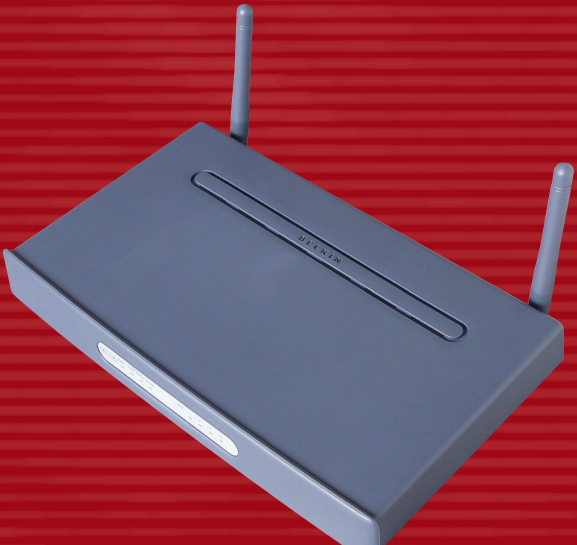
ADSL Modem with Built-In 802.11g Wireless Router

Network your computers with this one-box solution that connects and shares your ADSL Internet access



User Manual

F5D7630-4A
F5D7630-4B

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Thank you for purchasing the ADSL Modem with Built-In 802.11g Wireless Router (the Router). In minutes, you will be able to share your Internet connection and network your computers. The following is a list of features that make your new Router an ideal solution for your home or small office network.

OVERVIEW

Key Features

Integrated 802.11g Wireless Access Point

802.11g is an exciting new wireless technology that provides up to 54Mbps (nearly five times faster than 802.11b) data rates.

Works with Both PCs and Mac® Computers

The Wireless ADSL Modem Router supports a variety of networking environments including Mac OS® 8.x, 9.x, X v10.x, AppleTalk®, Linux®, Windows® 95, 98, Me, NT®, 2000, and XP, and others. All that is needed is an Internet browser and a network adapter that supports TCP/IP (the standard language of the Internet).

Front-Panel LED Display

Lighted LEDs on the front of the Router indicate which functions are in operation. You'll know at-a-glance whether your Router is connected to the Internet. This feature eliminates the need for advanced software and status-monitoring procedures.

Web-Based User Interface

You can set up the Router's functions easily through your web browser, without having to install additional software onto the computer. There are no disks to install or keep track of and, best of all, you can make changes and perform setup functions from any computer on the network quickly and easily.

NAT IP Address Sharing

Your Router employs Network Address Translation (NAT) to share the single IP address assigned to you by your Internet Service Provider while saving the cost of adding additional IP addresses to your Internet service account.

SPI 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, and fragment flooding.

Integrated 10/100 4-Port Switch

The Router has a built-in, four-port network switch to allow your wired computers to share printers, data and MP3 files, digital photos, and much more. The switch features automatic detection so it will adjust to the speed of connected devices. The switch will transfer data between computers and the Internet simultaneously without interrupting or consuming resources.

Built-In Dynamic Host Configuration Protocol (DHCP) on-board makes for the easiest possible connection of a network. The DHCP server will assign IP addresses to each computer automatically so there is no need for a complicated networking setup.

MAC Address Filtering

For added security, you can set up a list of MAC addresses (unique client identifiers) that are allowed access to your network. Every computer has its own MAC address. Simply enter these MAC addresses into a list using the web-based user interface and you can control access to your network.

Applications and Advantages

- Economically connect multiple computers to a single Internet connection
- SOHO (Small Office/Home Office) networking needs
  Provides the easy and quick small network installation SOHO users need

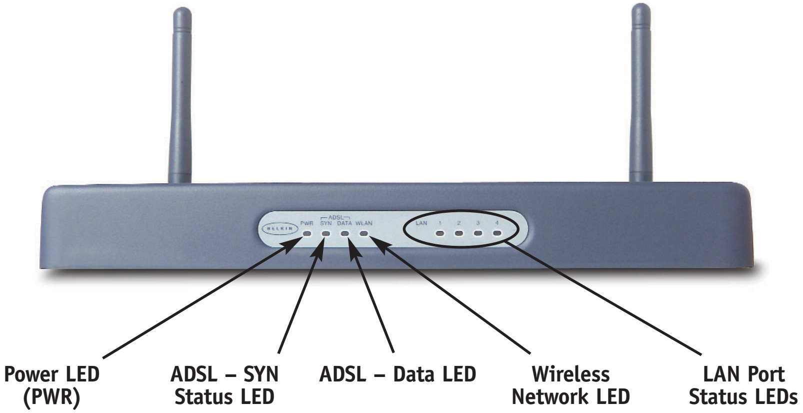
Package Contents

- ADSL Modem with Built-In 802.11g Wireless Router
- RJ45 Ethernet Networking Cable (for connecting the Router to the computer)
- RJ11 Phone Line Cord (for connecting the Router to the ADSL line)
- ADSL In-Line Filter
- Power Supply
- Quick Installation Guide
- User Manual CD-ROM
- Registration Card

System Requirements

- ADSL connection
- At least one computer with an installed network interface adapter
- TCP/IP networking protocol installed on each computer
- CAT5 networking cable (or better)
- Microsoft® Internet Explorer 4.0 or later, or Netscape® 4.0 or later

Front Panel



Power LED (PWR)	
OFF	Router is OFF
Green	Router is ready

ADSL – SYN Status LED	
OFF	No ADSL connection
Solid Green	ADSL connection is ready
Blinking Green	Negotiating connection

This LED lights in GREEN to indicate that your Modem Router is connected properly to the ADSL line.

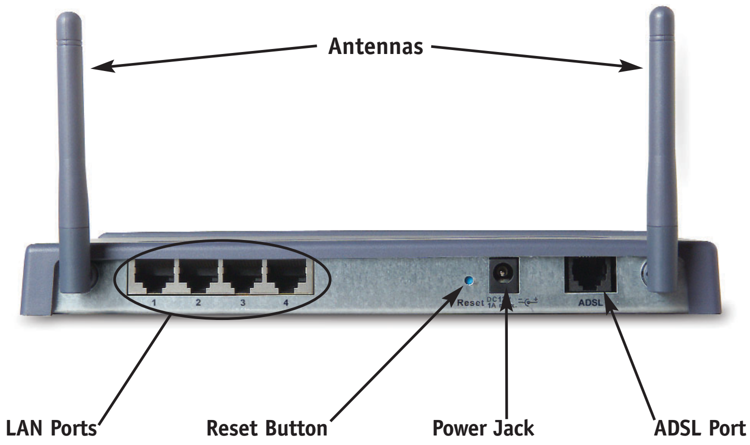
ADSL – Data LED	
OFF	No WAN connection
Green	WAN connection is ready
Blinking	Indicates WAN activity

Wireless Network LED	
OFF	Wireless network is OFF
Green	Wireless network is ready
Blinking	Indicates wireless activity

LAN Port-Status LEDs	
OFF	No device is linked to the port
Solid Orange	10/100Base-Tx device connected
Blinking Orange	Port activity

These LEDs are labeled 1–4 and correspond to the numbered ports on the rear of the Router. When a computer is properly connected to one of the LAN ports on the rear of the Router, the LED will light. When information is being sent over the port, the LED blinks rapidly.

Rear Panel



LAN Ports

The LAN ports are RJ45, 10/100 auto-negotiation. The ports are labeled 1 through 4. These ports correspond to the numbered LEDs on the front of the Router. Connect your LAN computers or any networking devices to one of these ports.

Reset Button

The “Reset” button is used in rare cases when the Router may function improperly. Resetting the Router will restore the Router’s normal operation while maintaining the programmed settings. You can also restore the factory default settings by using the Reset button. Use the restore option in instances where you may have forgotten your custom password.

a. Resetting the Router

Push and release the Reset button. When the Power/Ready light becomes solid again, the reset is complete.

b. Restoring the Factory Defaults

Press and hold the Reset button for 10 seconds then release it. When the Power/Ready light becomes solid again, the restore is complete.

Power Jack

Connect the included 12V DC power supply to this inlet. Using the wrong type of power adapter may cause damage to your Router.

ADSL Port

This port is for connection to your ADSL line. Connect your ADSL line to this port.

PLACEMENT OF YOUR ROUTER

Proper placement of your Router is important to ensure the best performance of your wireless network. Typically, indoors your Wireless Router can provide a circular coverage area of 250 feet or more. However, different types of construction materials and other obstructions in a building can greatly affect the wireless signal and decrease the range. Whenever possible, your Router should be placed as close as possible to the center of the area that you want to cover. In multi-story homes, place the Router on a floor that is as close to the center of the home as possible; this may mean placing the Router on an upper floor.

Use care when choosing the location of your Router.

- Be aware of appliances or large objects such as a refrigerator or washer/dryer unit that may be on the opposite side of a wall from where you decide to place your Router.
- Place the Router on top of a desk and away from metal cabinets and computer cases.
- Do not place objects or components on top of the Router.
- Make sure that both antennas are pointing UP at all times.
- Metallic-based UV window tint can affect wireless performance. Do not place the Router next to a tinted window.

We realize that in the real world, it may not be possible to place your Router in the center of your coverage area. In cases where you may experience difficulty covering the entire area you want, try placing the Router as high as possible. Wireless devices work best in a line-of-sight situation where there are no obstacles between the wireless computer and the Router. The Router may also be mounted to a wall with the antennas facing UP. There are other options for expanding your wireless coverage area. Visit www. belkin.com/networking for solutions.

The wireless signal can be affected by many things including neighboring wireless networks, microwave ovens in operation, and 2.4GHz cordless phones. While these things can affect the network performance, your wireless network typically will work fine under most conditions where these devices exist.

ISP Settings

Please collect the following information from your ISP before setting up the Wireless ADSL Modem Router.

For PPPoE and PPPoA users

- VCI and VPI number
- An ISP account user name and password

For fixed IP users

- IP address and subnet mask
- IP address for your ISP's Gateway Server and Domain Name Server

Connect the System

Connect the ADSL Line

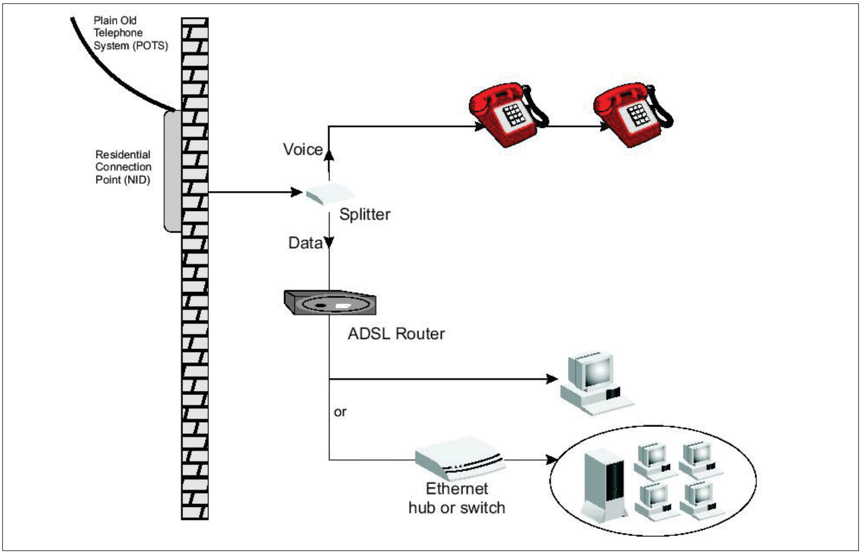
Run standard telephone cable from the wall jack providing ADSL service to the ADSL port on your Wireless ADSL Modem Router. When inserting an ADSL RJ11 plug, be sure the tab on the plug clicks into position to ensure that it is properly seated. If you are using splitterless ADSL service, add low-pass filters between the ADSL wall jack and your telephones. (These filters pass voice signals through but filter data signals out.)

Phone Line Configuration

Installing a Full-Rate Connection

If you are using a full-rate (G.dmt) connection, your service provider will attach the ADSL line to a data/voice splitter. In this case, you can connect your phones and computer directly to the splitter as shown on the next page.

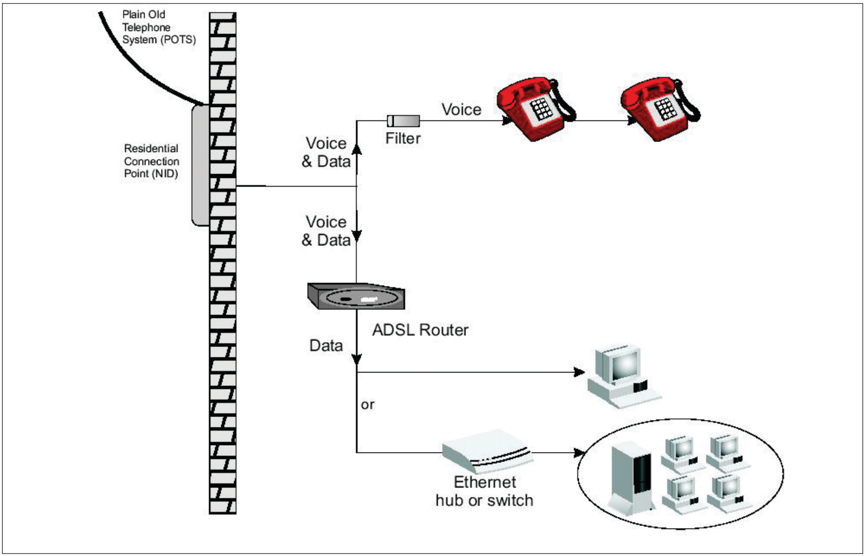
Installing with a Splitter



Installing a Splitterless Connection

If you are using a splitterless (G.lite) connection, then your service provider will attach the outside ADSL line directly to your phone system. In this case, you can connect your phones and computer directly to the incoming ADSL line, but you will have to add low-pass filters to your phones as shown on the next page.

Installing without a Splitter



Attach to your Network Using Ethernet Cabling

The four LAN ports on the ADSL Modem Router auto-negotiate the connection speed to 10Mbps Ethernet or 100Mbps Fast Ethernet, as well as the transmission mode to half duplex or full duplex.

Configuring the Router

The Belkin Wireless ADSL Modem Router is equipped with a Web-Based Interface that you can use to set up the Router. From the Web-Based Interface, you can perform the following tasks:

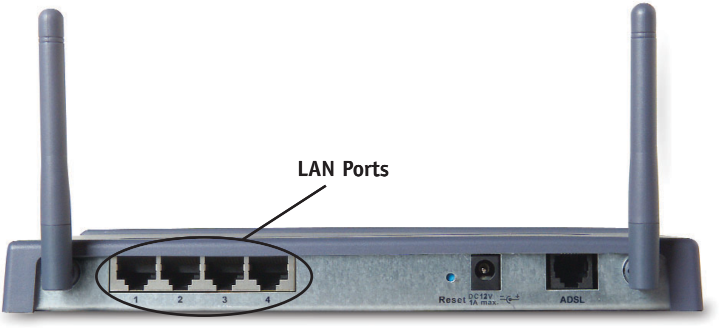
- View the Router's current settings and status.
- Configure the Router to connect to your ISP with the settings that they provided you.
- Change the current network settings such as the internal IP address, the IP address pool, DHCP settings, and more.

- Set the Router’s firewall to work with specific applications (port forwarding).
- Set up security features such as client restrictions and MAC address filtering.
- Enable the DMZ feature for a single computer on your network.
- Change the Router’s internal password.
- Reset the Router.
- Reset the Router’s default settings.
- Update the Router’s firmware.

Step 1: Installing the Hardware

1. Power down your equipment.

2. Connect each PC to one of the ports on the rear of the Router labeled LAN by using a RJ45 networking cable.



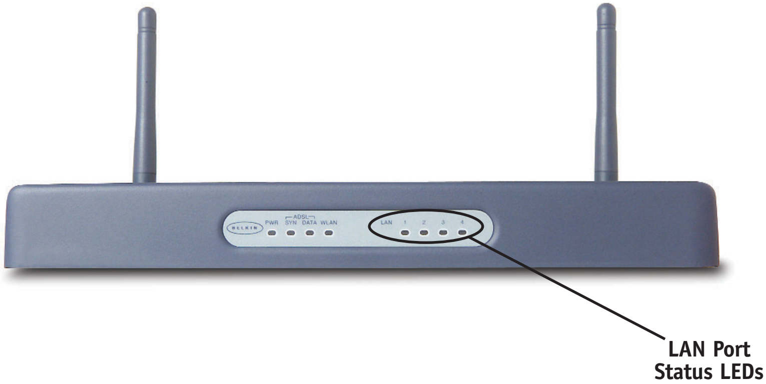
3. Connect the telephone cable from the wall jack providing ADSL service to the ADSL port on your Router.

Note: When inserting an ADSL RJ11 plug, be sure the tab on the plug clicks into position to ensure that it is properly seated.

4. Connect the power adapter to the Router.

5. After the Router is turned on, the Router’s Power light should be on.

6. Turn on the rest of your computers. After your computers boot up, a LAN link light (on the front of the Router) will be on for each port to which a wired computer is connected. These lights are your means to verify that your computers are connected.

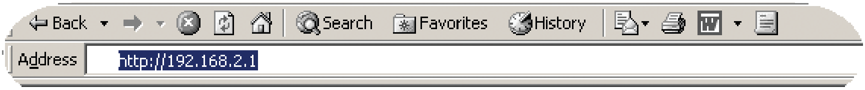


Step 2: Set your Computer's Network Settings to Work with a DHCP Server

Configure the TCP/IP settings on your computers to obtain an IP address automatically. The Router will assign each computer an IP address in the range of 192.168.2.x. In most cases, your computer is programmed to automatically obtain your IP address when you turn it on. If your computer is not set to work with a DHCP server, then see the section in this manual called "Manually Configuring Network Settings" for directions.

Step 3: Configuring the Router Using the Web-Based User Interface

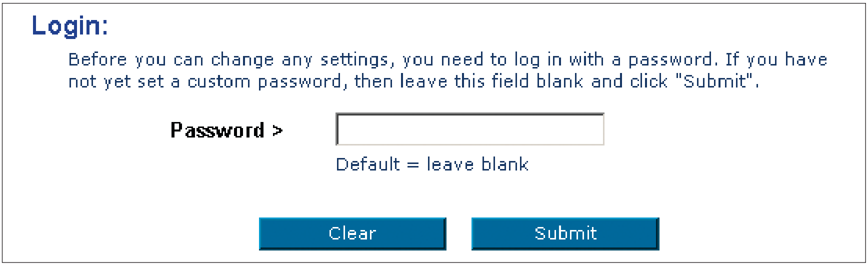
Using your Internet browser, you can access the Router's Web-Based User Interface. In your browser, type "192.168.2.1" (do not type in anything else such as "http://" or "www"). Then press the "Enter" key.



Address http://192.168.2.1

Logging into the Router

To configure the Router's settings, you have to log in. The Router is supplied with no password entered. In the login screen, leave the password blank and click the "Submit" button to log in.



Login:

Before you can change any settings, you need to log in with a password. If you have not yet set a custom password, then leave this field blank and click "Submit".

Password >

Default = leave blank

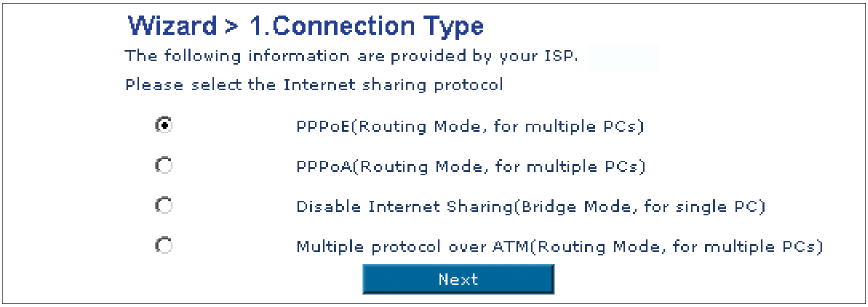
Logging out of the Router

One computer at a time can log into the Router for the purposes of making changes to the settings of the Router. Once a user has logged in to make changes, there are two ways that the computer can be logged out. Clicking the "Logout" button will log the computer out. The second method is automatic. The login will time-out after a specified period of time. The default login time-out is 10 minutes. This can be changed from 1 to 99 minutes. For more information, see the section in this manual titled "Changing the Login Time-out Setting".

Setup Wizard

1. Internet Sharing

Select the connection type you are using. This information is provided by your ISP.



Wizard > 1.Connection Type

The following information are provided by your ISP.

Please select the Internet sharing protocol

● PPPoE(Routing Mode, for multiple PCs)

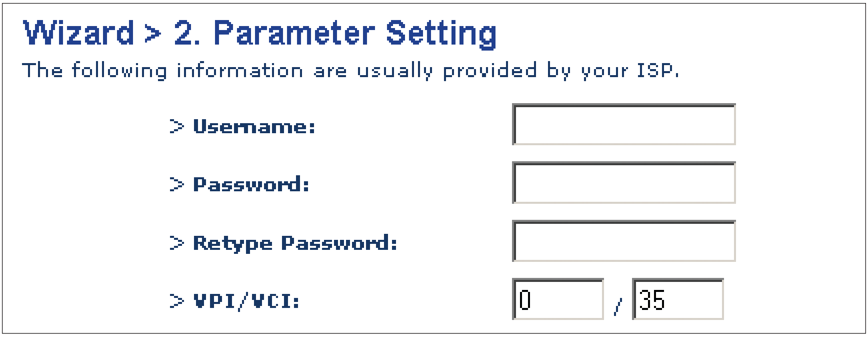
○ PPPoA(Routing Mode, for multiple PCs)

○ Disable Internet Sharing(Bridge Mode, for single PC)

○ Multiple protocol over ATM(Routing Mode, for multiple PCs)

2. Setting your ISP Connection Type to PPPoE or PPPoA

Enter the PPPoE (Point-to-Point Protocol over Ethernet) or PPPoA information in the provided spaces, and click “Next”. Click “Apply” to activate your settings. This information is provided by your ISP.



Wizard > 2. Parameter Setting

The following information are usually provided by your ISP.

> Username:

> Password:

> Retype Password:

> VPI/VCI: 0 / 35

User Name - Enter the ISP assigned user name. (Assigned by your ISP).

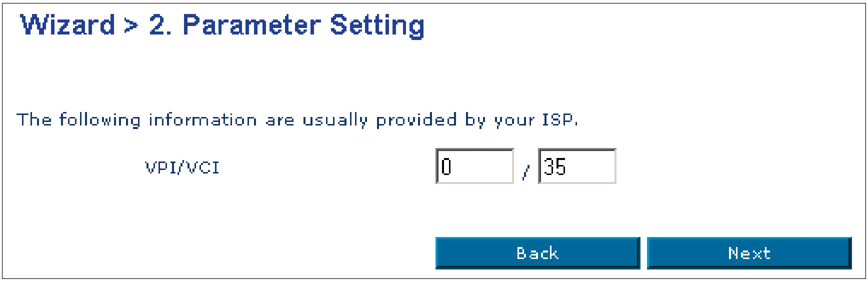
Password - Enter your password. (Assigned by your ISP).

Retype Password - Confirm the password. (Assigned by your ISP).

VPI/VCI - Enter your Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI) parameter here. (Assigned by your ISP).

3. Setting your Connection Type to Disable Internet Sharing

Enter VPI/VCI value in the provided spaces, and then click “Next”. Click “Apply” to activate your settings.



Wizard > 2. Parameter Setting

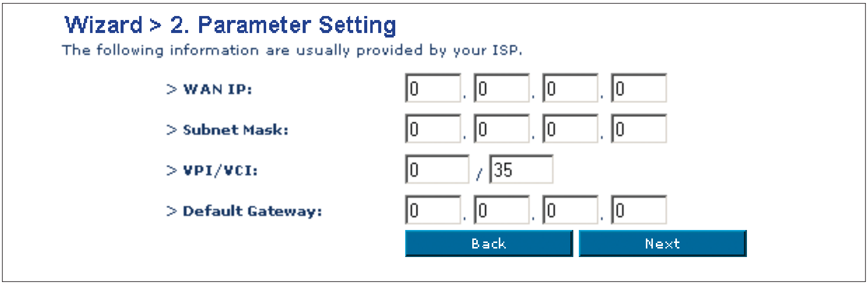
The following information are usually provided by your ISP.

VPI/VCI 0 / 35

VPI/VCI - Enter your Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI) parameter here. (Assigned by your ISP).

4. Setting your Connection Type to Multiple Protocol over ATM Mode

Enter ATM (Asynchronous Transfer Mode) information in the provided spaces, and click “Next”. Click “Apply” to activate your settings.



Wizard > 2. Parameter Setting

The following information are usually provided by your ISP.

> WAN IP: 0 . 0 . 0 . 0

> Subnet Mask: 0 . 0 . 0 . 0

> VPI/VCI: 0 / 35

> Default Gateway: 0 . 0 . 0 . 0

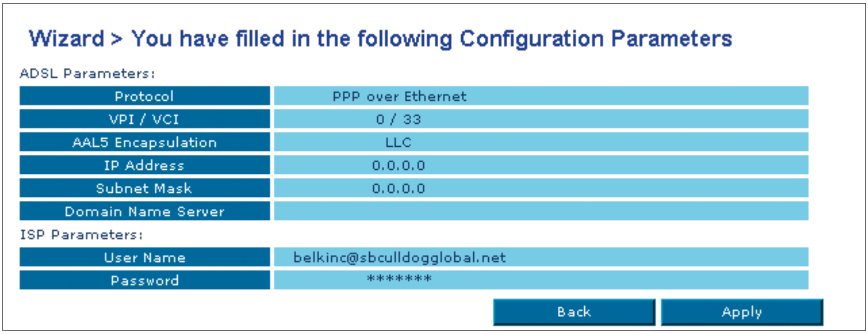
WAN IP - Enter an IP address for the Wireless ADSL Modem Router WAN interface. (Assigned by your ISP).

Subnet Mask - Enter a subnet mask. (Assigned by your ISP).

VPI/VCI - Enter your Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI) parameter here. (Assigned by your ISP).

Default Gateway - Enter a default gateway IP address. If the Wireless ADSL Modem Router cannot find the destination address within its local network, it will forward the packets to the Default Gateway. (Assigned by your ISP).

5. Click apply to activate your settings.



Wizard > You have filled in the following Configuration Parameters

ADSL Parameters:

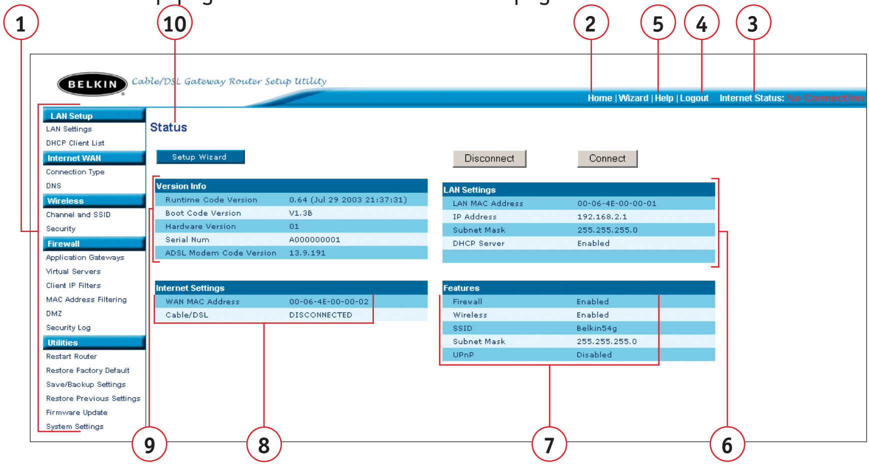
Protocol	PPP over Ethernet
VPI / VCI	0 / 33
AAL5 Encapsulation	LLC
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Domain Name Server	

ISP Parameters:

User Name	belkinc@sbculldogglobal.net
Password	*******

You have finished installing your new Belkin Router. You should have Internet access at this point. To test your Internet connection, open your browser and visit a website such as www.belkin.com.

The home page shows you a quick view of the Router's status and settings. All advanced setup pages can be reached from this page.



Status

Version Info	
Runtime Code Version	0.64 (Jul 29 2003 21:37:31)
Boot Code Version	V1.3B
Hardware Version	01
Serial Num	A000000001
ADSL Modem Code Version	13.9.191

LAN Settings	
LAN MAC Address	00-06-4E-00-00-01
IP Address	192.168.2.1
Subnet Mask	255.255.255.0
DHCP Server	Enabled

Internet Settings	
WAN MAC Address	00-06-4E-00-00-02
Cable/DSL	DISCONNECTED

Features	
Firewall	Enabled
Wireless	Enabled
SSID	Belkin54g
Subnet Mask	255.255.255.0
UPnP	Disabled

1. **Quick-Navigation Links**
   You can go directly to any of the Router's UI pages by clicking directly on these links. The links are divided into logical categories and grouped by tabs to make finding a particular setting easier to find. Clicking on the header of each tab will show you a short description of the tab's function.

2. **Home Button**
   The Home button is available in every page of the UI. Pressing this button will take you back to the home page.

3. **Internet Status Indicator**
   This indicator is visible in all pages of the Router, indicating the connection status of the Router. When the indicator says "connection OK" in GREEN, the Router is connected to the Internet. When the Router is not connected to the Internet, the indicator will read "no connection" in RED. The indicator is automatically updated when you make changes to the settings of the Router.

4. **Login/Logout Button**
   This button enables you to log in and out of the Router with the press of one button. When you are logged into the Router, this button will change to read "Logout". Logging into the Router will take you to a separate login

page where you will need to enter a password. When you are logged into the Router, you can make changes to the settings. When you are finished making changes, you can log out of the Router by clicking the “Logout” button. For more information about logging into the Router, see the section called “Logging into the Router”.

5. **Help Button**
   The “Help” button gives you access to the Router’s help pages. Help is also available on many pages by clicking “more info” next to certain sections of each page.

6. **LAN Settings**
   Shows you the settings of the Local Area Network (LAN) side of the Router. Changes can be made to the settings by clicking the “LAN” Quick Navigation link on the left side of the screen.

7. **Features**
   Shows the status of the Router’s NAT, firewall, and wireless features. Changes can be made to the settings by clicking on any one of the links or by clicking the “Quick Navigation” links on the left side of the screen.

8. **Internet Settings**
   Shows the settings of the Internet/WAN side of the Router that connects to the Internet. Changes to any of these settings can be made by clicking on the “Internet/WAN” Quick Navigation link on the left side of the screen.

9. **Version Info**
   Shows the firmware version, boot-code version, hardware version, and serial number of the Router.

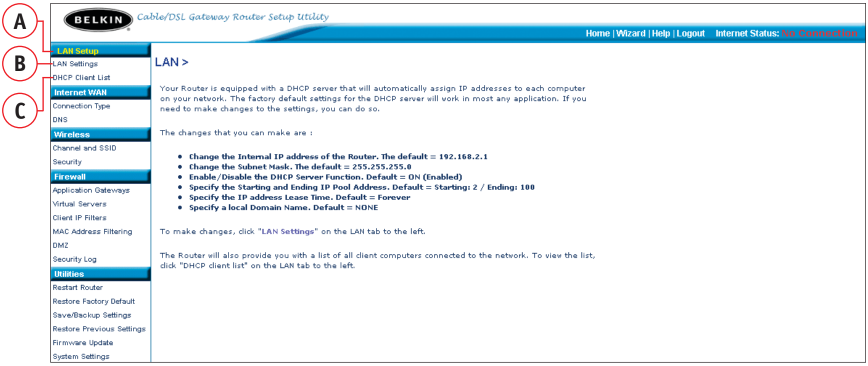
10. **Page Name**
    The page you are on can be identified by this name. This manual will sometimes refer to pages by name. For instance, “LAN > LAN Settings” refers to the “LAN Settings” page.

Changing LAN Settings

All settings for the internal LAN setup of the Router can be viewed and changed here.

1. LAN Settings

Clicking on the header of the LAN tab (A) will take you to the LAN tab's header page. A quick description of the functions can be found here. To view the settings or make changes to any of the LAN settings, click on "LAN Settings" (B) or to view the list of connected computers, click on "DHCP client list" (C).



LAN >

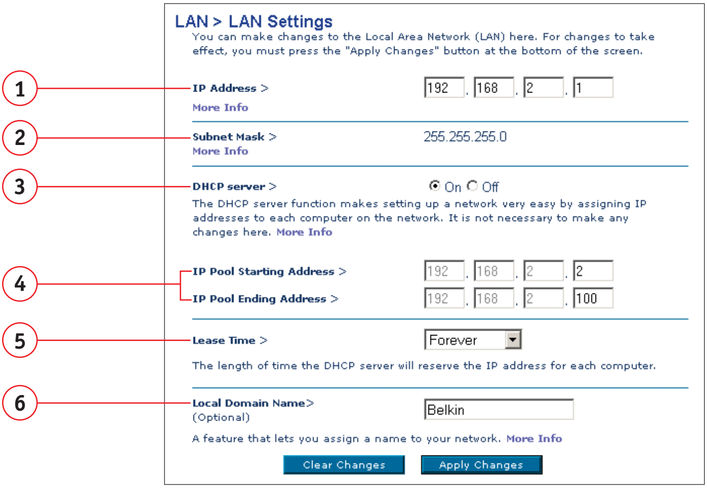
Your Router is equipped with a DHCP server that will automatically assign IP addresses to each computer on your network. The factory default settings for the DHCP server will work in most any application. If you need to make changes to the settings, you can do so.

The changes that you can make are :

- **Change the Internal IP address of the Router. The default = 192.168.2.1**
- **Change the Subnet Mask. The default = 255.255.255.0**
- **Enable/Disable the DHCP Server Function. Default = ON (Enabled)**
- **Specify the Starting and Ending IP Pool Address. Default = Starting: 2 / Ending: 100**
- **Specify the IP address Lease Time. Default = Forever**
- **Specify a local Domain Name. Default = NONE**

To make changes, click "LAN Settings" on the LAN tab to the left.

The Router will also provide you with a list of all client computers connected to the network. To view the list, click "DHCP client list" on the LAN tab to the left.



LAN > LAN Settings

You can make changes to the Local Area Network (LAN) here. For changes to take effect, you must press the "Apply Changes" button at the bottom of the screen.

IP Address > 192 . 168 . 2 . 1

Subnet Mask > 255.255.255.0

DHCP server > ● On ○ Off

The DHCP server function makes setting up a network very easy by assigning IP addresses to each computer on the network. It is not necessary to make any changes here. More Info

IP Pool Starting Address > 192 . 168 . 2 . 2

IP Pool Ending Address > 192 . 168 . 2 . 100

Lease Time > Forever

The length of time the DHCP server will reserve the IP address for each computer.

Local Domain Name> (Optional) Belkin

A feature that lets you assign a name to your network. More Info

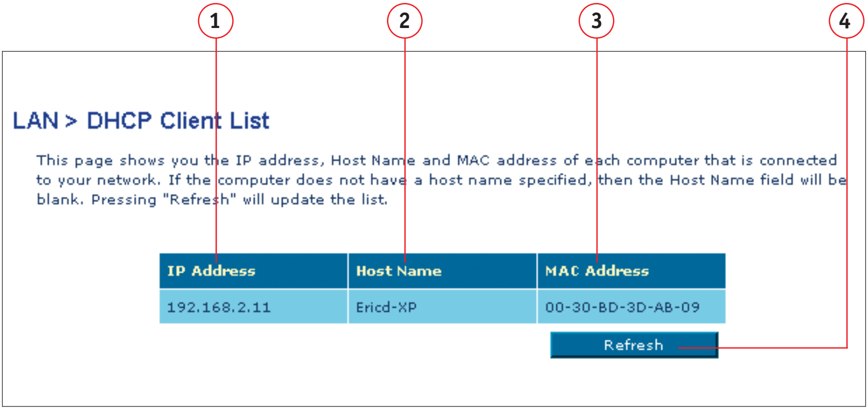
1. **IP Address**
   The "IP address" is the internal IP address of the Router. The default IP address is "192.168.2.1". To access the setup interface, type this IP address into the address bar of your browser. This address can be changed if needed. To change the IP address, type in the new IP address and click "Apply Changes". The IP address you choose should be a non-routable IP. Examples of a non-routable IP are:
   192.168.x.x (where x is anything between 0 and 255)
   10.x.x.x (where x is anything between 0 and 255)
2. **Subnet Mask**
   There is no need to change the subnet mask. This is a unique, advanced feature of your Belkin Router.
3. **DHCP Server**
   The DHCP server function makes setting up a network very easy by assigning IP addresses to each computer on the network automatically. The default setting is "On". The DHCP server can be turned OFF if necessary, however, in order to do so you must manually set a static IP address for each computer on your network. To turn off the DHCP server, select "Off" and click "Apply Changes".
4. **IP Pool**
   The IP Pool is the range of IP addresses set aside for dynamic assignment to the computers on your network. The default is 2–100 (99 computers). If you want to change this number, you can do so by entering a new starting and ending IP address and clicking on "Apply Changes". The DHCP server can assign 100 IP addresses automatically. This means that you cannot specify an IP address pool larger than 100 computers. For example, starting at 50 means you have to end at 150 or lower so as not to exceed the 100-client limit. The starting IP address must be lower in number than the ending IP address.
5. **Lease Time**
   Lease time is the length of time the DHCP server will reserve the IP address for each computer. We recommend that you leave the lease time set to "Forever". The default setting is "Forever", meaning that any time a computer is assigned an IP address by the DHCP server, the IP address will not change for that particular computer. Setting lease times for shorter intervals, such as

one day or one hour, frees IP addresses after the specified period of time. This also means that a particular computer's IP address may change over time. If you have set any of the other advanced features of the Router, such as DMZ or client IP filters, these are dependent on the IP address. For this reason, you will not want the IP address to change.

6. **Local Domain Name**
   The default setting is "Belkin". You can set a local domain name (network name) for your network. There is no need to change this setting unless you have a specific advanced need to do so. You can name the network anything you want such as "MY NETWORK".

DHCP Client List

You can view a list of the computers (known as clients), which are connected to your network. You are able to view the IP address (1) of the computer, the host name (2) (if the computer has been assigned one), and the MAC address (3) of the computer's network interface card (NIC). Pressing the "Refresh" (4) button will update the list. If there have been any changes, the list will be updated.



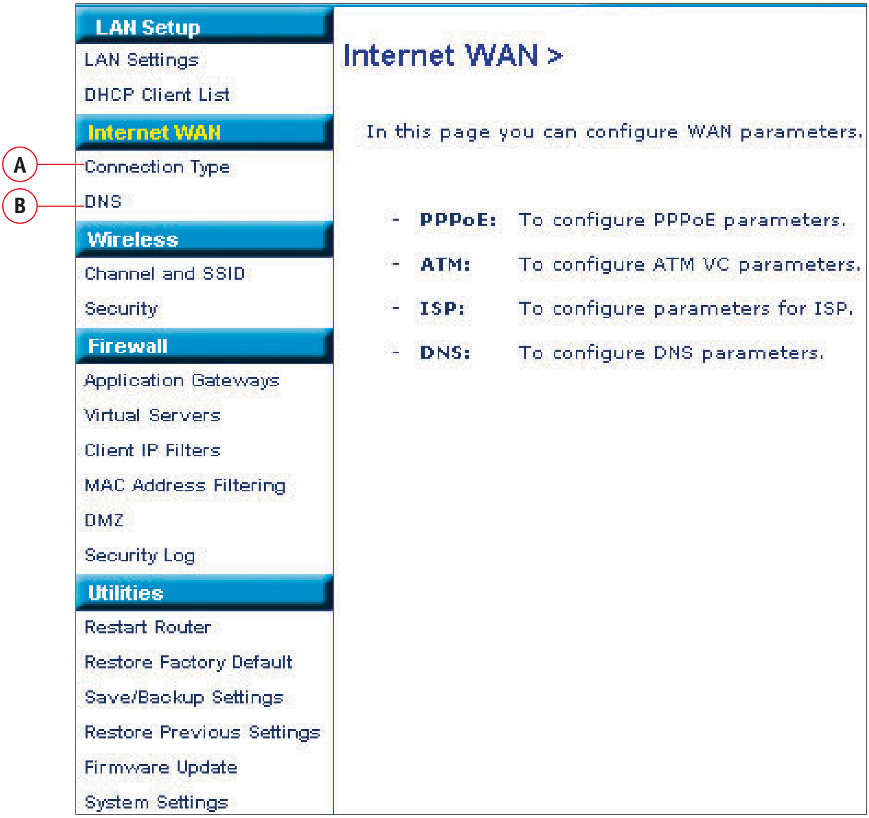
LAN > DHCP Client List

This page shows you the IP address, Host Name and MAC address of each computer that is connected to your network. If the computer does not have a host name specified, then the Host Name field will be blank. Pressing "Refresh" will update the list.

IP Address	Host Name	MAC Address
192.168.2.11	Ericd-XP	00-30-BD-3D-AB-09

2. Internet WAN

The "Internet WAN" tab is where you will set up your Router to connect to your Internet Service Provider. The Router is capable of connecting to virtually any ADSL Service Provider's system provided you have correctly configured the Router's settings for your ISP's connection type. Your connection settings are provided to you by your ISP. To configure the Router with the settings that your ISP gave you, click "Connection Type" (A) on the left side of the screen. Select the connection type you use. If your ISP gave you DNS settings, clicking "DNS" (B) allows you to enter DNS address entries for ISPs that require specific settings. When you have finished making settings, the "Internet Status" indicator will read "Connection OK" if your Router is set up properly.



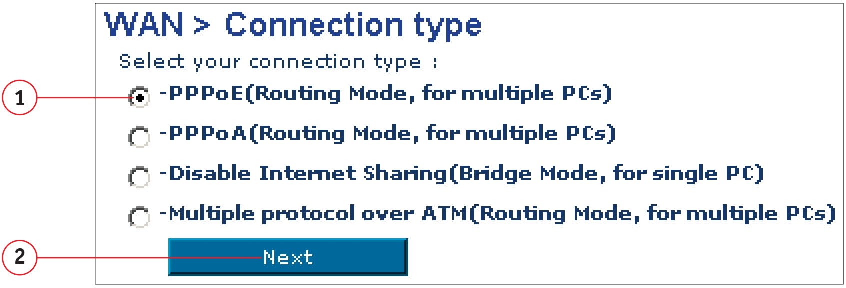
Internet WAN >

In this page you can configure WAN parameters.

- PPPoE: To configure PPPoE parameters.
- ATM: To configure ATM VC parameters.
- ISP: To configure parameters for ISP.
- DNS: To configure DNS parameters.

Connection Type

From the Connection Type page, you can select the type of connection you use. Select the type of connection you use by clicking the radio button (1) next to your connection type and then clicking "Next" (2).



WAN > Connection type

Select your connection type :

1 ● -PPPoE(Routing Mode, for multiple PCs)

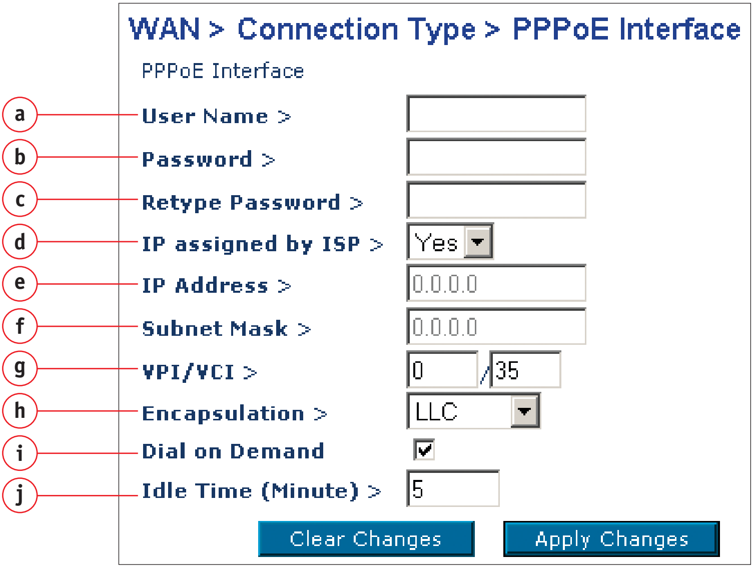
○ -PPPoA(Routing Mode, for multiple PCs)

○ -Disable Internet Sharing(Bridge Mode, for single PC)

○ -Multiple protocol over ATM(Routing Mode, for multiple PCs)

Setting your ISP Connection Type to PPPoE or PPPoA

Enter the PPPoE (Point-to-Point Protocol over Ethernet) or PPPoA information in the provided spaces, and click "Next". Click "Apply" to activate your settings. This information is provided by your ISP.



WAN > Connection Type > PPPoE Interface

PPPoE Interface

a	User Name >	
b	Password >	
c	Retype Password >	
d	IP assigned by ISP >	Yes
e	IP Address >	0.0.0.0
f	Subnet Mask >	0.0.0.0
g	VPI/VCI >	0 / 35
h	Encapsulation >	LLC
i	Dial on Demand	☑
j	Idle Time (Minute) >	5

a. **Username** - Enter the ISP assigned user name. (Assigned by your ISP).

b. **Password** - Enter your password. (Assigned by your ISP).

c. **Retype Password** - Confirm the password. (Assigned by your ISP).

d. **IP assigned by ISP** - Select "Yes" for automatic IP assignment from your ISP. Select "No" only if your ISP assigns you a fixed IP address.

e. **IP address** - If you are using a fixed IP address, enter the fixed IP address supplied by your ISP.

f. **Subnet Mask** - If you are using a fixed IP address, enter the subnet mask supplied by your ISP.

g. **VPI/VCI** - Enter your Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI) parameter here. (Assigned by your ISP).

h. **Encapsulation** - Select your encapsulation type (supplied by your ISP) to specify how to handle multiple protocols at the ATM transport layer.

   VC-MUX: Point-to-Point Protocol over ATM Virtual Circuit Multiplexer (null encapsulation) allows only one protocol running per virtual circuit with fewer overheads.

   LLC: Point-to-Point Protocol over ATM Logical Link Control allows multiple protocols running over one virtual circuit (more overhead).

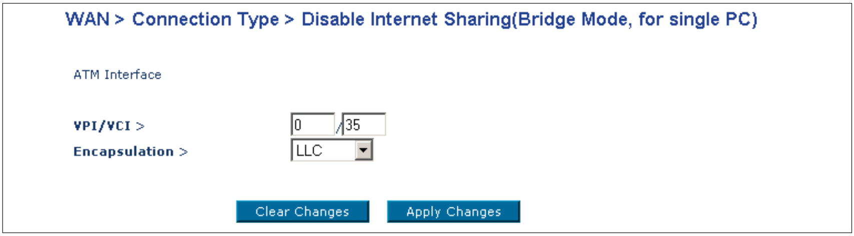
i. **Dial on Demand** - By selecting "Dial on Demand" your Router will automatically connect to the Internet when a user opens up a web browser.

j. **Idle Time (Minutes)** - Enter the maximum idle time for the Internet connection. After this time has been exceeded, the connection will be terminated.

Setting your ISP Connection Type to Disable Internet Sharing

VPI/VCI - Enter your Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI) parameter here. (Assigned by your ISP).

Encapsulation - Select LLC or VC MUX. (Assigned by your ISP).



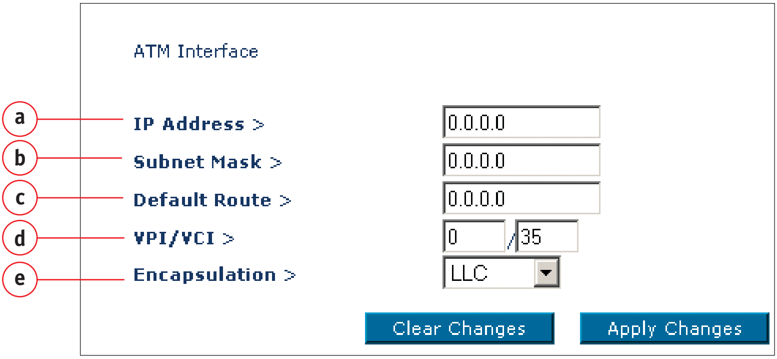
WAN > Connection Type > Disable Internet Sharing(Bridge Mode, for single PC)

ATM Interface

VPI/VCI > 0 / 35

Encapsulation > LLC

Setting your ISP Connection Type to Multiple Protocol over ATM



ATM Interface

IP Address > 0.0.0.0

Subnet Mask > 0.0.0.0

Default Route > 0.0.0.0

VPI/VCI > 0 / 35

Encapsulation > LLC

a. **WAN IP** - Enter an IP address for the Wireless ADSL Modem Router WAN interface. (Assigned by your ISP).

b. **Subnet Mask** - Enter a subnet mask. (Assigned by your ISP).

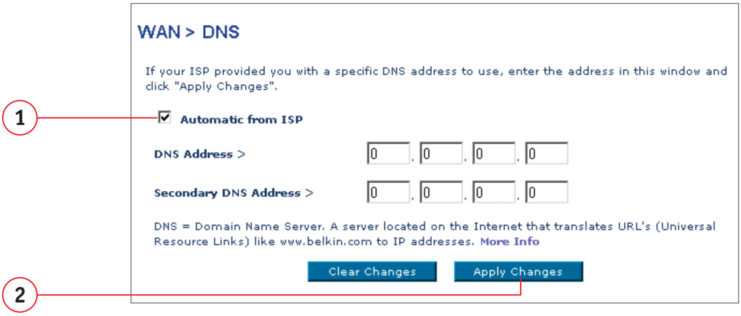
c. **Default Route** - Enter a default gateway IP address. If the Wireless ADSL Modem Router cannot find the destination address within its local network, it will forward the packets to the Default Gateway. (Assigned by your ISP).

d. **VPI/VCI** - Enter your Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI) parameter here. (Assigned by your ISP).

e. **Encapsulation** - Select LLC or VC MUX. (Assigned by your ISP).

DNS (Domain Name Server) Settings

A "Domain Name Server" is a server located on the Internet that translates Universal Resource Links (URLs) like "www.belkin.com" to IP addresses. Many ISPs do not require you to enter this information into the Router. The "Automatic from ISP" box (1) should be checked if your ISP did not give you a specific DNS address. If you are using a static IP connection type, then you may need to enter a specific DNS address and secondary DNS address for your connection to work properly. If your connection type is dynamic or PPPoE, it is likely that you do not have to enter a DNS address. Leave the "Automatic from ISP" box checked. To enter the DNS address settings, uncheck the "Automatic from ISP" box and enter your DNS entries in the spaces provided. Click "Apply Changes" (2) to save the settings.



WAN > DNS

If your ISP provided you with a specific DNS address to use, enter the address in this window and click "Apply Changes".

☑ Automatic from ISP

DNS Address > 0 . 0 . 0 . 0

Secondary DNS Address > 0 . 0 . 0 . 0

DNS = Domain Name Server. A server located on the Internet that translates URL's (Universal Resource Links) like www.belkin.com to IP addresses. More Info

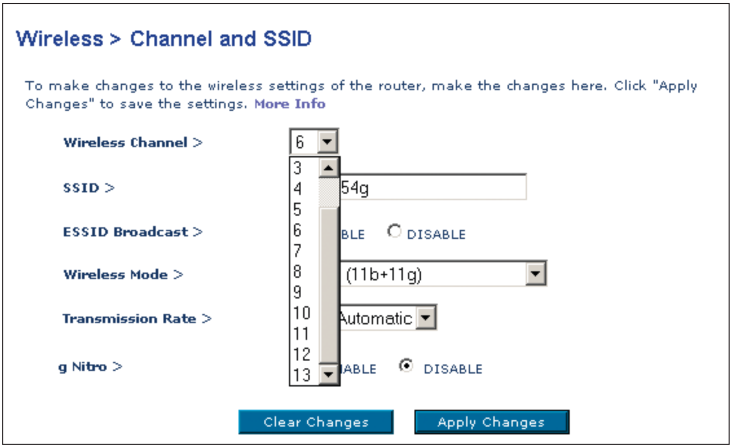
3. Wireless

The Wireless tab lets you make changes to the wireless network settings. From this tab, you can make changes to the wireless network name (SSID), operating channel, and encryption security settings.

Channel and SSID

Changing the Wireless Channel

There are a number of operating channels you can choose from. In the United States, there are 11 channels. In the United Kingdom and most of Europe, there are 13 channels. In a small number of other countries, there are other channel requirements. Your Router is configured to operate on the proper channels for the country you reside in. The default channel is 11 (unless you are in a country that does not allow channel 11). The channel can be changed if needed. If there are other wireless networks operating in your area, your network should be set to operate on a channel that is different than the other wireless networks. For best performance, use a channel that is at least five channels away from the other wireless network. For instance, if another network is operating on channel 11, then set your network to channel 6 or below. To change the channel, select the channel from the drop-down list. Click “Apply Changes”. The change is immediate.



Wireless > Channel and SSID

To make changes to the wireless settings of the router, make the changes here. Click "Apply Changes" to save the settings. More Info

Wireless Channel > 6

SSID > 54g

ESSID Broadcast > BLE ○ DISABLE

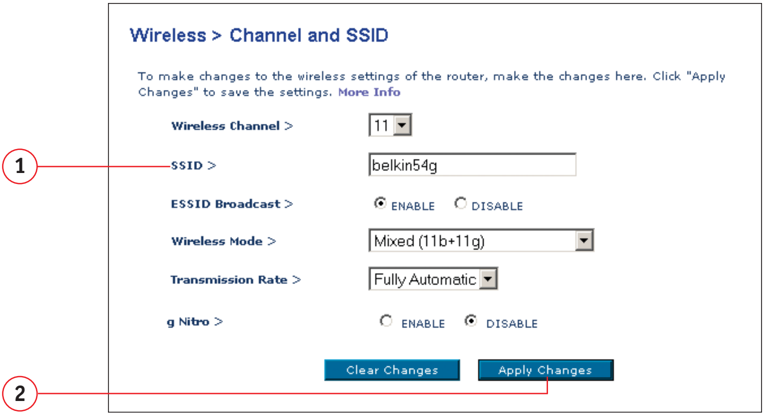
Wireless Mode > (11b+11g)

Transmission Rate > Automatic

g Nitro > ABLE ● DISABLE

Changing the Wireless Network Name (SSID)

To identify your wireless network, a name called the SSID (Service Set Identifier) is used. The default SSID of the Router is “belkin54g”. You can change this to anything you want to or you can leave it unchanged. If there are other wireless networks operating in your area, you will want to make sure that your SSID is unique (does not match that of another wireless network in the area). To change the SSID, type in the SSID that you want to use in the SSID field (1) and click “Apply Changes” (2). The change is immediate. If you make a change to the SSID, your wireless-equipped computers may also need to be reconfigured to connect to your new network name. Refer to the documentation of your wireless network adapter for information on making this change.



Wireless > Channel and SSID

To make changes to the wireless settings of the router, make the changes here. Click "Apply Changes" to save the settings. More Info

Wireless Channel > 11

SSID > belkin54g

ESSID Broadcast > ● ENABLE ○ DISABLE

Wireless Mode > Mixed (11b+11g)

Transmission Rate > Fully Automatic

g Nitro > ○ ENABLE ● DISABLE

Using the ESSID Broadcast Feature

For security purposes, 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, select "DISABLE" and 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.

Note: This advanced feature should be employed by advanced users only.

Using the Wireless Mode Switch

Your Router can operate in three different wireless modes: "Mixed", "11g Only", and "11b Only". The different modes are explained next.

- Mixed - In this mode, the Router is compatible with 802.11b and 802.11g wireless clients simultaneously. This mode is the factory default and ensures full compatibility with Wi-Fi-compatible devices. Set the Router to Mixed mode if you have a mix of 802.11b and 802.11g clients in your network. This is the recommended setting for your router and should only be changed if you have a specific reason to do so.

- 11g Only Mode - 11g Only mode is compatible with 802.11g clients only. This mode can be useful only if you do not have any 802.11b clients that need access to the network. To switch modes, select the desired mode from the drop-down box next to “Wireless Mode” then click “Apply Changes”.

- 11b Only Mode - It is not recommended you use this mode unless you have a very specific reason to do so. This mode exists only to solve unique problems that may occur with some 802.11b client adapters and is NOT necessary for interoperability of 802.11g and 802.11b standards.

  Note: Switching to 11b Only mode will decrease 802.11g performance to 11Mbps.

g Nitro

Enabling “g Nitro” allows the Router to use Frame Bursting to get the maximum throughput from the Router to 802.11g clients. g Nitro throughput is up to 50% faster than any standard 802.11g equipment. g Nitro will work with 802.11g clients that support g Nitro.

Encryption/Security

Changing the Wireless Security Settings

Your Router is equipped with the latest security standard called WPA (Wireless Protected Access). It also supports the legacy security standard called WEP (Wired Equivalent Privacy). By default, wireless security is disabled. To enable security, you will need to determine which standard you want to use. To access the Security settings, click “Security” on the Wireless tab.

Setting WPA Security

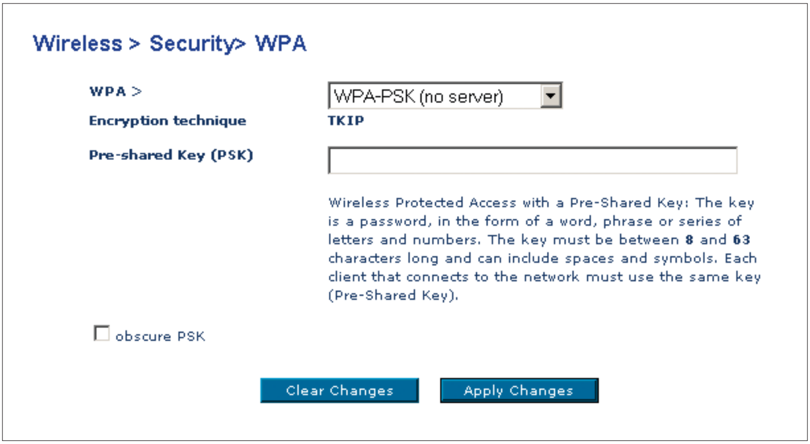
Note: *To use WPA security, your clients must be upgraded to drivers and software that support WPA. At the time this manual was published, a security patch from Microsoft is available for free download. This patch works only with Windows XP. You also need to download the latest driver for your Belkin 802.11g Wireless Notebook Network Card from the Belkin support site. Other operating systems are not supported at this time. Only Belkin 802.11g clients support WPA at this time.*

There are two types of WPA security, WPA-PSK (no server) and WPA (with server). WPA-PSK uses what is known as a pre-shared key as the security key. A pre-shared key is basically a password that is between 8 and 40 characters long. It can be a combination of letters, numbers, or characters. Each client uses the same key to access the network. Typically, this is the mode that will be used in a home environment.

WPA (with server) is a system where a radius server distributes the keys to the clients automatically. This is typically found in a business environment.

Setting WPA-PSK (no server)

1. From the Security Mode drop-down menu, select "WPA-PSK (no server)".
2. Enter your pre-shared key. This can be from 8 to 40 characters and can be letters, numbers, or symbols. This same key must be used on all of the clients that you set up.
3. Click "Apply Changes" to finish. You must now set all clients to match these settings.



Wireless > Security> WPA

WPA > WPA-PSK (no server)

Encryption technique TKIP

Pre-shared Key (PSK)

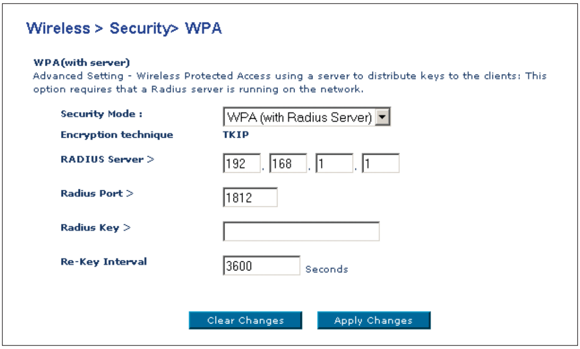
Wireless Protected Access with a Pre-Shared Key: The key is a password, in the form of a word, phrase or series of letters and numbers. The key must be between **8** and **63** characters long and can include spaces and symbols. Each client that connects to the network must use the same key (Pre-Shared Key).

☐ obscure PSK

Setting WPA (with server) Settings

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

1. From the Security Mode drop-down menu, select "WPA (with server)".
2. Enter the IP address of the radius server into the "Radius Server" fields.
3. Enter the radius key into the Radius Key field.
4. Enter the key interval. Key interval is how often the keys are distributed (in packets).
5. Click "Apply Changes" to finish. You must now set all clients to match these settings.



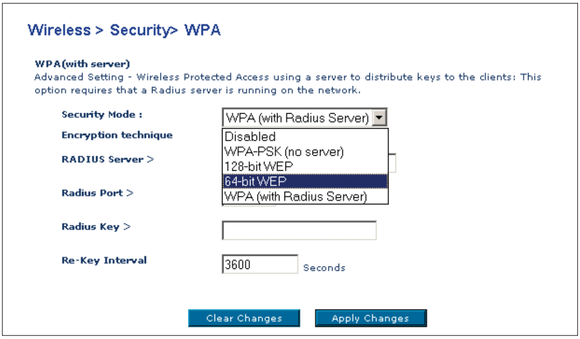
Wireless > Security> WPA

WPA(with server)
Advanced Setting - Wireless Protected Access using a server to distribute keys to the clients: This option requires that a Radius server is running on the network.

Security Mode : WPA (with Radius Server)
Encryption technique TKIP
RADIUS Server > 192 . 168 . 1 . 1
Radius Port > 1812
Radius Key >
Re-Key Interval 3600 Seconds

Setting WEP Encryption

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.*



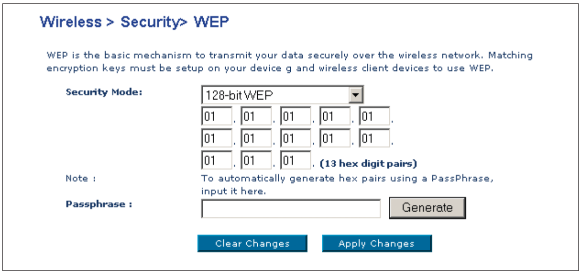
Wireless > Security> WPA

WPA(with server)
Advanced Setting - Wireless Protected Access using a server to distribute keys to the clients: This option requires that a Radius server is running on the network.

Security Mode : WPA (with Radius Server)
Encryption technique
RADIUS Server >
Radius Port >
Radius Key >
Re-Key Interval 3600 Seconds

1. Select "128-bit WEP" or "64-bit WEP" from the drop-down menu.

2. After selecting your WEP encryption mode, you can enter you WEP key manually by typing in the 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.



Wireless > Security> WEP

WEP is the basic mechanism to transmit your data securely over the wireless network. Matching encryption keys must be setup on your device g and wireless client devices to use WEP.

Security Mode: 128-bit WEP

01 . 01 . 01 . 01 . 01 .
01 . 01 . 01 . 01 . 01 .
01 . 01 . 01 . (13 hex digit pairs)

Note : To automatically generate hex pairs using a PassPhrase, input it here.

Passphrase :

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.

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 two-digit numbers. 128-bit keys are 13 two-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:	AF	1F	4B	C3	D4								
64-bit:	□	□	□	□	□								
128-bit:	□	□	□	□	□	□	□	□	□	□	□	□	□

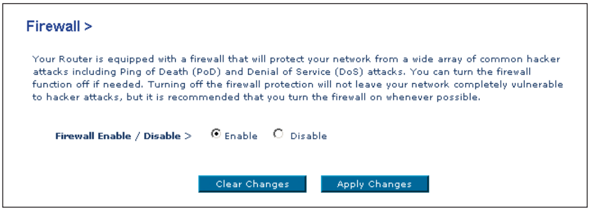
***Note to Mac users:** Original Apple AirPort products support 64-bit encryption only. Apple AirPort 2 products can support 64-bit or 128-bit encryption. Please check your product to see which version you are using. If you cannot configure your network with 128-bit encryption, try 64-bit encryption.*

4. 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 essentially 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.



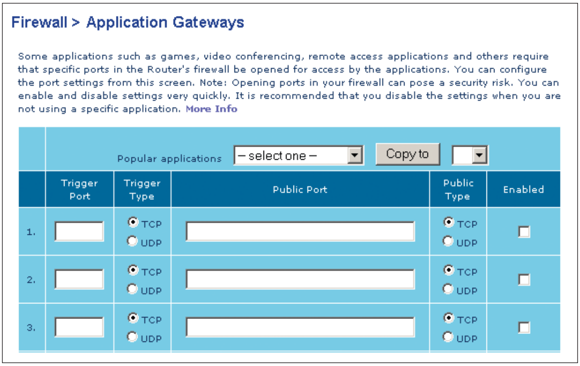
Firewall >

Your Router is equipped with a firewall that will protect your network from a wide array of common hacker attacks including Ping of Death (PoD) and Denial of Service (DoS) attacks. You can turn the firewall function off if needed. Turning off the firewall protection will not leave your network completely vulnerable to hacker attacks, but it is recommended that you turn the firewall on whenever possible.

Firewall Enable / Disable > ● Enable ○ Disable

Application Gateways 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. Select your application from the drop-down list from the bottom of the screen. If your application is not here, 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.



Firewall > Application Gateways

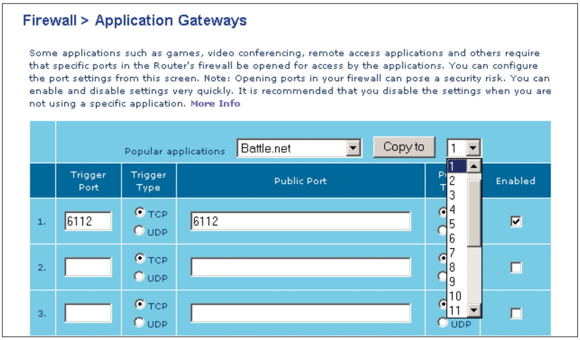
Some applications such as games, video conferencing, remote access applications and others require that specific ports in the Router's firewall be opened for access by the applications. You can configure the port settings from this screen. Note: Opening ports in your firewall can pose a security risk. You can enable and disable settings very quickly. It is recommended that you disable the settings when you are not using a specific application. More Info

Popular applications – select one – Copy to

	Trigger Port	Trigger Type	Public Port	Public Type	Enabled
1.		● TCP ○ UDP		● TCP ○ UDP	□
2.		● TCP ○ UDP		● TCP ○ UDP	□
3.		● TCP ○ UDP		● TCP ○ UDP	□

Choosing an Application

Select the row that you want to copy the settings to from the drop-down list, select the row you want to copy to, and then click "Copy To". The settings will be transferred to the row you specified. Click "Apply Changes" to save the setting for that application.



Firewall > Application Gateways

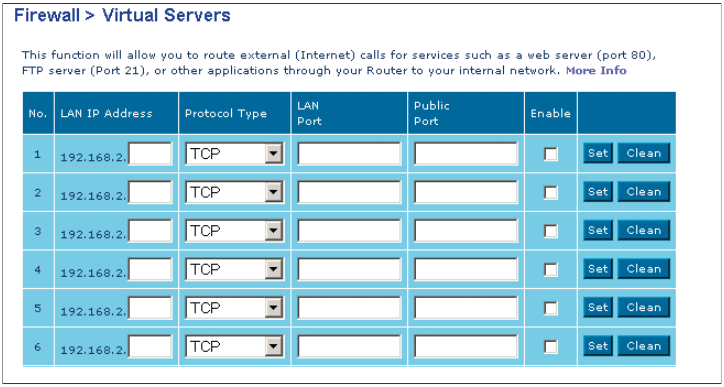
Some applications such as games, video conferencing, remote access applications and others require that specific ports in the Router's firewall be opened for access by the applications. You can configure the port settings from this screen. Note: Opening ports in your firewall can pose a security risk. You can enable and disable settings very quickly. It is recommended that you disable the settings when you are not using a specific application. More Info

Popular applications Battle.net Copy to 1

	Trigger Port	Trigger Type	Public Port	Public Type	Enabled
1.	6112	● TCP ○ UDP	6112	●	☑
2.		● TCP ○ UDP		●	□
3.		● TCP ○ UDP		● ○ UDP	□

Virtual Servers

Virtual Servers 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, machines from the Internet cannot get to them because they cannot be "seen". If you need to configure the Virtual Server function for a specific application, you will need to contact the application vendor to find out which port settings you need.



Firewall > Virtual Servers

This 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. More Info

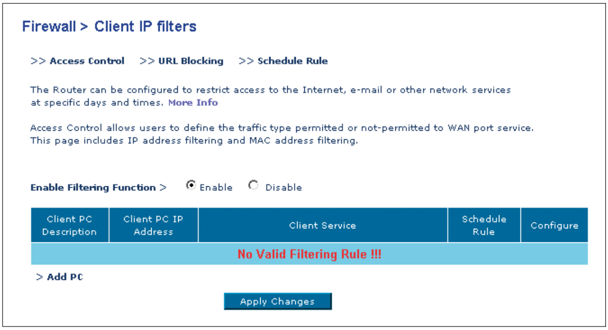
No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable	
1	192.168.2.	TCP			☐	Set Clean
2	192.168.2.	TCP			☐	Set Clean
3	192.168.2.	TCP			☐	Set Clean
4	192.168.2.	TCP			☐	Set Clean
5	192.168.2.	TCP			☐	Set Clean
6	192.168.2.	TCP			☐	Set Clean

Entering Settings into the Virtual Server

To enter settings, enter the last digit of your LAN IP address in the space provided for the internal machine, input the Protocol Type (TCP or UDP), and the LAN Port & Public Port number required to pass, select "Enable" and click "Set". 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.

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.



Firewall > Client IP filters

>> Access Control >> URL Blocking >> Schedule Rule

The Router can be configured to restrict access to the Internet, e-mail or other network services at specific days and times. More Info

Access Control allows users to define the traffic type permitted or not-permitted to WAN port service. This page includes IP address filtering and MAC address filtering.

Enable Filtering Function > ● Enable ○ Disable

Client PC Description	Client PC IP Address	Client Service	Schedule Rule	Configure
No Valid Filtering Rule !!!				

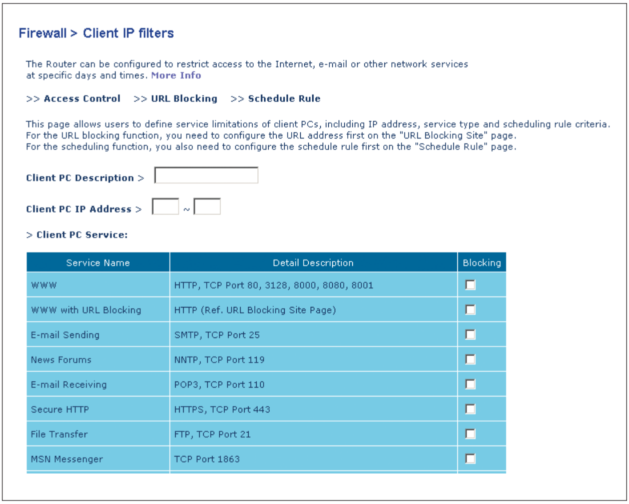
> Add PC

Apply Changes

Access Control

Access Control allows users to define the outgoing traffic permitted or denied access through the WAN interface. The default is to permit all outgoing traffic. To configure restrictive access to your computers, do the following:

1. Click “Add PC” on the Access Control screen.
2. Define the appropriate settings for client PC services (as shown on the following screen).



Firewall > 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. More Info

>> Access Control >> URL Blocking >> Schedule Rule

This page allows users to define service limitations of client PCs, including IP address, service type and scheduling rule criteria.
For the URL blocking function, you need to configure the URL address first on the "URL Blocking Site" page.
For the scheduling function, you also need to configure the schedule rule first on the "Schedule Rule" page.

Client PC Description >

Client PC IP Address > ~

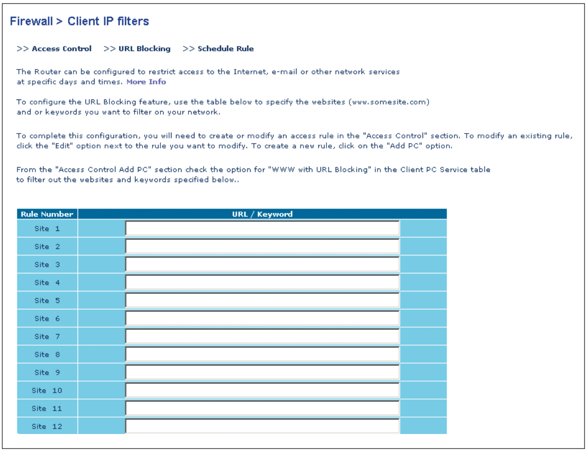
> Client PC Service:

Service Name	Detail Description	Blocking
WWW	HTTP, TCP Port 80, 3128, 8000, 8080, 8001	☐
WWW with URL Blocking	HTTP (Ref. URL Blocking Site Page)	☐
E-mail Sending	SMTP, TCP Port 25	☐
News Forums	NNTP, TCP Port 119	☐
E-mail Receiving	POP3, TCP Port 110	☐
Secure HTTP	HTTPS, TCP Port 443	☐
File Transfer	FTP, TCP Port 21	☐
MSN Messenger	TCP Port 1863	☐

3. Click “OK” and then click “Apply Changes” to save your settings.

URL Blocking

To configure the URL Blocking feature, specify the websites (www.anywebsite.com) and or keywords you want to filter on your network. Click "Apply Changes" to activate the change. To complete this configuration, you will need to create or modify an access rule in the "Client IP filters" section. To modify an existing rule, click the "Edit" option next to the rule you want to modify. To create a new rule, click on the "Add PC" option. From the "Access Control > Add PC" section, check the option for "WWW with URL Blocking" in the Client PC Service table to filter out the websites and keywords specified.



Firewall > Client IP filters

>> Access Control >> URL Blocking >> Schedule Rule

The Router can be configured to restrict access to the Internet, e-mail or other network services at specific days and times. More Info

To configure the URL Blocking feature, use the table below to specify the websites (www.somesite.com) and or keywords you want to filter on your network.

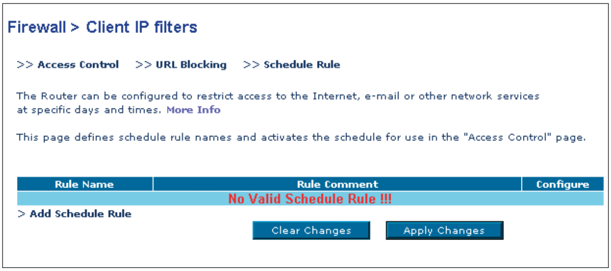
To complete this configuration, you will need to create or modify an access rule in the "Access Control" section. To modify an existing rule, click the "Edit" option next to the rule you want to modify. To create a new rule, click on the "Add PC" option.

From the "Access Control Add PC" section check the option for "WWW with URL Blocking" in the Client PC Service table to filter out the websites and keywords specified below..

Rule Number	URL / Keyword
Site 1	
Site 2	
Site 3	
Site 4	
Site 5	
Site 6	
Site 7	
Site 8	
Site 9	
Site 10	
Site 11	
Site 12	

Schedule Rule

You may filter Internet access for local clients based on rules. Each access control rule may be activated at a scheduled time. Define the schedule on the "Schedule Rule", and apply the rule on the "Access Control" page.



Firewall > Client IP filters

>> Access Control >> URL Blocking >> Schedule Rule

The Router can be configured to restrict access to the Internet, e-mail or other network services at specific days and times. More Info

This page defines schedule rule names and activates the schedule for use in the "Access Control" page.

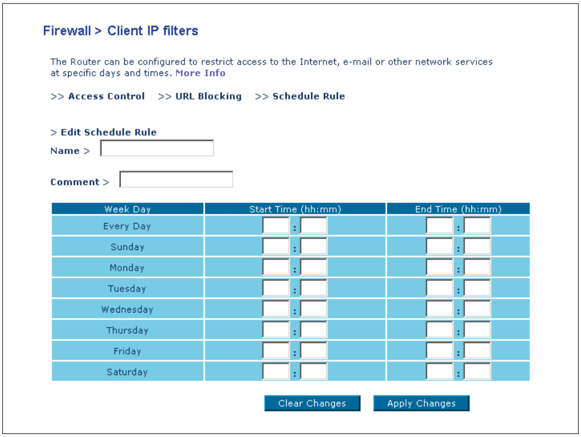
Rule Name	Rule Comment	Configure
	No Valid Schedule Rule !!!	

> Add Schedule Rule

Follow these steps to add a schedule:

1. Click "Add Schedule Rule".

2. You will see the following screen.



Firewall > 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. More Info

>> Access Control >> URL Blocking >> Schedule Rule

> Edit Schedule Rule

Name > □

Comment > □

Week Day	Start Time (hh:mm)	End Time (hh:mm)
Every Day	□ : □	□ : □
Sunday	□ : □	□ : □
Monday	□ : □	□ : □
Tuesday	□ : □	□ : □
Wednesday	□ : □	□ : □
Thursday	□ : □	□ : □
Friday	□ : □	□ : □
Saturday	□ : □	□ : □

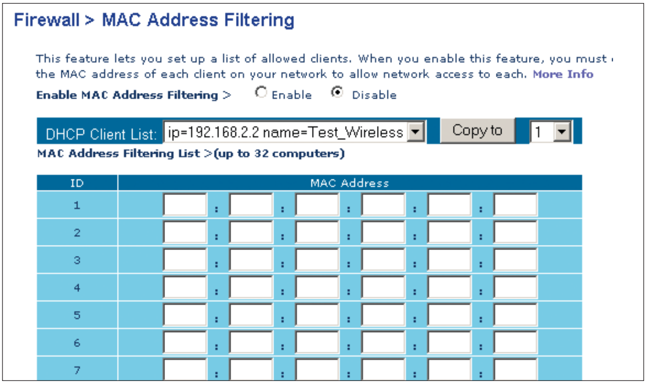
3. To configure the Schedule Rule, specify the Name, Comment, Start Time, and End Time that you want to filter on your network.

4. Click "OK" and then "Apply Changes" to save your settings.

5. To complete this configuration, you will need to create or modify an access rule in the Client IP filters section. This activates the schedule for use in the "Access Control" page.

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 on your network to allow network access to each, or copy the MAC address by selecting the name of the computer from the "DHCP Client List". To enable this feature, select "Enable". Next, click "Apply Changes" to save the settings.



Firewall > MAC Address Filtering

This feature lets you set up a list of allowed clients. When you enable this feature, you must
the MAC address of each client on your network to allow network access to each. More Info

Enable MAC Address Filtering > ○ Enable ● Disable

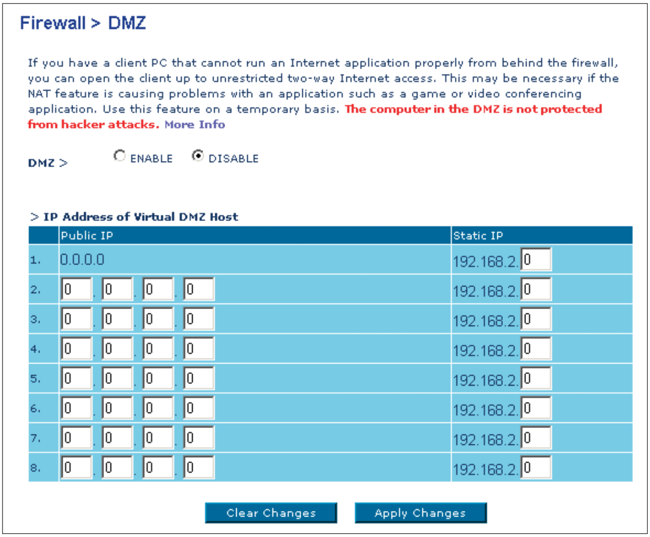
DHCP Client List: ip=192.168.2.2 name=Test_Wireless 1

MAC Address Filtering List >(up to 32 computers)

ID	MAC Address
1	: : : : :
2	: : : : :
3	: : : : :
4	: : : : :
5	: : : : :
6	: : : : :
7	: : : : :

DMZ (Demilitarized Zone)

If you have a client PC that cannot run an Internet application properly from behind the firewall, you can open the client up to unrestricted two-way Internet access. 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.**



Firewall > DMZ

If you have a client PC that cannot run an Internet application properly from behind the firewall, you can open the client up to unrestricted two-way Internet access. 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.** More Info

DMZ > ○ ENABLE ● DISABLE

> IP Address of Virtual DMZ Host

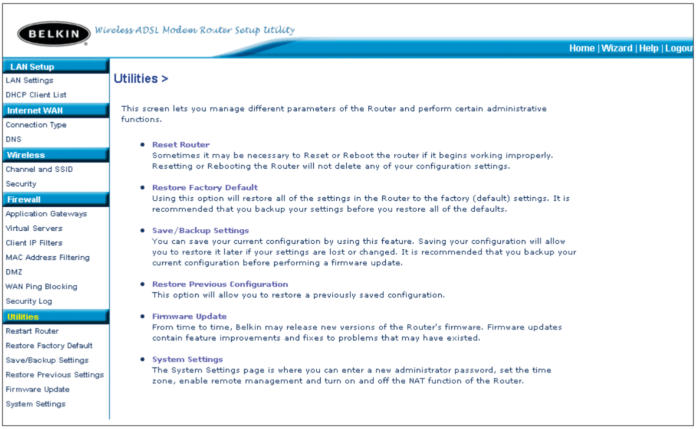
	Public IP	Static IP
1.	0.0.0.0	192.168.2.0
2.	0 . 0 . 0 . 0	192.168.2.0
3.	0 . 0 . 0 . 0	192.168.2.0
4.	0 . 0 . 0 . 0	192.168.2.0
5.	0 . 0 . 0 . 0	192.168.2.0
6.	0 . 0 . 0 . 0	192.168.2.0
7.	0 . 0 . 0 . 0	192.168.2.0
8.	0 . 0 . 0 . 0	192.168.2.0

To put a computer in the DMZ, enter the last digits of its LAN IP address in the Static IP field and click “Apply Changes” for the change to take effect.

If you are using multiple Public (WAN) IP addresses, it is possible to select which Public (WAN) IP address the DMZ host will be directed to. Type in the Public (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, and click “Apply Changes”.

Utilities

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



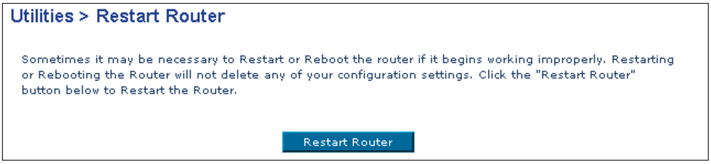
Utilities >

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

- **Reset Router**
  Sometimes it may be necessary to Reset or Reboot the router if it begins working improperly. Resetting or Rebooting the Router will not delete any of your configuration settings.
- **Restore Factory Default**
  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.
- **Save/Backup 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.
- **Restore Previous Configuration**
  This option will allow you to restore a previously saved configuration.
- **Firmware Update**
  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.
- **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.

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.



Utilities > 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.