



WIRELESS ROUTER

N150

User Manual

F9K1009v1 8820zb01125 Rev.B00

Easily access the web

The background of the lower half of the page features a complex, abstract pattern of thin, light-colored lines that create a sense of depth and movement, resembling a topographic map or a series of concentric, overlapping waves.

TABLE OF CONTENTS

Getting Started	1	Restoring Your Router to Factory Defaults	24
What's in the Box	1	Backing Up Your Configuration	26
Initial Setup	1	Restoring Previous Settings	28
How to Set It UP	2	Enabling Auto Firmware Update for Your Router	29
Adding Computers to Your Network	3	Updating the Router's Firmware	30
Manually Set Up Your Internet Connection	4	Configuring Administrator Password	33
 		Configuring Time Zone	34
Getting to Know Your Router	10	Configuring Remote Management	35
Front Panel	10	Configuring UPnP	36
Back Panel	11	Configuring the Eco Mode	37
 		Configuring Self Healing	37
Technical Details	12	 	
Technical Features	12	Troubleshooting, Support, and Warranty	39
System Requirements	12	Troubleshooting	39
 		Technical Support	41
Using Your Router	13	Warranty Coverage	42
Using the LAN IP Setup	13		
Configuring Your Internet Connection	15		
Cloning your MAC address	21		
Configuring Basic Wireless Settings	22		
Restarting Your Router	23		

GETTING STARTED

What's in the Box

N150 Wireless Router

Ethernet cable

Power supply

Belkin CD with User Manual

Quick Installation Guide

Service Card

Initial Setup

Where to Place Your Router

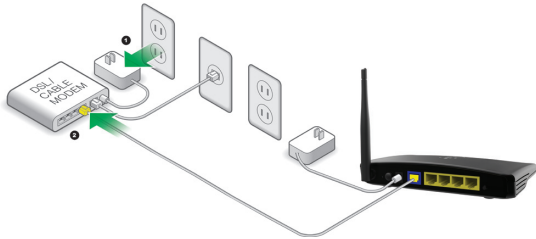
For the best results, place the Router next to your modem in an open location away from large metal objects and magnets such as those found in speakers. Raising the Router above floor level can improve the strength of your wireless signal.

GETTING STARTED

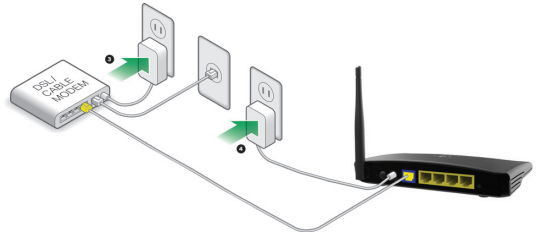
How to Set It UP

Connect Your N150 Router

1. Turn off your modem by disconnecting its power supply.
2. Connect your Router to your modem using the cable.



3. Power up your modem by plugging in its power supply.
4. Power up your Router by plugging in its power supply.



GETTING STARTED

Adding Computers to Your Network

Wireless devices such as computers, network printers, and gaming systems can connect to your Router with a few simple steps.

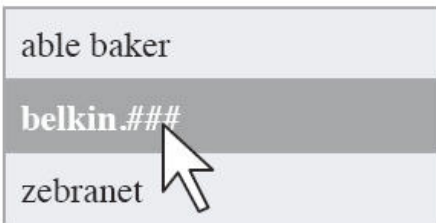
Manual Setup

If you know what sort of Internet service you have, you might try a manual setup. For this you will need a Wi-Fi-enabled smartphone, tablet, or computer.

Wirelessly Connect to Your Router

The default network name and password are printed on the foot of the Router.

Use your computer, tablet, or smartphone to connect to the wireless network shown on the network ID card.



When requested, please enter the password

(security key) provided on the card.

Using the WPS Button

Start WPS Push Button Connection (WPS PBC) on your computer or other Wi-Fi device that you would like to connect wirelessly to your Router. Often there will be a button for this purpose in software that came with the device, or a physical "WPS" button on the device itself.

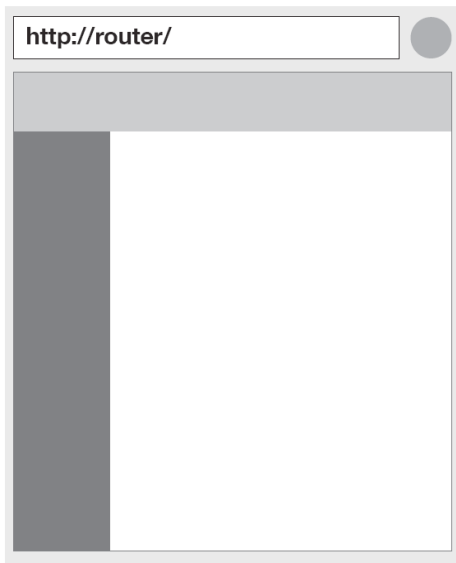
Within two minutes, press the WPS button on your Router.

The WPS indicator will blink green while it listens for your Wi-Fi device. Once a connection is established, the light will turn green for about 5 minutes and then go out. If a connection is not established, the light will blink green for 30s. You may repeat the process to try again.

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

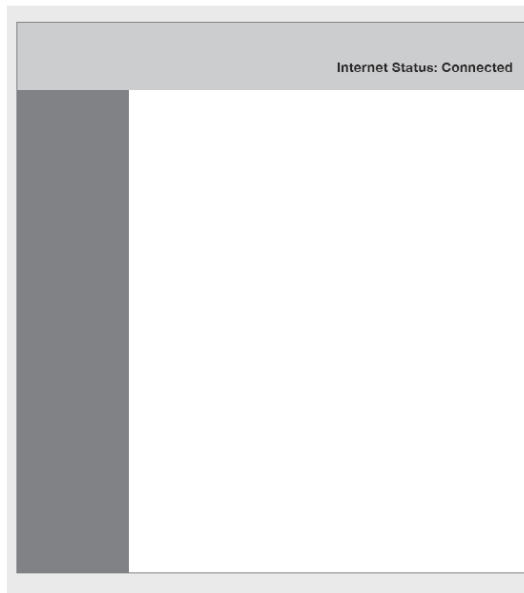
GETTING STARTED

Manually Set Up Your Internet Connection



Use a browser to visit <http://Router/>. The Router homepage should appear.

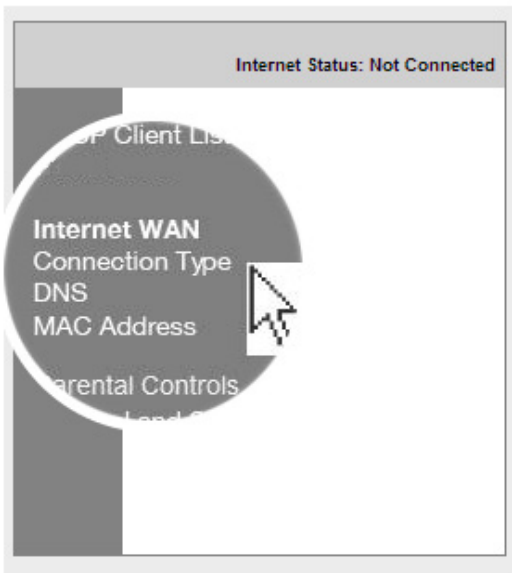
You can also try visiting <http://192.168.2.1/>.



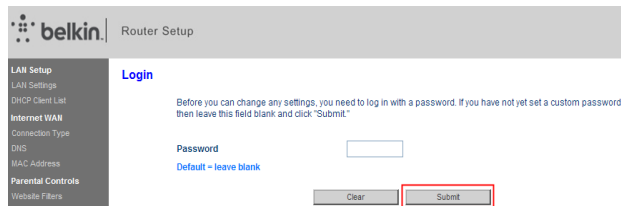
The status of your Internet connection is shown in the upper right corner of the Router homepage.

GETTING STARTED

If after a few moments it says "Connected", you're done! You can surf the Internet.



If not, select "Connection Type" from the menu on the left.



GETTING STARTED

If a password screen appears, press “Submit”.

WAN > Connection Type

Select your connection type:

- Dynamic**
A Dynamic type of connection is the most common. If you use a cable modem, then most likely you will have a dynamic connection. If you have a cable modem or you are not sure of your connection type, use this.
- Static**
A Static IP address connection type is less common than others. Use this selection only if your ISP gave you an IP address that never changes.
- PPPoE**
If you use a DSL modem and/or your ISP gave you a User Name and Password, then your connection type is PPPoE. Use this connection type.
- PPTP**
[European Countries Only]. This type of connection is most common in European countries. If your ISP has specifically told you that you use PPTP and has supplied you with the proper PPTP information, then use this option.
- L2TP**
[European Countries Only]. This type of connection is most common in European countries. If your ISP has specifically told you that you use L2TP and has supplied you with the proper L2TP information, then use this option.
- Telstra Bigpond/OptusNet Cable**
Use this option for Bigpond **Cable** and OptusNet **Cable** connections only.

Next

Dynamic Connection

Cable and fiber customers generally require a dynamic connection. Some DSL customers require a PPPoE connection. Let's try dynamic first. Select “Dynamic” from the menu that appears and press “Next”.

WAN > Connection Type > Dynamic IP

To enter your Dynamic IP settings, type in your information below and click “Apply changes”.
[More Info](#)

Host Name >

Host Name = A name that some Internet Service Providers require for connection to their system.

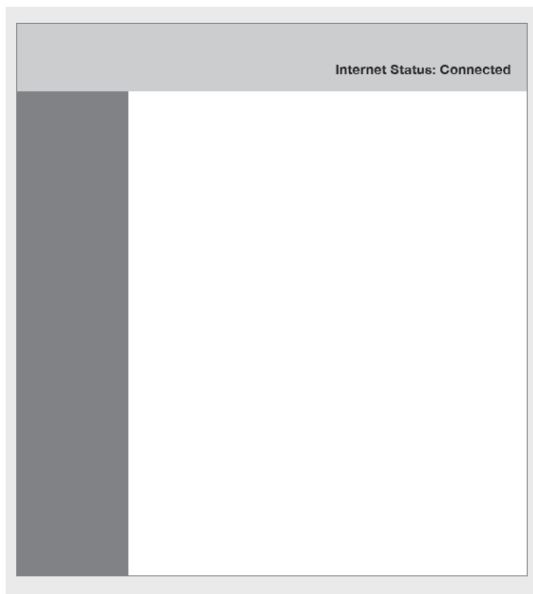
Change WAN MAC Address

Cancel Changes

Apply Changes

GETTING STARTED

Enter the host name provided by your Internet service provider. Click “Apply Changes”.



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

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

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

WAN > Connection Type

Select your connection type:



Dynamic

A Dynamic type of connection is the most common. If you use a cable modem, then most likely you will have a dynamic connection. If you have a cable modem or you are not sure of your connection type, use this.



Static

A Static IP address connection type is less common than others. Use this selection only if your ISP gave you an IP address that never changes.



PPPoE

If you use a DSL modem and/or your ISP gave you a User Name and Password, then your connection type is PPPoE. Use this connection type.



PPTP

[European Countries Only] This type of connection is most common in European countries. If your ISP has specifically told you that you use PPTP and has supplied you with the proper PPTP information, then use this option.



L2TP

[European Countries Only] This type of connection is most common in European countries. If your ISP has specifically told you that you use L2TP and has supplied you with the proper L2TP information, then use this option.



Telstra Bigpond/OptusNet Cable

Use this option for Bigpond **Cable** and OptusNet **Cable** connections only.

Next

GETTING STARTED

PPPoE Connection

Some DSL customers require a PPPoE connection.

Select PPPoE this time and press “Next”.

WAN > Connection Type > PPPoE

To enter your PPPoE settings, type in your information below and click “Apply changes”. [More Info](#)

User Name >

Password >

Retype Password >

Service Name (Optional) >

IP assigned by ISP > YES

IP Address >

MTU (500-1500) >

Do not make changes to the MTU setting unless your ISP specifically requires a different setting than 1454. [More Info](#)

Disconnect after minutes of no activity.

[More Info](#)

Clear Changes

Apply Changes

Enter the username and password supplied by your Internet provider and click “Apply Changes”. Ignore the other fields.



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

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

GETTING STARTED

Connecting Additional Devices

iOS


(iphone, iPad, and iPod touch)

Open the “Settings” app and select the “Wi-Fi” menu item.

Select your wireless network from the list that appears there. If asked to do so, enter the network password.

Mac OS® X

Your Mac® provides a menu of available wireless networks at the right end of the menu bar.

Click on the  icon showing wireless waves.

Select your wireless network from the list that appears there. If asked to do so, enter the network password.

Android

(phones and tablets)


Open the “Settings” app and select “Wireless” and “Network”.

From there, select “Wi-Fi” to see the list of available networks.

Select your wireless network from the list. If asked to do so, enter your network password.

Windows® 7



Your computer provides a menu of available wireless networks at the right end of the task bar.

Right-click on the  icon that looks like signal strength bars.

Select your wireless network from the list. If asked, enter your network password (network key).

Windows Vista® and Windows XP

Your device provides a menu of available wireless networks at the right end of the task bar.

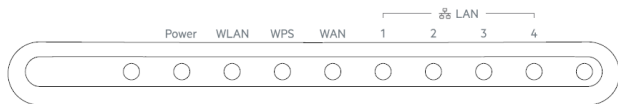
Right-click on the icon that shows a computer with wireless waves (XP)  or two computers (Windows Vista) .

Choose “View Available Wireless Networks” (XP) or “Connect to a network” (Vista) from the menu.

Select your wireless network from the list. If asked, enter your network password (network key).

GETTING TO KNOW YOUR ROUTER

Front Panel



Your Router's status is shown by the lights on the front panel.

Power Light

Off: The Router is not plugged into a power source.

Solid Green: Power is supplied to the Router.

WLAN Light

Off: WLAN is disabled.

Blinking Green: Wireless data is being transmitted in the WLAN.

Solid Green: WLAN is enabled but no data transfer.

Wi-Fi Protected Setup (WPS) Light

Off: Idle

Blinking Green: The Router is listening for a WPS-enabled computer or other device.

Successful Connection: The WPS light is SOLID GREEN for 5 minutes and then goes out when the Router has made a secure connection with the computer or other device.

Failed Connection: The WPS light is BLINKING GREEN for 30s after the WPS connection fails.

WAN Light

Off: WAN connection is not created.

Blinking Green: Data is being transmitted on the WAN port.

Solid Green: The Router is connected to the Internet.

LAN Light

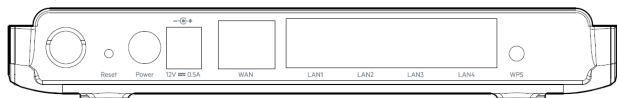
Off: LAN connection is not created.

Blinking Green: Data is being transmitted on the LAN port.

Solid Green: The Router is connected to devices through Ethernet cables.

GETTING TO KNOW YOUR ROUTER

Back Panel



Reset Button

This button is used to restore the factory default settings.

To reset the Router, press and hold this button for 8-10 seconds.

Power Connector

Connect the included power supply to this jack.

Modem (WAN) Connector

Connect your modem to this port using an Ethernet cable.

Wired (LAN) Connectors

Connect computers and other wired network device to these ports using Ethernet cables.

WPS Button

The WPS button on the back of your Router can be used to help establish a secure connection between your Router and other WPS-enabled Wi-Fi devices such as computers. To use the WPS feature on your Router, see "Getting Started > Adding Computers to Your Network > Using the WPS Button".

TECHNICAL DETAILS

Technical Features

Integrated 802.11n Wireless Access point

The N150 technology enhances your Router's wireless capabilities, allowing for data transfer speeds of up to 150Mbps across your network.

NAT IP Address Sharing

To save you the cost of adding IP address per computer in your house, our Belkin Router uses Network Address Translation (NAT) technology, allowing you to share a single IP address across your network.

SPI Firewall

Your Router is equipped with a firewall that will protect your network from a wide array of common attacks and viruses.

Universal Plug-and-Play (UPnP) Compatibility

The UPnP (Universal Plug-and-Play) feature in your Router offers seamless operation of voice and video messaging, game, and other applications that are UPnP-compliant.

Web-Based Advanced User Interface

You can easily make changes to your Router's advanced settings through your web browser. These changes can be made from any computer on your network.

Integrated 4-Port 10/100 Switch

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

System Requirements

Router

Broadband Internet connection such as a cable or DSL modem with RJ45 (Ethernet) connection

At least one computer with an installed network interface adapter

TCP/IP networking protocol installed on each computer

RJ45 Ethernet networking cable

Internet browser

USING YOUR ROUTER

Using the LAN IP Setup

The “LAN Settings” page allows changing the Router’s LAN IP address as required and configuring Dynamic Host Configuration Protocol (DHCP).

Configuring Parameters of LAN IP Setup

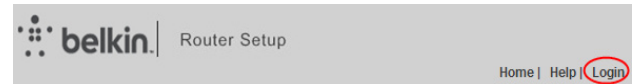
LAN IP setup parameters are advanced settings that you may require if you are a network administrator or your network requires a different IP addressing scheme. The Router is shipped with the default IP address on the LAN side and with the DHCP server enabled.

Note: If you change the default LAN IP address, you must use the new LAN IP address to log in.

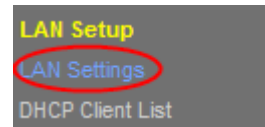
Setup steps:

Open a Web browser on the computer.

In the address bar of the Web browser, type `http://192.168.2.1`.



Click “Login” in the upper right corner of the page. The Router does not ship with a password, so just click “Submit”.



Click on “LAN Settings” in the left column under the “LAN Setup” heading.

IP Address >	<input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="2"/> . <input type="text" value="1"/>
More Info	
<hr/>	
Subnet Mask >	<input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="0"/>
More Info	

USING YOUR ROUTER

Configure the IP address and subnet mask.

IP Address: The IP address that a LAN user uses to access the Router. The default IP is 192.168.2.1.

IP Subnet Mask: Subnet mask of the LAN port. You can enter a different subnet mask according to the actual network status.

Click "Apply".

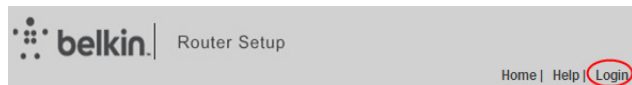
Using the Router as a DHCP Server

By default, the Router acts as a DHCP server, automatically assigning IP addresses to computers in the LAN. Users do not need to configure TCP/IP protocol parameters such as the IP address, the subnet mask, the gateway, and the DNS server information for computers connected to the Router's LAN.

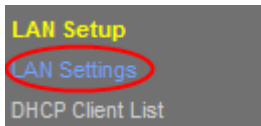
Setup steps:

Open a Web browser on the computer.

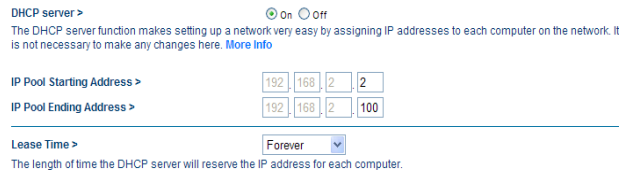
In the address bar of the Web browser, type <http://192.168.2.1>.



Click "Login" in the upper right corner of the page. The Router does not ship with a password, so just click "Submit".



Click on "LAN Settings" in the left column under the "LAN Setup" heading.



Select the "On" button to use the Router as a DHCP server.

Configure the parameters below.

IP Pool Starting Address/IP Pool Ending Address: Set the starting and ending IP addresses to specify a pool of IP addresses to be assigned by the DHCP server. After you set "Starting IP Address/Ending IP Address", hosts in the LAN obtain IP addresses that are in the range of the starting and ending IP addresses.

USING YOUR ROUTER

Lease Time: The valid time for an IP address that is automatically assigned to a device by the DHCP server to a host. The DHCP server does not assign the IP address to other hosts within the specified time. If selecting “Forever”, you save devices in the LAN with fixed addresses.

Configuring the Local Domain Name

The local domain name is a user-friendly name for your Router. At the bottom of the “LAN Settings” page, you can set a local domain name. The default name is Belkin.

There is no need to change this setting unless required.

Local Domain Name >
(Optional)

A feature that lets you assign a name to your network. [More Info](#)

Configuring Your Internet Connection

Settings related to your Internet service are specified in the “Connection Type” page under the “Internet WAN” heading.

Select a WAN connection type. Contact your ISP if you do not know your WAN connection mode.

Dynamic Connection

Cable and fiber customers generally require a dynamic connection.

Setup steps:

Click “Connection Type” in the left column under the “Internet WAN” heading.

WAN > Connection Type

Select your connection type:



Dynamic

A Dynamic type of connection is the most common. If you use a cable modem, then most likely you will have a dynamic connection. If you have a cable modem or you are not sure of your connection type, use this.



Static

A Static IP address connection type is less common than others. Use this selection only if your ISP gave you an IP address that never changes.



PPPoE

If you use a DSL modem and/or your ISP gave you a User Name and Password, then your connection type is PPPoE. Use this connection type.



PPTP

[European Countries Only]. This type of connection is most common in European countries. If your ISP has specifically told you that you use PPTP and has supplied you with the proper PPTP information, then use this option.



L2TP

[European Countries Only]. This type of connection is most common in European countries. If your ISP has specifically told you that you use L2TP and has supplied you with the proper L2TP information, then use this option.



Telstra Bigpond/OptusNet Cable

Use this option for Bigpond **Cable** and OptusNet **Cable** connections only.

Next

USING YOUR ROUTER

Select "Dynamic" in the "Connection Type" page that appears. Click "Next".

WAN > Connection Type > Dynamic IP

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

[More Info](#)

Host Name >

Host Name = A name that some Internet Service Providers require for connection to their system.

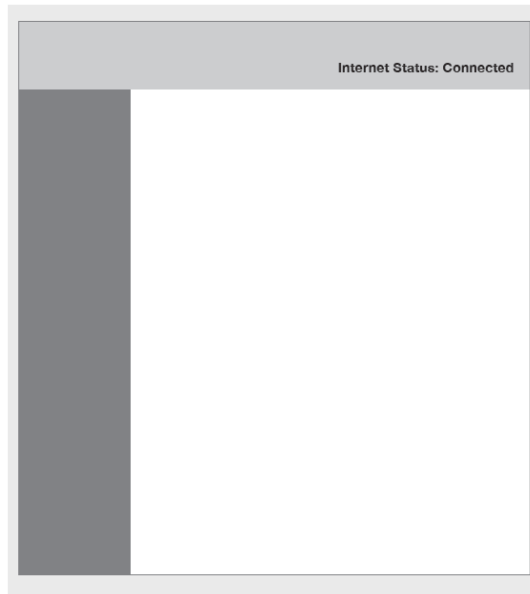
[Change WAN MAC Address](#)

Cancel Changes

Apply Changes

Enter the host name provided by your Internet provider.

Click "Apply Changes".



USING YOUR ROUTER

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

Static Connection

Select Static IP if your ISP provides the IP address, subnet mask, and information about the gateway and DNS server.

Setup steps:

Click "Connection Type" in the left column under the "Internet WAN" heading.

Select "Static" in the "Connection Type" page that appears.

WAN > Connection Type > Static IP

To enter your Static IP settings, type in your information below and click "Apply changes". [More Info](#)

IP Address >	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subnet Mask >	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ISP Gateway Address >	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

[Click here to enter your DNS Settings](#)

<input type="button" value="Clear Changes"/>	<input type="button" value="Apply Changes"/>
--	--

Configure the parameters below. These parameters cannot be left blank.

IP Address: Enter the WAN IP address provided by the ISP. The parameter must be entered.

Subnet Mask: Enter the WAN subnet mask provided by the ISP. It varies with the network type. It is usually 255.255.255.0 (Class C).

ISP Gateway Address: Enter the IP address of the gateway provided by the ISP. It is the IP address used for connecting to the ISP.

Click here to enter your DNS Settings
<input type="button" value="Clear Changes"/> <input type="button" value="Apply Changes"/>

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 >

Secondary DNS Address >

DNS = Domain Name Server. A server located on the Internet that translates URL's (Uniform Resource Locator) like www.belkin.com to IP addresses. You must enter the DNS settings provided by your ISP if you don't use the Automatic DNS function [More info](#)

<input type="button" value="Clear Changes"/>	<input type="button" value="Apply Changes"/>
--	--

USING YOUR ROUTER

Click “Click here to enter your DNS Settings” to configure DNS information.

Clear the “Automatic from ISP” check box.

In the “DNS Address” and “Secondary DNS Address” fields, enter the IP addresses of the primary DNS server and the secondary server (if available). At least enter one DNS server IP address.

Click “Apply Changes”.

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

PPPoE Connection

Most DSL providers use PPPoE (Point-to-Point Protocol over Ethernet) as the connection type. If you use a DSL modem to connect to the Internet, your ISP may use PPPoE to log you into the service.

Setup steps:

Click “Connection Type” in the left column under the “Internet WAN” heading.

Select “PPPoE” in the “Connection Type” page that appears.

WAN > Connection Type > PPPoE

To enter your PPPoE settings, type in your information below and click “Apply changes”. [More Info](#)

User Name >	<input type="text"/>
Password >	<input type="password"/>
Retype Password >	<input type="password"/>
Service Name (Optional) >	<input type="text"/>
IP assigned by ISP >	<input type="button" value="YES"/> ▾
IP Address >	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
MTU (500-1500) >	<input type="text" value="1454"/>

Do not make changes to the MTU setting unless your ISP specifically requires a different setting than 1454. [More Info](#)

Disconnect after minutes of no activity.

[More Info](#)

Clear Changes

Apply Changes

USING YOUR ROUTER

Configure the parameters below.

User Name and Password: Enter the user name and password provided by the ISP. The user name and password are used to log in to the ISP server.

Retype Password: Enter the password again.

Service Name: If several PPPoE servers are available, specify which server to use.

IP assigned by ISP: You can select either to an IP address assigned by your ISP, or to manually set an IP address in the "IP Address" field.

MTU: The maximum transmission unit. We strongly recommend you to use the default setting unless your ISP gives you a specific MTU setting.

Disconnect after minutes of no activity.

If you select the "Disconnect after xxx minutes of no activity" check box and specify a time interval, the system interrupts the Internet connection when there is no Internet access behavior within the specified time.

Click "Apply Changes".

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

PPTP/L2TP Connection

Some ISPs require a connection using the PPTP or L2TP protocol. Enter the account and password provided by your ISP.

The following takes PPTP connection as an example.

Setup steps:

Click "Connection Type" in the left column under the "Internet WAN" heading.

Select "PPTP" in the "Connection Type" page that appears.

WAN > Connection Type > PPTP

[More Info](#)

PPTP Account >

PPTP Password >

Retype Password >

Host Name

Service Address >

IP Address Assignment >

Connection ID (optional) >

Disconnect after minutes of no activity. [More Info](#)

[Click here to enter your DNS Settings](#)

Cancel

Apply

USING YOUR ROUTER

Configure the parameters below.

PPTP Account and PPTP Password: Enter the PPTP account and password provided by the ISP. The PPTP account and password are used to log in to the ISP server.

Retype Password: Enter the password again.

Host Name: (Optional) Enter the host name.

Service Address: Enter the IP address of the ISP server.

IP Address Assignment: You can select either to dynamically get an IP address from the ISP or to use a static IP address. If you select "Use Static IP Address", manually enter the IP address, the subnet mask, and the default gateway.

Disconnect after **minutes of no activity. [More Info](#)**

If you select the "Disconnect after xxx minutes of no activity" check box and specify a time interval, the system interrupts the Internet connection when there is no Internet access behavior within the specified time.

The image shows two screenshots of a router's web interface. The top screenshot shows a button labeled "Click here to enter your DNS Settings" with a red border, and two buttons below it: "Clear Changes" and "Apply Changes". An arrow points from the "Click here" button to the second screenshot. The second screenshot shows the "WAN > DNS" configuration page. It contains the following text and fields:

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 >

Secondary DNS Address >

DNS = Domain Name Server. A server located on the Internet that translates URL's (Uniform Resource Locator) like www.belkin.com to IP addresses. You must enter the DNS settings provided by your ISP if you don't use the Automatic DNS function [More info](#)