



# Super G Wireless Broadband Router

Model # AR420W

User's Manual

Ver. 1A

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# 1. Introduction

Congratulations on your purchase of this Super G Wireless Broadband Router. This product is specifically designed for Small Office and Home Office needs. It provides a complete SOHO solution for Internet surfing and is easy to configure and operate even for non-technical users. Instructions for installing and configuring this product can be found in this manual. Before you install and use this product, please read this manual carefully for proper operation of this product.

## Basic Functions

- **NAT Routing**  
Connects multiple computers to a broadband (cable or DSL) modem to surf the Internet.
- **Auto-Sensing Ethernet Switch**  
Equipped with a 4-port auto-sensing Ethernet switch.
- **Firewall**  
All unwanted packets from outside intruders are blocked to protect your Intranet.
- **DHCP Server Supported**  
All of the networked computers can retrieve TCP/IP settings automatically from this product.
- **Web-Based Configuration**  
Configurable through any networked computer's web browser using Netscape or Internet Explorer.

## Security Functions

- **VPN Pass-Through**  
Support VPN pass-through.
- **SPI Mode Supported**  
When SPI Mode is enabled, the router will check every incoming packet to determine if the packet is valid.

## Advanced Functions

- **System Time Supported**
  - Allows you to synchronize the system time with a network time server.
- **UPNP (Universal Plug-and-Play) Supported**

## 2. Connecting the Router

**Note:** Prior to connecting the router, be sure to power off your computer, DSL/Cable modem, and the router. You should setup the router with a wired connection first before attempting to setup any wireless connection.

**Step 1** Connect one end of a network cable to the **Internet** port of the router and connect the other end of the cable to the DSL/Cable modem.

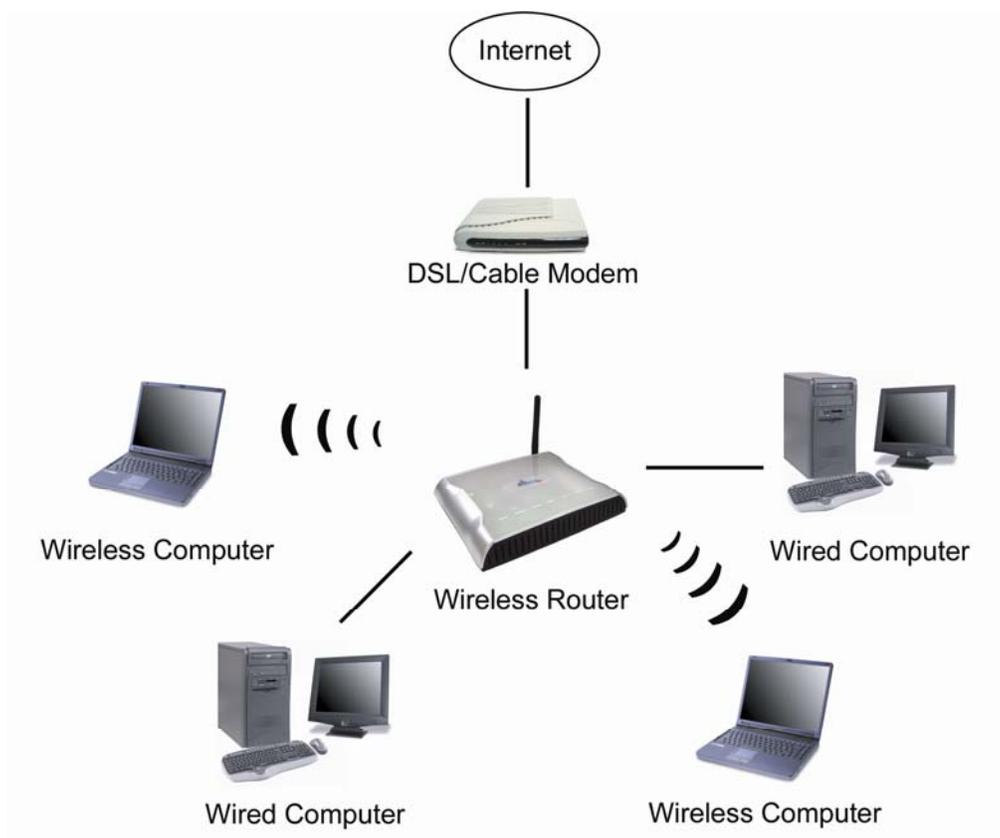
**Step 2** With another network cable, connect one end of the cable to your computer's network card and connect the other end to one of the **LAN** ports of the router.

**Step 3** Power on the DSL/Cable modem and wait for the lights on the modem to settle down.

**Step 4** Power on the router by connecting one end of the supplied power adapter to the power jack of the router and connecting the other end to an electrical outlet.

**Step 5** Power on your computer.

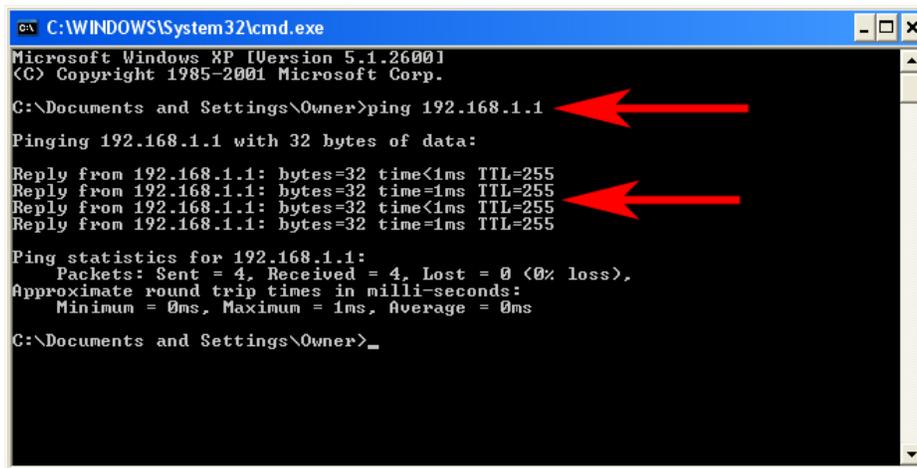
**Step 6** Make sure the **Internet**, **Wireless**, and the **LAN** ports that the computer is connected to are lit. If not, try the above steps again.



### 3. Verifying Connection to the Router

**Step 1** Go to **Start, Run**, type **command** (for Windows 95/98/ME) or **cmd** (for Windows 2000/XP) and click **OK**. You will see the command prompt as below.

**Step 2** Type **ping 192.168.1.1** and press **Enter**. You should get four reply responses back.



```
C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Owner>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:

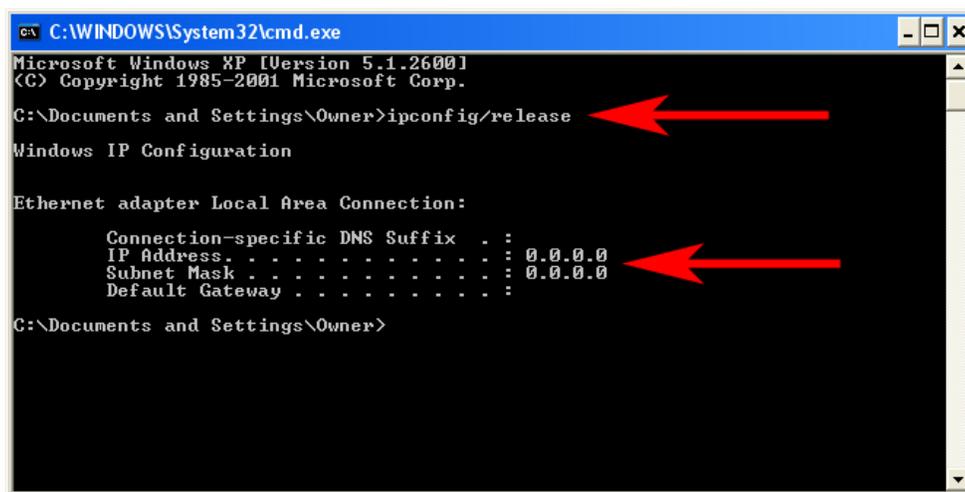
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Documents and Settings\Owner>_
```

**Step 3** If you get **Request timed out**, or **Destination host unreachable**, double-check the network cable connection between the computer and the router and try **Step 2** again. If you still encounter problem, go to the next step; otherwise proceed to **Section 3, Configure the Router**.

**Step 4** For Windows 2000/XP, type **ipconfig/release** and press **Enter**.



```
C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

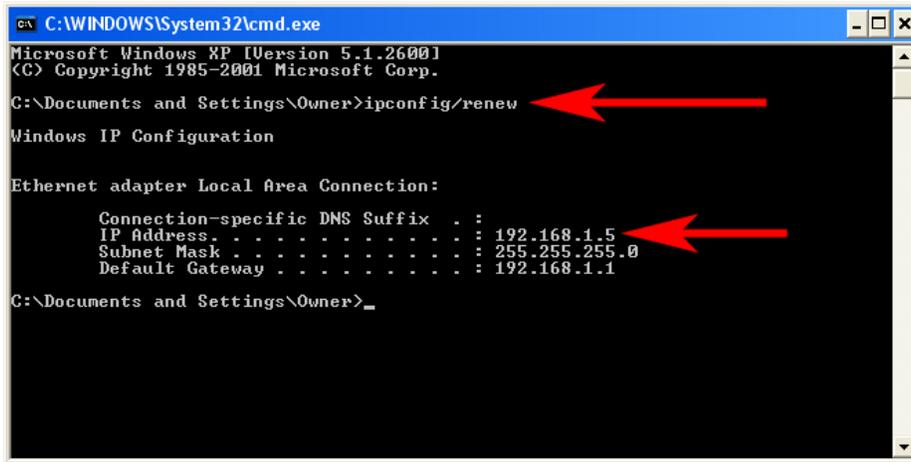
C:\Documents and Settings\Owner>ipconfig/release
Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . :
    IP Address . . . . . : 0.0.0.0
    Subnet Mask . . . . . : 0.0.0.0
    Default Gateway . . . . . :

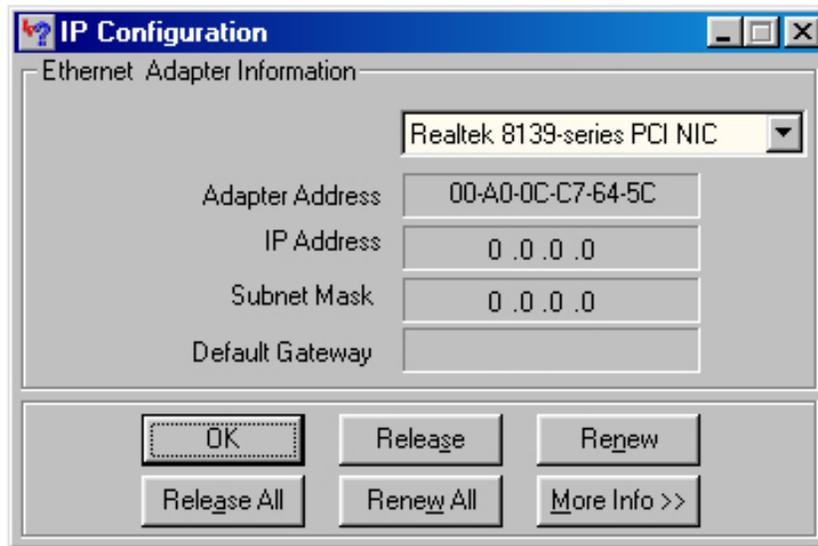
C:\Documents and Settings\Owner>
```

**Step 5** Type **ipconfig/renew** and press **Enter**. You should get an IP address of **192.168.1.x** (where **x** is a number between 2 - 254). Proceed to **Section 3, Configure the Router**. If you don't get an IP address, reset the router by holding in the reset button at the back of the router for 10 seconds while it is ON and try **ipconfig/renew** again.

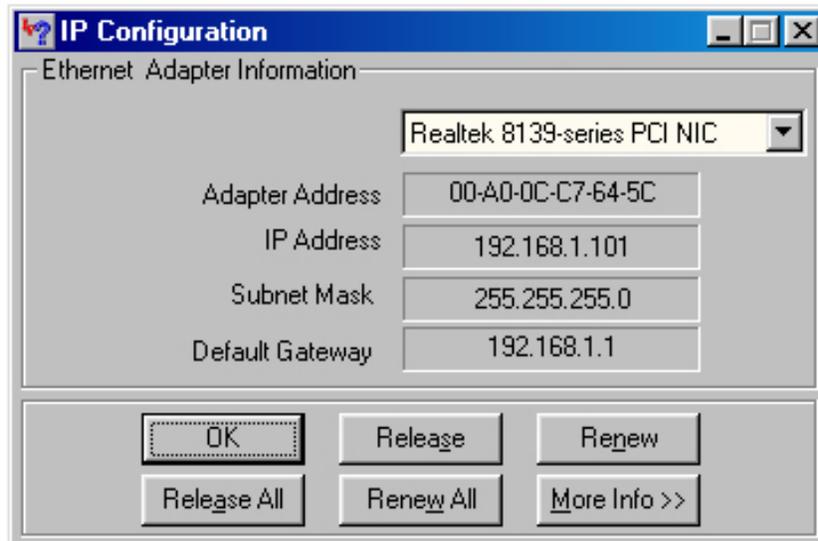


**Step 6** For Windows 95/98/ME go to **Start, Run**, type **winipcfg** and click **OK**.

**Step 7** Select your network card from the drop-down menu and click **Release**.

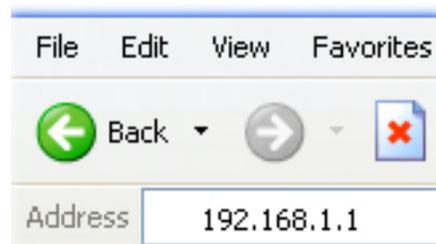


**Step 8** After your IP address is released, click **Renew**. You should get an IP address of **192.168.1.x** (where **x** is a number between 2 - 254). If you don't get an IP address, reset the router by holding in the reset button at the back of the router for 10 seconds while it is ON and try **Renew** again.



## 4. Configuring the Router

**Step 1** Open the web browser and type **192.168.1.1** in the URL Address field and press **Enter**.



**Step 2** Enter **admin** for both the username and password fields and click **OK**.



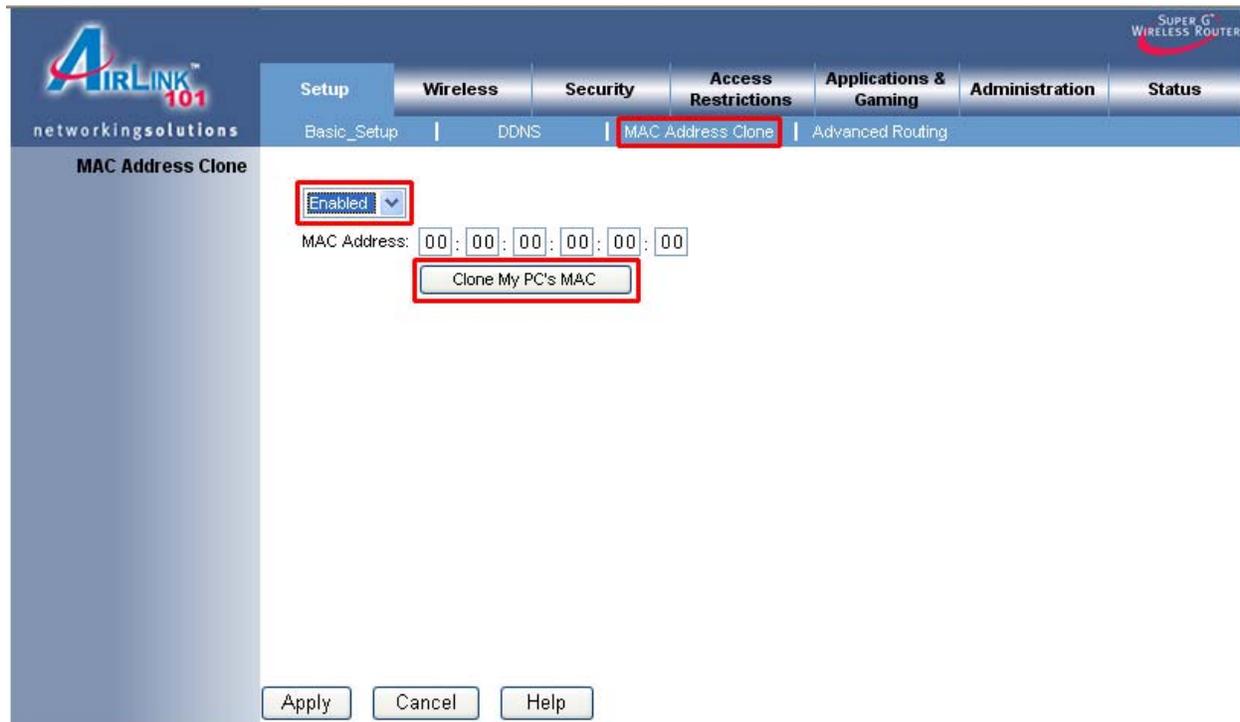
## Cable Modem

For most cable modem users, you should be able to connect to the Internet without any configuration. If your ISP has provided you with a host name, enter it in the optional **Host Name** field. Click **Apply** and **OK** to save the setting.



The screenshot shows the Airlink 101 web interface. The top navigation bar includes 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', 'Administration', and 'Status'. The 'Setup' tab is active, and the 'MAC Address Clone' sub-tab is selected. The 'Internet Setup' section is visible, with 'Internet Connection Type' set to 'Automatic Configuration - DHCP'. The 'Optional Settings' section includes a 'Host Name' field (highlighted with a red box), a 'Domain Name' field, and an 'MTU' field set to 'Auto' with a 'Size' of '1500'.

If your ISP requires a registered MAC Address, click on the **MAC Address Clone** tab, select **Enabled**, and click on the **Clone My PC's MAC** button. Click **Apply** and **OK** to save the setting.



The screenshot shows the Airlink 101 web interface with the 'MAC Address Clone' sub-tab selected. The 'Enabled' dropdown menu is highlighted with a red box. Below it, the 'MAC Address' field is set to '00 : 00 : 00 : 00 : 00 : 00'. The 'Clone My PC's MAC' button is also highlighted with a red box. At the bottom of the page, there are 'Apply', 'Cancel', and 'Help' buttons.

If you have trouble connecting to the Internet, please refer to the **Troubleshooting** section at the end of this guide.

## DSL

For DSL users, follow the steps below to configure the router.

**Step 1** Select **PPPoE** from the drop-down menu.

The screenshot shows the 'Internet Setup' page of the Airlink 101 router. The 'Internet Connection Type' dropdown menu is open, and 'PPPoE' is selected. The menu also shows 'Automatic Configuration - DHCP', 'Static IP', 'PPTP', and 'Heart Beat Sign'. Below the menu, there are input fields for 'MTU' (set to 'Auto') and 'Size' (set to '1500').

**Step 2** Enter your username and password provided by your ISP.

The screenshot shows the 'Internet Setup' page of the Airlink 101 router. The 'Internet Connection Type' dropdown menu is set to 'PPPoE'. The 'Username' and 'Password' input fields are highlighted with a red box. Below these fields, there are radio buttons for 'Connect on Demand: Max Idle Time' (set to 0 minutes) and 'Keep Alive: Redial Period' (set to 60 seconds).

**Note:** Depending on the ISP, you may need to include the domain name with your username.

**Example:**        **username@sbcglobal.net**

**Step 3** Click **Apply** and **OK** to save the setting.

If you have trouble connecting to the Internet, please refer to the **Troubleshooting** section at the end of this manual.

## 5. Connecting to the Router Wirelessly

Below are the default wireless settings of the router. You must configure your wireless network card to the same settings in order to establish a wireless connection to the router. Please refer to your wireless network card's manual on how to configure these settings.

SSID: **default**

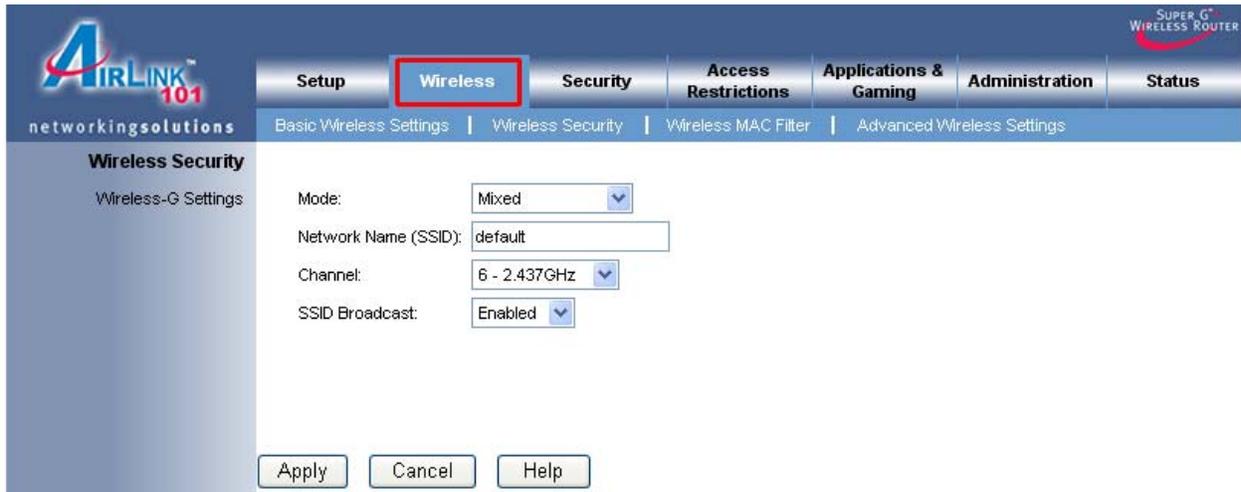
Operating Mode: **Infrastructure**

Authentication: **Open System**

Channel #: **6**

WEP: **disabled**

If you want to change the router's wireless settings, log in to the router and select the **Wireless** tab. Be sure to click **Apply** and **OK** to save the setting.



The screenshot shows the web interface of an Airlink 101 router. The top navigation bar includes tabs for Setup, Wireless (highlighted with a red box), Security, Access Restrictions, Applications & Gaming, Administration, and Status. Below the navigation bar, there are sub-tabs for Basic Wireless Settings, Wireless Security (selected), Wireless MAC Filter, and Advanced Wireless Settings. The main content area is titled "Wireless Security" and "Wireless-G Settings". It contains the following settings:

- Mode: Mixed (dropdown menu)
- Network Name (SSID): default (text input field)
- Channel: 6 - 2.437GHz (dropdown menu)
- SSID Broadcast: Enabled (dropdown menu)

At the bottom of the settings area, there are three buttons: Apply, Cancel, and Help.

## 6. Web Configuration Utility

This router has a built-in web configuration utility that you can use to configure the router's settings. Simply log in to the router using your computer's web browser.

### 6.1 Setup

#### 6.1.1 Basic Setup

This is the default screen when you log in to the router's web configuration utility. You can setup your Internet connection here as well as configuring the DHCP settings and selecting your Time Zone.

The screenshot shows the 'Basic Setup' page of the Airlink 101 web configuration utility. The page is divided into several sections: Internet Setup, Network Setup, and Time Settings. The Internet Setup section includes options for Internet Connection Type (Automatic Configuration - DHCP), Host Name, Domain Name, and MTU. The Network Setup section includes Router IP (IP Address and Subnet Mask) and DHCP Server Setting (Enabled, Assign Static DHCP, Start IP Address, Maximum Number of Users, IP Address Range, Client Lease Time, Static DNS 1 and 2, and WINS). The Time Settings section includes Time Zone ((GMT-08:00) Pacific Time (USA & Canada)) and a checkbox for Automatically adjust clock for daylight saving changes. The page also features a navigation menu at the top with tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The Setup tab is currently selected, and the Basic\_Setup sub-tab is active. The Airlink 101 logo and 'SUPER G WIRELESS ROUTER' branding are visible in the top left and right corners, respectively. At the bottom of the page, there are three buttons: Apply, Cancel, and Help.

Remember to click **Apply** and **OK** to save your changes.

## Assigning Static IP Address

If you want to assign a static IP Address to one of the computers in your network, click on the **Assign Static DHCP** button.

**Static DHCP Client List**

DHCP Client Table

Assign this IP	To this MAC	Enabled
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>
192 . 168 . 1 . <input type="text" value="0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="checkbox"/>

**Step 1** Enter the Static IP Address in the **Assign this IP** field.

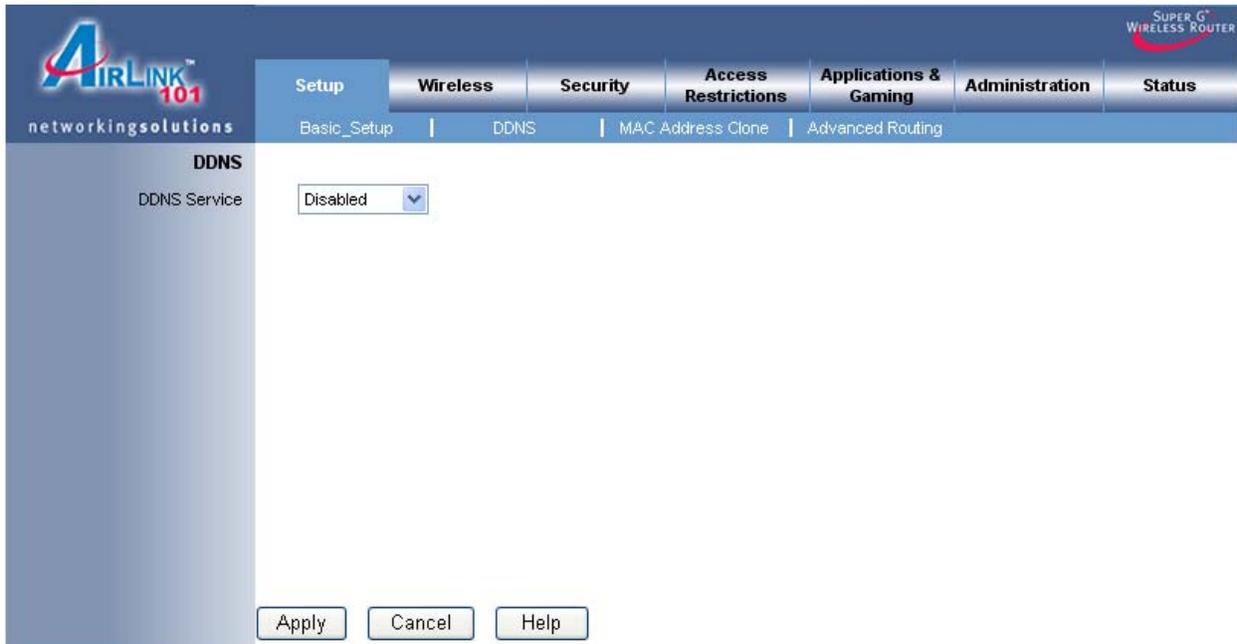
**Step 2** Enter the MAC address of the corresponding computer in the **To this MAC** field.

**Step 3** Check the **Enabled** box.

**Step 4** Click **Save Settings**.

## 6.1.2 DDNS

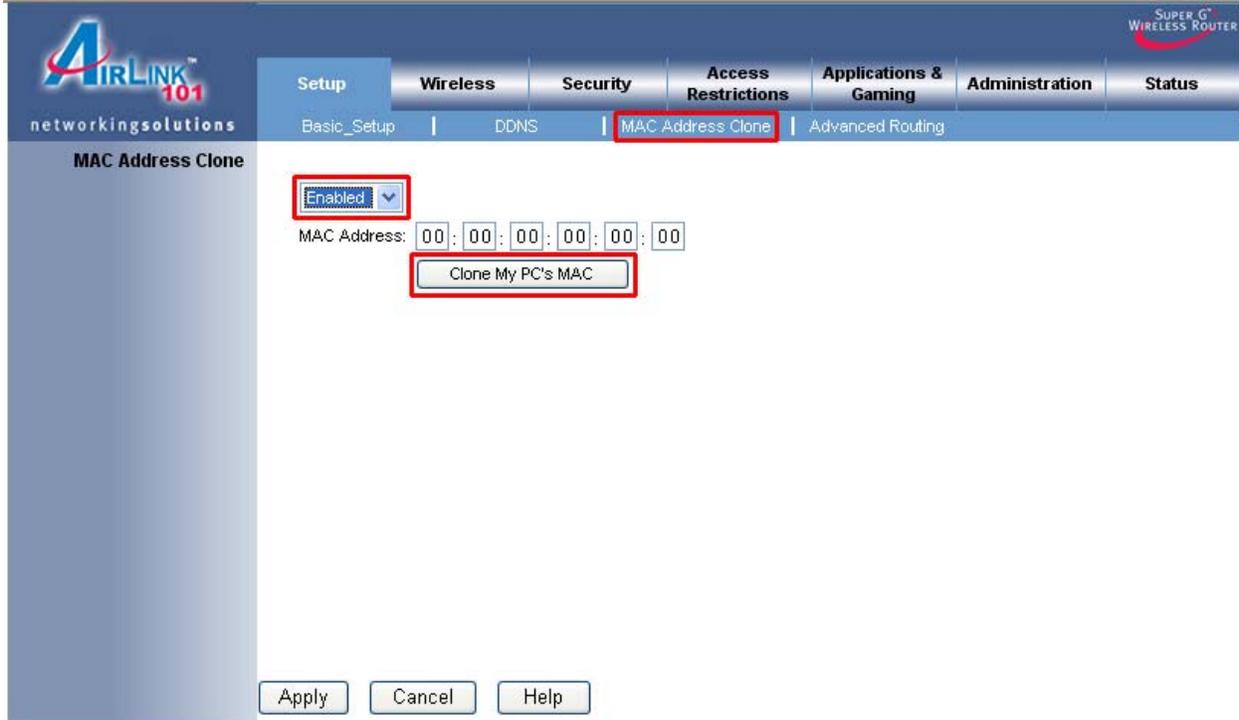
Dynamic DNS (DDNS) allows any user who wishes to access your server to reach it by a registered DNS name instead of an IP address. Before you enable **DDNS**, you need to register an account with one of the DDNS providers listed in the drop-down menu.



To Enable DDNS, select the DDNS provider you have registered with and enter the required fields. Click **Apply** and **OK** to save the setting.

### 6.1.3 MAC Address Clone

Some ISPs require a registered MAC address to access the Internet. You can use the following steps to clone your PC's registered MAC address to access the Internet.



**Step 1** Select **Enabled** from the drop-down menu.

**Step 2** Click the **Clone My PC's MAC** button.

**Step 3** Click **Apply** and **OK** to save the setting.

## 6.1.4 Advanced Routing

You can configure your own static routing table using the Advanced Routing function.

The screenshot shows the configuration interface for the AIRLINK 101 router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The 'Setup' tab is active, and the 'Advanced Routing' sub-tab is selected. The left sidebar shows 'Advanced Routing' and 'Operating Mode'. The main content area is titled 'Gateway' and contains the following fields:

- Route Entries: 1 --- (dropdown) [Delete This Entry]
- Enter Route Name: [Text Input]
- Destination LAN IP: [0] . [0] . [0] . [0]
- Subnet Mask: [0] . [0] . [0] . [0]
- Default Gateway: [0] . [0] . [0] . [0]
- Interface: LAN & Wireless (dropdown)
- [Show Routing Table]

At the bottom of the configuration area are three buttons: Apply, Cancel, and Help.

To see the current routing table, click on **Show Routing Table** button.

Be sure to click **Apply** and **OK** to save each entry.

## 6.2. Wireless

### 6.2.1 Basic Wireless Settings

You can configure the router's basic wireless settings on this screen.



The screenshot shows the web interface of an AirLink 101 Super G Wireless Router. The top navigation bar includes tabs for Setup, Wireless (selected), Security, Access Restrictions, Applications & Gaming, Administration, and Status. Below the navigation bar, there are sub-tabs for Basic Wireless Settings, Wireless Security (selected), Wireless MAC Filter, and Advanced Wireless Settings. The main content area is titled "Wireless Security" and contains "Wireless-G Settings". The settings are as follows:

Mode:	Mixed
Network Name (SSID):	default
Channel:	6 - 2.437GHz
SSID Broadcast:	Enabled

At the bottom of the settings area, there are three buttons: Apply, Cancel, and Help.

**Mode:** Choose from Wireless-G only, Super G, Mixed, Wireless-B only, or Disabled to disable the Wireless function.

**Network Name (SSID):** You can change the router's SSID in this field. Once you have changed the SSID, your network clients need to re-connect themselves using the new SSID.

**Channel:** Select the desired channel. All the network clients need to be using the same channel.

**SSID Broadcast:** Choose to enable or disable the broadcasting of your SSID.

## 6.2.2 Wireless Security

You can configure wireless security such as WEP or WPA encryption on this screen.

**Note:** It is recommended that you use WPA encryption over WEP if your wireless clients support WPA. All of the wireless clients must use the same security settings in order to connect to the router.

### WEP

To enable WEP, select **WEP** from the **Security Mode**.

The screenshot shows the 'Wireless Security' configuration page for an AIRLINK 101 router. The page has a blue header with the AIRLINK 101 logo and navigation tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The 'Wireless Security' section is active, showing the following fields:

- Security Mode: WEP (dropdown)
- Encryption: 64 bits (dropdown)
- Passphrase: [text input] with a 'Generate' button
- WEP Key 1: [text input]
- WEP Key 2: [text input]
- WEP Key 3: [text input]
- WEP Key 4: [text input]
- TX Key: 1 (dropdown)

At the bottom of the page, there are three buttons: 'Apply', 'Cancel', and 'Help'.

**Encryption:** Choose from **64 bits** or **128 bits**

**Passphrase:** You can enter a passphrase and click on the **Generate** button and the router will automatically generate four WEP keys for you.

**WEP Key 1 – 4:** Manually assign a passphrase for each key. If you selected **64 bits** encryption, enter **10** HEX characters (0-F) for each key. If you selected **128 bits** encryption, enter **26** HEX characters (0-F) for each key.

**TX Key:** Select a key to be the active key.

Click **Apply** and **OK** to save the setting.

## WPA

To enable WPA, select **WPA-PSK** or **WPA2-PSK** from the **Security Mode**.



The screenshot shows the configuration interface for a Super G Wireless Router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The 'Wireless' tab is active, and the 'Wireless Security' sub-tab is selected. The main content area is titled 'Wireless Security' and contains the following settings:

- Security Mode: WPA-PSK (dropdown menu)
- Encryption Methods: TKIP (dropdown menu)
- Passphrase: (empty text input field)
- Key Renewal: 1500 seconds (text input field)

At the bottom of the configuration area, there are two buttons: 'Apply' and 'Cancel'.

**Encryption Methods:** Select either **TKIP** or **AES** as the encryption method.

**Passphrase:** Enter a passphrase between 8 to 63 characters long.

**Key Renewal:** Enter the desired key renewal time in seconds.

Click **Apply** and **OK** to save the setting.

## WPA with RADIUS

If you are using a RADIUS server in your network for authentication, you may choose **WPA** or **WPA2** from the **Security Mode**.



The screenshot shows the configuration interface for a wireless router. The top navigation bar includes 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', 'Administration', and 'Status'. The 'Wireless' tab is active, and the 'Wireless Security' sub-tab is selected. The 'Security Mode' is set to 'WPA' and 'Encryption' is set to 'TKIP'. The 'RADIUS Server' field is set to '0.0.0.0', 'RADIUS Port' is '1812', 'Shared Key' is empty, and 'Key Renewal' is '3600' seconds. 'Apply' and 'Cancel' buttons are at the bottom.

Security Mode:	WPA
Encryption:	TKIP
RADIUS Server:	0 . 0 . 0 . 0
RADIUS Port:	1812
Shared Key:	
Key Renewal:	3600 Seconds

**Encryption Methods:** Select either **TKIP** or **AES** as the encryption method.

**RADIUS Server:** Enter the IP Address of your RADIUS server.

**RADIUS Port:** Enter the port number of your RADIUS server.

**Shared Key:** Enter the shared key.

**Key Renewal:** Enter the desired key renewal time in seconds.

Click **Apply** and **OK** to save the setting.

## 6.2.3 Wireless MAC Filter

You can restrict certain wireless clients from accessing the router by specifying their MAC address and enabling access restriction.

networkingsolutions

Setup | **Wireless** | Security | Access Restrictions | Applications & Gaming | Administration | Status

Basic Wireless Settings | Wireless Security | **Wireless MAC Filter** | Advanced Wireless Settings

Access Restrictions: Disabled

Prevent PCs listed below from accessing the wireless network.  
 Permit PCs listed below to access the wireless network.

Wireless Client List: Wireless Client List

MAC 01:	00:00:00:00:00:00	MAC 21:	00:00:00:00:00:00
MAC 02:	00:00:00:00:00:00	MAC 22:	00:00:00:00:00:00
MAC 03:	00:00:00:00:00:00	MAC 23:	00:00:00:00:00:00
MAC 04:	00:00:00:00:00:00	MAC 24:	00:00:00:00:00:00
MAC 05:	00:00:00:00:00:00	MAC 25:	00:00:00:00:00:00
MAC 06:	00:00:00:00:00:00	MAC 26:	00:00:00:00:00:00
MAC 07:	00:00:00:00:00:00	MAC 27:	00:00:00:00:00:00
MAC 08:	00:00:00:00:00:00	MAC 28:	00:00:00:00:00:00
MAC 09:	00:00:00:00:00:00	MAC 29:	00:00:00:00:00:00
MAC 10:	00:00:00:00:00:00	MAC 30:	00:00:00:00:00:00
MAC 11:	00:00:00:00:00:00	MAC 31:	00:00:00:00:00:00
MAC 12:	00:00:00:00:00:00	MAC 32:	00:00:00:00:00:00
MAC 13:	00:00:00:00:00:00	MAC 33:	00:00:00:00:00:00
MAC 14:	00:00:00:00:00:00	MAC 34:	00:00:00:00:00:00
MAC 15:	00:00:00:00:00:00	MAC 35:	00:00:00:00:00:00
MAC 16:	00:00:00:00:00:00	MAC 36:	00:00:00:00:00:00
MAC 17:	00:00:00:00:00:00	MAC 37:	00:00:00:00:00:00
MAC 18:	00:00:00:00:00:00	MAC 38:	00:00:00:00:00:00
MAC 19:	00:00:00:00:00:00	MAC 39:	00:00:00:00:00:00
MAC 20:	00:00:00:00:00:00	MAC 40:	00:00:00:00:00:00

Apply Cancel Help

Select **Enabled** from the drop-down menu and choose whether the specified wireless clients will be prevented or permitted to access the wireless network. Enter their MAC address in the fields below and click **Apply** and **OK** to save the setting.

## 6.2.4 Advanced Wireless Settings

You can configure various advanced wireless settings on this screen.

The screenshot displays the 'Advanced Wireless' settings page for an AIRLINK 101 router. The page is titled 'Advanced Wireless' and includes a sub-section for 'Wireless-G Settings'. The settings are as follows:

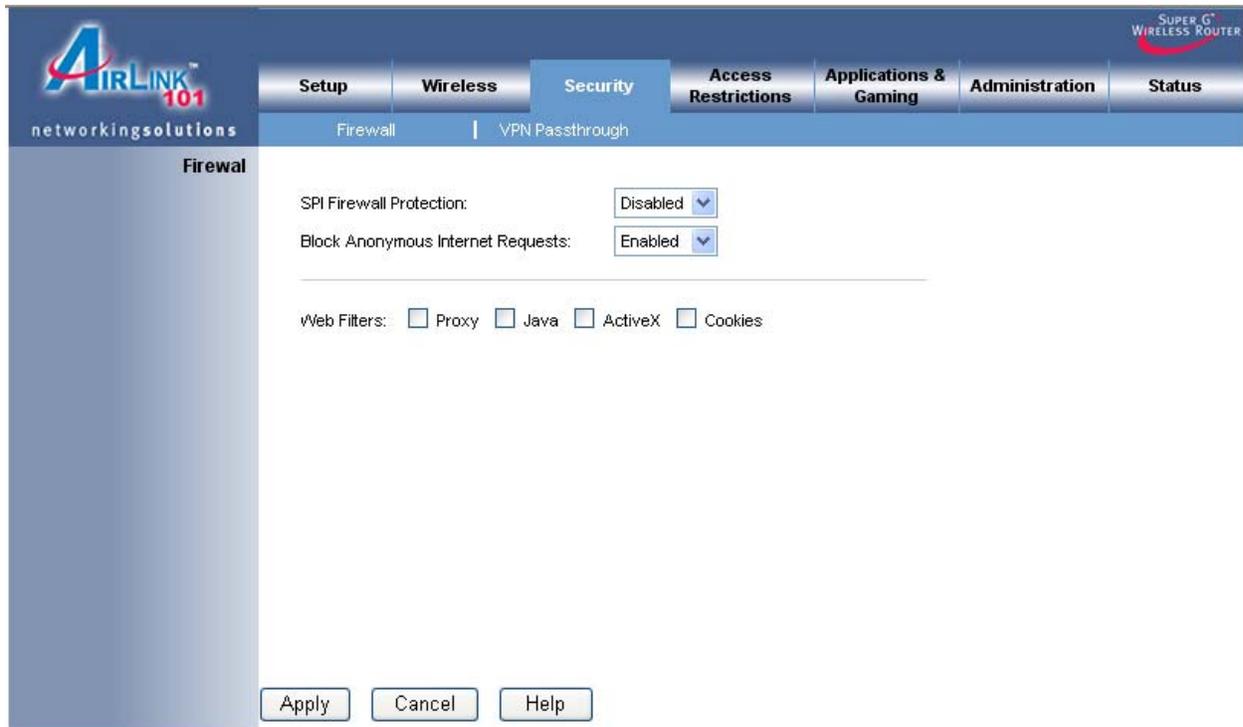
Setting	Value	Default / Range
Authentication Type	Open System (Default)	Open System (Default)
Basic Rate	Default	Default
Transmission Rate	Auto (Default)	Auto (Default)
Transmission Power	Full (Default)	Full (Default)
CTS Protection Mode	Auto (Default)	Auto (Default)
Frame Burst Mode	Enabled (Default)	Enabled (Default)
Beacon Interval	100	Default: 100 Milliseconds, Range: 20 ~ 1000
DTIM Interval	1	(Default: 1, Range: 1 ~ 255)
Fragmentation Threshold	2346	(Default: 2346, Range: 256 ~ 2346)
RTS Threshold	2347	(Default: 2347, Range: 0 ~ 2347)

At the bottom of the page, there are three buttons: 'Apply', 'Cancel', and 'Help'. The 'Apply' button is highlighted with a blue border.

Click **Apply** and **OK** to save the setting.

## 6.3 Security

### 6.3.1 Firewall



**SPI Firewall Protection:** Select to enable or disable Stateful Packet Inspection.

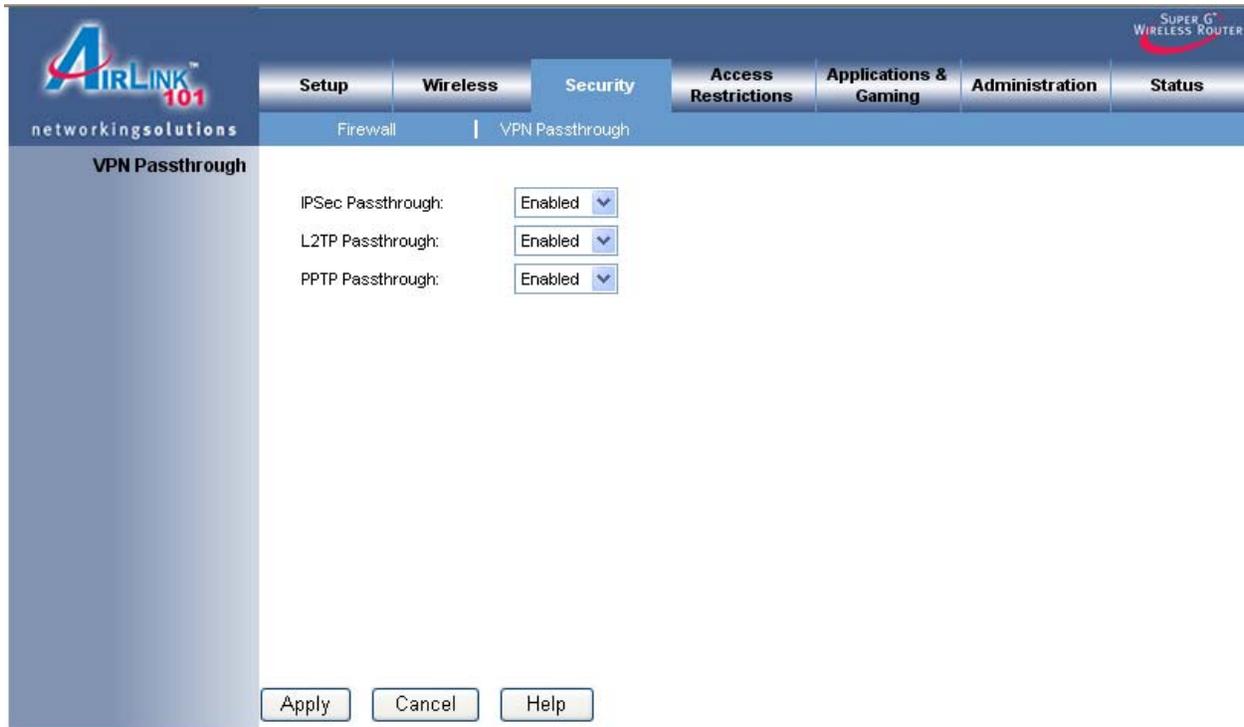
**Block Anonymous Internet Requests:** Enable or Disable.

**Web Filters:** You can select to filter Proxy, Java, ActiveX, and/or Cookies.

Click **Apply** and **OK** to save the setting.

## 6.3.2 VPN Passthrough

You can select to enable or disable the passthrough of **IPSec**, **L2TP**, and/or **PPTP**.



Click **Apply** and **OK** to save the setting.

## 6.4 Access Restrictions

### 6.4.1 Internet Access Policy

You can setup policies that deny or allow specific clients to access the Internet.

The screenshot displays the 'Internet Access Policy' configuration interface. At the top, there are navigation tabs: Setup, Wireless, Security, Access Restrictions (selected), Applications & Gaming, Administration, and Status. The main content area is titled 'Internet Access Policy' and includes the following elements:

- Access Policy:** A dropdown menu showing '1 (---)', a 'Delete This Policy' button, and a 'Summary' button.
- Enter Policy Name:** A text input field.
- Status:** A dropdown menu set to 'Disabled'.
- PCs:** An 'Edit List' button with a note: '( This Policy applies only to PCs on the List.)'
- Access Restrictions:** Two radio buttons: 'Deny' (selected) and 'Allow'.
- Schedule:** Under 'Deny', it specifies 'Internet access during selected days and hours.' It includes 'Days' (checked 'Everyday', with checkboxes for M, T, W, Th, F, Sa, Su) and 'Times' (selected '24 Hours', with time selection dropdowns).
- Blocked Application Port:** A section stating 'Specific Application ports and/or websites can be blocked when your list of PCs have Internet access.' It features three rows of dropdown menus (all set to 'None') and checkboxes for 'TCP' and 'UDP'.
- Website Blocking:** Two sections: 'by URL Address' with four 'URL' input fields (URL 1-4) and 'by Keyword' with four 'Keyword' input fields (Keyword 1-4).
- Buttons:** 'Apply', 'Cancel', and 'Help' buttons at the bottom.

**Enter Policy Name:** Enter a name for the policy.

**Status:** Choose to enable or disable the selected policy.

**PCs:** Click on the **Edit List** button to specify the network clients. Policy only applies to the PCs that are in the list.

**Internet Access PCs List**

**MAC Address**

01	<input type="text" value="00:00:00:00:00:00"/>	06	<input type="text" value="00:00:00:00:00:00"/>
02	<input type="text" value="00:00:00:00:00:00"/>	07	<input type="text" value="00:00:00:00:00:00"/>
03	<input type="text" value="00:00:00:00:00:00"/>	08	<input type="text" value="00:00:00:00:00:00"/>
04	<input type="text" value="00:00:00:00:00:00"/>	09	<input type="text" value="00:00:00:00:00:00"/>
05	<input type="text" value="00:00:00:00:00:00"/>	10	<input type="text" value="00:00:00:00:00:00"/>

---

**IP Address**

01	<input type="text" value="192.168.1.0"/>	04	<input type="text" value="192.168.1.0"/>
02	<input type="text" value="192.168.1.0"/>	05	<input type="text" value="192.168.1.0"/>
03	<input type="text" value="192.168.1.0"/>	06	<input type="text" value="192.168.1.0"/>

---

**IP Address Range**

01	<input type="text" value="192.168.1.0"/> ~ <input type="text" value="0"/>	03	<input type="text" value="192.168.1.0"/> ~ <input type="text" value="0"/>
02	<input type="text" value="192.168.1.0"/> ~ <input type="text" value="0"/>	04	<input type="text" value="192.168.1.0"/> ~ <input type="text" value="0"/>

You can specify each client by its MAC Address or IP Address. You can also specify a group of clients by entering their IP Address Range. Once you have specified all the clients, click **Save Settings**.

**Access Restrictions:** Select to **Deny** or **Allow** the specified clients to access the Internet by **Day** and **Time**.

Access Restrictions

Schedule

**Deny**
Internet access during selected days and hours.

**Allow**

Days:  Everyday  M  T  W  Th  F  Sa  Su

Times:  24 Hours   :  ~  :

## Blocked Application Port

Select which application port to block, if any, when the specified PCs have Internet access.

For your convenience, 10 preset applications and their ports are listed. If you have a custom application, select **Custom** and manually enter its port number.

Blocked Application Port	Specific Application ports and/or websites can be blocked when your list of PCs have Internet access.
	None <input type="button" value="v"/> 0 ~ 0 <input type="checkbox"/> TCP <input type="checkbox"/> UDP
	None <input type="button" value="v"/> 0 ~ 0 <input type="checkbox"/> TCP <input type="checkbox"/> UDP
	None <input type="button" value="v"/> 0 ~ 0 <input type="checkbox"/> TCP <input type="checkbox"/> UDP

## Website Blocking

You can block the specified clients from accessing certain websites by URL or Keyword.

Website Blocking by URL Address	URL 1: <input type="text"/>	URL 3: <input type="text"/>
	URL 2: <input type="text"/>	URL 4: <input type="text"/>
Website Blocking by Keyword	Keyword 1: <input type="text"/>	Keyword 3: <input type="text"/>
	Keyword 2: <input type="text"/>	Keyword 4: <input type="text"/>

Enter the URL or the Keyword you wish to block.

Click **Apply** and **OK** to save the setting.

To view all the policies, click the **Summary** button.

## 6.5 Applications & Gaming

### 6.5.1 Port Range Forwarding

If you want to host ftp server or online gaming, you must open up ports on the router. This page allows you to setup port forwarding for the specified applications.

Before using forwarding, you should assign static IP addresses to the designated PCs.

**Port Range Forwarding**

Application Name

None ▾

None ▾

None ▾

None ▾

None ▾

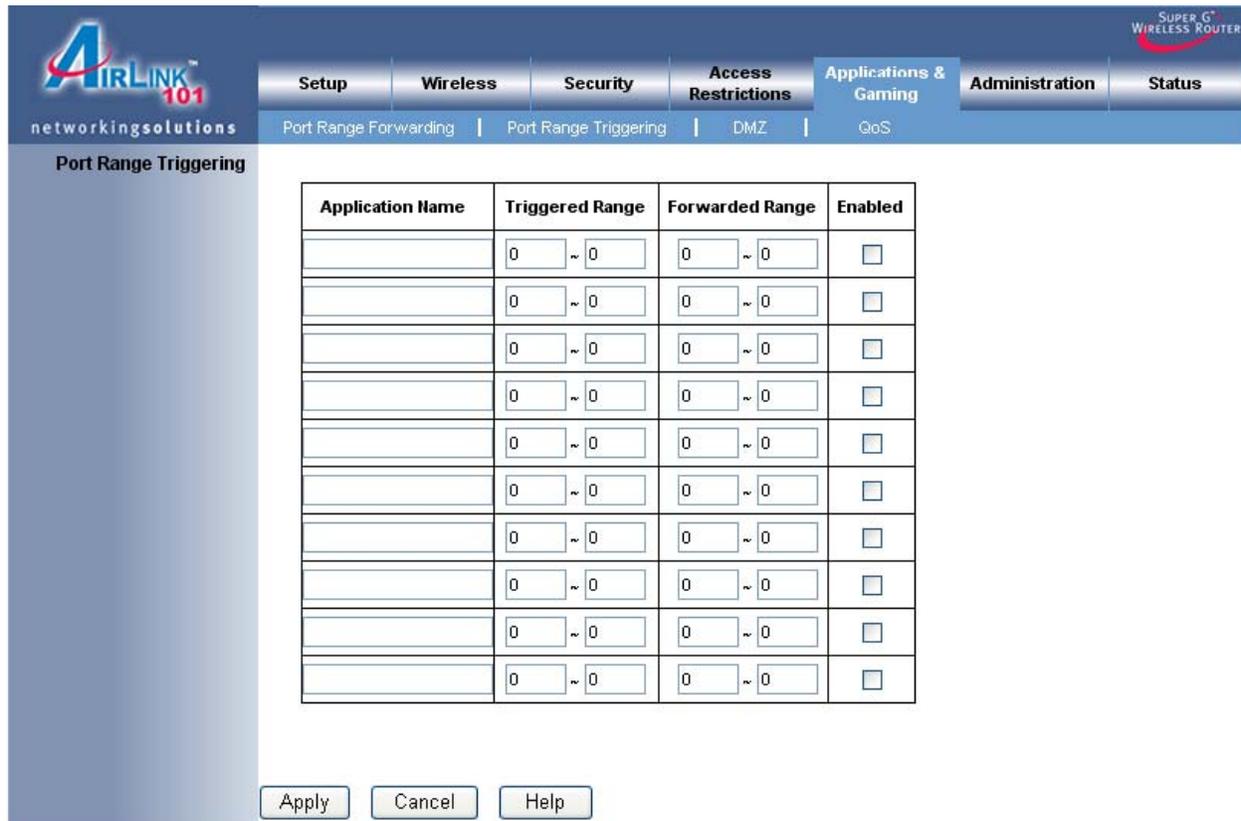
Start ~ End Port	Protocol	To IP Address	Enabled
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>

Apply Cancel Help

Click **Apply** and **OK** to save the setting.

## 6.5.2 Port Range Triggering

Port triggering allows the router to keep track of outgoing data for specific port numbers. The router remembers which computer sends out what data, so when the requested data returns through the router, the data is sent back to the proper computer by way of IP address and port mapping rules.



The screenshot displays the configuration interface for Port Range Triggering on an AIRLINK 101 router. The interface includes a navigation menu at the top with options like Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The current page is titled 'Port Range Triggering' and features a table with the following structure:

Application Name	Triggered Range	Forwarded Range	Enabled
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>
	0 ~ 0	0 ~ 0	<input type="checkbox"/>

Below the table, there are three buttons: 'Apply', 'Cancel', and 'Help'.

Click **Apply** and **OK** to save the setting.

### 6.5.3 DMZ

DMZ (De-Militarized Zone) Host is a host without the protection of the router's firewall. It allows a computer to be exposed to unrestricted two-way communication with the Internet. You should only use this feature when the Port Forwarding function fails to make an application work.

**Warning:** Setting your computer as a DMZ host exposes it to various security vulnerabilities. This feature should be used only when needed.

The screenshot shows the DMZ configuration interface for an AirLink 101 router. The page title is 'DMZ'. The configuration options are as follows:

- DMZ Status: Disabled (dropdown menu)
- Source IP Address: Any IP Address (radio button selected)
- Source IP Address: [ ] . [ ] . [ ] . [ ] ~ [ ] (radio button unselected)
- Host IP Address: 192 . 168 . 1 . [ ]

Buttons at the bottom: Apply, Cancel, Help.

**DMZ:** Select to enable or disable DMZ.

**Source IP Address:** Select any source IP address or specify a source IP address.

**Host IP Address:** Specify the host IP address.

**Note:** Any DMZ host should have a new static IP address assigned to it because its IP address may change when using the DHCP function.

Click **Apply** and **OK** to save the setting.

## 6.5.4 QoS

QoS (Quality of Service) manages information as it is transmitted and received. It ensures better service to those application with a higher priority.

**QoS (Quality of Service)**  
Application Port Priority

Application Name	Priority	Port	Enabled
None	Normal	0	<input type="checkbox"/>
None	Normal	0	<input type="checkbox"/>
None	Normal	0	<input type="checkbox"/>
None	Normal	0	<input type="checkbox"/>
None	Normal	0	<input type="checkbox"/>
	Normal	0	<input type="checkbox"/>
	Normal	0	<input type="checkbox"/>
	Normal	0	<input type="checkbox"/>
	Normal	0	<input type="checkbox"/>
	Normal	0	<input type="checkbox"/>

MAC Address Priority

Client Device Name	Priority	MAC	Enabled
	Normal	00:00:00:00:00:00	<input type="checkbox"/>
	Normal	00:00:00:00:00:00	<input type="checkbox"/>
	Normal	00:00:00:00:00:00	<input type="checkbox"/>
	Normal	00:00:00:00:00:00	<input type="checkbox"/>
	Normal	00:00:00:00:00:00	<input type="checkbox"/>

Apply Cancel Help

Click **Apply** and **OK** to save the setting.

## 6.6 Administration

### 6.6.1 Management

The Management screen allows you to change the router's log in password as well as other administrative settings.

The screenshot shows the 'Administration' tab selected in the top navigation bar. The 'Management' section is expanded on the left sidebar. The main content area contains the following settings:

- Router Password:** Two text input fields for entering and re-entering the password.
- Remote Router Access:**
  - Remote Management: Disabled (dropdown)
  - Remote Upgrade: Disabled (dropdown)
  - Allow Remote IP Address:  Any IP Address
  - Remote Management Port: 8080 (text input)
- UPnP:**
  - UPnP: Enabled (dropdown)
  - Allow Users to Configure: Enabled (dropdown)
  - Allow Users to Disable Internet Access: Enabled (dropdown)
- Backup and Restore:** Backup Settings (button), Restore Settings (button)

At the bottom of the page, there are three buttons: Apply, Cancel, and Help.

**Router Password:** Set the router's log in password.

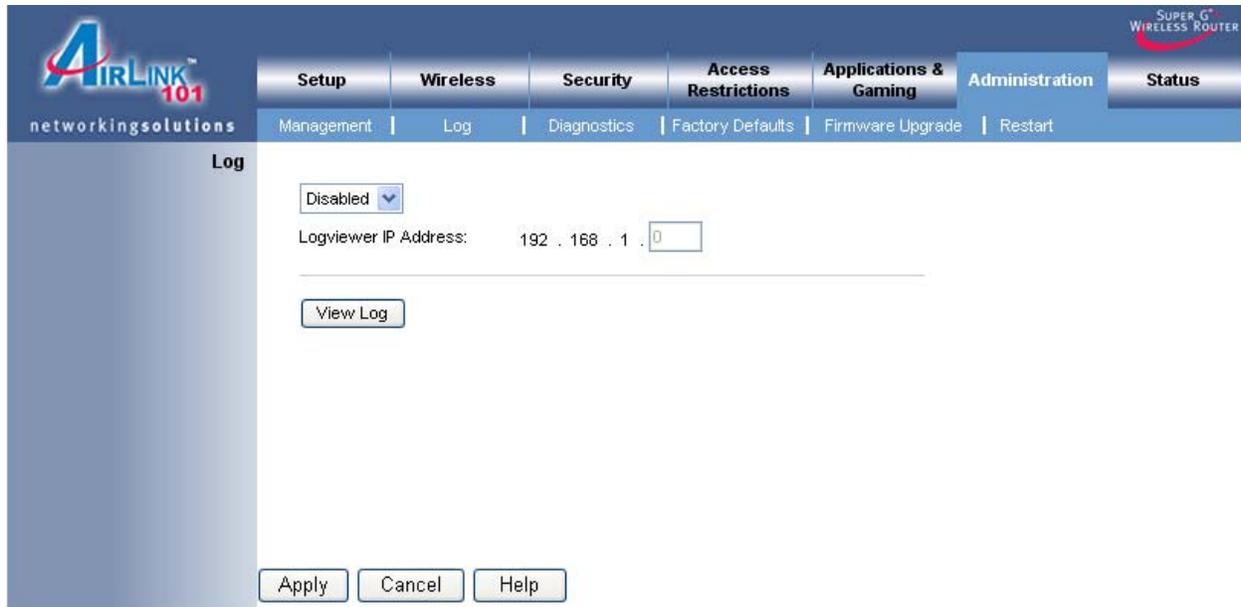
**Remote Router Access:** Select to enable or disable remote management/upgrade of the router. You can allow remote management from any IP Address or a specified IP Address as well as the port number.

**UPnP:** Universal Plug and Play (UPnP) allows Windows Me and XP to automatically configure the router for various Internet applications, such as gaming and videoconferencing.

**Backup and Restore:** You can choose to backup the router's settings so that you don't have to manually configure the settings again if you reset the router to factory default.

## 6.6.2 Log

You can choose to enable or disable logging of your network activity on this screen.



The screenshot shows the web interface of an AIRLINK 101 router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration (selected), and Status. Below the navigation bar, the 'Log' section is active. It features a dropdown menu set to 'Disabled', a 'Logviewer IP Address' field with the value '192 . 168 . 1 . 0', and a 'View Log' button. At the bottom of the page, there are 'Apply', 'Cancel', and 'Help' buttons.

Click **Apply** and **OK** to save the setting.

### 6.6.3 Diagnostics

The Diagnostics screen allows you to perform Ping and Traceroute tests.

The screenshot shows the web interface for an AirLink 101 router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The Administration tab is active, and the Diagnostics sub-tab is selected. The main content area is titled 'Diagnostics' and contains two sections: 'PingTest' and 'Traceroute Test'. The 'PingTest' section has input fields for 'To IP or URL Address', 'Packet Size' (set to 32 bytes), and 'Times to Ping' (set to 5), along with a 'Start to Ping' button. The 'Traceroute Test' section has an input field for 'To IP or URL Address' and a 'Start to Traceroute' button. A 'Help' button is located at the bottom left of the Diagnostics section.

**Ping Test:** Enter the IP or URL Address you wish to ping and click **Start to Ping**.

**Traceroute:** Enter the IP or URL Address you wish to trace and click **Start to Tracer**.

## 6.6.4 Factory Defaults

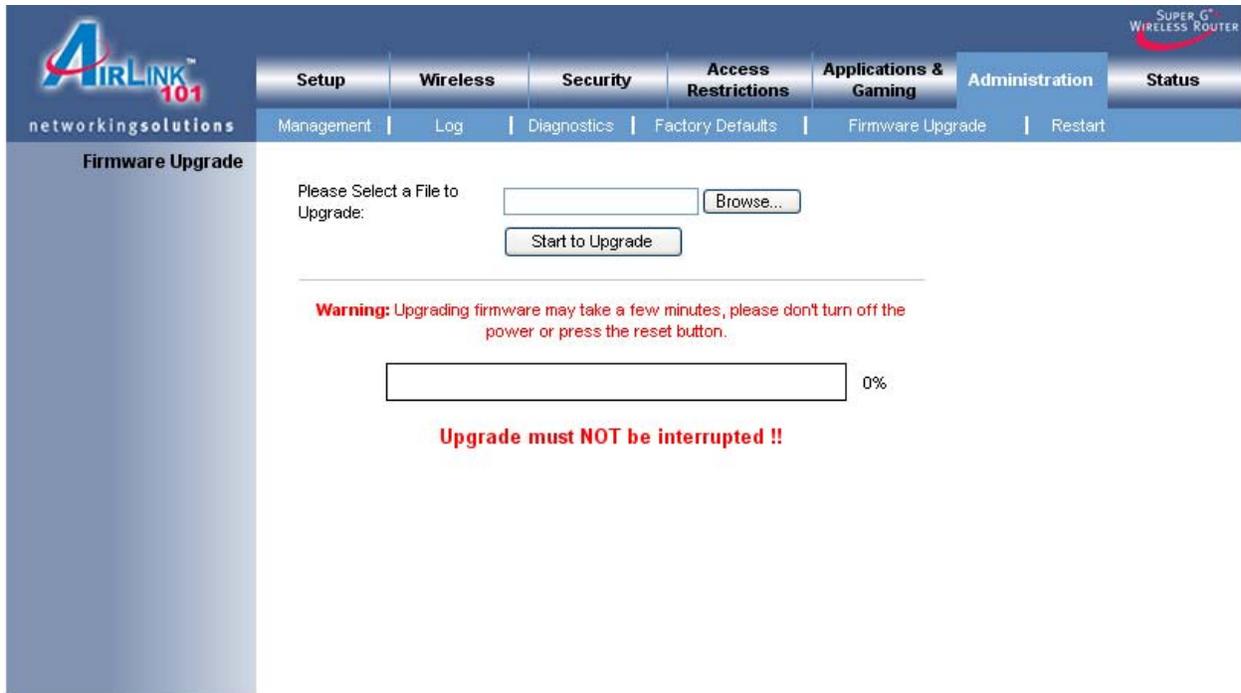
The Factory Defaults screen allows you to set all the router's settings to the factory default.



Click on the **Restore Factory Defaults** button to restore all the settings to default.

## 6.6.5 Firmware Upgrade

The Firmware Upgrade screen allows you to upgrade the router's firmware.

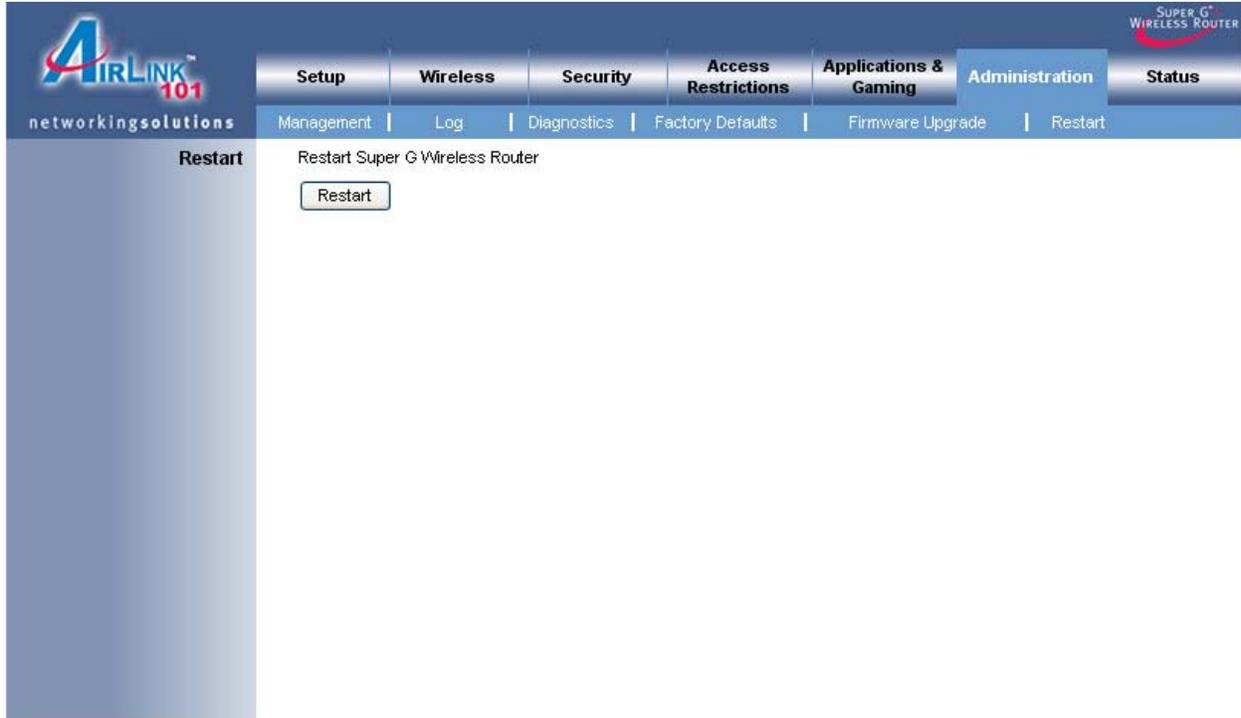


You must download and unzip the new firmware first from [www.airlink101.com](http://www.airlink101.com)

Click on **Browse** to browse to the new firmware, and click **Start to Upgrade**.

## 6.6.6 Restart

The Restart page allows you to restart the router without restoring the settings to factory default.



Click on the **Restart** button to restart the router.

## 6.7 Status

### 6.7.1 Router

The Router screen displays various status of the router including the firmware version.

The screenshot displays the web interface of an AIRLINK 101 router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The Status tab is active, showing Router Information and Internet Connection details.

**Router Information**

Firmware Version:	<b>1.10, May 19, 2005</b>
Current Time:	<b>THU MAY 26 03:50:18 2005</b>
Internet MAC Address:	<b>00:90:4b:e2:00:90</b>
Host Name:	
Domain Name:	

**Internet Connection**

Connection Type :	<b>Automatic Configuration - DHCP</b>
IP Address:	<b>192.168.1.1</b>
Subnet Mask:	<b>255.255.255.0</b>
Default Gateway:	<b>192.168.1.1</b>
DNS1:	<b>192.168.1.1</b>
DNS2:	<b>0.0.0.0</b>
DNS3:	<b>0.0.0.0</b>

Buttons: IP Release, IP Renew, Refresh, Help

Click on the **Refresh** button to reload the screen.

## 6.7.2 LAN

The LAN screen displays various status about your Local Area Network.

The screenshot displays the LAN configuration interface for an AIRLINK 101 router. The interface includes a navigation menu at the top with options: Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The 'Local Network' section is active, showing the following configuration details:

Local MAC Address:	<b>00:90:4b:e2:00:90</b>
IP Address:	<b>192.168.1.1</b>
Subnet Mask:	<b>255.255.255.0</b>

---

The DHCP Server section is also visible, with the following settings:

DHCP Server:	<b>Enabled</b>
Start IP Address:	<b>192.168.1.100</b>
End IP Address:	<b>192.168.1.149</b>

Below the DHCP Server settings, there is a button labeled "DHCP Client Table". A "Help" button is located at the bottom left of the page.

Click on the **DHCP Client Table** to display a list of all the DHCP clients in your network.

### 6.7.3 Wireless Network

The Wireless Network screen displays various status about your wireless network.

The screenshot shows the configuration interface for an AIRLINK 101 Super G Wireless Router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The 'Wireless' tab is selected, and the 'Wireless Network' sub-tab is active. The main content area displays the following wireless network information:

MAC Address:	<b>00:90:4b:e2:00:90</b>
Mode:	<b>Mixed</b>
Network Name (SSID):	<b>default</b>
Channel:	<b>6 - 2.437GHz</b>
Security:	<b>WPA-Personal</b>
SSID Broadcast:	<b>Enabled</b>

A 'Help' button is located at the bottom left of the configuration area.

## 7. Troubleshooting

If you have trouble connecting to the Internet, try the following steps.

**Step 1** Power off the Cable/DSL modem, router, and computer and wait for **5 minutes**.

**Step 2** Turn on the Cable/DSL modem and wait for the lights on the modem to settle down.

**Step 3** Turn on the router and wait for the lights on the router to settle down.

**Step 4** Turn on the computer.

**Step 5** Reconfigure the router as described in **Section 3**.

**Step 6** Log in to the router and select the **Status** tab.

**Step 7** Verify that the **IP Address**, **Default Gateway**, and at least one of the **DNS** fields have valid numbers assigned to them (instead of all 0's).



The screenshot displays the web interface of an Airlink 101 Super-G Wireless Router. The navigation menu at the top includes Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status (highlighted with a red box). The main content area is divided into two sections: Router Information and Internet Connection. The Router Information section shows Firmware Version: 1.10, May 19, 2005; Current Time: THU MAY 26 03:50:18 2005; Internet MAC Address: 00:90:4b:e2:00:90; Host Name; and Domain Name. The Internet Connection section shows Connection Type: Automatic Configuration - DHCP; IP Address: 192.168.1.1; Subnet Mask: 255.255.255.0; Default Gateway: 192.168.1.1; DNS1: 192.168.1.1; DNS2: 0.0.0.0; and DNS3: 0.0.0.0. Below the IP Address field, there are buttons for IP Release and IP Renew. A Refresh button is located at the bottom right of the Internet Connection section, and a Help button is at the bottom left.

Field	Value
Firmware Version	1.10, May 19, 2005
Current Time	THU MAY 26 03:50:18 2005
Internet MAC Address	00:90:4b:e2:00:90
Host Name	
Domain Name	
Connection Type	Automatic Configuration - DHCP
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
DNS1	192.168.1.1
DNS2	0.0.0.0
DNS3	0.0.0.0

If you see all 0's, click on the **IP Renew** button (for Cable Modem users) or the **Connect** button (for DSL users).

If each field has a valid number assigned, the router is connected to the Internet.

## Technical Support

E-mail: [support@airlink101.com](mailto:support@airlink101.com)

Toll Free: 1-888-746-3238

Web Site: [www.airlink101.com](http://www.airlink101.com)

\*Super G™ technology (108 Mbps) can only be obtained when using products with Atheros Super G™ chipset

\*Theoretical maximum wireless signal rate based on IEEE standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate.

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