Enhanced 802.11g Pocket Wireless Access Point (WL-330gE)

User Guide

E3158

First Edition
April 2007

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Notices

Federal Communications Commission Statement

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received including interference that may cause undesired operation.

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 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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to 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.

CAUTION! Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Reprinted from the Code of Federal Regulations #47, part 15.193, 1993. Washington DC: Office of the Federal Register, National Archives and Records Administration, U.S. Government Printing Office.

Safety statements

Regulatory Information/Disclaimers

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 (including the antennas) 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, or the substitution of the connecting cables and equipment other than the manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized dealers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

CAUTION! To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance [20cm] between the radiator and your body. Use on the supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

Safety Information

In order to maintain compliance with the FCC RF exposure guidelines, this equipment should be installed and operated with minimum distance [20cm] between the radiator and your body. Use only with supplied antenna.

Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

CAUTION! Any changes or modifications not expressly approved in this manual could void your authorization to use this device.

MPE Statement

Your device contains a low power transmitter. When device is transmitted it sends out Radio Frequency (RF) signal.

Safety statements

Caution Statement of the FCC Radio Frequency Exposure

This Wireless LAN radio device has been evaluated under FCC Bulletin OET 65C and found compliant to the requirements as set forth in CFR 47 Sections 2.1091, 2.1093, 15.247(b)(4) addressing RF Exposure from radio frequency devices. The radiation output power of this Wireless LAN device is far below the FCC radio frequency exposure limits. Nevertheless, this device shall be used in a manner that the potential for human contact during normal operation - as a mobile or portable device but use in a body-worn way is strictly prohibited. When using this device, a certain separation distance between antenna and nearby persons has to be kept to ensure RF exposure compliance. In order to comply with the RF exposure limits established in the ANSI C95.1 standards, the distance between the antennas and the user should not be less than 20cm.

RF Exposure

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

About this guide

This user guide contains information that you need to install and configure your ASUS Portable Wireless AP.

How this guide is organized

This guide contains the following parts:

- **Chapter 1: Product introduction**

  This chapter describes the physical features of the ASUS Portable Wireless AP. This part also presents the package contents, LED indicators, and recommended network settings.
- **Chapter 2: Hardware installation**

  This chapter provides information on how to install the ASUS Portable Wireless AP.
- **Chapter 3: Utilities**

  This chapter provides information on how to configure the ASUS Portable Wireless AP using the utilities available from the support CD.
- **Chapter 4: Configuration**

  This chapter provides instructions on how to configure the ASUS Portable Wireless AP using the Web Configuration Manager.
- **Chapter 5: Using the device**

  This chapter provides instructions on how to use the ASUS Portable Wireless AP on various network setups.
- **Appendix: Troubleshooting**

  The Appendix features a troubleshooting guide for solving common problems you may encounter when using the ASUS Portable Wireless AP.

Conventions used in this guide

WARNING: Information to prevent injury to yourself when trying to complete a task.

CAUTION: Information to prevent damage to the components when trying to complete a task.

IMPORTANT: Instructions that you MUST follow to complete a task.

NOTE: Tips and additional information to aid in completing a task.

ASUS contact information

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Support email	tsd@asus.com

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Web site	www.asus.com.de/news

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Fax	+9714-283-1775
Web site	www.ASUSarabia.com

WL-330gE specifications summary

Ethernet Port	LAN, 1 x RJ45 for 10/100 BaseT Support Ethernet and 802.3 with max bit rate 10/100Mbps and auto cross-over function (MDI-X)
Wireless Port	Transmit Power: 11b 19+-1.5dBm, 11g 17+-1.5 dBm at nominal temperature Receiver Sensitivity: -95+-1dBm@1Mbps, -85+-1dBm@11Mbps, -73+-1dBm@54Mbps Antenna Gain in 1.25dBi 2 x internal IFA antenna Range: Indoor 130ft (40m), semi-open 330ft (100m), outdoor (LOS, Line of Sight) 1500ft (457m) Range and throughput may vary by different environment.
Power Adapter	AC input: 100V~240V (50~60Hz) DC output: 5V with max 2A current
Buttons	Reset Button: Push for 5 seconds to restore to factory default settings
Size	86mm x 62mm x 17mm (LxWxH)
Weight	62g (2.187oz, not including power adapter and cables)
Wireless	802.11g/802.11b compliant Operation Channels: Ch1~11 for N. America, Ch1~14 Japan, Ch1~13 Europe (ETSI) Wi-Fi Security: 64/128-bit WEP, WPA-PSK, WPA2-PSK, WPA-Enterprise, WPA2-Enterprise, Radius with 802.1x WMM: WMM (Wi-Fi Multimedia) support MAC Access Control RADIUS Setting: Required in Radius with 802.1x, WPA, WPA2 mode. SSID Isolation: Support SSID hiding.Z Wireless Separation: Prevent wireless clients from communicating with each other. Guest Account: Provide a second SSID for wireless access in Gateway mode. Infrastructure Mode - AP Only - WDS - Hybrid - Client - URE AfterBurner BroadRange

(continued on the next page)

WL-330gE specifications summary

NAT	Port Trigger - Open certain TCP or UDP ports to communicate with the computers connected to the ASUS WL-330gE. Virtual Server - Provides services like WWW, FTP by a server in the local network accessible for outside users Virtual DMZ - Expose one computer to the Internet, so that all the inbounds packets will be redirected to the exposed computer. ALG: FTP, SIP, VPN Passthrough-IPSec(1), PPTP/L2TP(4)
Firewall	NAT and SPI (Stateful Packet Inspection) Firewall Filtering - Single Port and Port Range - URL based
Routing	Static Route
Management	Internet connection type: Automatic IP, Static IP, PPPoE (MPPE supported), PPTP, Bigpond Service Support UPnP IGD DHCP Server - Supports up to 253 IP addresses - Changeable DHCP lease time, IP pool, domain name DNS Proxy NTP Client DDNS: DynDNS, ZoneEdit, TZO Web-based Administration - Managed from LAN and Internet - Password Setting System Event Log Firmware Upgrade: Web Interface, Bootloader Save/Restore Configuration File
Utility	Device Discovery, supports Windows XP, 2000, Vista Firmware Restoration, supports Windows XP, 2000, Vista
Standard	IEEE802.11g, IEEE802.11b, IEEE802.11d, IEEE802.3, IEEE802.3, u, IEEE802.1X, WPA, WMM, IPv4, IPv6
Certification	WiFi, WPA, WMM, UPnP IGD

** GPL open source is included in the utility CD

- The ASUS Portable Wireless AP operating distance may be shorter if there are walls, barriers, or interferences in the home layout or operating environment.
- Specifications are subject to change without prior notice.

Chapter 1

This chapter describes the physical features of the ASUS Portable Wireless AP. This part presents the package contents, LED indicators, and recommended network settings.

Product introduction

1.1 Welcome!

Thank you for choosing the ASUS Portable Wireless AP!

The ASUS Portable Wireless AP is a compact easy-to-install and use as access point (AP), router, universal repeater, and Ethernet adapter in one. Implementing the IEEE 802.11g standard for wireless LAN (WLAN) with BroadRange™ and125 HSM enhanced wireless technologies, the ASUS Portable Wireless AP is capable of up to 125Mbps data transmission rate using the Direct Sequence Spread Spectrum (DSSS) and the Octogonal Frequency Division Multiplexing (OFDM) technologies. This AP is backward compatible with the earlier IEEE 802.11b standard allowing seamless interfacing of both wireless LAN standards.

The ASUS Portable Wireless AP also supports several wireless network configuration including AP, Infrastructure, and Ad-hoc modes giving you flexibility on your existing or future wireless network configurations.

To provide efficient security to your wireless communication, ASUS Portable Wireless AP comes with a 64-bit/128-bit Wired Equivalent Privacy (WEP) encryption and Wi-Fi Protected Access (WPA) features.

With these and many more, ASUS Portable Wireless AP is sure to keep you ahead in the world of wireless computing.

1.2 Package contents

Check the following items in your ASUS Portable Wireless AP package. Contact your retailer if any item is damaged or missing.

- ☑ ASUS Portable Wireless AP (WL-330gE)
- ☑ Universal power adapter and plug (100V ~ 240V)
- ☑ USB power cord
- ☑ RJ45 cable
- ☑ Support CD (manual, utilities, GPL)
- ☑ Quick Start Guide

Unless otherwise specified, the term “device” in this User Guide refers to the ASUS Portable Wireless AP.

1.3 Features

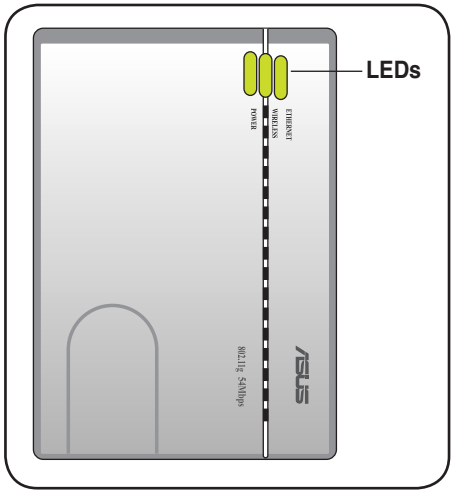
The ASUS Portable Wireless AP employs the DSSS and OFDM technologies to transmit and receive signals through radio waves on the 2.4 GHz band.

Here are other ASUS Portable Wireless AP features:

- Reliable data transfer rates of up to 135% of 54Mbps
- Secure data transmission via Wired Equivalent Privacy (WEP) and WiFi Protected Access (WPA) encryptions
- Operating distance of up to 130ft (40m) indoors and 1000 ft (310m) outdoors
- Dual power mode (DC or USB bus-powered)
- Equipped with a mounting hook for wall installation
- Supports Infrastructure and Ad-hoc network types in Ethernet adapter mode
- Windows® 98SE/Me/2000/XP/Vista compatible

1.3.1 Top view

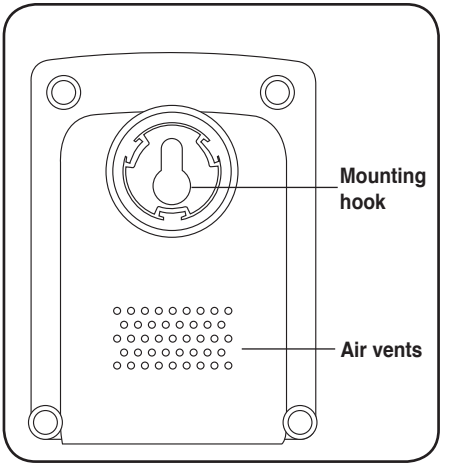
LEDs. The ASUS Portable Wireless AP comes with three LED indicators (Ethernet, Wireless, and Power). Refer to section 1.4 “LED indicators” for details.



1.3.2 Bottom view

Mounting hook: Use the mounting hook to install the device on concrete or wooden surfaces using a roundhead screw.

Air vents: These vents provide ventilation to the device.

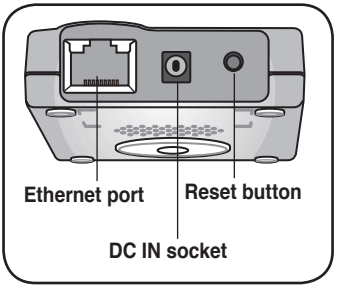


1.3.3 Rear view

Ethernet port: This port connects the supplied RJ-45 plug and cable.

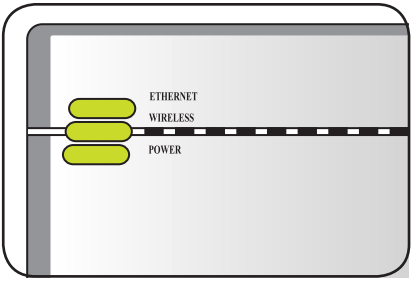
DC IN socket: This socket connects the power adapter plug.

Reset button: Press this button for more than five seconds (in AP or Ethernet mode) to load the default values. In Ethernet adapter mode, press this button for less than five seconds to connect to the first saved wireless connection in the profile table. See page 3-15 for the reset button function in Ethernet mode.



1.4 LED indicators

The ASUS Portable Wireless AP comes with Ethernet, Wireless, and Power LED indicators. Refer to the table below for LED indicators.



LED	Status	Mode*	Indication
Ethernet	On	Router/AP/EA/ URE	The RJ-45 cable is connected and the WL-330gE is connected to an Ethernet network.
	Off		The WL-330gE is off or is not connected to an Ethernet network.
Wireless	On	Router/AP/URE	Associated.
		EA	Associated with an AP.
	Flashing	EA	Associating.
	Off	Router/AP/URE	Not associated.
		EA	Associated with an AP.
Power	On	Router/AP/EA/ URE	The WL-330gE is on and ready.
	Flashing	Router/AP/EA/ URE	The WL-330gE is under “reset to default” mode.
	Off	Router/AP/EA/ URE	The device is off.

*Modes: **AP**: Access Point mode

EA: Ethernet adapter mode

URE: Universal repeater mode

1.5 Recommended network settings

In the Quick Setup Wizard, you can only configure WEP for security (open system). You can complete the share key and advanced security setup in the Advanced Settings page.

The ASUS Portable Wireless AP can be configured in one of these modes:

1. Router/Gateway mode
2. Access Point (AP) mode
3. Ethernet Adapter mode
4. Universal Repeater mode

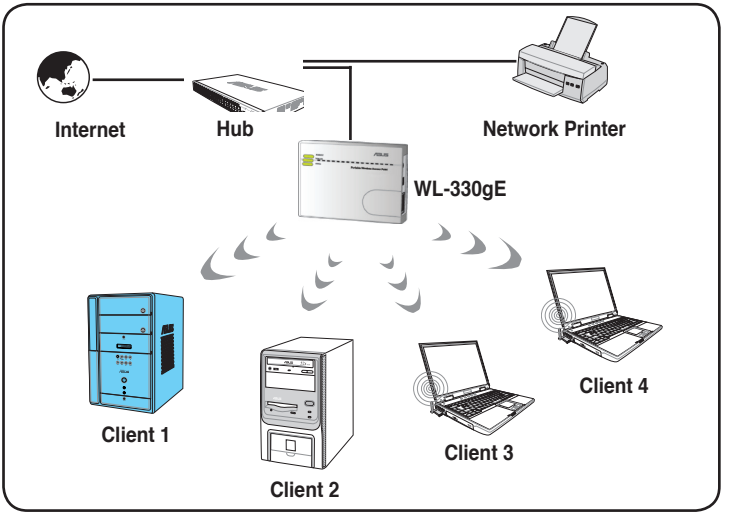
By default, the ASUS WL-330gE is set in the Router/Gateway mode.

1.5.1 Router/Gateway mode

In the Router/Gateway mode, the ASUS WL-330gE connects to the Internet via an ADSL or a cable modem, and your network environment has multi-users using the same IP to ISP.

1.5.2 Access Point (AP) mode

When in access point (AP) mode the ASUS Portable Wireless AP connects WLAN-enabled computers and/or devices to a wired or wireless LAN.



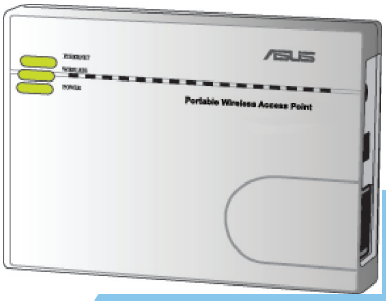
1.5.3 Ethernet Adapter mode

In the **Ethernet Adapter mode**, you can enable any Ethernet-capable device to go wireless.

1.5.4 Repeater mode

In the **Repeater mode**, you can use the ASUS WL-330gE to connect with your root router at home to extend your wireless coverage.

Chapter 2



This chapter provides information on how to install the ASUS Portable Wireless AP.

Hardware installation

2.1 System requirements

Before installing the ASUS Portable Wireless AP, make sure that your system/ network meets the following requirements:

- An Ethernet RJ-45 port (10Base-T/100Base-TX)
- At least one IEEE 802.11b/g device with wireless capability
- An installed TCP/IP and Internet browser

2.2 Device installation

Follow these instructions to install the ASUS Portable Wireless AP.

1. Install the device utilities from the support CD.
2. Connect the device to your computer, network hub, switch, or router.

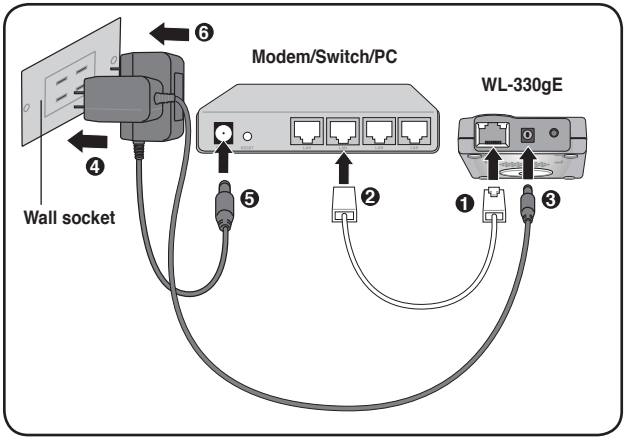
2.2.1 Before you proceed

Take note of the following guidelines before installing the ASUS Portable Wireless AP.

- The length of the Ethernet cable that connects the device to the network (hub, ADSL/cable modem, router, wall patch) must not exceed 100 meters.
- Place the device on a flat, stable surface as far from the ground as possible.
- Keep the device clear from metal obstructions and away from direct sunlight.
- Keep the device away from transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators, and other industrial equipment to prevent signal loss.
- Install the device in a central area to provide ideal coverage for all wireless mobile devices.
- Install the device at least 20cms from a person to insure that the product is operated in accordance with the RF Guidelines for Human Exposure adopted by the Federal Communications Commission.

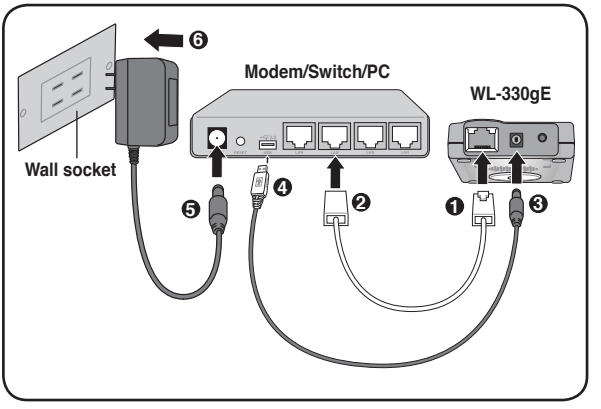
2.2.2 Using DC power

1. Insert one end of the supplied RJ-45 cable to the WL-330gE Ethernet port.
2. Insert the other end of the RJ-45 cable to a modem/switch, or Ethernet port, depending in which mode you would like to set the WL-330gE.
3. Connect the power adapter plug to the WL-330gE DC-IN socket.
4. Connect the WL-330gE power adapter to a wall socket.
5. Connect the modem/switch power adapter plug to the DC-IN socket of the device.
6. Connect the modem/switch power adapter to a wall socket.



2.2.3 Using USB bus power

1. Insert one end of the supplied RJ-45 cable to the WL-330gE Ethernet port.
2. Insert the other end of the RJ-45 cable to the Ethernet port on your computer, notebook, modem or switch.
3. Insert one end of the supplied USB cable to the DC-IN socket of the device.
4. Insert the other end of the USB cable to any available USB port on your computer, notebook, network hub, modem/switch, or router.
5. Turn on your computer/notebook, or connect the network hub, modem/switch, or router power adapter to a wall socket.
6. Connect the power adapter of the network hub, computer/notebook, modem/ switch, or router to a wall socket.

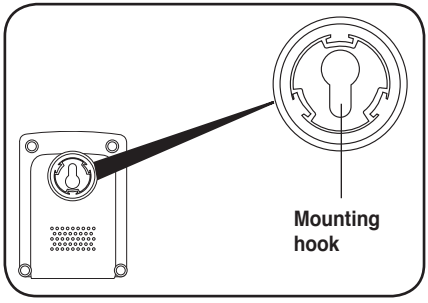


2.3 Placement

Wall mounting

Aside from desktop placement, you can install the ASUS Portable Wireless AP vertically on a concrete or wooden wall using the mounting hook at the bottom side of the device.

To mount the device on a concrete or wooden wall:



1. Locate the mounting hook at the bottom of the device.
2. Select an ideal location for the device.
3. Tighten a round head screw on the concrete or wooden wall until only 1/4 inch is showing.
4. Latch the device into the screw until the device is in place.

Adjust the screw if you cannot latch the device or if the screw is too loose.

2.4 Operating range

The ASUS Portable Wireless AP range is dependent on the operating environment. Every home or office layout varies in obstacles, barriers, or wall types which may reflect or absorb radio signals. For example, two 802.11b devices in an open space may achieve an operating distance of up to 1000 meters, while the same devices may only achieve up to 300 meters of range when used indoors.

The device automatically adjusts the data rate to maintain an operational wireless connection. A wireless device that is close to an AP may operate at higher speeds than a device far from the AP. You can configure the data rates that a device uses. If you limit the range of data rates available to the ASUS Portable Wireless AP, you may reduce the effective range of the wireless LAN coverage.

2.5 Roaming information

If there are several ASUS Portable Wireless APs operating on a network, then a wireless client (such as Centrino notebooks or wireless PDAs) may seamlessly roam from one ASUS Portable Wireless AP to another. Each ASUS Portable Wireless AP creates its own wireless cell or coverage area known as a Basic Service Set (BSS). Any wireless client can communicate with a particular ASUS AP if it is within that AP's coverage area.

If the cells of multiple ASUS Pocket APs overlap, then the wireless client may switch from one ASUS Portable Wireless AP to another. During the transfer from one ASUS AP to another, the wireless mobile client maintains an uninterrupted connection to the network. This is called roaming.

Multiple ASUS Pocket APs connected to a common Ethernet network form an Extended Service Set (ESS). All members of an Extended Service Set are configured with an ID, known as the SSID or ESSID. Wireless client must be configured with the same SSID as that of the ASUS Pocket APs on the network since it can only roam between ASUS Pocket APs sharing the same SSID.

Important notes on roaming

- An ASUS WLAN card can only roam between APs of the same type.
- All ASUS Portable Wireless APs must have the same SSID.
- All computers with ASUS WLAN cards must have the same SSID as the access points to enable roaming.
- If encryption is enabled, all ASUS APs and wireless clients must use the same encryption to establish connection.
- ASUS Portable Wireless APs' cells must overlap to provide an uninterrupted connection for a roaming client.
- ASUS Portable Wireless APs using the same channel should be installed away from each other to reduce potential interference.
- We strongly recommended that you perform a site survey using the ASUS Portable Wireless AP utility to determine the best location for each wireless device.

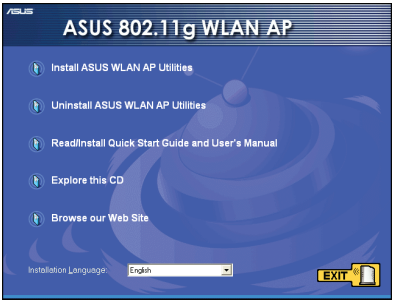
Chapter 3

This chapter provides information on how to configure the ASUS Portable Wireless AP using the utilities available from the support CD.

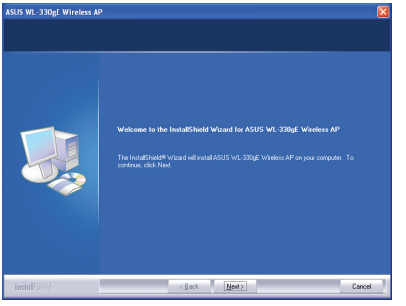
Utilities

3.1 Installing the utilities

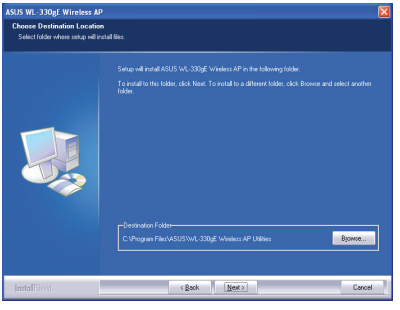
The support CD contains the utilities for configuring the ASUS Portable Wireless AP. To install the ASUS WLAN Utilities in Microsoft® Windows, insert the support CD in the CD drive. If Autorun is disabled, run setup.exe from the root directory of the support CD.



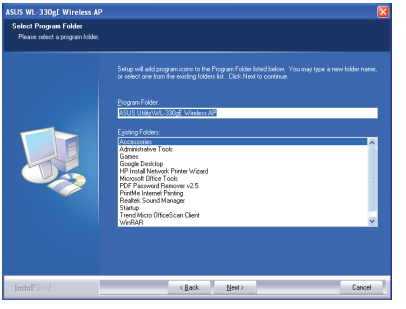
(1) Click **Install...Utilities.**



(2) Click **Next.**

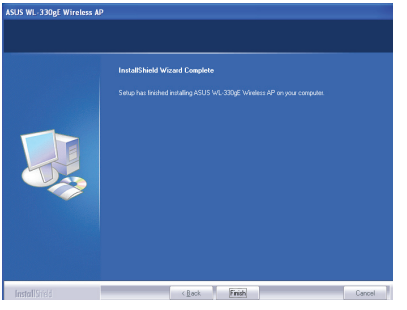


(3) Click **Next** to accept the default destination folder or click **Browse** to specify another path.



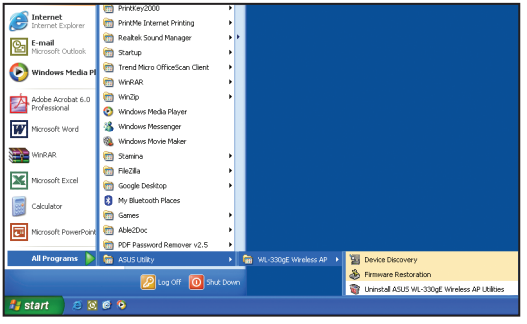
(4) Click **Next** to accept the default program folder or enter another name.

(5) Click **Finish** when setup is complete.



3.1.1 Launching the utilities

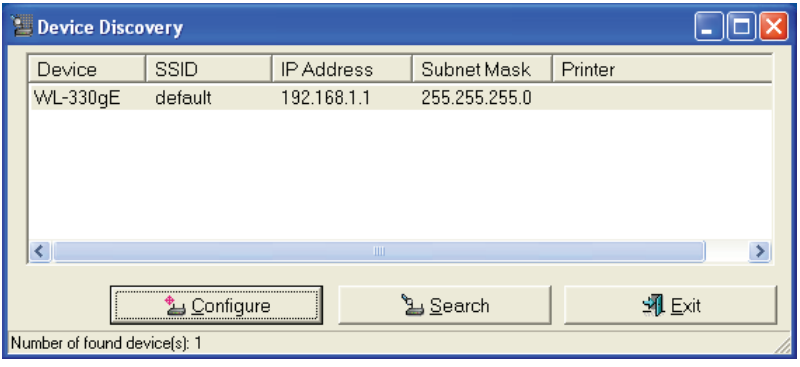
To launch the utilities, click **Start > All Programs > ASUS Utility** from the Windows desktop.



Device Discovery

Device Discovery is an ASUS WLAN utility which detects an ASUS 802.11g AP device, and enables you to configure the device.

To launch the Device Discovery utility, click **Start > All Programs > ASUS Utility > Device Discovery**.

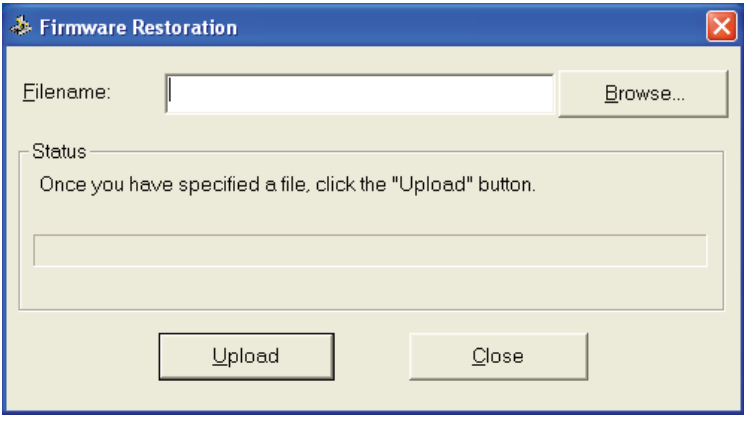


Firmware Restoration

The Firmware Restoration utility is an emergency rescue tool that can automatically searches for an ASUS 802.11g AP that has failed during a firmware upload, and re-upload a firmware that you specify. A failed firmware upgrade will cause the ASUS 802.11g AP to enter a failure mode, waiting for the Firmware Restoration utility to find and upload a new firmware. The process takes about three to four minutes.

This is not a firmware upgrade utility and cannot be used on a working ASUS 802.11g AP. Normal firmware upgrades must be done through the web manager. Refer to **Chapter 4: Web Configuration Manager** for more details.

To launch the Firmware Restoration utility, click **Start > All Programs > ASUS Utility > Firmware Utility**.



Chapter 4

This chapter provides instructions how to configure the ASUS Portable Wireless AP using the Web Configuration Manager.

Configuration

4.1 Overview

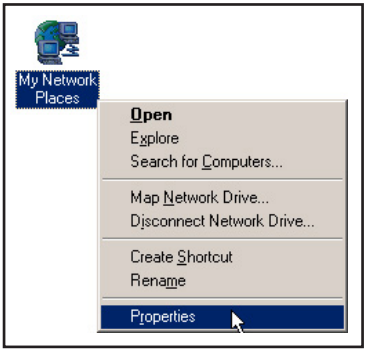
The Web Configuration Manager is a web-based application which allows you to configure the ASUS Portable Wireless AP using a web browser on your computer. The following sections provide information on how to launch and use the Web Configuration Manager.

4.1.1 Adjusting the TCP/IP settings

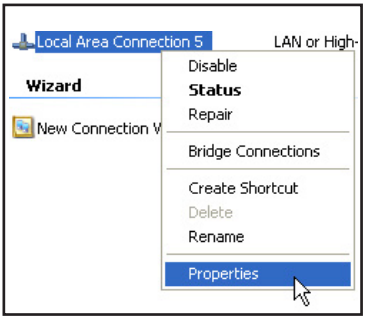
By default, the IP address of the ASUS Portable Wireless AP is 192.168.1.1, and the Subnet Mask is 255.255.255.0. To access the configuration utility, assign a different IP address to the network adapter where the ASUS Portable Wireless AP is connected.

To adjust the TCP/IP settings of the network adapter:

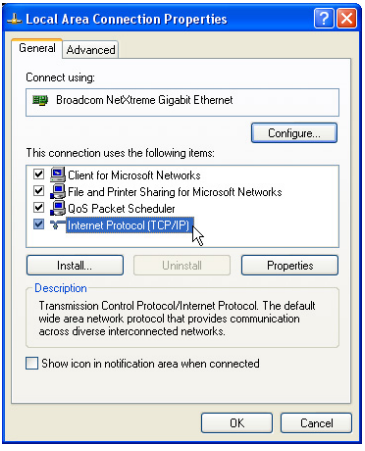
1. Right-click the **My Network Places** icon in the Windows® desktop, then select **Properties** from the pop-up menu. The **Network and Dial-up Connections** window appears.



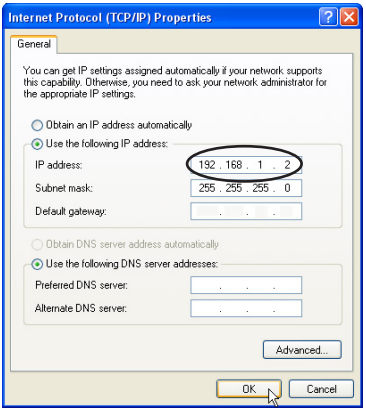
2. Right-click the network adapter used by the the ASUS Portable Wireless AP, then select **Properties** from the pop-up menu. The **Local Area Connection Properties** window appears.



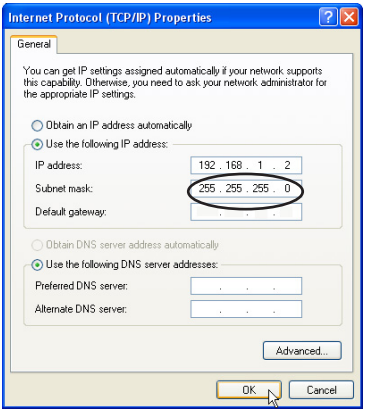
3. Double-click the **Internet Protocol (TCP/IP)** item to display the **Internet Protocol (TCP/IP) Properties** window.



4. Check the **Use the following IP address** option, then enter the IP address for the network adapter. The **IP address** must be **192.168.1.X**. (**X** can be any number between 2 and 254 that is not used by another device.)



5. Set the **Subnet Mask** to 255.255.255.0. Click **OK** when finished.



Changing the TCP/IP settings may require system restart. Switch on the WL-330gE immediately after rebooting.

4.2 Operation modes

The ASUS WL-330gE is designed with four (4) selective operation modes: **Router/ Gateway**, **Access Point (AP)**, **Ethernet Adapter**, and **Universal Repeater**.

4.2.1 Router/Gateway mode

In the Router/Gateway mode, the ASUS WL-330gE connects to the Internet via an ADSL or a cable modem, and your network environment has multi-users using the same IP to ISP.

In the Router/Gateway mode:

- NAT is enabled;
- WAN is allowed using PPPoE, DHCP client, or static IP; and
- UPnP and DDNS features, which are useful for home user, are supported.

To configure the ASUS WL-330gE in Router/Gateway mode:

1. In the Mode Quick Setup page, click the **Gateway** tab. The Gateway page is displayed.

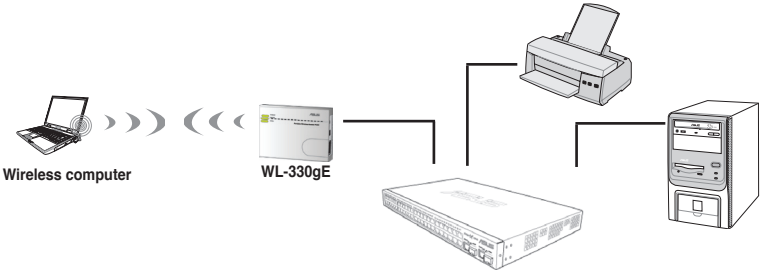
2. Specify an SSID (Service Set Identifier), which is a unique identifier attached to packets sent over WLAN.
3. Select a security level to enable encryption methods:
   Low(None): No security level.
   Medium (WEP-64bits):
   Medium (WEP-128 bits)
   High (WPA-PSK/WPA-PSK)

4. Click **Finish** to save the configuration.

You can set up the advanced functions. Refer to **Advance Settings** section on page 4-9 for more details.

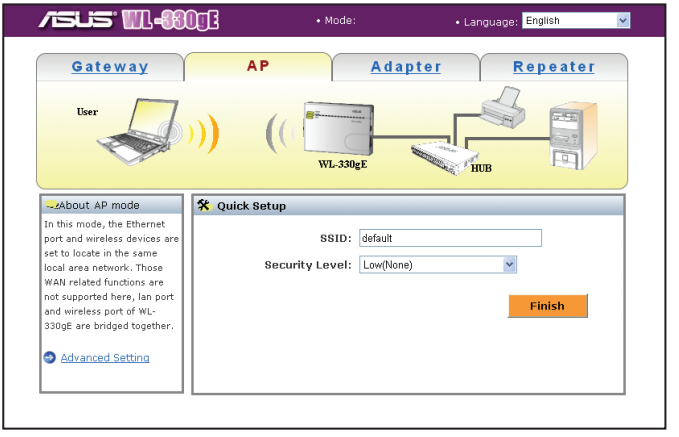
4.2.2 Access Point (AP) mode

In the **Access Point (AP) mode**, you can connect the Ethernet port and your wireless devices into the same local area network (LAN).



To configure the ASUS WL-330gE in Access Point/AP mode:

1. In the Mode Quick Setup page, click the **AP** tab. The Access Point (AP) page is displayed.



2. Specify an SSID (Service Set Identifier), which is a unique identifier attached to packets sent over WLAN.
3. Select a security level to enable encryption methods:

   Low(None): No security level.

   Medium (WEP-64bits):

   Medium (WEP-128 bits)

   High (WPA-PSK/WPA-PSK)

4. Click **Finish** to save the configuration.

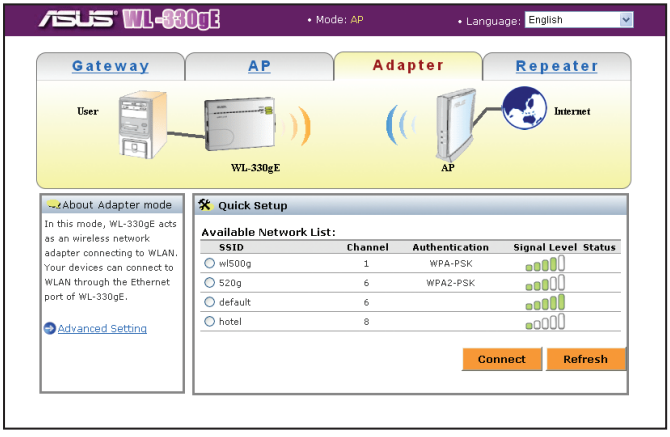
You can set up the advanced functions. Refer to **Advance Settings** section on page 4-9 for more details.

4.2.3 Ethernet Adapter mode

In the **Ethernet Adapter mode**, you can enable any Ethernet-capable device to go wireless.

To configure the ASUS WL-330gE in Ethernet Adapter mode:

1. In the Mode Quick Setup page, click the **Adapter** tab. The Adapter page is displayed.



2. From the available list of devices in LAN, select the device you want to connect to.
3. Click **Connect**.

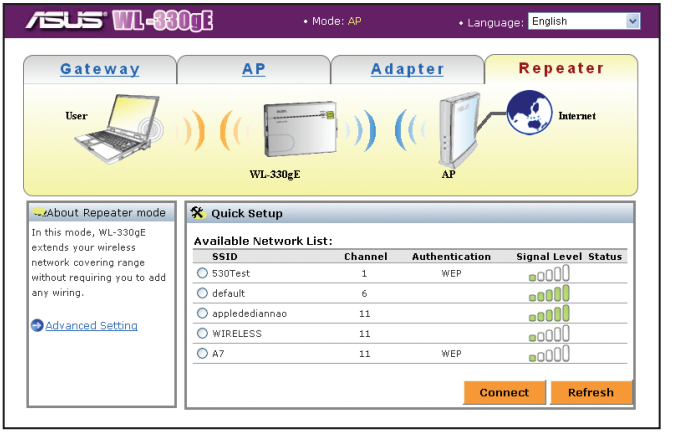
You can set up the advanced functions. Refer to **Advance Settings** section on page 4-9 for more details.

4.2.4 Repeater mode

In the **Repeater mode**, you can use the ASUS WL-330gE to connect with your root router at home to extend your wireless coverage.

To configure the ASUS WL-330gE in Repeater mode:

1. In the Mode Quick Setup page, click the **Repeater** tab. The Repeater page is displayed.

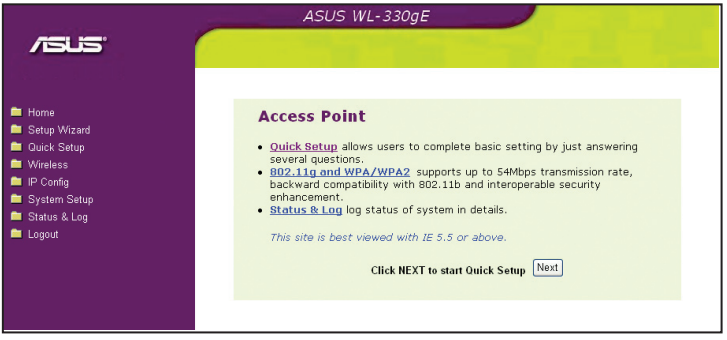


2. From the available list of devices in LAN, select the device you want to connect to.
3. Click **Connect**.

You can set up the advanced functions. Refer to **Advance Settings** section on page 4-9 for more details.

4.3 Advance settings

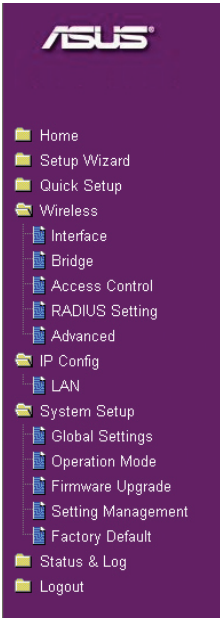
When you click the link **Advance Setting** from any of the modes in the Mode Quick Setup page, the screen shown below is displayed.



4.3.1 Navigation menu

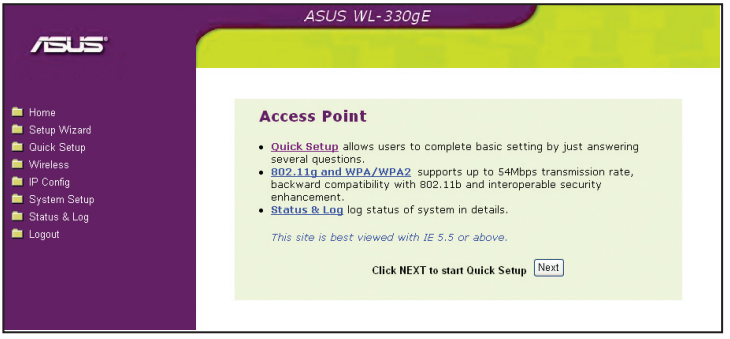
The navigation menu, located at the left of the screen, contains the main menu and sub-menu items.

Use the navigation menu to configure the various features of the ASUS WL-330gE.



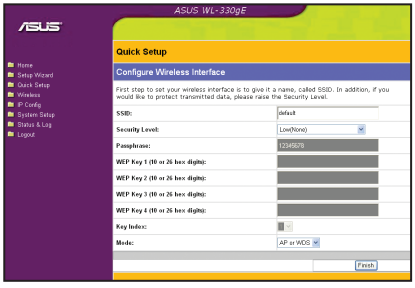
4.3.2 Quick Setup in AP mode

When you click the link **Advance Setting** from any of the modes in the Mode Quick Setup page, the default page is the Access Point (AP) mode.



1. Click **Next** to enter the Quick Setup page. Follow the instructions to set up the ASUS Access Point.

2 Set mode to AP or WDS(Bridge), Station(Client) or URE(Repeater).

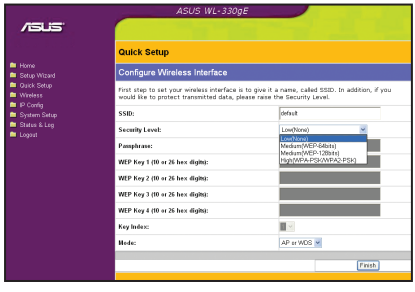


3. Setting up your wireless interface. Specify to your wireless router an SSID (Service Set Identifier), which is a unique identifier attached to packets sent over WLAN. This identifier emulates a password when a device attempts to communicate with your wireless router via WLAN.

   If you want to protect transmitted data, proceed to steps 4 and 5. Otherwise, go to step 6.

4. Select a Security Level to enable encryption methods.

   Medium: Only users with the same WEP key settings can connect to your wireless router and transmit data using 64bits or 128bits WEP key encryption.

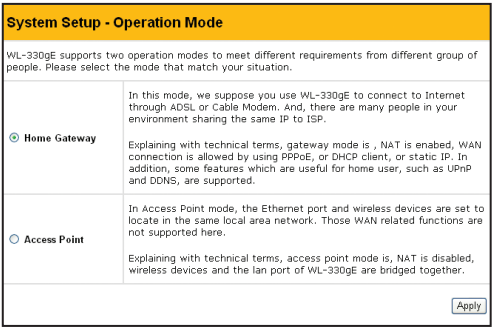


High: Only users with the same WPA pre-shared key settings can connect to your wireless router and transmit data using TKIP encryption.

5. Input one set of WEP keys in the WEP Key fields (10 hexadecimal digits for WEP 64bits, 26 hexadecimal digits for WEP 128bits), and then select from Key Index accordingly. You can also let the system generate the keys by inputting a Passphrase. Record the Passphrase and the WEP keys in your notebook, then select from Key Index accordingly. Click Finish to enable your setting. For example, if we input 11111 as the Passphrase, the WEP Keys are generated automatically.
6. Click **Save&Restart** to restart the wireless router and activate the new settings.

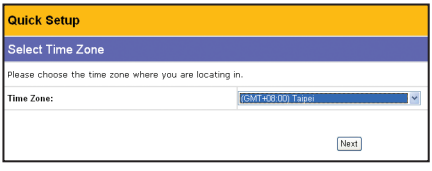
4.3.3 Quick Setup in Home Gateway Mode

To start quick setup in Gateway mode, click Apply to enter the "Quick Setup" page.



To set up the ASUS 802.11g AP:

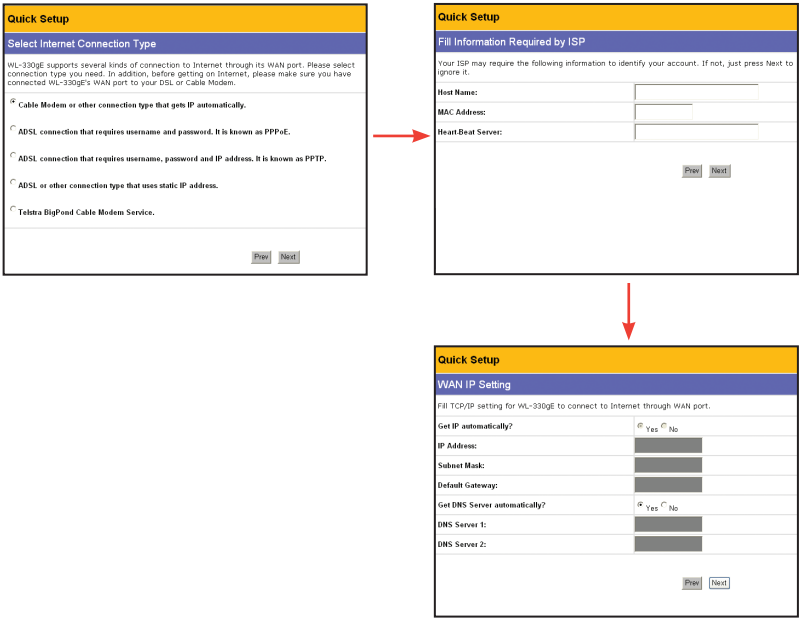
1. Click **System Setup -> Operation Mode -> Home Gateway**. In the Home Gateway mode, you will be able to connect to the Internet through ADSL or cable modem.
2. Click **Apply** to enter the Gateway mode.
3. Select your time zone or the closest region. Click **Next** to continue.



4. The ASUS 802.11g AP supports five types of ISP services— cable, ADSL (PPPoE, PPTP, static IP address), and Telstra BigPond. Since each service has its own protocols and standards, therefore, during the setup process, there are different identity settings demanded by the Access Point. Select the correct connection type and click **Next** to continue.

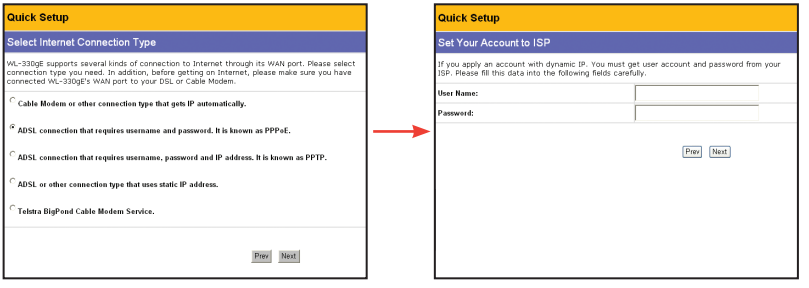
Cable User

If you are receiving services from cable or other ISP assigning IP addresses automatically, select Cable Modem or other connection that gets IP automatically. If you are using cable services and your ISP have provided you with the hostname, the MAC address, and the heartbeat server, fill these information into the boxes on the setting page. If not, click Next to skip this step.



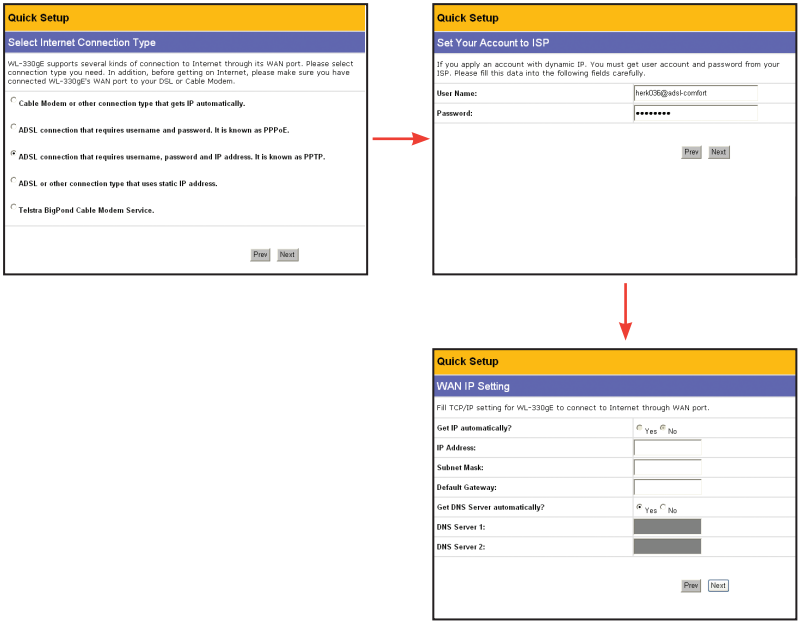
PPPoE User

If you are a PPPoE service user, select the second line. You would be required to input the username and password provided by your ISP.



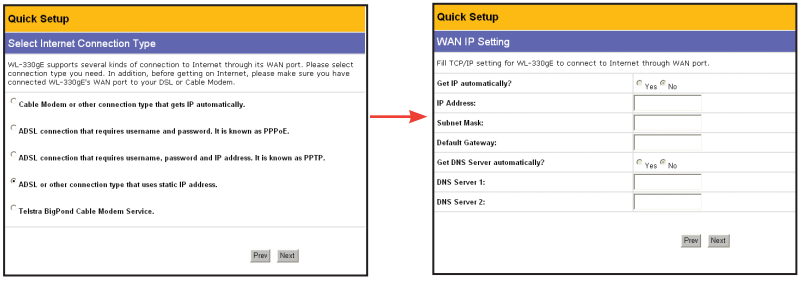
PPTP User

If you are using PPTP services, you would be asked to input the username, password, as well as the IP address provided by your ISP.



Static IP User

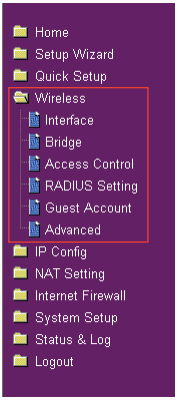
If you are using ADSL or other connection type that uses static IP addresses, please select the fourth line, then input the IP address, subnet mask, and default gateway provided by your ISP. You could choose to specify certain DNS servers, or select to get DNS automatically.



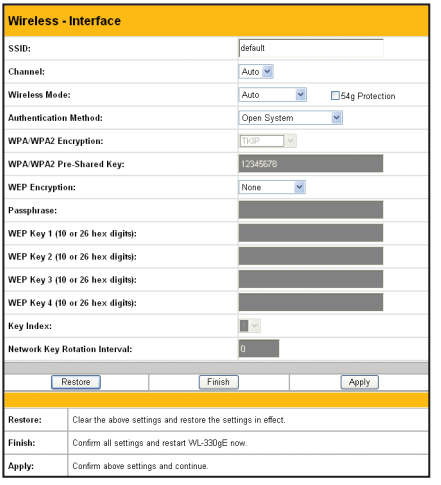
5. Setting up your wireless interface. To set up your wireless interface, follow the same instructions from 3 to 5 as above Configurating Wireless Interface in Access Point mode on page 26 and page27. You can change to AP or WDS (Bridge), Station (Client), or URE (Repeater) accordingly. Click Save&Restart to restart the wireless router and activate the new settings.

4.3.4 Wireless

Click an item on the menu to reveal a submenu. Follow the instructions to set up the ASUS 802.11g AP. Tips are displayed when you move your cursor over an item.



Interface



SSID

The SSID is an identification string of up to 32 ASCII characters that differentiate the ASUS 802.11g AP from other manufacturers. The SSID is also referred to as the “ESSID” or “Extended Service Set ID.” You can use the default SSID and radio channel unless more than one ASUS 802.11g AP is deployed in the same area. In that case, you should use a different SSID and a radio channel for each ASUS 802.11g AP. All ASUS Wireless APs/Routers and ASUS 802.11g/802.11b WLAN client adapters must have the same SSID to allow a wireless mobile client to roam. By default, the SSID is set to “default”.

Channel

The 802.11g and 802.11b specifications supports up to 14 overlapping channels for radio communication. To minimize interference, configure each ASUS 802.11g AP to be non-overlapping; select Auto from the Channel drop-down list to enable the system to select a clear channel during boot up as your operating channel.

Based on your site survey of your network facility, make sure that all the ASUS 802.11g APs sharing the same channel, or channels in close number frequency, are located far from each other as possible. You can use the site survey utility from the support CD. Refer to 3.7.2 Site Survey (AP SCAN) for details.

Wireless Mode

This field indicates the 802.11g interface mode. Selecting “Auto” allows 802.11g and 802.11b clients to connect to the ASUS 802.11g AP. Selecting “54g Only” maximizes performance, but prevents 802.11b clients from connecting to the ASUS 802.11g AP. If “54g Protection” is checked, GMode protection of 11g traffic is enabled automatically in the presence of 11b traffic.

Authentication Method

This field enables you to set different authentication methods which determine different encryption schemes. The relationships among Authentication Method, WPA Encryption, WPA Pre-Shared Key, WEP Encryption, Passphrase, and WEP Keys are listed in the following table. If all your clients support WPA, using “WPA-PSK” is recommended for better security.

Authentication Method	WPA/WEP Encryption	WPA Pre-Shared Key Passphrase	WEP Key 1-4
Open or shared key	None WEP (64 bits) WEP (128 bits)	Not required 1-64 characters 1-64 characters	Not required 10 hex 26 hex
Shared key	WEP (64 bits) WEP (128 bits)	1-64 characters 1-64 characters	10 hex 26 hex
WPA-PSK	TKIP only AES only	8-63 characters 8-63 characters	Not required Not required
WPA	TKIP only AES only	Not required Not required	Not required Not required
Radius with 802.1x	Auto WEP (64 bits) WEP (128 bits)	Not required 1-64 characters 1-64 characters	Not required 10 hex 26 hex

WPA Encryption

When “WPA-PSK” authentication method is used, the newly proposed TKIP (Temporal Key Integrity Protocol) or AES encryption schemes are applied.

WPA Pre-Shared Key

Select “TKIP” or “AES” in the WPA Encryption, this field is used as a password to begin the encryption process. 8 to 63 characters are required.

WEP Encryption

When “Open or Shared Key”, “Shared Key” or “Radius with 802.1x” authentication methods are selected, traditional WEP encrption is applied.

When “WPA” or “WPA-PSK” authentication methods are selected, you still can set WEP encryption for those clients that do not support WPA/WPA-PSK. Please note that Key Index for WEP key is limited to 2 or 3 when both WPA and WEP encryption are supported at the same time.

64/128-bit versus 40/104-bit

The following section explains low-level (64-bit) and high-level (128-bit) WEP Encryption schemes:

64-bit WEP Encryption

64-bit WEP and 40-bit WEP are the same encryption methods and can interoperate in a wireless network. This level of WEP encryption uses a 40-bit (10 Hex character) encryption scheme as a secret key, which is set by the user, and a 24-bit “Initialization Vector” scheme, which is not under user control.

Together these two schemes make a 64-bit (40 + 24) encryption scheme. Some vendors refer to this level of WEP as 40-bit and others refer to this as 64-bit. ASUS WLAN products use the term 64-bit when referring to this lower level of encryption.

128-bit WEP Encryption

104-bit WEP and 128-bit WEP are the same encryption method and can interoperate on a wireless network. This level of WEP encryption uses a 104-bit (26 Hex character) encryption scheme as a secret key which is set by the user, and a 24-bit “Initialization Vector”, which is not under user control.

Together these two schemes make a 128-bit (104 + 24) encryption scheme. Some vendors refer to this level of WEP as 104-bit and others refer to this as 128-bit. ASUS WLAN products use the term 128-bit when referring to this higher level of encryption.

Passphrase

Select “WEP-64bits” or “WEP-128bits” in the Encryption field, and the Access Point generates four WEP keys automatically. A combination of up to 64 letters, numbers, or symbols is required. Alternatively, leave this field blank and type in four WEP keys manually.

WEP-64bit key: 10 hexadecimal digits (0~9, a~f, and A~F)

WEP-128bit key: 26 hexadecimal digits (0~9, a~f, and A~F)

The ASUS WLAN family of products uses the same algorithm to generate WEP keys. It eliminates the need for users to remember passwords and maintains compatibility between products. But, this method to generate WEP keys is not as secure as manual assignment.

WEP Key

You can set a maximum of four WEP keys. A WEP key is either 10 or 26 hexadecimal digits (0~9, a~f, and A~F) based on whether you select 64-bits or 128-bits in the WEP pull-down menu. The ASUS 802.11g AP and ALL of its wireless clients MUST have at least the same default key.

Key Index

The Default Key field lets you specify which of the four encryption keys to use to transmit data on your wireless LAN. As long as the ASUS 802.11g AP or wireless mobile client with which you are communicating has the same key in the same position, you can use any of the keys as the default key.

If the ASUS 802.11g AP and ALL of its wireless clients use the same four WEP keys, select “key rotation” to maximize security. Otherwise, choose one key in common as the default key.

Network Rotation Key Interval

This field specifies the time interval (in seconds) after which a WPA group key is changed. Enter ‘0’ (zero) to indicate that a periodic key-change is not required.

Site Survey (AP SCAN)

Site Survey helps the Access Point associate appropriate AP while either in Station (Client) or URE (Repeater) mode. Make sure that the Access Point in Client or URE mode. Click “AP SCAN” button in Wireless -> Interface and a new window opens. AP Scan will collect complete AP around information including MAC, SSID, Security, Channel and RSSI (AP wireless signal strength) value.

Access Control

Pull down menu items:

Disable (no info required)

Accept (need to input information)

Reject (need to input information)

For security, the ASUS 802.11g AP allows you to accept or reject wireless mobile clients.

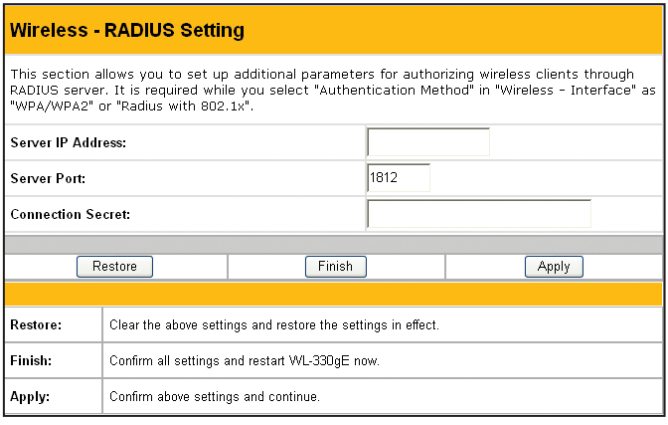
The default setting of “Disable” allows any wireless mobile client to connect. “Accept” only allows those entered into this page to connect. “Reject” prevents those entered into this page from connecting.

Adding a MAC Address

The Known Client List collects MAC addresses of known clients, associated to the AP. To add a MAC address to the Access Control List, simply select MAC address from the list then click “Copy” button.

Note: Click the “Finish” button to save your new settings and restart the ASUS 802.11g AP or click “Save” and restart later.

RADIUS Setting



This section allows you to set up additional parameters for connection with RADIUS Server. It is required while you select “Authentication Method” as “WPA” or “Radius with 802.1x” in “Wireless – Interface”.

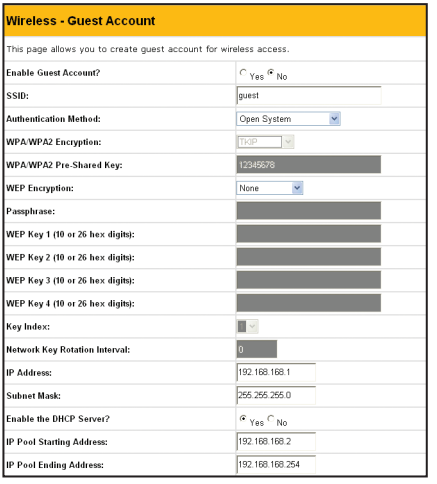
Server IP Address - This field specifies the IP address of the RADIUS server to use for 802.1X wireless authentication and dynamic WEP key derivation.

Server Port - This field specifies the UDP port number used by the RADIUS server.

Connection Secret - This field specifies the password used to initialize a RADIUS connection.

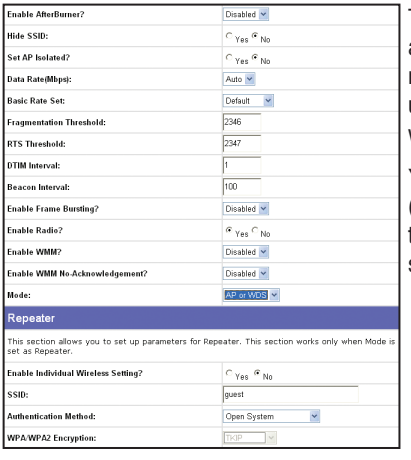
Note: Click the “Finish” button to save your new settings and restart the ASUS 802.11g AP or click “Save” and restart later.

Guest Account



This section allows you to create a guest account for wireless access. Select **Yes** in the **Enable Guest Account** option.

Advanced



This section allows you to set up additional parameters for the wireless router function. We recommend that you use the default values for all items in this window.

You may also setup operation modes (AP or WDS, Adapter, or Repeater) in this window aside from the Quick Setup screen.

Hide SSID -"No" is the default option so that wireless mobile users can see your ASUS 802.11g AP's SSID and associate with your Access Point. If you select "Yes", your ASUS 802.11g AP will not show in site surveys by wireless mobile clients and they will have to manually enter your ASUS 802.11g AP's SSID. To restrict access to your ASUS 802.11g AP , select "Yes". For security reasons, change the SSID other than the default SSID.

Set AP Isolated - Selecting Yes to prevent wireless client from communicating with each other.

Data Rate (Mbps) - This field allows you to specify the transmission rate. Leave on "Auto" to maximize performance versus distance.

Basic Rate Set - This field indicates the basic rates that wireless clients must support. Use "1 & 2 Mbps" only when backward compatibility is needed for some older wireless LAN cards with a maximum bit rate of 2Mbps.

Fragmentation Threshold (256-2346) – Fragmentation is used to divide 802.11 frames into smaller pieces (fragments) that are sent separately to the destination. Set a specific packet size threshold to enable fragmentation. If there is an excessive number of collisions on the WLAN, experiment with different fragmentation values to increase the reliability of frame transmissions. The default value (2346) is recommended for normal use.

RTS Threshold (0-2347) – The RTS/CTS (Request to Send/Clear to Send) function is used to minimize collisions among wireless stations. When RTS/CTS is enabled, the router refrains from sending a data frame until another RTS/CTS handshake is completed. Set a specific packet size threshold to enable RTS/CTS. The default value (2347) is recommended.

DTIM Interval (1-255) – DTIM (Delivery Traffic Indication Message) is a wireless message used to inform clients in Power Saving Mode when the system should wake up to receive broadcast and multicast messages. Type the time interval in which the system will broadcast a DTIM for clients in Power Saving Mode. The default value (3) is recommended

Beacon Interval (1-65535) – This field indicates the time interval in milliseconds that a system broadcast packet, or beacon, is sent to synchronize the wireless network. The default value (100 milliseconds) is recommended.

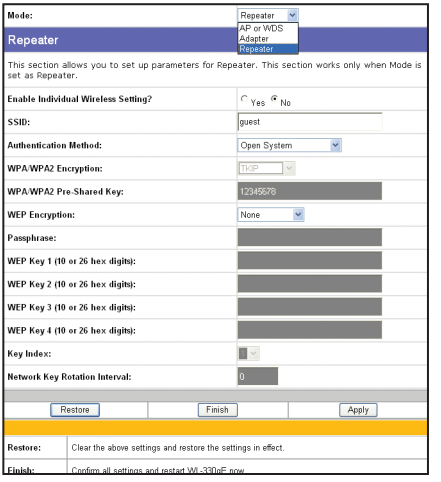
Enable Frame Bursting? – This field allows you to enable frame-bursting mode to improve performance with wireless clients that also support frame-bursting.

Radio Power – Radio Power can be set between 1 to 84 but the default value is recommended.

Enable WMM – This field allows you to enable WMM to improve multimedia transmission

Enable WMM No-Acknowledgement – This field allows you to enable WMM No-Acknowledgement

Mode – This field allows you set up different operation modes(AP or WDS, Adapter, or Repeater) either in AP mode or Gateway mode.



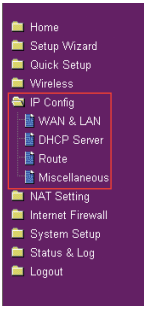
URE – This section allows you set up parameters for URE. This section only works while in URE mode.

SSID – This is the SSID of root AP. The ASUS 802.11g AP can repeat the signal and boost the signal coverage while setting in URE mode.

Other security parameters settings are the same as those in **Wireless -> Interface**.

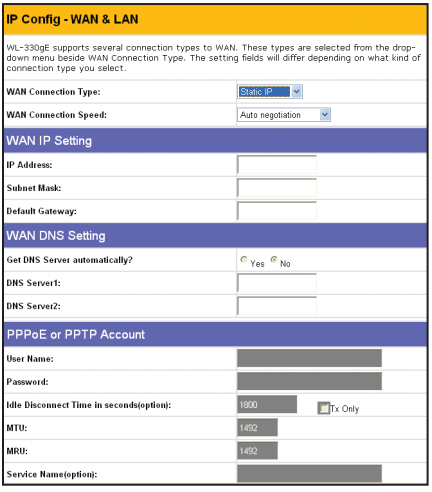
4.3.5 IP Config

Click this item on the menu to reveal a sub menu. Follow the instructions to setup the ASUS 802.11g AP. Tips are given when you move your cursor over each item.



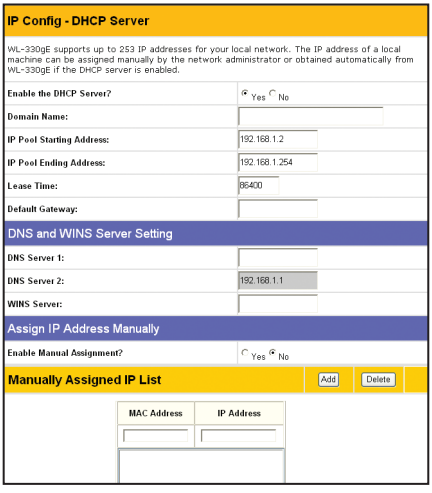
WAN & LAN

The ASUS WL-330gE supports several connection types to WAN. You can select the WAN Connection Type from the dropdown list. The setting fields will vary based on the connection type you have chosen.



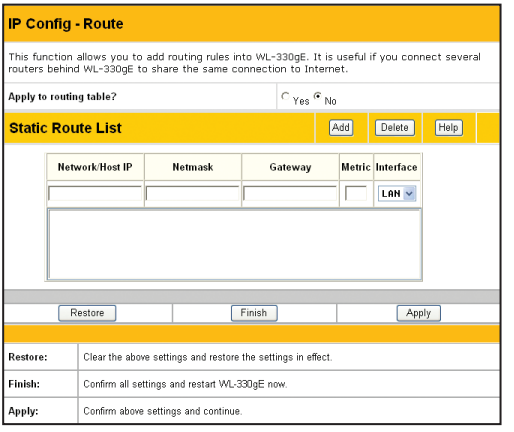
DHCP Server

The ASUS WL-330gE supports up to 253 IP addresses for your local network. The IP address of a local machine can be manually assigned by the network administrator or obtained automatically from WL-330gE if the DHCP server is enabled.



Route

This function allows you to add routing rules into the ASUS WL-330gE. It is useful if you connect several routers behind WL-330gE to share the same connection to the Internet.



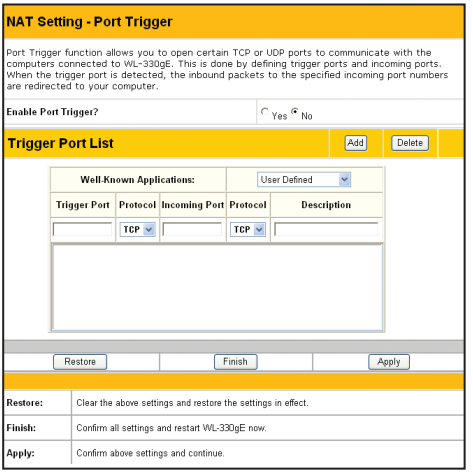
Miscellaneous

This function allows you to configure other features such as enabling UPnP, and configure the DDNS setting.

4.3.6 NAT Setting

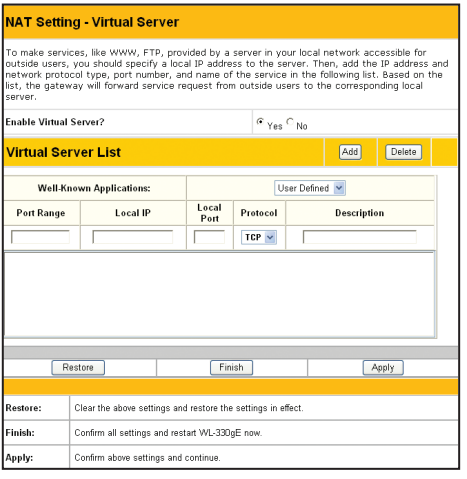
Port Trigger

This function allows you to open certain TCP or UDP ports to communicate with the computers connected to the ASUS WL-330gE. This is done by defining trigger ports and incoming ports. When the trigger port is detected, the inbound packets to the specified incoming port numbers are redirected to your computer.



Virtual Server

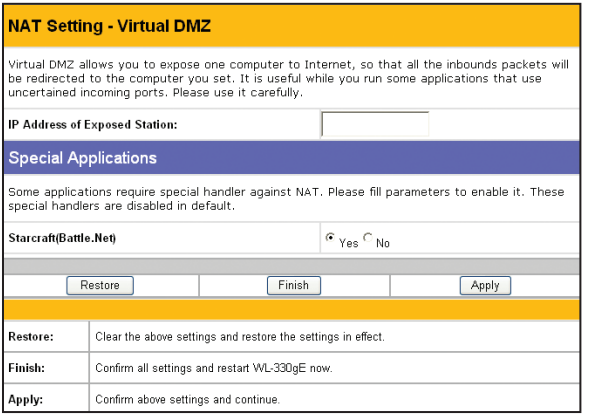
Virtual Server allows you to make services, like WWW, FTP, provided by a server in your local network accessible for outside users.



Virtual DMZ

This function allows you to expose a computer to the Internet, so that all inbound traffics will be redirected to the computer you set. It is useful when you run some applications that use uncertain incoming ports.

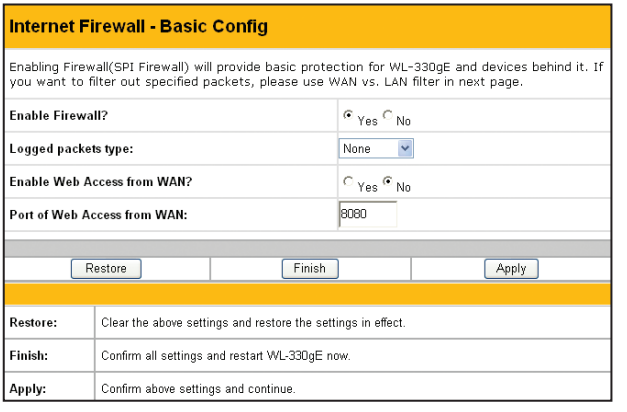
Use this function carefully.



4.3.7 Internet Firewall

Basic Config

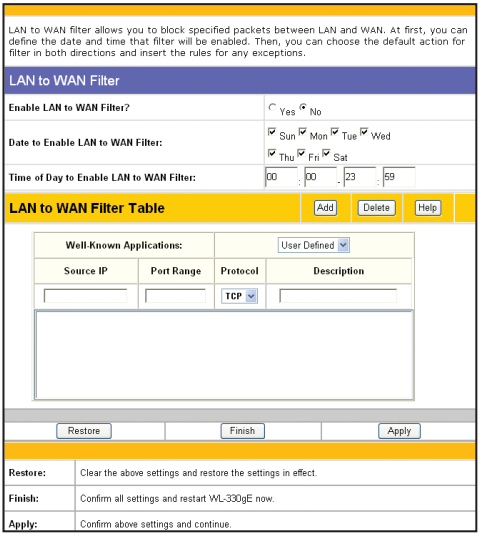
This function allows you to configure the basic security for your WL-330gE and other devices connected to it.



If you want to filter out specific packets, refer to the next section **WAN & LAN Filter**.

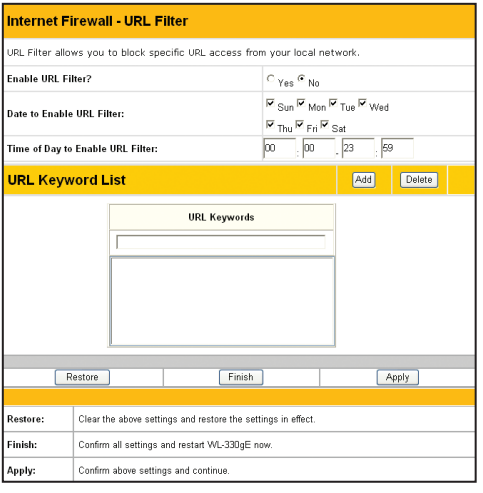
WAN & LAN Filter

This function allows you to block specific packets between LAN and WAN. First, you should define the date and time that filtering will take place. Next, you should select the default action for filter in both directions and insert rules for any exceptions.



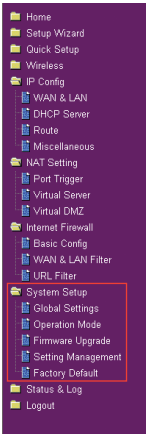
URL Filter

This function allows you to block specific URL access from your local network.



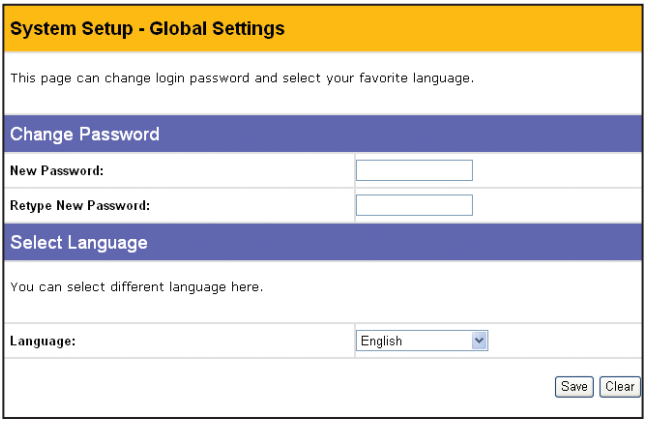
4.3.8 System Setup

Click this item on the menu to reveal a sub menu. Follow the instructions to setup the ASUS 802.11g AP. Tips are given when you move your cursor over each item.



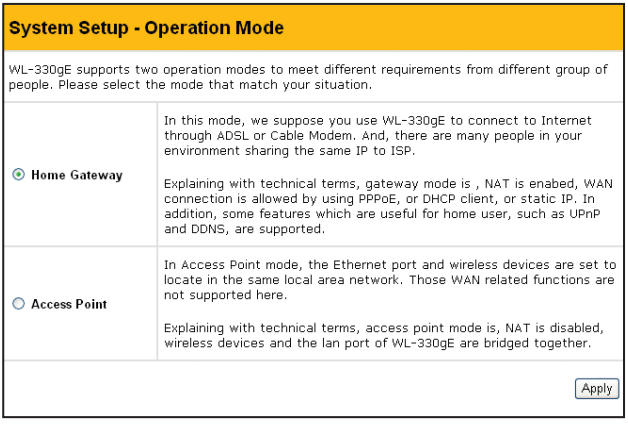
Global Settings

This function allows you to change your password and to select your preferred language.



Operation Mode

This function allows you to select the operation mode for the ASUS WL-330gE. You can select either **Home Gateway** or **Access Point mode**.



Home Gateway

In this mode, the ASUS WL-330gE is connected to the Internet via ADSL or a cable modem, and multi-users share the same IP to ISP in your network environment.

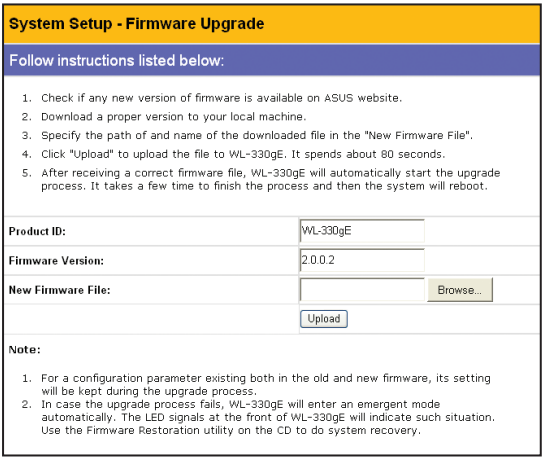
In this mode, NAT is enabled; WAN connection is enabled using PPoE, DHCP client, or static IP; and UPnP and DDNS are supported.

Access Point

In this mode, the Ethernet port and the wireless devices are set in the same local area network (LAN).

In this mode, NAT is disabled; and wireless devices and the LAN port of WL-330gE are bridged together.

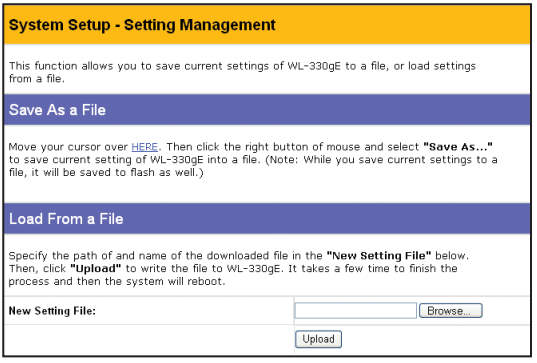
Firmware Upgrade



This page reports the Flash Code (Firmware) version installed in the ASUS 802.11g AP. Periodically, a new Flash Code is available for the ASUS 802.11g APs on ASUS's Web site. You can update the ASUS 802.11g AP's Flash Code using the Firmware Upgrade page under the Advanced Setup menu of the Web Manager. If you are experiencing a problem with your ASUS WLAN equipment, a Technical Support representative may ask you to give your device's Flash Code (Firmware) version.

Note: The firmware upgrade takes approximately 60 to 90 seconds. When the firmware upgrade is completed, you will be directed to the home page.

Setting Management



This function allows you to save current settings to a file, or load settings from a file.

Save As a File

Right-click on **HERE** link and select **Save As...** to save current setting into a file.

Note: When current settings are saved to file, it will be saved to flash as well.

Load From a File

Specify the path and name of the downloaded file in the **New Setting File** below. Then, click **Upload**. The upload process takes few minutes and then the system will reboot.

New Setting File

Click **Browse** to locate the file.

Factory Default

Restoring Factory Default Settings

Web Manager

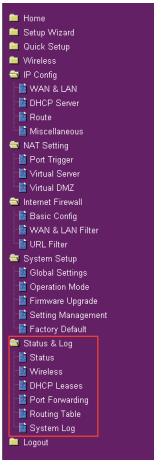
You can reset all settings to their factory default settings through the web manager using the “Factory Default” page in “Advanced Setup”. Click the **Restore** button and wait about 30 seconds before trying to access the ASUS 802.11g AP.

Hardware

You can reset all settings to their factory defaults manually by pushing the “Reset” button of the ASUS 802.11g AP while it is ON. See page 21. Push the “Reset” button with a pen or a paper clip for about 5 seconds or until the power LED starts blinking.

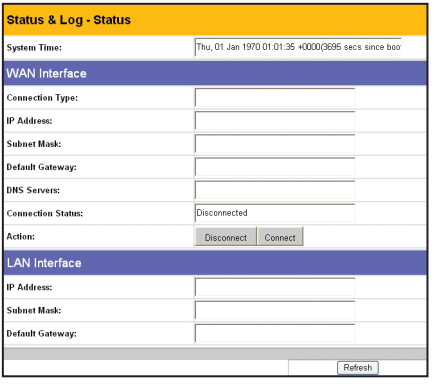
Note: You will be notified when factory default settings are restored while using the web manager.

4.3.9 Status & Log

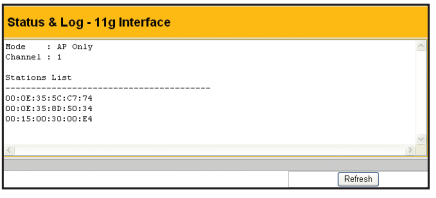


Click this item on the menu to reveal a sub menu. Follow the instructions to setup the ASUS 802.11g AP. Tips are given when you move your cursor over each item.

Status



Wireless



System Up Time

It shows how long the ASUS 802.11g AP has been running since the last bootup.

Chapter 5

This chapter provides instructions on how to use the ASUS Portable Wireless AP on various network setups.

Using the device

5.1 Using the device in a local network

You can use the WL-330gE to connect a wireless LAN-enabled computer to a local network with or without a DHCP server.

To connect a wireless LAN-enabled computer to a local network:

1. Switch the WL-330gE to AP mode. (Default SSID: AP_xxxxxx), then turn on the device.
2. Connect one end of the supplied RJ-45 cable to the Ethernet port of the device and the other end to the Ethernet port of the local network.
3. Use the wireless LAN adapter software in the wireless LAN-enabled computer to perform a Site Survey. Make sure the computer's wireless LAN adapter is set to Infrastructure mode.
4. Establish connection with the WL-330gE.
5. Set the IP configuration of the computer to establish connection to the local network. Verify your connection.

Use the Wireless Setting Utility to change the WL-330gE SSID or encryption settings.

5.2 Replacing the computer Ethernet cables

You can use the WL-330gE to replace your wireless LAN-enabled computer cable connection to an ADSL or cable modem.

To do this:

1. Switch the WL-330gE to AP mode. (Default SSID: AP_xxxxxx), then turn on the device.
2. Connect one end of the supplied RJ-45 cable to the Ethernet port of the device and the other end to the Ethernet port of the ADSL or cable modem.
3. Use the wireless LAN adapter software in the wireless LAN-enabled computer to perform a **Site Survey**. Make sure the computer's wireless LAN adapter is set to **Infrastructure mode**.
4. Establish connection with the WL-330gE.
5. Set the IP configuration of the computer to establish connection to the local network. Verify your connection.

5.3 Replacing the cable connections of other devices

You can also use the WL-330gE to replace your Xbox, PlayStation® 2, orset-top box network cable connection.

To do this:

1. Switch the WL-330gE to Ethernet adapter mode using the mode switch. (Default SSID: ANY)
2. Place the WL-330gE nearest the AP you wish to connect, then turn on the device.
3. Connect one end of the supplied RJ-45 cable to the Ethernet port of the device and the other end to the Xbox, PlayStation® 2, or set-top box Ethernet port.
4. Set the IP address of the Xbox, PlayStation® 2, or set-top box toestablish connection to the local network. Verify your connection.

Make sure the WL-330gE MAC cloning feature is enabled when using the device in this setup. Use the Wireless Setting Utility to enable MAC cloning. See page 3-24 for details on MAC cloning.

5.4 Sharing Internet connection with other computers

Refer to the typical network configuration below and a table on the next page for information on Internet connection sharing with other computers in your office or home network.

Use the mode switch to set the WL-330gE to AP mode before sharing an Internet connection with other computers in your network.

Table 4-1: Internet connection sharing matrix

If your Internet connection is	Then set the IP of other computer(s)	Number of allowed Internet connections
xDSL[1] with dynamic IP (PPPoE[2] account)	ISP automatically assigns the IP (using PPPoE dial-up)	Depends on the Internet Service Provider (ISP)
xDSL with static IP	to the provided static IP	Depends on the Internet Service Provider (ISP)
xDSL/Cable with a router and enable DHCP[3] server	The DHCP server automatically assigns the IP	Depends on the DHCP server, usually about 253

[1]**xDSL -** ADSL (Asymmetric Digital Subscriber Line) or DSL (Digital Subscriber Line)
[2]**PPPoE -** Point-to-Point over Ethernet
[3]**DHCP -** Dynamic Host Configuration Protocol

Appendix

The Appendix features a troubleshooting guide for solving common problems you may encounter when using the ASUS Portable Wireless AP.

Troubleshooting

This troubleshooting guide provides solutions to some common problems that you may encounter while installing or using the ASUS Portable Wireless AP. These problems require simple troubleshooting that you can perform by yourself. Contact the ASUS Technical Support if you encounter problems not mentioned in this section.

Problem	Action
The ASUS Portable Wireless AP does not power up.	• Use a test meter to measure the voltage output of the power source through the power plug. • Check if the power plug is properly connected to the device.
Other devices cannot communicate with the ASUS Portable Wireless AP through a wired network connection.	• Verify your network configuration to ensure that there is no IP address duplication. Turn off the device in question, then ping the assigned IP address of the device. Make sure no other device responds to that address. • Check if the cables have the proper pin outs and connectors. You may also use another LAN cable. • Make sure the hub, switch, or computer connected to the ASUS Portable Wireless AP supports 10Mbps or 100Mbps speed. Do this by check the ASUS Portable Wireless AP and the Hub LEDs. When you connect the ASUS Portable Wireless AP to a 10/100 Mbps hub, both the Hub LED and the ASUS Portable Wireless AP Ethernet LEDs should light up.
My ASUS WLAN card can not associate with the ASUS Portable Wireless AP.	• Make sure your WLAN card has the same specifications as the ASUS Portable Wireless AP (IEEE 802.11b/g). Minimize the distance between the devices. The ASUS WLAN card may be out of range of the ASUS Portable Wireless AP. • Check if the ASUS Portable Wireless AP and the ASUS WLAN card have the same SSID. • When encryption is enabled, check if the ASUS Portable Wireless AP and the ASUS WLAN card have the same encryption settings. • Check if the Wireless LED of the ASUS Portable Wireless AP is on. • When the Access Control table is enabled, check if the MAC address of the ASUS WLAN card is included in the Access Control table. • Check if the ASUS Portable Wireless AP is in “Access Point” mode.
The throughput seems slow.	Avoid placing the device behind a metal object. Clear obstacles between the AP and the device. Try moving the client closer to the ASUS Portable Wireless AP and check if the throughput increases. Consider adding a second ASUS Portable Wireless AP to implement roaming.

Problem	Action
I can not access the ASUS Portable Wireless AP web configuration page.	To access the ASUS Portable Wireless AP web configuration page, your computer must have the same subnet as that of the ASUS Pocket Wireless AP. Adjust your network if your computer's subnet does not match that of the ASUS Portable Wireless AP. The default IP address of the ASUS Portable Wireless AP is "192.168.1.1". In special cases, when the ASUS Portable Wireless AP in Ethernet adapter mode joins an AP network with the same IP address, reset the ASUS Portable Wireless AP to access the Web Configuration utility again.
Where can I get a firmware file to upgrade the ASUS Portable Wireless AP?	You may download the latest firmware file from the ASUS website (www.asus.com). Use the Firmware Upgrade page in the Web Configuration utility to update the ASUS Portable Wireless AP firmware.
The ASUS Portable Wireless AP Power LED continuously blinks for more than a minute.	Turn off the ASUS Portable Wireless AP. Turn the device again and observe if the Power LED stops blinking. If the blinking continues, you need to restore the ASUS Portable Wireless AP firmware. Use the Firmware Restoration utility to restore or update the ASUS Portable Wireless AP firmware.
A wireless client wants to connect to the ASUS Portable Wireless AP but can not get the correct IP from the DHCP server. (The ASUS Portable Wireless AP has an enabled DHCP.)	Make sure the DHCP server is working properly. Some DHCP servers can only assign one IP address at a time. In this case, assign a fixed IP address to your ASUS Portable Wireless AP.