

802.11g Universal Wireless Repeater

Model # AP311W

User's Manual

Ver. 1C

Table of Contents

1. Introduction 3
2. Using the Setup Wizard 4
3. Connecting to the Wireless Repeater 11
4. Web Configuration Utility 13
4.1 Basic Setup 13
4.1.2 Configuring Wireless Security 15
WEP 16
WPA Pre-shared Key 17
4.2 Password 18
4.3 Firmware 19
Technical Support 20

1. Introduction

Congratulations on your purchase of this 802.11g Universal Wireless Repeater. The Wireless Repeater extends the range of your access point/wireless router by repeating the signal to wireless clients that are beyond the broadcasting range of the access point/wireless router. This provides the wireless clients with greater flexibility and mobility. Best of all the Wireless Repeater is compatible with existing 802.11b and 802.11g network devices so it will work with most existing wireless devices.

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.

Package Contents

Before you begin the installation, please check the items of your package:

- 802.11g Universal Wireless Repeater
- Power Adapter
- Quick Installation Guide
- Manual CD

If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packaging materials in case you need to ship the unit in the future.

2. Using the Setup Wizard

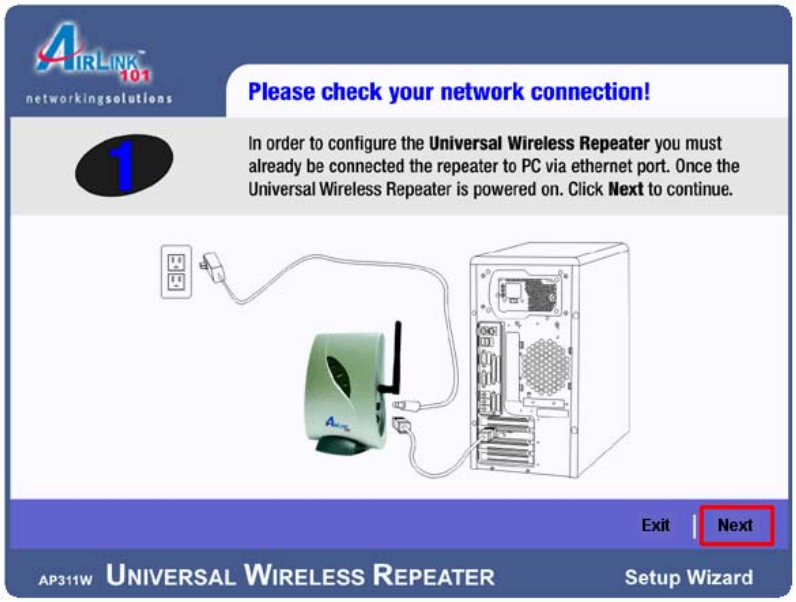
Step 1 Verify the Repeater is powered on, insert the provided CD, and wait for the autorun screen to appear.

Step 2 Click on **Setup**.



Note: *If the autorun screen does not appear automatically, go to* ***Start***, ***Run***, *type* ***D:\setup.exe*** *(where* ***D*** *is the letter of your CD drive) and click* ***OK****.*

Step 3 Click **Next** and wait for the wizard to detect your access point / wireless router (this may take up to a minute).



Step 4 Select the **SSID (Network Name)** of your access point / wireless router from the **Selection** list.

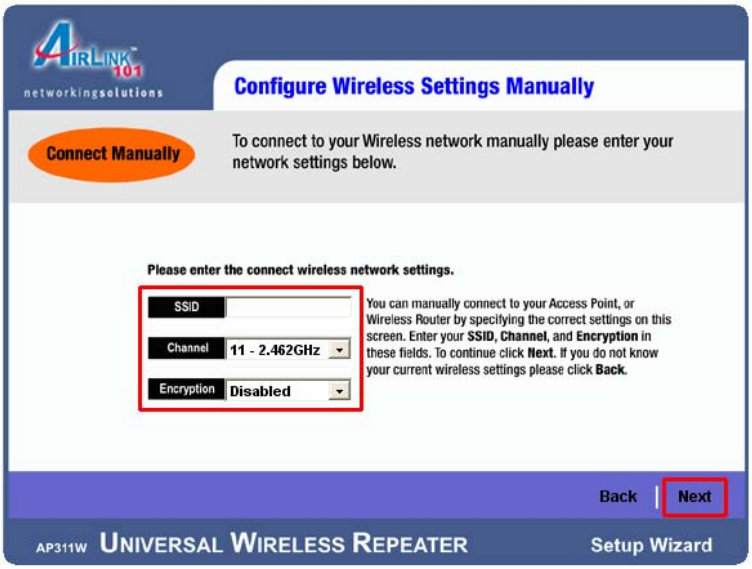
Click **Yes** if you see your SSID in the list and you don't have encryption enabled for your wireless network. Skip to **Step 8**.

Click **Yes** if you see your SSID and you have encryption enabled. Skip to **Step 6**.

Click **Manual** if you don't see your SSID in the list. Continue to **Step 5**.



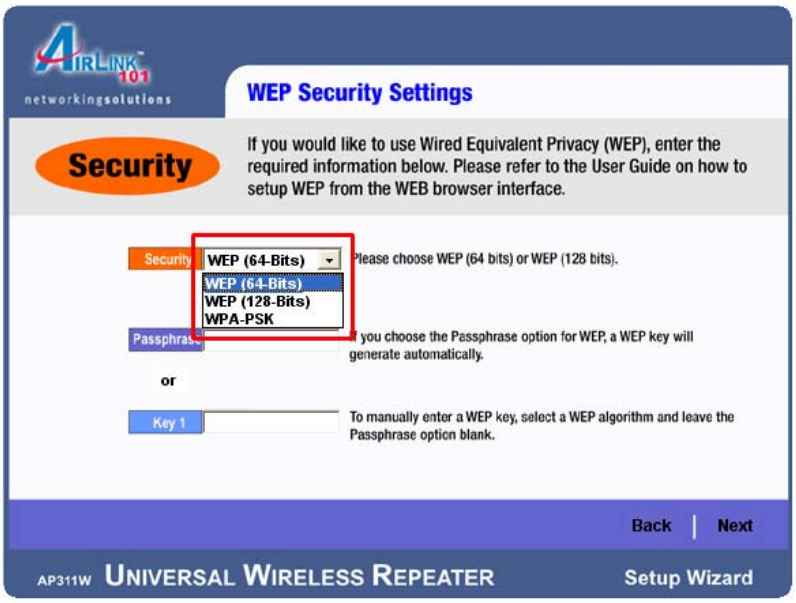
Step 5 Enter the **SSID (Network Name)** of your access point / wireless router in the **SSID** field and select the appropriate **Channel** and **Encryption** settings and click **Next**.



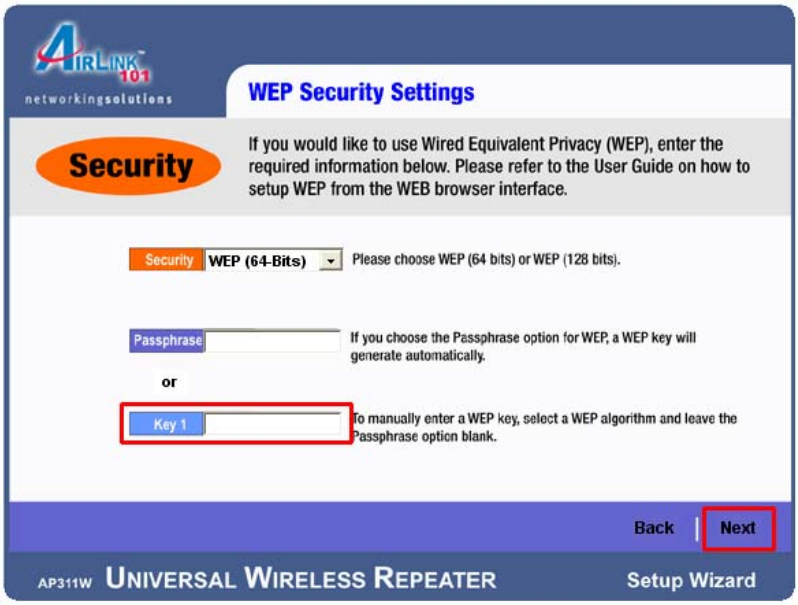
Note: *You may gather these information from the web configuration utility of your wireless router.*

WEP

Step 6a Select the same level of WEP encryption (**64-Bits** / **128-Bits**) of your wireless network from the drop-down menu.



Step 6b Enter the same **WEP key (password)** of your wireless network in the **Key 1** field and click **Next**. Skip to **Step 8**.



WPA-PSK

Step 7a Enter the same **Pre-Shared Key (passphrase)** of your wireless network in the **Pre-Shared Key** field and click **Next**.



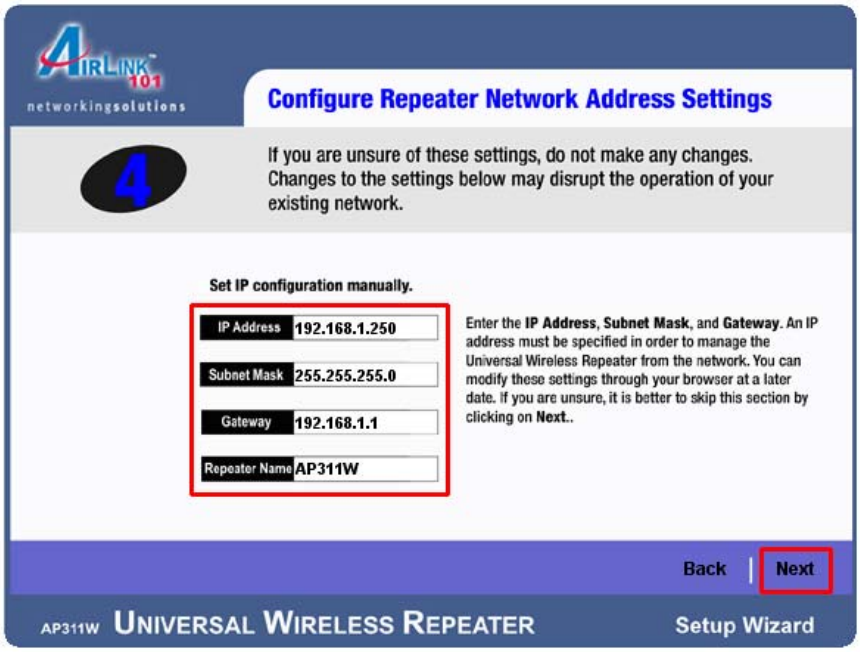
Step 8 Select the Repeater from the list, verify the **Repeater Name** is **AP311W**, and click **Yes**.



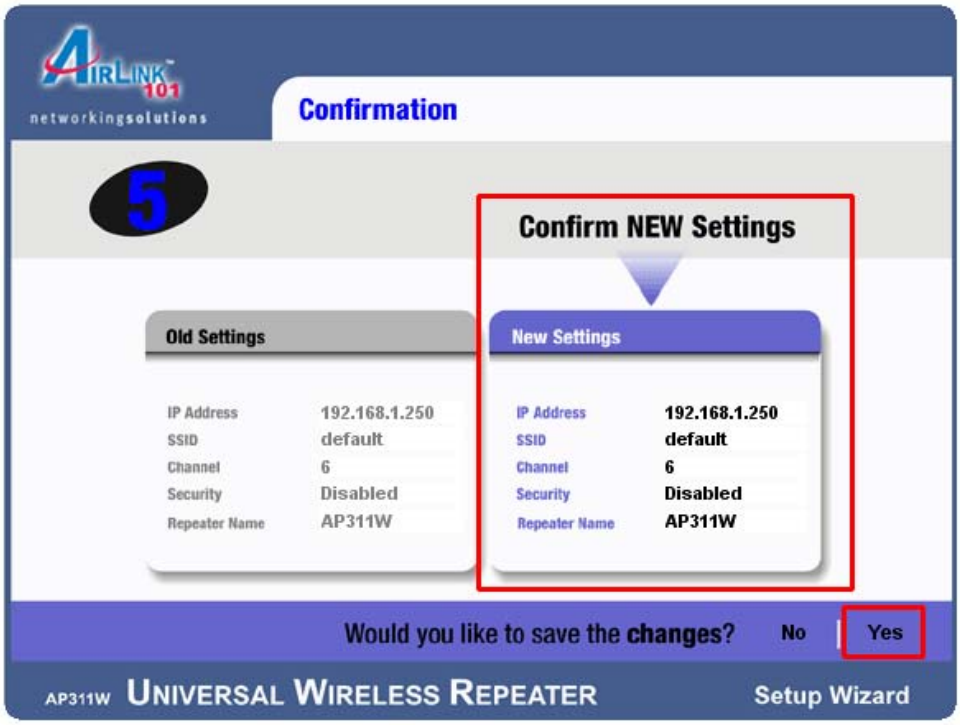
Step 9 The default password for entering the Repeater's Web Configuration Utility is **admin**. To change the password, enter the new password in the **Password** field and click **Enter**.



Step 10 If you know your Network IP Address settings, enter them in the applicable fields. If you are not sure, just click **Next**.



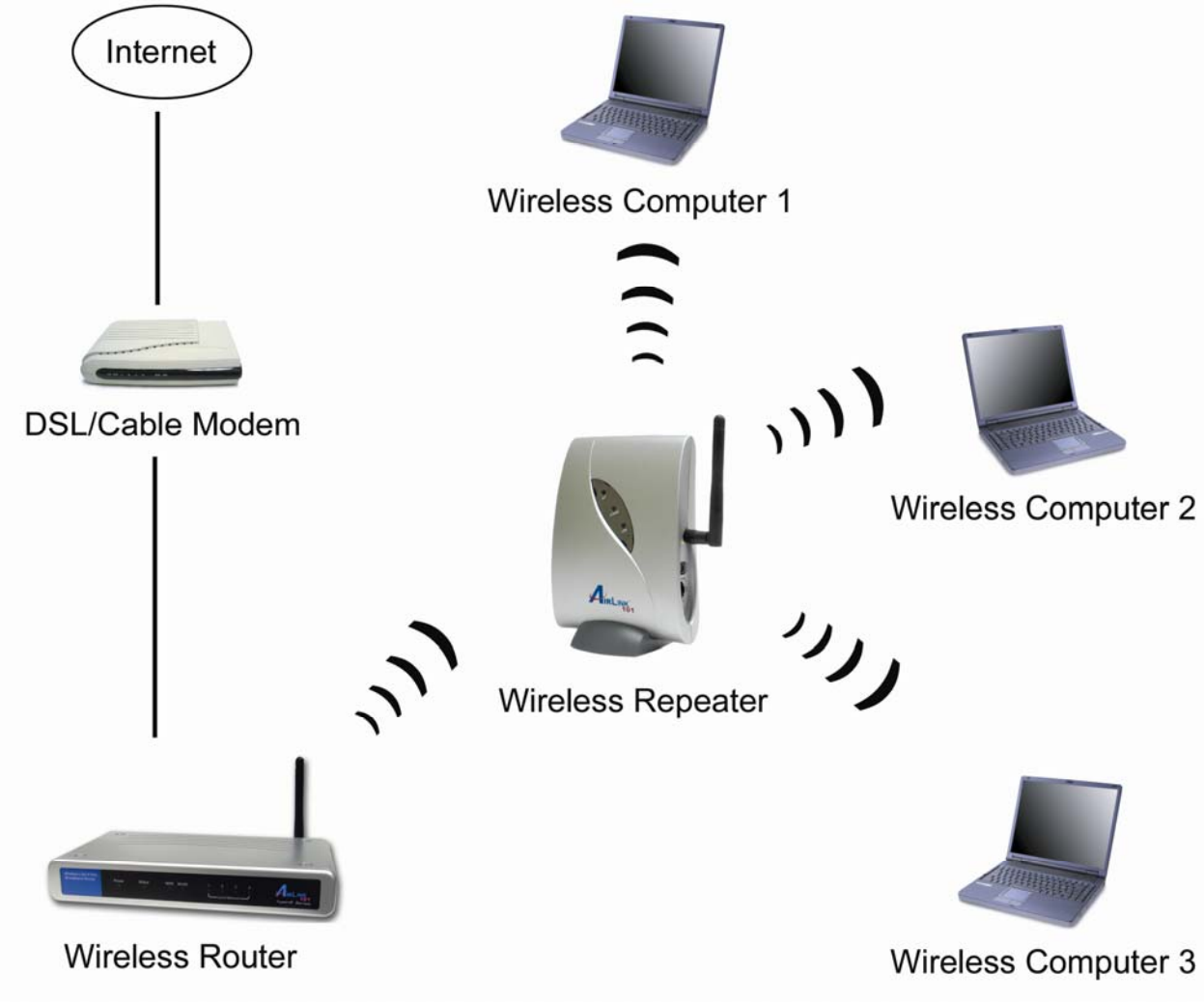
Step 11 Review your new settings and click **Yes** continue.



Step 12 Click **Exit** to exit the Setup Wizard.



Step 13 For best result, place the Repeater at a central location between the wireless router and your wireless computers.



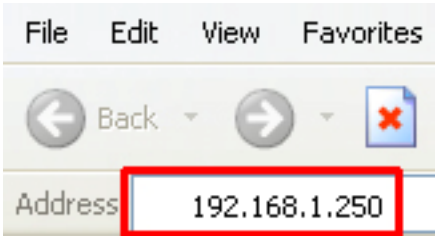
3. Connecting to the Wireless Repeater

Once you have properly configured the Repeater, your wireless computers should be able to detect its signal.

Use your wireless network adapter's utility to detect and connect to the Repeater. You can identify the Repeater by its **MAC Address**, which is displayed in the **BSSID** field of your wireless network adapter's utility.

You can check the Repeater's **MAC Address** on its Web Configuration screen.

Step 1 Open your Web Browser (Internet Explorer or Netscape), enter the default IP Address of the Repeater **192.168.1.250** in the Address Bar and press **Enter**.

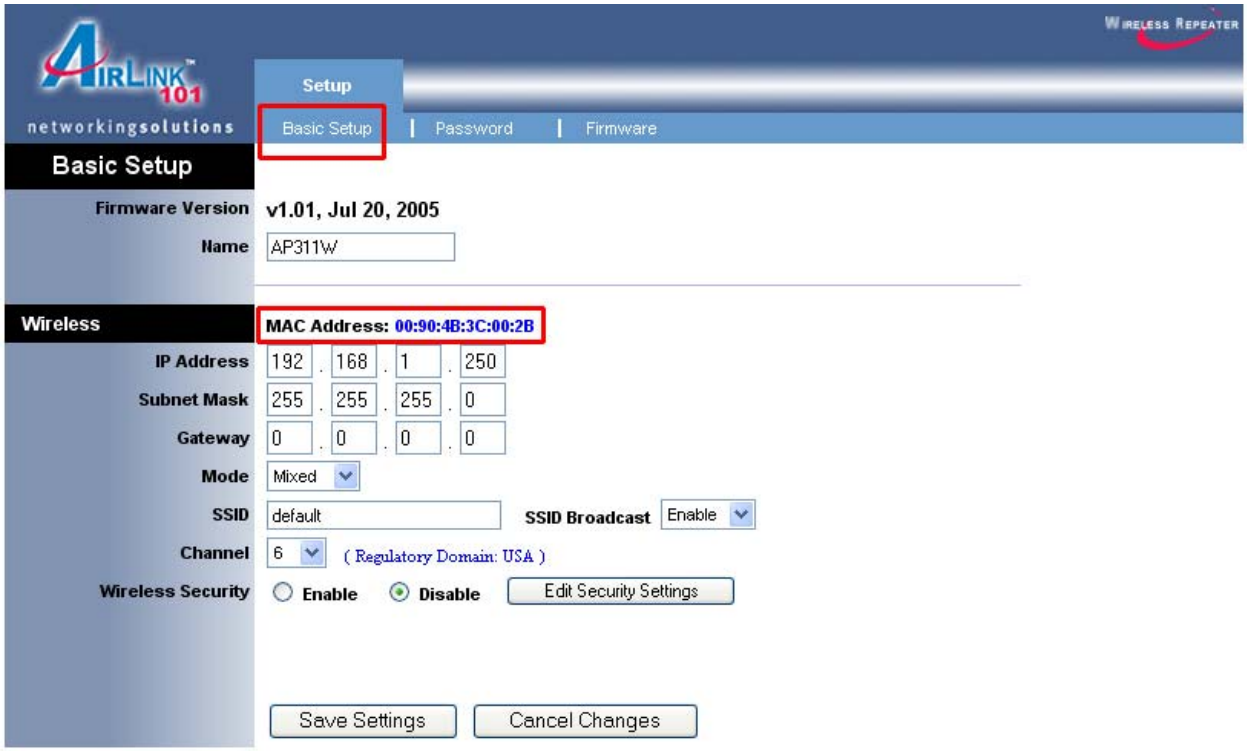


Note: *If you have changed the IP Address of the Repeater, enter the Repeater's new IP Address instead of the default.*

Step 2 Enter **admin** for both the User name and Password fields and click **OK**.



Step 3 The Repeater's MAC Address is displayed on the **Basic Setup** page.



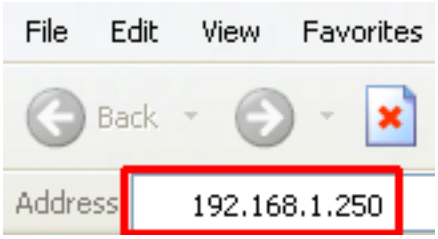
If the signal is weak, try reorienting the Repeater's antenna or relocate the Repeater to a different place.

4. Web Configuration Utility

The Wireless Repeater comes with a built-in Web Configuration Utility that allows you to easily setup the Repeater with your web browser. This section describes how to use the Web Configuration Utility.

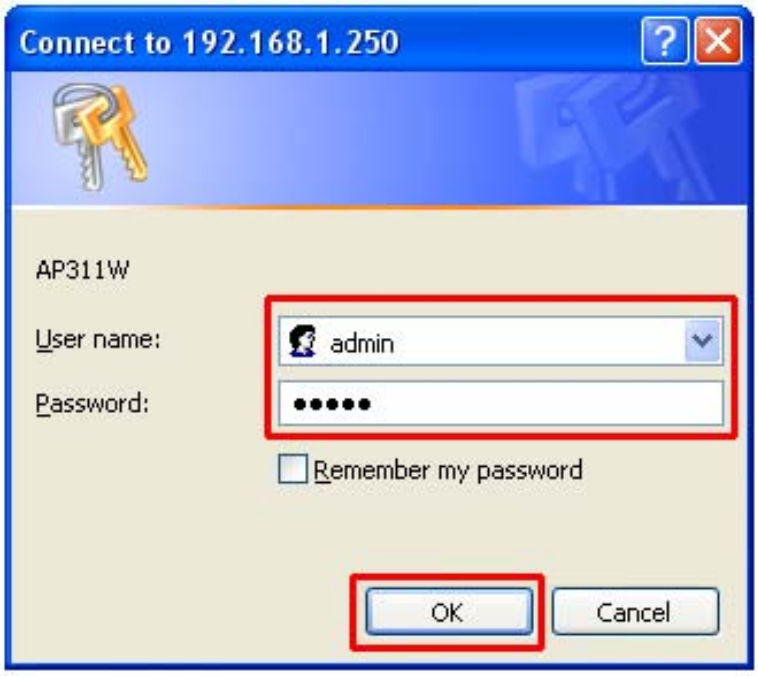
4.1 Basic Setup

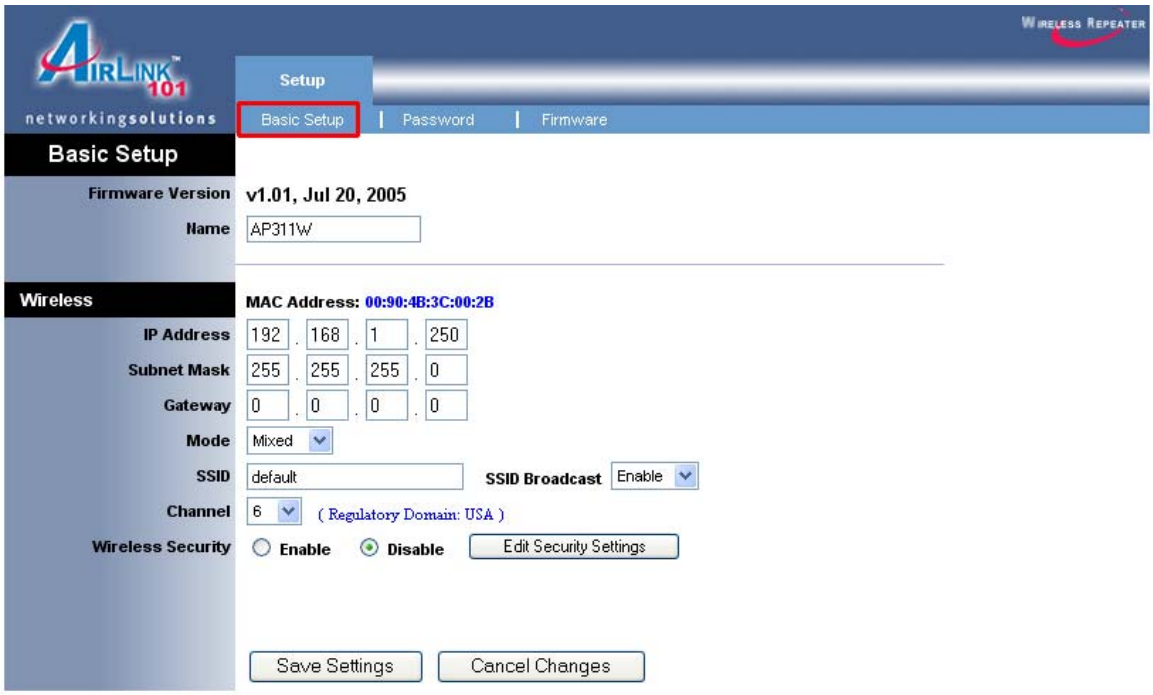
Step 1 Open your Web Browser (Internet Explorer or Netscape), enter the default IP Address of the Repeater **192.168.1.250** in the Address Bar and press **Enter**.



Note: *If you have changed the IP Address of the Repeater, enter the Repeater's new IP Address instead of the default.*

Step 2 Enter **admin** for both the User name and Password fields and click **OK**.





The **Basic Setup** tab is the main screen for configuring the Wireless Repeater.

Firmware Version: Displays the current firmware version number.

Name: Displays the name of the Wireless Repeater.

IP Address: Assign an appropriate IP Address for the Repeater.

Subnet Mask: Assign an appropriate Subnet Mask for the Repeater.

Gateway: Assign an appropriate Default Gateway for the Repeater.

Mode: Choose to have the Repeater broadcast in **B-Only**, **G-Only**, or **Mixed** mode.

SSID Broadcast: Choose to **Enable** or **Disable** the broadcast of SSID.

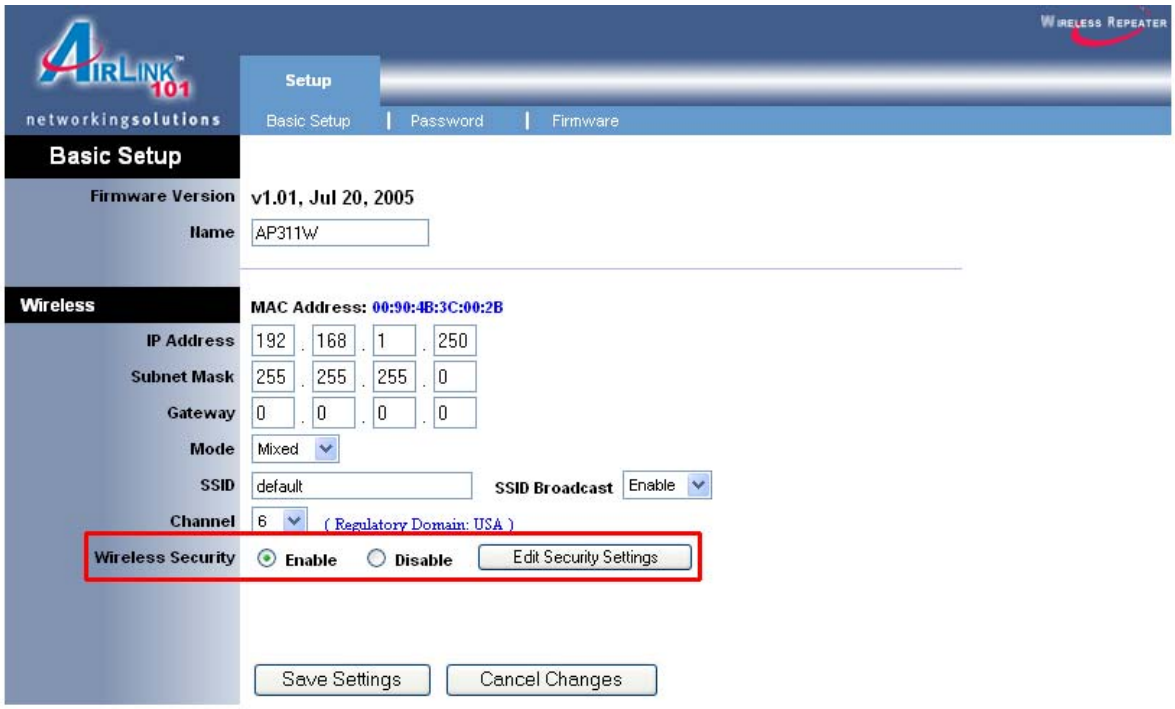
Channel: Select the desired channel number.

Wireless Security: Select to **Enable** or **Disable** wireless security encryption. To edit the encryption setting, click on the **Edit Security Settings** button.

After you have completed the changes, click on **Save Settings** to apply the changes.

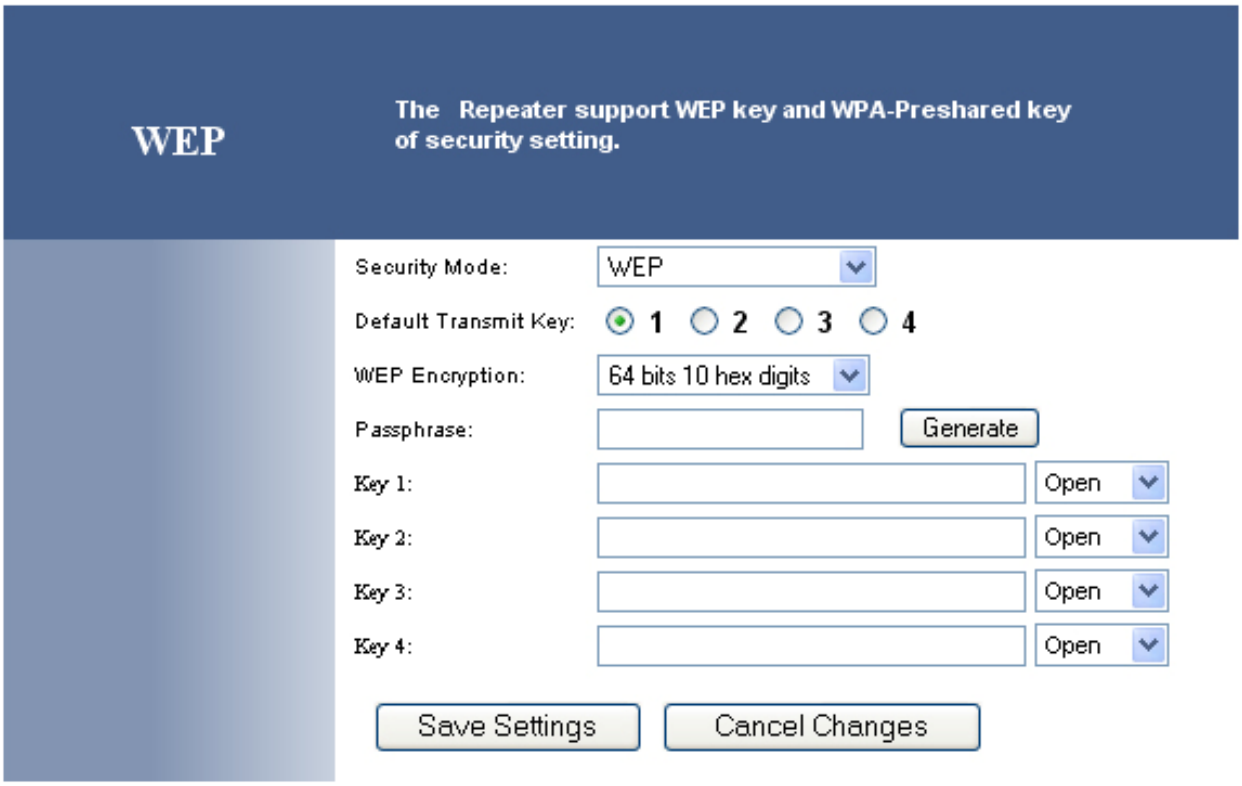
4.1.2 Configuring Wireless Security

To enable Wireless Security, select **Enable** and click on **Edit Security Settings**. This Repeater supports both WEP and WPA Pre-shared Key encryption. It is recommended that use WPA Pre-shared Key encryption if your wireless network supports it.



WEP

The default security screen is the WEP screen. Here you can setup the WEP settings for your wireless network. Note that these settings must be exactly the same as your access point/wireless router.



Security Mode: Choose between **WEP** and **WPA Pre-shared Key**.

Default Transmit Key: Select a key to be the active key.

WEP Encryption: Choose between **64-bit** and **128-bit** encryption.

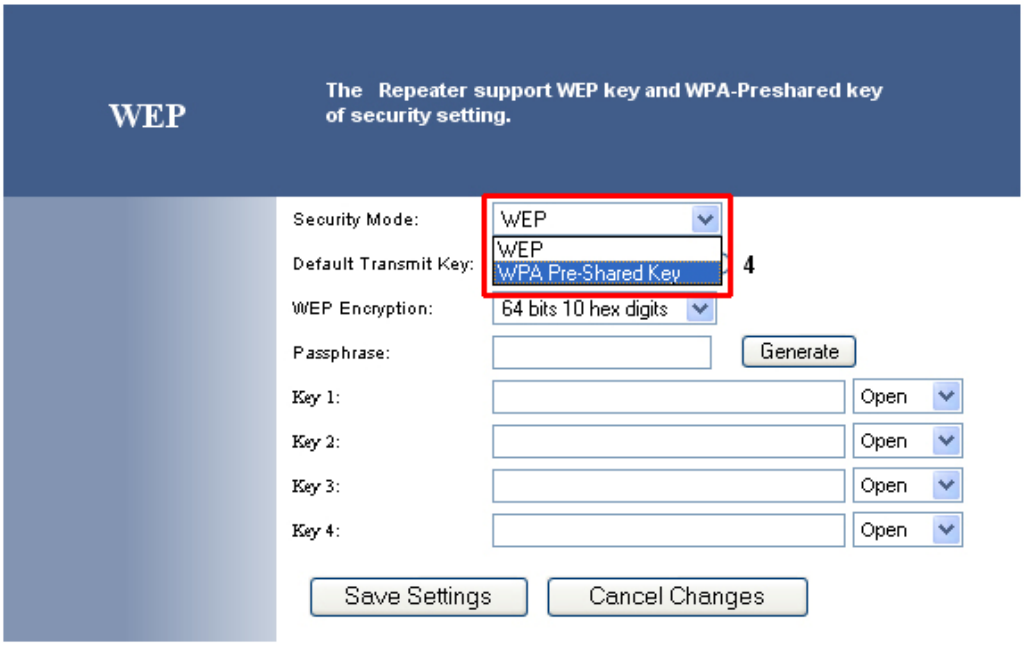
Passphrase: You can enter a passphrase and click on the **Generate** button and the Repeater will automatically generate four WEP keys for you.

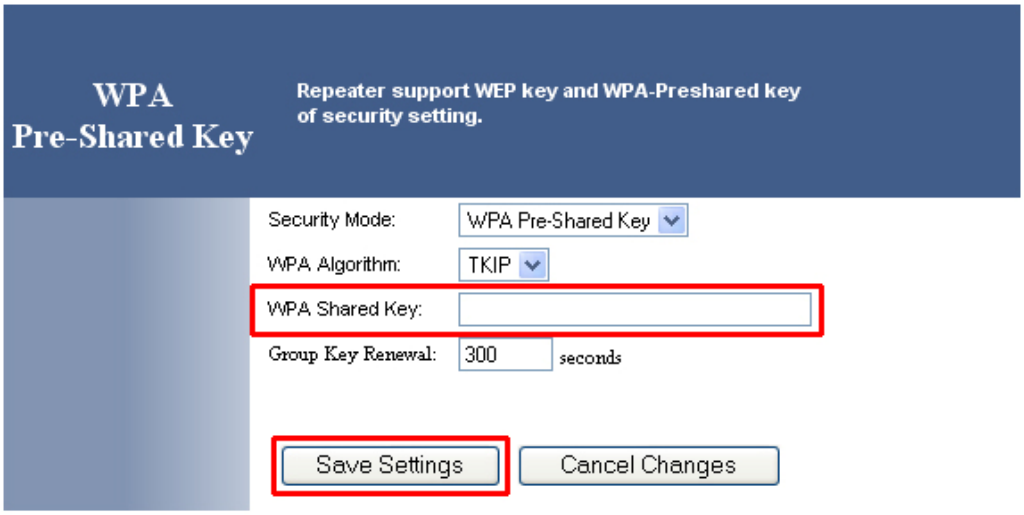
Key 1 – 4: Manually assign a passphrase for each key. If you selected **64 bits** encryption, enter **10** HEX characters (0-F) for each key. If you selected **128 bits** encryption, enter **26** HEX characters (0-F) for each key. For each key select either Open System or Shared Key as your authentication.

Click on **Save Settings** to apply the changes.

WPA Pre-shared Key

To use WPA Pre-shared key, choose **WPA Pre-shared key** from the **Security Mode** drop-down menu.





WPA Shared Key: Enter a passphrase for your wireless network.

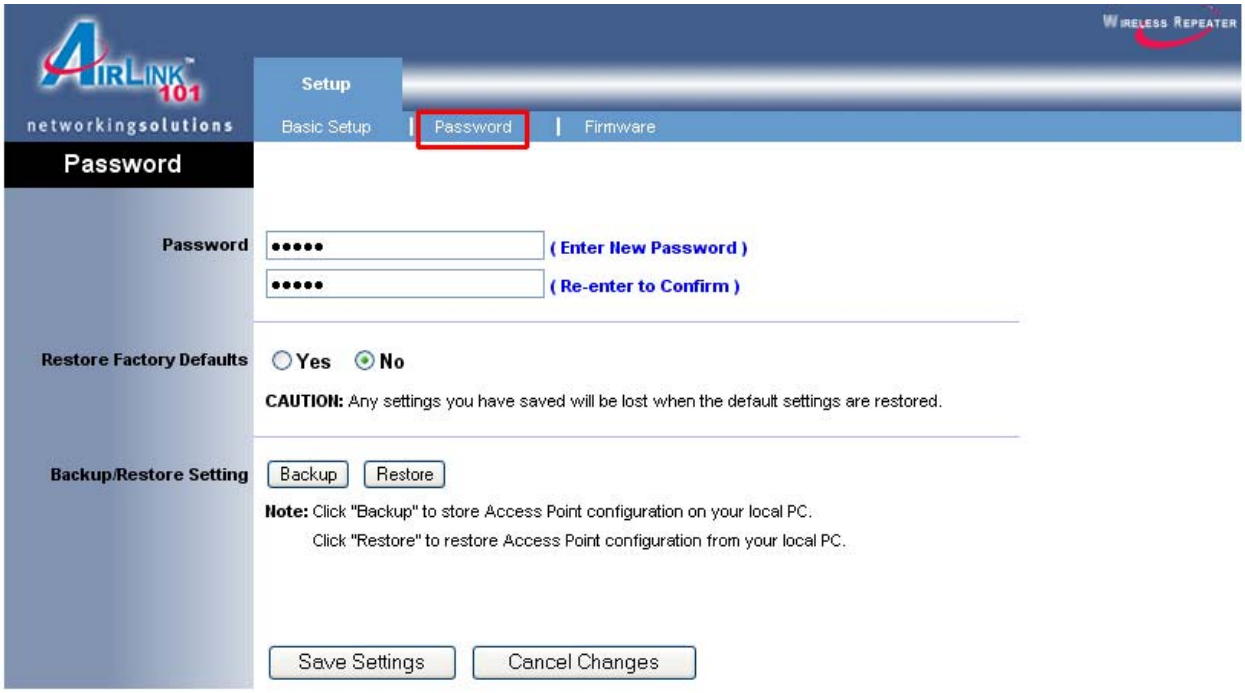
Group Key Renewal: Enter the desired key renewal time in seconds.

Note that these settings must be exactly the same as your access point/wireless router.

Click on **Save Settings** to apply the changes.

4.2 Password

The **Password** tab allows you to change the Repeater's login password as well as other administrative functions.



Password: Enter the new login password and re-enter to confirm the new password. Click **Save Settings** to apply the changes.

Restore Factory Defaults: Select **Yes** and click on **Save Settings** to reset all of the Repeater's settings to factory default.

Backup/Restore Setting: You can backup the Repeater's settings as a file in your computer by clicking on the **Backup** button. Later, when you want to restore your saved settings, just click on the **Restore** button and browse to the location of the saved file.

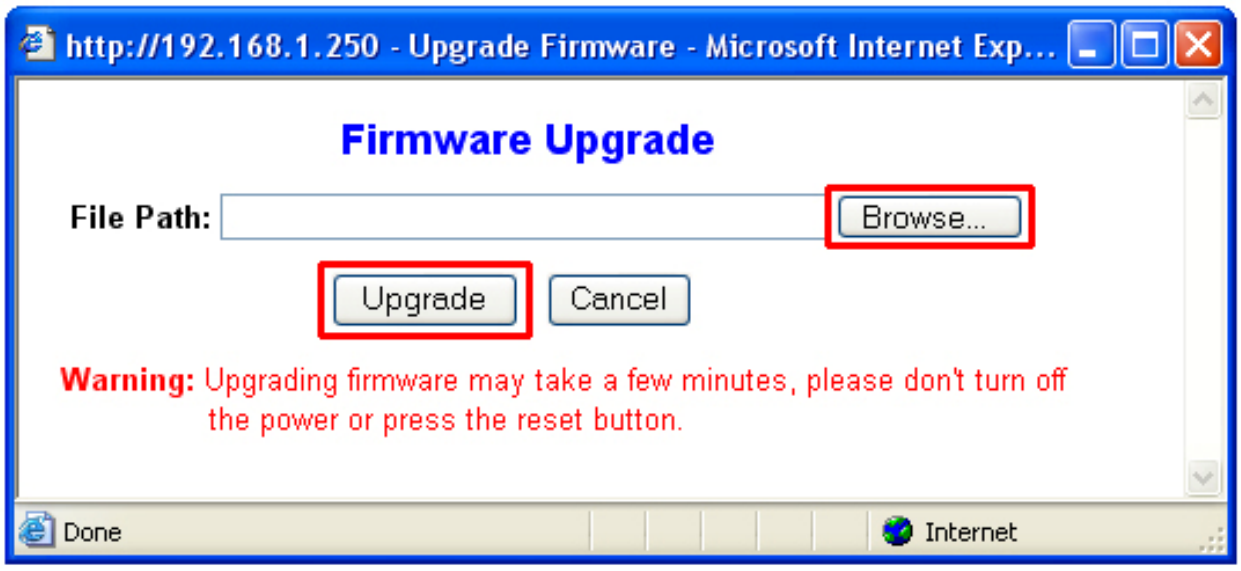
4.3 Firmware

The **Firmware** tab allows you to upgrade the Repeater's firmware. You can download the updated firmware from our web site at www.airlink101.com

Step 1 Unzip the new firmware and then click on the **Firmware Upgrade** button.



Step 2 Click on **Browse** to locate the new firmware and click on **Upgrade** to update the firmware.



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.

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.

Gemtek declares that WACM-123G (FCC ID: MXF-A940727G) is limited in CH1~CH11 for 2.4GHz by specified firmware controlled in U.S.A.

Technical Support

E-mail: support@airlink101.com

Toll Free: 1-888-746-3238

Web Site: www.airlink101.com

*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.

Copyright © 2005 AirLink101. All rights reserved. AirLink101, the stylized AirLink101 logo, specific product designations, and all other words and logos that are identified as trademarks and/or service marks are, unless noted otherwise, the trademarks and service marks of AirLink101. All other product or service names are the property of their respective holders. AirLink101 products are protected under numerous U.S. and foreign patents and pending applications, mask work rights, and copyrights.