

## USER MANUAL

# WIRELESS N300 / N150 ROUTER



N300 Series  
ENHWI-2AN4x  
(with 2 antennas)

N150 Series  
ENHWI-1AN4x  
(with 1 antenna)



**Note:**

The lowercase "x" in the model number represents the antenna type. At the time when this manual was written, Encore offers 2 different types of antenna for Wireless N Router: 2dBi and 5dBi. The antenna shown on the cover is 2dBi. The 5dBi antenna is longer.

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## Chapter 1: Introduction

The ENHWI-1AN4x Wireless N150 Router / ENHWI-2AN4x Wireless N300 Router complies with IEEE 802.11n, and provides faster and farther range than 802.11g while being backward compatible with 802.11g and 802.11b mode. This router uses advanced broadband router chipset and wireless LAN chipset solution to let you enjoy high-speed Wired and Wireless connection. Simply connect this device to a Cable or DSL modem and then you can share your high-speed Internet access with multiple PCs at your home with or without wires. It creates a secure Wired and Wireless network for you to share photos, files, video, music, printer and network storage. ENHWI-1AN4x / ENHWI-2AN4x provides maximum transfer rate up to 150Mbps and supports WEP, WPA, WPA2, 802.1x high-level WLAN security features that guarantee the best security for users.

### 1.1 Package Contents

- Wireless N300 Router or Wireless N150 Router x1
- External Antenna x2 (for the N300 Series)  
X1 (for the N150 Series)
- External Power Adapter x1
- Setup CD (User Manual in the CD) x1
- RJ-45 Ethernet Cable x1

### 1.2 System Requirements

- Active broadband connection with cable/DSL modem
- 10/100 Ethernet cables with RJ-45 connector
- Ethernet or wireless enabled computers
- TCP/IP protocol must be installed on the connecting computers
- Web browser: Internet Explorer 7 or later, or Mozilla Firefox 3 or later



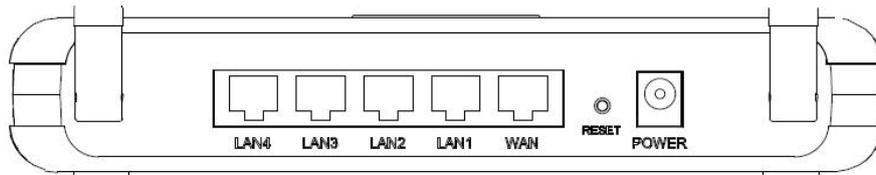
### 1.3 Front Panel and LED Indicators



LED	Status	Description
POWER	On	The router power is on.
	Off	The router power is off.
SYSTEM	On	The router is starting the system.
	Slow Blinking	The router system is ready to work.
WAN	On	WAN port is successfully connected
	Blinking	The router is sending or receiving data through the WAN (usually is your cable/DSL modem).
WLAN	Slow Blinking	Wireless network is ready.
	Blinking	The router is sending or receiving data over the <a href="#">wireless</a> network.
LAN (1/2/3/4)	On	LAN port is successfully connected.
	Blinking	The router is sending or receiving data over the <a href="#">wired</a> network.
WPS	On	The WPS LED keeps on for around 8 seconds while the system is starting.
	Off	The WPS PBC/PIN function is not running.
	Slow Blinking	The WPS PBC function is running and last for 2 minutes after pressing and holding the WPS button for 3 or more seconds.



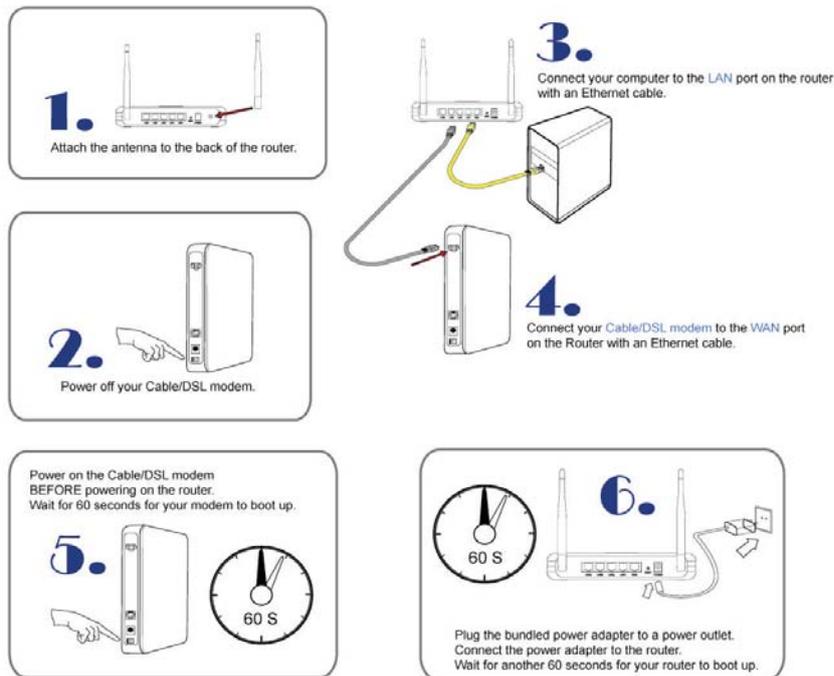
## 1.4 Back Panel and Connectors



Port / Button	Description
<b>Antenna</b>	Attach the external antenna(s) with R-SMA connector here. (The N300 Series has <a href="#">two</a> antenna connectors, while the N150 Series only has <a href="#">one</a> .)
<b>Reset</b>	<p>The Reset button will restore your router to the default setting. Press and hold the button for 6 seconds to enable the reset function.</p> <p><b>Note:</b> Before using the reset button, you should try two things:</p> <ol style="list-style-type: none"><li>1. Disconnect and power off both your modem and router. Wait for 30 seconds and turn on your modem <b>FIRST</b>. Wait for another 60 seconds for your modem to boot up. <b>LAST</b>, connect the modem back to the router and turn on the router. Wait for another 60 seconds for the router to boot up. <b>RESTART</b> your web browser to see if you can access the Internet now.</li><li>2. If the first solution does not work, restart your computer and open your web browser again.</li></ol> <p><b>If the above-mentioned two solutions and the reset function cannot solve your problem, contact your Internet service provider to see if there is a problem with you modem or Internet service.</b></p>
<b>LAN (1/2/3/4)</b>	Connect the 10/100 Ethernet Cable with RJ-45 connector here. <a href="#">Most networking devices should connect to the LAN port, such as computer, NAS, IP camera, print server, switch, and access point.</a>
<b>WAN</b>	Connect the 10/100 Ethernet Cable with RJ-45 connector here. <a href="#">Only connect a Wide Area Network (WAN) device to this port, such as a Cable/DSL modem.</a>
<b>POWER</b>	Connect the bundled DC 12V power adapter here.



## Chapter 2: Connecting Your Router



1. Attach the antenna to the back of the router.
2. Power off your Cable/DSL modem.
3. Connect your computer to the LAN port on the router with an Ethernet cable.
4. Connect your Cable/DSL modem to the WAN port on the Router with an Ethernet cable.
5. Power on the Cable/DSL modem, BEFORE powering on the router. Wait for 60 seconds for your modem to boot up.
6. Plug the bundled power adapter to a power outlet. Connect the power adapter to the router. Wait for another 60 seconds for your router to boot up.



7. Check the LED lights (see Page 5 for more details).
8. The LAN lights should be on for each active LAN connection.
9. The WAN lights should be on when the Cable/DSL modem is connected.



## Chapter 3: Configuring Your Router

### 3.1 Accessing the Web-Based Configuration Utility



*Screenshot of the Web-Based Configuration Utility*

For the initial configuration, we recommend you connecting your computer to the LAN port with an Ethernet cable. If this cannot be done, you have to connect to the router wirelessly.

Before configuring your router through wireless network, make sure that **SSID**, **Channel** and **Security** are set properly. The default setting of the WLAN Router that you will use:

- SSID: default
- Channel: 11
- 802.11 Mode: 802.11b/g/n mixed mode
- Channel bandwidth: 20/40MHz
- Security: Disable

**Note:**

Before you configure the router, make sure the host PC is set on the IP subnet that can be accessed by your cable/DSL modem. For example, when the default network address of the cable/DSL modem is 192.168.10.x, then the host PC should be set at 192.168.10.xxx (where xxx is a number between 2 and 254), and the default subnet mask is 255.255.255.0.



You need a web browser to access the web-based configuration utility.

1. Open a web browser.
2. Type in the following URL to the address bar:

<http://192.168.10.1>



sample screenshot from Internet Explore.

3. The web browser will ask you for User Name and Password. The default access information is as follows:

User Name: **admin**

Password: **admin**

The login window varies among web browsers. Below is an example from Internet Explore





## 3.2 Encore Setup Wizard

**Encore Setup Wizard** helps you to configure the router quickly. Simply follow the step-by-step instructions



To access the **Setup Wizard**, click on **“Wizard”** at the bottom of the function menu.



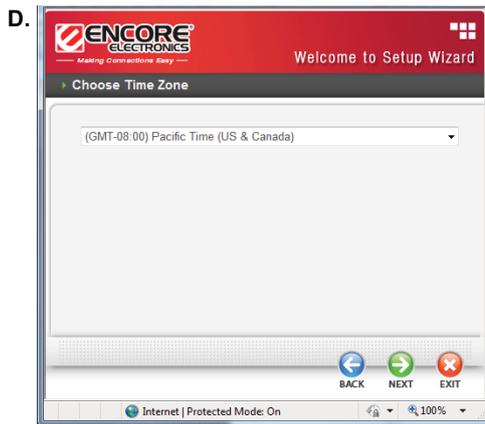
This is the **Setup Wizard** overview page.

Click **“Next”** to continue.



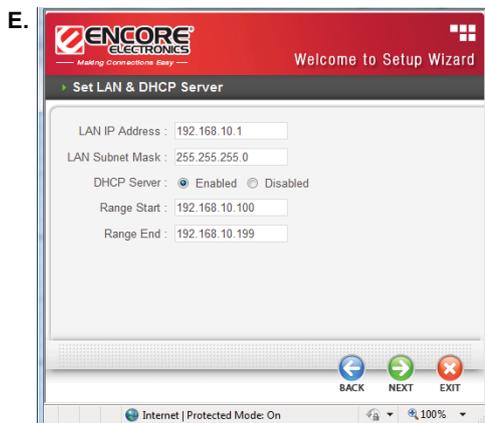
Create your own administrative password for the router in this page.

Click "**Next**" to continue.



Choose your time zone.

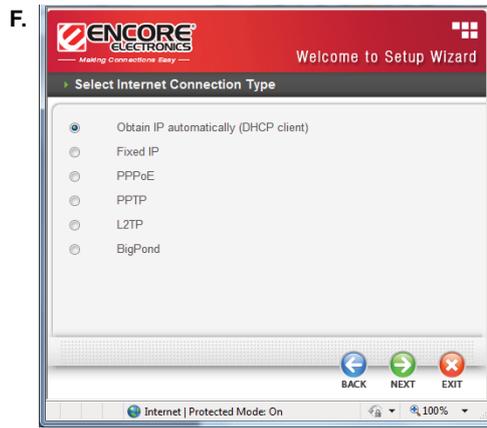
Click "**Next**" to continue.



Most of the time, you can leave the **DHCP Server** "**Enabled**" and skip this page

If your **MODEM** has router function built-in and enabled, you need to check "**Disabled**" for **DHCP Server**.

Click "**Next**" to continue.



Most of the time, you just need to click “**Next**” to continue.

The **Setup Wizard** will attempt to detect your Internet connection type automatically (one of the six options). You can also manually select the connection type.

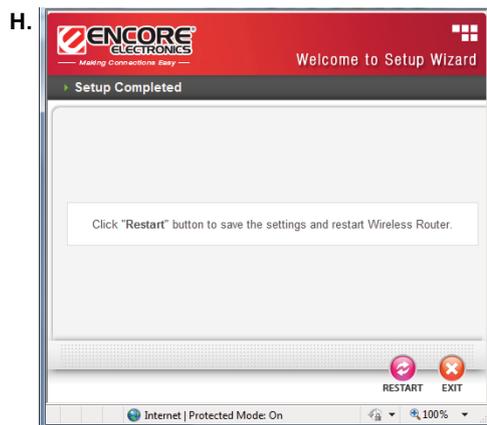
Based on the connection type, the following pages (not shown here) will request different account information. Just follow the on-screen instructions. For more details, please refer to [Chapter 4.1.1: Connection Type](#).



Click “**Enable**” to enable **Wireless LAN**.

If **Wireless** is enabled, you need to enter the name of your wireless network in the **SSID** text box and select a radio **channel** in the dropdown menu.

Any networking device wishes to connect to your router needs to use the same **SSID** and **channel**.



The Setup Wizard is now completed. The new settings will be effective **AFTER** the router reboots.

Click “**Restart**” to reboot the router. If you do not want to make any changes, click “**Exit**.”



## Chapter 4: Advanced Configuration

### 4.1 WAN (Wide Area Network)

This section enables users to set up the Wide Area Network (WAN) connection: specifying the WAN IP address, adding DNS numbers, and entering the MAC address.

The screenshot shows the WAN configuration page for an Encore Electronics 802.11n Wireless Broadband Router. The page has a red header with the logo and the text "802.11n Wireless Broadband Router". On the left, there is a navigation menu with options: WAN, Dynamic DNS, Wireless, LAN, Routing, Access Control, System, and Wizard. The main content area is titled "Connection Type" and contains the following fields:

- Connection Type: DHCP Client or Fixed IP (dropdown menu)
- WAN IP Address: Obtain IP Automatically (selected) / Specify IP (radio buttons)
- IP Address: 0.0.0.0 (text input)
- Subnet Mask: 0.0.0.0 (text input)
- Gateway: 0.0.0.0 (text input)
- MTU: 1500 (text input)
- DNS 1: 0.0.0.0 (text input)
- DNS 2: 0.0.0.0 (text input)
- Clone MAC Address: 00 - e0 - 4c - b1 - 98 - c8 (text input) with a "Clone MAC Address" button

At the bottom right, there are "Cancel" and "Apply" buttons. The status bar at the very bottom indicates "Internet | Protected Mo".

#### 4.1.1 Connection Type

There are five connection types to choose:

- DHCP Client or Fixed IP
- PPPoE
- PPTP
- L2TP
- BigPond Cable



## A. DHCP Client or Fixed IP

If user has the DHCP server enabled, choose "Obtain IP automatically (DHCP client)" to have the router assign IP addresses automatically.

Connection Type

Connection Type: DHCP Client or Fixed IP

WAN IP Address:  Obtain IP Automatically  Specify IP

IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Gateway: 0.0.0.0

MTU: 1500

DNS 1: 0.0.0.0

DNS 2: 0.0.0.0

Clone MAC Address:

00 - e0 - 4c - 81 - 96 - c9

### WAN IP Address

Select whether you want the router to “**Obtain IP Automatically**” or manually input **Fixed IP** by checking “**Specify IP**.”

### IP Address

Under the “**Specify IP**” mode, enter the information provided by your ISP.

### Subnet Mask

Under the “**Specify IP**” mode, enter the information provided by your ISP.

### Gateway

Under the “**Specify IP**” mode, enter the information provided by your ISP.

### DNS 1/2

Under the “**Obtain IP Automatically**” mode, the DHCP server will provide DNS server IP automatically if this field is 0.0.0.0.

Under the “**Specify IP**” mode, manually enter the DNS server IP address.

### Clone MAC Address

If your ISP requires you to enter a specific MAC address, please enter it here. The “**Clone MAC Address**” button is used to copy the MAC address of your Ethernet adapter to the Router.



## B. PPPoE

If connecting to the Internet using a PPPoE (Dial-up xDSL) Modem, the ISP (Internet Service Provider) will provide a Password and User Name. Choose this option and enter the required information.

The screenshot shows a web interface for configuring a PPPoE connection. The 'Connection Type' is set to 'PPPoE'. Under 'WAN IP Address', the 'Obtain IP Automatically' radio button is selected, and the 'Specify IP' field contains '0.0.0.0'. Below this are input fields for 'Service Name', 'User Name', 'Password', and 'Verify Password'. The 'DNS' section has a 'Primary' field with '0.0.0.0' and an optional 'Secondary' field with '0.0.0.0'. The 'Auto-reconnect' section has three radio buttons: 'Always On', 'Manual', and 'Connect-on Demand', with 'Connect-on Demand' selected. The 'Idle Time Out' field is set to '5' minutes, and the 'MTU' field is set to '1492'.

### **WAN IP Address**

Select whether you want the router to “**Obtain IP Automatically**” or manually input **Fixed IP** by checking “**Specify IP.**”

### **Server Name**

Enter the information provided by your ISP (optional).

### **User Name**

Enter the information provided by your ISP.

### **Password**

Enter the information provided by your ISP.

### **Retype Password**

Enter the password again.

### **DNS**

Under the “**Obtain IP Automatically**” mode, the DHCP server will provide DNS server IP automatically if this field is **0.0.0.0**.

Under the “**Specify IP**” mode, manually enter the DNS server IP address.

### **Auto-Reconnect**

Three options are available: **Always-on**, **Manual** or **Connect-on Demand**.

### **Idle Time Out**

Enter the idle time out for “**Connect-on Demand**,” when no Internet access during the idle time, the PPPoE connection will auto disconnect.

### **MTU**

Enter the specified MTU (Maximum Transmission Unit). The default value is 1492 bytes.



### C. PPTP/L2TP with Dynamic IP (Obtain IP Automatically)

If connecting to the Internet using a PPTP/L2TP (Dial-up xDSL) protocol with **Dynamic IP**, check **“Obtain IP Automatically.”**

You need to enter the following information provided by your ISP: Server IP/Name, PPTP/L2TP Account, and PPTP/L2TP Password.

If your ISP has provided you a DNS IP address, enter it in the **“DNS”** field. Otherwise, leave it as **“0.0.0.0.”**

The image shows two side-by-side screenshots of network configuration forms. The left form is for PPTP and the right form is for L2TP. Both forms have a 'Connection Type' dropdown menu at the top. The PPTP form has a 'WAN IP Address' section with radio buttons for 'Obtain IP Automatically' (checked) and 'Specify IP'. Below this are input fields for IP Address, Subnet Mask, Gateway, and DNS, all containing '0.0.0.0'. The L2TP form also has a 'WAN IP Address' section with 'Obtain IP Automatically' checked and 'Specify IP' unselected. Below this are input fields for IP Address, Subnet Mask, Gateway, and DNS, all containing '0.0.0.0'. Both forms have fields for 'Server IP/Name', 'Account', and 'Password' (with a 'Verify Password' field). The PPTP form has an 'Auto-reconnect' section with radio buttons for 'Always On', 'Manual', and 'Connect-on Demand' (checked). It also has an 'Idle Time Out' field set to '5' minutes, an 'MTU' field set to '1400', and an 'MPPE Enable' checkbox (unchecked) with a note '(only for MSCHv2)'. The L2TP form has an 'Auto-reconnect' section with radio buttons for 'Always On', 'Manual', and 'Connect-on Demand' (checked). It also has an 'Idle Time Out' field set to '5' minutes and an 'MTU' field set to '1400'.



## D. PPTP/L2TP with Static IP (Specify IP)

If connected to the Internet using a PPTP/L2TP (Dial-up xDSL) with **static IP** connection, check **"Specify IP."**

You need to enter the following information: IP Address, Subnet Mask, Gateway IP address, DNS IP address, Server IP/Name, PPTP/L2TP Account, and PPTP/L2TP Password.

Connection Type	Connection Type
Connection Type: <b>PPTP</b>	Connection Type: <b>L2TP</b>
WAN IP Address: <input type="radio"/> Obtain IP Automatically <input checked="" type="radio"/> Specify IP	WAN IP Address: <input type="radio"/> Obtain IP Automatically <input checked="" type="radio"/> Specify IP
IP Address: 172.1.1.2	IP Address: 172.1.1.2
Subnet Mask: 255.255.255.0	Subnet Mask: 255.255.255.0
Gateway: 172.1.1.1	Gateway: 0.0.0.0
DNS: 0.0.0.0	DNS: 0.0.0.0
Server IP/Name: 172.1.1.1	Server IP/Name: 172.1.1.1
PPTP Account: _____	L2TP Account: _____
PPTP Password: _____	L2TP Password: _____
Verify Password: _____	Verify Password: _____
Auto-reconnect: <input checked="" type="radio"/> Always On <input type="radio"/> Manual <input type="radio"/> Connect-on Demand	Auto-reconnect: <input checked="" type="radio"/> Always On <input type="radio"/> Manual <input type="radio"/> Connect-on Demand
Idle Time Out: 0 Minutes	Idle Time Out: 187 Minutes
MTU: 1468	MTU: 48093
MPPE Enable: <input type="checkbox"/> (Only for MSCHAPv2)	
MPPE Encryption Length: 4096	



## E. BigPond Cable

If your ISP is Big Pond Cable, the ISP will provide you a User Name, Password, Authentication Server, and Login Server IP (Optional). Choose this option and enter the required information.

**Connection Type**

Connection Type:

---

User Name:

Password:

Verify Password:

---

Server IP/Name:  (optional)

Auth Server:

MTU:

---

Clone MAC Address :

-  -  -  -  -



## 4.1.2 Dynamic DNS

This synchronizes the DDNS server with your current Public IP address when you are online. First, you need to register your preferred DNS with the DDNS provider. Then, please select the DDNS address in the Server Address and enter the following information: Host Name, User Name, and Password.

The screenshot shows the web interface for configuring Dynamic DNS on an Encore Electronics 802.11n Wireless Broadband Router. The interface has a red header with the logo and the text "ENCORE ELECTRONICS" and "802.11n Wireless Broadband Router". Below the header is a navigation menu with options: WAN, Connection Type, Dynamic DNS (selected), Wireless, LAN, Routing, Access Control, System, and Wizard. The main content area is titled "Dynamic DNS" and contains the following configuration options:

- DDNS:  Enabled  Disabled
- DDNS Server Selection List: DynDns.com (dropdown menu)
- Host Name:
- User Name:
- Password:

At the bottom right of the configuration area are two buttons: "Cancel" (with a red X icon) and "Apply" (with a green checkmark icon).



## 4.2 Wireless

This section allows users to configure the wireless network functions.

### 4.2.1 Basic

This page allows user to enable and disable the wireless LAN function, create a SSID, and select the channel for wireless communications.



**Enable/Disable:** Enables or disables wireless LAN.

**SSID:** Type an SSID in the text box. The SSID of any wireless device must match the SSID typed here in order for the wireless device to access the LAN and WAN via the WLAN Router.

**SSID Broadcast:** When SSID Broadcast is enabled, all wireless clients will be able to view the WLAN Router's SSID.

**Channel:** Select a transmission channel for wireless communications. The channel of any wireless device must match the channel selected here in order for the wireless device to access the LAN and WAN via the WLAN Router.



## 4.2.2 Security



**Authentication Type:** The default authentication type is “open system.” There are four options: WEP, WPA, WPA2 and WPA2-Auto.



### 4.2.2.1 WEP



**WEP:** “Open System” and “Shared Key” requires the user to set a WEP key to exchange data with other wireless clients using the same WEP key.

**WEP Key Format:** Select ASCII or HEX format.

**WEP Key Length:** Select 64-bit or 128-bit encryption.

Key Length	Hex	ASCII
Type	characters 0-9, A-F, a-f	alphanumeric format
64-bit	10 characters	5 characters
128-bit	26 characters	13 characters

**Key 1:** Enables users to create WEP keys with WPS enabled. Manually enter a set of values for Key 1.

**Note:**

**Key 1 ~ Key 4:** Enables users to create up to 4 different WEP keys with WPS disabled. Manually enter a set of values for each key. Select a key to use by clicking the radio button next to the key.



#### 4.2.2.2 WPA/WPA2/WPA-Auto with EAP

The screenshot shows the configuration page for the Encore Electronics 802.11n Wireless Broadband Router. The page is titled "Security" and features a sidebar with navigation options: WAN, Wireless (selected), Basic, Security (selected), Advanced, Wi-Fi Protected Setup, LAN, Routing, Access Control, System, and Wizard. The main content area is titled "Security" and contains the following settings:

- Security:  Enable  Disable
- Authentication Type: WPA (dropdown menu)
- Encryption Type:  TKIP  AES  AUTO
- PSK / EAP:  PSK  EAP
- Radius Server 1:
  - IP Address: 0.0.0.0
  - Port: 1812
  - Shared Secret: (empty text field)

At the bottom right, there are "Cancel" and "Apply" buttons.

If "WPA, WPA2 or WPA2-Auto" with **EAP** is selected, the screen above will appear.

Please set the length of the encryption key and the parameters for the RADIUS server.

**Encryption Type:** Select the encryption type for TKIP, AES or AUTO encryption.

**Note:**

TKIP is available for **B** or **G WLAN Band** only. The WLAN Band setting is under Wireless/Advanced.

**RADIUS Server 1:** Enter the IP address, Port, and Shared Secret.



### 4.2.2.3 WPA/WPA2/WPA2-Auto Security with PSK

The screenshot shows the configuration interface for an Encore Electronics 802.11n Wireless Broadband Router. The left sidebar contains navigation options: WAN, Wireless (selected), Basic, Security (selected), Advanced, Wi-Fi Protected Setup, LAN, Routing, Access Control, System, and Wizard. The main content area is titled "Security" and includes the following settings:

- Security:  Enable  Disable
- Authentication Type: WPA (dropdown menu)
- Encryption Type:  TKIP  AES  AUTO
- PSK / EAP:  PSK  EAP
- Passphrase: [Redacted]
- Confirmed Passphrase: [Redacted]

At the bottom right of the configuration area are "Cancel" and "Apply" buttons.

If "WPA, WPA2 or WPA2-Auto" with **PSK** is selected, the screen above will appear.

**Encryption Type:** Select the encryption type for TKIP, AES or AUTO encryption.

**Note:**

TKIP is available for **B** or **G WLAN Band** only. The WLAN Band setting is under Wireless/Advanced.

**Passphrase:** The length should be **at least 8 characters**.



### 4.2.3 Advanced

This screen enables users to configure advanced wireless functions.

#### Advanced

Beacon Interval :  ( default : 100 msec , range : 25 ~ 1000 )

RTS Threshold :  ( default : 2346 , range : 256 ~ 2346 )

Fragmentation Threshold :  ( default : 2346 , range : 1500 ~ 2346 )

DTIM Interval :  ( default : 1 , range : 1 ~ 255 )

**Beacon Interval:** Type the beacon interval in the text box. User can specify a value from 25 to 1000. The default beacon interval is 100.

**RTS Threshold:** Type the RTS (Request-To-Send) threshold in the text box. This value stabilizes data flow. If data flow is irregular, choose values between 256 and 2346 until data flow is normalized.

**Fragmentation Threshold:** Type the fragmentation threshold in the text box. If packet transfer error rates are high, choose values between 1500 and 2346 until packet transfer rates are minimized. (NOTE: set this fragmentation threshold value may diminish system performance.)

**DTIM Interval:** Type a DTIM (Delivery Traffic Indication Message) interval in the text box.



## 4.2.4 Wi-Fi Protected Setup

This screen enables users to configure the Wi-Fi Protected Setup (WPS) function.

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802.11n Wireless Broadband Router

WAN

Wireless

Basic

Security

Advanced

Wi-Fi Protected Setup

LAN

Routing

Access Control

System

Wizard

### Wi-Fi Protected Setup

WPS :  Enable  Disable

Status :  UnConfigured  Configured

Self-PIN Number : 28512882

Client PIN Number :

Push Button Configuration :

Authentication	Encryption	Key
WPA2 PSK	AES	test1234

**WPS:** Enable or Disable the WPS (Wi-Fi Protected Setup) function

**Status:** Display the status (Un-configured State/Configured State) information of WPS.

**Self-PIN Number:** Display the current PIN number of the **WLAN Router**.

**Client PIN Number:** Type Client's PIN number to negotiate with the WLAN Router via WPS connection. A client can be a network card, IP camera, and etc.

**Push Button Configuration:** Clicking the **Start PBC** button will invoke the Push Button Configuration (PBC) method of WPS. Push the WPS button on the client side when users want their station to join Router's network.



## 4.3 LAN

This section allows the user to configure LAN and DHCP properties.

### 4.3.1 Basic

The screenshot shows the configuration interface for an Encore Electronics 802.11n Wireless Broadband Router. The interface has a red header with the logo and the text "802.11n Wireless Broadband Router". On the left is a navigation menu with options: WAN, Wireless, LAN (selected), Basic, DHCP, Routing, Access Control, System, and Wizard. The main content area is titled "Basic" and contains three text input fields: "Host Name" with the value "Encore", "IP Address" with the value "192.168.10.1", and "Subnet Mask" with the value "255.255.255.0". At the bottom right of the form are two buttons: "Cancel" and "Apply".

**Host Name:** Type the host name in the text box. The host name is required by some ISPs. The default host name is "Encore."

**IP Address:** This is the IP address of the WLAN Router. The default IP address is **192.168.10.1**.

**Subnet Mask:** Type the subnet mask for the WLAN Router in the text box. The default subnet mask is 255.255.255.0.



### 4.3.2 DHCP

Enable the DHCP server to allow the WLAN Router to automatically assign IP addresses to devices connecting to the LAN. DHCP is enabled by default.

All DHCP client computers are listed in the table at the bottom of the screen, providing the host name, IP address, and MAC address of the clients.

**Start IP:** Type an IP address to serve as the start of the IP range that DHCP will use to assign IP addresses to all LAN devices connected to the WLAN Router.

**End IP:** Type an IP address to serve as the end of the IP range that DHCP will use to assign IP addresses to all LAN devices connected to the WLAN Router.

**Lease Time:** The lease time specifies the amount of connection time a network user is allowed with their current dynamic IP address.



## 4.4 Routing

This section allows the user to setup Static or Dynamic Routing.

### 4.4.1 Static

The screenshot shows the web interface for an Encore Electronics 802.11n Wireless Broadband Router. The top navigation bar includes the Encore Electronics logo and the slogan "Making Connections Easy". The main content area is titled "Static" and contains the following fields:

- Network Address:
- Network Mask:
- Gateway Address:
- Interface:
- Metric:

Below the fields are four buttons: "Add", "Update", "Delete", and "Clear". At the bottom, there is a table header with the following columns: "Network Address", "Network Mask", "Network Gateway", "Interface", and "Metric".

**Network Address:** Enter the target's IP Address in the textbox.

**Network Mask:** Enter the Subnet Mask in the textbox.

**Gateway Address:** Enter the Gateway IP Address in the textbox.

**Interface:** Select "LAN" or "WAN" from drop-down list.

**Metric:** Enter the number of 'hops' in the textbox. Normally you can set the value to '0'.

Click the "Add" button to save the settings.



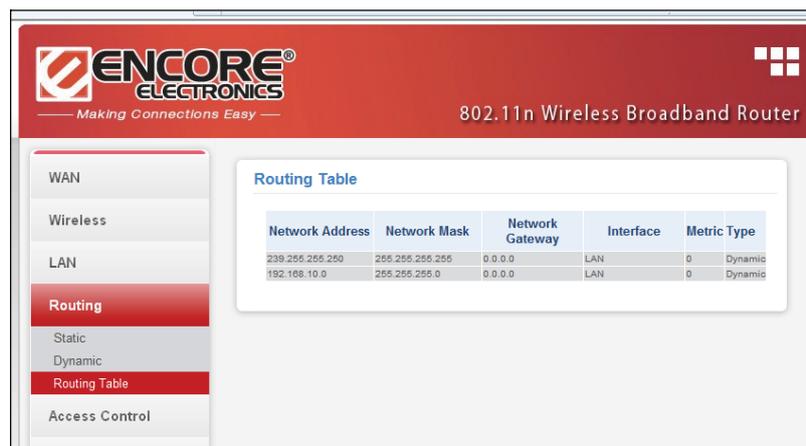
## 4.4.2 Dynamic

Dynamic routing is a technique developed to automatically adjust routing tables in the event of network failures. The most common dynamic routing protocols is RIP (Routing Information Protocol), which is very common on small networks.



## 4.4.3 Routing Table

This section shows information of routing table.



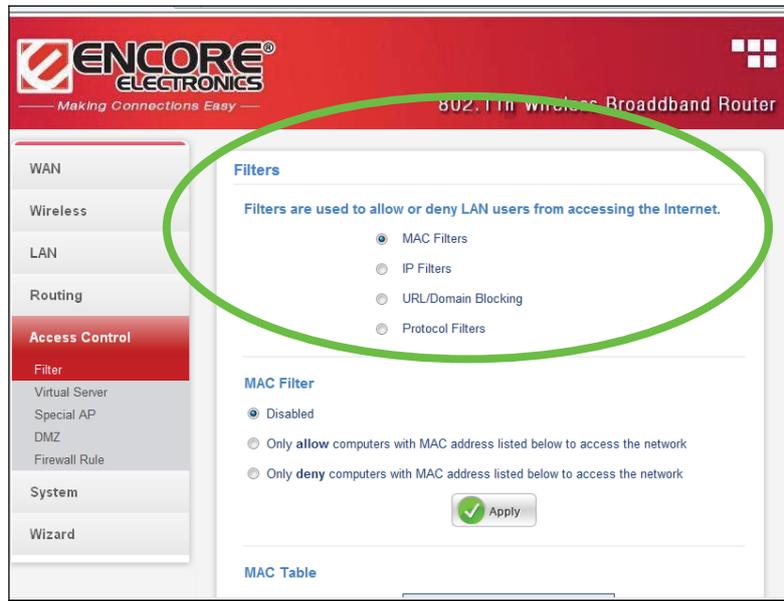


## 4.5 Access Control

This section enables you to define access restrictions, set up protocol and IP filters, create virtual servers, define access for special applications such as games, and set up firewall rules.

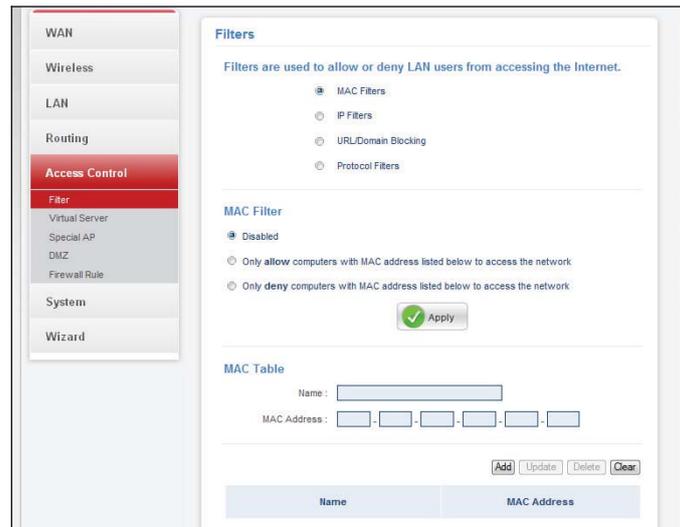
### 4.5.1 Filters

The filters deny or allow users to access the internet. Four types of filters can be select: MAC, IP, URL/Domain Blocking, and Protocol Filters.





### 4.5.1.1 MAC Filters



**MAC Filter:** Enables you to allow or deny accessing the internet.

- **Disabled:** Disable the MAC Filter function.
- **Allow:** Only allow network devices with MAC address listed in the MAC Table.
- **Deny:** Network devices in the MAC Table are denied accessing the Internet.

**MAC Table:** Use this section to register network devices. According to your choice, the registered network devices can be allowed or denied accessing the Internet. The registered network devices are listed in the table at the bottom of the page. (**Note:** By clicking on the name of a resisted network device in the table at the bottom, you can update the device information.)

**Name:** Type the name of the user to be permitted/denied access.

**MAC Address:** Type the MAC address of the user's network interface.

- **Add:** Click to add a network device
- **Update:** Click to update a saved network device
- **Delete:** Click on a network device from the table at the bottom and then click "Delete" to remove the device

• **Clear:** Click "Clear" to erase all fields and enter new information.



## 4.5.1.2 IP Filter

The screenshot shows the web interface of an Encore Electronics 802.11n Wireless Broadband Router. The page title is "Filters". Below the title, it states "Filters are used to allow or deny LAN users from accessing the Internet." There are four radio button options: "MAC Filters", "IP Filters" (which is selected), "URL/Domain Blocking", and "Protocol Filters". Under the "IP Filter" section, there are two radio buttons for "Enabled": "Enable" (selected) and "Disabled". Below this are two input fields for "Range Start" and "Range End". At the bottom right of the form are buttons for "Add", "Update", "Delete", and "Clear". Below the form is a table with two columns: "Start" and "End". The table contains one row with a checkbox, the number "1", and the IP range "192.168.10.1" to "192.168.10.200".

	Start	End
<input type="checkbox"/> 1	192.168.10.1	192.168.10.200

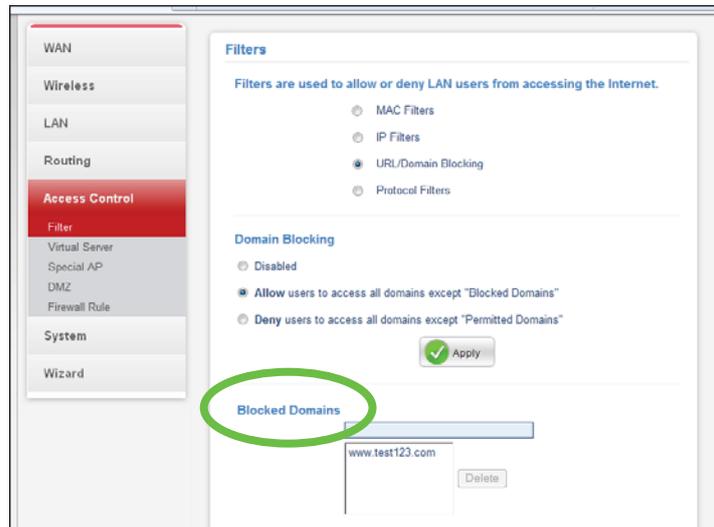
Specify an IP Range by entering "Range Start" and "Range End." If enabled, network devices with IP within the defined ranges are denied accessing the Internet.

- **Add:** Click to add an IP Range to the table at the bottom
- **Update:** Click to update information of an IP Range you saved
- **Delete:** Select a saved IP Range and click "Delete" to remove the item from the list.
- **Clear:** Click the "Clear" to erase all saved IP ranges



### 4.5.1.3 URL/Domain Blocking

You can specify the domains that can be accessed from the Internet or not.



#### Domain Blocking

- **Disable:** Disable the Domain/URL Blocking function.
- **Allow:** Allow users to access all domains except “Blocked Domains.”
- **Deny:** Deny users to access all domains except “Permitted Domains.”

**Note:** When “Allow” is checked, the circle area will become “Permitted Domains.”

When “Deny” is checked, the circle area will become “Blocked Domains.”

#### Blocked/Permitted Domains:

- **Delete:** Select a Domain/URL from the table at the bottom and click “Delete” to remove the Domain/URL.
- **Add:** Click to “Add” to add a Domain/URL to the table at the bottom.
- **Cancel:** Click the “Cancel” to erase all saved Domain/URL from the table at the bottom.



## 4.5.1.4 Protocol Filters

You can specify Protocol Filters here.

	Name	Protocol	Range
<input type="checkbox"/>	Filter FTP	TCP	20-21
<input type="checkbox"/>	Filter HTTP	TCP	80
<input type="checkbox"/>	Filter HTTPS	TCP	443
<input type="checkbox"/>	Filter DNS	UDP	53
<input type="checkbox"/>	Filter SMTP	TCP	25

### Edit Protocol Filter in List

- **Enable:** Click to enable or disable a Protocol Filter.
- **Name:** Type the name of a Protocol Filter.
- **Protocol:** Select the protocol (TCP or UDP) of a Protocol Filter.
- **Port:** Type the port range of a Protocol Filter.



## 4.5.2 Virtual Server

This section enables user to create a virtual server. If the WLAN Router is set as a virtual server, remote users requesting Web or FTP services through the WAN are directed to local servers in the LAN. The WLAN Router redirects the request via the protocol and port numbers to the correct LAN server.

The screenshot shows the 'Virtual Server' configuration page in the router's web interface. The page has a red header with the 'ENCORE ELECTRONICS' logo and the slogan 'Making Connections Easy'. The main title is '802.11n Wireless Broadband Router'. On the left is a navigation menu with options: WAN, Wireless, LAN, Routing, Access Control (selected), Filter, Virtual Server (selected), Special AP, DMZ, Firewall Rule, System, and Wizard. The main content area is titled 'Virtual Server' and includes a toggle for 'Enabled' (radio buttons for Enabled and Disabled), a 'Name' text input field, a 'Protocol' dropdown menu (set to TCP), and text input fields for 'Private Port', 'Public Port', and 'LAN Server'. Below these fields are 'Add', 'Update', 'Delete', and 'Clear' buttons. A table lists pre-configured virtual servers with checkboxes for each:

	Name	Protocol	LAN Server
<input type="checkbox"/>	Virtual Server FTP	TCP 21/21	0.0.0.0
<input type="checkbox"/>	Virtual Server HTTP	TCP 80/80	0.0.0.0
<input type="checkbox"/>	Virtual Server HTTPS	TCP 443/443	0.0.0.0
<input type="checkbox"/>	Virtual Server DNS	UDP 53/53	0.0.0.0
<input type="checkbox"/>	Virtual Server SMTP	TCP 25/25	0.0.0.0
<input type="checkbox"/>	Virtual Server POP3	TCP 110/110	0.0.0.0
<input type="checkbox"/>	Virtual Server Telnet	TCP 23/23	0.0.0.0
<input type="checkbox"/>	IPSec	UDP 500/500	0.0.0.0
<input type="checkbox"/>	PPTP	TCP 1723/1723	0.0.0.0
<input type="checkbox"/>	NetMeeting	TCP 1720/1720	0.0.0.0

### Virtual Server

- **Enable:** Click to enable or disable a Virtual Server.
- **Name:** Type the name of a Virtual Server.
- **Protocol:** Select a protocol (TCP or UDP) to use of a Virtual Server.
- **Private Port:** Type the port number of the network device in the LAN that is being used to as a virtual server.
- **Public Port:** Type the port number on the WAN that will be used to provide access to the virtual server.
- **LAN Server:** Type the LAN IP address that will be assigned to the virtual server.



### 4.5.3 Special AP

This screen enables users to specify special applications (Special AP), such as games which require multiple connections that are blocked by NAT. The special applications profiles are listed in the table at the bottom of the page.



#### Special AP

- **Enable:** Click to enable or disable the application profile. When enabled, users will be able to connect to the application via the WLAN Router's WAN connection. Click "Disabled" on a profile to prevent users from accessing the application on the WAN connection.
- **Name:** Type a descriptive name for the application.

**Trigger:** Defines the outgoing communication that determines whether the user has legitimate access to the application.

- **Protocol:** Select the protocol (TCP, UDP, or \* for TCP+UDP) that can be used to access the application.
- **Port Range:** Type the port range that can be used to access the application.

**Incoming:** Defines which incoming communications users are permitted to connect with.

- **Protocol:** Select the protocol (TCP, UDP, or \* for TCP+UDP) that can be used by the incoming communication.
- **Port:** Type the port number that can be used for the incoming communication.



## 4.5.4 DMZ

This screen enables users to create a DMZ (demilitarized zone) for those computers that cannot access Internet applications properly through the WLAN Router and associated security settings.

**Note:** Any client in the DMZ is exposed to security risks such as viruses and unauthorized access.



**Enable:** Click to enable or disable the DMZ.

**DMZ Host IP:** Type a host IP address for the DMZ. The computer with this IP address acts as a DMZ host with unlimited Internet access.

**Apply:** Click to save the settings.



## 4.5.5 Firewall Rule

This section enables users to set up the firewall. The WLAN Router provides basic firewall functions, by filtering all the packets that enter the WLAN Router using a set of rules. The rules are listed in sequential order--the smaller a rule number, the higher the priority the rule has.

Action	Name	Source	Destination	Protocol
<input type="checkbox"/> Allow	Allow to Ping WAN port	WAN,*	WAN,*	ICMP
<input type="checkbox"/> Deny	Default	WAN,*	LAN,*	**
<input type="checkbox"/> Allow	Default	LAN,*	WAN,*	**

### Firewall Rule

- **Enable:** Click to enable or disable a firewall rule profile.
- **Name:** Type a descriptive name of a firewall rule profile.
- **Action:** Select whether to Allow or Deny packets that conform to the rule.

**Source:** Defines the source of the incoming packet that the rule is applied to.

- **Interface:** Select which interface (WAN or LAN) the rule is applied to.
- **IP Range Start:** Type the start IP address that the rule is applied to.
- **IP Range End:** Type the end IP address that the rule is applied to.



**Destination:** Defines the destination of the incoming packet that the rule is applied to.

- **Interface:** Select which interface (WAN or LAN) the rule is applied to.
- **IP Range Start:** Type the starting IP address that the rule is applied to.
- **IP Range End:** Type the ending IP address that the rule is applied to.
- **Protocol:** Select the protocol (TCP, UDP, or ICMP) of the rule.
- **Port Range:** Specify the port range.

#### **Bottom Table**

- **Add:** Click to add the rule profile to the table at the bottom of the screen.
- **Update:** Click to update a saved rule
- **Delete:** Select a saved rule and click “Delete” to remove the rule from the list.
- **Clear:** Click “Clear” to erase all saved rules
- **Priority Up:** Select a saved rule and click “Priority Up” to increase the priority of the rule.
- **Priority Down:** Select a saved rule and click “Priority Down” to decrease the priority of the rule.
- **Update Priority:** After increasing or decreasing the priority of a rule, click “Update Priority” to save the changes.



## 4.6 System

This selection allows users to view the status of the WLAN Router's LAN (Local Area Network/normally your home or office network), WAN (Wide Area Network) and Wireless connections, and view logs and statistics pertaining to connections and packet transfers.

### 4.6.1 Password

This section allows users to set administrative and user passwords. These passwords are used to gain access to the WLAN Router interface.

The screenshot shows the web interface of an Encore Electronics 802.11n Wireless Broadband Router. The page title is "Password". On the left is a navigation menu with categories: WAN, Wireless, LAN, Routing, Access Control, System (highlighted), Password (highlighted), Time, Device Information, Log, and Log Setting. The main content area is titled "Password" and contains two sections: "Administrator (The login name is 'admin')" and "User (The login name is 'user')". Each section has a "New Password" field and a "Confirm Password" field, both with masked characters. At the bottom right are "Cancel" and "Apply" buttons.

**Administrator:** Type the password the Administrator will use to log into the system.

**User:** Type the password the User will use to log in to the system.



## 4.6.2 Time

This section allows users to set the time and date for the WLAN Router's real-time clock, select time zone, and enable or disable daylight saving.

The screenshot shows the configuration interface for the Encore Electronics 802.11n Wireless Broadband Router. The left sidebar contains a menu with options: WAN, Wireless, LAN, Routing, Access Control, System, Password, Time (selected), Device Information, Log, Log Setting, Statistic, Restart, Firmware, Configuration, UPnP, Ping Test, Remote Management, and Wizard. The main content area is titled 'Time' and displays the following settings:

- Local Time:** May/26/2010 12:08:55
- Time Zone:** (GMT-08:00) Pacific Time (US & Canada)
- Time Setting:** Synchronize the Clock with NTP Server:  Enable  Disable. NTP Server: ( default )
- Manually Date and Time Setting:** 2010 Month May Day 26 Hour 12 Minute 08 Second 55. A 'Set Computer Time' button is present.
- Daylight Saving:** Daylight Saving:  Enabled  Disabled. Start: Jan 01 End: Jan 01.

At the bottom right of the configuration area are 'Cancel' and 'Apply' buttons.

### Time

- **Local Time:** Displays the local time and date.
- **Time Zone:** Select the time zone from the drop-down list.

### Time Setting

- **Synchronize the clock with NTP server:** Enables or Disable the system time from NTP Server.

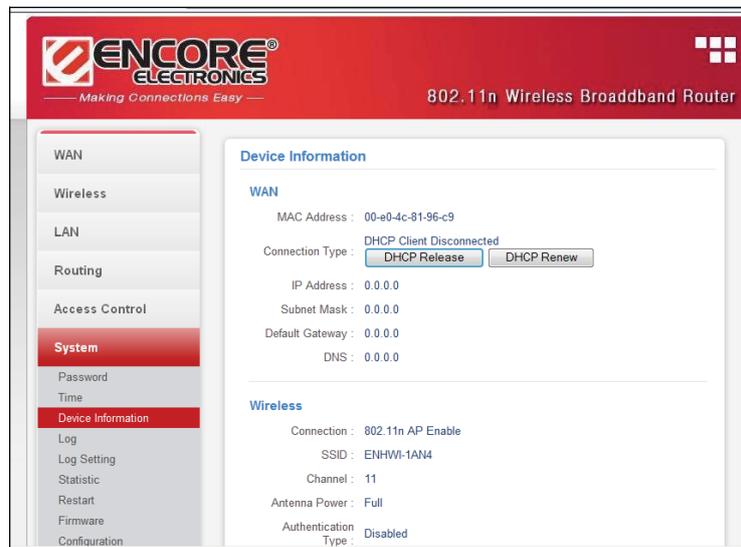
**Manually Date and Time Setting:** After you disabled "Synchronize the Clock with NTP Server," you can manually set the WLAN Router system time, and then press the "Set Computer Time" to update the system time.

**Daylight Saving:** Enables or Disable daylight saving time. When enabled, select the Start and End date for daylight saving time.



### 4.6.3 Device Information

This section allows users to view the WLAN Router's LAN, WAN, and Wireless configurations.



**WAN:** This section displays the WAN (Wide Area Network) interface configuration including the MAC address, Connection Status, DHCP Client Status, IP Address, Subnet Mask, Default Gateway, and DNS.

- Click “*DHCP Release*” to release all IP addresses assigned to client network devices connected to the WAN via the WLAN Router. Click “*DHCP Renew*” to reassign IP addresses to client stations connected to the WAN.

**Wireless:** This section displays the wireless configuration information, including the MAC Address, the Connection Status, SSID, Channel, and Authentication Type.

**LAN:** This section displays the LAN (Local Area Network) interface configuration including the MAC Address, IP Address, Subnet Mask, and DHCP Server Status. Click “*DHCP Table*” to view a list of client networking devices currently connected to the WLAN Router's LAN interface.



## 4.6.4 Log

This screen enables users to view the on-going log of Router system's statistics, events, and activities. The log displays up to 200 entries. Older entries are overwritten by new entries. The Log screen commands are as follows:

- Click "First Page" to view the first page of the log
- Click "Last Page" to view the final page of the log
- Click "Previous Page" to view the page just before the current page
- Click "Next Page" to view the page just after the current page
- Click "Clear Log" to delete the contents of the log and begin a new log
- Click "Refresh" to renew log statistics

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Log

Page 1 of 20

First Page Last Page Previous Page Next Page Clear Log

Refresh

Time	Message	Source	Destination	Note
May/26/2010 12:27:16	DHCP Discover			
May/26/2010 12:27:06	DHCP Discover no response			
May/26/2010 12:27:02	DHCP Discover			
May/26/2010 12:26:59	DHCP Discover			
May/26/2010 12:26:57	DHCP Discover			
May/26/2010 12:26:47	DHCP Discover no response			
May/26/2010 12:26:43	DHCP Discover			
May/26/2010 12:26:41	DHCP Discover			
May/26/2010 12:26:41	DHCP Discover			



## 4.6.5 Log Setting

This section allows users to set the Router Log's parameters.

The screenshot shows the 'Log Setting' configuration page for an Encore Electronics 802.11n Wireless Broadband Router. The page is divided into a sidebar menu on the left and a main configuration area on the right. The sidebar menu includes categories like WAN, Wireless, LAN, Routing, Access Control, System, Log, and Wizard. The main configuration area is titled 'Log Setting' and contains several fields and options:

- SMTP Authentication:** Radio buttons for 'Enabled' (selected) and 'Disabled'.
- SMTP Account:** Text input field.
- SMTP Password:** Text input field.
- SMTP Server / IP Address:** Text input field.
- Send From:** Text input field with '(email address)' placeholder.
- Send to:** Text input field with '(email address)' placeholder.
- Send to:** 'Email Log Now' button.
- Syslog Server:** Text input field with '0.0.0.0' placeholder.
- Log Type:** Checkboxes for 'System Activity', 'Debug Information', 'Attacks', 'Dropped Packets', and 'Notice'.
- Buttons:** 'Cancel' and 'Apply' buttons at the bottom right.

### Log Setting

- **SMTP Authentication:** Selected Enabled if the SMTP server needs authentication
- **SMTP Account:** If the SMTP Authentication is enabled, fill in the SMTP account name here.
- **SMTP Password:** If the SMTP Authentication is enabled, fill in the password here.
- **SMTP Server / IP Address:** Type your SMTP server address here.
- **Send From:** Type an email address for the log to be sent from.
- **Send to:** Type an email address for the log to be sent to. Click "Email Log Now" to send the current log immediately.
- **Syslog Server:** Type the IP address of the Syslog Server if user wants the WLAN Router to receive incoming Syslog messages.



**E-mail Logs:** Email the logs to specified email receiver.

- **When log is full** – When the time is “When log is full,” the log will be sent when the log is full
- **Every day, Every Monday ...** - The log is sent on the interval specified.
  - If "Every day" is selected, the log is sent everyday.
  - If the day is specified, the log is sent once per week, on the specified day.
  - Select the time of day you wish the E-mail to be sent.
  - If the log is full before the time specified to send it, it will be sent regardless.

**Log Type:** Enables users to select which items will be included in the log:

- **System Activity:** Displays information related to WLAN Router operation.
- **Debug Information:** Displays information related to errors and system malfunctions.
- **Attacks:** Displays information about any malicious activity on the network.
- **Dropped Packets:** Displays information about packets that have not been transferred successfully.
- **Notice:** Displays important notices by the system administrator.



## 4.6.6 Statistic

This section displays a table that shows the rate of packet transmission via the WLAN Router's LAN, Wireless and WAN ports (in bytes per second).

The screenshot shows the web interface for an Encore Electronics 802.11n Wireless Broadband Router. The left sidebar contains a navigation menu with the following items: WAN, Wireless, LAN, Routing, Access Control, System (highlighted), Password, Time, Device Information, Log, Log Setting, Statistic (highlighted), Restart, Firmware, and Configuration. The main content area displays the 'Statistic' page, which features a table showing utilization in Kbytes/sec for LAN, WAN, and Wireless ports. Below the table is a 'Reset' button.

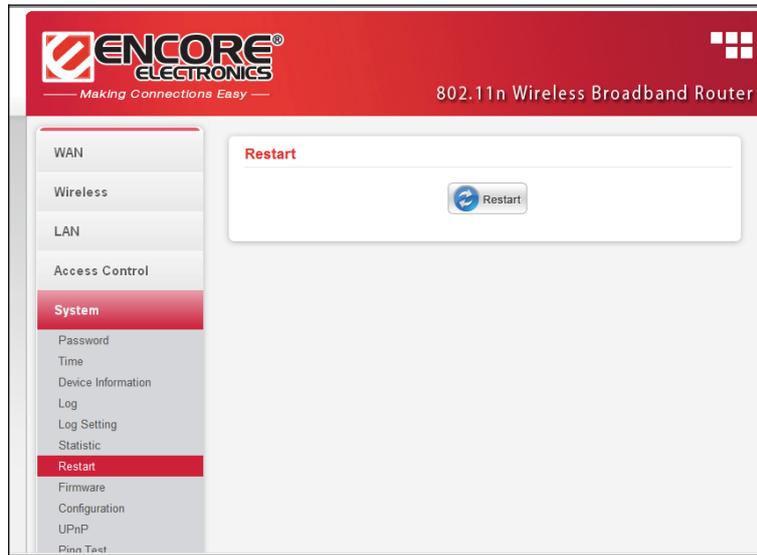
Utilization (Kbytes/sec)		LAN	WAN	Wireless
Send	Average	0	0	2
	Peak	34	0	2
Receive	Average	0	0	5
	Peak	8	0	5

Click "**Reset**" to erase all statistics and to begin logging statistics again.



## 4.6.7 Restart

Click “Restart” to restart the WLAN Router in the event the router is not performing correctly.





## 4.6.8 Firmware

This screen enables users to update the WLAN Router's firmware.



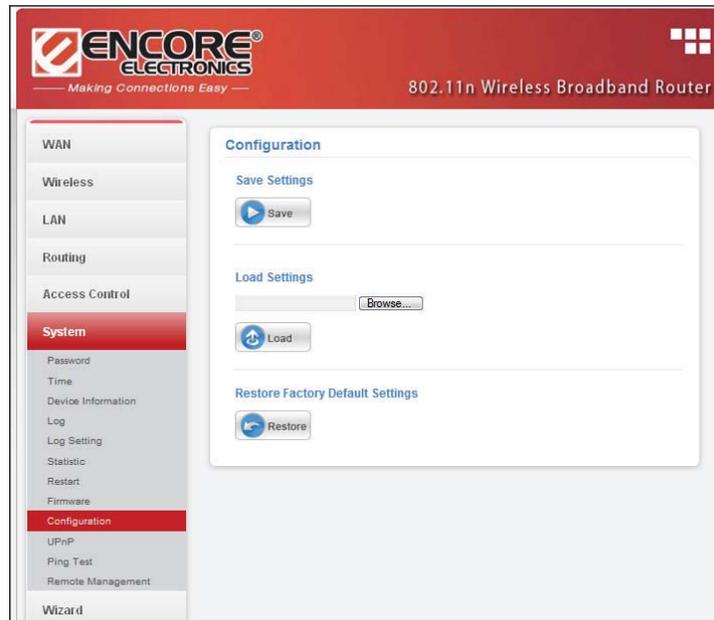
Please follow the instructions below:

1. Download the latest firmware from the Encore's web site, and save it to your HDD or a disc.
2. Click "**Browse**" and go to the location of the saved firmware file.
3. Select the file and click "**Upgrade**" to update the firmware.



## 4.6.9 Configuration

This section allows users to save and load different settings, and restore the setting to factory default.



**Save Settings:** Click the “Save” button to back up your setting.

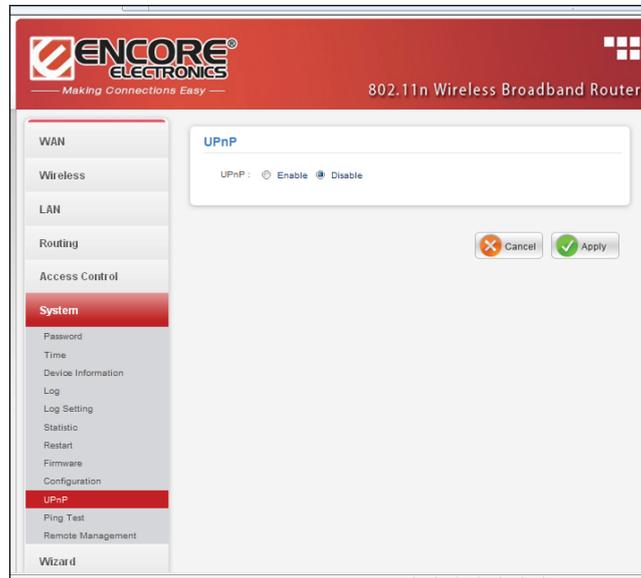
**Load Settings:** Click “Browse” to find your backup settings file. Then, click “load” to restore your configuration to the backup setting.

**Restore Factory Default Settings:** Click this button for restore your setting to factory default settings.



#### 4.6.10UPnP

UPnP (Universal Plug and Play) is a networking architecture that provides compatibility among networking equipment, software, and peripherals. The WLAN Router is an UPnP-compatible ROUTER and will with other UPnP devices/software. Check “Enable” if you want to use the UPnP function.





## 4.6.11 Ping Test

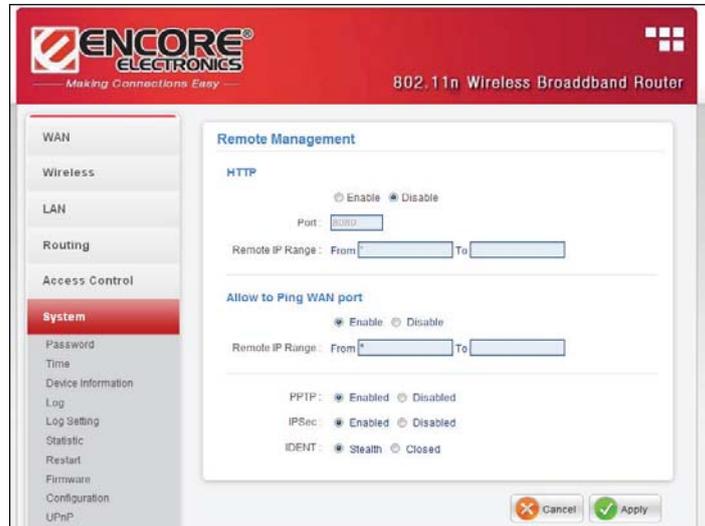
The Ping Test enables users to determine whether an IP address or host is present on the Internet. Type the host name or IP address in the text box and click “Ping.”





## 4.6.12 Remote Management

This section allows users to set up remote management. Using remote management, the WLAN Router can be configured through the WAN via a Web browser. A user name and password are required to perform remote management.



**HTTP:** Enables users to set up HTTP access by the Port number, and Remote IP Range for remote management.

**Allow to Ping WAN Port:** Type a range of Router IP addresses that can be pinged from remote locations

- **PPTP:** Enables users to set up PPTP access for remote management.
- **IPsec:** Enables users to set up IPsec access for remote management.

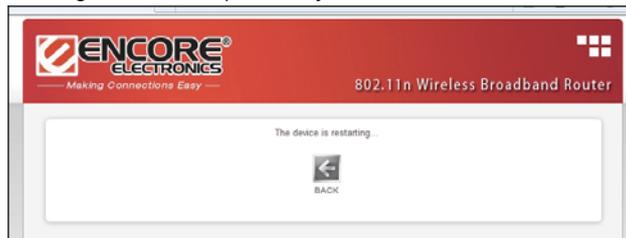


## Chapter 5: Configure the Device as an Access Point

1. Connect your Ethernet cable between the WLAN Router and your main router (normally a wired router) with Internet connection and enabled DHCP Server.
2. Login to the WLAN Router's web-based configuration page
3. **Disable the "DHCP Server,"** and then click the "Apply."



4. Wait for few second to save change. Please click the "BACK" button if the WLAN Router does not go back to the previously screen.





5. Disable "NAT," and then click the "Apply,"



6. Wait for a few seconds for new setting to active. Click "Back" if router does not go back to the previously screen automatically.





## Appendix A. Regulatory Information

### A1. Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### **IMPORTANT NOTE:**

##### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.



## A2. Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

**EN 60 950-1: 2001 +A11: 2004**

Safety of Information Technology Equipment

**EN 50385: 2002**

Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110MHz - 40 GHz) - General public

**EN 300 328 V1.7.1 (2006-10)**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

**EN 301 489-1 V1.6.1 (2005-09)**

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

**EN 301 489-17 V1.2.1 (2002-08)**

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

**CE0560**



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English	Hereby, Encore Electronics Inc, declares that this ENHWI-1AN4X / ENHWI-2AN4X is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente Encore Electronics Inc declara que el ENHWI-1AN4X / ENHWI-2AN4X cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
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Italiano [Italian]	Con la presente Encore Electronics Inc dichiara che questo ENHWI-1AN4X / ENHWI-2AN4X è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
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## **FCC WARNING**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This device must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE 3: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.



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