart Router

### Restarting the Router to Restore Normal Operation

1. Click the "Restart Router" button.
2. The following message will appear. Click "OK".



3. The following message will appear. Restarting the Router can take up to 60 seconds. It is important not to turn off the power to the Router during the restart.



4. A 60-second countdown will appear on the screen. When the countdown reaches zero, the Router will be restarted. The Router home page should appear automatically. If not, type in the Router's address (default = 192.168.2.1) into the navigation bar of your browser.

#### Reset Successfully

The reset is complete when the power light stops blinking.

Router is rebooting  seconds remaining.

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## Restoring Factory Default Settings

Using this option will restore all of the settings in the Router to the factory (default) settings. It is recommended that you back up your settings before you restore all of the defaults.

### Restore factory defaults

Using this option will restore all of the settings in the Router to the factory (default) settings. It is recommended that you backup your settings before you restore all of the defaults. To restore the factory default settings, click the "Restore Defaults" button below.

Restore Defaults

1. Click the "Restore Defaults" button.
2. The following message will appear. Click "OK".



3. The following message will appear. Restoring the defaults includes restarting the Router. It can take up to 60 seconds. It is important not to turn the power to the Router off during the restart.



4. A 60-second countdown will appear on the screen. When the countdown reaches zero, the Router's defaults will be restored. The Router home page should appear automatically. If it does not, type in the Router's address (default = 192.168.2.1) into the navigation bar of your browser.

### Restore factory defaults Successfully

The restore is complete when the power light stops blinking.

Router is rebooting  seconds remaining.

## USING THE WEB-BASED ADVANCED USER INTERFACE

### Saving a Current Configuration

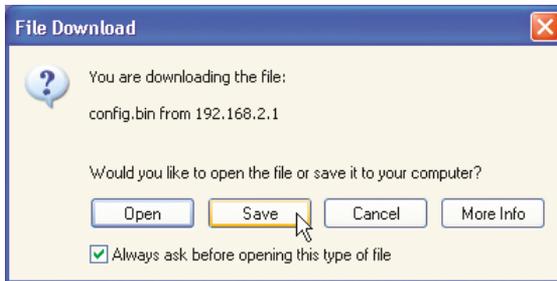
You can save your current configuration by using this feature. Saving your configuration will allow you to restore it later if your settings are lost or changed. It is recommended that you back up your current configuration before performing a firmware update.

#### Save/Backup current settings

You can save your current configuration by using this feature. Saving your configuration will allow you to restore it later if your settings are lost or changed. It is recommended that you backup your current configuration before performing a firmware update.

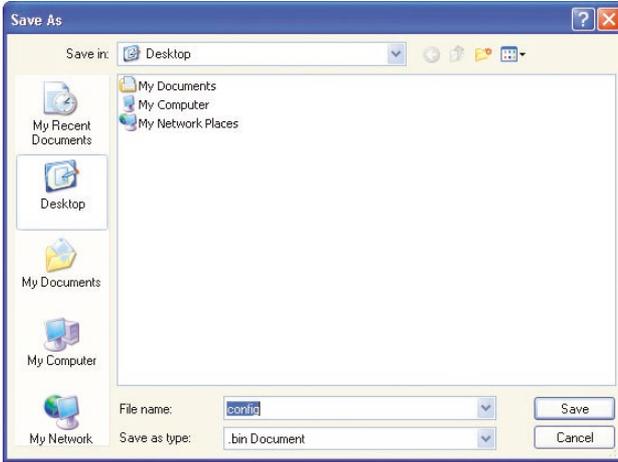
Save

1. Click "Save". A window called "File Download" will open. Click "Save".



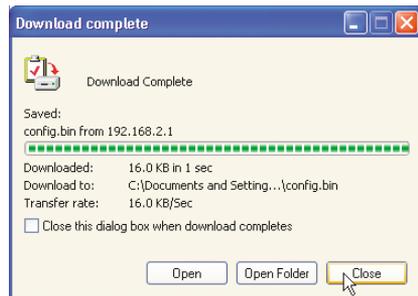
## USING THE WEB-BASED ADVANCED USER INTERFACE

2. A window will open that allows you to select the location where you want to save the configuration file. Select a location. You can name the file anything you want, or use the default name "Config". Be sure to name the file so you can locate it yourself later. When you have selected the location and name of the file, click "Save".



3. When the save is complete, you will see the window below. Click "Close".

The configuration is now saved.



# USING THE WEB-BASED ADVANCED USER INTERFACE

## Restoring a Previous Configuration

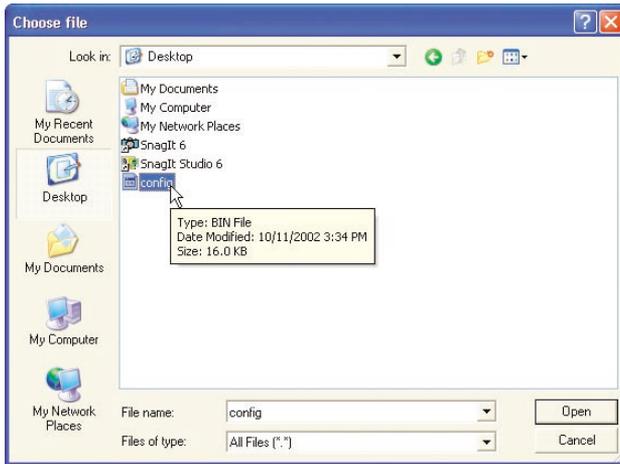
This option will allow you to restore a previously saved configuration.

### Restore previous Settings

This option will allow you to restore a previously saved configuration.

1. Click "Browse". A window will open that allows you to select the location of the configuration file. All configuration files end with a ".bin". Locate the configuration file you want to restore and double-click on it.



2. You will be asked if you want to continue. Click "OK".



## USING THE WEB-BASED ADVANCED USER INTERFACE

3. A reminder window will appear. It will take up to 60 seconds for the configuration restoration to complete. Click "OK".



4. A 60-second countdown will appear on the screen. When the countdown reaches zero, the Router's configuration will be restored. The Router home page should appear automatically. If not, type in the Router's address (default = 192.168.2.1) into the navigation bar of your browser.

### Restored Settings Successfully

The restored settings is complete when the power light stops blinking.

Router is rebooting  seconds remaining.

# USING THE WEB-BASED ADVANCED USER INTERFACE

## Updating Firmware

From time to time, Belkin may release new versions of the Router's firmware. Firmware updates contain feature improvements and fixes to problems that may have existed. When Belkin releases new firmware, you can download the firmware from the Belkin update website and update your Router's firmware to the latest version.

### Firmware Update

From time to time, Belkin may release new versions of the Router's firmware. Firmware updates contain improvements and fixes to problems that may have existed. Click the link below to see if there is a new firmware update available for this Router.

NOTE: Please backup your current settings before updating to a new version of firmware. [Click Here](#) to go to the Save/Backup current settings page.

Check For New Firmware Version

Update Firmware >

Check Firmware

Browse...

Update

(1)

(2)

(3)

### Checking for a New Version of Firmware

The "Check Firmware" (1) button allows you to instantly check for a new version of firmware. When you click the button, a new browser window will appear informing you that either no new firmware is available or that there is a new version available. If a new version is available, you will have the option to download it.

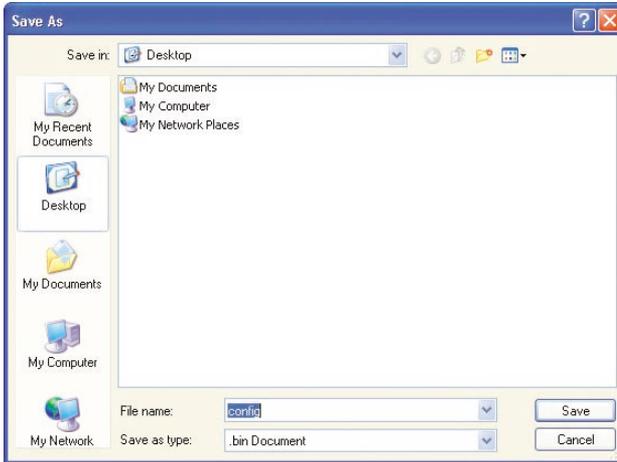
### Downloading a New Version of Firmware

If you click the "Check Firmware" button and a new version of firmware is available, you will see a screen such as the following.

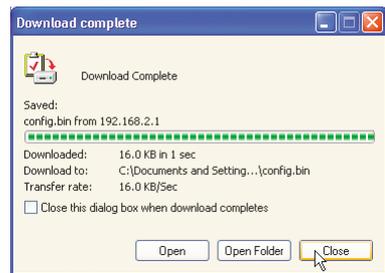


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1. To download the new version of firmware, click “Download”.
2. A window will open that allows you to select the location where you want to save the firmware file. Select a location. You can name the file anything you want, or use the default name. Be sure to locate the file in a place where you can locate it yourself later. When you have selected the location, click “Save”.



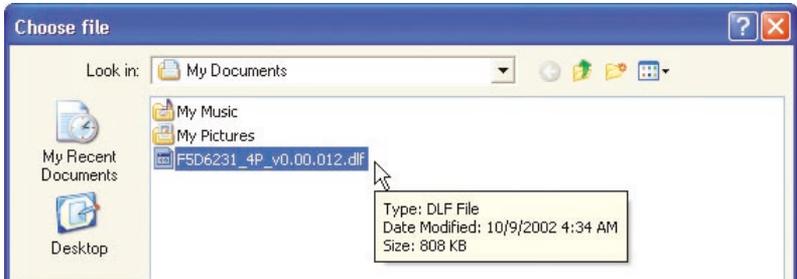
3. When the save is complete, you will see the following window. Click “Close”.
- The download of the firmware is complete. To update the firmware, follow the next steps in “Updating the Router’s Firmware”.



## USING THE WEB-BASED ADVANCED USER INTERFACE

### Updating the Router's Firmware

1. In the "Firmware Update" page, click "Browse" (2). A window will open that allows you to select the location of the firmware update file. All firmware files end with a ".dlf".



2. Browse to the firmware file you downloaded. Select the file by double-clicking on the file name.
3. The "Update Firmware" box will now display the location and name of the firmware file you just selected. Click "Update".

### Firmware Update

From time to time, Belkin may release new versions of the Router's firmware. Firmware updates contain improvements and fixes to problems that may have existed. Click the link below to see if there is a new firmware update available for this Router.

NOTE: Please backup your current settings before updating to a new version of firmware. [Click Here](#) to go to the Save/Backup current settings page.

**Check For New Firmware Version**

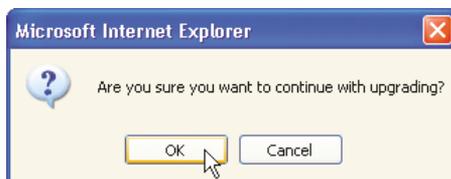
Check Firmware

Update Firmware >

C:\Documents and Settings\y Browse...

Update

4. You will be asked if you are sure you want to continue. Click "OK".



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5. You will see one more message. This message tells you that the Router may not respond for as long as one minute as the firmware is loaded into the Router and the Router is rebooted. Click "OK".



6. A 60-second countdown will appear on the screen. When the countdown reaches zero, the Router firmware update will be complete. The Router home page should appear automatically. If not, type in the Router's address (default = 192.168.2.1) into the navigation bar of your browser.

### Update Firmware Successfully

The upgrade is complete when the power light stops blinking.

Router is rebooting  seconds remaining.

The firmware update is complete.

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### Changing System Settings

The “System Settings” page is where you can enter a new administrator password, set the time zone, enable remote management, and turn on and off the NAT function of the Router.

### Setting or Changing the Administrator Password

The Router ships with NO password entered. If you wish to add a password for greater security, you can set a password here. Write down your password and keep it in a safe place, as you will need it if you need to log into the Router in the future. It is also recommended that you set a password if you plan to use the remote management feature of your Router.

**Administrator Password:**  
The Router ships with NO password entered. If you wish to add a password for more security, you can set a password here. [More Info](#)

- Type in current Password >

- Type in new Password >

- Confirm new Password >

- Login Timeout >  (1-99 minutes)

### Changing the Login Timeout Setting

The login timeout option allows you to set the period of time that you can be logged into the Router’s advanced setup interface. The timer starts when there has been no activity. For example, you have made some changes in the advanced setup interface, then left your computer alone without clicking “Logout”. Assuming the timeout is set to 10 minutes, then 10 minutes after you leave, the login session will expire. You will have to login to the Router again to make any more changes. The login timeout option is for security purposes and the default is set to 10 minutes.

*Note: Only one computer can be logged into the Router’s advanced setup interface at one time.*

## USING THE WEB-BASED ADVANCED USER INTERFACE

### Setting the Time and Time Zone

The Router keeps time by connecting to a Simple Network Time Protocol (SNTP) server. This allows the Router to synchronize the system clock to the global Internet. The synchronized clock in the Router is used to record the security log and control client filtering. Select the time zone that you reside in. If you reside in an area that observes Daylight Saving, then place a check mark in the box next to “Enable Daylight Saving”. The system clock may not update immediately. Allow at least 15 minutes for the Router to contact the time servers on the Internet and get a response. You cannot set the clock yourself.

**Time and Time Zone:** September 23, 2002 2:00:24 PM  
Please set your time Zone. If you are in an area that observes daylight saving check this box: [More Info](#)

- Time Zone > (GMT-08) Pacific Time (US & Canada): Tijuana ▾

- Daylight Savings >  Enable Daylight Saving

### Enabling Remote Management

Before you enable this advanced feature of your Belkin Router, **MAKE SURE YOU HAVE SET THE ADMINISTRATOR PASSWORD.** Remote management allows you to make changes to your Router’s settings from anywhere on the Internet. There are two methods of remotely managing the Router. The first is to allow access to the Router from anywhere on the Internet by selecting “Any IP address can remotely manage the Router”. By typing in your WAN IP address from any computer on the Internet, you will be presented with a login screen where you need to type in the password of your Router. The second method is to allow a specific IP address only to remotely manage the Router. This is more secure, but less convenient. To use this method, enter the IP address you know you will be accessing the Router from in the space provided and select “Only this IP address can remotely manage the Router”. Before you enable this function, it is **STRONGLY RECOMMENDED** that you set your administrator password. Leaving the password empty will potentially open your Router to intrusion.

#### Remote Management:

**ADVANCED FEATURE!** Remote management allows you to make changes to your Router’s settings from anywhere on the Internet. Before you enable this function, **MAKE SURE YOU HAVE SET THE ADMINISTRATOR PASSWORD.** [More Info](#)

Any IP address can remotely manage the router.

- Only this IP address can remotely manage the router:>

0 . 0 . 0 . 0

## USING THE WEB-BASED ADVANCED USER INTERFACE

### Enabling/Disabling NAT (Network Address Translation)

*Note: This advanced feature should be employed by advanced users only. Before enabling this function, MAKE SURE YOU HAVE SET THE ADMINISTRATOR PASSWORD. Network Address Translation (NAT) is the method by which the Router shares the single IP address assigned by your ISP with the other computers on your network. This function should only be used if your ISP assigns you multiple IP addresses or you need NAT disabled for an advanced system configuration. If you have a single IP address and you turn NAT off, the computers on your network will not be able to access the Internet. Other problems may also occur. Turning off NAT will not affect your firewall functions.*

#### NAT Enabling:

**ADVANCED FEATURE!** Allows you to turn the Network Address Translation feature of the Router off. In almost every case you would NOT want to turn this feature off. [More Info](#)

- NAT Enable / Disable >  Enable  Disable

### Enabling/Disabling UPnP

UPnP (Universal Plug-and-Play) is yet another advanced feature offered by your Belkin Router. It is a technology that offers seamless operation of voice messaging, video messaging, games, and other applications that are UPnP-compliant. Some applications require the Router's firewall to be configured in a specific way to operate properly. This usually requires opening TCP and UDP ports, and in some instances, setting trigger ports. An application that is UPnP-compliant has the ability to communicate with the Router, basically "telling" the Router which way it needs the firewall configured. The Router ships with the UPnP feature disabled. If you are using any applications that are UPnP-compliant, and wish to take advantage of the UPnP features, you can enable the UPnP feature. Simply select "Enable" in the "UPnP Enabling" section of the "Utilities" page. Click "Apply Changes" to save the change.

#### UPNP Enabling:

**ADVANCED FEATURE!** Allows you to turn the UPNP feature of the Router off. In almost every case you would NOT want to turn this feature off. [More Info](#)

- UPNP Enable / Disable >  Enable  Disable

## USING THE WEB-BASED ADVANCED USER INTERFACE

### Enabling/Disabling Auto Firmware Update

This innovation provides the Router with the built-in capability to automatically check for a new version of firmware and alert you that the new firmware is available. When you log into the Router's advanced interface, the Router will perform a check to see if new firmware is available. If so, you will be notified. You can choose to download the new version or ignore it. The Router ships with this feature enabled. If you want to disable it, select "Disable" and click "Apply Changes".

#### Automatic Firmware Notification:

The Router has the capability built-in to automatically check for a new version of firmware and alert you that the new firmware is available. [More Info](#)

- Automatic Firmware  
Notification Enable /  
Disable >

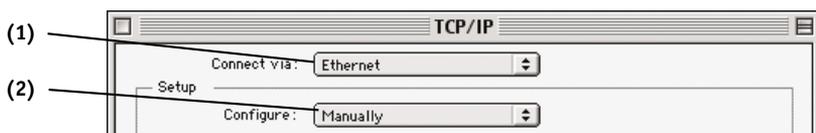
Enable  Disable

## MANUALLY CONFIGURING NETWORK SETTINGS

Set up the computer that is connected to the cable or DSL modem **FIRST** using these steps. You can also use these steps to add computers to your Router after the Router has been set up to connect to the Internet.

### Manually Configuring Network Settings in Mac OS up to 9.x

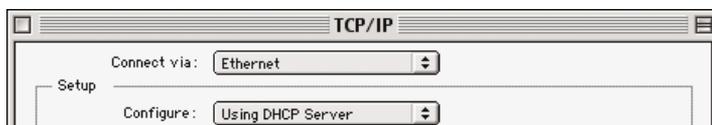
1. Pull down the Apple menu. Select "Control Panels" and select "TCP/IP".
2. You will see the TCP/IP control panel. Select "Ethernet Built-In" or "Ethernet" in the "Connect via:" drop-down menu **(1)**.



3. Next to "Configure" **(2)**, if "Manually" is selected, your Router will need to be set up for a static IP connection type. Write the address information in the table below. You will need to enter this information into the Router.

IP address:	<input type="text"/>
Subnet Mask:	<input type="text"/>
Router Address:	<input type="text"/>
Name Server Address:	<input type="text"/>

4. If not already set, at "Configure:", choose "Using DHCP Server". This will tell the computer to obtain an IP address from the Router.



## MANUALLY CONFIGURING NETWORK SETTINGS

- Close the window. If you made any changes, the following window will appear. Click "Save".



Restart the computer. When the computer restarts, your network settings are now configured for use with the Router.

### Manually Configuring Network Settings in Mac OS X

- Click on the "System Preferences" icon.

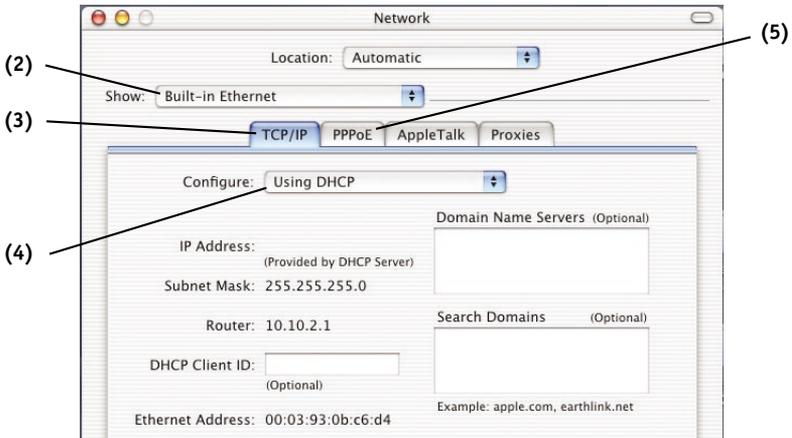


- Select "Network" (1) from the "System Preferences" menu.



## MANUALLY CONFIGURING NETWORK SETTINGS

3. Select “Built-in Ethernet” (2) next to “Show in the Network menu.



4. Select the “TCP/IP” tab (3). Next to “Configure” (4), you should see “Manually” or “Using DHCP”. If you do not, check the PPPoE tab (5) to make sure that “Connect using PPPoE” is NOT selected. If it is, you will need to configure your Router for a PPPoE connection type using your user name and password.
5. If “Manually” is selected, your Router will need to be set up for a static IP connection type. Write the address information in the table below. You will need to enter this information into the Router.

IP address:	<input type="text"/>
Subnet Mask:	<input type="text"/>
Router Address:	<input type="text"/>
Name Server Address:	<input type="text"/>

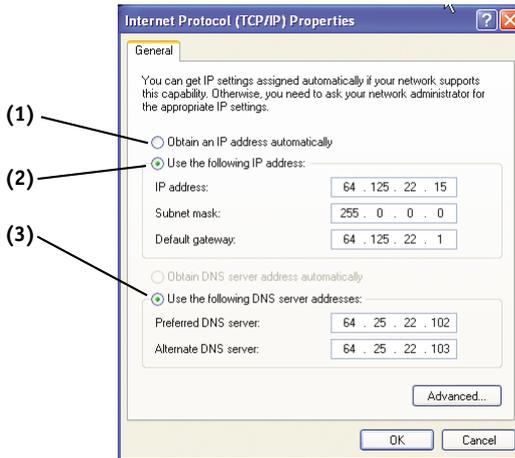
6. If not already selected, select “Using DHCP” next to “Configure” (4), then click “Apply Now”.

Your network settings are now configured for use with the Router.

# MANUALLY CONFIGURING NETWORK SETTINGS

## Manually Configuring Network Settings in Windows 2000, NT, or XP

1. Click “Start”, “Settings”, then “Control Panel”.
2. Double-click on the “Network and dial-up connections” icon (Windows 2000) or the “Network” icon (Windows XP).
3. Right-click on the “Local Area Connection” associated with your network adapter and select “Properties” from the drop-down menu.
4. In the “Local Area Connection Properties” window, click “Internet Protocol (TCP/IP)” and click the “Properties” button. The following screen will appear:



5. If “Use the following IP address” (2) is selected, your Router will need to be set up for a static IP connection type. Write the address information the table below. You will need to enter this information into the Router.

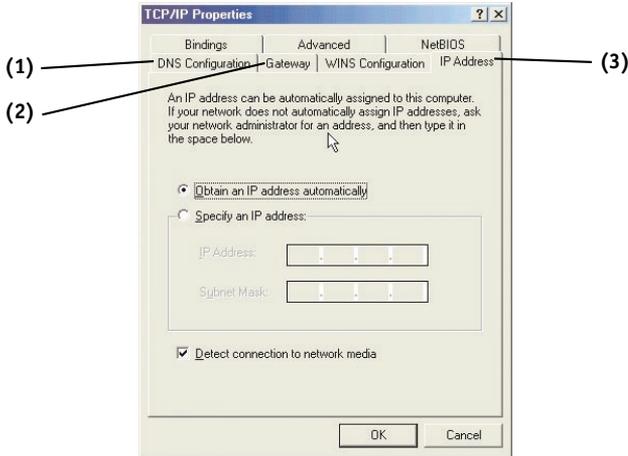
IP address:	<input type="text"/>
Subnet Mask:	<input type="text"/>
Default gateway:	<input type="text"/>
Preferred DNS server:	<input type="text"/>
Alternate DNS server:	<input type="text"/>

6. If not already selected, select “Obtain an IP address automatically” (1) and “Obtain DNS server address automatically” (3). Click “OK”.  
Your network settings are now configured for use with the Router.

# MANUALLY CONFIGURING NETWORK SETTINGS

## Manually Configuring Network Settings in Windows 98 or Me

1. Right-click on “My Network Neighborhood” and select “Properties” from the drop-down menu.
2. Select “TCP/IP -> settings” for your installed network adapter. You will see the following window.



3. If “Specify and IP address” is selected, your Router will need to be set up for a static IP connection type. Write the address information in the table below. You will need to enter this information into the Router.
4. Write the IP address and subnet mask from the “IP Address” tab (3).
5. Click the “Gateway” tab (2). Write the gateway address down in the chart.
6. Click the “DNS Configuration” tab (1). Write the DNS address(es) in the chart.
7. If not already selected, select “Obtain IP address automatically” on the IP address tab. Click “OK”.

IP address:	<input type="text"/>
Subnet Mask:	<input type="text"/>
Default gateway:	<input type="text"/>
Preferred DNS server:	<input type="text"/>
Alternate DNS server:	<input type="text"/>

Restart the computer. When the computer restarts, your network settings are now configured for use with the Router.

## RECOMMENDED WEB BROWSER SETTINGS

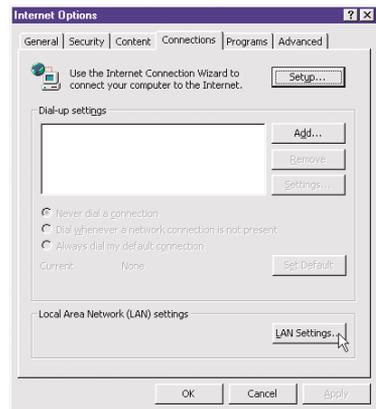
In most cases, you will not need to make any changes to your web browser's settings. If you are having trouble accessing the Internet or the advanced web-based user interface, then change your browser's settings to the recommended settings in this section.

### Internet Explorer 4.0 or Higher

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

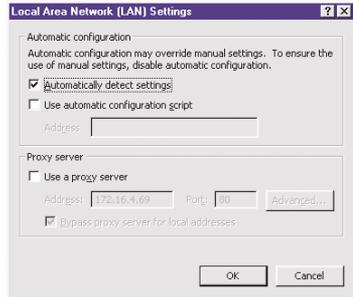


2. In the "Internet Options" screen, there are three selections: "Never dial a connection", "Dial whenever a network connection is not present", and "Always dial my default connection". If you can make a selection, select "Never dial a connection". If you cannot make a selection, go to the next step.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



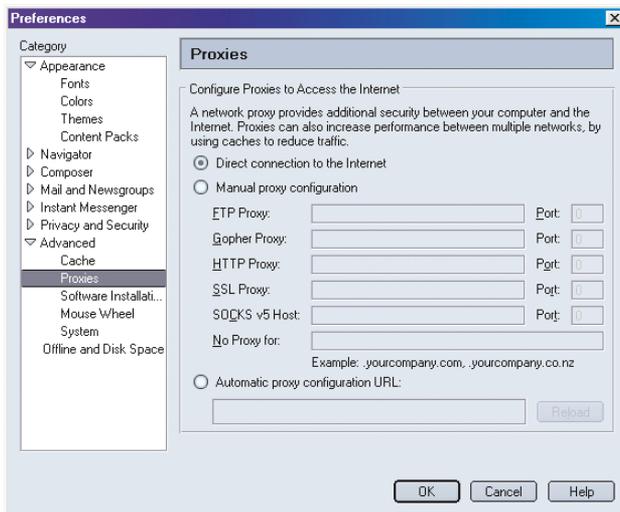
# RECOMMENDED WEB BROWSER SETTINGS

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”.



## TROUBLESHOOTING

You can find technical support information at [www.networking.belkin.com](http://www.networking.belkin.com) or [www.belkin.com](http://www.belkin.com) through the tech support area. If you want to contact technical support by phone, please call 800-223-5546. Technical support is available 24-hours-a-day, 7-days-a-week.

### **The Easy Install Wizard is not able to connect my Router to the Internet.**

- The software must be run from the computer that is connected to the modem. The Internet connection must be active and working at the time of installation. Connect your computer back to the modem and make sure the Internet connection is working. Once you have verified that the Internet connection is working, run the Easy Install Wizard again.
- 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 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.
- Make sure that the modem is ON. Check the wall adapter and the power connection at the modem. Some modems have a power switch. Make sure the power switch is in the ON position.

### **The Easy Install Wizard is not able to find my Router.**

- Make sure that the Router is ON. The Power/Ready light will be on GREEN and SOLID. Check the power supply connection at the wall and the Router.
- Make sure that the LAN link light that corresponds to the port you connected to the computer is ON. Check the network cable going from the computer to the Router.
- If the Easy Install Wizard told you that it detected multiple network adapters, run the Easy Install Wizard again and try a different adapter.

### **The WAN link LED is not on or I cannot connect to the cable or DSL modem.**

- Check the connection between the Router and the cable or DSL modem. Make sure the network cable from the cable or DSL modem is connected to the port on the Router labeled "Internet/WAN".
- Make sure the cable or DSL modem is powered and switched on.
- Make sure the Router has power. The Power/Ready LED should be illuminated.
- Make sure the cable between the modem and the Router is the cable that was provided with the modem.

### **My connection type is “static IP address”. I cannot connect to the Internet.**

- Since your connection type is “static IP address”, your ISP must assign you the IP address, subnet mask, and gateway address. Make sure that the Router’s connection type is configured as “Static IP Address” and verify your settings.
- Your ISP may bind your connection to the MAC address of your computer’s NIC. Clone your MAC address.

### **My connection type is “dynamic IP address”. I cannot connect to the Internet.**

- Make sure your computers are correctly configured and all network cables are properly connected.
- Make sure the cable or DSL line is properly attached on your cable or DSL modem. Refer to the manual of your modem to verify that it works normally.
- Make sure the network cable between the modem and the barricade is well connected. Power off the modem; wait a few seconds and then power it on again.
- Your ISP may bind your connection to the MAC address of your computer’s NIC. Clone your MAC address.

### **My connection type is “PPPoE”. I cannot connect to the Internet.**

- Since your connection type is PPPoE, your ISP will assign you a user name and password and sometimes a service name. Make sure the Router connection type is configured as “PPPoE” and these settings are entered properly.
- Make sure your computers are correctly configured and all network cables are properly connected.
- Make sure the coaxial cable or DSL line is properly attached on your cable or DSL modem. Refer to the manual of your modem to verify it works normally.
- Make sure the network cable between the modem and the Router is well connected. Power off the modem for a few seconds and power on it again.
- Your ISP may bind your connection to the MAC address of your computer’s NIC. Clone your MAC address.

# INFORMATION

## FCC Statement

### DECLARATION OF CONFORMITY WITH FCC RULES FOR ELECTROMAGNETIC COMPATIBILITY

We, Belkin Corporation, of 501 West Walnut Street, Compton, CA 90220, declare under our sole responsibility that the product,

F5D6231-4

to which this declaration relates,

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.

## Caution: Exposure to Radio Frequency Radiation.

The radiated output power of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such manner that the potential for human contact normal operation is minimized.

When connecting an external antenna to the device, the antenna shall be placed in such a manner to minimize the potential for human contact during normal operation. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal 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. If not installed and used in accordance with the instructions, it may 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.

## Modifications

The FCC requires the user to be notified that any changes or modifications to this device that are not expressly approved by Belkin Corporation may void the users authority to operate the equipment.

## INFORMATION

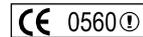
### Canada- Industry Canada (IC)

The wireless radio of this device complies with RSS 139 & RSS 210 Industry Canada. This Class B digital complies with Canadian ICES-003.

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

### Europe-European Union Notice

Radio products with the CE 0560 or CE alert marking comply with the R&TTE Directive (1995/5/EC) issued by the Commission of the European Community.



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



- EN 60950 (IEC60950) – Product Safety
- EN 300 328 Technical requirement for radio equipment
- ETS 300 826 General EMC requirements for radio equipment.

To determine the type of transmitter, check the identification label on your Belkin product.

Products with the CE marking comply with the EMC Directive (89/336/EEC) and the Low Voltage Directive (72/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms (in brackets are the equivalent international standards).



- EN 55022 (CISPR 22) – Electromagnetic Interference
- EN 55024 (IEC61000-4-2,3,4,5,6,8,11)- Electromagnetic Immunity
- EN 61000-3-2 (IEC61000-3-2) - Power Line Harmonics
- EN 61000-3-3 (IEC61000) – Power Line Flicker
- EN 60950 (IEC60950) – Product Safety

Products that contain the radio transmitter are labeled with CE 0560 or CE alert marking and may also carry the CE logo.

## INFORMATION

### **Belkin Corporation Limited Lifetime Product Warranty**

Belkin Corporation warrants this product against defects in materials and workmanship for its lifetime. If a defect is discovered, Belkin will, at its option, repair or replace the product at no charge provided it is returned during the warranty period, with transportation charges prepaid, to the authorized Belkin dealer from whom you purchased the product. Proof of purchase may be required.

This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication; if the product has been modified without the written permission of Belkin; or if any Belkin serial number has been removed or defaced.

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No Belkin dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

BELKIN IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO, LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN, OR USED WITH, BELKIN PRODUCTS.

Some states do not allow the exclusion or limitation of incidental or consequential damages or exclusions of implied warranties, so the above limitations of exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.



[belkin.com](http://belkin.com)

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