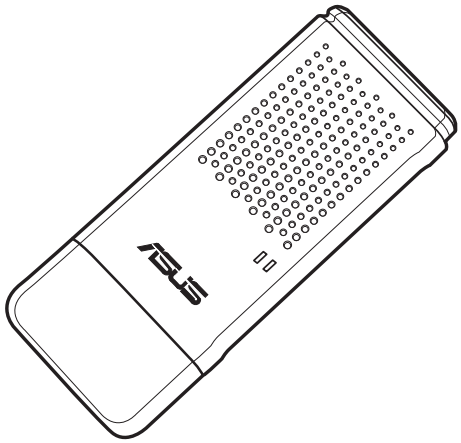
Wireless Local Area Network Adapter

WL-160W

(For 802.11n draft, 80211g & 80211b Networks)



Quick Start Guide

QE2920/ Nov. 2006

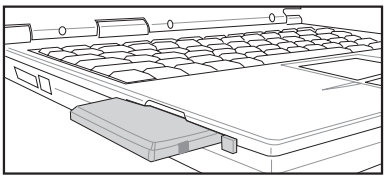
English

Installation Procedures

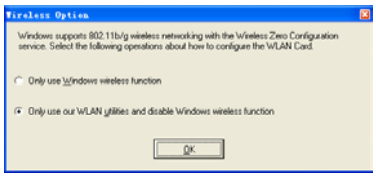
Important: Install the WLAN Adapter utilities before inserting the WLAN Adapter into your computer.

Installing the WLAN utilities and driver

Follow these instructions to install the WLAN Adapter utilities and driver. Insert the support CD into your optical drive. If autorun is enabled in your computer, the CD automatically displays the utility menu. Click **Install ASUS WLAN Adapter Utilities/Driver**. If autorun is disabled, double-click SETUP.EXE in the root directory of the CD.



Carefully insert the WLAN Adapter into your computer's PCMCIA slot. Windows will automatically detect and configure the WLAN Adapter using the utilities and drivers installed in the previous steps.



Windows XP users: When the program is launched for the first time (during Windows restart), you are asked to choose one utility to configure the WLAN Adapter. Select "Only use our WLAN utilities and disable Windows wireless function".

Reading the WLAN status indicators

The device comes with two LEDs that indicate the status of the WLAN Adapter.

ACT LED

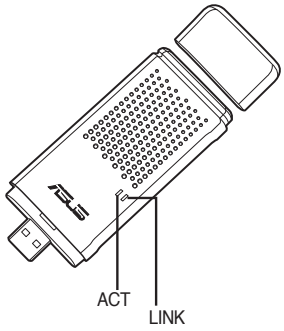
Blinking: Transmitting data; the blinking speed indicates the link speed.

OFF: Radio off or Adapter is disabled.

LINK LED

ON: Connected to wireless device.

OFF: No wireless connection.

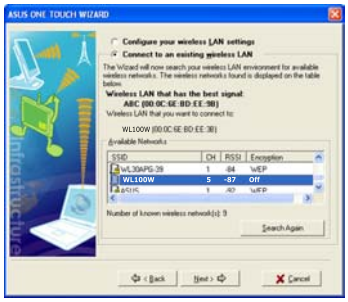


English

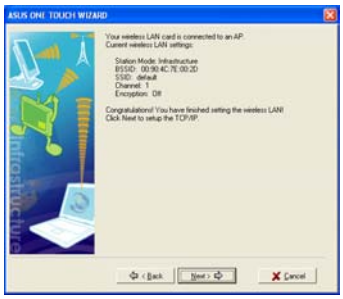
One Touch Wizard

Use One Touch Wizard to setup your wireless connection with an existing wireless LAN.

1. Launch One Touch Wizard from Start menu and click **Next** to set up your wireless network.



2. Select an AP from the **Available Networks** then click **Next**.



3. Connection is complete. Click **Next** to setup the IP address for the WLAN Adapter.

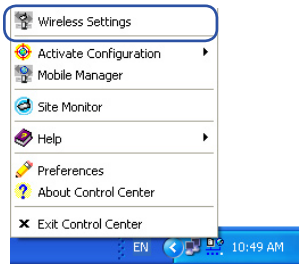
4. Choose to obtain an IP address or to assign static address manually for your WLAN Adapter. When IP setting is complete, click **Finish** to exit the One Touch Wizard.

Note: If the access point you want to connect has set up encryption policies, you must configure the same encryption on your WLAN Adapter. Select "Configure your wireless LAN settings" radio button in step 2 and make the settings accordingly. When the encryption settings are complete, you can launch the One Touch Wizard once again from the Start menu to set up the connection with your AP.

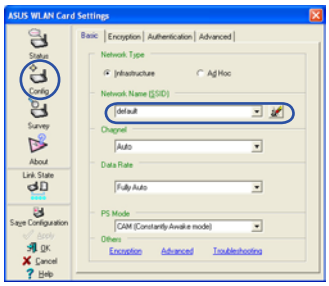
English

Configuring with the WLAN utility (Infrastructure)

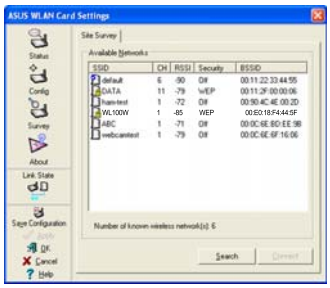
Use ASUS WLAN utility to get connected with an existing wireless network.



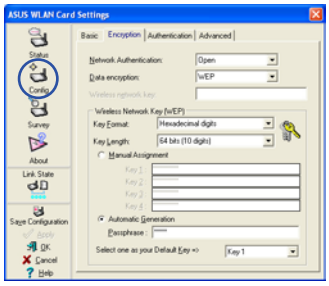
1. Right-click the wireless connection icon and select **Wireless Settings.**



2. Check the **Config** page to set the **SSID** (network name) to that of your wireless AP.

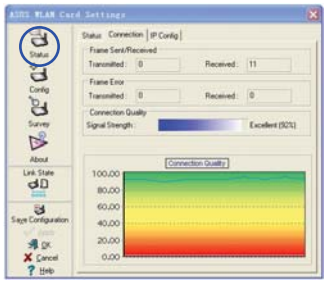


3. Use **Site Survey** if you don't know the SSID of your access point(s).



4. Encryption settings must match those at the access point. Ask your network administrator about settings if necessary. Click **Apply** to activate the settings.

5. Check the **Status** page to see the association state. If connection is established, the box shows "Connected - xx:xx:xx:xx:xx:xx".



6. Check the **Connection** tab to see the signal strength. Click **OK** to exit the utility.

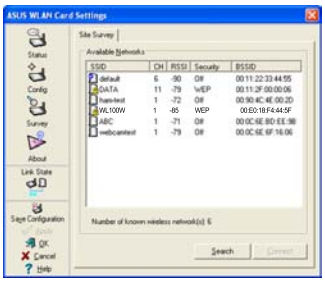
English

Configuring with the WLAN utility (Ad Hoc)

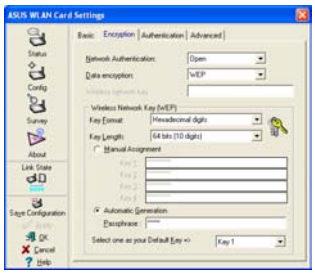
The WLAN adapter supports Ad Hoc mode which allows communication between wireless stations without an AP.

1. Right-click the wireless connection icon and select **Wireless Settings.**

2. Click the Config button and set the WLAN Card **to Ad Hoc** connection mode.

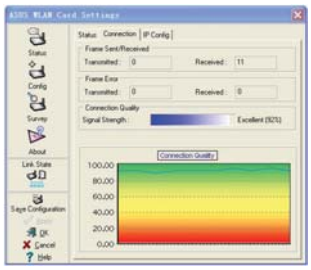


3. Click the **Survey** button to scan for Ad Hoc nodes. Select the node you want to communicate with and press **Connect**.



4. If the encryption settings of your WLAN Adapter are different from those of the other Ad Hoc nodes, you are prompted to make the encryption of the two nodes identical. Click **Apply** to activate the settings.

5. Check the **Status** page to see the association state. If connection is established, the box shows "Connected - xx:xx:xx:xx:xx:xx".



6. Check the **Connection** tab to see the signal strength. Click **OK** to exit the utility.

English

ASUS WLAN Control Center

ASUS WLAN Control Center is an application which makes it easier to launch WLAN applications and activate network location settings. The WLAN Control Center starts automatically when system boots. When WLAN Control Center is running, you can see a Control Center icon on the Windows taskbar.

Starting the Control Center

- Select **ASUS WLAN Control Center** in Windows Start menu, or
- Double-click the **ASUS WLAN Control Center** icon on the desktop.

Using the Control Center

The Control Center taskbar icon displays the following information:

- Link quality of the WLAN Adapter (Excellent, Good, Fair, Poor, Not Linked)
- Whether the WLAN Adapter is connected to a network (Blue: Connected, Gray: Not Connected)

Taskbar Icon and Status

Wireless Status Icons (on the taskbar)

Excellent link quality and **connected to Internet** (Infrastructure)

Good link quality and **connected to Internet** (Infrastructure)

Fair link quality and **connected to Internet** (Infrastructure)

Poor link quality and **connected to Internet** (Infrastructure)

Not linked but **connected to Internet** (Infrastructure)

Excellent link quality but **not connected to Internet** (Infrastructure)

Good link quality but **not connected to Internet** (Infrastructure)

Fair link quality but **not connected to Internet** (Infrastructure)

Poor link quality but **not connected to Internet** (Infrastructure)

Not linked and **not connected to Internet** (Infrastructure)

Taskbar icon - Right-click menu

Right-click the taskbar icon to show the following menu items:

- **Wireless Settings** – Launches Wireless Settings application.
- **Activate Configuration** – Allows you to choose a preset profile.
- **Mobile Manager** – Launches Mobile Manager application.
- **Site Monitor –** Launches the Site Monitor application.
- **Preferences** – Customizes the Control Center program. You can create a Control Center shortcut on the desktop and decide whether to start Control Center when system boots.
- **About Control Center**-Shows the version of Control Center.
- **Exit** – Closes the Control Center program.

Taskbar icon - Left-click menu

Left-click the taskbar icon to show the following menu items:

- **Wireless Radio On** – Turns the wireless radio ON.
- **Wireless Radio Off** – Turns the wireless radio OFF.
- **Search & Connect** – View the properties of available access points.
- **Wireless Option** (Windows® XP only) – Choose Windows® Wireless Zero Configuration (WZC) service or ASUS utilities to configure your WLAN Adapter.

Taskbar Left-Click Menu

Taskbar Icon - Launch Wireless Settings

Double-click the taskbar icon to launch the Wireless Settings utility.

English

ASUS Wireless Settings Utility

Wireless Settings is an application for managing the WLAN Adapter. Use Wireless Settings to view or modify the configuration settings, or to monitor the operational status of your WLAN Adapter. When Wireless Settings is launched, you can see the tabbed property sheets which categorize the configuration options into groups.

Starting Wireless Settings

- Open the Windows **Control Panel**, then double-click the **ASUS WLAN Adapter Settings** icon.

or

- Click the Windows **Start** button, select **Programs I ASUS Utility I WLAN Adapter I Wireless Settings**.

or

- Right-click the **Control Center icon** on the Windows taskbar and select **Wireless Settings**.

NOTE: If you have more than one ASUS WLAN device installed on your computer, you may see a device selection window when you launch the " Wireless Settings" utility. Select the device you want when such situation occurs.

Status - Status

You can view the information about the WLAN Adapter from the Status menu. The status fields are blank if the WLAN Adapter is not installed. You can turn off the WLAN Adapter by clicking the "Disable Radio" button.

Association State

Displays the connection status as follows:

Connected - The adapter is now associated with one wireless LAN device. When operating in Infrastructure mode, this field shows the MAC address of the access point with which the WLAN Adapter is communicating. When operating in Ad Hoc mode, this field shows the virtual MAC address used by computers participating in the Ad Hoc network.

Scanning... : The station is trying to authenticate and associate with an access point or Ad Hoc node.

Disconnected - The WLAN Adapter is installed to the system, but not yet connected to a wireless device.

SSID: Displays the Service Set Identifier (SSID) of the device that the adapter is either associated or intending to join.

MAC address: Shows the hardware address of the WLAN Adapter. MAC address is a unique identifier for networking devices (typically written as twelve hexadecimal digits from 0 through 9 and A through F separated by colons, i.e. 00:E0:18:F0:05:C0).

Current Channel: Displays the radio channel to which the adapter is currently tuned. This number changes as the radio scans the available channels.

Current Data Rate: Displays the current data rate in megabits per second (Mbps).

NOTE: For 802.11n performance, select 40MHz bandwidth in wireless router. Channel option will depend on the bandwidth that you select.

Radio State: Shows the wireless radio status: ON or OFF.

Radio On: When the wireless radio is turned ON, the icon on the right appears in the upper left of the Status page.

Radio Off- When the wireless radio is turned OFF, the icon on the right appears in the upper left of the Status page.

Buttons

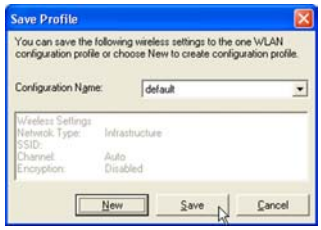
Rescan – Make the WLAN Adapter rescan all available devices. If the current link quality or signal strength is poor, rescanning can be used to push the radio off a weak access point and search for a better link with another access point. This function usually takes several seconds.

Change SSID – Click this button to set the SSID to that of the AP you want to connect.

Search & Connect – Click this button to connect to an available wireless AP.

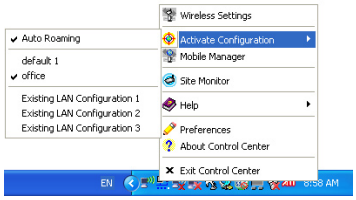
English

Save Configuration



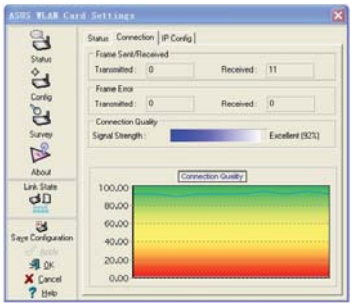
When you make settings for a certain working environment, you may need to save your settings to a profile so that you can easily switch to the settings without repeating the configurations. For example, you can set profiles for work, home and other situations. When you travel form home to work, choose the "office" profile that contains all your settings for office use. When you travel back home, choose the “home” profile.

Activate Configuration



Auto roaming is enabled by default and makes the Adapter automatically switch to APs of better signal. You can uncheck it if you want to connect to a specified AP using a particular profile.

Status - Connection



You can view the current link statistics about the WLAN Adapter. These statistics are updated once per second and are valid if the WLAN Adapter is correctly installed.

Frame Sent/Received

Transmitted - The number of frames that were transmitted.

Received - The number of frames that were received.

Frame Error

Transmitted - The number of frames that were not successfully transmitted.
Received - The number of frames that were not successfully received.

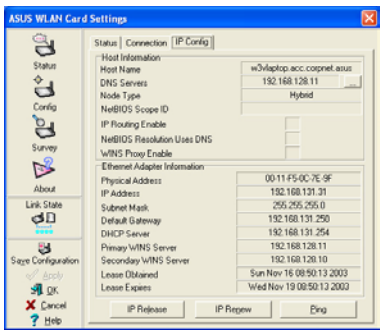
Connection Quality

Signal Strength - Shows the link quality of the access point or Ad Hoc node the WLAN Adapter is currently connected to. Ratings are: Excellent, Good, Fair, and Poor.

Overall Connection Quality

The overall connection quality is derived from the current signal strength. A graphic chart uses percentage to show signal quality.

Status - IP Config



IP Config tab shows all the current host and WLAN Adapter information including host name, DNS servers, IP address, subnet mask and default gateway.

Button

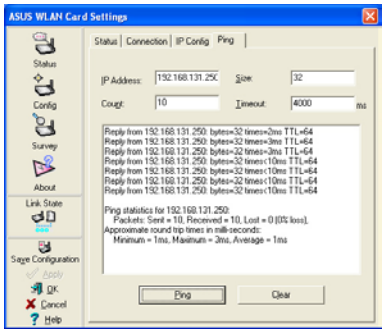
IP Release - If you want to remove the current IP address, click this button to release the IP address from DHCP server.

IP Renew - If you want to obtain a new IP address from DHCP server, click this button to renew the IP address.

Ping - Click this button to open “Ping” tab which is used to ping the devices in your network.

NOTE: The IP Release and IP Renew buttons can only be used on the WLAN Adapter which gets IP address from DHCP server.

Status - Ping



Click the "Ping" button in Status-IP Config tab to open this page. The Ping tab allows you to verify the accessibility of other computers or network devices. To ping a connection:

1. Type the IP address of the device you want to verify in the IP Address field.
2. Configure the ping session by assigning the ping packet size and number of packet to send, and the timeout value (in milliseconds).
3. Click the “Ping” button.

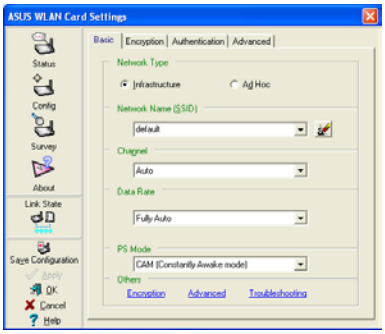
During the ping session, the Ping button toggles into a Stop button. To cancel the ping session, click the “Stop” button.

The session field displays information on the verified connection including the roundtrip time (minimum, maximum, and average) and packets sent, received, and lost after a ping session.

Click the “Clear” button to clear the session field.

English

Config - Basic



This page enables you to change the WLAN Adapter configurations.

Network Type

Infrastructure – Infrastructure means to establish a connection with an access point. Once connected, the access point allows you to access wireless LAN and wired LAN (Ethernet). The Channel field turns to **Auto** if the connection is based on Infrastructure.

Ad Hoc – Ad Hoc means to communicate directly with other wireless clients without using an access point. An “Ad Hoc” network can be setup quickly and easily without pre-planning, for example, sharing meeting notes between attendants in a meeting room.

Network Name (SSID)

SSID stands for “Service Set Identifier”, which is a string used to identify a wireless LAN. Use the SSID to connect with a known access point. You can enter a new SSID or select one from the drop-down list box. If you get connected by designating the SSID, you are only to connect the AP with the SSID you assigned. If the AP is removed from the network, your WLAN Adapter does not roam automatically to other APs. SSIDs must all be printable characters and having a maximum of 32 case sensitive characters, such as “ Wireless”.

NOTE: Set the SSID to a null string, if you wish to allow your station to connect to any access point it can find. But you cannot use null string in Ad Hoc mode.

Channel

The Channel field is for setting radio channel. Your WLAN Adapter can automatically select the correct channel to communicate with a wireless device, and the parameter is fixed to "Auto" in both Infrastructure and Ad Hoc mode.

The available radio channels depend on the regulations in your country. For the United States (FCC) and Canada (IC), channel 1 to 11 are supported.

Click Apply to save and activate the new configurations.

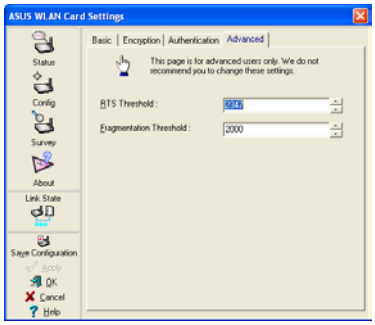
Others

Encryption – Click this link to show the "Encryption" tab.

Advanced – Click this link to show the "Advanced" tab. In most cases, the default values do not have to be changed.

Troubleshooting – Click on this to show the Troubleshooting utility.

Config - Advanced



Click **Advanced** link on Config-Basic page to show this tab. This tab allows you to set up additional parameters for the wireless adapter. We recommend using the default values for all items in this window.

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. Enable RTS/CTS by setting a specific packet size threshold. The default value (2347) is recommended.

Fragmentation Threshold (256-2346)

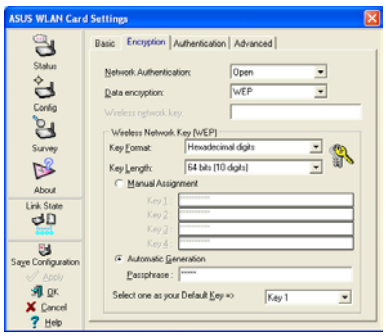
Fragmentation is used to divide 802.11 frames into smaller pieces (fragments) that are sent separately to the destination. Enable fragmentation by setting a specific packet size threshold. If there is an excessive number of collisions on the WLAN, experiment with different fragmentation values to increase the reliability of frame transmissions. The default value (2000) is recommended for normal use.

English

Config - Encryption

This page enables you to configure the Wireless LAN Adapter encryption settings. For data confidentiality in a wireless environment, IEEE 802.11 specifies a Wired Equivalent Privacy (WEP) algorithm to offer transmission privacy. The WEP uses keys to encrypt and decrypt data packets. The encryption process can scramble frame bits to avoid disclosure to others. The WPA/WPA2 is improved security system for 802.11 which are developed to overcome the weakness of the WEP protocol.

Network Authentication



Since there is no precise bound in wireless LANs, the WLAN users need to implement certain mechanism to provide security solution. The Authentication policies in this tab provide protection of different levels such as Open, WEP, WPA, and WPA2.

Open - Select this option to make the network operate on Open System mode, which use no authentication algorithm. Open stations and APs can authenticate with each other without checking any WEP Key, even if there is.

Shared - Select this option to make the network operate on Shared key mode. In a Share Key Authentication system, four-step exchange of frames is required to validate that the station is using the same WEP Key as the access point.

WPA-PSK/ WPA2-PSK - Select this option to enable WPA Pre-Shared Key under Infrastructure mode. It enables communication between your client and APs using WPA-PSK/WPA2-PSK encryption mode.

WPA/ WPA2 - The network is operating in IEEE 802.1x authentication mode. This mode is for environments with RADIUS (Remote Access Dial-in User Service). In a RADIUS environment, various Extensible Authentication Protocol (EAP) are supported, including PEAP, TLS/Smart Card, TTLS, and LEAP.

Data encryption

For Open and Shared authentication mode, the configuration options of encryption type are Disabled and WEP. For WPA, WPA-PSK, WPA2 and WPA2-PSK authentication mode, Temporal Key Integrity Protocol (TKIP) encryption and Advanced Encryption Standard (AES) encryption are supported.

Disabled - Disable the encryption function.

WEP - WEP Key is used to encrypt your data before it is transmitted over air. You can only connect and communicate with wireless devices that use the same WEP keys.

TKIP - TKIP uses an encryption algorithm methods which is more stringent than the WEP algorithm. It also uses existing WLAN calculation facilities to perform encryption. TKIP verifies the security configuration after the encryption keys are determined.

AES: AES is a symmetric 128-bit block encryption technique which works simultaneously on multiple network layers.

Wireless Network Key

This option is enabled only if you select WPA-PSK or WPA2-PSK authentication mode. Select “TKIP” or “AES” in the encryption filed as encryption mode to begin the encryption proceed. Note: 8 to 64 characters are required in this field.

Wireless Network Key (WEP)

This option is configurable only if you enable WEP in Network Authentication field. The WEP Key is a 64 bits (5 byte) or 128 bits (13 byte) Hexadecimal digits which is used to encrypt and decrypt data packets.

Key Format

You can select to enter Hexadecimal digits (0~9, a~f, and A~F) or ASCII characters to setup keys by defining the Key Format.

Key Length

For 64 bits encryption, each key contains 10 hex digits or 5 ASCII characters. For 128 bits encryption, each key contains 26 hex digits or 13 ASCII characters.

Two ways to assign WEP keys

1. **Manual Assignment** - When you select this option, the cursor appears in the field for Key 1. For 64-bit encryption, you are required to enter four WEP Keys. Each Key contains exactly 10 hex digits (0~9, a~f, and A~F). For 128-bit encryption, you are required to enter four WEP Keys. Each Key contains exactly 26 hex digits (0~9, a~f, and A~F).

2. **Automatic Generation** - Type a combination of up to 64 letters, numbers, or symbols in the Passphrase box, the Wireless Settings Utility automatically uses an algorithm to generate four WEP Keys.

Select one as your Default Key

The Default Key field allows you specify which of the four encryption keys is to use for transmitting data over wireless LAN. You can change the default key by clicking on the downward arrow, selecting the number of the key you want to use, and clicking the “Apply” button. If the access point or station with which you are communicating uses the identical key by the same sequence, you can use any of the keys as the default on your WLAN Adapter.

Click the “Apply” button after you have created the encryption keys, the Wireless Settings Utility uses asterisks to mask your keys.

64/128bits versus 40/104bits

There are two levels of WEP Encryption: 64 bits and 128 bits.

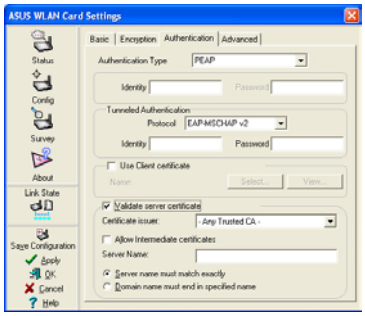
Firstly, 64 bit WEP and 40 bit WEP are the same encryption method and can interoperate in the wireless network. This lower level of WEP encryption uses a 40 bit (10 Hex character) as a “secret key” (set by user), and a 24 bit “ Initialization Vector” (not under user control). This together makes 64 bits (40 + 24). Some vendors refer to this level of WEP as 40 bits and others refer to this as 64 bits. Our Wireless LAN products use the term 64 bits when referring to this lower level of encryption.

Secondly, 104 bit WEP and 128 bit WEP are the same encryption method and can interoperate in the wireless network. This higher level of WEP encryption uses a 104 bit (26 Hex character) as a “secret key” (set by user), and a 24 bit “ Initialization Vector” (not under user control). This together makes 128 bits (104 + 24). Some vendors refer to this level of WEP as 104 bits and others refer to this as 128 bits. Our Wireless LAN products use the term 128 bits when referring to this higher level of encryption.

Config - Authentication

This tab allows you to set the security settings to match those of your AP. It is configurable only if you have set Network Authentication to WPA or WPA2 in Config-Encryption tab.

Authentication Type



The authentication type methods include:

PEAP: PEAP (Protected Extensible Authentication Protocol) authentication is a version of Extensible Authentication Protocol (EAP). EAP ensures mutual authentication between a wireless client and a server that resides at the network operations center.

TLS/Smart Card: TLS (Transport Layer Security) authentication is used to create an encrypted tunnel and achieve server-side authentication in a manner similar to Web server authentication using Secure Sockets Layer (SSL) protocol. This method uses digital certificates to verify the identity of a client and server.

TTLS: TTLS authentication uses certificates to authenticate the server, while maintaining similar security properties to TLS such as mutual authentication and a shared confidentiality for session WEP key.

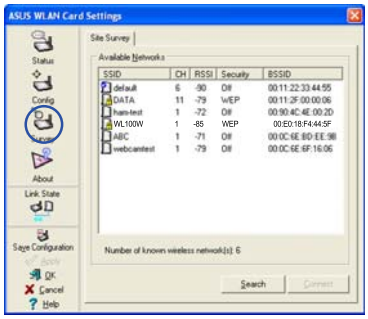
LEAP: LEAP (Light Extensible Authentication Protocol) authentication is a version of Extensible Authentication Protocol (EAP). EAP ensures mutual authentication between a wireless client and a server that resides at the network operations center.

Md5-challenge: Md5-challenge is a one-way encrypting algorithm that uses usernames and passwords. This method does not support key management, but require a preset key.

Survey - Site Survey

Use the Site Survey tab to view statistics on the wireless networks available to the WLAN Adapter and their parameters.

- **SSID:** The SSID of the available networks.
- **Channel:** The channel used by each network.



English

- **RSSI:** The Received Signal Strength Indication (RSSI) transmitted by each network. This information is helpful in determining which network to associate to. The value is then normalized to a dBm value.
- **Encryption:** Wireless network encryption information. All devices in the network should use the same encryption method to ensure the communication.
- **BSSID:** The media access control (MAC) address of the access point or the Basic Service Set ID of the Ad Hoc node.

NOTE: Some access points may disable SSID broadcast and hide themselves from "Site Survey" or "Site Monitor", however, you can connect such AP if you know their SSID.

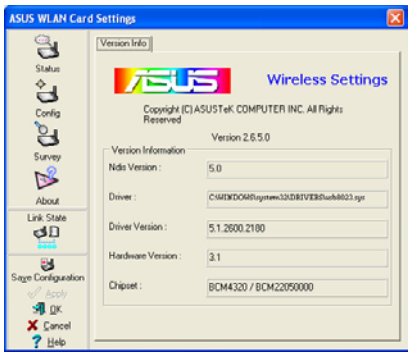
Buttons

Search – To scan all available wireless networks and show the scan result in the "Available Network" list.

Connect – To associate with a network by selecting the network from the "Available Network" list and clicking this button.

About - Version Info

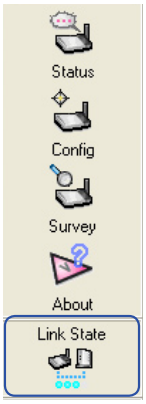
Uses the Version Info tab to view program and WLAN Adapter version information. The program version information field includes the Copyright and utility version. The version information includes the NDIS version, driver name, and driver version.



This screen is an example only. Your version numbers will be different from what are shown here.

Link State

WLAN Adapter “Link State” icon appears on the left side of the WLAN Adapter Settings. Use the icon to view the current signal status.



 Excellent Link Quality (Infrastructure)

 Good Link Quality (Infrastructure)

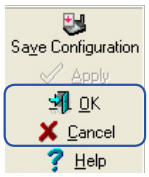
 Fair Link Quality (Infrastructure)

 Poor Link Quality (Infrastructure)

 Not linked (Infrastructure)

Exit Wireless Settings

To exit Wireless Settings, you can click **OK** or **Cancel**.

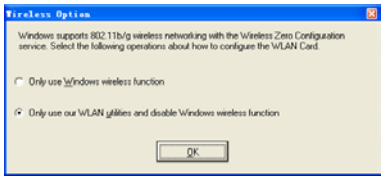


English

Windows® XP Wireless Options

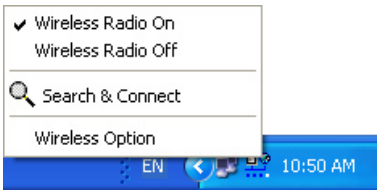
The wireless options window shown below is only available for Windows® XP. It appears when you run the Control Center utility at the first time. Select the utility you want to use for configuring your WLAN Adapter.

Only use Windows wireless function – Only use Windows® XP Wireless Zero Configuration service to configure the WLAN Adapter.



Only use our WLAN utilities and disable XP wireless function – Only use ASUS WLAN utilities to configure the WLAN Adapter. (recommended)

You can open the Wireless Option setting window at any time by left-clicking the control center icon and choosing **Wireless Option**.



Taskbar Left-Click Menu

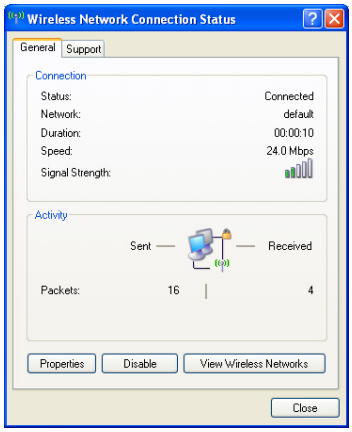
Configuring with Windows® Wireless Zero Configuration service

If you want to configure your WLAN Adapter via Windows® Wireless Zero Configuration (WZC) service, follow the instruction below to make the settings.

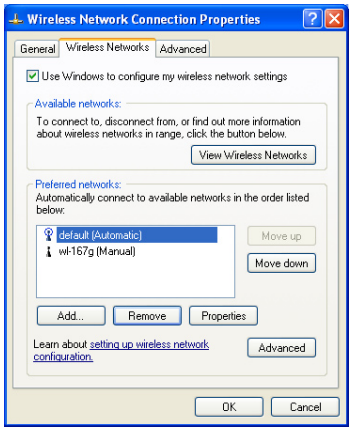
1. Double-click the wireless network icon on the task bar to view available networks.Select the AP and click **Connect**.

2. A window prompts out asking you for the key if you have set up encryption on your wireless router, input the keys and click **Connect**. The connection is complete.

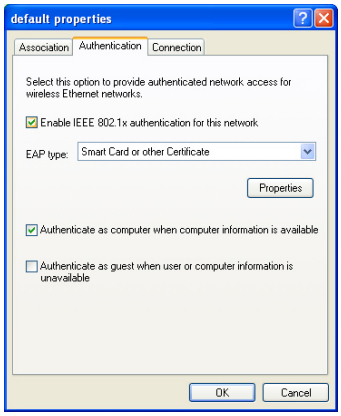
To set up the wireless connection properties, right-click the wireless icon on the taskbar and select **Open Network Connection**. Then right-click the network connection icon and select **Property** to open the Wireless Network Connection Status page.



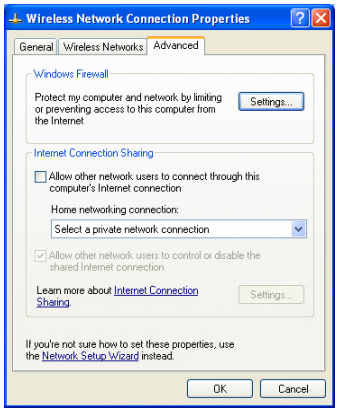
1. The **General** page shows status, duration, speed, and signal strength. Signal strength is represented by green bars with 5 bars indicating excellent signal and 1 bar meaning poor signal.



2. Select “Wireless Networks” tab to show **Preferred networks**. Use the **Add** button to add the “SSID” of available networks and set the connection preference order with the **Move up** and **Move down** buttons. The radio tower with a signal icon identifies the currently connected access point. Click **Properties** to set the authentication of the wireless connection.



3. The **Authentication** page allows you to add security settings. Read Windows help for more information.



4. The **Advanced** page allows you to set firewall and sharing. Read Windows help for more information.

FCC Warning 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 equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

－Reorient or relocate the receiving antenna.

－Increase the separation between the equipment and receiver.

－Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

－Consult the dealer or an experienced radio/TV technician for help.

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

Prohibition of Co-location

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter

Safety Information

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 2.5cm between the radiator and your body. Use on the supplied antenna. **Use on the supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.**

Declaration of Conformity for R&TTE directive 1999/5/EC

Essential requirements – Article 3
Protection requirements for health and safety – Article 3.1a
Testing for electric safety according to , EN50392 and EN 60950-1 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility – Article 3.1b
Testing for electromagnetic compatibility according to EN 301 489-1 and EN 301 489-17 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2
Testing for radio test suites according to EN 300 328 has been conducted. These are considered relevant and sufficient.

CE Mark Warning

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