

**LINKSYS**® by Cisco



USER GUIDE

# Wireless-N Access Point with Dual-Band

Model: **WAP610N**



# About This Guide

## Icon Descriptions

While reading through the User Guide you may see various icons that call attention to specific items. Below is a description of these icons:



**NOTE:** This check mark indicates that there is a note of interest and is something that you should pay special attention to while using the product.



**WARNING:** This exclamation point indicates that there is a caution or warning and it is something that could damage your property or product.



**WEB:** This globe icon indicates a noteworthy website address or e-mail address.

## Online Resources

Website addresses in this document are listed without **http://** in front of the address because most current web browsers do not require it. If you use an older web browser, you may have to add **http://** in front of the web address.

Resource	Website
Linksys	<a href="http://www.linksysbycisco.com">www.linksysbycisco.com</a>
Linksys International	<a href="http://www.linksysbycisco.com/international">www.linksysbycisco.com/international</a>
Glossary	<a href="http://www.linksysbycisco.com/glossary">www.linksysbycisco.com/glossary</a>
Network Security	<a href="http://www.linksysbycisco.com/security">www.linksysbycisco.com/security</a>

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## Chapter 1: Product Overview

Thank you for choosing the Linksys by Cisco Wireless-N Access Point with Dual-Band. The Wireless-N Access Point with Dual-Band adds wireless capability to your existing wired network, or upgrades older wireless networks to Wireless-N performance. For first-time installation, run the Setup Wizard on the enclosed CD. To configure advanced settings, use the convenient, browser-based utility.

### LEDs Panel



 **Wireless** (Blue) The Wireless LED lights up when there is a wireless connection. The LED flashes when the Access Point is actively sending or receiving data over the wireless network.



**Wi-Fi Protected Setup™ Button** If you have client devices, such as wireless adapters, that support Wi-Fi Protected Setup™, then you can use Wi-Fi Protected Setup™ to automatically configure wireless security for your wireless network. To use Wi-Fi Protected Setup™, run the Setup Wizard, or refer to **“Wireless > Basic Wireless Settings” on page 4.**

**Wi-Fi Protected Setup™ LED** (Blue/Amber) The LED flashes blue for two minutes during Wi-Fi Protected Setup™. It lights up blue when wireless security is enabled. If there is an error during the Wi-Fi Protected Setup™ process, then the LED lights up amber. Make sure the client device supports Wi-Fi Protected Setup™. Wait until the LED is off, and then try again.



**Ethernet** (Blue) The Ethernet LED lights up when there is a wired connection. The LED flashes when the Access Point is actively sending or receiving data over the Ethernet port.



**Power** (Blue) The Power LED lights up when the Access Point is powered on.

### Ports Panel



**Ethernet** The Ethernet port connects the Access Point to a router.



**Reset** There are two ways to reset the Access Point's factory defaults. Either press and hold the Reset button for approximately five seconds, or restore the defaults from the *Administration > Factory Defaults* screen in the Access Point's browser-based utility.



**Power** The Power port connects the Access Point to the included power adapter.

## Chapter 2: Wireless Security Checklist

Wireless networks are convenient and easy to install, so homes with high-speed Internet access are adopting them at a rapid pace. Because wireless networking operates by sending information over radio waves, it can be more vulnerable to intruders than a traditional wired network. Like signals from your cellular or cordless phones, signals from your wireless network can also be intercepted. Since you cannot physically prevent someone from connecting to your wireless network, you need to take some additional steps to keep your network secure.

### 1. Change the default wireless network name or SSID

Wireless devices have a default wireless network name or Service Set Identifier (SSID) set by the factory. This is the name of your wireless network, and can be up to 32 characters in length. Linksys wireless products use **linksys** as the default wireless network name. You should change the wireless network name to something unique to distinguish your wireless network from other wireless networks that may exist around you, but do not use personal information (such as your Social Security number) because this information may be available for anyone to see when browsing for wireless networks.

### 2. Change the default password

For wireless products such as access points and routers, you will be asked for a password when you want to change their settings. These devices have a default password set by the factory. The Linksys default password is **admin**. Hackers know these defaults and may try to use them to access your wireless device and change your network settings. To thwart any unauthorized changes, customize the device's password so it will be hard to guess.

### 3. Enable MAC address filtering

Linksys routers and access points give you the ability to enable Media Access Control (MAC) address filtering. The MAC address is a unique series of numbers and letters assigned to every networking device. With MAC address filtering enabled, wireless network access is provided solely for wireless devices with specific MAC addresses. For example, you can specify the MAC address of each computer in your home so that only those computers can access your wireless network.

### 4. Enable encryption

Encryption protects data transmitted over a wireless network. Wi-Fi Protected Access (WPA/WPA2) and Wired Equivalent Privacy (WEP) offer different levels of security for wireless communication.

A network encrypted with WPA/WPA2 is more secure than a network encrypted with WEP, because WPA/WPA2 uses dynamic key encryption. To protect the information as it passes over the airwaves, you should enable the highest level of encryption supported by your network equipment.

WEP is an older encryption standard and may be the only option available on some older devices that do not support WPA.

### General Network Security Guidelines

Wireless network security is useless if the underlying network is not secure.

- Password protect all computers on the network and individually password protect sensitive files.
- Change passwords on a regular basis.
- Install anti-virus software and personal firewall software.
- Disable file sharing (peer-to-peer). Some applications may open file sharing without your consent and/or knowledge.

### Additional Security Tips

- Keep wireless routers, access points, or modem routers away from exterior walls and windows.
- Turn wireless routers, access points, or modem routers off when they are not being used (at night, during vacations).
- Use strong passphrases that are at least eight characters in length. Combine letters and numbers to avoid using standard words that can be found in the dictionary.



**WEB:** For more information on wireless security, visit [www.linksysbycisco.com/security](http://www.linksysbycisco.com/security)



## Chapter 3: Advanced Configuration

After setting up the Access Point with the Setup Wizard (located on the CD-ROM), the Access Point will be ready for use. However, if you want to change its advanced settings, use the Access Point's browser-based utility. This chapter describes each page of the utility and each page's key functions. You can access the utility via a web browser on a computer networked with the Access Point.

The browser-based utility has these main tabs: Setup, Wireless, Administration, and Status. Additional tabs will be available after you click one of the main tabs.

### How to Access the Browser-based Utility

In order to access the browser-based utility, you need a web browser and the IP address of the Access Point.

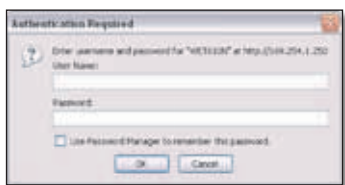
If the Access Point is connected to a network with a DHCP server (usually the network router), then the Access Point will obtain its IP address from the DHCP server.

To determine the Access Point's IP address, look for it in your router's DHCP client table. (Refer to your router's documentation for instructions on accessing the DHCP client table.)

If you cannot find the Access Point's IP address, then reset the Access Point. Press the **Reset** button on the Access Point for approximately five seconds, using a straightened paper clip. This will restore the Access Point's factory default settings. The Access Point will then request an IP address from the DHCP server (usually the network router).

After you have determined the Access Point's IP address, launch your web browser, and enter the Access Point's IP address in the *Address* field. Press **Enter**.

A password request screen appears. (Non-Windows XP users will see a similar screen.) Leave the *User name* field blank. Enter the password you created during the Setup Wizard. If you did not create a new password, use the default password **admin**. (You can set a new password from the *Administration > Management* screen.) Click **OK** to continue.



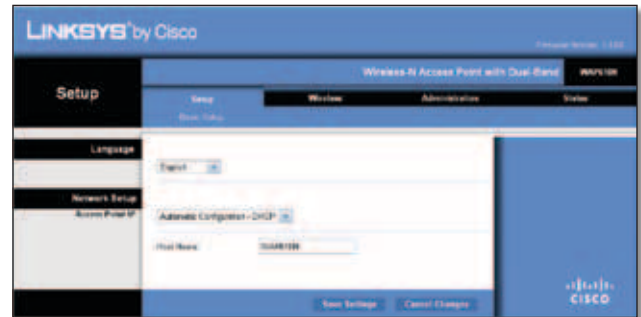
Password Screen



**NOTE:** If the password request screen does not appear, wait two minutes and try again.

### Setup > Basic Setup

The first screen that appears is the *Basic Setup* screen. Use this screen to change the browser-based utility's language, or to change the Access Point's wired, Ethernet network settings.



Setup > Basic Setup (Automatic Configuration - DHCP)



Setup > Basic Setup (Static IP)

### Language

**Language** This is used to set the language displayed by the browser-based utility. Select the desired language from the drop-down menu.

### Network Setup

This section determines if the Access Point's IP address is obtained automatically from a DHCP server, such as your network router (Automatic Configuration - DHCP), or set manually (Static IP).

**Access Point IP** If your network has a DHCP server, such as your network router, assigning IP addresses to your network devices, then keep the default, **Automatic Configuration - DHCP**. The Access Point will request an IP address from the DHCP server (usually the network router).

If you want to set a permanent static IP address for the Access Point, then select **Static IP**.

If you select Static IP, then complete the following fields:

- **Static IP Address** Enter a unique IP address that will be used to access the browser-based utility.
- **Subnet Mask** Enter the subnet mask of your wired network.
- **Default Gateway** Enter the IP address of the default gateway for your network (in most cases, this is your router).

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

## Wireless > Basic Wireless Settings

Use the *Basic Wireless Settings* screen to configure the Access Point's basic wireless and security settings.

There are two ways to configure the Access Point's settings, manual and Wi-Fi Protected Setup™. Wi-Fi Protected Setup™ is a feature that makes it easy to set up your wireless network. If you have client devices, such as wireless adapters, that support Wi-Fi Protected Setup, then you can use Wi-Fi Protected Setup to configure wireless security for your wireless network.

**Configuration View** To manually configure your wireless network, select **Manual**. Then proceed to **"Basic Wireless Settings (Manual)" on page 4**. To use Wi-Fi Protected Setup, select **Wi-Fi Protected Setup**. Then proceed to **"Wi-Fi Protected Setup™" on page 6**.

### Basic Wireless Settings (Manual)



Wireless > Basic Wireless Settings (Manual)

**Wireless Band** This is used to select the 2.4 GHz or 5.0 GHz band.

**Network Mode (5 GHz)** From this drop-down menu, you can select the wireless standards running on your network. If you have only Wireless-A devices in your network, select **Wireless-A Only**. If you have only Wireless-N devices in your network, select **Wireless-N Only**. If you have Wireless-N and Wireless-A devices in your network, keep the default setting, **Mixed**.

**Network Mode (2.4 GHz)** From this drop-down menu, you can select the wireless standards running on your network. If you have Wireless-N, Wireless-G, and Wireless-B devices in your network, keep the default, **Mixed**. If you have only Wireless-N devices, select **Wireless-N Only**. If you have only Wireless-G and Wireless-B devices in your network, select **Wireless-B/G Only**. If you have only Wireless-G devices, select **Wireless-G Only**. If you have only Wireless-B devices, select **Wireless-B Only**.

**Network Name (SSID)** The SSID is the network name shared among all points in a wireless network. The SSID must be identical for all devices in the wireless network. It is case-sensitive and must not exceed 32 characters (use any characters on the keyboard). Make sure this setting is the same for all points in your wireless network. For added security, you should change the default SSID (**linksys**) to a unique name.

**Channel Width** For best performance in a Wireless-N network, select **40MHz only**. For Wireless-A, Wireless-G, and Wireless-B networking only, or if you are not sure which option to use, keep the default, **20MHz only**.



**NOTE:** If you select **40MHz only** for the Channel Width setting, then Wireless-N can use two channels: a primary one (Wide Channel) and a secondary one (Standard Channel). This will enhance Wireless-N performance.

**Wide Channel** If you selected **40 MHz only** for the Channel Width setting, then select the appropriate channel for your wireless network. If you are not sure which channel to select, then keep the default, **Auto**.

**Standard Channel** If you selected **20 MHz only** for the Channel Width setting, then select the appropriate channel for your wireless network. If you are not sure which channel to select, keep the default, **Auto**. If you selected **40MHz only** for the Channel Width setting, then the Standard Channel will be a secondary channel for Wireless-N. If you selected a specific channel for the Wide Channel setting, then the Standard Channel options will be available. Select the appropriate channel for your wireless network.

**SSID Broadcast** When wireless clients survey the local area for wireless networks to associate with, they will detect the SSID broadcast by the Access Point. To broadcast the Access Point's SSID, keep the default setting, **Enabled**. If

you do not want to broadcast the Access Point's SSID, then select **Disabled**.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

## Wireless > Wireless Security

The Access Point supports the following wireless security options: WPA Personal, WPA2 Personal, WPA Enterprise, WPA2 Enterprise, and WEP. WPA (Wi-Fi Protected Access) and WPA2 are stronger security methods than WEP (Wired Equivalent Privacy). For more information about wireless security, refer to **"Chapter 2: Wireless Security Checklist" on page 2**.

### Security Mode

Select the security method for your wireless network. If you do not want to use wireless security, keep the default, **Disabled**.



**NOTE:** Each device in your wireless network **MUST** use the same security method and passphrase/key, or else the wireless devices will not be able to communicate with each other.

### WPA Personal

WPA is a security standard stronger than WEP encryption.



Security Mode > WPA Personal

**Encryption** WPA supports the TKIP encryption method, with dynamic encryption keys.

**Passphrase** Enter a passphrase of 8-63 characters.

**Key Renewal** Enter a Key Renewal period, which instructs the Access Point how often it should change the encryption keys. The default Key Renewal period is **3600** seconds.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

### WPA2 Personal

WPA2 is a more advanced, more secure version of WPA.



Security Mode > WPA2 Personal

**Encryption** WPA2 supports two encryption methods, TKIP and AES, with dynamic encryption keys. Select the encryption method, **AES** or **TKIP or AES**. The default selection is **TKIP or AES**.

**Passphrase** Enter a passphrase of 8-63 characters.

**Key Renewal** Enter a Key Renewal period, which instructs the Access Point how often it should change the encryption keys. The default Key Renewal period is **3600** seconds.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

### WPA Enterprise

This option features WPA used in coordination with a RADIUS server. (This should only be used when a RADIUS server is connected to the Access Point.)



Security Mode > WPA Enterprise

**Encryption** WPA supports the TKIP encryption method, with dynamic encryption keys.

**RADIUS Server** Enter the IP Address of the RADIUS server.

**RADIUS Port** Enter the port number of the RADIUS server. The default value is **1812**.

**Shared Secret** Enter the key shared between the Access Point and the server.



**Key Renewal** Enter a Key Renewal period, which instructs the Access Point how often it should change the encryption keys. The default Key Renewal period is **3600** seconds.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

### WPA2 Enterprise

This option features WPA2 used in coordination with a RADIUS server. (This should only be used when a RADIUS server is connected to the Access Point.)



Security Mode > WPA2 Enterprise

**Encryption** WPA2 supports two encryption methods, TKIP and AES, with dynamic encryption keys. Select the encryption method, **AES** or **TKIP or AES**. The default selection is **TKIP or AES**.

**RADIUS Server** Enter the IP Address of the RADIUS server.

**RADIUS Port** Enter the port number of the RADIUS server. The default value is **1812**.

**Shared Secret** Enter the key shared between the Access Point and the server.

**Key Renewal** Enter a Key Renewal period, which instructs the Access Point how often it should change the encryption keys. The default Key Renewal period is **3600** seconds.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

### WEP

WEP is a basic encryption method, which is not as secure as WPA or WPA2.



Security Mode > WEP

**Encryption** Select a level of WEP encryption, **40/64 bits (10 hex digits)** or **104/128 bits (26 hex digits)**. The default is **40/64 bits (10 hex digits)**.

**Key 1** Enter the WEP key of your network.

**Tx Key Key 1** is the transmit key used by the Access Point.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

### Wi-Fi Protected Setup™

Wi-Fi Protected Setup™ is a feature that makes it easy to set up your wireless network. If you have client devices, such as wireless adapters, that support Wi-Fi Protected Setup, then you can use Wi-Fi Protected Setup to configure wireless security for your wireless network. Otherwise, use manual setup (refer to **“Basic Wireless Settings (Manual)” on page 4**).



Wireless > Basic Wireless Settings (Wi-Fi Protected Setup)

There are three methods available for Wi-Fi Protected Setup. Use the method that applies to the client device you are configuring.

**1. Use Wi-Fi Protected Setup Button** Use this method if your client device has a Wi-Fi Protected Setup button.

- a. Click or press the **Wi-Fi Protected Setup** button on the client device.

- b. Within two minutes, click the **Wi-Fi Protected Setup** button on the Access Point's *Wi-Fi Protected Setup* screen.
- c. After the client device has been configured, click **OK**. Then refer back to your client device or its documentation for further instructions



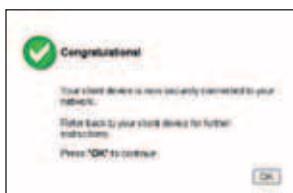
Congratulations

The Wi-Fi Protected Setup Status, Wireless Band, Network Name (SSID), and Security method are displayed at the bottom of the screen.

## 2. Enter Wi-Fi Protected Setup PIN from Client device

Use this method if your client device has a Wi-Fi Protected Setup PIN number.

- a. Enter the PIN number in the field on this screen.
- b. Click **Register**.
- c. After the client device has been configured, click **OK**. Then refer back to your client device or its documentation for further instructions



Congratulations

The Wi-Fi Protected Setup Status, Wireless Band, Network Name (SSID), and Security method are displayed at the bottom of the screen.

## 3. Enter Wi-Fi Protected Setup PIN from Access Point on Client device

Use this method if your client device requests the Access Point's PIN number.

- a. On the **client's** *Wi-Fi Protected Setup* screen, enter the PIN number listed on the **Access Point's** *Wi-Fi Protected Setup* screen. Then click **Register** or the appropriate button. (The PIN number is also listed on the label on the bottom of the Access Point.)
- b. After the client device has been configured, click **OK**. Then refer back to your client device or its documentation for further instructions



Congratulations

The Wi-Fi Protected Setup Status, Wireless Band, Network Name (SSID), and Security method are displayed at the bottom of the screen.

## Wireless > Wireless MAC Filter

Wireless access can be filtered by specifying the MAC addresses of wireless devices within range of your network.



Wireless &gt; Wireless MAC Filter

## Wireless MAC Filter

**Enabled/Disabled** To filter wireless users by MAC Address, either permitting or blocking access, select **Enabled**. If you do not wish to filter users by MAC Address, keep the default setting, **Disabled**.

### Access Restriction

**Prevent** Select this to block wireless access by MAC Address. This option is selected by default.

**Permit** Select this to allow wireless access by MAC Address. This option is not selected by default.

### MAC Address Filter List

**Wireless Client List** Click this to open the *Wireless Client List* screen.

## Wireless Client List



Wireless Client List

This screen shows computers and other devices on the wireless network. The list can be sorted by MAC Address and Status.

Select **Save to MAC Address Filter List** for any device you want to add to the MAC Address Filter List. Then click **Add**.

To retrieve the most up-to-date information, click **Refresh**. To return to the Wireless MAC Filter screen, click **Close**.

**MAC 01-32** Enter the MAC addresses of the devices whose wireless access you want to block or allow.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

## Wireless &gt; WMM®

Configure the Wireless MultiMedia (WMM) settings. WMM prioritizes packets depending on their respective access mode (traffic type): Background, Best Effort, Video, or Voice. These settings should only be adjusted by an expert administrator as incorrect settings can reduce wireless performance.



Wireless &gt; WMM



**NOTE:** The settings on the *WMM* screen are designed for advanced users only.

## WMM®

## Access Mode

You can assign different settings to the four access modes available. Select the mode you want to configure: **Background**, **Best Effort**, **Video**, or **Voice**. Follow the instructions for the mode you select.

## Background

**Use Aggregation** This option defines whether or not the Media Access Control (MAC) layer will set up an Add Block Acknowledgement (ADDBA) session. The default is **No**. Select **Yes** to enable this option.

**Accept Aggregation** This option defines whether or not the MAC layer will accept an ADDBA request. The default is **Yes**. Select **No** to disable this option.

**Max. Number of Packets in Aggregation** This option defines the maximum number of packets (sub-frames) in the aggregate. The range is **0** to **7**. The default is **7**.

**Max. Aggregation Size** This option defines the maximum size of the aggregate (in bytes). The range is **0** to **16000**. The default is **12000**.

**Timeout Interval** This option defines the timeout period in which the aggregate should be closed with a “closing condition” before it is closed by the timer. The range is **0** to **100** ms. The default is **3**.

**Min. Size of Packet in Aggregation** This option defines the minimum size (in bytes) of packets to be accumulated in the aggregate. The range is **0** to **1500**. The default is **10**.

**ADDBA Timeout** This option defines the duration after which the ADDBA setup is terminated, if there are no frame exchanges within this duration by the Block Acknowledgement (ACK) agreement. The range is **0** to **65535** ms. The default is **0**, which disables the timeout.

**Aggregation Window Size** This option defines the maximum number of packets transmitted without getting ACKs. The range is **0** to **64**. The default is **64**.

**CW Min for STA** This option defines the minimum contention window limit from which the random backoff is computed for an STA in BSS. The range is **15** to **1023**. The default is **15**.

**CW Max for STA** This option defines the maximum contention window limit from which the random backoff is computed for an STA in BSS. The range is **15** to **1023**. The default is **1023**.

**AIFS for STA** This option defines the Arbitration Interframe Space Number for an STA in BSS. The range is **0** to **15**. The default is **7**.

**TXOP for STA** This option defines the Transmission Opportunity for an STA in BSS. The range is **0** to **8192**. The default is **0**.

**CW Min for AP** This option defines the minimum contention window limits from which the random backoff is computed for AP. The range is **15** to **1023**. The default is **15**.

**CW Max for AP** This option defines the maximum contention window limits from which the random backoff is computed for AP. The range is **15** to **1023**. The default is **1023**.

**AIFSN for AP** This option defines the Arbitration Interframe Space Number for AP. The range is **0** to **15**. The default is **7**.

**TXOP for AP** This option defines the Transmission Opportunity for AP. The range is **0** to **8192**. The default is **0**.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

### Best Effort

**Use Aggregation** This option defines whether or not the Media Access Control (MAC) layer will set up an Add Block Acknowledgement (ADDBA) session. The default is **Yes**. Select **No** to disable this option.

**Accept Aggregation** This option defines whether or not the MAC layer will accept an ADDBA request. The default is **Yes**. Select **No** to disable this option.

**Max. Number of Packets in Aggregation** This option defines the maximum number of packets (sub-frames) in the aggregate. The range is **0** to **16**. The default is **10**.

**Max. Aggregation Size** This option defines the maximum size of the aggregate (in bytes). The range is **0** to **20000**. The default is **16000**.

**Timeout Interval** This option defines the timeout period in which the aggregate should be closed with a “closing condition” before it is closed by the timer. The range is **0** to **100** ms. The default is **3**.

**Min. Size of Packet in Aggregation** This option defines the minimum size (in bytes) of packets to be accumulated in the aggregate. The range is **0** to **1500**. The default is **10**.

**ADDBA Timeout** This option defines the duration after which the ADDBA setup is terminated, if there are no frame exchanges within this duration by the Block Acknowledgement (ACK) agreement. The range is **0** to **65535** ms. The default is **0**, which disables the timeout.

**Aggregation Window Size** This option defines the maximum number of packets transmitted without getting ACKs. The range is **0** to **64**. The default is **64**.

**CW Min for STA** This option defines the minimum contention window limit from which the random backoff is computed for an STA in BSS. The range is **15** to **1023**. The default is **15**.

**CW Max for STA** This option defines the maximum contention window limit from which the random backoff is computed for an STA in BSS. The range is **15** to **1023**. The default is **1023**.

**AIFSN for STA** This option defines the Arbitration Interframe Space Number for an STA in BSS. The range is **0** to **15**. The default is **3**.

**TXOP for STA** This option defines the Transmission Opportunity for an STA in BSS. The range is **0** to **8192**. The default is **0**.

**CW Min for AP** This option defines the minimum contention window limits from which the random backoff is computed for AP. The range is **15** to **63**. The default is **15**.

**CW Max for AP** This option defines the maximum contention window limits from which the random backoff is computed for AP. The range is **15** to **63**. The default is **63**.

**AIFSN for AP** This option defines the Arbitration Interframe Space Number for AP. The range is **0** to **15**. The default is **3**.

**TXOP for AP** This option defines the Transmission Opportunity for AP. The range is **0** to **8192**. The default is **0**.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

### Video

**Use Aggregation** This option defines whether or not the Media Access Control (MAC) layer will set up an Add Block Acknowledgement (ADDBA) session. The default is **Yes**. Select **No** to disable this option.

**Accept Aggregation** This option defines whether or not the MAC layer will accept an ADDBA request. The default is **Yes**. Select **No** to disable this option.

**Max. Number of Packets in Aggregation** This option defines the maximum number of packets (sub-frames) in the aggregate. The range is **0** to **7**. The default is **7**.

**Max. Aggregation Size** This option defines the maximum size of the aggregate (in bytes). The range is **0** to **16000**. The default is **12000**.

**Timeout Interval** This option defines the timeout period in which the aggregate should be closed with a “closing condition” before it is closed by the timer. The range is **0** to **100** ms. The default is **3**.

**Min. Size of Packet in Aggregation** This option defines the minimum size (in bytes) of packets to be accumulated in the aggregate. The range is **0** to **1500**. The default is **10**.



**ADDBA Timeout** This option defines the duration after which the ADDBA setup is terminated, if there are no frame exchanges within this duration by the Block Acknowledgement (ACK) agreement. The range is **0** to **65535** ms. The default is **0**, which disables the timeout.

**Aggregation Window Size** This option defines the maximum number of packets transmitted without getting ACKs. The range is **0** to **64**. The default is **64**.

**CW Min for STA** This option defines the minimum contention window limit from which the random backoff is computed for an STA in BSS. The value is set to **7** (default) and cannot be changed.

**CW Max for STA** This option defines the maximum contention window limit from which the random backoff is computed for an STA in BSS. The value is set to **15** (default) and cannot be changed.

**AIFSN for STA** This option defines the Arbitration Interframe Space Number for an STA in BSS. The range is **0** to **15**. The default is **2**.

**TXOP for STA** This option defines the Transmission Opportunity for an STA in BSS. The range is **0** to **8192**. The default is **3008**.

**CW Min for AP** This option defines the minimum contention window limits from which the random backoff is computed for AP. The value is set to **7** (default) and cannot be changed.

**CW Max for AP** This option defines the maximum contention window limits from which the random backoff is computed for AP. The value is set to **15** (default) and cannot be changed.

**AIFSN for AP** This option defines the Arbitration Interframe Space Number for AP. The range is **0** to **15**. The default is **1**.

**TXOP for AP** This option defines the Transmission Opportunity for AP. The range is **0** to **8192**. The default is **3008**.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

### Voice

**Use Aggregation** This option defines whether or not the Media Access Control (MAC) layer will set up an Add Block Acknowledgement (ADDBA) session. The default is **Yes**. Select **No** to disable this option.

**Accept Aggregation** This option defines whether or not the MAC layer will accept an ADDBA request. The default is **Yes**. Select **No** to disable this option.

**Max. Number of Packets in Aggregation** This option defines the maximum number of packets (sub-frames) in the aggregate. The range is **0** to **2**. The default is **2**.

**Max. Aggregation Size** This option defines the maximum size of the aggregate (in bytes). The range is **0** to **16000**. The default is **10000**.

**Timeout Interval** This option defines the timeout period in which the aggregate should be closed with a "closing condition" before it is closed by the timer. The range is **0** to **100** ms. The default is **10**.

**Min. Size of Packet in Aggregation** This option defines the minimum size (in bytes) of packets to be accumulated in the aggregate. The range is **0** to **1500**. The default is **10**.

**ADDBA Timeout** This option defines the duration after which the ADDBA setup is terminated, if there are no frame exchanges within this duration by the Block Acknowledgement (ACK) agreement. The range is **0** to **65535** ms. The default is **0**, which disables the timeout.

**Aggregation Window Size** This option defines the maximum number of packets transmitted without getting ACKs. The range is **0** to **64**. The default is **64**.

**CW Min for STA** This option defines the minimum contention window limit from which the random backoff is computed for an STA in BSS. The value is set to **3** (default) and cannot be changed.

**CW Max for STA** This option defines the maximum contention window limit from which the random backoff is computed for an STA in BSS. The value is set to **7** (default) and cannot be changed.

**AIFSN for STA** This option defines the Arbitration Interframe Space Number for an STA in BSS. The range is **0** to **15**. The default is **2**.

**TXOP for STA** This option defines the Transmission Opportunity for an STA in BSS. The range is **0** to **8192**. The default is **1504**.

**CW Min for AP** This option defines the minimum contention window limits from which the random backoff is computed for AP. The value is set to **3** (default) and cannot be changed.

**CW Max for AP** This option defines the maximum contention window limits from which the random backoff is computed for AP. The value is set to **7** (default) and cannot be changed.

**AIFSN for AP** This option defines the Arbitration Interframe Space Number for AP. The range is **0** to **15**. The default is **1**.

**TXOP for AP** This option defines the Transmission Opportunity for AP. The range is **0** to **8192**. The default is **1504**.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.



## Wireless > Advanced Wireless Settings

Configure the Access Point's advanced wireless functions. These settings should only be adjusted by an expert administrator as incorrect settings can reduce wireless performance.



Wireless > Advanced Wireless Settings



**NOTE:** The settings on the *Advanced Wireless Settings* screen are designed for advanced users only.

### Advanced Wireless

**AP Isolation** This isolates all wireless clients and wireless devices on your network from each other. Wireless devices will be able to communicate with the Access Point but not with each other. To use this function, select **Enabled**. AP Isolation is disabled by default.

**Authentication Type** The Authentication Type setting is available if the Security mode is WEP. The default is set to **Auto**, which allows either Open System or Shared Key authentication to be used. With Open System authentication, the sender and the recipient do NOT use a WEP key for authentication. With Shared Key authentication, the sender and recipient use a WEP key for authentication. Select **Shared Key** to only use Shared Key authentication.

**Basic Rate** The Basic Rate setting is not actually one rate of transmission but a series of rates at which the Access Point can transmit. The Access Point will advertise its Basic Rate to the other wireless devices in your network, so they know which rates will be used. The Access Point will also advertise that it will automatically select the best rate for transmission. The default setting is **Default**, when the Access Point can transmit at all standard wireless rates (1-2Mbps, 5.5Mbps, 11Mbps, 18Mbps, and 24Mbps). Other options are **1-2Mbps**, for use with older wireless technology, and **All**, when the Access Point can transmit at all wireless rates. The Basic Rate is not the actual rate of

data transmission. If you want to specify the Access Point's rate of data transmission, configure the Transmission Rate setting.

**Transmission Rate** The Transmission Rate setting is available if the Network Mode is set to Wireless-B/G Only, Wireless-G Only, Wireless-B Only, Wireless-A Only, or Mixed. The rate of data transmission should be set depending on the speed of your wireless network. You can select from a range of transmission speeds, or you can select **Auto** to have the Access Point automatically use the fastest possible data rate and enable the Auto-Fallback feature. Auto-Fallback will negotiate the best possible connection speed between the Access Point and a wireless client. The default is **Auto**.

**N Transmission Rate** The N Transmission Rate setting is available if the Network Mode is set to Mixed or Wireless-N Only. The rate of data transmission should be set depending on the speed of your Wireless-N networking. You can select from a range of transmission speeds, or you can select **Auto** to have the Access Point automatically use the fastest possible data rate and enable the Auto-Fallback feature. Auto-Fallback will negotiate the best possible connection speed between the Access Point and a wireless client. The default is **Auto**.

**Transmission Power** This option sets the percentage of maximal transmit power relative to the regulatory domain restrictions. For example, if the regulatory domain restriction allows transmissions of up to 20 dB, then setting the percentage at 50% allows maximal transmit power of 10 dB. Select the percentage you want to use: **12%**, **25%**, **50%**, or **100%**. The default is **100%**.

**CTS Protection Mode** The Access Point will automatically use CTS (Clear-To-Send) Protection Mode when your Wireless-N and Wireless-G products are experiencing severe problems and are not able to transmit to the Access Point in an environment with heavy 802.11b traffic. This function boosts the Access Point's ability to catch all Wireless-N and Wireless-G transmissions but will severely decrease performance. The default is **Auto**. To disable this option, select **Disabled**.

**Beacon Interval** Enter a value between 20 and 1000 milliseconds. The Beacon Interval value indicates the frequency interval of the beacon. A beacon is a packet broadcast by the Access Point to synchronize the wireless network. The default value is **100**.

**DTIM Interval** This value, between 1 and 255, indicates the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the Access Point has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Its clients hear the beacons and awaken to receive the broadcast and multicast messages. The default value is **1**.

**RTS Threshold** Should you encounter inconsistent data flow, only minor reduction of the default value, **2347**, is recommended. If a network packet is smaller than the preset RTS threshold size, the RTS/CTS mechanism will not be enabled. The Access Point sends Request to Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission. The RTS Threshold value should remain at its default value of **2347**.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

## Administration > Management

Use this screen to manage specific Access Point functions: access to the browser-based utility, backup of the configuration file, and reboot.



Administration > Management

### Access Point Access

To ensure the Access Point's security, you will be asked for the Access Point's password when you access the Access Point's browser-based utility. The default password is **admin**.

**Access Point Password** Enter a new Password for the Access Point.

**Re-enter to confirm** Enter the Password again to confirm.

**Idle Timeout** The login times out after a period of inactivity that you specify. The range is **60** to **3600** seconds. The default is **600**.

### Local Management Access

**Access via Wireless** If you are using the Access Point in a public domain where you are giving wireless access to your guests, you can disable wireless access to the Access Point's browser-based utility. If you do this, you will only be able to access the browser-based utility via a wired connection. Keep the default, **Enabled**, to allow wireless access to the Access Point's browser-based utility, or select **Disabled** to block wireless access to the utility.

Wireless-N Access Point with Dual-Band

### Backup and Restore

**Backup** To back up the Access Point's configuration settings, click **Backup Configurations**. Then follow the on-screen instructions.

**Restore** To restore the Access Point's configuration settings, click **Browse** and select the configuration file. Then click **Restore Configurations**. (You must have previously backed up the Access Point's configuration settings.)

### System Reboot

**Reboot** To reboot or restart the Access Point, click **Start to Reboot**.

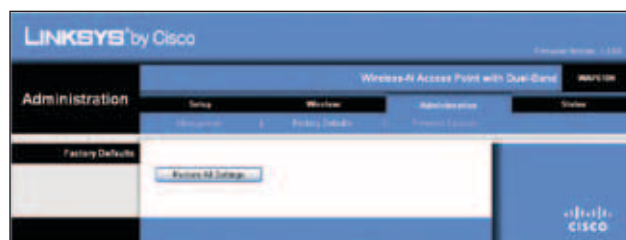
Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

## Administration > Factory Defaults

Use this screen to restore the Access Point's configuration to its factory default settings.

### Factory Defaults

**Restore All Settings** To reset the Access Point's settings to the factory defaults, click **Restore All Settings**. Any settings you have saved will be lost when the default settings are restored.



Administration > Factory Defaults

## Administration > Firmware Upgrade

Use this screen to upgrade the Access Point's firmware. Do not upgrade the firmware unless you are experiencing problems with the Access Point or the new firmware has a feature you want to use.



Administration > Firmware Upgrade

Before upgrading the firmware, download the Access Point's firmware upgrade file from [www.linksysbycisco.com](http://www.linksysbycisco.com).

## Firmware Upgrade

**Please select a file to upgrade the firmware** Click **Browse** and select the firmware upgrade file. Then click **Start to Upgrade** and follow the on-screen instructions.



**WARNING:** The firmware upgrade must not be interrupted; do not reboot or power off the Access Point during the firmware upgrade.

## Status > Access Point

The Access Point's current status information is displayed.



Status > Access Point

## Access Point Information

**Firmware Version** The Access Point's current firmware version is displayed.

## Local Network

**Local MAC Address** The Access Point's MAC Address, as seen on your local, wired Ethernet network, is displayed.

**Access Point IP Address** The Access Point's IP Address, as seen on your local network, is displayed.

**Subnet Mask** The Subnet Mask configured for your local network is displayed.

**Default Gateway** The Default Gateway configured for your local network is displayed.

## Status > Wireless Network

Information about your wireless network is displayed.



Status > Wireless Network

**MAC Address** The Access Point's MAC Address, as seen on your local, wireless network, is displayed.

**Mode** The wireless mode used by the network is displayed.

**Network Name (SSID)** The wireless network name or SSID is displayed.

**Wireless Band** The radio band used the Access Point is displayed.

**Channel Width** The channel width setting, in MHz, is displayed.

**Wide Channel** Depending on the channel settings of your Access Point, the Wide Channel is displayed.

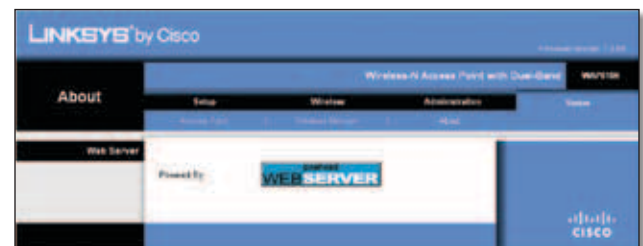
**Standard Channel** The Standard Channel setting is displayed.

**Security** The security method used by the Access Point is displayed.

**SSID Broadcast** The status of SSID broadcast (enabled or disabled) is displayed.

## Status > About

Information about the browser-based utility is displayed.



Status > About

## Web Server

**Powered By** The web server of the browser-based utility is displayed.

## Appendix A: Troubleshooting

### ***The computer cannot connect wirelessly to the network.***

Make sure the wireless network name or SSID is the same on both the computer and the Access Point. If you have enabled wireless security, then make sure the same security method and key are used by both the computer and the Access Point.

### ***The Access Point's IP address needs to be changed.***

If the Access Point is connected to a network with a DHCP server (usually the network router), then the Access Point will obtain its IP address from the DHCP server.

If you want the Access Point to always use a static IP address, then follow these instructions:

1. Access the browser-based utility of the Access Point (refer to **“Chapter 3: Advanced Configuration” on page 3**).
2. Click the **Setup** tab.
3. From the *Access Point IP* drop-down menu, select **Static IP**.
4. Complete the *Static IP Address*, *Subnet Mask*, and *Default Gateway* fields.
5. Click **Save Settings**.

### ***The browser-based utility does not accept your password.***

Check the following:

- The password is case-sensitive. Make sure that you are using the correct case(s) when entering the password.
- If you forget your password, you can reset the Access Point to its factory defaults.

Press and hold the Access Point's **Reset** button for approximately five seconds; the password will be reset to its factory default, **admin**. All other Access Point settings will be reset to the factory defaults as well. (To access the browser-based utility, enter **admin** in the *Password* field.)

### ***After you make changes through the browser-based utility, the new settings are not displayed on-screen.***

On your web browser, click **Refresh**. If the new settings are not displayed, then follow these instructions:

1. Unplug the power adapter from the Access Point.
2. Wait five seconds, and then plug the power adapter back into the Access Point.
3. On your web browser, click **Refresh**.



**WEB:** If your questions are not addressed here, refer to the Linksys website, [www.linksysbycisco.com](http://www.linksysbycisco.com)

## Appendix B: Specifications

Model	WAP610N
Standards	IEEE 802.3u, 802.11g, 802.11b, 802.11a, Draft 802.11n
LEDs	Power, Ethernet, Wi-Fi Protected Setup™, Wireless
Ports	Ethernet, Power
Buttons	Reset, Wi-Fi Protected Setup™
Cabling Type	CAT5
No. of Antennas	3 (internal)
Detachable (Yes/No)	No
Modulations	802.11a: OFDM/BPSK, QPSK, 16-QAM, 64-QAM 802.11b: CCK/QPSK, BPSK 802.11g: OFDM/BPSK, QPSK, 16-QAM, 64-QAM 802.11n: OFDM/BPSK, QPSK, 16-QAM, 64-QAM
RF Power (EIRP) in dBm	802.11a: 15 dBm (typical) @ 54Mbps 802.11b: 18 dBm (typical) @ 11 Mbps 802.11g: 16 dBm (typical) @ 54 Mbps 802.11n: 12 dBm (typical) @ 130 Mbps (HT20), 270 Mbps (HT40)
Receive Sensitivity in dBm	802.11a: -72 dBm (typical) @ 54 Mbps 802.11b: -85 dBm (typical) @ 11 Mbps 802.11g: -73 dBm (typical) @ 54 Mbps 802.11n: -70 dBm (typical) @ MCS15/2.4 GHz, -69 dBm (typical) @ MCS15/5.0 GHz
Antenna Gain in dBi	2.4 GHz: 1.58 5 GHz: 1.45
Wireless Security	WEP, Wi-Fi Protected Access™ 2 (WPA2), Wireless MAC Filtering
Security Key Bits	Up to 128-Bit Encryption
OS Requirements	Windows XP, Vista, or Vista 64-Bit Edition with Latest Updates (for Setup Wizard only)

### Environmental

Dimensions	5.71" x 4.17" x 2.05" (145 x 106 x 52 mm)
Weight	5.61 oz (159 g)

Power	12V, 1A
Certification	FCC, UL/cUL, ICES-003, RSS210, Wi-Fi (IEEE 802.11a/b/g/draft n), WPA2™, Wi-Fi Protected Setup™, WMM®, CE
Operating Temp.	32 to 104°F (0 to 40°C)
Storage Temp.	-4 to 140°F (-20 to 60°C)
Operating Humidity	10 to 85% Noncondensing
Storage Humidity	5 to 90% Noncondensing

Specifications are subject to change without notice.



## Appendix C: Warranty Information

### Limited Warranty

Linksys warrants this Linksys hardware product against defects in materials and workmanship under normal use for the Warranty Period, which begins on the date of purchase by the original end-user purchaser and lasts for the period specified below:

- One (1) year for new product
- Ninety (90) days for refurbished product

Your exclusive remedy and Linksys' entire liability under this limited warranty will be for Linksys, at its option, to (a) repair the product with new or refurbished parts, (b) replace the product with a reasonably available equivalent new or refurbished Linksys product, or (c) refund the purchase price of the product less any rebates. Any repaired or replacement products will be warranted for the remainder of the original Warranty Period or thirty (30) days, whichever is longer. All products and parts that are replaced become the property of Linksys.

Linksys additionally warrants that any media on which the software may be provided will be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of original purchase. Your exclusive remedy and Linksys' entire liability under this limited warranty will be for Linksys, at its option, to (a) replace the software media, or (b) refund the purchase price of the software media.

### Exclusions and Limitations

This limited warranty does not apply if: (a) the product assembly seal has been removed or damaged, (b) the product has been altered or modified, except by Linksys, (c) the product damage was caused by use with non-Linksys products, (d) the product has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Linksys, (e) the product has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident, (f) the serial number on the Product has been altered, defaced, or removed, or (g) the product is supplied or licensed for beta, evaluation, testing or demonstration purposes for which Linksys does not charge a purchase price or license fee.

EXCEPT FOR THE LIMITED WARRANTY ON MEDIA SET FORTH ABOVE AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, ALL SOFTWARE PROVIDED BY LINKSYS WITH THE PRODUCT, WHETHER FACTORY LOADED ON THE PRODUCT OR CONTAINED ON MEDIA ACCOMPANYING THE PRODUCT, IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. Without limiting the foregoing, Linksys does

not warrant that the operation of the product or software will be uninterrupted or error free. Also, due to the continual development of new techniques for intruding upon and attacking networks, Linksys does not warrant that the product, software or any equipment, system or network on which the product or software is used will be free of vulnerability to intrusion or attack. The product may include or be bundled with third party software or service offerings. This limited warranty shall not apply to such third party software or service offerings. This limited warranty does not guarantee any continued availability of a third party's service for which this product's use or operation may require.

TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW, ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE WARRANTY PERIOD. ALL OTHER EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES ARE DISCLAIMED. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary by jurisdiction.

TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW, IN NO EVENT WILL LINKSYS BE LIABLE FOR ANY LOST DATA, REVENUE OR PROFIT, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, REGARDLESS OF THE THEORY OF LIABILITY (INCLUDING NEGLIGENCE), ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT, SOFTWARE OR ANY SERVICES PROVIDED IN RESPECT OF SUCH PRODUCT OR SOFTWARE, EVEN IF LINKSYS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW, IN NO EVENT WILL LINKSYS' LIABILITY EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT. The foregoing limitations will apply even if any warranty or remedy provided under this limited warranty fails of its essential purpose. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

### Obtaining Warranty Service

If you have a question about your product or experience a problem with it, please go to [www.linksysbycisco.com/support](http://www.linksysbycisco.com/support) where you will find a variety of online support tools and information to assist you with your product. If the product proves defective during the Warranty Period, contact Linksys Technical Support for instructions on how to obtain warranty service. The telephone number for Linksys Technical Support in your area can be found in the product User Guide and at [www.linksysbycisco.com](http://www.linksysbycisco.com). Have your product serial number and proof of purchase on hand when calling. A

DATED PROOF OF ORIGINAL PURCHASE IS REQUIRED TO PROCESS WARRANTY CLAIMS. If you are requested to return your product, you will be given a Return Materials Authorization (RMA) number. You are responsible for properly packaging and shipping your product to Linksys at your cost and risk. You must include the RMA number and a copy of your dated proof of original purchase when returning your product. Products received without a RMA number and dated proof of original purchase will be rejected. Do not include any other items with the product you are returning to Linksys. Defective product covered by this limited warranty will be repaired or replaced and returned to you without charge. Customers outside of the United States of America and Canada are responsible for all shipping and handling charges, custom duties, VAT and other associated taxes and charges. Repairs or replacements not covered under this limited warranty will be subject to charge at Linksys' then-current rates.

### Technical Support

This limited warranty is neither a service nor a support contract. Information about Linksys' current technical support offerings and policies (including any fees for support services) can be found at [www.linksysbycisco.com/support](http://www.linksysbycisco.com/support).

This limited warranty is governed by the laws of the jurisdiction in which the Product was purchased by you.

Please direct all inquiries to: Linksys, P.O. Box 18558, Irvine, CA 92623.

## Appendix D: Regulatory Information

### FCC Statement

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

This product has been tested and complies with the specifications 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 according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which is found 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 or devices
- Connect the equipment to an outlet other than the receiver's
- Consult a dealer or an experienced radio/TV technician for assistance

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

For operation within the 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environments.

### FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

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

This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

The availability of some specific channels and/or operational frequency bands is country dependent and programmed at the factory to match the intended destination. This setting is not accessible by the end user.

### Safety Notices



**WARNING:** Do not use this product near water, for example, in a wet basement or near a swimming pool.



**WARNING:** Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.



**WARNING:** This product contains lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

## Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003 and RSS210.

Operation is subject to the following two conditions:

1. This device may not cause interference and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

## Industry Canada Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with IC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

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

## Restrictions in the 5 GHz Band

1. The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.
2. This device has been designed to operate with an antenna having a maximum gain of 1.58 dBi and 1.45 dBi at 2.4 GHz and 5 GHz respectively. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.
3. The maximum antenna gain (please see the table below) permitted (for devices in the bands 5250-5350 MHz and 5470-5725 MHz) to comply with the E.I.R.P. limit:

No.	Antenna Type	For 2.4 GHz Gain (dBi)	For 5 GHz Gain (dBi)	Antenna Connector
1	PIFA	1.58	1.45	N/A
2	Printed	1.58	1.45	N/A
3	PIFA	1.58	1.45	N/A

Because high power radars are allocated as primary users (meaning they have priority) in 5250-5350 MHz and 5650-5850 MHz, these radars could cause interference and/or damage to licensed exempt LAN devices.

Additional requirements for the band 5600-5650 MHz: Until further notice, devices subject to this Section shall not be capable of transmitting in the band 5600-5650 MHz, so that Environment Canada weather radars operating in this band are protected.

## Avis d'Industrie Canada

Cet appareil numérique de la classe B est conforme aux normes NMB-003 et RSS210 du Canada.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes :

1. il ne doit pas produire de brouillage et
2. il doit accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

## Avis d'Industrie Canada concernant l'exposition aux radiofréquences :

Ce matériel est conforme aux limites d'exposition aux radiofréquences établies par Industrie Canada pour un environnement non contrôlé. L'opérateur doit suivre les instructions d'utilisation décrites dans le présent manuel afin de maintenir la conformité de l'installation.

L'émetteur ne doit pas être placé près d'une autre antenne ou d'un autre émetteur, ou fonctionner avec une autre antenne ou un autre émetteur.

## Restrictions dans la bande 5 GHz

1. L'appareil pour la bande de 5 150 à 5 250 MHz est conçu pour usage à l'intérieur seulement afin de réduire le potentiel d'interférences pour les systèmes mobiles par satellite qui utilisent le même canal.
2. Cet appareil est conçu pour fonctionner avec une antenne ayant un gain maximal de 1,58 dBi à 2,4 GHz et de 1,45 dBi à 5 GHz. Les antennes ayant un gain plus élevé sont strictement interdites par Industrie Canada. L'impédance d'antenne requise est de 50 ohms.
3. Le tableau ci-dessous indique le gain d'antenne maximal pour les bandes 5 250-5 350 MHz et 5 470-5 725 MHz afin d'assurer la conformité aux limites PIRE :

N°	Type d'antenne	Pour gain de 2,4 GHz (dBi)	Pour gain de 5 GHz (dBi)	Connecteur d'antenne
1	PIFA	1,58	1,45	S.O.
2	À circuits imprimés	1,58	1,45	S.O.
3	PIFA	1,58	1,45	S.O.

Du fait que les radars haute puissance ont la priorité dans les bandes 5 250-5 350 MHz et 5 650-5 850 MHz, ils pourraient causer des interférences ou endommager les périphériques réseau sans fil.

Autres restrictions pour la bande 5 600-5 650 MHz : sauf avis contraire, les périphériques concernés par cette

section ne doivent pas être capables de transmettre dans la bande 5 600-5 650 MHz afin de protéger les radars d'Environnement Canada qui l'utilisent.

## Wireless Disclaimer

The maximum performance for wireless is derived from IEEE Standard 802.11 specifications. Actual performance can vary, including lower wireless network capacity, data throughput rate, range and coverage. Performance depends on many factors, conditions and variables, including distance from the access point, volume of network traffic, building materials and construction, operating system used, mix of wireless products used, interference and other adverse conditions.

## Avis de non-responsabilité concernant les appareils sans fil

Les performances maximales pour les réseaux sans fil sont tirées des spécifications de la norme IEEE 802.11. Les performances réelles peuvent varier, notamment en fonction de la capacité du réseau sans fil, du débit de la transmission de données, de la portée et de la couverture. Les performances dépendent de facteurs, conditions et variables multiples, en particulier de la distance par rapport au point d'accès, du volume du trafic réseau, des matériaux utilisés dans le bâtiment et du type de construction, du système d'exploitation et de la combinaison de produits sans fil utilisés, des interférences et de toute autre condition défavorable.




## User Information for Consumer Products Covered by EU Directive 2002/96/EC on Waste Electric and Electronic Equipment (WEEE)


This document contains important information for users with regards to the proper disposal and recycling of Linksys products. Consumers are required to comply with this notice for all electronic products bearing the following symbol:




### English - Environmental Information for Customers in the European Union

European Directive 2002/96/EC requires that the equipment bearing this symbol  on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.


### Български (Bulgarian) - Информация относно опазването на околната среда за потребители в Европейския съюз

Европейска директива 2002/96/EC изисква уредите, носещи този символ  върху изделието и/или опаковката му, да не се изхвърлят с несортирани битови отпадъци. Символът обозначава, че изделието трябва да се изхвърля отделно от сметосъбирането на обикновените битови отпадъци. Вашата отговорност е този и другите електрически и електронни уреди да се изхвърлят в предварително определени от държавните или общински органи специализирани пунктове за събиране. Правилното изхвърляне и рециклиране ще спомогнат да се предотвратят евентуални вредни за околната среда и здравето на населението последствия. За по-подробна информация относно изхвърлянето на вашите стари уреди се обърнете към местните власти, службите за сметосъбиране или магазина, от който сте закупили уреда.


### Čeština (Czech) - Informace o ochraně životního prostředí pro zákazníky v zemích Evropské unie

Evropská směrnice 2002/96/ES zakazuje, aby zařízení označené tímto symbolem  na produktu anebo na obalu bylo likvidováno s netříděným komunálním odpadem. Tento symbol udává, že daný produkt musí být likvidován odděleně od běžného komunálního odpadu. Odpovídáte za likvidaci tohoto produktu a dalších elektrických a elektronických zařízení prostřednictvím určených sběrných míst stanovených vládou nebo místními úřady. Správná likvidace a recyklace pomáhá předcházet potenciálním negativním dopadům na životní prostředí a lidské zdraví. Podrobnější informace o likvidaci starého vybavení si laskavě vyžádejte od místních úřadů, podniku zabývajícího se likvidací komunálních odpadů nebo obchodu, kde jste produkt zakoupili.


### Dansk (Danish) - Miljøinformation for kunder i EU

EU-direktiv 2002/96/EF kræver, at udstyr der bærer dette symbol  på produktet og/eller emballagen ikke må bortskaffes som usorteret kommunalt affald. Symbolet betyder, at dette produkt skal bortskaffes adskilt fra det almindelige husholdningsaffald. Det er dit ansvar at bortskaffe dette og andet elektrisk og elektronisk udstyr via bestemte indsamlingssteder udpeget af staten eller de lokale myndigheder. Korrekt bortskaffelse og genvinding vil hjælpe med til at undgå mulige skader for miljøet og menneskers sundhed. Kontakt venligst de lokale myndigheder, renovationstjenesten eller den butik, hvor du har købt produktet, angående mere detaljeret information om bortskaffelse af dit gamle udstyr.


### Deutsch (German) - Umweltinformation für Kunden innerhalb der Europäischen Union

Die Europäische Richtlinie 2002/96/EC verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist , nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt von regulärem Haushaltsmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyceln trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere Informationen zur Entsorgung Ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtischen Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.


### **Eesti (Estonian) - Keskkonnaalane informatsioon Euroopa Liidus asuvatele klientidele**

Euroopa Liidu direktiivi 2002/96/EÜ nõuete kohaselt on seadmeid, millel on tootel või pakendil käesolev sümbol , keelatud kõrvaldada koos sorteerimata olmejäätmetega. See sümbol näitab, et toode tuleks kõrvaldada eraldi tavalistest olmejäätmevoogudest. Olete kohustatud kõrvaldama käesoleva ja ka muud elektri- ja elektroonikaseadmed riigi või kohalike ametiasutuste poolt ette nähtud kogumispunktide kaudu. Seadmete korrektne kõrvaldamine ja ringlussevõtt aitab vältida võimalikke negatiivseid tagajärgi keskkonnale ning inimeste tervisele. Vanade seadmete kõrvaldamise kohta täpsema informatsiooni saamiseks võtke palun ühendust kohalike ametiasutustega, jäätmekäitlusfirmaga või kauplusega, kust te toote ostsite.


### **Español (Spanish) - Información medioambiental para clientes de la Unión Europea**

La Directiva 2002/96/CE de la UE exige que los equipos que lleven este símbolo  en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquiera otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtener información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquirió el producto.


### **Ελληνικά (Greek) - Στοιχεία περιβαλλοντικής προστασίας για πελάτες εντός της Ευρωπαϊκής Ένωσης**

Σύμφωνα με την Κοινοτική Οδηγία 2002/96/ΕΚ, ο εξοπλισμός που φέρει αυτό το σύμβολο  στο προϊόν ή/και τη συσκευασία του δεν πρέπει να απορρίπτεται μαζί με τα μη διαχωρισμένα αστικά απορρίμματα. Το σύμβολο υποδεικνύει ότι αυτό το προϊόν θα πρέπει να απορρίπτεται ξεχωριστά από τα συνήθη οικιακά απορρίμματα. Είστε υπεύθυνος για την απόρριψη του παρόντος και άλλου ηλεκτρικού και ηλεκτρονικού εξοπλισμού μέσω των καθορισμένων εγκαταστάσεων συγκέντρωσης απορριμμάτων, οι οποίες ορίζονται από το κράτος ή τις αρμόδιες τοπικές αρχές. Η σωστή απόρριψη και ανακύκλωση συμβάλλει στην πρόληψη ενδεχόμενων αρνητικών επιπτώσεων στο περιβάλλον και την υγεία. Για περισσότερες πληροφορίες σχετικά με την απόρριψη του παλαιού σας εξοπλισμού, επικοινωνήστε με τις τοπικές αρχές, τις υπηρεσίες αποκομιδής απορριμμάτων ή το κατάστημα από το οποίο αγοράσατε το προϊόν.


### **Français (French) - Informations environnementales pour les clients de l'Union européenne**

La directive européenne 2002/96/CE exige que l'équipement sur lequel est apposé ce symbole  sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être éliminé dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matériel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L'élimination et le recyclage en bonne et due forme ont pour but de lutter contre l'impact néfaste potentiel de ce type de produits sur l'environnement et la santé publique. Pour plus d'informations sur le mode d'élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l'endroit où vous avez acheté le produit.


### **Italiano (Italian) - Informazioni relative all'ambiente per i clienti residenti nell'Unione Europea**

La direttiva europea 2002/96/EC richiede che le apparecchiature contrassegnate con questo simbolo  sul prodotto e/o sull'imballaggio non siano smaltite insieme ai rifiuti urbani non differenziati. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifiuti domestici. È responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per la salute dell'essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, Vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.


### **Latviešu valoda (Latvian) - Ekoloģiska informācija klientiem Eiropas Savienības jurisdikcijā**

Direktīvā 2002/96/EK ir prasība, ka aprīkojumu, kam pievienota zīme  uz paša izstrādājuma vai uz tā iesaiņojuma, nedrīkst izmest nešķīrotā veidā kopā ar komunālajiem atkritumiem (tiem, ko rada vietēji iedzīvotāji un uzņēmumi). Šī zīme nozīmē to, ka šī ierīce ir jāizmet atkritumos tā, lai tā nenonāktu kopā ar parastiem mājsaimniecības atkritumiem. Jūsu pienākums ir šo un citas elektriskas un elektroniskas ierīces izmest atkritumos, izmantojot īpašus atkritumu savākšanas veidus un līdzekļus, ko nodrošina valsts un pašvaldību iestādes. Ja izmešana atkritumos un pārstrāde tiek veikta pareizi, tad mazinās iespējamais kaitējums dabai un cilvēku veselībai. Sīkākas ziņas par novecojuša aprīkojuma izmešanu atkritumos jūs varat saņemt vietējā pašvaldībā, atkritumu savākšanas dienestā, kā arī veikalā, kur iegādājāties šo izstrādājumu.


### Lietuvškai (Lithuanian) - Aplinkosaugos informacija, skirta Europos Sąjungos vartotojams

Europos direktyva 2002/96/EC numato, kad įrangos, kuri ir  kurios pakuotė yra pažymėta šiuo simboliu (įveskite simbolį), negalima šalinti kartu su nerūšiuotomis komunalinėmis atliekomis. Šis simbolis rodo, kad gaminį reikia šalinti atskirai nuo bendro buitinių atliekų srauto. Jūs privalote užtikrinti, kad ši ir kita elektros ar elektroninė įranga būtų šalinama per tam tikras nacionalinės ar vietinės valdžios nustatytas atliekų rinkimo sistemas. Tinkamai šalinant ir perdirbant atliekas, bus išvengta galimos žalos aplinkai ir žmonių sveikatai. Daugiau informacijos apie jūsų senos įrangos šalinimą gali pateikti vietinės valdžios institucijos, atliekų šalinimo tarnybos arba parduotuvės, kuriose įsigijote tą gaminį.


### Malti (Maltese) - Informazzjoni Ambjentali għal Kliġenti fl-Unjoni Ewropea

Id-Direttiva Ewropea 2002/96/KE titlob li t-tagħmir li jkun fih is-simbolu  fuq il-prodott u/jew fuq l-ippakkjar ma jistax jintrema ma' skart municipali li ma giex isseparat. Is-simbolu jindika li dan il-prodott għandu jintrema separatament minn ma' l-iskart domestiku regolari. Hija responsabbiltà tiegħek li tarmi dan it-tagħmir u kull tagħmir ieħor ta' l-elettriku u elettroniku permezz ta' faċilitajiet ta' ġbir appuntati apposta mill-gvern jew mill-awtoritajiet lokali. Ir-rimi b'mod korrett u r-riċiklaġġ jgħin jipprevjeni konsegwenzi negattivi potenzjali għall-ambjent u għas-saħħa tal-bniedem. Għal aktar informazzjoni dettaljata dwar ir-rimi tat-tagħmir antik tiegħek, jekk jogħġbok ikkuntattja lill-awtoritajiet lokali tiegħek, is-servizzi għar-rimi ta' l-iskart, jew il-fanutt minn fejn xtrajt il-prodott.


### Magyar (Hungarian) - Környezetvédelmi információ az európai uniós vásárlók számára

A 2002/96/EC számú európai uniós irányelv megkívánja, hogy azokat a termékeket, amelyeken, és/vagy amelyek csomagolásán az alábbi címke  megjelenik, tilos a többi szelektálatlan lakossági hulladékkal együtt kidobni. A címke azt jelöli, hogy az adott termék kidobásakor a szokványos háztartási hulladékészállítás rendszerektől elkülönített eljárást kell alkalmazni. Az Ön felelőssége, hogy ezt, és más elektromos és elektronikus berendezéseit a kormányzati vagy a helyi hatóságok által kijelölt gyűjtőredszereken keresztül számolja fel. A megfelelő hulladékfeldolgozás segít a környezetre és az emberi egészségre potenciálisan ártalmas negatív hatások megelőzésében. Ha elavult berendezéseinek felszámolásához további részletes információra van szüksége, kérjük, lépjen kapcsolatba a helyi hatóságokkal, a hulladékfeldolgozási szolgálattal, vagy azzal üzlettel, ahol a terméket vásárolta.


### Nederlands (Dutch) - Milieu-informatie voor klanten in de Europese Unie

De Europese Richtlijn 2002/96/EC schrijft voor dat apparatuur die is voorzien van dit symbool  op het product of de verpakking, niet mag worden ingezameld met niet-gescheiden huishoudelijk afval. Dit symbool geeft aan dat het product apart moet worden ingezameld. U bent zelf verantwoordelijk voor de vernietiging van deze en andere elektrische en elektronische apparatuur via de daarvoor door de landelijke of plaatselijke overheid aangewezen inzamelingskanalen. De juiste vernietiging en recycling van deze apparatuur voorkomt mogelijke negatieve gevolgen voor het milieu en de gezondheid. Voor meer informatie over het vernietigen van uw oude apparatuur neemt u contact op met de plaatselijke autoriteiten of afvalverwerkingsdienst, of met de winkel waar u het product hebt aangeschaft.


### Norsk (Norwegian) - Miljøinformasjon for kunder i EU

EU-direktiv 2002/96/EF krever at utstyr med følgende symbol  avbildet på produktet og/eller pakningen, ikke må kastes sammen med usortert avfall. Symbolet indikerer at dette produktet skal håndteres atskilt fra ordinær avfallsinnsamling for husholdningsavfall. Det er ditt ansvar å kvitte deg med dette produktet og annet elektrisk og elektronisk avfall via egne innsamlingsordninger slik myndighetene eller kommunene bestemmer. Korrekt avfallshåndtering og gjenvinning vil være med på å forhindre mulige negative konsekvenser for miljø og helse. For nærmere informasjon om håndtering av det kasserte utstyret ditt, kan du ta kontakt med kommunen, en innsamlingsstasjon for avfall eller butikken der du kjøpte produktet.


### Polski (Polish) - Informacja dla klientów w Unii Europejskiej o przepisach dotyczących ochrony środowiska

Dyrektywa Europejska 2002/96/EC wymaga, aby sprzęt oznaczony symbolem  znajdującym się na produkcie i/lub jego opakowaniu nie był wyrzucany razem z innymi niesortowanymi odpadami komunalnymi. Symbol ten wskazuje, że produkt nie powinien być usuwany razem ze zwykłymi odpadami z gospodarstw domowych. Na Państwu spoczywa obowiązek wyrzucania tego i innych urządzeń elektrycznych oraz elektronicznych w punktach odbioru wyznaczonych przez władze krajowe lub lokalne. Pozbywanie się sprzętu we właściwy sposób i jego recykling pomogą zapobiec potencjalnie negatywnym konsekwencjom dla środowiska i zdrowia ludzkiego. W celu uzyskania szczegółowych informacji o usuwaniu starego sprzętu, prosimy zwrócić się do lokalnych władz, służb oczyszczania miasta lub sklepu, w którym produkt został nabyty.


### Português (Portuguese) - Informação ambiental para clientes da União Europeia

A Directiva Europeia 2002/96/CE exige que o equipamento que exibe este símbolo  no produto e/ou na sua embalagem não seja eliminado junto com os resíduos municipais não separados. O símbolo indica que este produto deve ser eliminado separadamente dos resíduos domésticos regulares. É da sua responsabilidade eliminar este e qualquer outro equipamento eléctrico e electrónico através das instalações de recolha designadas pelas autoridades governamentais ou locais. A eliminação e reciclagem correctas ajudarão a prevenir as consequências negativas para o ambiente e para a saúde humana. Para obter informações mais detalhadas sobre a forma de eliminar o seu equipamento antigo, contacte as autoridades locais, os serviços de eliminação de resíduos ou o estabelecimento comercial onde adquiriu o produto.


### Română (Romanian) - Informații de mediu pentru clienții din Uniunea Europeană

Directiva europeană 2002/96/CE impune ca echipamentele care prezintă acest simbol  pe produs și/sau pe ambalajul acestuia să nu fie casate împreună cu gunoiul menajer municipal. Simbolul indică faptul că acest produs trebuie să fie casat separat de gunoiul menajer obișnuit. Este responsabilitatea dvs. să cașiți acest produs și alte echipamente electrice și electronice prin intermediul unităților de colectare special desemnate de guvern sau de autoritățile locale. Casarea și reciclarea corecte vor ajuta la prevenirea potențialelor consecințe negative asupra sănătății mediului și a oamenilor. Pentru mai multe informații detaliate cu privire la casarea acestui echipament vechi, contactați autoritățile locale, serviciul de salubritate sau magazinul de la care ați achiziționat produsul.


### Slovenčina (Slovak) - Informácie o ochrane životného prostredia pre zákazníkov v Európskej únii

Podľa európskej smernice 2002/96/ES zariadenie s týmto symbolom  na produkte a/alebo jeho balení nesmie byť likvidované spolu s netriedeným komunálnym odpadom. Symbol znamená, že produkt by sa mal likvidovať oddelene od bežného odpadu z domácností. Je vašou povinnosťou likvidovať toto i ostatné elektrické a elektronické zariadenia prostredníctvom špecializovaných zberných zariadení určených vládou alebo miestnymi orgánmi. Správna likvidácia a recyklácia pomôže zabrániť prípadným negatívnym dopadom na životné prostredie a zdravie ľudí. Ak máte záujem o podrobnejšie informácie o likvidácii starého zariadenia, obráťte sa, prosím, na miestne orgány, organizácie zaoberajúce sa likvidáciou odpadov alebo obchod, v ktorom ste si produkt zakúpili.


### Slovenščina (Slovene) - Okoljske informacije za stranke v Evropski uniji

Evropska direktiva 2002/96/ES prepoveduje odlaganje opreme s tem simbolom  – na izdelku in/ali na embalaži z nesortiranimi komunalnimi odpadki. Ta simbol opozarja, da je treba izdelek zavreči ločeno od preostalih gospodinjskih odpadkov. Vaša odgovornost je, da to in preostalo električno in elektronsko opremo oddate na posebna zbirališča, ki jih določijo državne ustanove ali lokalne oblasti. S pravilnim odlaganjem in recikliranjem boste preprečili morebitne škodljive vplive na okolje in zdravje ljudi. Če želite izvedeti več o odlaganju stare opreme, se obrnite na lokalne oblasti, odlagališče odpadkov ali trgovino, kjer ste izdelek kupili.

### Suomi (Finnish) - Ympäristöä koskevia tietoja EU-alueen asiakkaille

EU-direktiivi 2002/96/EY edellyttää, että jos laitteistossa on tämä symboli  itse tuotteessa ja/tai sen pakkauksessa, laitteistoa ei saa hävittää lajittelemattoman yhdyskuntajätteen mukana. Symboli merkitsee sitä, että tämä tuote on hävitettävä erillään tavallisesta kotitalousjätteestä. Sinun vastuullasi on hävittää tämä elektroniikkatuote ja muut vastaavat elektroniikkatuotteet viemällä tuote tai tuotteet viranomaisten määräämään keräyspisteeseen. Laitteiston oikea hävittäminen estää mahdolliset kielteiset vaikutukset ympäristöön ja ihmisten terveyteen. Lisätietoja vanhan laitteiston oikeasta hävitystavasta saa paikallisilta viranomaisilta, jätteenhävityspalvelusta tai siitä myymälästä, josta ostit tuotteen.

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