



**TRENDNET**®



User's Guide

**TPL-210AP**



## **Regulatory notes and statements**

### **Wireless LAN, Health and Authorization for use**

Radio frequency electromagnetic energy is emitted from Wireless LAN devices. The energy levels of these emissions however are far less than the electromagnetic energy emissions from wireless devices such as mobile phones. Wireless LAN devices are safe for use frequency safety standards and recommendations. The use of Wireless LAN devices may be restricted in some situations or environments for example:

- On board airplanes, or
- In an explosive environment, or
- In case the interference risk to other devices or services is perceived or identified as harmful

In case the policy regarding the use of Wireless LAN devices in specific organizations or environments (e.g. airports, hospitals, chemical/oil/gas industrial plants, private buildings etc.) is not clear, please ask for authorization to use these devices prior to operating the equipment.

### **Regulatory Information/disclaimers**

The installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications made to this device that are not expressly approved by the Manufacturer may void the user's authority to operate the equipment. The Manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device. The Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from the failure to comply with these guidelines.

### **USA-FCC (Federal Communications Commission) statement**

This device complies with Part 15 of FCC 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 this device.

### **FCC Radio Frequency Exposure statement**

This Wireless LAN radio device has been evaluated under FCC Bulletin OET 65 and found compliant to the requirements as set forth in CFR 47 Sections 2.1091, 2.1093, and 15.247 (b) (4) addressing RF Exposure from radio frequency devices. The radiated output power of this Wireless LAN device is far below the FCC radio

frequency exposure limits. Nevertheless, this device shall be used in such a manner that the potential for human contact during normal operation is minimized.

When nearby persons has to be kept to ensure RF exposure compliance, in order to comply with RF exposure limits established in the ANSI C95.1 standards, the distance between the antennas and the user should not be less than 20 cm.

## **FCC 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 radiates radio frequency energy. If not installed and used in accordance with the instructions, it 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 and correct the interference by one or more of the following measures:

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

## **Export restrictions**

This product or software contains encryption code that may not be exported or transferred from the US or Canada without an approved US Department of Commerce export license.

## **Safety Information**

Your device contains a low power transmitter. When the device is transmitted it sends out radio frequency (RF) signal.

**CAUTION:** To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body. Use the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

### **CE Mark Warning**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

### **Protection requirements for health and safety – Article 3.1a**

Testing for electric safety according to EN 60950 has been conducted. These are considered relevant and sufficient.

### **Protection requirements for electromagnetic compatibility – Article 3.1b**

Testing for electromagnetic compatibility according to EN 301 489-1, EN 301 489-17 and EN 55024 has been conducted. These are considered relevant and sufficient.

### **Effective use of the radio spectrum – Article 3.2**

Testing for radio test suites according to EN 300 328-2 has been conducted. These are considered relevant and sufficient.

### **CE in which Countries where the product may be used freely:**

Germany, UK, Italy, Spain, Belgium, Netherlands, Portugal, Greece, Ireland, Denmark, Luxembourg, Austria, Finland, Sweden, Norway and Iceland.

France: French regulations prohibit the use of all channels except channels 10 through 13.



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# ***INTRODUCTION***

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Congratulations on your purchase of this 85Mbps Powerline Wireless Access Point. This manual features the innovating wireless technology that can help you build a wireless network easily! This manual contains detailed operation instructions for this product. Please keep this manual for future reference.

With a Wireless (IEEE 802.11g) Access Point, a mobile computer can share data with another mobile computer in a wireless way. Easy-to-use utilities are bundled with the Wireless Access Point for configuration and monitoring purposes.

Wireless networking can wirelessly transmit and receive data, minimizing the need for wired connections, at a speed of up to Fifty-four megabit per second. With WLAN networking, you can locate your PC wherever you want without wires and cables.

Wireless networking provides users with an access to real-time information anywhere in their organization. The mobility provides productivity and service, which are not available under wired networks.

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## **About the 85Mbps Powerline Wireless Access Point**

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The 85Mbps Powerline Wireless Access Point allows user to connect with other WLAN/LAN enabled devices through AC power line at home or office.

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### **Product Feature**

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- ◆ HomePlug 1.0 Turbo compliant
- ◆ Wireless 802.11g AP Mode
- ◆ HomePlug data rate up to 85Mbps on existing AC power line with auto adaptation
- ◆ Supports 56-bit DES Protection for Secure Data Transmission
- ◆ Supports 3 LED indicators for Power, HomePlug and Wireless
- ◆ Supports Web-based configuration
- ◆ Designed with universal power rating.

## ***UNPACKING AND SETUP***

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This chapter provides unpacking and setup information for the 85Mbps Powerline Wireless Access Point.

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### **Unpacking**

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The box should contain the following items:

- ◆ One 85Mbps Powerline Wireless Access Point
- ◆ One 2dBi dipole antenna
- ◆ One CD-ROM with User's Guide
- ◆ One Quick Installation Guide

If any item is found missing or damaged, please contact your local reseller for replacement.

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### **Setup**

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The setup of the 85Mbps Powerline Wireless Access Point can be performed properly using the following methods:

- ◆ Visually inspect the AC power plug and make sure that it is fully secured to the AC power outlet.
- ◆ Make sure that there is proper heat dissipation from and adequate ventilation around the 85Mbps Powerline Wireless Access Point.
- ◆ Fix the direction of the antennas. Try to place the 85Mbps Powerline Wireless Access Point in a position that can best cover your wireless network. Normally, the higher you place the antenna, the better the performance will be. The antenna's position enhances the receiving sensitivity.



# ***HARDWARE INSTALLATION***

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The 85Mbps Powerline Wireless Access Point is designed to be simple and easy install.

## **AC Power Plug**

Plugging into the AC power outlet.

## **Antenna**

Detachable 2 dBi Gain Antenna for wireless connection.

## **Reset Button**

Use a pin-shape item to push to reset this device to factory default settings. It will be useful too when the manager forgot the password to login, but the setting will be back to default setting.

## **LED Indicators**

**Power:** This LED lights green when the switch is receiving power.

**HomePlug:** This LED will blink when there is HomePlug activity.

**Wireless:** This LED will blink when there is wireless LAN activity.

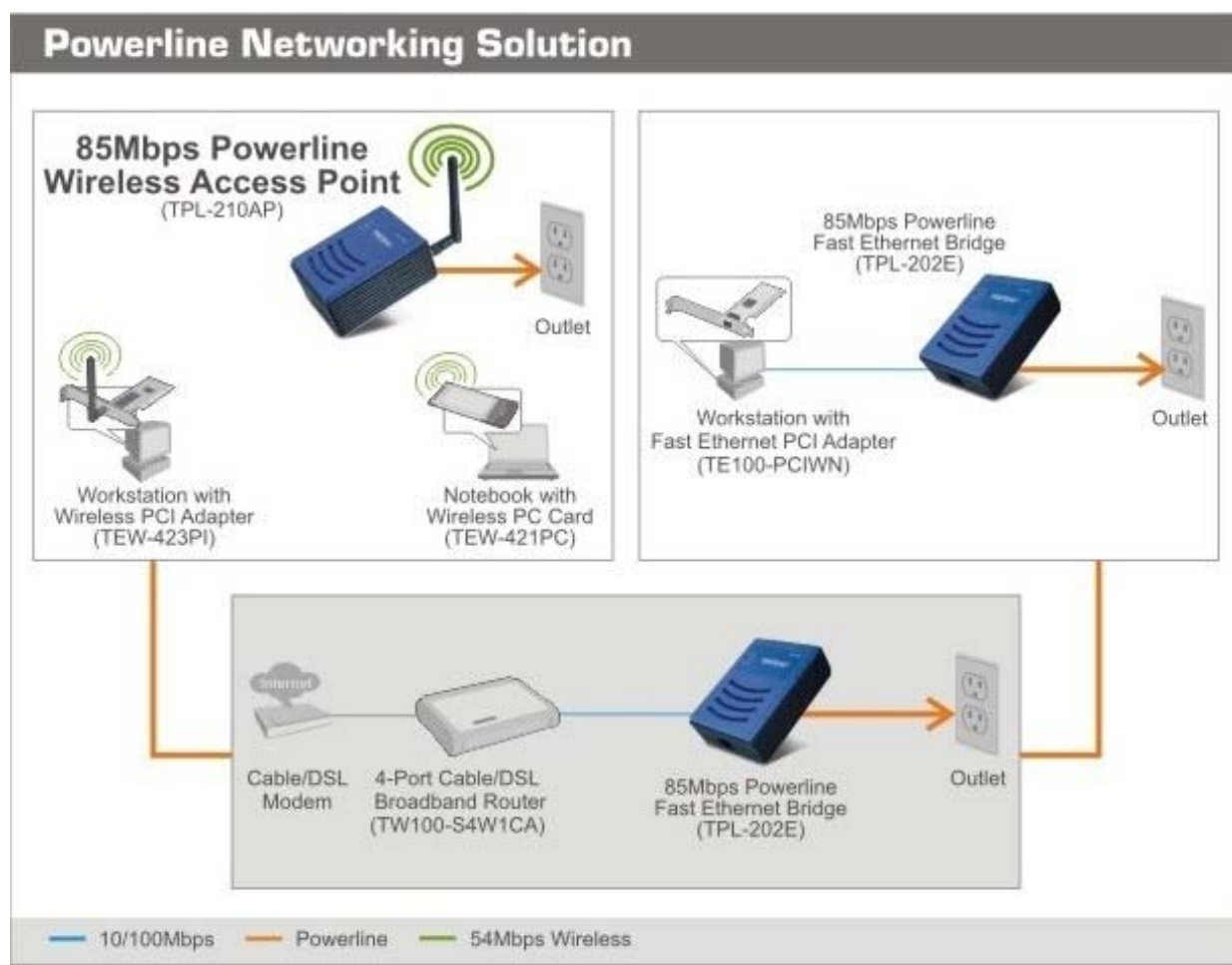


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## Connecting to the 85Mbps Powerline Wireless Access Point

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1. Plug the 85Mbps Powerline Wireless Access Point into an available power outlet.
2. Setup your WLAN Card with the following parameters:
  - ◆ SSID: **Powerline**
  - ◆ Channel: **6**
  - ◆ Security: **disable**



## PC NETWORK TCP/IP SETTING

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The network TCP/IP settings differ based on the computer's operating system (Win95/98/ME/NT/2000/XP) and are as follows.

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### Windows 95/98/ME

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1. Click on the “**Network neighborhood**” icon found on the desktop.
2. Click the right mouse button and a context menu will be shown.
3. Select “**Properties**” to enter the TCP/IP setting screen.
4. Select “**Obtain an IP address automatically**” on the “**IP address**” field.

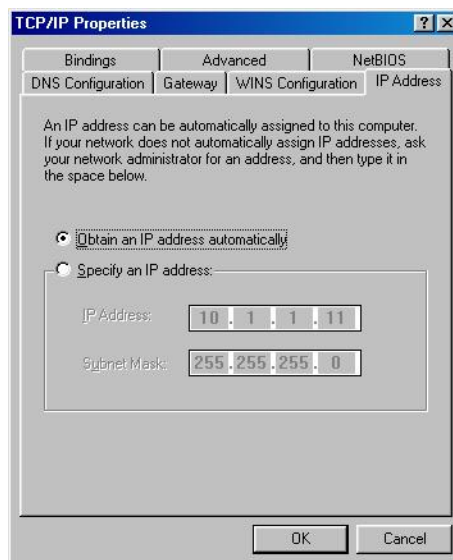


Figure 1. Windows 95/95/Me IP setup

5. Select “**Disable DNS**” in the “**DNS**” field.

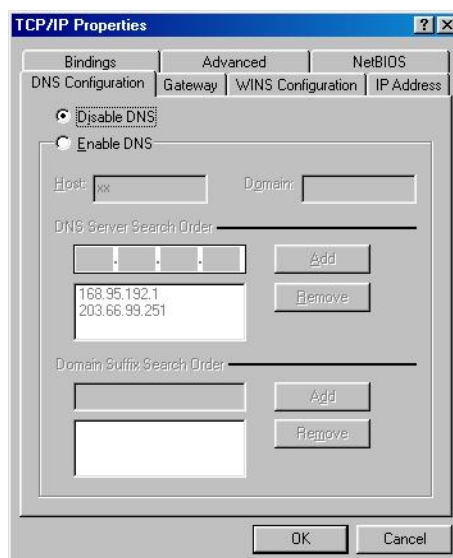


Figure 2. Windows 95/98/Me DNS setup

6. Select “None” for the “Gateway address” field.

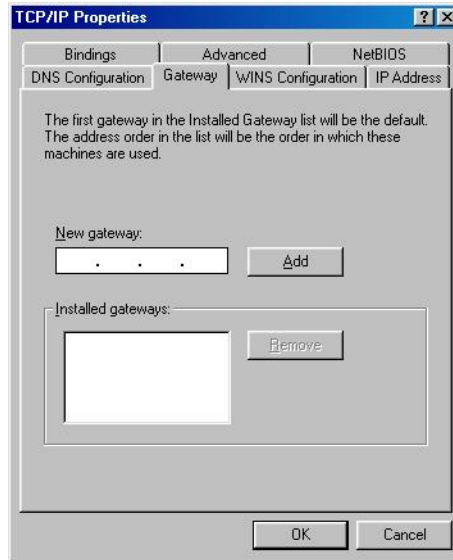


Figure 3. Windows 95/98/Me Gateway setup

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## Windows 2000

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Double click on the “My computer” icon on the desktop. When “My computer” window opens, open the “Control panel” and then open the “Network dialup connection” applet. Double click on the “Local area network connection” icon. Select “Properties” to enter the TCP/IP setting window.

1. In the “Local area network status” window, click on “Properties.”
2. In the “Local area network connection” window, first select TCP/IP setting and then select “Properties.”
3. Set both “IP address” and “DNS” to Automatic configuration.

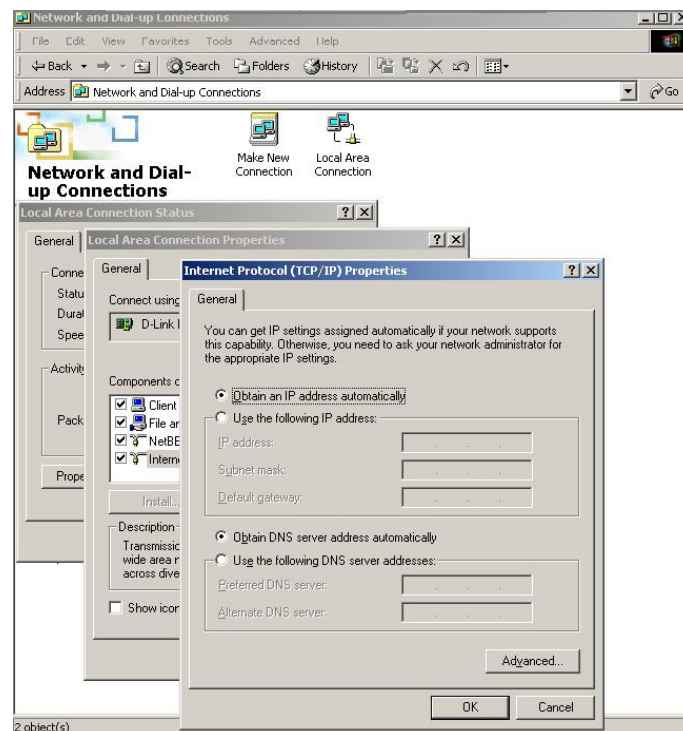


Figure 4. Windows 2000 IP and DNS setup

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## Windows XP

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Point the cursor and right click the “My Network Place” icon.

Select “properties” to enter the TCP/IP setting window.

1. Set “**IP address**” to “**Obtain an IP address automatically.**”
2. Set “**DNS**” to “**Obtain DNS server address automatically.**”

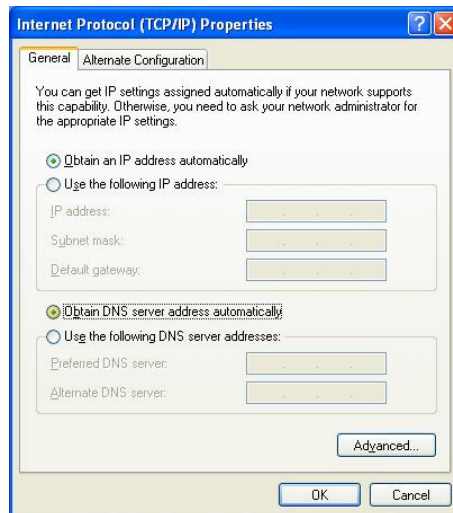


Figure 5. Windows XP IP and DNS setup



# WEB BASED AP CONFIGURATION

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First make sure that the network connections are functioning normally.

This 85Mbps Powerline Wireless Access Point can be configured using Internet Explorer 5.5 or newer web browser versions.

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## Login to the 85Mbps Powerline Wireless Access Point

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Before configuring the 85Mbps Powerline Wireless Access Point through WLAN, make sure that the SSID, Channel and the WEP is set properly.

The following are the default settings of the 85Mbps Powerline Wireless Access Point:

- ◆ SSID: **Powerline**
  - ◆ Channel: **6**
  - ◆ Security: **disable**
  - ◆ IP Address: **192.168.1.200**
  - ◆ HomePlug Group: **HomePlug**
- 

## Using the Web Browser

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1. Open Internet Explorer 5.5 or above web browser.
2. Enter IP address <http://192.168.1.200> (the factory-default IP address setting) to the URL web address bar.

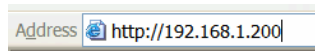


Figure 6. Web address

3. When the following dialog box appears, enter the user name and password to login to the main configuration window, the default username and password is “*admin*”.

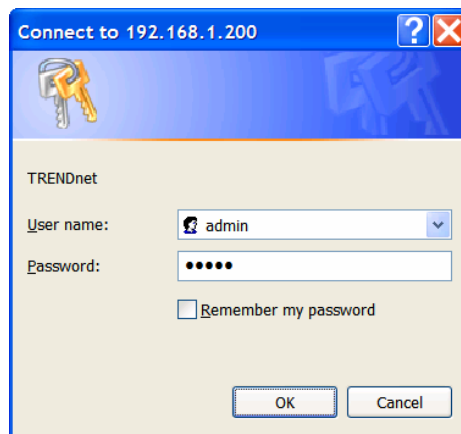


Figure 7. Login

Note: If user needs to set a password, then refer to the **System – Password Setting**.

After entering the password the main page is shown, and the screen will display the device information.

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Figure 8. Device information

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## Configuration Menu

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When the main page appears, find the *Configuration menu* on the left side of the screen. Click on the setup item that you want to configure. There are six main options: *IP Setting*, *Wireless*, *Access Control*, *HomePlug*, *System* and *Wizard* as shown in the Configuration Menu screen.

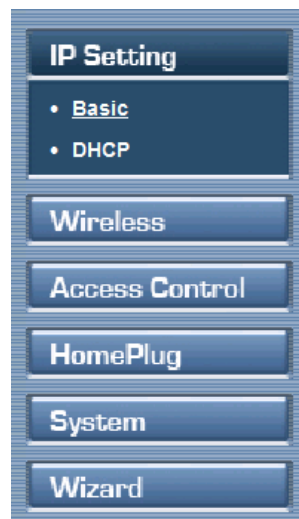


Figure 9. Configuration Menu

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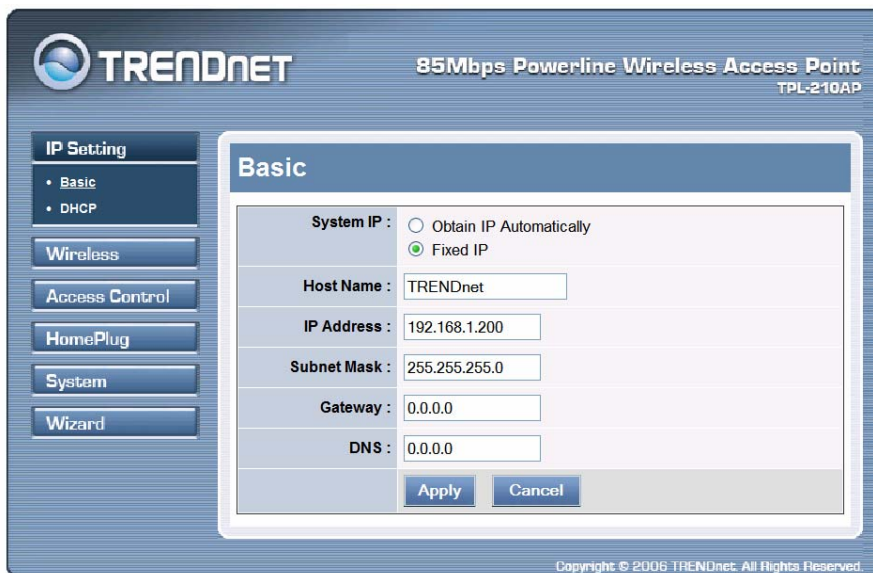
## LAN Setting

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This setting enables users to configure the 85Mbps Powerline Wireless Access Point IP address & DHCP Server.

### Basic

This page leads to set the 85Mbps Powerline Wireless Access Point properties, such as the host name, IP address, and subnet mask.



The screenshot shows the configuration interface for a TRENDnet 85Mbps Powerline Wireless Access Point (TPL-210AP). The interface is titled "TRENDNET 85Mbps Powerline Wireless Access Point TPL-210AP". On the left, there is a navigation menu with "IP Setting" selected, which includes "Basic" and "DHCP". Other menu items include "Wireless", "Access Control", "HomePlug", "System", and "Wizard". The main content area is titled "Basic" and contains the following fields:

- System IP:** Two radio buttons: "Obtain IP Automatically" (unselected) and "Fixed IP" (selected).
- Host Name:** Text box containing "TRENDnet".
- IP Address:** Text box containing "192.168.1.200".
- Subnet Mask:** Text box containing "255.255.255.0".
- Gateway:** Text box containing "0.0.0.0".
- DNS:** Text box containing "0.0.0.0".

At the bottom of the form are "Apply" and "Cancel" buttons. A copyright notice "Copyright © 2006 TRENDnet. All Rights Reserved." is visible at the bottom right of the interface.

Figure 10.

The default IP address of this 85Mbps Powerline Wireless Access Point is 192.168.1.200 with the subnet mask of 255.255.255.0. Users can enter in a different IP Address, Subnet Mask and Gateway. Click “**Apply**” to save changes.

User can also set the 85Mbps Powerline Wireless Access Point to obtain the IP from a DHCP server, but it is not recommended. Select the option “Obtain IP Automatically” and click “**Apply**” to save changes.

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

**IP Address:** This is the IP address of the 85Mbps Powerline Wireless Access Point. The default IP address is 192.168.1.200.

**Subnet Mask:** This is the subnet mask of the 85Mbps Powerline Wireless Access Point in the text box. The default subnet mask is 255.255.255.0.

**Gateway:** Enter the gateway address of the network. Contact the ISP or network administrator for this information.

**DNS Server:** Enter the DNS IP address of the network. Contact the ISP or network administrator for this information.

## DHCP

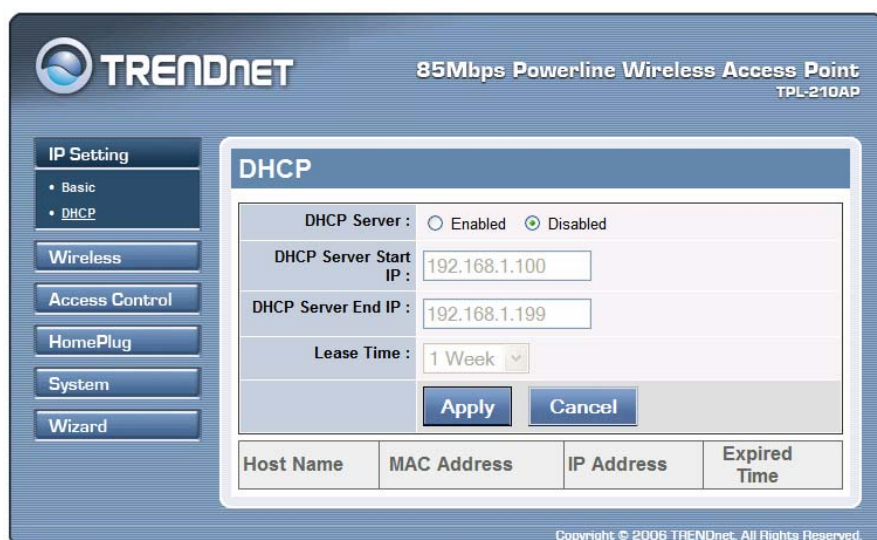


Figure 11.

**DHCP Server:** Enabling DHCP server allows the 85Mbps Powerline Wireless Access Point to automatically assign IP addresses to devices connecting to the LAN. DHCP is disabled by default.

**DHCP Server Start IP:** Enter an IP address to serve as the starting IP address that the DHCP server will use to assign IP addresses to all LAN devices connected to the 85Mbps Powerline Wireless Access Point.

**DHCP Server End IP:** Enter an IP address to serve as the ending IP address that the DHCP server will use to assign IP addresses to all LAN devices connected to the 85Mbps Powerline Wireless Access Point.

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

**Dynamic DHCP List:** All dynamic DHCP client computers are listed in the table. The following information is shown for each DHCP client computer: Host name, IP address, MAC address and Expired Time.

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## Wireless setting

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This section enables users to configure wireless settings for the 85Mbps Powerline Wireless Access Point.

### Basic

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



Figure 12.

**Wireless:** Enables or disables the wireless LAN setting of the 85Mbps Powerline Wireless Access Point.

**SSID:** Enter an SSID in the text box. The SSID of any wireless device must match the SSID configured in the 85Mbps Powerline Wireless Access Point.

**SSID Broadcast:** When SSID Broadcast is enabled, all wireless clients will be able to view the 85Mbps Powerline Wireless Access Point's SSID.

**Channel:** Select a transmission channel for wireless communications. The default channel is 6.



## Security

This setting enables users to set authentication type for secure wireless communications. Open System allows public access to the 85Mbps Powerline Wireless Access Point via wireless communications. Shared Key requires the user to set a WEP key to exchange data with other wireless clients that have the same WEP key. This 85Mbps Powerline Wireless Access Point also supports WPA, WPA2, WPA-PSK, and WPA2-PSK.



Figure 13.

**Security:** Enables or Disables the wireless security.

## WEP



Figure 14.

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

**WEP Key Format:** Select the key format HEX or ASCII from the drop-down list.

**WEP Key Length:** Select the level of encryption from the drop-down list. The 85Mbps Powerline Wireless Access Point supports 64 and 128-bit encryption.

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

## WPA-PSK / WPA2-PSK



Figure 15.



Figure 16

If **WPA PSK** or **WPA2 PSK** is selected, the above screens are shown.

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

**Passphrase:** The length must be at least 8 characters

## WPA / WPA2



Figure 17.



Figure 18

If **WPA** or **WPA2 EAP** is selected, the above screen is shown. Please set the length of the encryption key and the parameters for the RADIUS server.

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

### **RADIUS Server:**

1. Enter the IP address, Port used and Shared Secret by the Primary Radius Server.
2. Enter the IP address, Port used and Shared Secret by the Secondary Radius Server. (optional)

## Advanced

This setting enables users to configure advanced wireless settings.

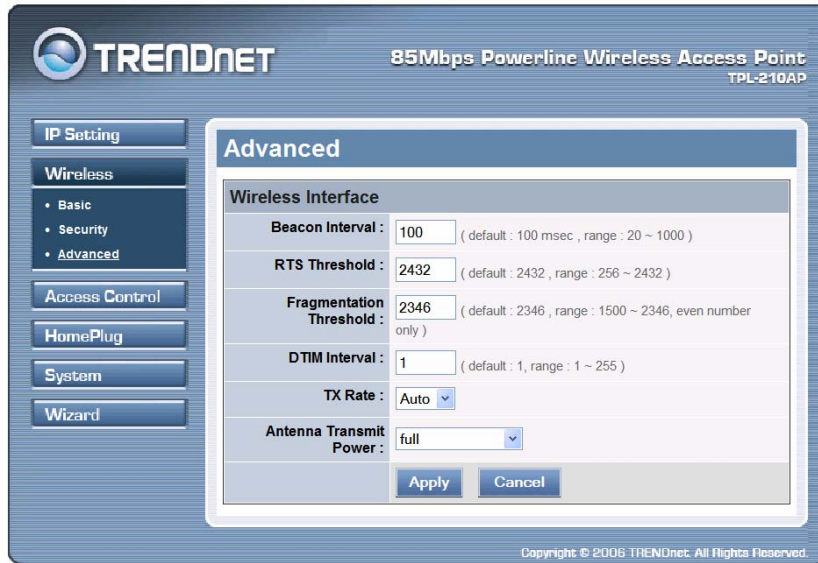


Figure 19.

**Beacon Interval:** Type the beacon interval in the text box. Users can specify a value from 20 to 1000. The default beacon interval is 100.

**RTS Threshold:** Type the RTS (Request-To-Send) threshold in the text box. This value stabilizes data flow. If data flow is irregular, choose values between 256 and 2432 until data flow is normalized.

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

**DTIM Interval:** Type a DTIM (Delivery Traffic Indication Message) interval in the text box. Users can specify a value between 1 and 255. The default value is 1.

**TX Rates:** Select one of the wireless communications transfer rates, measured in megabytes per second, based upon the speed of wireless adapters connected to the WLAN.

**Antenna Transmit Power:** Adjust the power of the antenna transmission by selecting from the drop down list: full, half (-3dB), quarter (-6dB), eighth (-9dB) or min.

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## Access Control Setting

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This setting enables users to define access restrictions for MAC filter.

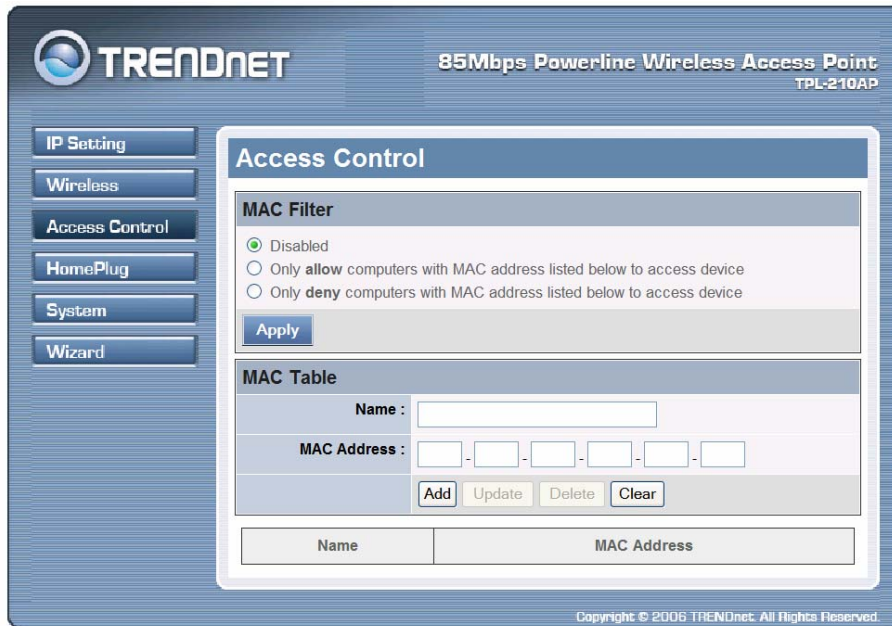


Figure 20.

**MAC Filter:** Enables you to allow or deny Internet access to users within the LAN based upon the MAC address of their network interface. Click the radio button next to Disabled to disable MAC filter.

**Disable:** Disable the MAC filter setting.

**Allow:** Only allow computers with MAC address listed in the MAC Table.

**Deny:** Computers in the MAC Table are denied Internet access.

**MAC Table:** Use this section to add and delete users in the MAC table. Once added, a user profile will be listed below. (Note: Click anywhere in the user profile to select it. Once the user profile is selected, the fields automatically load the item's parameters.)

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

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

**Add:** Click **Add** to add the user to the list at the bottom of the page.

**Update:** Click **Update** to update information for the user, if you have changed any of the fields.

**Delete:** Select a user from the table at the bottom of the list and click **Delete** to remove the user profile.

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



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## HomePlug Setting

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The HomePlug setting provides users with an option to maintain security for their logical network and also to select the devices that need to be included in the HomePlug network

All HomePlug devices are shipped using a default **HomePlug Group** (network name). The default **HomePlug Group** is HomePlug.



Figure 21.

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## System Setting

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System setting enables users to change password, set the device time, view device information, restart the system, save and load different settings as profiles, restore factory default settings, upgrade the firmware....etc.

### Password

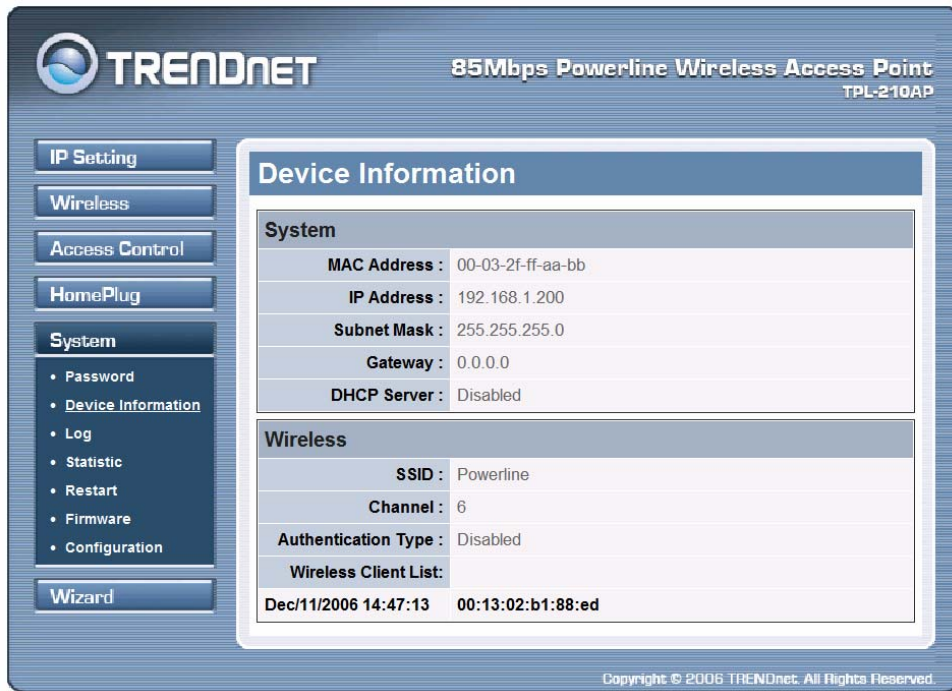
This setting enables users to set Administrator ID and password. These passwords are used to gain access to the 85Mbps Powerline Wireless Access Point's browser configuration.



Figure 22

## Device Information

This setting enables users to view the system status and configuration of the 85Mbps Powerline Wireless Access Point.



The screenshot displays the web interface for a TRENDnet 85Mbps Powerline Wireless Access Point (TPL-210AP). The interface is divided into a left sidebar with navigation buttons and a main content area. The sidebar includes buttons for 'IP Setting', 'Wireless', 'Access Control', 'HomePlug', 'System', and 'Wizard'. The 'System' button is selected, and its sub-menu is expanded to show 'Password', 'Device Information', 'Log', 'Statistic', 'Restart', 'Firmware', and 'Configuration'. The 'Device Information' sub-menu item is highlighted. The main content area is titled 'Device Information' and is divided into two sections: 'System' and 'Wireless'. The 'System' section displays the following configuration:

System	
MAC Address :	00-03-2f-ff-aa-bb
IP Address :	192.168.1.200
Subnet Mask :	255.255.255.0
Gateway :	0.0.0.0
DHCP Server :	Disabled

The 'Wireless' section displays the following configuration:

Wireless	
SSID :	Powerline
Channel :	6
Authentication Type :	Disabled
Wireless Client List:	
Dec/11/2006 14:47:13	00:13:02:b1:88:ed

At the bottom right of the interface, there is a copyright notice: 'Copyright © 2006 TRENDnet. All Rights Reserved.'

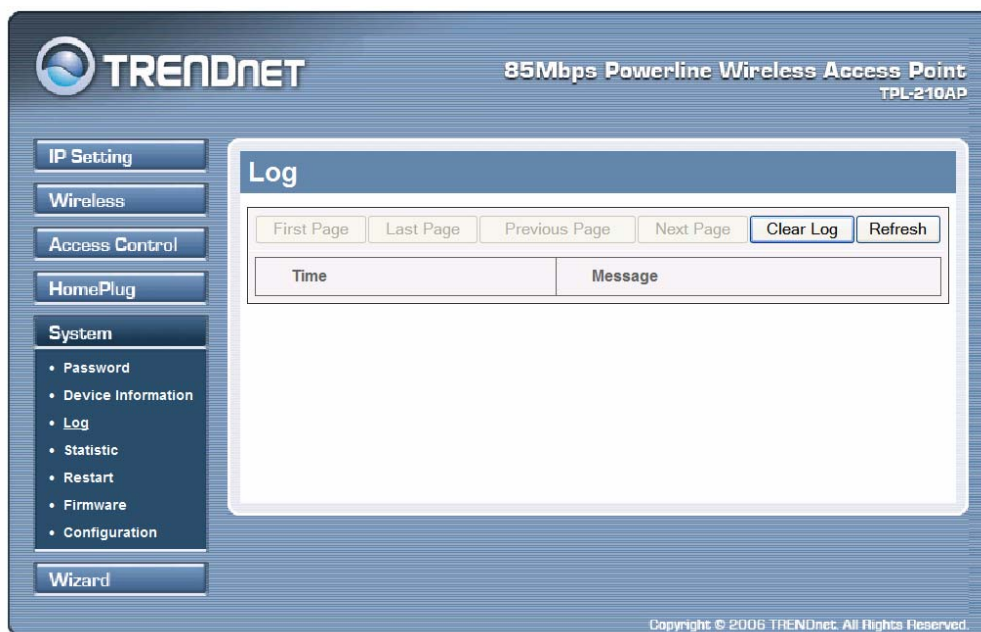
Figure 23

**System:** This section displays the 85Mbps Powerline Wireless Access Point configuration including the MAC address, IP Address, Subnet Mask, and DHCP Server Status.

**Wireless:** This section displays the wireless configuration information, including the MAC address, the Connection status, SSID, Channel and Authentication type.

## Log

This option enables users to view a running log of 85Mbps Powerline Wireless Access Point system statistics, events, and activities. The log displays up to 200 entries. Older entries are overwritten by new entries.



**Figure 24.**

The Log screen commands are as follows:

Click “***First Page***” to view the first page of the log

Click “***Last Page***” to view the final page of the log

Click “***Previous Page***” to view the page just before the current page

Click “***Next Page***” to view the page just after the current page

Click “***Clear Log***” to delete the contents of the log and begin a new log

Click “***Refresh***” to renew log statistics

## Statistic

This option displays a table that shows the rate of packet transmission of the HomePlug and Wireless LAN interface (in bytes per second).

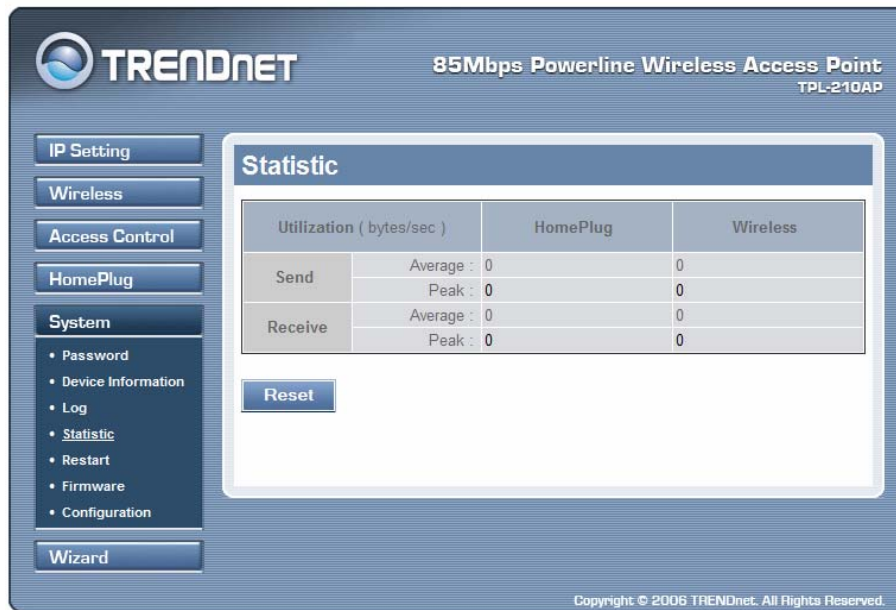


Figure 25.

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

## Restart

Click “**Restart Now**” to restart the system in the event the system is not performing correctly.

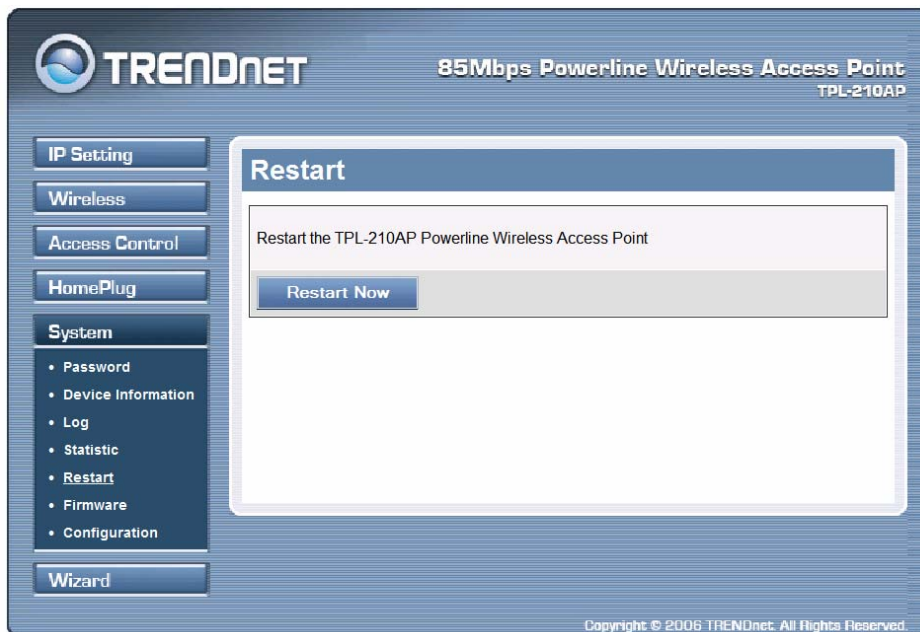


Figure 26.

## Firmware

This options enables users to keep the 85Mbps Powerline Wireless Access Point to upgrade the firmware.

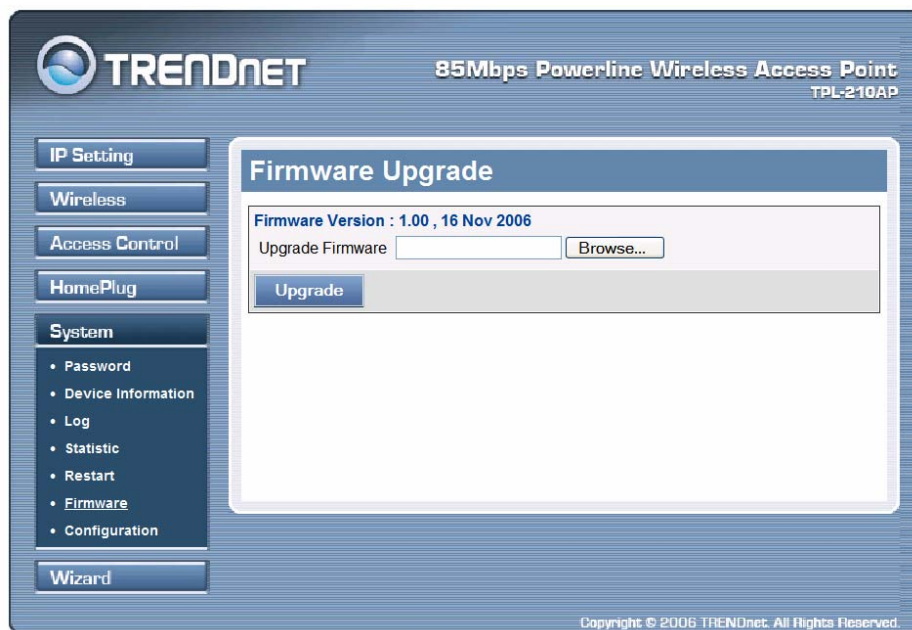


Figure 27.

Please follow the below instructions:

Download the latest firmware from TRENDnet's Web site, if available, and save it to disk.

Click "**Browse**" and go to the location of the downloaded firmware file.

Select the file and click "**Upgrade**" to update the firmware to the latest release.



## Configuration

This option enables users to save settings as a profile and load profiles for different circumstances. The user can also restore factory default settings.

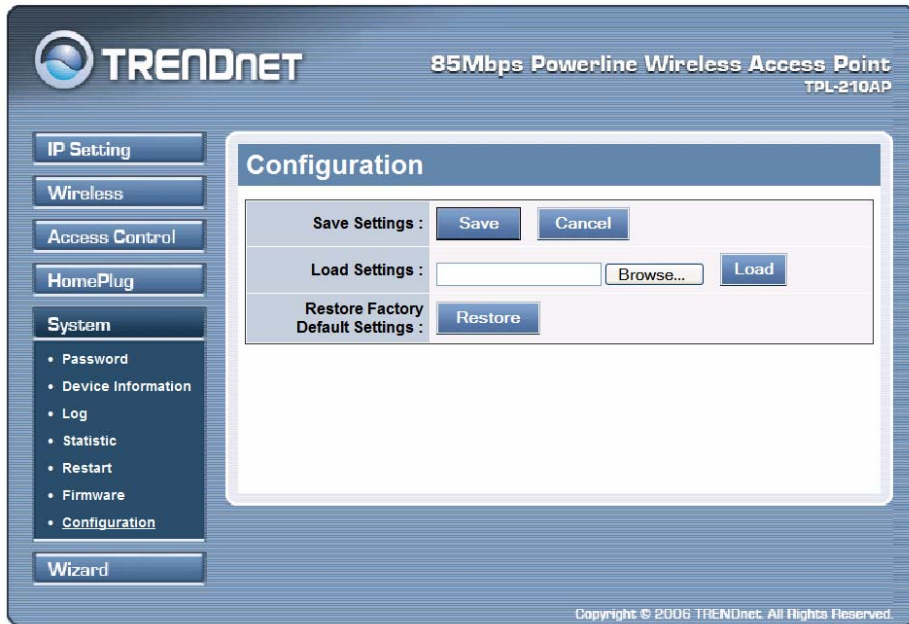


Figure 28.

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## Setup Wizard

Setup wizard is provided as the part of the web configuration utility. Simply follow the step-by-step process to configure the 85Mbps Powerline Wireless Access Point. Click on “Wizard” bring up the Setup Wizard. The following screen will appear. Click “Next” to continue.

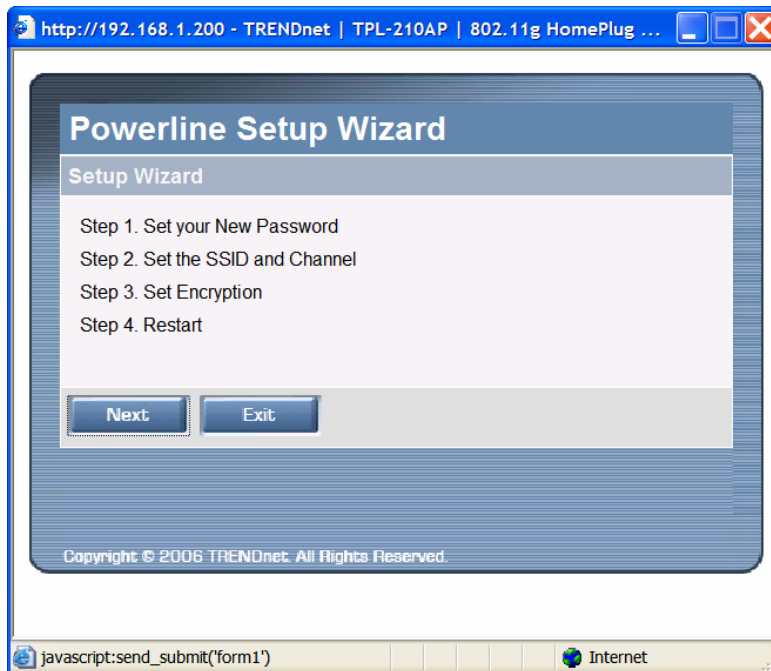
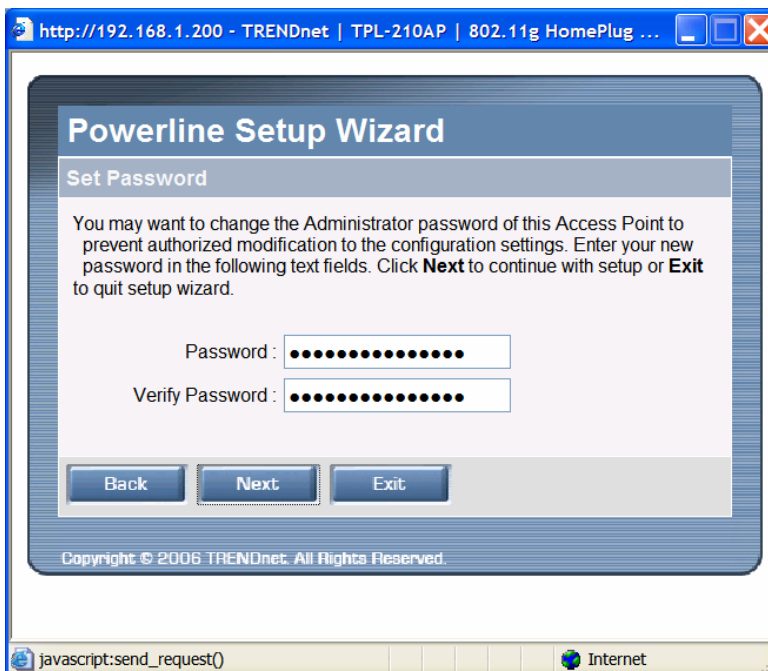


Figure 29. Setup Wizard

## Step 1: Setup new Password

User can change the password and then click “Next” to continue.

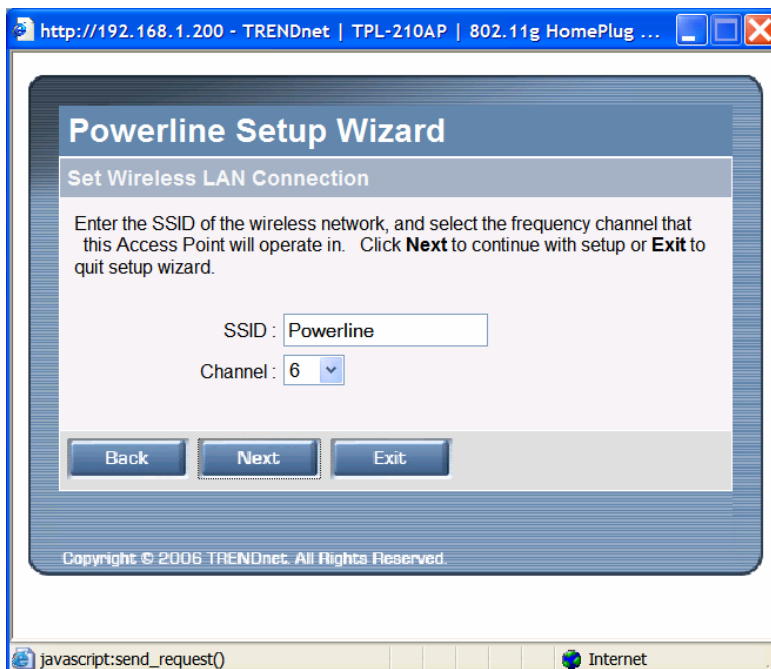


The screenshot shows a web browser window with the URL `http://192.168.1.200 - TRENDnet | TPL-210AP | 802.11g HomePlug ...`. The main content area is titled "Powerline Setup Wizard" and "Set Password". The text reads: "You may want to change the Administrator password of this Access Point to prevent authorized modification to the configuration settings. Enter your new password in the following text fields. Click **Next** to continue with setup or **Exit** to quit setup wizard." Below the text are two text input fields: "Password:" and "Verify Password:", both containing ten black dots. At the bottom of the form are three buttons: "Back", "Next", and "Exit". The footer of the wizard says "Copyright © 2006 TRENDnet. All Rights Reserved." The browser's status bar at the bottom shows "javascript:send\_request()" and "Internet".

Figure 30. Setup Wizard – Set Password

## Step 2: Set Wireless LAN Connection

Please type the name of the SSID you like and select the channel. Then, click “Next” to continue.



The screenshot shows a web browser window with the URL `http://192.168.1.200 - TRENDnet | TPL-210AP | 802.11g HomePlug ...`. The main content area is titled "Powerline Setup Wizard" and "Set Wireless LAN Connection". The text reads: "Enter the SSID of the wireless network, and select the frequency channel that this Access Point will operate in. Click **Next** to continue with setup or **Exit** to quit setup wizard." Below the text are two input fields: "SSID:" with the text "Powerline" entered, and "Channel:" with a dropdown menu showing "6". At the bottom of the form are three buttons: "Back", "Next", and "Exit". The footer of the wizard says "Copyright © 2006 TRENDnet. All Rights Reserved." The browser's status bar at the bottom shows "javascript:send\_request()" and "Internet".

Figure 31. Setup Wizard – Set Wireless LAN Connection

### Step 3: Set Wireless Encryption

If user wants to enable WEP, please click “Enabled”. Then, select the key size of WEP encryption and enter the Key value in the Key text box. Please click “Next” to continue.

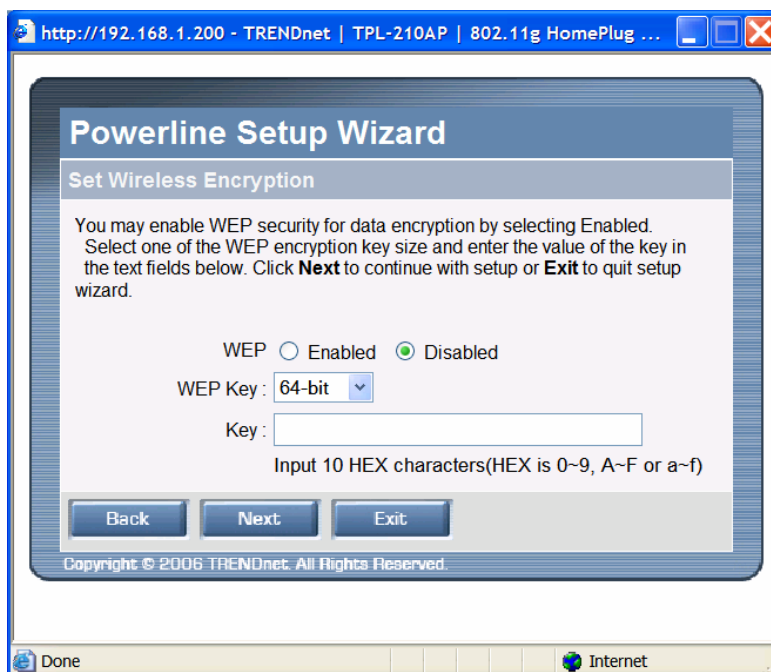


Figure 32. Setup Wizard – Set Wireless Encryption

### Step 4: Setup Completed

The Setup wizard is now completed. The new settings will be effective after the 85Mbps Powerline Wireless Access Point restarted. Please click “**RESTART**” to reboot the 85Mbps Powerline Wireless Access Point. If the user does not want to make any changes, please click “**EXIT**” to quit without any changes. The user can also go back to modify the setting by clicking “**BACK**”.

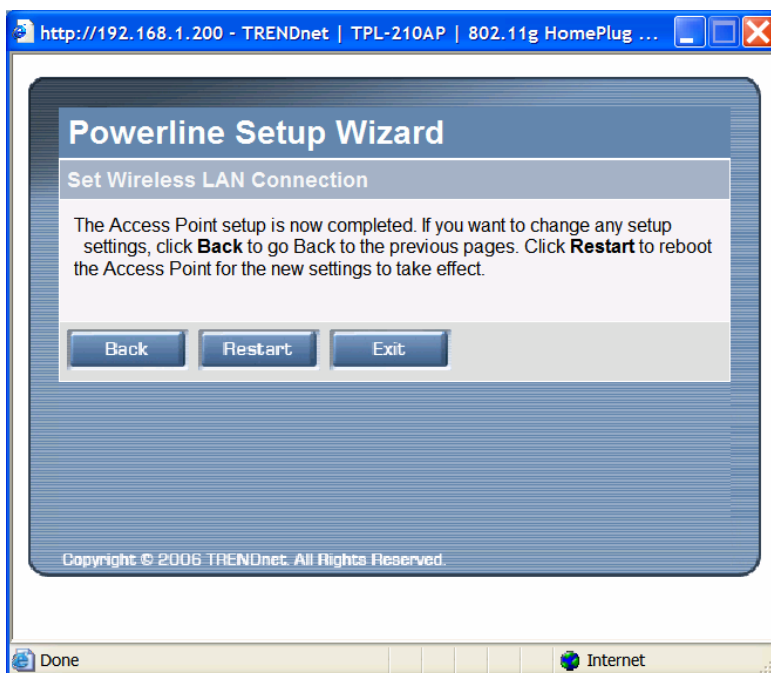


Figure 33. Setup Wizard – Setup Completed



## TECHNICAL SPECIFICATIONS

<b>General</b>	
Standards	HomePlug 1.0 Turbo IEEE 802.11g / IEEE 802.11b
Media Access Protocol	CSMA/CA (PowerLine) CSMA/CA (WLAN)
PowerLine Data Rate	Up to 85Mbps (auto adaptation)
AP Data Rate	802.11g: 54,48,36,24,18,12,9,6Mbps, auto fallback under noisy environment 802.11b: 11, 5.5, 2, 1Mbps, auto fallback under noisy environment
Receiver Sensitivity	11Mbps: -82dBm @ 8% PER(typical) 54Mbps: -67dBm @ 10% PER(typical)
Antenna	2dBi Dipole Antenna
Powerline Frequency band	2MHz ~ 30MHz (4~21Mhz)
RF Frequency	2400 ~ 2483.5MHz (for US, Canada, and ETSI) 2400 ~ 2497MHz (for Japan)
Modulation Technology	Powerline - OFDM 802.11g - OFDM 802.11b - CCK, DQPSK, DBPSK
Modulation Schemes	DBPSK/DQPSK/CCK/OFDM
Security	PowerLine: 56-bit Data Encryption with Key Management WLAN: 64/128 bit WEP Encryption, WPA, WPA2, WPA-PSK, WPA2-PSK
Range Coverage	Indoor: Up to 50 meters (depends on environment) Outdoor: Up to 100 meters (depends on environment)
Diagnostic LEDs	Power HomePlug Wireless
<b>Physical and Environmental</b>	
Power	100~240VAC, Universal
Continuous Current Consumption	3.8 watts. (max.)
Temperature	Operating: 0° ~ 40° C, Storage: -10° ~ 70° C
Humidity	Operating: 10% ~ 90%, Storage: 5% ~ 95%
Dimensions	102 x 75 x 48.5 mm (W x H x D) without Plug
EMI:	FCC Class B, CE Mark B

# Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

Powerline	Three years
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If a product does not operate as warranted above during the applicable warranty period, TRENDnet shall, at its option and expense, repair the defective product or deliver to customer an equivalent product to replace the defective item. All products that are replaced will become the property of TRENDnet. Replacement products may be new or reconditioned.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product through any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet office within the applicable warranty period for a Return Material Authorization (RMA) number, accompanied by a copy of the dated proof of the purchase. Products returned to TRENDnet must be pre-authorized by TRENDnet with RMA number marked on the outside of the package, and sent prepaid, insured and packaged appropriately for safe shipment.

**WARRANTIES EXCLUSIVE:** IF THE TRENDNET PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDNET'S OPTION, REPAIR OR REPLACEMENT. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TRENDNET NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF TRENDNET'S PRODUCTS.

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Governing Law: This Limited Warranty shall be governed by the laws of the state of California.

Note: AC/DC Power Adapter, Cooling Fan, Cables and Power Supply carry 1-Year Warranty





# TRENDNET<sup>®</sup>

## TRENDnet Technical Support

### US • Canada

**Toll Free Telephone:** 1(866) 845-3673

24/7 Tech Support



### Europe (Germany • France • Italy • Spain • Switzerland • UK)

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English/Espanol - 24/7

Francais/Deutsch - 11am-8pm, Monday - Friday MET

### Worldwide

**Telephone:** +[31] [0] 20 504 05 35

English/Espanol - 24/7

Francais/Deutsch - 11am-8pm, Monday - Friday MET

## Product Warranty Registration

Please take a moment to register your product online.

Go to TRENDnet's website at <http://www.trendnet.com>

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