



Wireless 300N Gigabit Router

Model # AR690W

Quick Installation Guide

Ver. 1.0

Section 1

This Quick Installation Guide only provides the basic instructions. For more detailed information, please refer to the User's Manual on the supplied CD.

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 connections.

Step 1 Connect one end of the network cable to the **WAN** 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** (Ethernet) ports on 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 **WAN**, **Wireless**, and the **LAN** ports that the computer is connected to are lit. If not, try the above steps again.

AR690W LED Illustrations:

Power	Status	WAN	Wireless	LAN	WPS

Power

On: Power on

Status

Blinking: Functioning properly.

WAN

On: Link established / Blinking: Data transmission

Wireless

On: Wireless is ready / Blinking: Data transmission

LAN

On (Green): 1000Mbps device is connected

Blinking (Green): Data transmit under 1000Mbps mode

On (Orange): 100Mbps device is connected

Blinking (Orange): Data transmit under 100Mbps mode

WPS (WiFi Protected Setup)

Blinking Blue: WPS set up in progress

Static Blue: WPS set up successfully

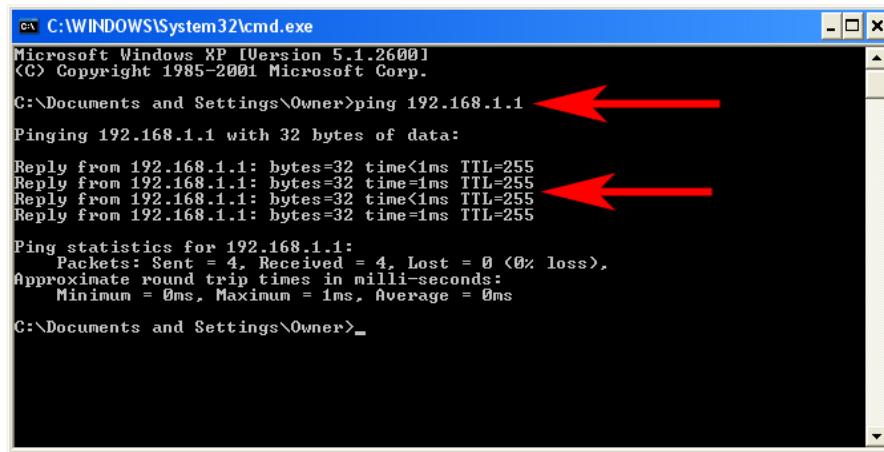
Blinking Red: Error found

Section 2

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.

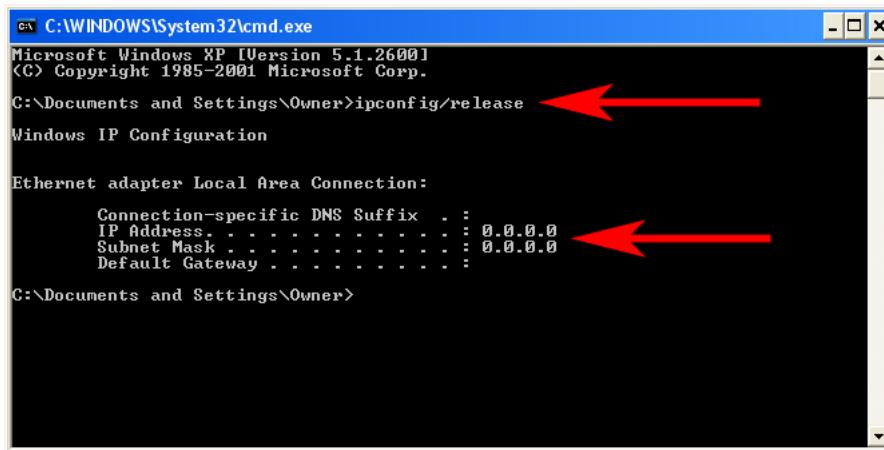
C:\Documents and Settings\Owner>ping 192.168.1.1 ←
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255 ←
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255

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, Configuring the Router**.

Step 4 For Windows 2000/XP, type **ipconfig/release** and press **Enter**. (Windows 98se/ME skip to **Step 6**)



```
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, Configuring the Router**. If you don't get an IP address, reset the router by holding in the reset button on 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 ← (red arrow)
Windows IP Configuration

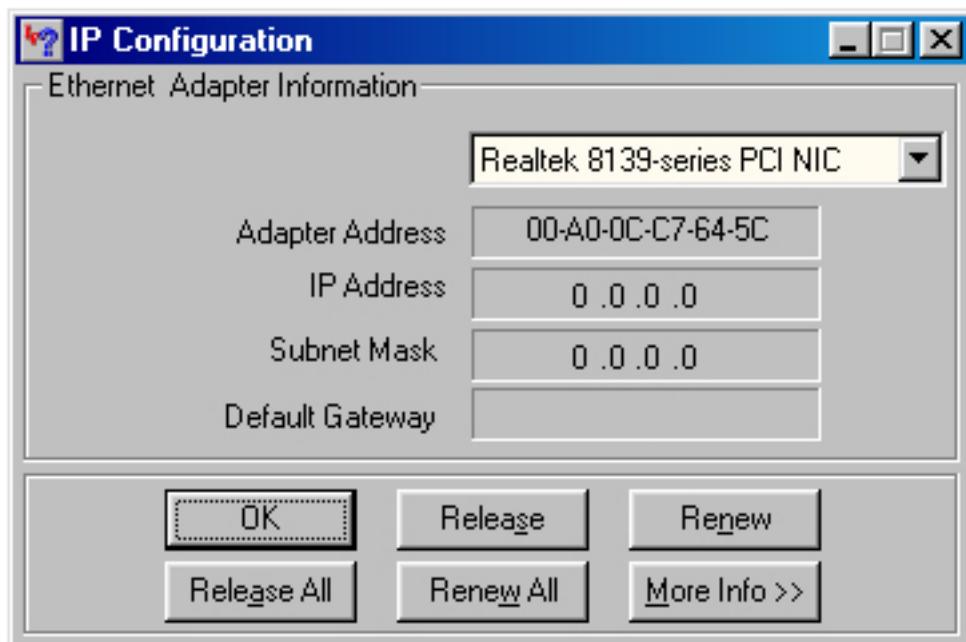
Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . . . .
    IP Address . . . . . : 192.168.1.5 ← (red arrow)
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

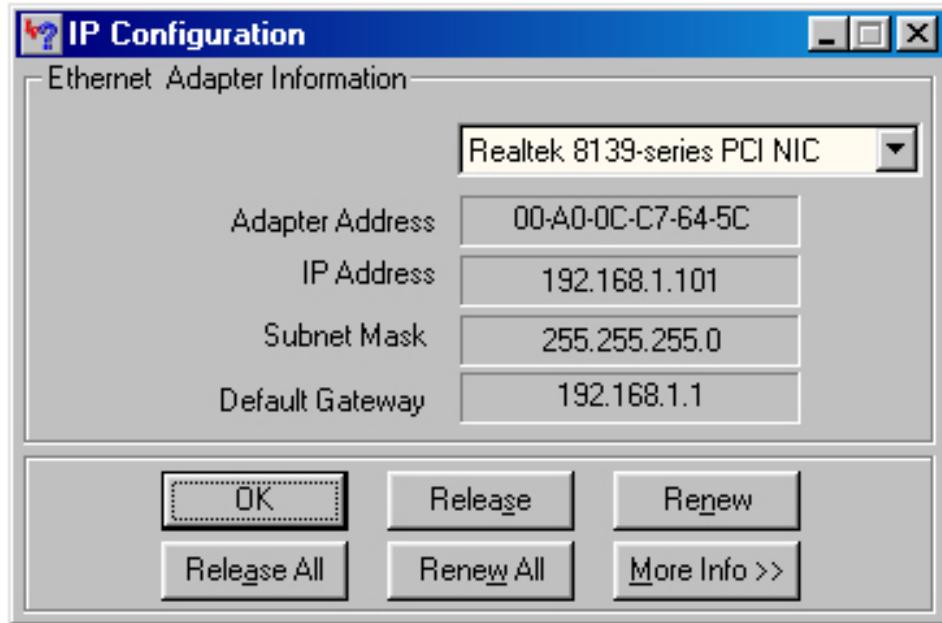
C:\Documents and Settings\Owner>_
```

Step 6 For Windows 95/98/ME go to **Start, Run**, type **winipcfg** and click **OK**. (Not necessary for Windows 2000/XP Users)

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 on the back of the router for 10 seconds while it is ON and try **Renew** again.



Section 3

Configuring the Router

Step 1 Open a web browser (Internet Explorer) and type **192.168.1.1** in the URL Address field and press **Enter**.

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

A screenshot of a web-based login interface for a "Draft 802.11N Wireless Router". The title bar of the browser window says "Draft 802.11N Wireless Router". The main form is titled "Login" and contains two input fields:

- User Name:
- Password:

Below the password field is a "Login" button.

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 on the **Clone MAC Address** button. Click **Apply** and **OK** to save the settings.

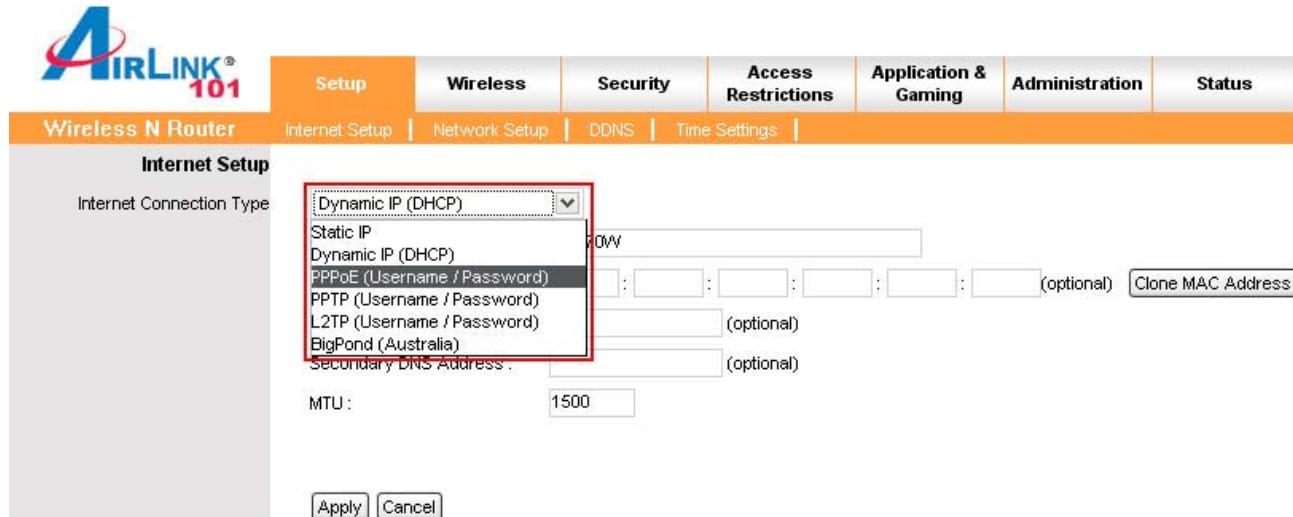
The screenshot shows the AIRLINK 101 Wireless N Router's configuration interface. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Application & Gaming, Administration, and Status. The sub-navigation bar under the Setup tab shows links for Internet Setup, Network Setup, DDNS, and Time Settings. The main content area is titled "Internet Setup". It contains fields for "Internet Connection Type" (set to "Dynamic IP (DHCP)"), "Host Name" (set to "AR670W"), "MAC Address" (with a note "(optional)" and a "Clone MAC Address" button), "Primary DNS Address", "Secondary DNS Address", and "MTU" (set to "1500"). At the bottom are "Apply" and "Cancel" buttons.

Go to the **Status** tab, **Internet connection** section to verify that you are getting valid IP address information. If you have trouble connecting to the Internet, please go through the **Troubleshooting** section at the end of this installation guide.

DSL

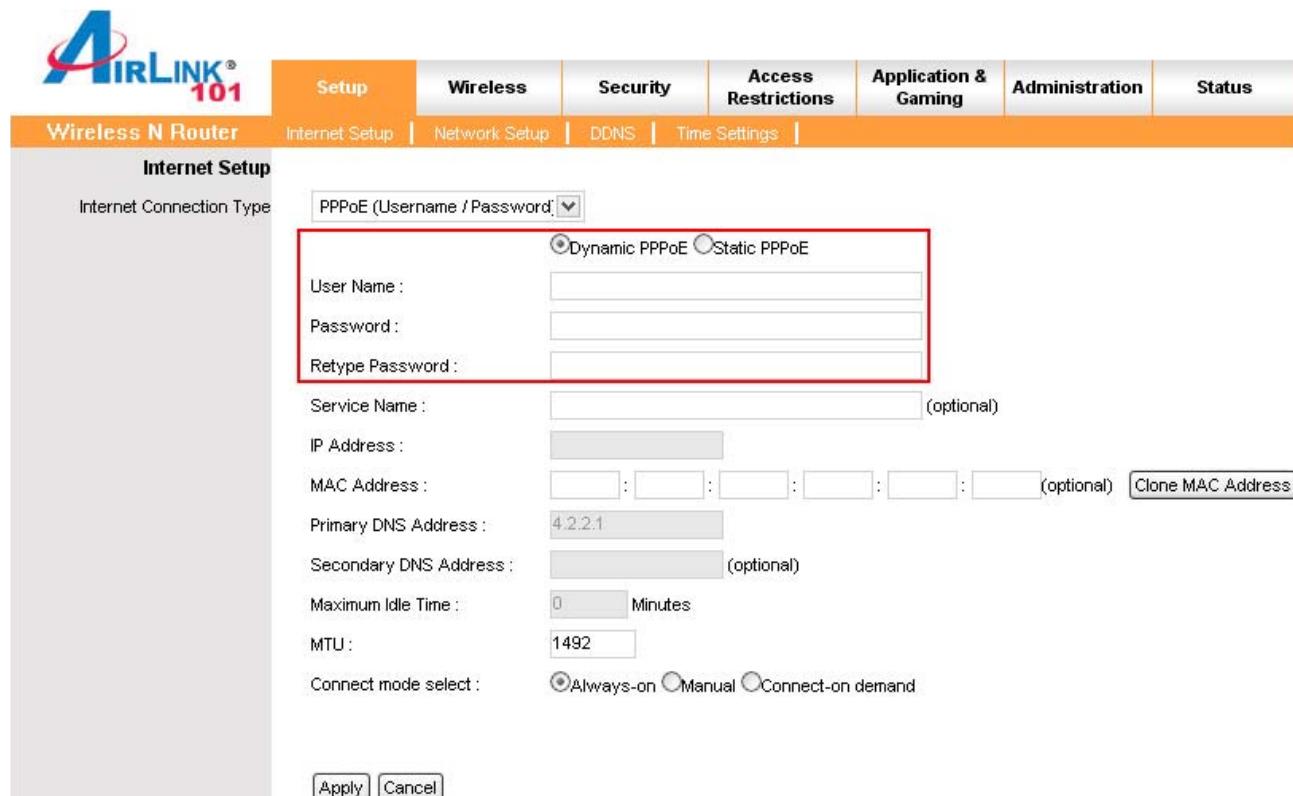
For DSL users, follow the steps below to configure the router.

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



The screenshot shows the 'Internet Setup' page of the AirLink 101 router's web interface. The 'Internet Connection Type' dropdown menu is open, displaying options: Dynamic IP (DHCP), Static IP, Dynamic IP (DHCP), PPPoE (Username / Password), PPTP (Username / Password), L2TP (Username / Password), and BigPond (Australia). The 'PPPoE (Username / Password)' option is highlighted with a red box. Other fields on the page include MTU set to 1500, and 'Apply' and 'Cancel' buttons at the bottom.

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



The screenshot shows the 'Internet Setup' page with 'PPPoE (Username / Password)' selected. The 'User Name' and 'Password' fields are highlighted with a red box. Other fields on the page include 'Service Name' (optional), 'IP Address', 'MAC Address' (with a 'Clone MAC Address' button), 'Primary DNS Address' (4.2.2.1), 'Secondary DNS Address' (optional), 'Maximum Idle Time' (0 Minutes), 'MTU' (1492), and 'Connect mode select' (Always-on, Manual, Connect-on demand). 'Apply' and 'Cancel' buttons are at the bottom.

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.

Go to the **Status** tab, **Internet connection** section to verify that you are getting valid IP address information. If you have trouble connecting to the Internet, please go through the **Troubleshooting** section at the end of this installation guide.

Section 4

Connecting 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 settings.

The screenshot shows the AIRLINK 101 Wireless N Router's web-based configuration interface. The top navigation bar includes tabs for Setup, Wireless (which is highlighted in red), Security, Access Restrictions, Application & Gaming, Administration, and Status. Below the navigation bar, there are several sub-tabs: Wireless N Router, Basic Wireless Settings (which is highlighted in orange), Wireless Security, Wireless MAC Filter, and Advanced Wireless Settings. The main content area is titled "Wireless Network" and contains a "Wireless Settings" section. This section includes fields for Mode (set to Mixed (n/g/b)), Network Name (SSID) (set to default), Channel (set to 6-2.437GHz), Band width (set to 40 MHz), Short Guard Interval (set to Enable), and SSID Broadcast (set to Enable). At the bottom of this section are "Apply" and "Cancel" buttons.

For information on changing the router's log in password and enabling wireless encryption, please refer to the User's Manual on the provided CD.

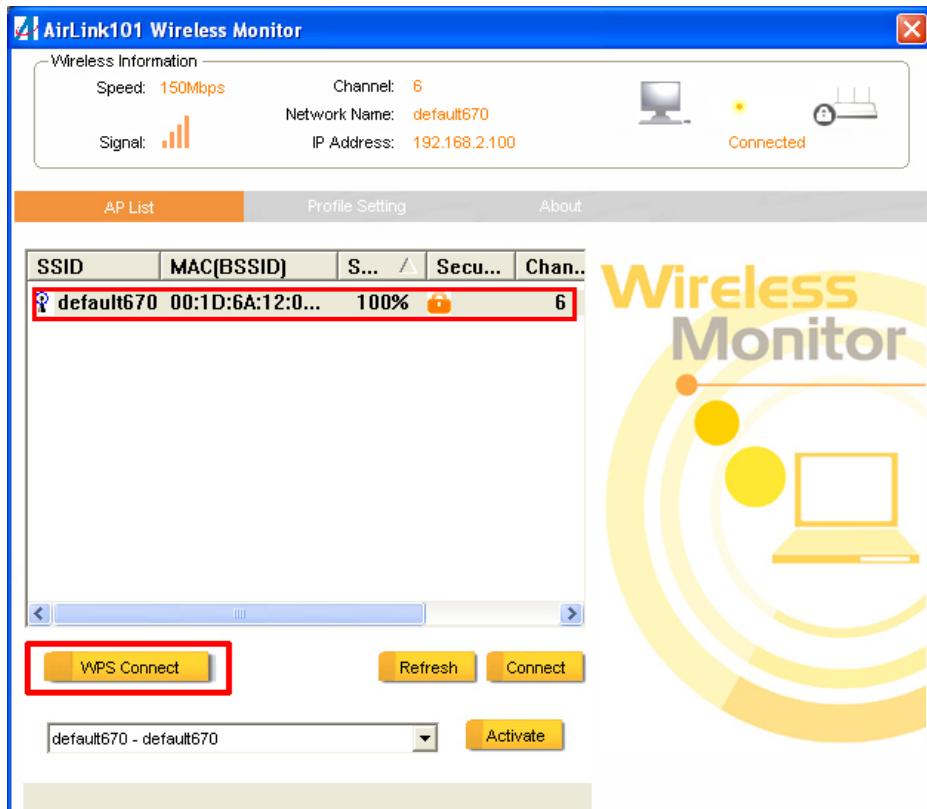
Section 5 (Optional)

Wi-Fi Protected Setup

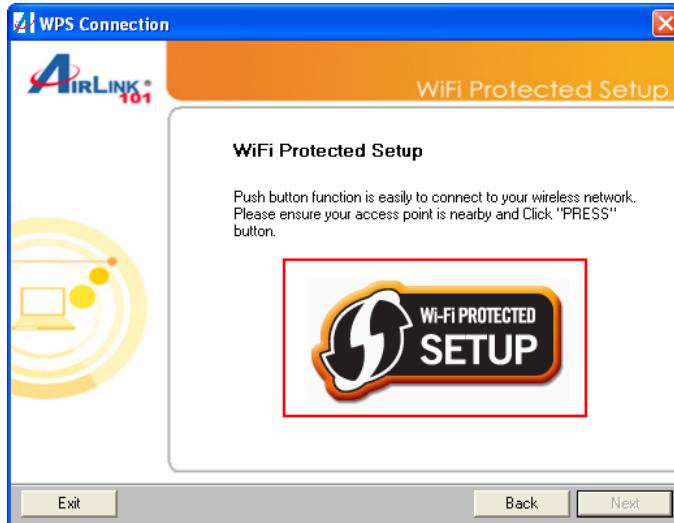
Wi-Fi Protected Setup™ (**WPS**) is a new and easy way to configure the encryption for your wireless network clients to connect to the router. Your wireless adapters must support WPS in order to use this convenient function. If your wireless adapters do not support WPS, you will need to set up the wireless security manually and you can skip this section.

In the instructions below, we are going to use the utility Wireless Monitor that comes with the Airlink101 Wireless 300N adapters, and AR690W Wireless 300N Gigabit Router as an example.

Step 1 Go to the computer with the Airlink101 Wireless 300N adapter and open the **Airlink101 Wireless Monitor**. Click on the **WPS Connect** button.



Step 3a If you choose Push Button method, click on the **Wi-Fi Protected Setup** button.



Step 3b Push the WPS button on the router.



Step 4a If you choose Pin Code method, write down the **PIN** and click **Next**.



Step 4b Log in to your router's configuration page from the web browser and click on **Wireless**. Then click **Wireless security**. Make sure that the Wi-Fi Protected Setup **Enable** box is checked. Click the **Add Wireless Device Wizard** button.

The screenshot shows the AIRLINK 101 Wireless N Router's configuration interface. The top navigation bar includes tabs for Setup, Wireless (which is selected and highlighted in orange), Security, Access Restrictions, Application & Gaming, Administration, and Status. Below the tabs, a sub-navigation bar for the Wireless Network section includes links for Basic Wireless Settings, Wireless Security (which is selected and highlighted in orange), Wireless MAC Filter, and Advanced Wireless Settings. The main content area is titled 'Wireless Network' and contains sections for 'Wireless Settings' and 'Wi-Fi Protected Setup'. Under 'Wi-Fi Protected Setup', the 'Security Mode' dropdown is set to 'Disabled'. The 'Enable' checkbox is checked and highlighted with a red box. Below it, the 'Current PIN' is listed as '85282483' with buttons for 'Generate New PIN' and 'Reset PIN to Default'. The 'Wi-Fi Protected Status' is shown as 'Enabled / Not Configured' with buttons for 'Reset to Unconfigured' and 'Add Wireless Device Wizard' (which is also highlighted with a red box). At the bottom of the form are 'Apply' and 'Cancel' buttons.

Step 4c Enter the Pin Code in the **Pin Number** box and click **Connect**.

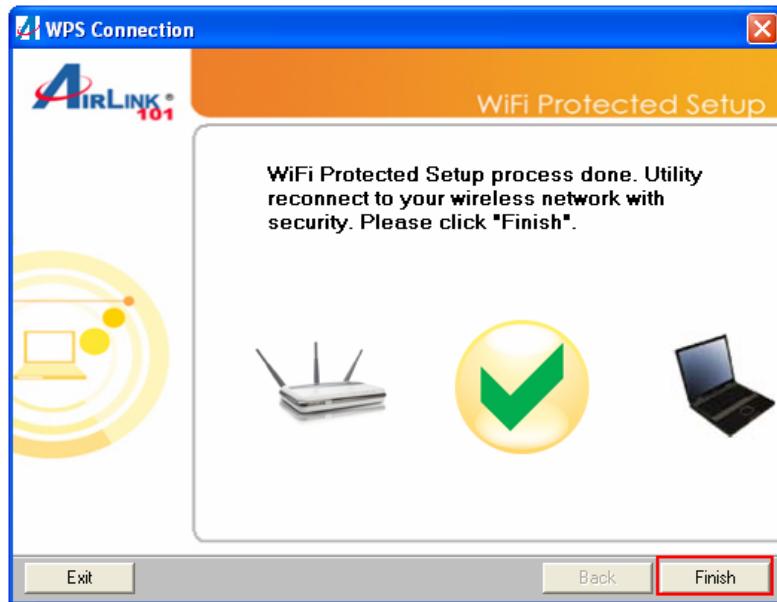
The screenshot shows the Draft 802.11n Wireless Router's configuration interface for Wi-Fi Protected Setup. The title bar reads 'Draft 802.11n Wireless Router'. On the left, there is a sidebar with the heading 'Wi-Fi Protected Setup'. The main content area contains text explaining that there are two ways to add a wireless device: PIN or Push Button. It specifically mentions that if a device only has a PIN, it should be entered here. A 'PIN number' input field and a 'Connect' button are shown, both of which are highlighted with a red box. Below this, another section explains that if a device has both options, the Virtual Push Button can be used. A 'Push Button' label with a 'Virtual Push Button' button and a 'Back' button are also present.

After a few moments both the router configuration screen and the adapter configuration screen should show a message telling you that you are connected.

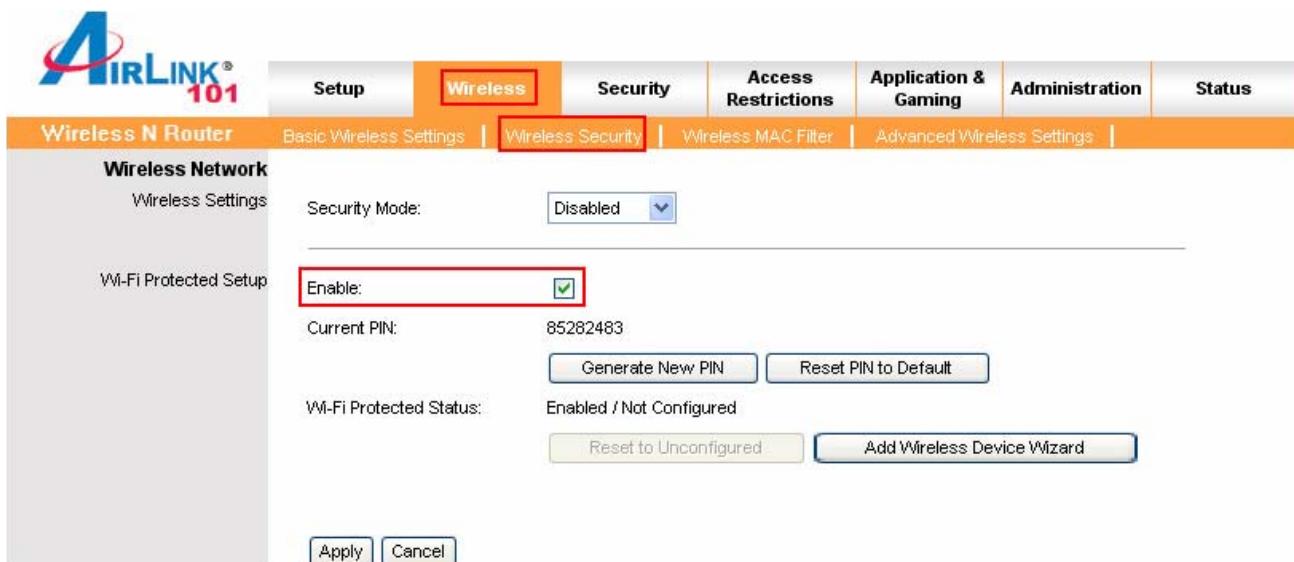
Step 4d Click **Continue** on the router configuration screen.

The screenshot shows the 'WPS - The Result of Adding Wireless Device' screen. The title bar is orange. On the left, there is a sidebar with the heading 'WPS Success'. The main content area contains text stating that the wireless device has been added successfully to the network. A 'Continue' button is located at the bottom right of the main content area, which is highlighted with a red box.

Step 5 Click **Finish** on the adapter screen.



Note: If you cannot connect successfully with WPS, you need to log in to your router's configuration page, click on **Wireless**. Then click **Wireless security**. Make sure that the Wi-Fi Protected Setup **Enable** box is checked.



Section 6

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 shows the 'Status' tab selected in the top navigation bar of the AIRLINK 101 router's web interface. The main content area displays 'Router Information' and 'Internet Connection' sections. In the 'Internet Connection' section, the 'IP Address' field (192.168.1.60) and 'Default Gateway' field (192.168.1.1) are highlighted with a red border, indicating they are the focus of the verification step. Other connection details shown include Dynamic IP, connected status, Subnet Mask (255.255.255.0), and DNS1 (4.2.2.1). Buttons for 'Connect' and 'Disconnect' are also visible.

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

Section 7

Technical Support

E-mail: support@airlink101.com

Toll Free: 1-888-746-3238

Web Site: www.airlink101.com

*Theoretical maximum wireless signal rate derived from IEEE 802.11g standard and IEEE 802.11n draft specification version 2.0. 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. Specifications are subject to change without notice. All products and trademarks are the property of their respective owners. Copyright ©2008 AirLink101®

Federal Communication Commission Interference Statement

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

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

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

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

IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

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

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

Industry Canada Statement

This device complies with RSS-210 of the Industry Canada Rules.

Operation is subject to the following two conditions:

- 1) this device may not cause interference and
- 2) this device must accept any interference, including interference that may cause undesired operation of the device

IMPORTANT NOTE:

IC Radiation Exposure Statement:

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