



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.

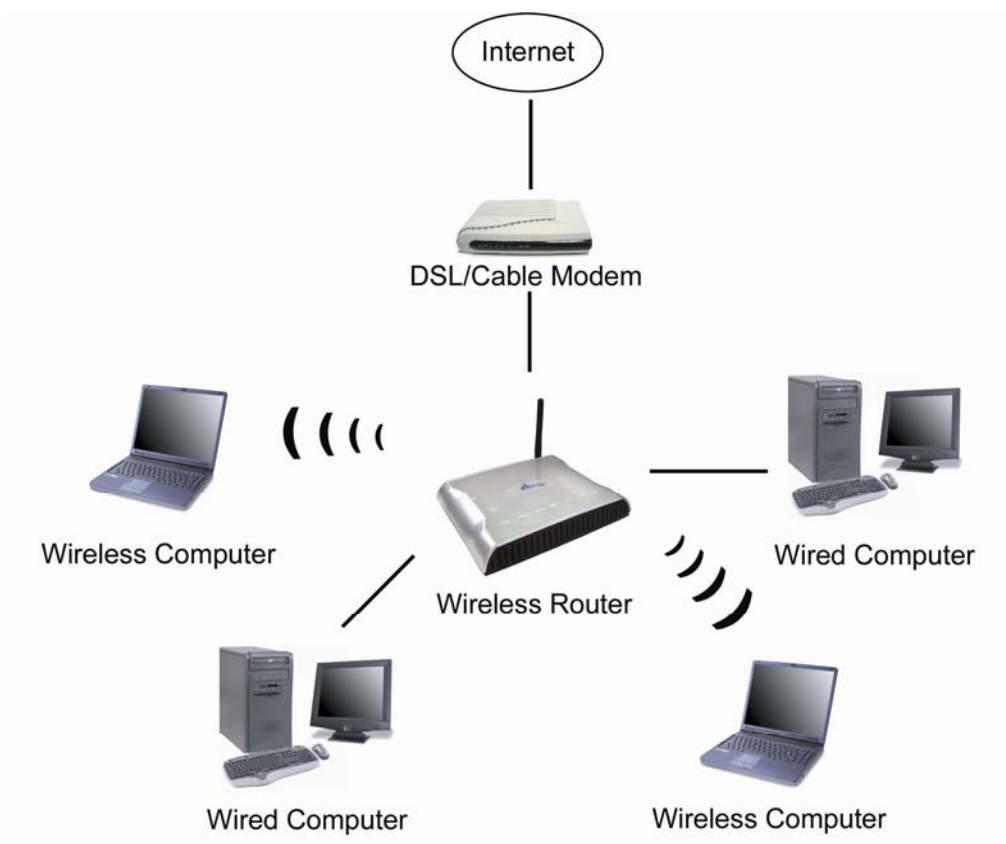
Step 2 With another network cable, connect one end of the cable to your computer's network card and connect the other end to one of the **LAN** ports of the router.

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.

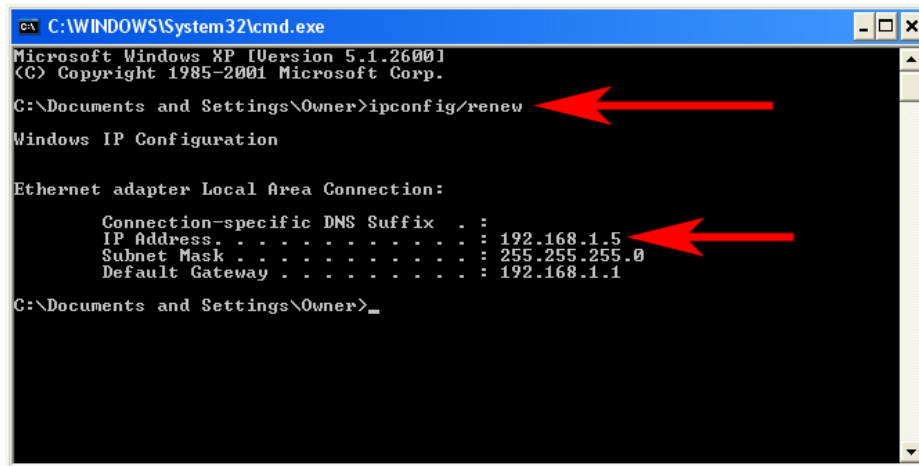
C:\Documents and Settings\Owner>ipconfig/release
Windows IP Configuration

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.



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

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

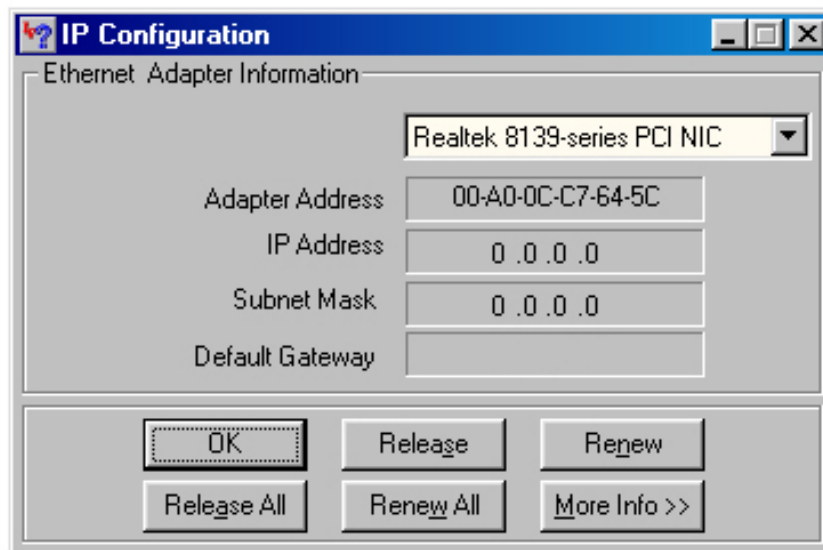
Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.1.5
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

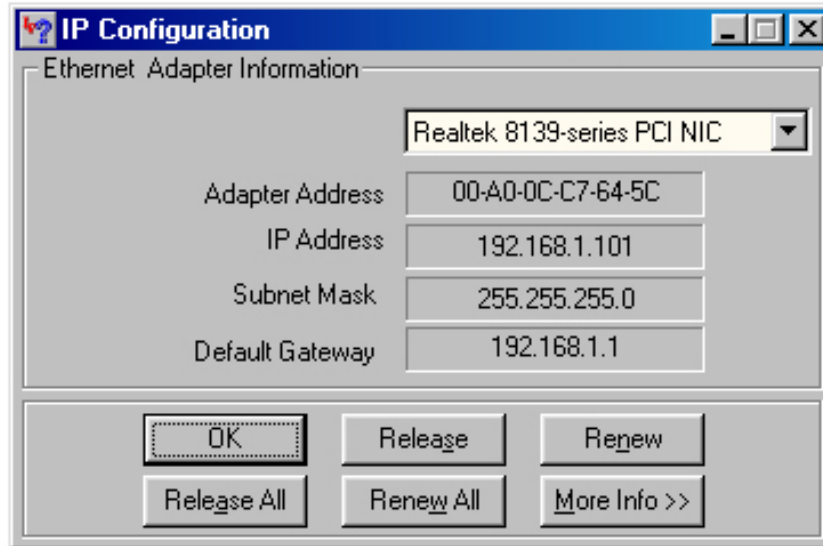
C:\Documents and Settings\Owner>_
```

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**.

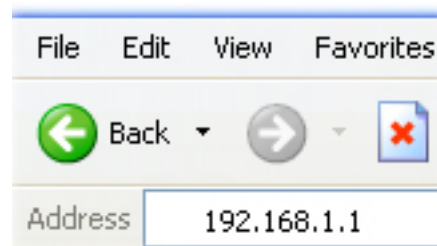


Step 8 After your IP address is released, click **Renew**. You should get an IP address of **192.168.1.x** (where **x** is a number between 2 - 254). If you don't get an IP address, reset the router by holding in the reset button at the back of the router for 10 seconds while it is ON and try **Renew**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



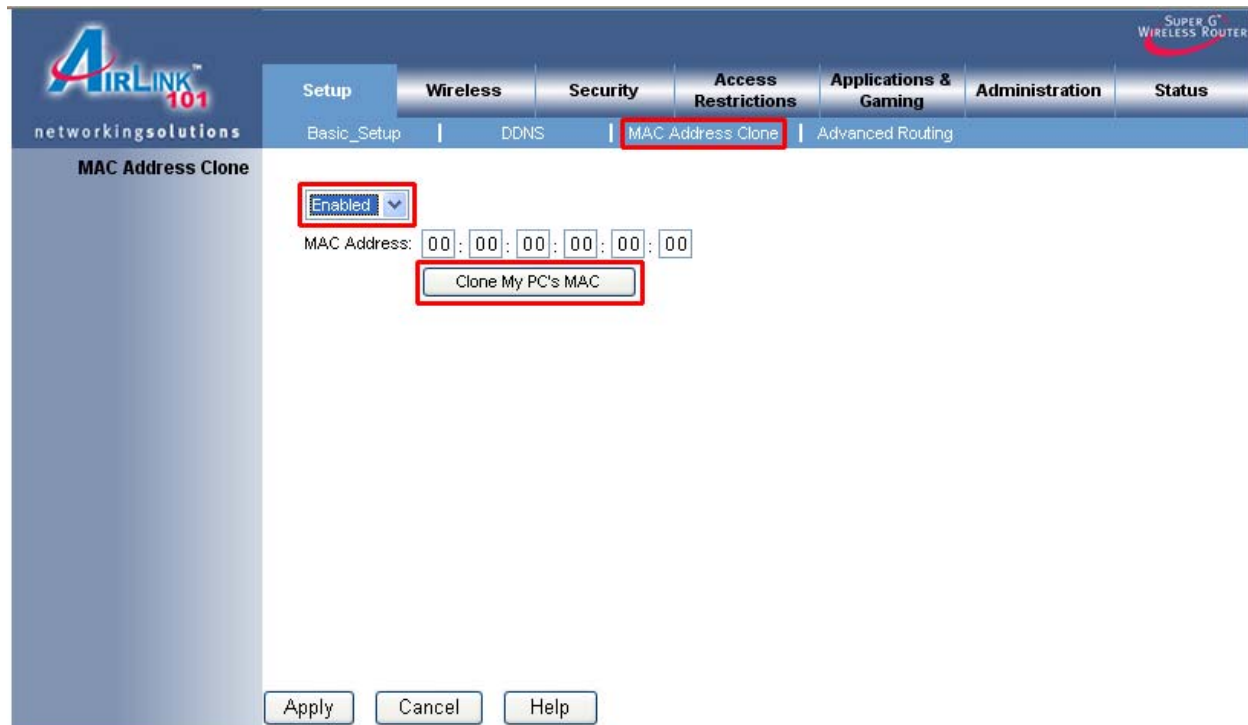
Cable Modem

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 'Internet Setup' page in the Airlink 101 web interface. The 'Internet Connection Type' is set to 'Automatic Configuration - DHCP'. The 'Host Name' field is highlighted with a red box. The 'Domain Name' field is empty. The 'MTU' is set to 'Auto' and the 'Size' is '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 'MAC Address Clone' page in the Airlink 101 web interface. The 'MAC Address Clone' tab is selected. The 'Enabled' dropdown is highlighted with a red box. The 'MAC Address' field shows '00 : 00 : 00 : 00 : 00 : 00'. The 'Clone My PC's MAC' button is highlighted with a red box. The 'Apply', 'Cancel', and 'Help' buttons are visible at the bottom.

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

DSL

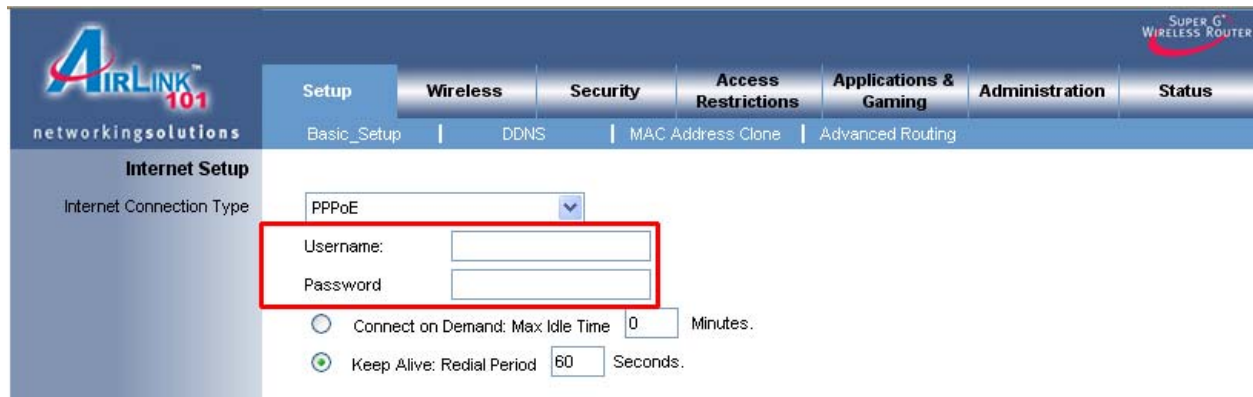
For DSL users, follow the steps below to configure the router.

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'. The MTU is set to 'Auto' and the Size is '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' fields are highlighted with a red box. The 'Connect on Demand' option is selected, and the 'Max Idle Time' is set to 0 minutes. The 'Keep Alive' option is selected, and the 'Redial Period' is 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 web configuration utility interface for the AIRLINK 101 router. The page is titled "Basic Setup" and is part of the "Setup" section. The interface includes a navigation menu with tabs for "Wireless", "Security", "Access Restrictions", "Applications & Gaming", "Administration", and "Status". The "Basic Setup" tab is selected, and it contains sub-tabs for "Basic_Setup", "DDNS", "MAC Address Clone", and "Advanced Routing".

The main content area is divided into three sections:

- Internet Setup:** Includes "Internet Connection Type" (set to "Automatic Configuration - DHCP"), "Optional Settings" (required by some Internet Service Providers), "Host Name", "Domain Name", and "MTU" (set to "Auto" with a size of "1500").
- Network Setup:** Includes "Router IP" (IP Address: 192.168.1.1, Subnet Mask: 255.255.255.0) and "DHCP Server Setting" (DHCP Server: Enabled, Assign Static DHCP, Start IP Address: 192.168.1.100, Maximum Number of Users: 50, IP Address Range: 192.168.1.100 ~ 149, Client Lease Time: 0 minutes (0 means one day), Static DNS 1: 0.0.0.0, Static DNS 2: 0.0.0.0, Static DNS 1: 0.0.0.0, WINS: 0.0.0.0).
- Time Settings:** Includes "Time Zone" (set to "(GMT-08:00) Pacific Time (USA & Canada)") and a checkbox for "Automatically adjust clock for daylight saving changes".

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.

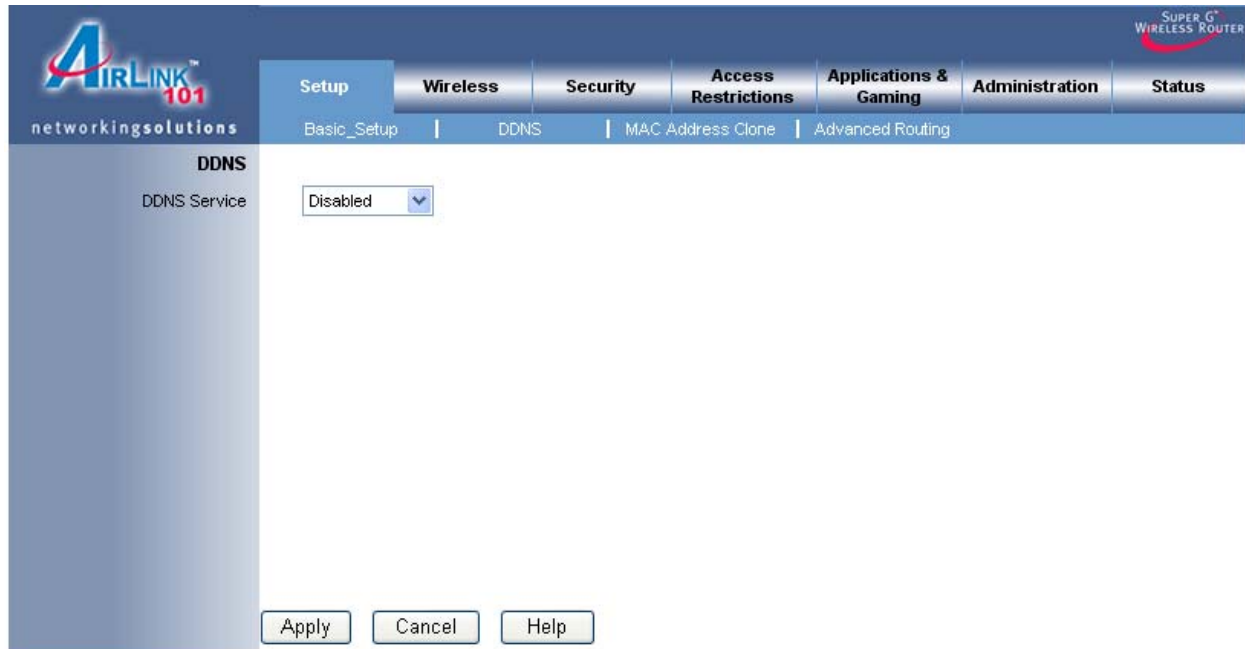
Step 2 Enter the MAC address of the corresponding computer in the **To this MAC** field.

Step 3 Check the **Enabled** box.

Step 4 Click **Save Settings**.

6.1.2 DDNS

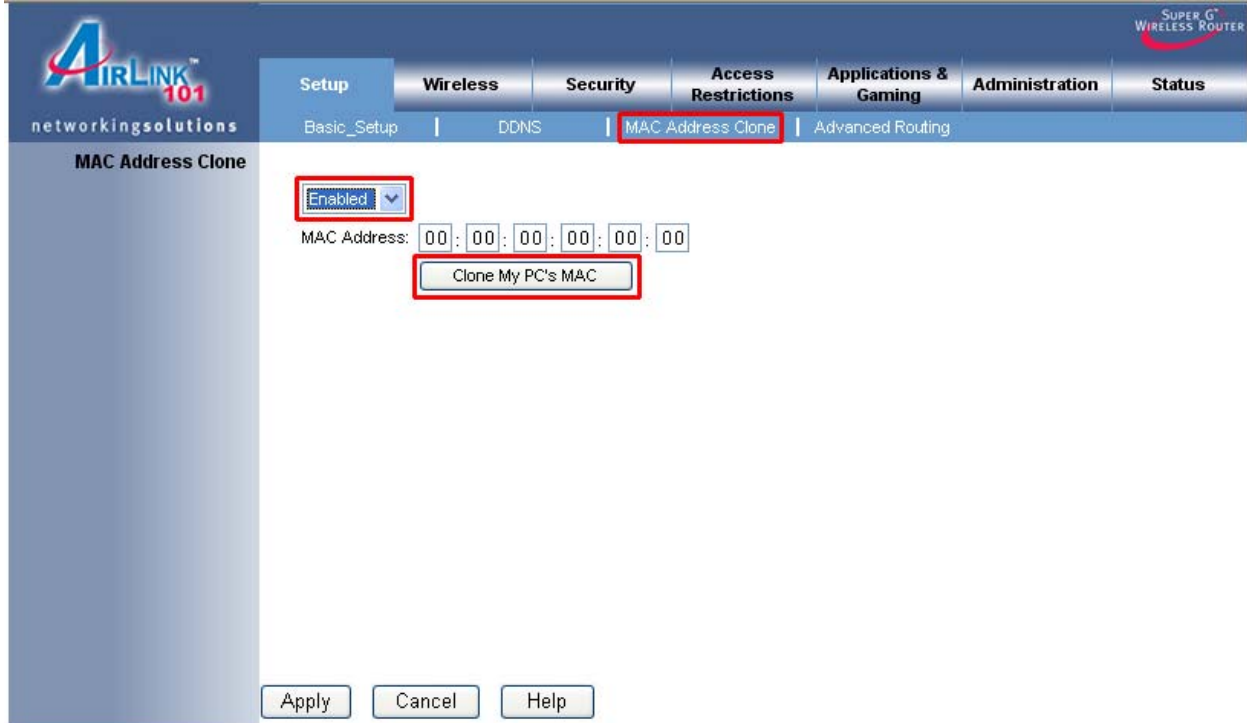
Dynamic DNS (DDNS) allows any user who wishes to access your server to reach it by a registered DNS name instead of an IP address. Before you enable **DDNS**, you need to register an account with one of the DDNS providers listed in the drop-down menu.



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].

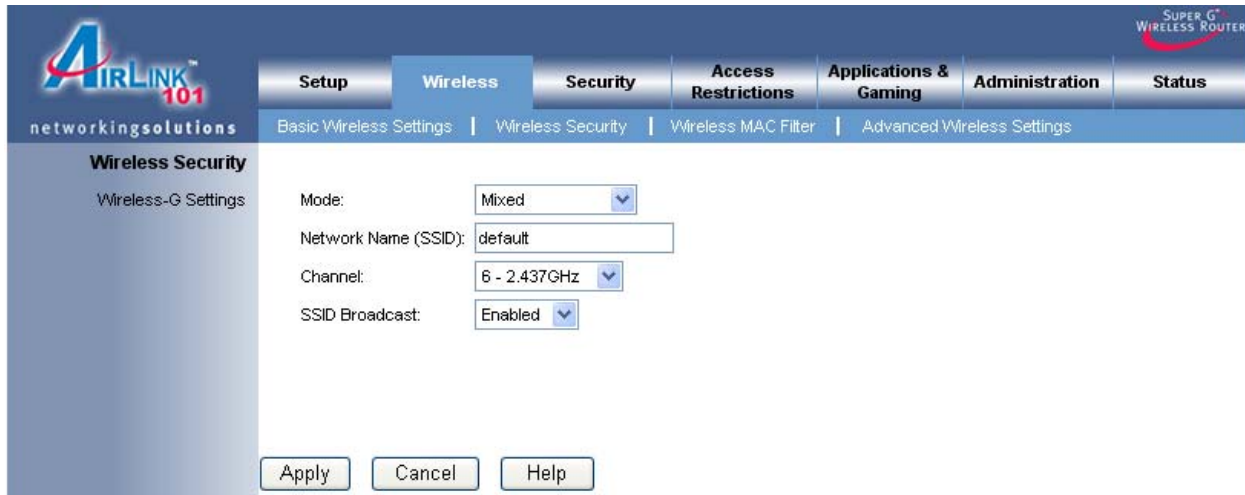
To see the current routing table, click on **Show Routing Table** button.

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, Security, Access Restrictions, Applications & Gaming, Administration, and Status. Under the Wireless tab, there are sub-links for Basic Wireless Settings, Wireless Security, 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 configuration interface for the AIRLINK 101 router. The 'Wireless Security' section is active, displaying the following settings:

- Security Mode: WEP
- Encryption: 64 bits
- Passphrase: (empty field) with a 'Generate' button
- WEP Key 1: (empty field)
- WEP Key 2: (empty field)
- WEP Key 3: (empty field)
- WEP Key 4: (empty field)
- TX Key: 1

At the bottom of the configuration area, 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 '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 fields:

- Security Mode:** A dropdown menu with 'WPA-PSK' selected.
- Encryption Methods:** A dropdown menu with 'TKIP' selected.
- Passphrase:** An empty text input field.
- Key Renewal:** A text input field containing '1500' followed by the label 'seconds'.

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 Super G Wireless Router. The main menu includes Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The 'Wireless Security' sub-menu is active, showing options for Basic Wireless Settings, Wireless Security, Wireless MAC Filter, and Advanced Wireless Settings. The 'Wireless Security' section is expanded, displaying the following fields:

- Security Mode: WPA (dropdown menu)
- Encryption: TKIP (dropdown menu)
- RADIUS Server: 0 . 0 . 0 . 0 (IP address input)
- RADIUS Port: 1812 (port number input)
- Shared Key: (empty text input)
- Key Renewal: 3600 Seconds (key renewal time input)

Buttons for 'Apply' and 'Cancel' are located at the bottom of the configuration area.

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 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 active, and the 'Advanced Wireless Settings' sub-tab is selected. The left sidebar shows 'Advanced Wireless' and 'Wireless-G Settings'. The main content area contains the following settings:

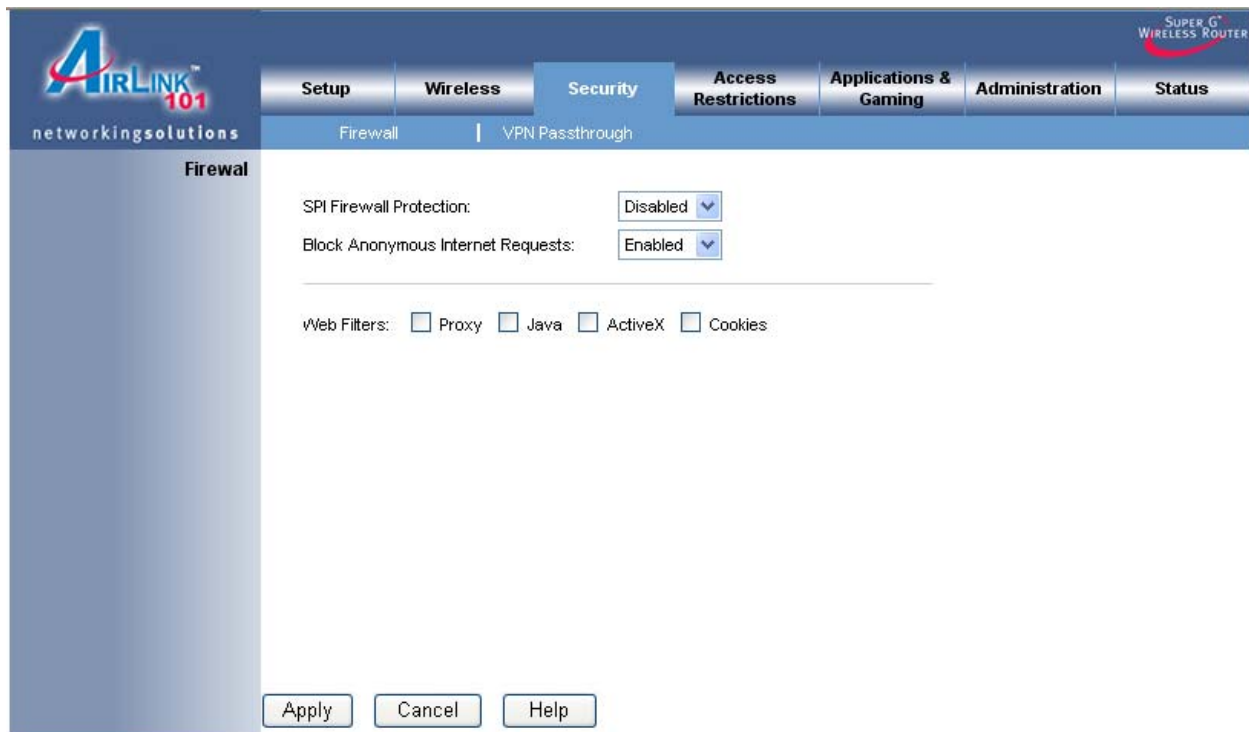
Authentication Type:	Open System (Default) ▾
Basic Rate:	Default ▾
Transmission Rate:	Auto (Default) ▾
Transmission Power:	Full (Default) ▾
CTS Protection Mode:	Auto (Default) ▾
Frame Burst Mode:	Enabled (Default) ▾
Beacon Interval:	100 (Default: 100 Milliseconds, Range: 20 ~ 1000)
DTIM Interval:	1 (Default: 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 settings area are three buttons: Apply, Cancel, and Help.

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.

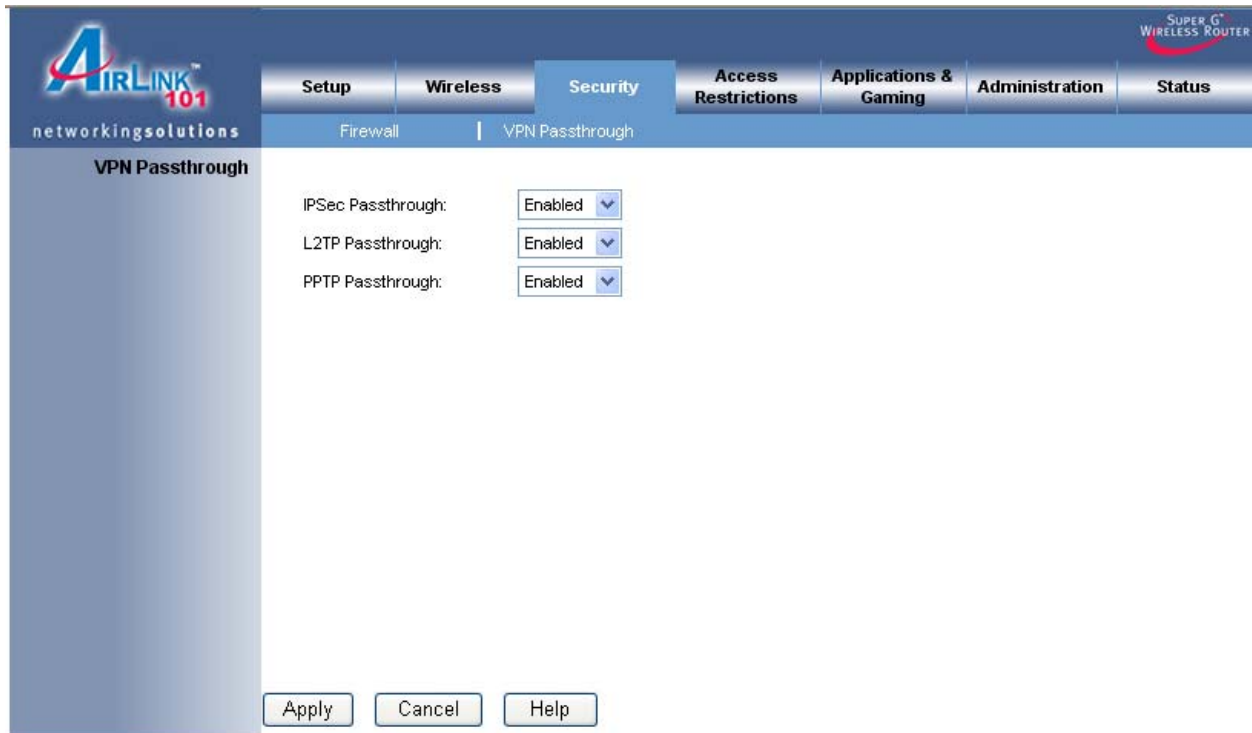
Block Anonymous Internet Requests: Enable or Disable.

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 shows the configuration interface for the Internet Access Policy on an AIRLINK 101 router. The page is titled "Internet Access Policy" and features a navigation menu with tabs for Setup, Wireless, Security, Access Restrictions (selected), Applications & Gaming, Administration, and Status. The main content area is divided into several sections:

- Access Policy:** A dropdown menu showing "1 (---)" with "Delete This Policy" and "Summary" buttons.
- 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.)".
- Deny/Allow:** Radio buttons for "Deny" (selected) and "Allow".
- Schedule:** A section for "Internet access during selected days and hours." with checkboxes for "Everyday" (checked), "M", "T", "W", "Th", "F", "Sa", and "Su". Below this, "Times" are set to "24 Hours".
- Blocked Application Port:** A section for "Specific Application ports and/or websites can be blocked when your list of PCs have Internet access." It contains three rows of dropdown menus (all set to "None") and input fields for port ranges, with checkboxes for "TCP" and "UDP".
- Website Blocking by URL Address:** Four input fields labeled "URL 1:", "URL 2:", "URL 3:", and "URL 4:".
- Website Blocking by Keyword:** Four input fields labeled "Keyword 1:", "Keyword 2:", "Keyword 3:", and "Keyword 4:".

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

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 ▾

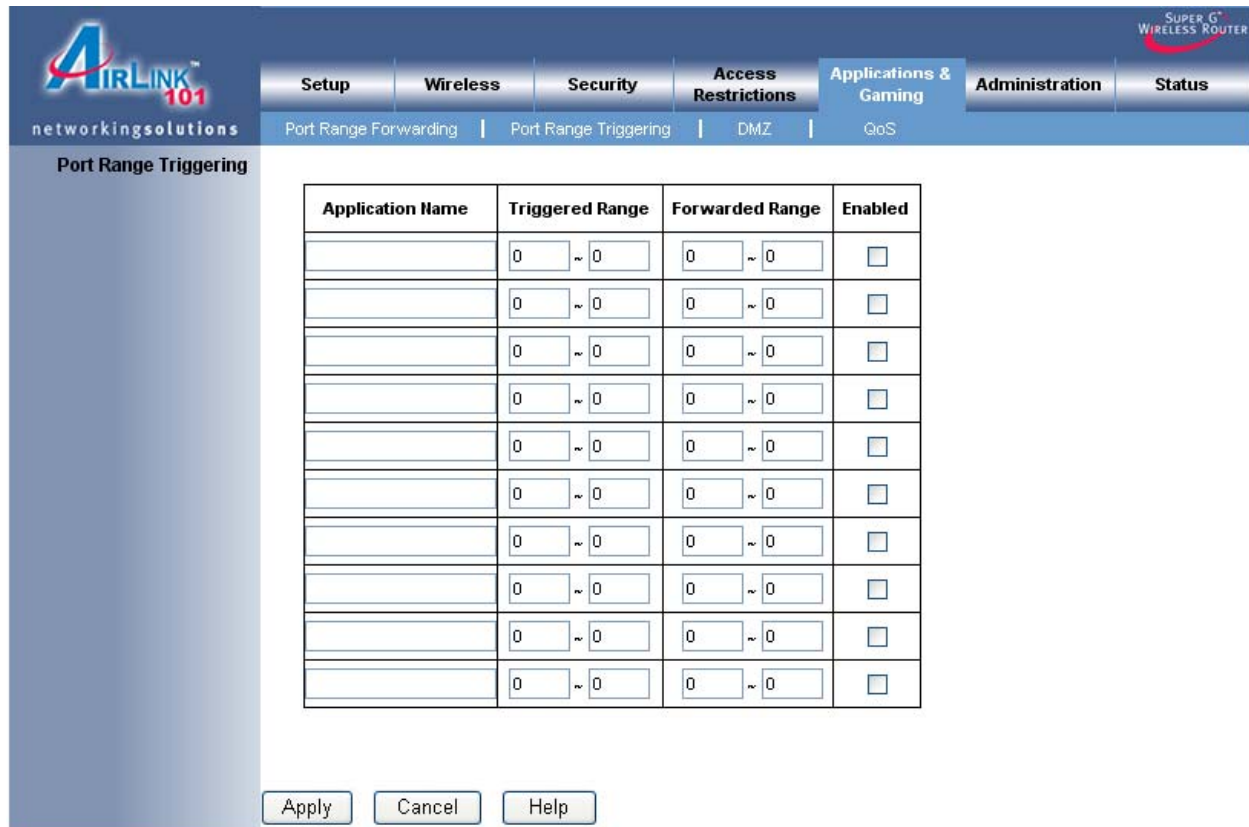
Start ~ End Port	Protocol	To IP Address	Enabled
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> UDP	192.168.1.0	<input type="checkbox"/>
0 ~ 0	<input type="checkbox"/> TCP <input type="checkbox"/> 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"/>
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 shows the configuration interface for the AIRLINK 101 router. The main menu includes Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The 'Applications & Gaming' menu is expanded to show 'Port Range Forwarding', 'Port Range Triggering', 'DMZ', and 'QoS'. The 'Port Range Triggering' page 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"/>

At the bottom of the page, 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 interface includes a navigation menu with the following tabs: Setup, Wireless, Security, Access Restrictions, Applications & Gaming (selected), Administration, and Status. Under the Applications & Gaming tab, there are sub-tabs for Port Range Forwarding, Port Range Triggering, DMZ (selected), and QoS. The DMZ configuration area contains a dropdown menu set to 'Disabled', a radio button for 'Any IP Address', and input fields for 'Source IP Address' and 'Host IP Address'. The 'Host IP Address' field is pre-filled with '192.168.1.' followed by an empty box. At the bottom are 'Apply', 'Cancel', and 'Help' buttons.

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 displays the 'Administration' tab of the AIRLINK 101 router's web interface. The 'Management' section is active, showing the following settings:

- Router Password:** Two password input fields, both containing masked characters (dots).
- Remote Router Access:**
 - Remote Management: Disabled (dropdown)
 - Remote Upgrade: Disabled (dropdown)
 - Allow Remote IP Address: Any IP Address
 - IP Address Input: . . . ~
 - Remote Management Port:
- UPnP:**
 - UPnP: Enabled (dropdown)
 - Allow Users to Configure: Enabled (dropdown)
 - Allow Users to Disable Internet Access: Enabled (dropdown)
- Backup and Restore:** Backup Settings and Restore Settings buttons.

At the bottom of the page are buttons for Apply, Cancel, and Help.

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

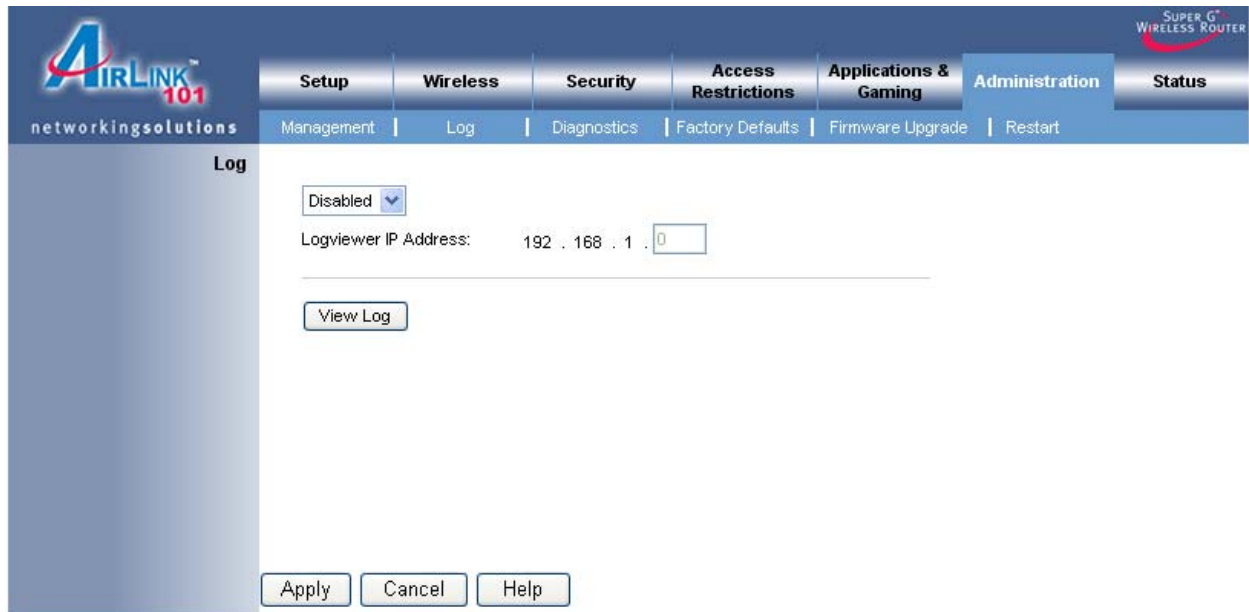
Remote Router Access: Select to enable or disable remote management/upgrade of the router. You can allow remote management from any IP Address or a specified IP Address as well as the port number.

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.

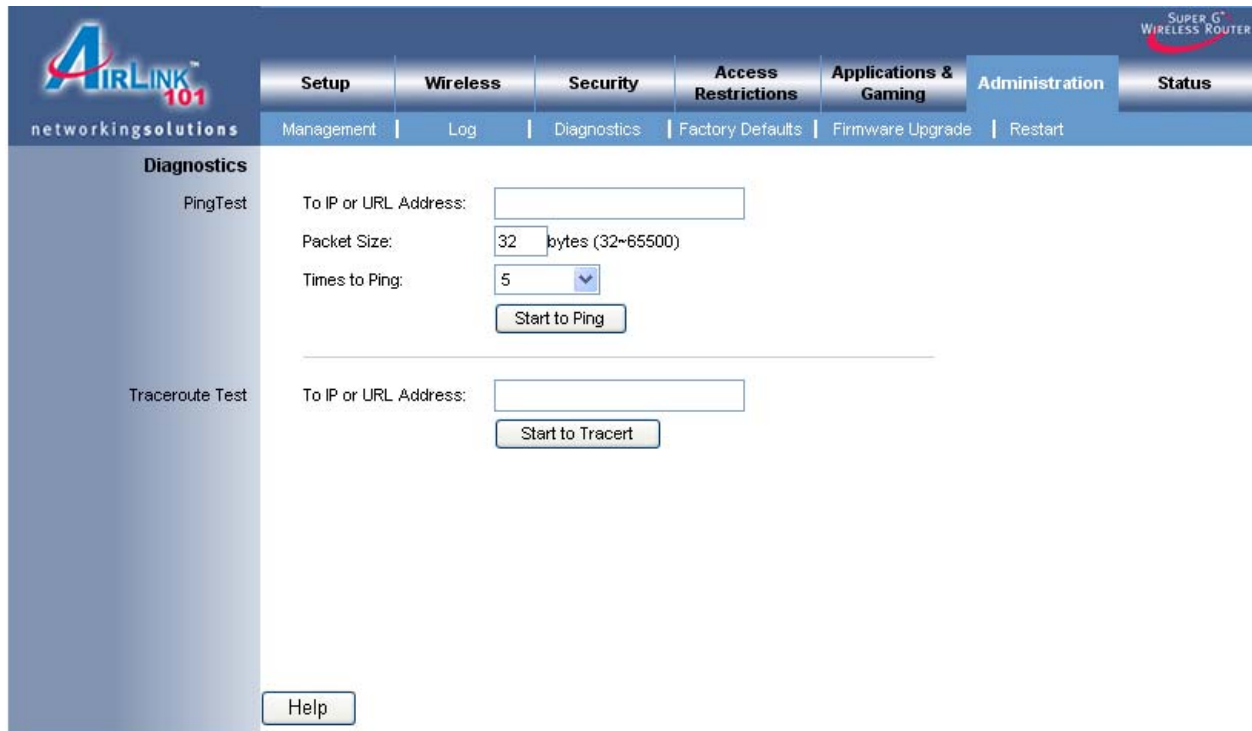


The screenshot shows the web interface for an AIRLINK 101 Super G+ Wireless Router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration (selected), and Status. Below the navigation bar, the 'Log' section is active, showing a dropdown menu set to 'Disabled'. The 'Logviewer IP Address' is set to '192 . 168 . 1 . 0'. A 'View Log' button is present. 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 of an AirLink 101 router. The top navigation bar includes 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', 'Administration', and 'Status'. The 'Administration' tab is active, showing sub-options: 'Management', 'Log', 'Diagnostics', 'Factory Defaults', 'Firmware Upgrade', and 'Restart'. The 'Diagnostics' section is expanded, showing two test options: '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), with a 'Start to Ping' button. The 'Traceroute Test' section has an input field for 'To IP or URL Address:' and a 'Start to Tracert' button. A 'Help' button is located at the bottom left of the diagnostics area.

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.

The screenshot displays the 'Firmware Upgrade' page of the AirLink 101 router's web interface. At the top, the 'AIRLINK 101' logo is visible on the left, and 'SUPER G WIRELESS ROUTER' is on the right. A navigation bar contains tabs for 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', 'Administration' (which is active), and 'Status'. Below this, a sub-menu shows 'Management', 'Log', 'Diagnostics', 'Factory Defaults', 'Firmware Upgrade', and 'Restart'. The main content area is titled 'Firmware Upgrade' and contains the following elements:

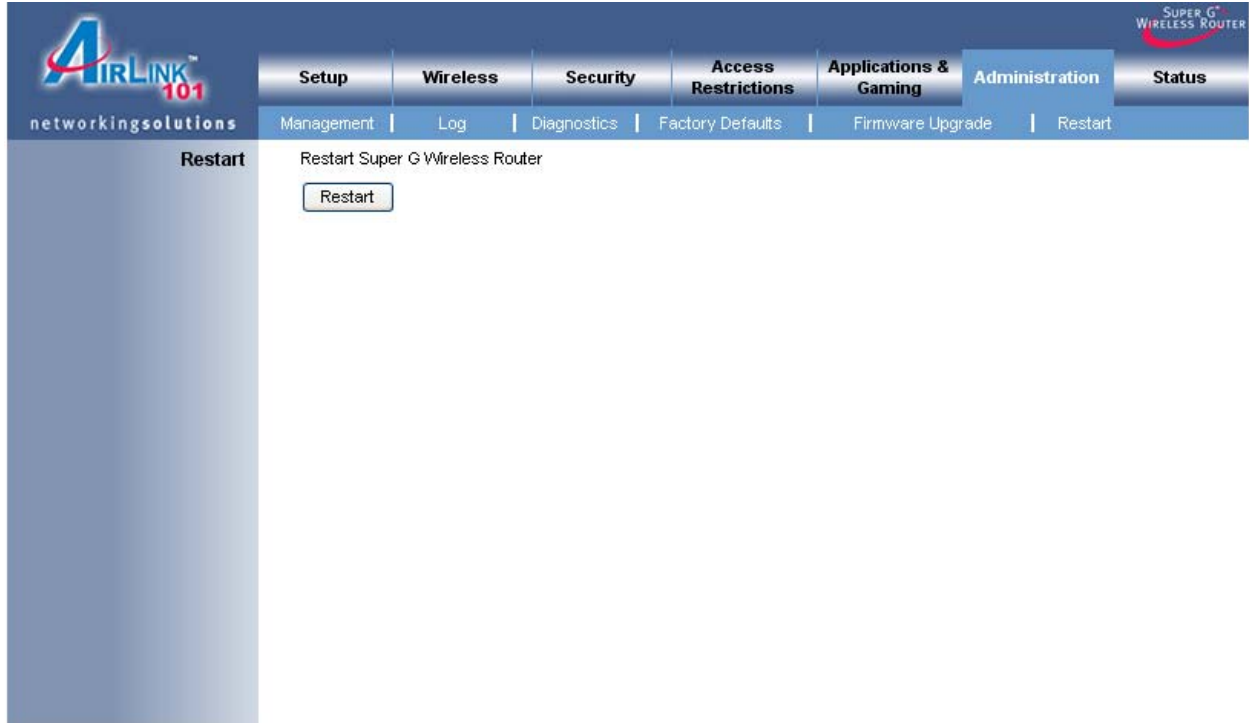
- A prompt: 'Please Select a File to Upgrade:' followed by an empty text input field and a 'Browse...' button.
- A 'Start to Upgrade' button.
- A red warning message: 'Warning: Upgrading firmware may take a few minutes, please don't turn off the power or press the reset button.'
- A progress bar showing 0% completion.
- A red warning: 'Upgrade must NOT be interrupted !!'

You must download and unzip the new firmware first from 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. The Router Information section lists 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). There are buttons for IP Release, IP Renew, Refresh, and Help.

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

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 shows the LAN configuration interface for an AIRLINK 101 router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The 'Local Network' section is active, showing the following details:

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

The DHCP Server section shows the following configuration:

DHCP Server:	Enabled
Start IP Address:	192.168.1.100
End IP Address:	192.168.1.149

Below the DHCP Server settings 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 interface includes a navigation menu with 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:	00:90:4b:e2:00:90
Mode:	Mixed
Network Name (SSID):	default
Channel:	6 - 2.437GHz
Security:	WPA-Personal
SSID Broadcast:	Enabled

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).



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

Toll Free: 1-888-746-3238

Web Site: 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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