



SMCWUSBT-G
EZ Connect™ g
Wireless USB 2.0 Adapter

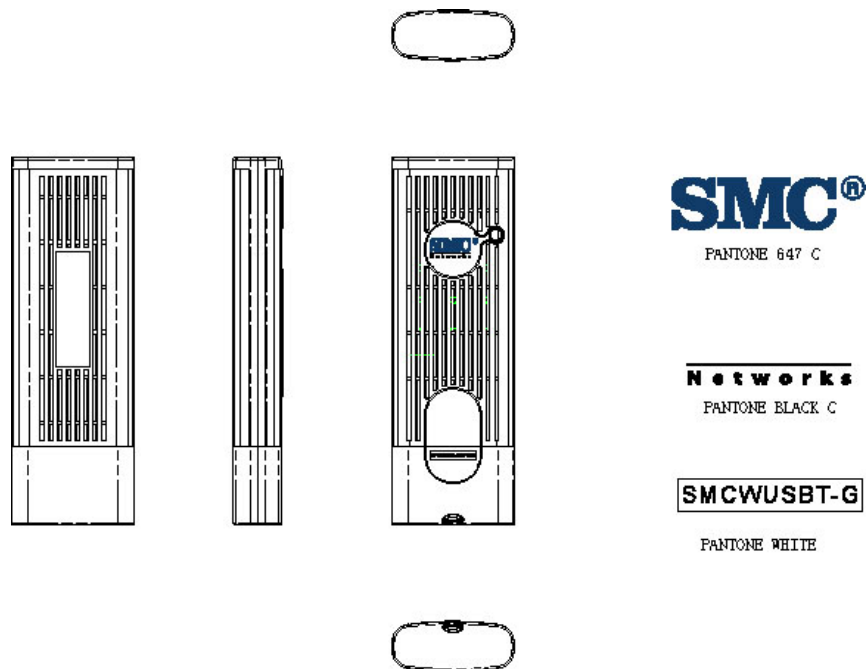
USER GUIDE

SMCWUSBT-G

Wireless USB 2.0 Adapter

802.11b/g (108 Mbps)

User's Manual



Version 1.02.000

July 11, 2005

Copyright Notice

© 2005 All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of the seller.

Disclaimer

Information in this document is subject to change without notice. The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. The seller therefore assumes no responsibility and shall have no liability of any kind arising from the supply or use of this document or the material contained herein.

Statement of Conditions

In the interest of improving internal design, operational function, and/or reliability, the seller reserves the right to make changes to the products described in this document without notice.

The seller does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

In addition, the program and information contained herein are licensed only pursuant to a license agreement that contains restrictions on use and disclosure (that may incorporate by reference certain limitations and notices imposed by third parties).

Trademarks

All other product or service names mentioned in this document may be trademarks of the companies with which they are associated.

Contents

Before You Use vi

 Packing List.....vi

 System Requirements.....vi

 Notes and Cautionsvi

Chapter 1 Overview 1

 Wireless LAN Basics..... 1

 Local Area Network (LAN) 1

 Ad Hoc Mode 1

 Infrastructure Mode..... 2

 Roaming..... 2

 General Specification 3

Chapter 2 Software Installation..... 5

 Installing Wireless Adapter Driver and Utility..... 5

Chapter 3 Utility Configuration 11

 Action Tab 15

 Options Tab..... 15

 Help Tab..... 16

 Current Status Tab 16

 Advanced Tab 17

 Profile Management..... 19

 Creating or Modifying a Configuration Profile..... 19

 General Tab..... 20

 Security Tab 20

 Advanced Tab 22

Import and Export Profiles	25
Order Profiles	26
Scan Available Networks	27
Remove a Configuration Profile	27
Diagnostics Tab.....	28
Adapter Information Button.....	28
Advanced Statistics.....	29
Appendix A Regulatory Compliance	30
Appendix B EC Declaration of Conformity	32

Before You Use

For brevity, throughout this manual USB Wireless LAN Card is used to indicate all the types. Also, the following terms/abbreviations are used interchangeably:

Packing List

Before using the wireless USB 2.0 adapter, check all the following items are present and in good condition. If any of the items is damaged or missing, contact your retailer immediately.

- ✓ Companion CD x 1
- ✓ Wireless USB 2.0 adapter x 1

System Requirements

To use the Wireless LAN Card, your computer must meet the following minimum requirements:

- Laptop/ PC containing:
 - ✓ 32-bit CardBus slot (or Desktop PC with PC Card-PCI adapter)
 - ✓ Mini PCI
 - ✓ 32 MB memory or greater
 - ✓ 300 MHz processor or higher
 - ✓ Hard disk space at least 30 Mbytes
- Microsoft Windows 2000, Windows Millennium Edition, Windows 98 Second Edition, Windows XP, or Windows NT 4.0 (with Service Pack 6)

Notes and Cautions

Note and **Caution** in this manual are highlighted with graphics as below to indicate important information.



Note

Contains information that corresponds to a specific topic.



Caution

Represents essential steps, actions, or messages that should not be ignored.

This User's Manual contains information on how to install and configure your USB Wireless LAN Card. From now on, we will guide you through the correct configuration steps to implement your device.

Chapter 1 Overview

This product is an IEEE 802.11b/g Wireless LAN Card with USB interface solution. This solution provides compatibility with 802.11b and 802.11g standard devices. Now users have the flexibility to connect to 802.11b or 802.11g networks effortlessly.

It allows your computer to connect to a wireless network and to share resources, such as files or printers without being bound to the network wires. Operating in 2.4GHz Direct Sequence Spread Spectrum (DSSS) radio transmission, the Wireless LAN Card transfers data at speeds up to 54Mbps. Both Ad hoc and Infrastructure mode are supported. For network security concern, 64/128-bits Wired Equivalent Privacy (WEP) encryption is used. In addition, its standard compliance ensures that it can communicate with any 802.11b/g networks. It also supports Microsoft WHQL software for Windows XP.

Wireless LAN Basics

This section contains some Wireless LAN basics to help you better understand how the products work together to create a wireless network.

Local Area Network (LAN)

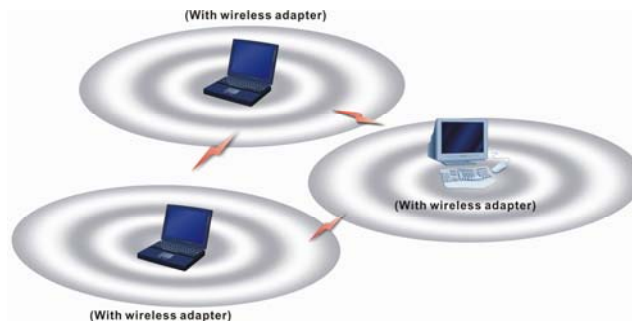
LAN is a local network that exists in a relatively limited area. Within the network, two or more computers are connected together sharing files and peripheral devices such as printers.

The Wireless LAN Card allows you to interact with other computers without having to run cables normally associated with networks. This lets you move your computer around while staying connected to your network.

There are two ways to use the Wireless LAN Card. One way is to connect directly to one or more Wireless LAN Card equipped computers, forming an Ad hoc wireless network. The second way is to connect to an Access Point that gives you access to an existing wired LAN, forming an Infrastructure wireless network.

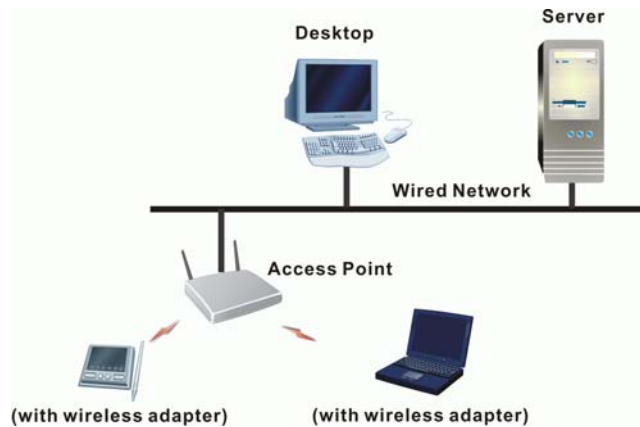
Ad Hoc Mode

An Ad Hoc network offers peer-to-peer connections between wireless stations that are in range of each other. The stations communicate directly with each other without using an Access Point or any connection to a wired network. This mode is useful for quickly and easily setting up a wireless network anywhere that a wireless infrastructure does not exist or is not required for services. In an Ad Hoc network, all wireless stations must have the same SSID, channel and WEP keys (if enabled) to communicate with each other.



Infrastructure Mode

An Infrastructure wireless network consists of at least one Access Point connected to the wired network infrastructure and a set of wireless end stations. The AP acts as a gateway, linking the wireless network to a wired LAN. As a result, wireless stations have access to all of the features of your wired LAN including e-mail, Internet, network printers and files server access.



Roaming

For large environments, multiple Access Points can be implemented to extend the wireless service coverage area for seamless wireless access. It allows wireless clients to roam from one AP to another while maintaining the wireless connectivity at all times. A wireless client wandering across multiple APs will automatically change the operating radio frequency as required.

In a roaming network, all APs and wireless clients must have the same Service Set Identity (SSID) and security setting (if enabled). Alternatively the mobile station may use an SSID of "any" to associate with any available AP, regardless of the AP's SSID. Roaming among different Access Points is controlled automatically to maintain the wireless connectivity at all times.



General Specification

Host Interface	USB 2.0
Form Factor	USB Wireless Module
Chipset	ATHEROS AR5523A + AR2112A
Operation Voltage	5.0VDC
Network Standard	IEEE 802.11b / IEEE 802.11g
Hardware Encryption	AES, TKIP ,and WEP
Quality of Service	802.11e draft
Network Architectures	Ad hoc / Infrastructure
Modulation Technology	OFDM with BPSK, QPSK, 16QAM, 64QAM DBPSK, DQPSK, and CCK
Media Access Technique	CSMA/CA
Supported Data Rates	IEEE 802.11b: 1 – 11 Mbps IEEE 802.11g: 1 – 54 Mbps Atheros Super G Mode: up to 108 Mbps
Antenna Type	Printed PCB antenna
OS Compatibility	WIN 98SE, WIN ME, WIN 2000, and WIN XP
Client Utility	Automatic location profile, site monitor, current link status, and diagnostics

Chapter 2 Software Installation

This chapter describes how to install the USB Wireless LAN Card driver and utility. Windows 98, ME, 2000, and XP use the same setup program; however, operation system-specific situation may occur during or after the installation process. The following describes only the overall installation procedure. In OS-specific situations, you should follow the on-screen instructions to proceed. You can refer to the general guidelines provided in next section for further information.

In case you need to re-install the driver and software for any reason, we recommend that you remove any previously installed driver and software from your system first. Refer to Chapter 6 for uninstalling the Wireless LAN Card driver and utility, following the instructions to remove previous driver release.

Installing Wireless Adapter Driver and Utility

The software you are ready to install comprises this adapter's driver and utility. Thus, the following instructions will guide you through overall installation procedure. In OS-specific situations, you should follow the on-screen instructions to proceed. For the details, please read the user's manual.

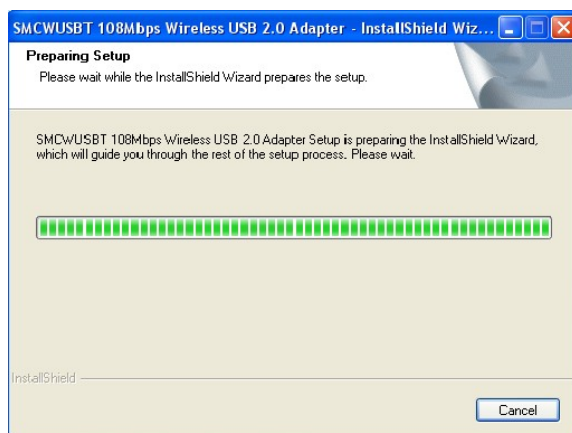


Note

If your computer's operating system is Windows XP that is installed with Service Pack 1 only, it is recommended to further install **Windows XP Hotfix – KB822603**.

Follow these steps below to install the wireless adapter driver and utility.

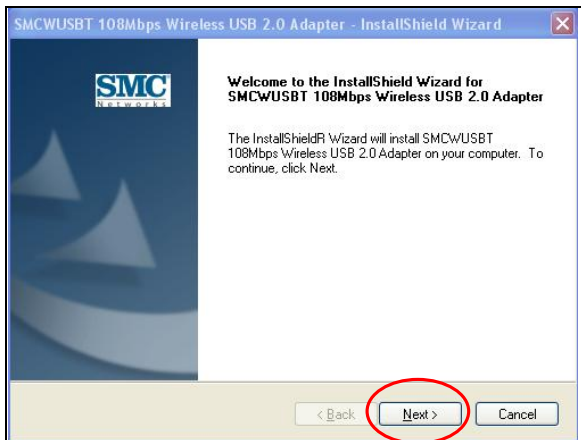
1. Close all Windows programs that are running.
2. Insert the Utility CD into your CD-ROM drive and double click **Setup.exe** in the companion CD.
- 3.



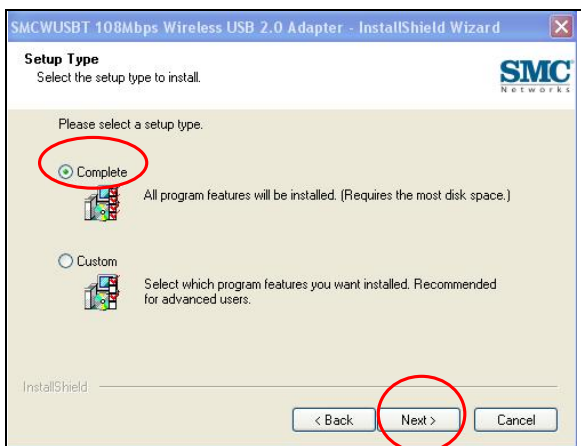
After you double click **Setup.exe** in the companion CD, a **Preparing Setup** window appears, and you may go to a next step when the processing bars end.

Wireless USB 2.0 Adapter

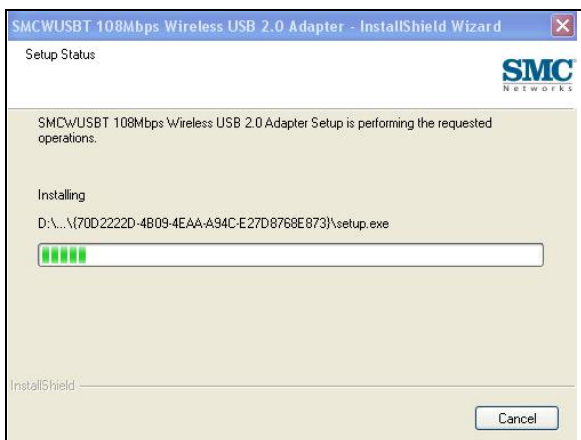
4.

	<p>When the welcome screen pops up, click Next.</p>
---	--

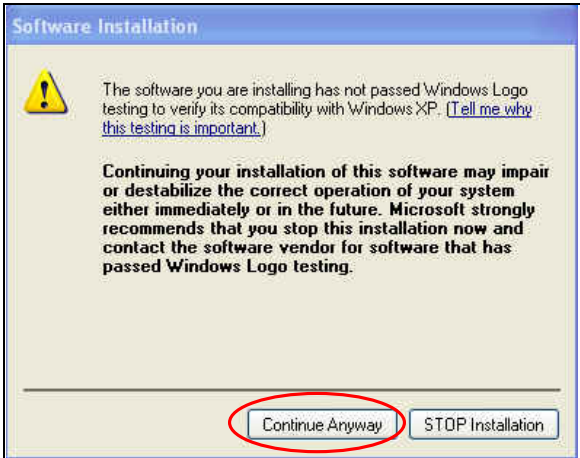
5.

	<p>Please select Complete and click Next.</p>
--	---

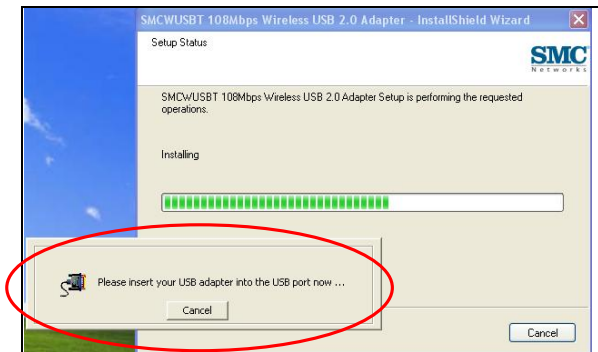
6.

	<p>Now, you see processing bars increasing during installation. Installation progress takes a few minutes.</p>
---	--

7.

	<p>During installation, a warning window pops up. Click Continue Anyway to continue the installation work.</p>
---	---

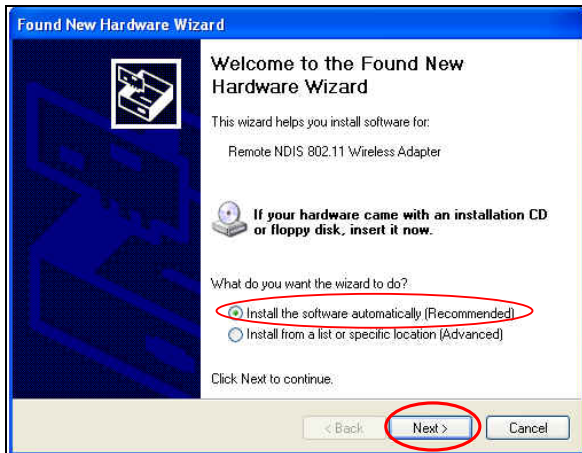
8.

	<p>Plug in your wireless USB 2.0 adapter when the screen pops up.</p>
--	---

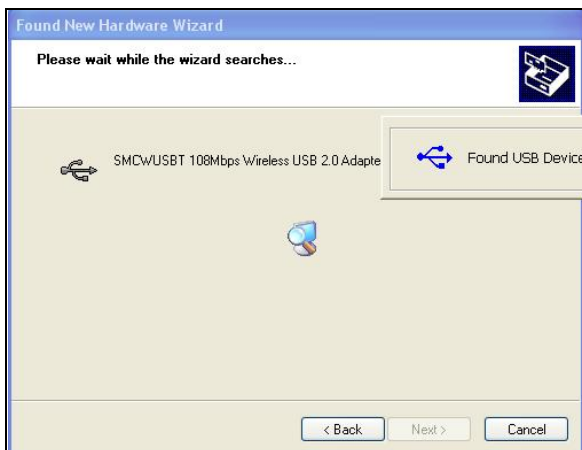
9.

	<p>The USB device you inserted is found.</p>
---	--

10.

	<p>System checks for new hardware and meanwhile the Found New Hardware Wizard screen pops up. Choose Install the software automatically (Recommended) and then click Next.</p>
---	---

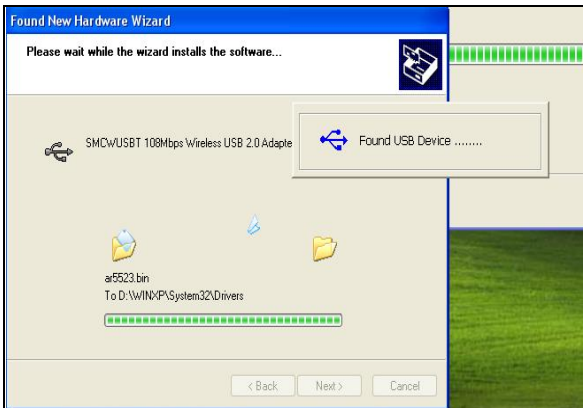
11.

	<p>After clicking Next at the previous step, you will see a window showing you Please wait while the wizard searches....</p>
--	--

12

	<p>While the wizard is running, a Hardware Installation warning window pops up. Then, click Continue Anyway to continue the installation.</p>
---	---

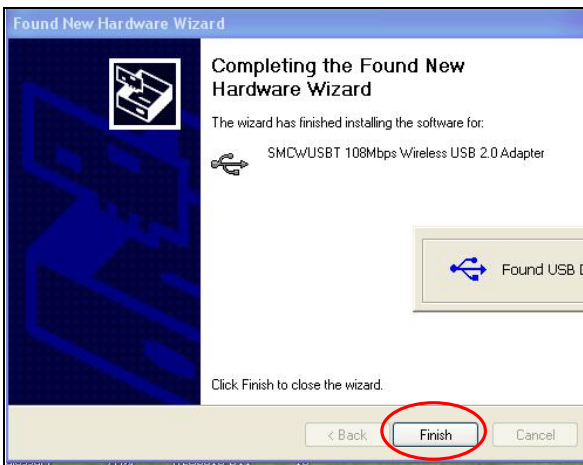
13.



The screenshot shows the 'Found New Hardware Wizard' window. The title bar reads 'Found New Hardware Wizard'. The main text says 'Please wait while the wizard installs the software...'. A progress bar is visible at the top right. Below the progress bar, there is a list of devices: 'SMCwUSBT 108Mbps Wireless USB 2.0 Adapter' and 'Found USB Device'. At the bottom, there are buttons for '< Back', 'Next >', and 'Cancel'.

The wizard is installing the driver. It may take several minutes.

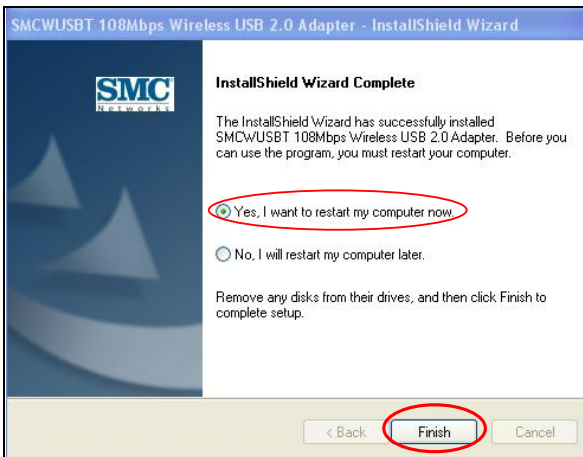
14.



The screenshot shows the 'Found New Hardware Wizard' window at the completion stage. The title bar reads 'Found New Hardware Wizard'. The main text says 'Completing the Found New Hardware Wizard'. Below this, it says 'The wizard has finished installing the software for:' followed by 'SMCwUSBT 108Mbps Wireless USB 2.0 Adapter'. At the bottom, there are buttons for '< Back', 'Finish', and 'Cancel'. The 'Finish' button is circled in red.

This adapter's driver installation is completed. Click **Finish** to complete the installation process.

15.



The screenshot shows the 'InstallShield Wizard Complete' dialog box. The title bar reads 'SMCwUSBT 108Mbps Wireless USB 2.0 Adapter - InstallShield Wizard'. The main text says 'InstallShield Wizard Complete'. Below this, it says 'The InstallShield Wizard has successfully installed SMCwUSBT 108Mbps Wireless USB 2.0 Adapter. Before you can use the program, you must restart your computer.' There are two radio buttons: 'Yes, I want to restart my computer now.' (which is selected and circled in red) and 'No, I will restart my computer later.'. At the bottom, there are buttons for '< Back', 'Finish', and 'Cancel'. The 'Finish' button is circled in red.

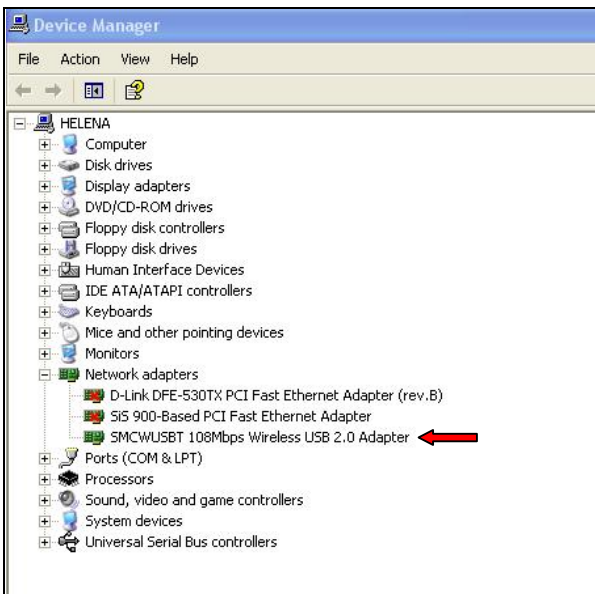
Finally, you are asked to reboot your computer. It is recommended to restart your computer now, or you may restart it later.

16.



When you succeed in installing the driver, you will see a logo indicating the wireless signal strength at a lower right corner of the toolbar on desktop, after you restart your computer.

17.



Alternatively, you may check if this adapter is successfully installed through **Device Manager** of your computer. If it is successful, you will see **SMCWUSB 108Mbps Wireless USB 2.0 Adapter** under **Network adapters** of **Device Manager**.

Chapter 3 Utility Configuration

The configuration of the Wireless LAN Card is done through the USB Wireless LAN Configuration Utility. The utility also includes a number of tools to display current statistics and status information pertaining to your Wireless LAN Card.


Tray Icon

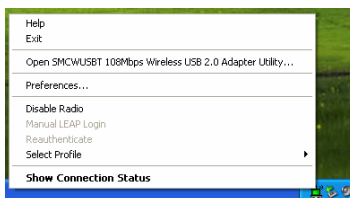
The tray icon appears at the bottom of the screen.



Hold the mouse cursor over the tray icon to display the current configuration profile name and association, as well as transmit and receive speed and the wireless adapter name.



Right clicking on the tray icon  , you can see a menu on which configuration items of the utility appears.



Each item under the menu is defined below.

Help Open the online help.

Exit Exit the utility application.

Open SMCWUSB 108Mbps Wireless USB 2.0 Adapter Utility ... Launch the utility. Use the utility to configure the profile or view status and statistics information.

Preferences Set the **Startup Options** and **Menu Options** for the utility. Check whether the program should start automatically when Windows starts, and check the menu items that should appear on the popup menu.

Enable/Disable Radio Enable or disable the RF Signal.

Manual LEAP Login Log in to LEAP manually, if LEAP is set to manually prompt for user name and password on each login.


Reauthenticate Re-authenticate to the access point.

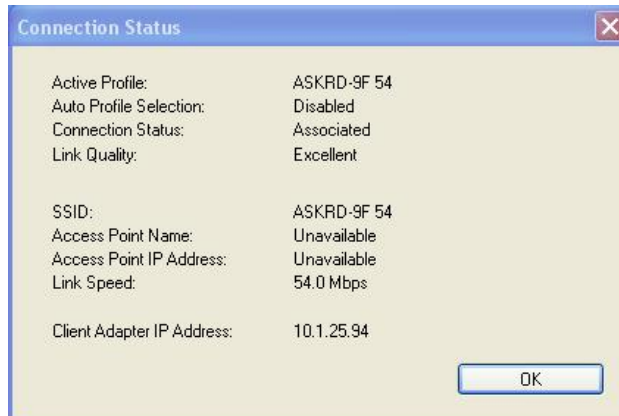
Select Profile Click a configuration profile name to switch to it. If no configuration profile exists for a connection, add a profile first.

Show Connection Status Display the Connection Status window. This window displays information about the connection:


Active Profile	Displays the name of the active configuration profile.
Auto Profile Selection	Shows whether auto profile selection is enabled.
Connection Status	Displays whether the adapter is connected to a wireless network.
Link Quality	Lists the quality of the link connection.
SSID	Displays the SSID of the associated network.
Access Point Name	Shows the name of the access point the wireless adapter is connected to.
Access Point IP Address	Shows the IP address of the access point the wireless adapter is connected to.
Link Speed	Lists the speed of the link connection.
Client Adapter IP Address	Displays the IP address of the wireless adapter.

Checking the Connection Status

You may double click the wireless tray icon  at the lower right corner of your PC monitor. Then, a small status screen appears as follows.



Accessing Vendor's Wireless LAN Utility

Please right click the wireless tray icon  at the lower right corner and select Open SMCWUSBT 108Mbps Wireless USB 2.0 Adapter Utility... as illustrated below.



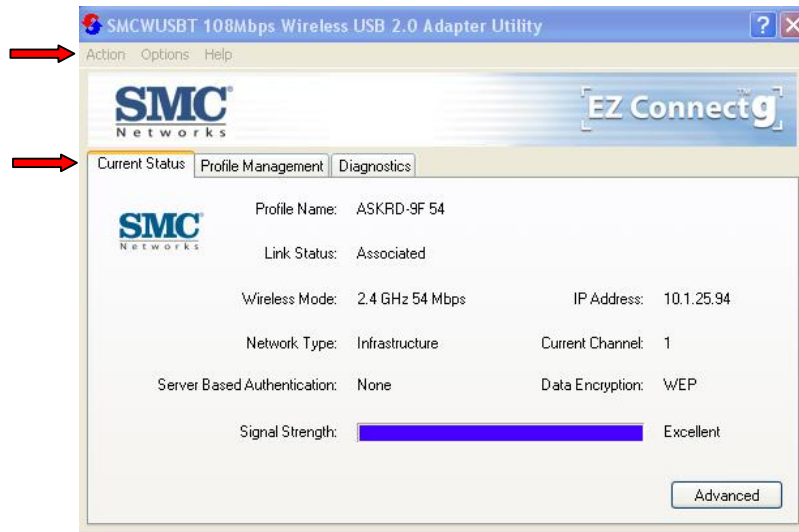
Note

If the wireless tray icon is not launched, you can manually start the Wireless LAN Utility by selecting **Start > Programs > SMCWUSBT 108Mbps Wireless USB 2.0 Adapter > SMCWUSBT 108Mbps Wireless USB 2.0 Adapter Client Utility**.

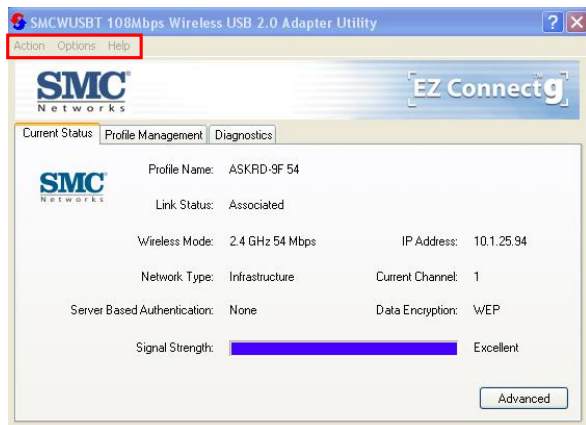
Configuration Tab

Go to the configuration tab on the user interface to set parameters for this adapter.

After opening the option of SMCWUSBT 108Mbps Wireless USB 2.0 Adapter Utility..., you will see a user interface as set below.



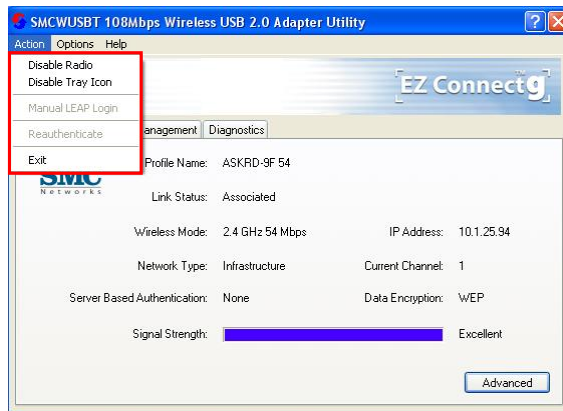
At the upper left side of the user interface, you can see 3 items as utility tools, **Action**, **Options**, and **Help**. Next, you can also see 3 main items you should know, **Current Status**, **Profile Management**, and **Diagnostics**. Please read the following descriptions and you can know how to read the connection status and use the tool.




You can use the tools of utility that are framed in red. The tools are **Action**, **Options**, and **Help**.

Action Tab

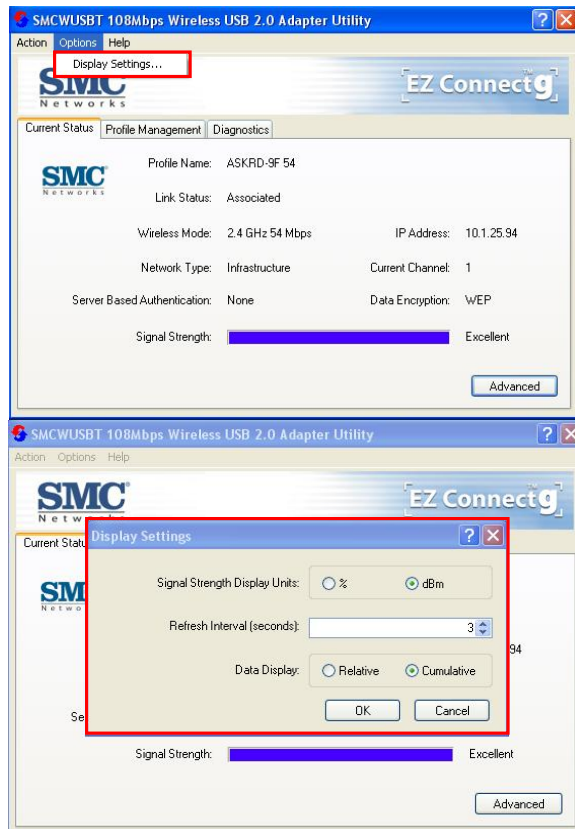
Use the **Action** menu to access the Utility tools:



1. **Enable/Disable Radio:** Enable or disable the RF Signal on all Atheros station reference designs.
2. **Enable/Disable Tray Icon:** Enable or disable the tray icon .
3. **Manual LEAP Login:** Log in to LEAP manually, if LEAP is set to manually prompt for user name and password on each login.
4. **Reauthenticate:** Re-authenticate to a LEAP-configured access point.
5. **Exit:** Exit the Utility application.

Options Tab

To change the display settings, choose Options > Display Settings from the menu.

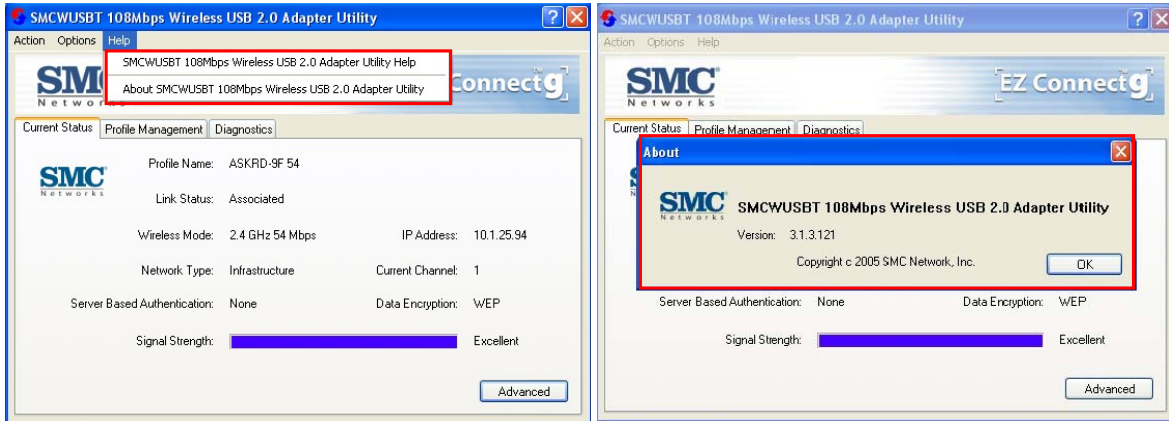


Display Settings:

1. **Signal Strength Display Units:** Set the units used when displaying signal strength: percentage (%) or dBm.
2. **Refresh Interval:** Use the up/down arrows to set the display refresh interval in seconds.
3. **Data Display:** Set the display to cumulative or relative:
 - **Relative:** displays the change in statistical data since the last update.
 - **Cumulative:** displays statistical data collected since opening the profile.

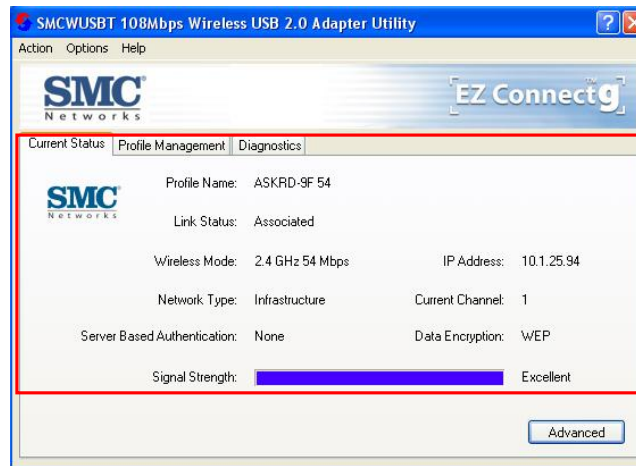
Help Tab

If you want to know the operation guide and the version number of utility, you can select **Help** for the details, as shown below.



Current Status Tab

The **Current Status** tab contains general information about the program and its operations. The **Current Status** tab does not require any configuration.

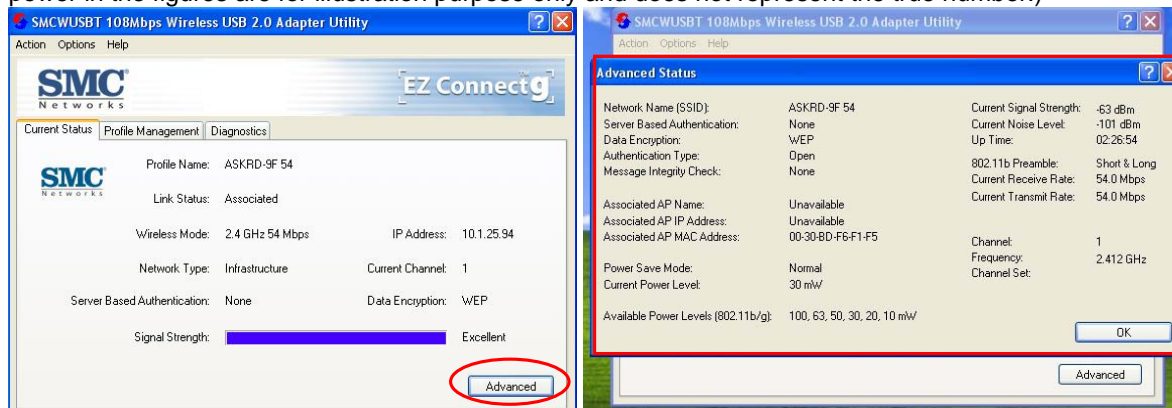


The following table describes the items found on the **Current Status** screen.

Profile Name	The name of the current selected configuration profile. Set up the configuration name by clicking New or Modify on the Profile Management tab.
Link Status	Shows whether the station is associated to the wireless network.
Wireless Mode	Displays the wireless mode. See advanced information about the program and its operations on the Advanced tab.
IP Address	Displays the computer's IP address.
Network Type	The type of network the station is connected to. The options include: <ul style="list-style-type: none"> • Infrastructure (access point) • Ad Hoc Configure the network type on the Advanced tab.
Current Channel	Shows the currently connected channel.
Server Based Authentication	Shows whether server-based authentication is used.
Data Encryption	Displays the encryption type the driver is using. Configure the encryption type by clicking New or Modify on the Profile Management tab on the Security tab.
Signal Strength	Shows the strength of the signal.

Advanced Tab

Click the **Advanced** button on the **Current Status** tab of the Utility to see advanced information about the program and its operations. The **Current Status** tab does not require any configuration. (The available power in the figures are for illustration purpose only and does not represent the true number.)

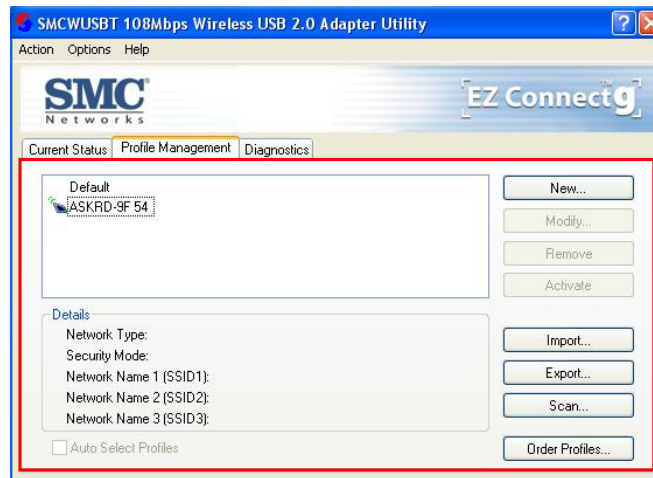


The following table describes the items found on the **Advanced Status** screen.

Network Name (SSID)	Displays the wireless network name. Configure the network name by clicking New or Modify on the Profile Management tab.
Server Based Authentication	Shows whether server-based authentication is used.
Data Encryption	Displays the encryption type the driver is using. Configure the encryption type by clicking New or Modify on the Profile Management tab on the Security tab.
Authentication Type	Displays the authentication mode. Configure the authentication mode by clicking New or Modify on the Profile Management tab.
Message Integrity Check	Shows whether MIC is enabled. MIC prevents bit-flip attacks on encrypted packets.
Associated AP Name	Displays the name of the access point the wireless adapter is associated to.
Associated AP IP Address	Shows the IP address of the access point the wireless adapter is associated to.
Associated AP MAC Address	Displays the MAC address of the access point the wireless adapter is associated to.
Power Save Mode	Shows the power save mode. Power management is disabled in ad hoc mode. Configure the power save mode on the Advanced tab by clicking Modify .
Current Power Level	Displays the transmit power level rate in mW. Configure the transmit power level on the Advanced tab by clicking Modify .
Available Power Levels	Shows the 802.11a and/or 802.11b/g available power levels.
Current Signal Strength	Shows the current signal strength in dBm.
Current Noise Level	Displays the current noise level in dBm.
Up Time	Shows how long the client adapter has been receiving power (in hours:minutes:seconds). If the adapter runs for more than 24 hours, the display shows in days:hours:minutes:seconds.
802.11b Preamble	Displays the 802.11b preamble format. Configure the preamble format on the Advanced tab by clicking Modify .
Current Receive Rate	Shows the current receive rate in Mbps.
Current Transmit Rate	Displays the current transmit rate in Mbps.
Channel	Shows the currently connected channel.
Frequency	Displays frequency the station is using.
Channel Set	Shows the current channel set.

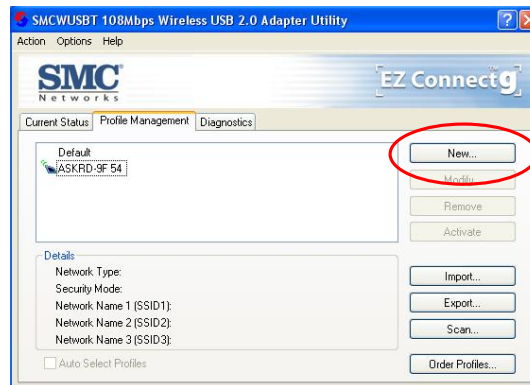
Profile Management

Configure the wireless network adapter (wireless card) from the **Profile Management** tab of the Utility.

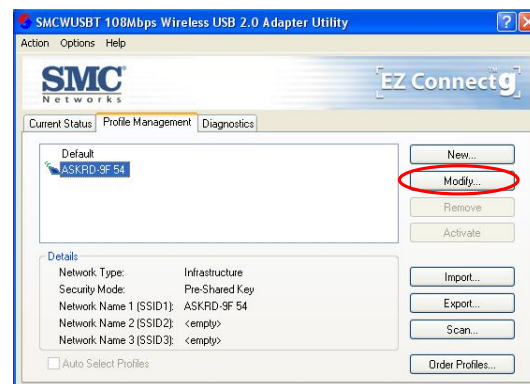


Creating or Modifying a Configuration Profile

To add a new configuration profile, click **New** on the Profile Management tab

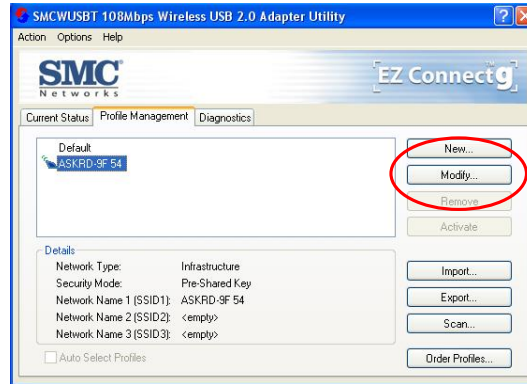


To modify a configuration profile, select the configuration from the Profile list and click the **Modify** button.

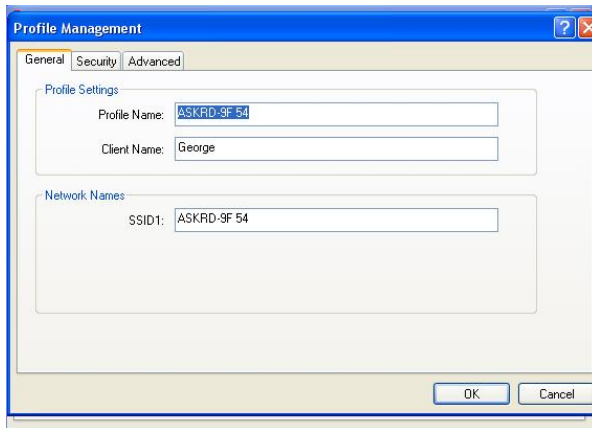


General Tab

In the Utility, access the General tab by clicking **New** or **Modify** on the **Profile Management** tab.



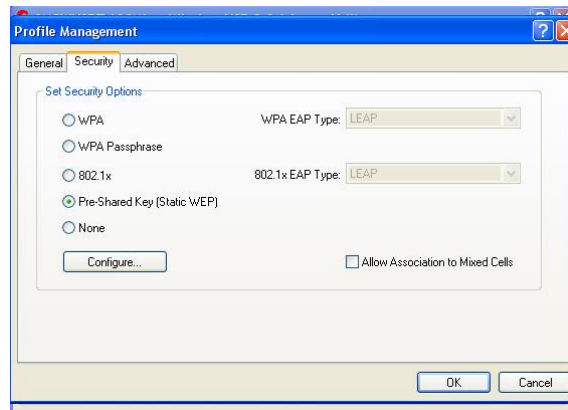
Edit the fields in the General tab to configure the configuration profile. Make sure to also edit the **Security** and **Advanced** tabs.



1. **Profile Name:** Identifies the configuration profile. This name must be unique. Profile names are not case sensitive.
2. **Client Name:** Identifies the client machine.
3. **Network Names (SSIDs):** The IEEE 802.11 wireless network name. This field has a maximum limit of 32 characters. Configure up to three SSIDs (SSID1, SSID2, and SSID3).

Security Tab

In the Utility, access the **Security** tab by clicking **New** or **Modify** on the **Profile Management** tab. Click the **Security** tab in the **Profile Management** window.

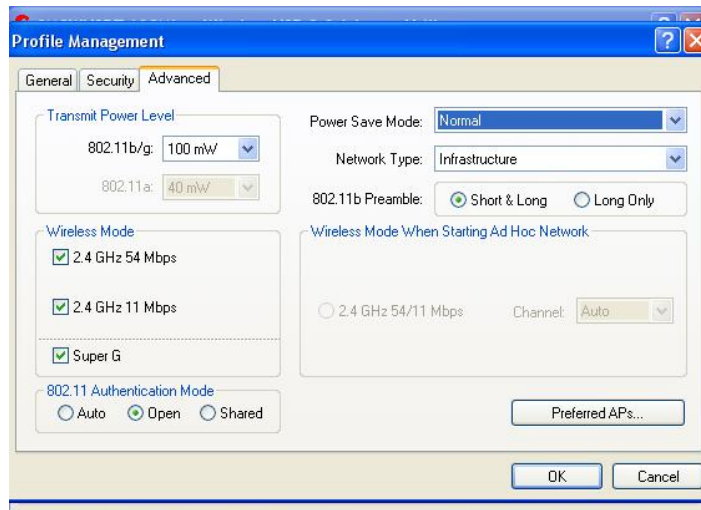


Edit the fields in the **Security** tab of **Profile Management** to configure the profile. To define the security mode, select the radio button of the desired security mode. Make sure to also edit the **General** and **Advanced** tabs.

WPA	<p>Enables the use of Wi-Fi Protected Access (WPA).</p> <p>Choosing WPA opens the WPA EAP drop-down menu. The options include:</p> <ul style="list-style-type: none"> • EAP-TLS • EAP-TTLS • PEAP (EAP-GTC) • PEAP (EAP-MSCHAP V2) • LEAP
WPA Passphrase	<p>Enables WPA Passphrase security.</p> <p>Click on the Configure button and fill in the WPA Passphrase.</p>
802.1x	<p>Enables 802.1x security. This option requires IT administration.</p> <p>Choosing 802.1x opens the 802.1x EAP type drop-down menu. The options include:</p> <ul style="list-style-type: none"> • EAP-TLS • EAP-TTLS • PEAP (EAP-GTC) • PEAP (EAP-MSCHAP V2) • LEAP <p>If the access point that the wireless adapter is associating to has WEP set to Optional and the client has WEP enabled, make sure that Allow Association to Mixed Cells is checked on the Security Tab to allow association.</p>
Pre-Shared Key (Static WEP)	<p>Enables the use of pre-shared keys that are defined on both the access point and the station.</p> <p>To define pre-shared encryption keys, choose the Pre-Shared Key radio button and click the Configure button to fill in the Define Pre-Shared Keys window.</p> <p>If the access point that the wireless adapter is associating to has WEP set to Optional and the client has WEP enabled, make sure that Allow Association to Mixed Cells is checked on the Security Tab to allow association.</p>
None	No security (not recommended).

Advanced Tab

In the Utility, access the **Advanced** tab by clicking **New** or **Modify** on the **Profile Management** tab, then clicking the **Advanced** tab in **Profile Management**.



Edit the fields in the **Advanced** tab of **Profile Management** to configure the profile. Make sure to also edit the **General** and **Security** tabs.

Transmit Power Level	Selects the transmit power level for 80211b/g or 802.11a in mW. Actual transmit power may be limited by regulatory domain or hardware limitations.
Power Save Mode	Specify: Maximum mode causes the access point to buffer incoming messages for the wireless adapter. The adapter up periodically polls the access point to see if any messages are waiting. Normal uses maximum when retrieving a large number of packets, then switches back to power save mode after retrieving the packets. Off turns power saving off, thus powering up the wireless adapter continuously for a short message response time.
Network Type	Specifies the network as either infrastructure (access point mode) or ad hoc.
802.11b Preamble	Specifies the preamble setting in 802.11b. The default setting is Short & Long (access point mode), which allows both short and long headers in the 802.11b frames. The adapter can only use short radio headers if the access point supports and uses them. Set to Long Only to override allowing short frames.
Wireless Mode	Specifies 5GHz 54 Mbps, 2.4 GHz 54 Mbps, 2.4 GHz 11 Mbps, or Super A/G operation in an access point network. The wireless adapter must match the wireless mode of the access point it associates to.
Wireless Mode when Starting an Ad Hoc Network	Specifies 5GHz 54 Mbps, 5GHz 108 Mbps, or 2.4 GHz 54/11 Mbps to start an ad hoc network if no matching network name is found after scanning all available modes. This mode also allows selection of the channel the wireless adapter uses. The channels available depend on the regulatory domain. If the adapter finds no other ad hoc adapters, this selection specifies which channel with the adapter starts the ad hoc network with.

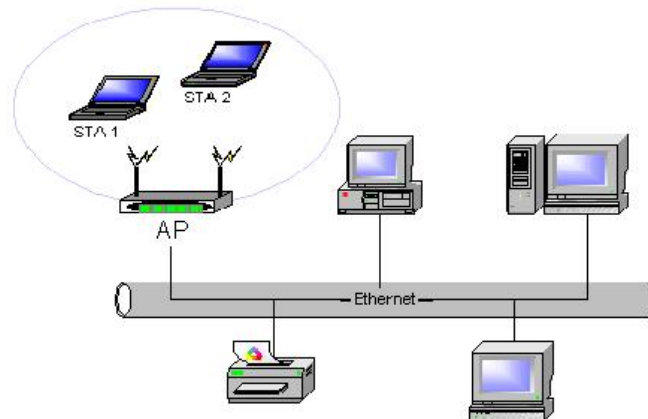
	The wireless adapter must match the wireless mode and channel of the clients it associates to.
802.11a Authentication Mode	Select what mode the wireless adapter uses to authenticate to an access point: Auto causes the adapter to attempt authentication using Shared , but switches it to open authentication if Shared fails. Open enables an adapter to attempt authentication regardless of its WEP settings. It will only associate with the access point if the WEP keys on both the adapter and the access point match. Shared only allows the adapter to associate with access points that have the same WEP key.

**Note**

The Utility only allows the creation of 16 configuration profiles. After the creation of 16 profiles, clicking the **New** button displays an error message. Remove an old profile or modify an existing profile for a new use.

Infrastructure (Access Point) Mode

In infrastructure (access point (AP)) mode, the wireless network adapter participates in a basic service set (BSS) as a station, and communicates with the other stations through an AP, as illustrated here.



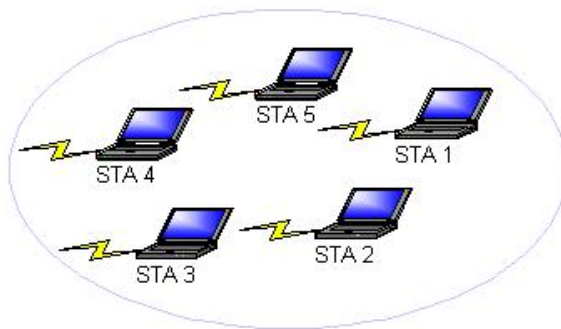
Infrastructure (Access Point) Mode Profile Configuration

To configure a profile in infrastructure (access point) mode, change the Network Type in the **Advanced** tab. For access point mode, modify the settings:

- Transmit Power Level
- Power Save Mode
- 802.11b Preamble (if using 802.11b)
- Wireless Mode
- 802.11a Authentication Mode (if using 802.11a)

Ad Hoc Mode

In ad hoc mode, a wireless network adapter works within an independent basic service set (IBSS), as illustrated here. All stations communicate directly with other stations without using an access point (AP).



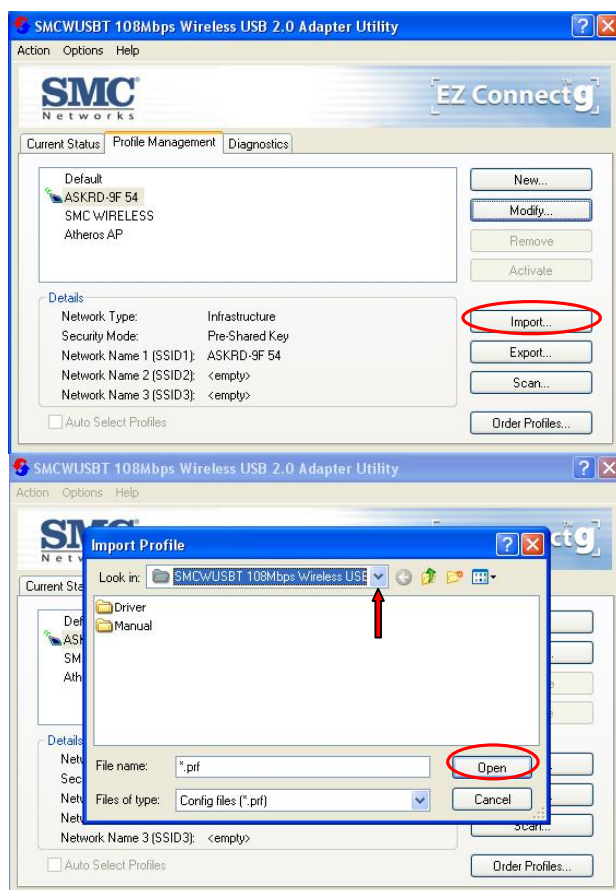
Ad Hoc Mode Profile Configuration

To configure a profile in ad hoc mode, change the **Network Type** in the **Profile Management's Advanced** tab. For ad hoc mode, modify the settings:

- Network Name (on General Tab)
- Transmit Power Level
- 802.11b Preamble (if using 802.11b)
- Wireless Mode When Starting an Ad Hoc Network

Import and Export Profiles

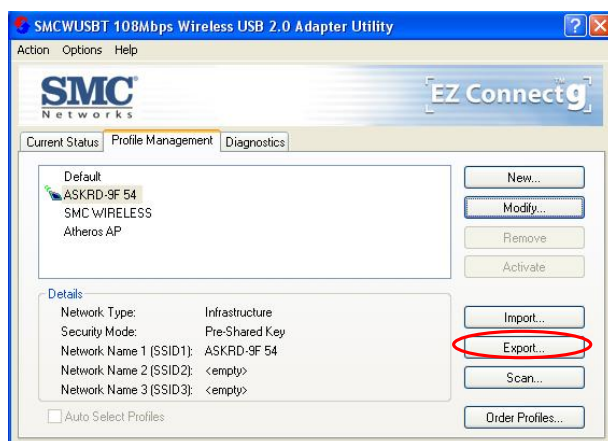
Importing a Profile



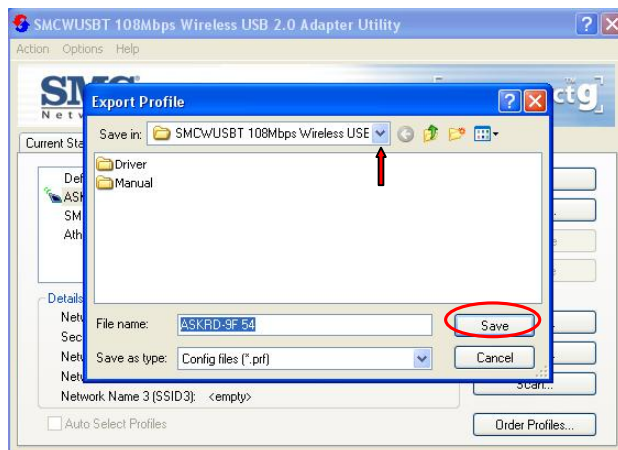
1. From the **Profile Management** tab, click the **Import** button. The Import Profile window appears.

2. Browse to the directory where the profile is located.
3. Highlight the profile name.
4. Click **Open**. The imported profile appears in the profiles list.

Exporting a Profile

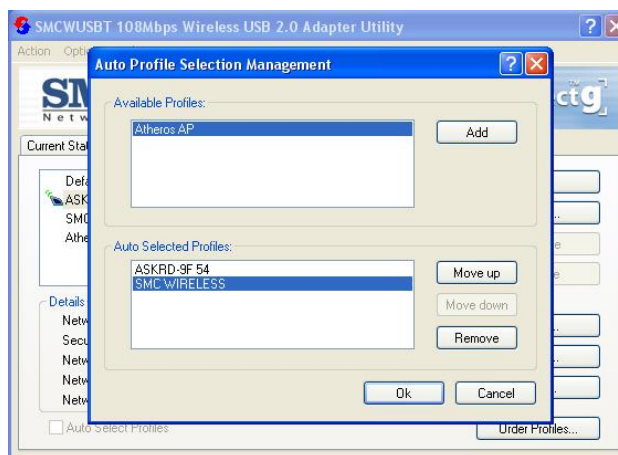


1. From the [Profile Management](#) tab, highlight the profile to export. Click the [Export](#) button. The Export Profile window appears.



2. Browse to the directory to export the profile to.
3. Click **Save**. The profile is exported to the specified location.

Order Profiles



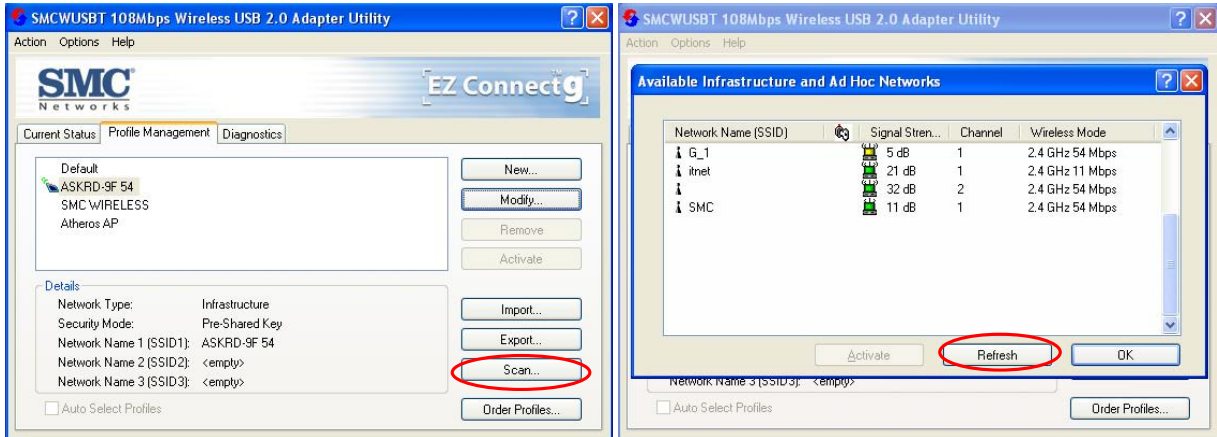
1. Highlight a profile in the **Auto Selected Profiles** box.
2. Click **Move Up** or **Move Down** as appropriate. The first profile in the **Auto Selected Profiles** box has highest priority, and the last profile has lowest priority.
3. Click **OK**.
4. Check the **Auto Select Profiles** box.
5. Save the modified configuration file.

When auto profile selection is enabled by checking **Auto Select Profiles** on the **Profile Management** tab, the client adapter scans for an available network. The profile with the highest priority and the same SSID as one of the found networks is the one that is used to connect to the network. If the connection fails, the client adapter tries the next highest priority profile that matches the SSID, and so on.

With auto profile selection enabled, the wireless adapter scans for available networks. The highest priority profile with the same SSID as a found network is used to connect to the network. On a failed connection, the client adapter tries with the next highest priority profile.

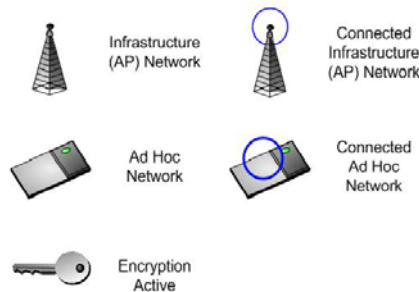
Scan Available Networks

Click the **Scan** button on the **Profile Management** tab to scan for available infrastructure and ad hoc networks. On this list, click **Refresh** to refresh the list at any time.

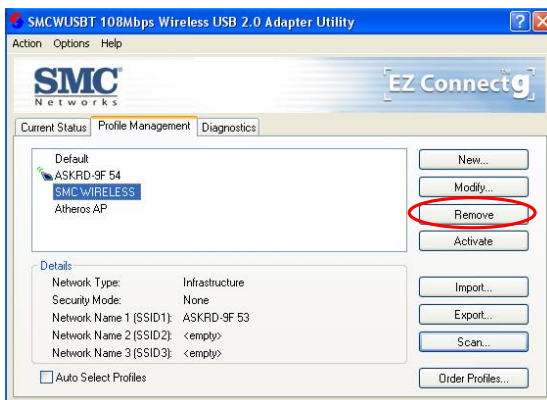


Connecting to a different network

Highlight a network name and click the **Activate** button to connect an available network. If no configuration profile exists for that network, the **Profile Management** window opens to the **General** tab. Fill in the profile name and click **OK** to create the configuration profile for that network.



Remove a Configuration Profile



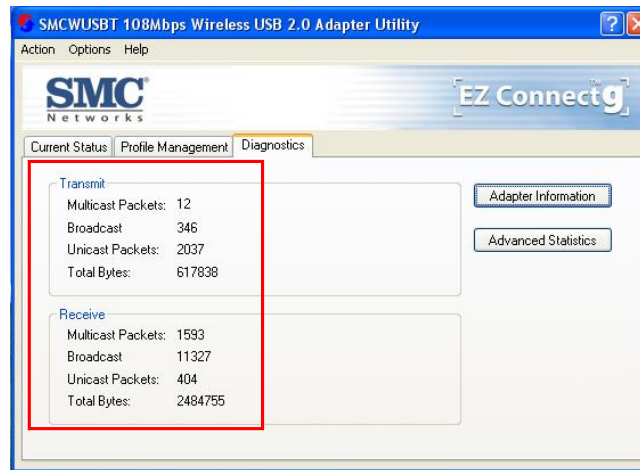
1. Go to the **Profile Management** tab.
2. Select the profile to remove from the list of configuration profiles.
3. Click the **Remove** button.

Diagnostics Tab

The Diagnostics tab of the Utility provides buttons used to retrieve receive and transmit statistics. The Diagnostics tab does not require any configuration.

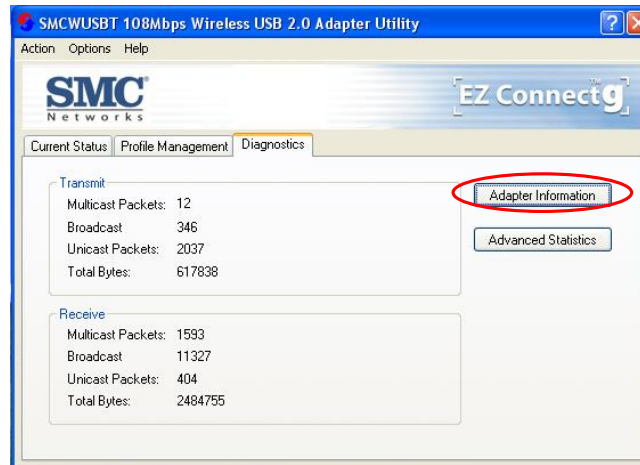
The Diagnostics tab lists the following receive and transmit diagnostics for frames received by or transmitted by the wireless network adapter:

- Multicast frames transmitted and received
- Broadcast frames transmitted and received
- Unicast frames transmitted and received
- Total bytes transmitted and received

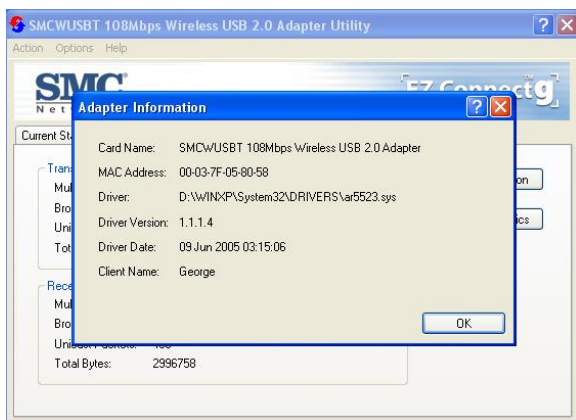


Adapter Information Button

Click the **Adapter Information** button for more general information about the wireless network adapter and the network driver interface specification (NDIS) driver.



The **Adapter Information** button contains general information about the network interface card (the wireless network adapter) and the network driver interface specification (NDIS) driver. Access the adapter information from the **Diagnostics** tab.



Card Name: The name of the wireless network adapter.

MAC Address: The MAC address of the wireless network adapter.

Driver: The driver name and path of the wireless network adapter driver.

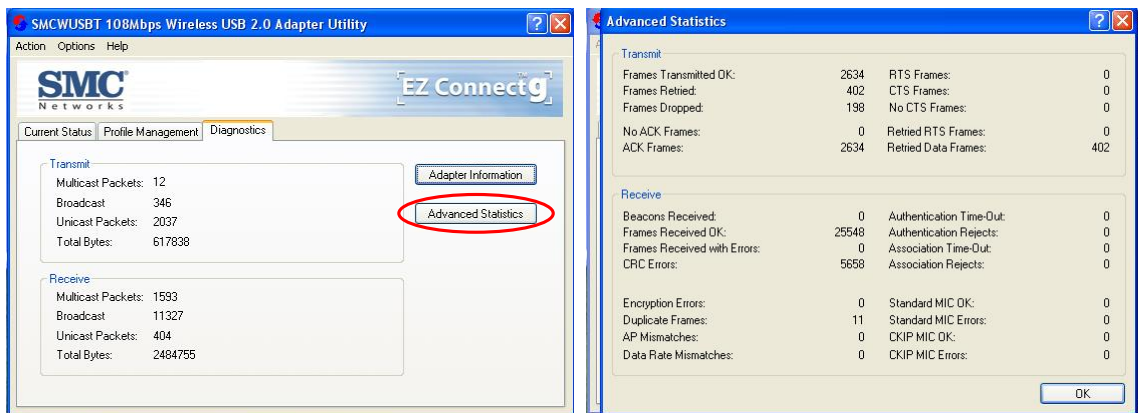
Driver Version: The version of the wireless network adapter driver.

Driver Date: The creation date of the wireless network adapter driver.

Client Name: The name of the client computer.

Advanced Statistics

Click the **Advanced Statistics** button on the **Diagnostics** tab to also show receive and transmit statistical information for the following receive and transmit diagnostics for frames received by or transmitted to the wireless network adapter:



Appendix A Regulatory Compliance

FCC Part 15 Declaration of Conformity (DoC)

The following equipment:

Product name: EZ Connect™ g 802.11g 108Mbps Wireless USB2.0 Adapter

is herewith confirmed to comply with the requirements of FCC part 15 rules. The 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.

SMC declares that SMCWUSBT-G (FCC ID: H8NWL3010D11) is limited in Ch1~Ch11 for 2.4GHz by specified firmware controlled in U.S.A.

FCC Rules and Regulations – Part 15

Warning: 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.

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.

The highest SAR value for the device when tested for use is 0.757 W/kg (for DSSS) and 0.316 W/kg (for OFDM)

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

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.

Canada-Industry Canada (IC)

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.

This device has been designed to operate with an antenna having a maximum gain of 2 dBi.

Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

Appendix B EC Declaration of Conformity

EC Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following references have been applied in order to prove presumption of compliance with the R&TTE Directive 1999/5/EC:

- EN 60950
Safety of Information Technology Equipment.
- Council recommendation 1999/519/EC of 12 July 1999, limitations of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).
- EN 300 328-1
Technical requirements for 2.4 GHz radio equipment.
- EN 301 489-1, EN 301 489-17
EMC requirements for radio equipment.

English	Hereby, SMC Networks, declares that this Radio LAN device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The official EC-Declaration of Conformity can be found under the corresponding product section on the web http://www.smc.com .
Dutch	Hierbij verklaart SMC Networks dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG. Het officiële EC- gelijkvormigheidattest kan men vinden op de internetsite http://www.smc.com onder de betrokken productcategorie.
French	Par la présente SMC Networks déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE. La déclaration de conformité officielle peut être trouvée sur notre site internet http://www.smc.com dans la rubrique Produits.
German	Hiermit erklärt SMC Networks, dass sich dieses Wireless LAN Gerät in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet. Die offizielle EC-Declaration of Conformity finden Sie im Internet unter http://www.smc.com unter der entsprechenden Produktkategorie.
Spanish	Por medio de la presente SMC Networks declara que el Radio LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE. The official EC-Declaration of Conformity can be found under the corresponding product section on the web http://www.smc.com .

Countries of Operation & Conditions of Use in EC/ EFTA member states

English	<p>This device is a 2.4 GHz wireless LAN transceiver, intended for indoor home and office use in all notified EC and EFTA member states. In accordance with article 6.4 of the R&TTE Directive 1999/5/EC the following EC/ EFTA member states have been notified:</p> <p>Austria, Belgium, Denmark, Finland, France, Germany, Italy, Luxembourg, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, Portugal, Greece, Ireland, Iceland</p> <p>Requirements for outdoor operation, like license requirements and allowed channels of operation apply in some countries. Please contact your local regulation authority or SMC Networks for details on current restrictions for outdoor use.</p>
Dutch	<p>Dit toestel is een 2.4 Ghz draadloze Lan transceiver, bestemd voor gebruik binnen huis en kantoor in alle geïnformeerde lidstaten van de EC en de EFTA. In overeenstemming met artikel 6.4 van de R&T TE Directive 1999/5/EC zijn de volgende EC/EFTA lidstaten verwittigd:</p> <p>België, Denemarken, Duitsland, Finland, Frankrijk, Griekenland, Ierland, IJsland, Italië, Luxemburg, Nederland, Noorwegen, Oostenrijk, Portugal, Spanje, Verenigd Koninkrijk, Zweden, Zwitserland.</p> <p>Benodigdheden voor gebruik buiten, zoals gebruiksvergunningen en toegelaten werkkanalen zijn van toepassing in sommige landen. Gelieve uw lokale instantie of SMC Networks te contacteren voor details op huidige beperkingen voor gebruik in buitenlucht.</p>
French	<p>Ce produit est un appareil radio LAN transceiver de 2.4 GHz destiné aux PME et à l'utilisation domestique dans tous les pays certifiés conformes aux conditions de l'EU et de l'EFTA. En accord avec l'article 6.4 de la R&TTE directive 1999/5/EC, the membres de la EU et de l'EFTA sont les suivants :</p> <p>Autriche, Belgique, Danemark, finalnde, France, Allemagne, Italie, Luxembourg, Pays-Bas, Norvège, Espagne, Suède, Suisse, Royaume-Uni, Portugal, Grèce, Irlande, Islande.</p> <p>Des conditions sont appliquées à certains pays pour l'utilisation en extérieur, tels que des licences spécifiques et des canaux d'opération. Veuillez contacter votre autorité locale ou SMC Networks pour plus de détails quant aux restrictions actuelles concernant l'utilisation en extérieur.</p>
German	<p>Dieses Wireless LAN Gerät arbeitet im 2.4 GHz Frequenzband und ist für den Einsatz im Innenbereich in den benachrichtigten EC/ EFTA Mitgliedstaaten geeignet. In Übereinstimmung mit Artikel 6.4 der R&TTE Direktive 1999/5/EC wurden folgende Mitgliedstaaten benachrichtigt:</p> <p>Österreich, Belgien, Dänemark, Finland, Frankreich, Deutschland, Italien, Luxemburg, Niederlande, Norwegen, Spanien, Schweden, Schweiz, Großbritannien, Portugal, Griechenland, Irland, Island.</p> <p>Für den Einsatz im Aussenbereich sind in einigen Ländern Lizenzen erforderlich oder die Anzahl der Kanäle ist eingeschränkt. Bitte kontaktieren Sie Ihre Regulierungsbehörde oder SMC Networks für die aktuellen Einschränkungen beim Einsatz im Aussenbereich.</p>
Spanish	<p>Este aparato es un transmisor inalámbrico de 2.4 GHz, previsto para el uso interior en domicilios y Pymes en todos los Estados de la CE y la EFTA notificados. De acuerdo con el artículo 6.4 de la Directiva R&TTE 1999/5/EC los siguientes estados de la CE y de la EFTA han sido notificados:</p> <p>Austria, Bélgica, Dinamarca, Finlandia, Francia, Alemania, Italia, Luxemburgo, Países Bajos, Noruega, España, Suecia, Suiza, Reino Unido, Portugal, Grecia, Irlanda, Islandia.</p> <p>Los requisitos para su uso exterior, como requerimiento de licencia y canales de operación permitidos se aplican en algunos países. Por favor contacte la</p>

Wireless USB 2.0 Adapter

	autoridad reguladora local o SMC Networks para más detalles en relación con las restricciones actuales para uso exterior.
--	---

SMC Contact for this device in Europe is:

SMC Networks Europe,
Edificio Conata II,
Calle Fructuos Gelabert 6-8, 2, 4^a,
08970 – Sant Joan Despi,
Barcelona, Spain

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.com

INTERNET

E-mail address:
techsupport@smc.com

Driver updates:

http://www.smc.com/index.cfm?action=tech_support_drivers_downloads

World Wide Web:

<http://www.smc.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) 3355708602	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 Saharan 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) 789 357
PRC:	86-10-6235-4958	Fax 86-10-6235-4962
Taiwan:	886-2-87978006	Fax 886-2-87976288
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

Model Number: SMCWUSBT-G

SMC[®]

Networks

38 Tesla

Irvine, CA 92618

Phone: (949) 679-8000