SMC
N e t w o r k s

SMC2862W-G
2.4GHz 54Mbps
Wireless USB Adapter

USER GUIDE

EZ Connect g 2.4 GHz 54 Mbps Wireless USB Adapter
User Guide

The easy way to make all your network connections

SMC®

N e t w o r k s

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COMPLIANCES

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

• Reorient or relocate the receiving antenna
• Increase the separation between the equipment and receiver
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
• Consult the dealer or an experienced radio/TV technician for help

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. 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.

IMPORTANT NOTE:
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.

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

SMC declared that SMC2862W-G is limited in CH1~11 from 2400 to 2483.5 MHz by specified firmware controlled in USA.

This equipment has been SAR-evaluated for use in laptops (notebooks) with side slot configuration.

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Wireless 2.4 GHz Band Statements:

As the SMC2862W-G Wireless USB can operate in the 2412-2462 MHz frequency band it is limited by the FCC, Industry Canada and some other countries to indoor use only so as to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

Industry Canada - Class B

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par l'Industrie.

Australia/New Zealand AS/NZS 4771

A.C.N 096 592 442

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SMC Networks, Inc.
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Irvine, CA 92618
Phone: (949) 679-8000

Industry Canada-RF

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

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

EC Conformance Declaration CE①

The following importer/manufacturer is responsible for making this declaration:

SMC Networks-Spain, S.L.
Edificio Conata II,
Calle Fructuos Gelabert 6-8, 2o, 4a,
08970 - Sant Joan Despi,
Barcelona, Spain.

This RF product complies with R&TTE Directive 99/5/EC. For the evaluation of the compliance with this Directive, the following standards were applied:

Electromagnetic compatibility and radio spectrum matters (ERM)

- EN300 328-1 (2001-12)
- EN300 328-2 (2001-12)

Electromagnetic Compatibility (EMC) Standard for radio equipment and services

- EN301 489-1
- EN301 489-17

Safety Test

- EN60950

Intended for use in the following countries:

Austria	Belgium	Denmark
Finland	France	Germany
Italy	Luxembourg	Netherlands
Norway	Spain	Sweden
Switzerland	United Kingdom	Portugal
Greece	Ireland	Iceland

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Wichtige Sicherheitshinweise (Germany)

1. Bitte lesen Sie diese Hinweise sorgfältig durch.

2. Heben Sie diese Anleitung für den späteren Gebrauch auf.

3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssigoder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.

4. Die Netzanschlu ßsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.

5. Das Gerät ist vor Feuchtigkeit zu schützen.

6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.

7. Die Belüftungsöffnungen dienen der Luftzirkulation, die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.

8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.

9. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.

10. Alle Hinweise und Warnungen, die sich am Gerät befinden, sind zu beachten.

11. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.

12. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.

13. Öffnen sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.

14. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:

    a. Netzkabel oder Netzstecker sind beschädigt.

    b. Flüssigkeit ist in das Gerät eingedrungen.

    c. Das Gerät war Feuchtigkeit ausgesetzt.

    d. Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.

    e. Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.

    f. Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.

15. Stellen Sie sicher, daß die Stromversorgung dieses Gerätes nach der EN 60950 geprüft ist. Ausgangswerte der Stromversorgung sollten die Werte von

    AC 7,5-8V, 50-60Hz nicht über oder unterschreiten sowie den minimalen Strom von 1A nicht unterschreiten.

    Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 Teil 1000 beträgt 70dB(A) oder weniger.

California Proposition 65 Warning

This product or components of this product contains a chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.

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EZ CONNECT G™ WIRELESS USB ADAPTER

SMC's EZ Connect g Wireless USB Adapter (SMC2862W-G) is a 54 Mbps wireless adapter that seamlessly integrates with existing Ethernet networks to support applications such as mobile users or temporary conferences. This solution offers a high data rate and reliable wireless connectivity with considerable cost savings over wired LANs (which include long-term maintenance overhead for cabling). Just install enough wireless access points to cover your network area, plug wireless cards into your notebooks or computers, and start networking.

Using this card in conjunction with any SMC 802.11g/b wireless access point, you can create an instant network that integrates seamlessly with your existing LANs. Moreover, moving or expanding your network is as easy as moving or installing additional access points – no wires!

Features

- Backward compatible with the existing 802.11b WLAN infrastructure

- Enhances your network security with Wired Equivalent Privacy (WEP) and Wi-Fi Protected Access (WPA)

- Greater flexibility to locate or move networked PCs

- Easy Plug-n-Play installation and user-friendly configuration

- Integrates with or replaces wired LANs at dramatically lower cost than wired alternatives

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- Orthogonal Frequency Division Multiplexing (OFDM) technology provides high speed connection

Applications

EZ Connect wireless products offer fast, reliable, cost-effective network access for wireless clients in applications such as:

- **Remote access to corporate network information**
  Email, file transfer, and terminal emulation

- **Difficult-to-wire environments**
  Historic or old buildings, asbestos installations, and open areas where wiring is difficult to employ

- **Frequently changing environments**
  Retailers, manufacturers, and banks who frequently rearrange the workplace and change location

- **Temporary LANs for special projects or peak times**
  Trade shows, exhibitions, and construction sites that need to set up for a short time period. Retailers, airline, and shipping companies who need additional workstations for peak times

- **Access to databases for mobile workers**
  Doctors, nurses, retailers, office workers who need access to databases while being mobile in a hospital, retail store, office, campus, etc.

- **SOHO (Small Office Home Office) users**
  SOHO users who need quick and easy installation of a small network

System Requirements

Before you install the EZ Connect g Wireless USB Adapter, check your system for the following requirements:

• Available 2.0 USB slot

• Windows 2000/XP

• Minimum of 32 MB RAM and 300 MHz CPU

• Minimum of 6 MB of free hard disk space for driver and utility installation

• Another IEEE 802.11g or 802.11b compliant device installed in your network, such as the SMC2804WBRP-G Wireless Cable/DSL Broadband Router with USB Print Server, or another machine with a wireless adapter, such as the SMC2802W EZ Connect g 2.4GHz 802.11g Wireless PCI Card

Package Contents

The EZ Connect g Wireless USB Adapter package includes:

• 1 SMC2862W-G EZ Connect g Wireless USB Adapter

• 1 EZ Installation Wizard and Documentation CD

• 1 Quick Installation Guide

Please register this product and upgrade the product warranty at http://www.smc.com

Please inform your dealer if there are any incorrect, missing or damaged parts. If possible, retain the carton and the original packing materials, in case there is a need to return the product.

HARDWARE DESCRIPTION

The SMC2862W-G adapter provides 54 Mbps connections. It is fully compliant with the specification of the IEEE 802.11g standard. It can be installed in any computer running Windows 2000/XP, with a 2.0 USB slot.

LED

The status LED indicator of the SMC2862W-G is described in the following figure and table.

Figure 1. LED Indicator

Status	Description
On (Green)	Indicates a valid connection.
Slow Flashing	Indicates that the adapter is scanning for available networks.
Fast Flashing	Indicates that the adapter is transmitting or receiving data.

DRIVER AND UTILITY INSTALLATION

The EZ Installation Wizard and Documentation CD that comes with the package contains all the software, including the driver and utility for the SMC2862W-G adapter. Any new or updated software can be downloaded from the SMC web site at http://www.smc.com. Also, check the SMC web site for additional online support.

For Windows 2000/XP

It is recommended that you install the utility and driver software first, before inserting the adapter into your computer.

You may find that the screen shots here do not exactly match your version of Windows. This is because these screen shots were created from Windows XP. Steps for Windows 2000, are similar, but not identical, to Windows XP.

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1. Insert the EZ Installation Wizard CD into your CD-ROM drive. The CD will auto-run, click on "Install Driver/Utility."

2. Then the Setup window will automatically appear. Your OS will start copying files into the system. This may take a few minutes.

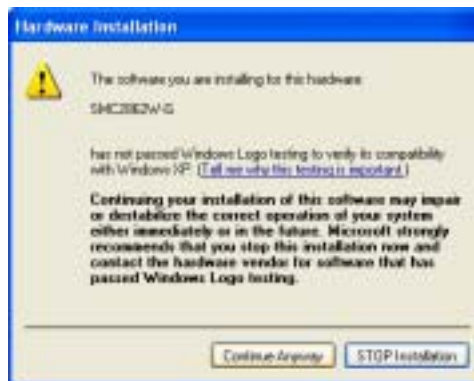3. Please insert the SMC2862W-G adapter into your computer.

4. Once the utility has been installed on your system, The Found New Hardware Wizard window appears, select the "Install the software automatically" option, and click Next.

5. Click "Continue Anyway" to proceed with the installation.

Note: Do not select "STOP Installation," as this will cancel the installation process, and the drivers will not be installed properly.

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6. For users who are using this adapter outside of the United States and Canada, the Country Select window will appear. Please select the country in which you are using the adapter.
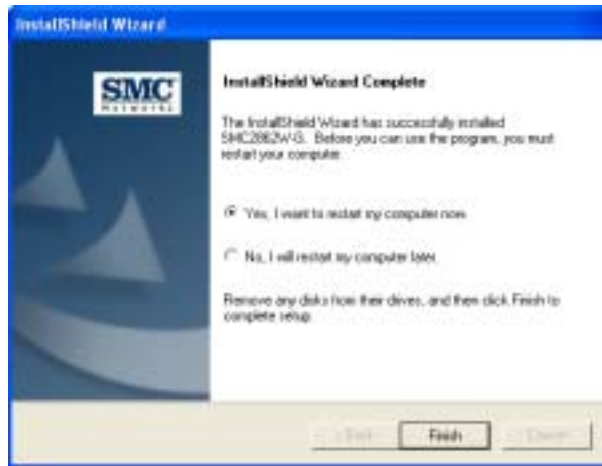

Note: This domain configuration applies only to users outside of the FCC regulatory domain. If you are using this adapter in the United States and Canada, please skip this step.

7. This window will then appear indicating that the driver has been installed on your system.

8. Click Finish to restart your computer.

Your adapter is now ready for use.

HARDWARE INSTALLATION

Network cards are sensitive to static electricity. To protect the card, avoid touching its electrical components, and touch the ground often to equalize the static charges, before handling the card.

To insert the card:

1. Find an available 2.0 USB slot in your desktop PC or a laptop.

Figure 2. USB Port

2. With the adapter's connector facing the USB slot, and the "EZ Connect g" label facing up, slide the card completely into the slot as shown below.

Figure 3. Desktop Installation

Figure 4. laptop Installation

SMC2862W-G UTILITY

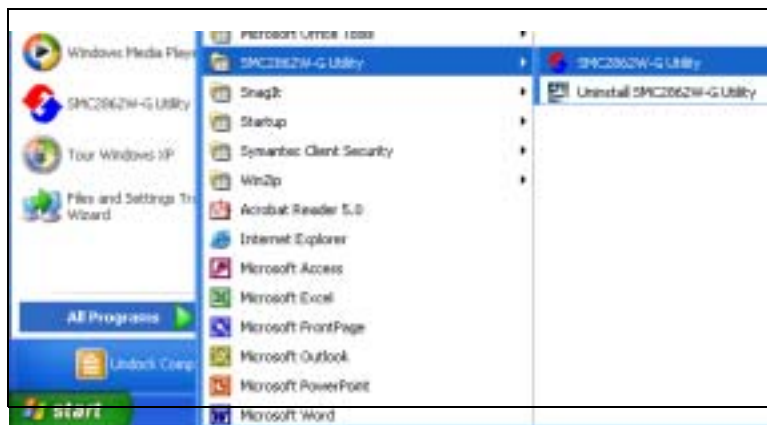To communicate with other SMC 802.11g or 802.11b devices, you need to configure the SMC2862W-G adapter first. Double-click the SMC2862W-G Utility icon on the desktop to launch the configuration utility, or you can access it from the Start menu.

Icon on the desktop:

Icon on the toolbar:

Note that the screen shots were taken from Windows XP and will not look exactly the same in all operating systems.

The SMC2862W-G Utility program includes the following five tabs:

Configuration – Allows you to set parameters for the wireless adapter.

Link Information – Allows you to view network status.

IP Information – Displays TCP/IP data.

Site Survey – Scans/shows all wireless devices within the adapter's signal range.

Version Information – Shows the driver and utility version information.

At the bottom of the screen, there are three boxes that can be selected:

- **Radio On/Radio Off** – This allows you to turn on/off the transmission/reception of the adapter.

- **Help** – Click here to display the help file.

- **Exit** – This closes the configuration utility dialog box.

Configuration

Go to the Configuration tab to set parameters for the SMC2862W-G adapter.

Select Profile – You can select a proper profile from the drop-down menu, or specify a profile name for a specific configuration of parameters.

New – To set up a new profile, click New.

Save – To save a new profile after configuring the settings, click Save.

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Delete – To delete a profile, select the profile from the drop-down menu in the Select Profile field, then click Delete.

Common

Network Name – Input an SSID for the wireless network to which you want to connect.

Operating Mode – Set the adapter's operating mode to 802.11 AdHoc for a network environment that does not have an access point, or to Infrastructure for connections with an access point. (See "Network Topologies" on page 30 for more information.)

Transmit Rate – Indicates the data transmission rate. Select an appropriate transmission speed. Lower speeds will give better range.

Power Save Mode – To use this funtion, select the Enabled or Disabled in the Power Save Mode drop-down menu, then click the Apply Change button.

Security

The Security ON/Security OFF button indicates whether the security function has been enabled or disabled.

Click the Security ON/Security OFF button to enable the security function. (Default: Security OFF)

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Authentication Type – WPA-PSK (Wi-Fi Protected Access-Pre Share Key) and WEP (Wired Equivalent Privacy) are implemented in the SMC2862W-G adapter to prevent unauthorized access.

WPA-PSK

How to set up WPA:

Wi-Fi Protected Access is a standards-based, interoperable security enhancement that strongly increases the level of data protection and access control for existing and future wireless LAN systems. It will be forward-compatible with the upcoming IEEE 802.11i standard. WPA employs a combination of several technologies to provide an enhanced security solution for 802.11 wireless networks, including TKIP (Temporal Key Integrity Protocol) for data protection and 802.1x for authenticated key management. WPA provides a simple operating mode that uses just a pre-shared password for network access. The Pre-Shared Key mode uses a common password for user authentication that is manually entered on the access point and all wireless clients on the network.

To use the WPA function, take the following steps:

1. Select Authentication Type, WPA-PSK from the drop-down menu.

2. Type in the Pre-Shared Key (PSK).

3. Click Apply Change to allow the settings to take effect.

Note: The PSK Passphrase character limit needs to be between 8-63 characters.

Manual Pre-Shared Key supports up to 64-Hex characters. If there is no authentication server on your SOHO network, you can issue the Pre-Shared Key to the adapter that is connected to the access point. Be sure to use the same key for the wireless access point and the connected adapter.

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For enterprise deployment, WPA requires a RADIUS authentication server to be configured on the wired network. The 802.1x client and RADIUS server should use an appropriate EAP type - such as EAP-TLS (Transport Layer Security), EAP-TTLS (Tunneled TLS), or PEAP (Protected EAP) - for strongest authentication. Working together, these protocols provide "mutual authentication" between a client, the access point, and a RADIUS server that prevents unauthorized users from joining your network, and also prevents users from accidentally joining a rogue network. Only when a RADIUS server has authenticated a user's credentials will encryption keys be sent to the access point and client.

Note: To implement WPA on wireless clients requires a WPA-enabled network card driver and 802.1x client software that supports the EAP authentication type that you want to use. Windows XP provides native WPA support, other systems require additional software. Note that Microsoft now has an 802.1x authentication client for Windows 2000 that you can download from their web site.

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WEP

Authentication Mode – Choose Open or Shared.

Default Key – Choose the key for encryption.

Key Type – Select 64-bit encryption, 64-bit encryption (ASCII), 128-bit encryption,or 128-bit encryption (ASCII).

Use Passphrase – Check this box to auto-generate keys for encryption. First, check this box, then enter a string of characters into the space. Encryption keys will be generated automatically.

When Key Type is set to 128-bit, only one key will be generated. If Key Type is set to 64-bit, four keys will be generated. Note that you must use the same passphrase and default key on all the other clients in your network.

How to set up WEP:

If you are transmitting sensitive data across wireless channels, you should enable Wired Equivalent Privacy (WEP) encryption. WEP provides a basic level of security, preventing unauthorized access to the network and encrypting data transmitted between wireless clients and the access point. WEP uses static shared keys (fixed-length hexadecimal or alphanumeric strings) that are manually distributed to all clients that want to use the network. WEP is the security protocol initially specified in the IEEE 802.11 standard for wireless communications. For more robust wireless security, the SMC2862W-G provides Wi-Fi Protected Access (WPA) for improved data encryption and user authentication.

Note: Only one key is needed for WEP to function. However, the IEEE 802.11 standard specifies that there must be four keys for each device. For security purposes, the key should be changed on a regular basis. Multiple keys are supported to allow the user to change keys with minimal disruption of the network.

To set up the WEP function, take the following steps:

1. Select 64-bit encryption, 64-bit encryption (ASCII), 128-bit encryption,or 128-bit encryption (ASCII) in the Key Type field.

2. To automatically generate keys, check the Use Passphrase box, and type in a string of characters in this field.

3. In the Default Key field, select one key as the default key that you want to use for encryption.

4. Click Apply Change to allow the settings to take effect.

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Or

1. Select 64-bit encryption, 64-bit encryption (ASCII), 128-bit encryption,or 128-bit encryption (ASCII) in the Key Type field.

2. In the Default Key field, select one key as the default key that you want to use for encryption.

3. Manually type in a string of characters in the corresponding key number field that you selected in step 2.

4. Click Apply Change to allow the settings to take effect.

Note: When setting up WEP without using the Use Passphrase function, if the Key Type is set to Hex, only Hexadecimal characters (range: 0~9 and A~F) can be used. When encryption is set to 64-bit, a maximum of 10 Hex characters can be entered in the Key field. When encryption is set to 128-bit, a maximum of 26 Hex characters can be used. If the Key Type is set to ASCII, and encryption is set to 64-bit, then 5 ASCII characters can be used in the Key field. For 128-bit encryption, 13 ASCII characters can be used.

Advanced

RTS Threshold – This sets the packet size threshold at which a Request to Send (RTS) signal must be sent to the receiving station prior to the sending station starting communications. Devices contending for the wireless medium may not be aware of each other. The RTS/CTS mechanism can solve this problem. The larger the threshold, the faster the speed.

Fragment Threshold – Sets the minimum packet size that can be transmitted from the adapter without being fragmented. Fragmentation can increase the reliability of transmissions because it increases the probability of a successful transmission due to smaller frame size. The larger the threshold, the faster the speed.

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Preamble Type – The preamble is used to acquire the incoming signal and synchronize the receiver. If all the clients in your service area support the short preamble or can automatically set the preamble type, then setting the preamble on the access point to short can boost your throughput. (Options: Short & Long, Long, Short; Default: Short & Long)

Transmit Power – Move the slider bar up and down to select an appropriate transmission power. Lower power reduces interference, higher power gives more range.

Link Information

The Link Information screen displays information of the current wireless access point to which you are connected.

Network Name – The name of the network to which the adapter is currently connected with other clients on the network.

Base Station Name ID – The MAC address of the access point to which this adapter is connected in an infrastructure network. In an ad hoc network, the Network Name is a random number generated by the first station that communicates with other clients on the network.

Channel – The channel used to connect with the wireless device.

Current Connection Speed – The data transmission speed.

Link Quality – Shows the link quality of the wireless connection.

Signal Strength – Shows the strength of the connection between the adapter and the access point.

IP Information

This screen displays IP Information for your computer. Now that you have configured your adapter to connect to a wireless network, your adapter needs to obtain new network settings. By releasing old IP settings and renewing them with settings from the access point, you will also verify that you have configured your adapter correctly. To release network settings click on Release, then click on Renew to get new IP settings.

IP Address Client – Internet address of the computer.

IP Netmask Client – A mask used to determine the subnet for an IP address.

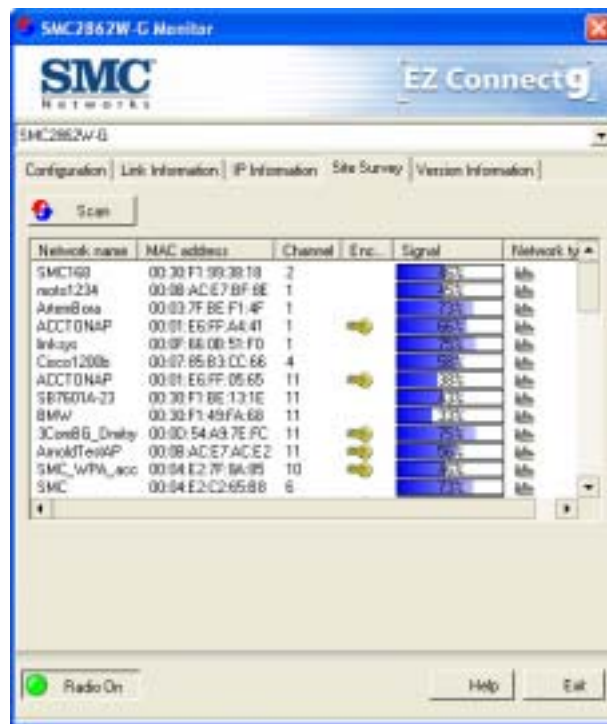**Gateway** – The IP address of the network gateway.

Host Name Client – Your computer name on the network.

Release – Click on this button to release the IP address.

Renew – Click on this button to get a new IP address.

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Site Survey

Site Survey scans and displays all wireless devices within range. You can choose one of them to connect to by double-clicking on an entry.

Scan – Click this button to scan for available network connections.

Network name – Service Set ID. (See "Configuration" on page 13 for details.)

MAC address – The MAC address of the listed wireless devices.

Channel – The radio channel on which the access point operates. (See "Link Information" on page 23 for details.)

Encryption – The key icon indicates that encryption has been enabled.

Signal – This shows the signal strength from the adapter to the listed access points.

Scroll right to see the remainder of the Site Survey screen.

Network Type – This shows the operating mode of the listed wireless devices.

Version Information

This screen shows information on the current version of the driver and the configuration utility program. You can download the latest firmware from the SMC web site at http://www.smc.com.

NETWORK CONFIGURATION AND PLANNING

SMC's EZ Connect g Wireless Solution supports a stand-alone wireless network configuration, as well as an integrated configuration with 10/100 Mbps Ethernet LANs.
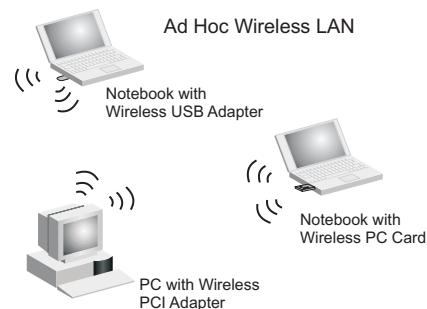
The SMC2862W-G can be configured as:

• Ad hoc - for small groups that only communicate with each other, without access points

• Infrastructure - for wireless LANs

Network Topologies

Ad Hoc Wireless LAN

An ad hoc wireless LAN consists of a group of computers, each equipped with one wireless adapter, connected via radio signals as an independent wireless LAN. Computers in a specific ad hoc wireless LAN must therefore be configured to the same radio channel. An ad hoc wireless LAN can be used in a SOHO or temporary environment.

Ad Hoc Wireless LAN

Notebook with
Wireless USB Adapter

Notebook with
Wireless PC Card

PC with Wireless
PCI Adapter

Infrastructure Wireless LANs

The SMC 802.11g access point (SMC2870W) can also provide wireless workstations with access to a wired LAN. An integrated wired and wireless LAN is called an infrastructure configuration. A Basic Service Set (BSS) consists of a group of wireless PC users, and an access point that is directly connected to the wired LAN. Each wireless PC in this BSS can talk to any computer in its wireless group via a radio link, or access other computers or network resources in the wired LAN infrastructure via the access point.

The infrastructure configuration not only extends the accessibility of wireless PCs to the wired LAN, but also extends the effective wireless transmission range for wireless PCs by passing their signal through one or more access points.

A wireless infrastructure can be used for access to a central database, or for connection between mobile workers, as shown in the following figure.

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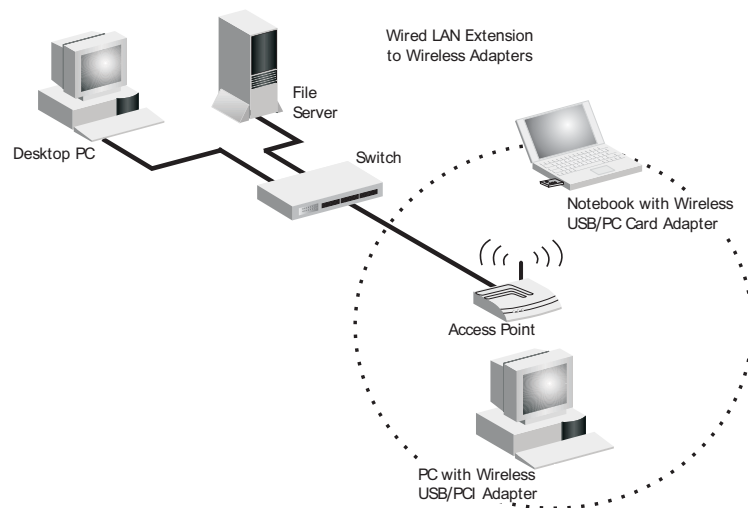
Setting the Communication Domain

Stationary Wireless PCs

The Basic Service Set (BSS) is the communication domain for each access point. For wireless PCs that do not need to support roaming, set the domain identifier (SSID) for the wireless card to the SSID of the access point to which you want to connect. Check with your administrator for the SSID of the access point to whick you are connecting.

Roaming Wireless PCs

A wireless infrastructure can also support roaming for mobile workers. More than one access point can be configured to create an Extended Service Set (ESS). By placing the access points so that a continuous coverage area is created, wireless users within this ESS can roam freely. All wireless adapters and access points within a specific ESS must be configured with the same SSID and to the same radio channel.

You can configure the wireless client to connect to a specific wireless network or to the first available wireless network.

- If you configure the client to connect to a specific wireless network, the client establishes a radio connection to the AP in the specified wireless network that provides the best communications quality. APs in a different wireless network are ignored.

- If you configure the client to connect to the first available wireless network (the SSID = ANY), the client establishes a radio connection to the AP that provides the best communications quality. Be aware that if there are multiple wireless networks, the client could connect to an AP that is not in the network you want to join.

• In either configuration, the client automatically matches the radio channel used by the AP.
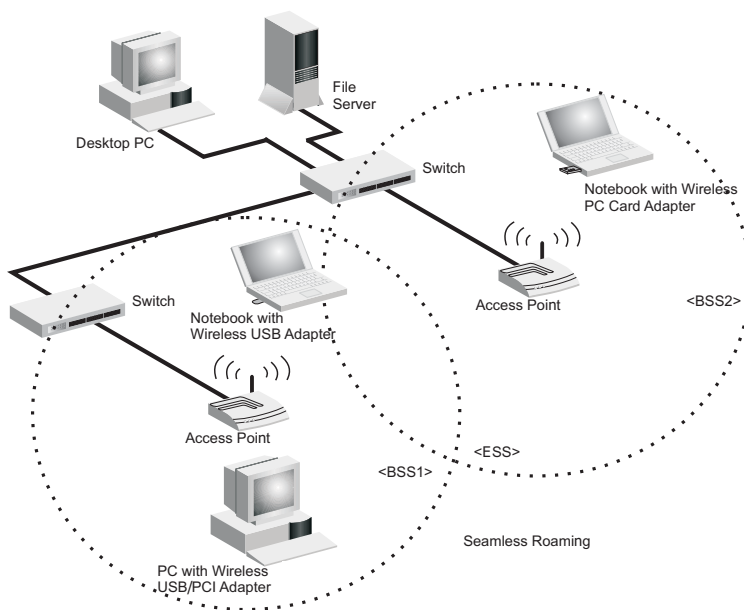
TROUBLESHOOTING

Check the following troubleshooting items before contacting SMC technical support.

Adapter Installation Problems

If your computer cannot find the SMC2862W-G adapter or the driver software does not install correctly, check the following:

• Make sure the adapter is securely seated in the 2.0 USB slot. Check for any hardware problems, such as physical damage to the card's connector.

• Try the card in another USB slot. If this also fails, test your PC with another wireless adapter that is known to operate correctly.

• Make sure your PC is using the latest BIOS.

• If there are other network adapters in the PC, they may be causing conflicts. Remove all other adapters from the PC and test the wireless adapter separately.

• If it still does not work, go to "Control Panel" and delete the adapter from your system. Remove the wireless adapter from your computer. Restart your computer and reinstall the card and the driver and utility.

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Network Connection Problems

If the Link LED on the SMC2862W-G adapter does not light, or if you cannot access any network resources from your computer, check the following:

- Make sure the correct software driver is installed for your operating system. If necessary, try reinstalling the driver.

- Make sure the computer and other network devices are receiving power.

- The access point you want to connect to may be defective. Try using another access point.

- Make sure the SSID and security settings of the adapter are set to the same as the access point to which you are connecting.

If your wireless station cannot communicate with a computer in the Ethernet LAN when configured for Infrastructure mode, check the following:

- Make sure the access point that the station is associated with is powered on.

- If the connection still fails, change the access point and all the clients within the BSS to another radio channel.

- For a station with roaming disabled, make sure the SSID is the same as that used by the access point, or the same as that used by the access points in the extended service set (ESS).

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SPECIFICATIONS

General Specifications

Functional Criteria
Data Rate
802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps
802.11b: 1, 2, 5.5, 11 Mbps
Operating Range
Up to 350 m (1155 ft)

Radio Signal
Signal Type
Orthogonal Frequency Division Multiplexing (OFDM)
Direct Sequence Spread Spectrum (DSSS)
Modulation Techniques
802.11g (OFDM): BPSK, QPSK, 16-QAM, 64-QAM
802.11b (DSSS): Complementary Code Keying (CCK)
Channel Support
FCC: 1-11
ETSI: 1-13
MKK: 1-14
RF Output Power
16 dBm

Physical Characteristics
Power Consumption
Tx mode: 485mA, Rx mode: 330 mA
Dimensions
84.01 *27.08* 12.00 mm (L*W*H)
Weight
27.5 g

Antenna
Built-in antenna
LED Indicators
Network Link
Host Interface
32-bit 2.0 USB interface
Power Voltage
3.3 Volt +/- 5%

Standards Conformance
IEEE 802.11g
IEEE 802.11b

Environmental
Temperature
Operating: 0 to 55 °C (32 to 122 °F)
Storage: -20 to 65 °C (32 to 158 °F)
Humidity
5 to 95% (non-condensing)

Certification
CE Mark
EN50081-1, EN55022 Class B, EN50082-1, IEC 61000-4-2,
IEC 60601-1-2
Safety Compliance
USA: FCC Part 15 Class B
UL1950/CSA22.2 No.950
IEC 60950

Software Drivers
Windows 2000
Windows XP

Specifications

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FOR TECHNICAL SUPPORT, CALL:
From U.S.A. and Canada (24 hours a day, 7 days a week)
  (800) SMC-4-YOU; Phn: (949) 679-8000; Fax: (949) 679-1481
From Europe : Contact details can be found on
  www.smc-europe.com or www.smc.com

INTERNET
E-mail addresses:
  techsupport@smc.com
  european.techsupport@smc-europe.com
Driver updates:
  http://www.smc.com/index.cfm?action=tech_support_drivers_downloads
World Wide Web:
  http://www.smc.com
  http://www.smc-europe.com

FOR LITERATURE OR ADVERTISING RESPONSE, CALL:

U.S.A. and Canada:	(800) SMC-4-YOU;	Fax (949) 679-1481
Spain:	34-91-352-00-40;	Fax 34-93-477-3774
UK:	44 (0) 1932 866553;	Fax 44 (0) 118 974 8701
France:	33 (0) 41 38 32 32;	Fax 33 (0) 41 38 01 58
Italy:	39 (0) 335 5708602;	Fax 39 02 739 14 17
Benelux:	31 33 455 72 88;	Fax 31 33 455 73 30
Central Europe:	49 (0) 89 92861-0;	Fax 49 (0) 89 92861-230
Nordic:	46 (0) 868 70700;	Fax 46 (0) 887 62 62
Eastern Europe:	34 -93-477-4920;	Fax 34 93 477 3774
Sub Saharian Africa:	216-712-36616;	Fax 216-71751415
North West Africa:	34 93 477 4920;	Fax 34 93 477 3774
CIS:	7 (095) 7893573;	Fax 7 (095) 789 35 73
PRC:	86-10-6235-4958;	Fax 86-10-6235-4962
Taiwan:	886-2-8797-8006;	Fax 886-2-8797-6288
Asia Pacific:	(65) 238 6556;	Fax (65) 238 6466
Korea:	82-2-553-0860;	Fax 82-2-553-7202
Japan:	81-45-224-2332;	Fax 81-45-224-2331
Australia:	61-2-8875-7887;	Fax 61-2-8875-7777
India:	91-22-8204437;	Fax 91-22-8204443

If you are looking for further contact information, please visit
www.smc.com, www.smc-europe.com, or www.smc-asia.com.

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Revision number: E102004-R01 V1.0