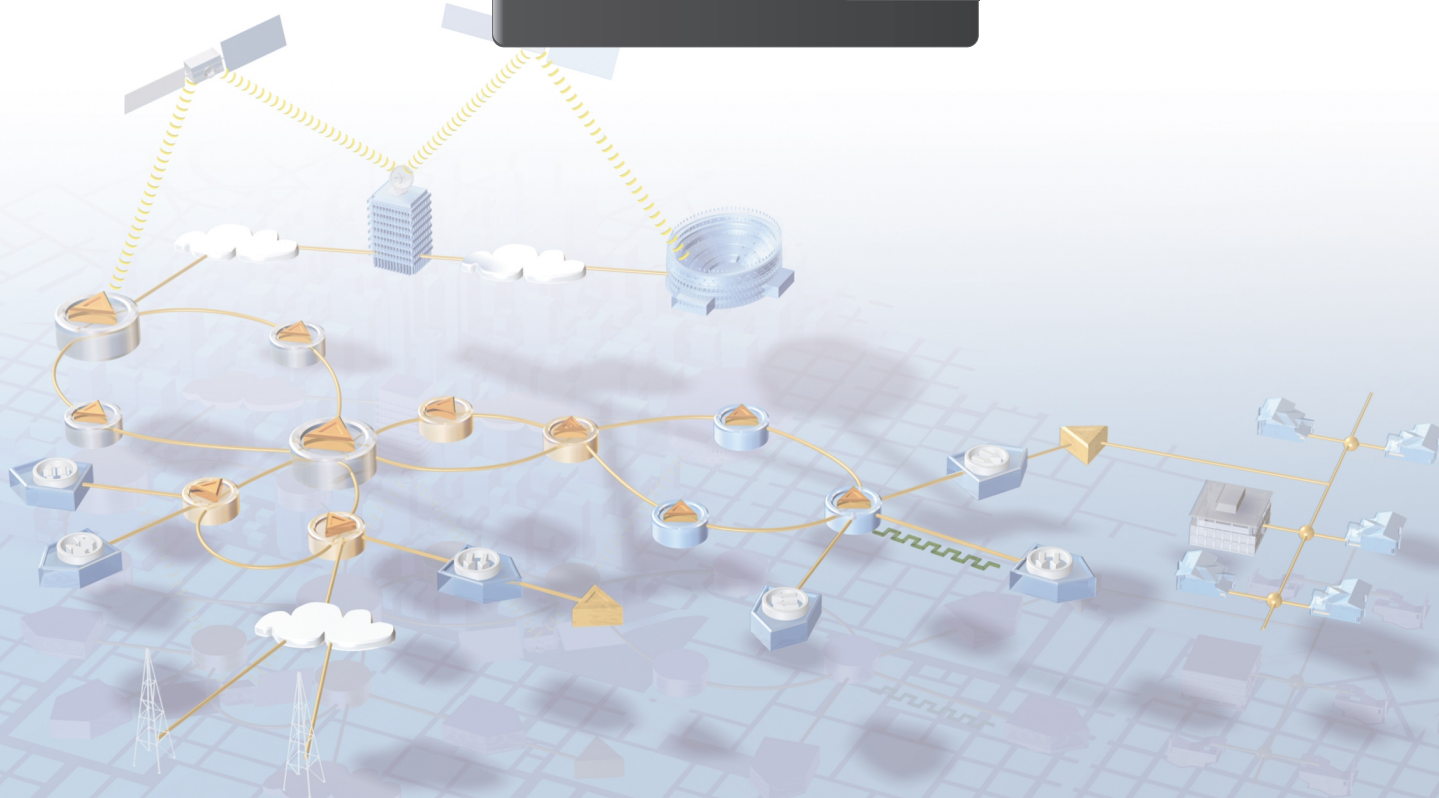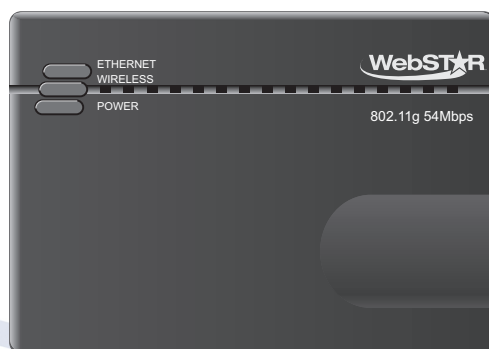# WebSTAR™ Model DPW941™ Wireless Ethernet Adapter

User's Guide

WebSTAR™ Model DPW941™ Wireless Ethernet Adapter User's Guide

Introduction

Thank you for choosing the WebSTAR™ Model DPW941™ Wireless Ethernet Adapter! The WebSTAR DPW941 Wireless Ethernet Adapter is a compact easy-to-install and use wireless Ethernet adapter. Implementing the IEEE 802.11g standard for wireless local area network (LAN), the DPW941 is capable of up to 54 Mbps data transmission rate using the Direct Sequence Spread Spectrum (DSSS) and the Octagonal Frequency Division Multiplexing (OFDM) technologies. The DPW941 is backward compatible with the earlier IEEE 802.11b standard allowing seamless interfacing of both wireless LAN (WLAN) standards.

The WebSTAR DPW941 Wireless Ethernet Adapter also supports several wireless network configurations including Infrastructure and Ad-hoc modes giving you flexibility and versatility on your existing or future wireless network configurations. To provide efficient security to your wireless communication, the DPW941 comes with a 64-bit/128-bit Wired Equivalent Privacy (WEP) encryption and wired fidelity (WiFi) Protected Access (WPA) features. With these and many more outstanding features, the WebSTAR DPW941 Wireless Ethernet Adapter is sure to keep you ahead in the world of wireless computing.

This guide provides procedures and recommendations for installing, configuring, operating, and troubleshooting the DPW941 for Internet access and for high-speed wireless networking for your home or office. Refer to the appropriate section in this guide for the specific information you need for your situation. Contact your Internet service provider for further assistance.

Benefits and Features

The WebSTAR DPW941 Wireless Ethernet Adapter employs the DSSS and OFDM technologies to transmit and receive signals through radio waves on the 2.4 GHz band. The DPW941 also offers the following additional benefits and features:

- Facilitates a high-speed wireless Internet connection that energizes your online experience and makes sharing files and photos with your family and friends hassle free
- Reliable data transfer rates of up to 54 Mbps
- Secure data transmission using WEP and WiFi WPA encryptions
- Operating distance of up to 130 ft (40 m) indoors and 1000 ft (310 m) outdoors
- Dual power mode (DC or USB powered)
- Equipped with a mounting hook for wall installation
- Supports Infrastructure and ad-hoc network types in Ethernet adapter mode
- Microsoft Windows 98SE, ME, 2000, and XP compatible
- Allows quick and easy access to wireless networks when traveling

Notice for CATV Installers

Notice for CATV Installers

If you are a CATV installer, read the information in the box below.

Note to CATV System Installer (U.S.A. and Canada Only)

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC (Section 54, Part I of the Canadian Electrical Code), that provides guidelines for proper grounding and, in particular, specifies that the CATV cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

AVIS

RISQUE DE CHOC ÉLECTRIQUE
NE PAS OUVRIR

CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

WARNING
TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

This symbol is intended to alert you that uninsulated voltage within this product may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this product.

This symbol is intended to alert you of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

In This Guide

IMPORTANT SAFETY INSTRUCTIONS

Heed Warnings

Adhere to all warnings on the product and in the operating instructions.

Read, Retain, and Follow These Instructions

Read all of the instructions before you operate this product. Follow all operating instructions that accompany this product. Retain the instructions for future use. Give particular attention to all safety precautions.

Comply With Warnings

Avoid electric shock. Comply with all warnings and cautions in the operating instructions, as well as those that are affixed to this product.

Power Warnings

Providing a Power Source

A label on this product indicates the correct power source for this product. Operate this product only from an electrical outlet with the voltage and frequency indicated on the product label.

If you are uncertain of the type of power supply to your home or business, consult your cable service provider or your local power company.

Grounding This Product (U.S.A. and Canada Only)

⚠ **WARNING: To avoid electric shock and fire hazard, match the plug and outlet connections carefully, then fully insert. If the plug and outlet do not match, or you cannot fully insert the plug, contact an electrician to update your power outlets.**

If this product is equipped with either a three-prong (grounding pin) safety plug or a two-prong (polarized) safety plug, follow these safety guidelines to properly ground this product:

- For a 3-prong plug (one prong on this plug is a protective grounding pin), insert the plug into a grounded mains, 3-prong outlet.

  Note: This plug fits only one way. If you are unable to insert this plug fully into the outlet, contact your electrician to replace your obsolete outlet.

- For a 2-prong plug (a polarized plug with one wide blade and one narrow blade), insert the plug into a polarized mains, 2-prong outlet in which one socket is wider than the other.

  Note: If you are unable to insert this plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact an electrician to replace your obsolete outlet.

> ⚡ **WARNING:**
> **Avoid electric shock and fire hazard! Do not overload mains AC outlets and extension cords. For products that require battery power or other power sources to operate them, refer to the operating instructions for those products.**

Overloading

Do not overload electrical outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock. For products that require battery power or other sources to operate, refer to the operating instructions for that product.

Preventing Power Cord Damage

Arrange all power cords so that people or pets cannot walk on the cords. Do not place objects on the cords. Do not lean objects against the cords. Placing objects on or leaning objects against cords can damage the cords. Give particular attention to cords at the point at which the cord connects to plugs, at the electrical outlets, and where the cords exit the product.

Usage Warnings

Providing Ventilation

This product has openings for ventilation that protect it from overheating. To ensure the reliability of this product, do the following:

- Do not block or cover these openings.
- Do not place entertainment devices (such as VCRs or DVDs), lamps, books, vases with liquids, or other objects on top of this product.
- Do not place this product in any of the following locations:
  – On a bed, sofa, rug, or similar surface
  – Near heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat
  – In an enclosure, such as a bookcase or rack, unless the installation provides proper ventilation

> ⚠️ **WARNING:**
> **Avoid personal injury and damage to this product! An unstable surface may cause this product to fall.**

Selecting a Proper Location

Place this product in a location that is close enough to an electrical outlet and where the power cord is easily accessible to be disconnected from the wall outlet or from the rear panel of the product.

Important: The power cord is the mains power supply disconnect device.

Place this product on a stable surface. The surface must support the size and weight of this product.

Cleaning This Product

Before cleaning this product, unplug it from the electrical outlet. Use a damp cloth to clean this product. Do not use a liquid cleaner or an aerosol cleaner. Do not use a magnetic/static cleaning device (dust remover) to clean this product.

⚠️ **WARNING: Avoid electric shock and fire hazard! Never push objects through the openings in this product. Foreign objects can cause electrical shorts that can result in electric shock or fire. Do not expose this product to rain or moisture. Do not place objects filled with liquid, such as vases, on this product.**

Protecting This Product From Foreign Objects and Water or Moisture Damage

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock.

Do not expose this product to liquids or moisture. Do not place this product on a wet surface. Do not spill liquids on or near this product.

Do not use this product near water (such as a bathtub, washbowl, sink, or laundry tub), in a wet basement, or near a swimming pool.

Accessories Warnings

⚠️ **WARNING: Avoid any potential for electric shock or fire. Do not use accessories with this product unless recommend by your cable service provider**

Do not use accessories with this equipment unless recommended by your cable service provider.

Service Warnings

Servicing This Product

Do not open the cover of this product. If you open the cover, your warranty will be void. Refer all servicing to qualified personnel only. Contact your cable service provider for instructions.

⚠️ **WARNING: Avoid electric shock! Opening or removing the cover may expose you to dangerous voltages. Perform only the servicing instructions included in the operating instructions. Refer all servicing to qualified service personnel.**

Obtaining Service for Product Damage

For damage that requires service, unplug this product from the AC outlet. Then, contact your cable service provider or qualified service personnel to obtain service for the following conditions:

- If there is damage to the power-supply cord or plug
- If liquid enters the equipment
- If you drop this product, a heavy object falls on this product, or damage occurs to the cover of this product
- If you expose this product to rain or water
- If this product does not operate normally by following the operating instructions
- If this product exhibits a distinct change in performance

Checking Product Safety

Upon completion of any service or repairs to this product, the service technician must perform safety checks to determine that this product is in proper operation condition.

Lightning

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the product due to lightning and power-line surges. Plugging this product into a surge protector may reduce the risk of damage.

What's In The Carton?

When you receive your WebSTAR DPW941 Wireless Ethernet Adapter, you should check the equipment and accessories to verify that each item is in the carton and that each item is undamaged. The carton contains the following items:

One WebSTAR Model DPW941
Wireless Ethernet Adapter

One Universal Power Adapter and
Plug

One RJ-45 Cable

One USB Adapter and Plug

One support CD-ROM

If any of these items are missing or damaged, please contact SciCare Broadband Services at 1-800-722-2009 for assistance.

Additional cables and other equipment needed for wired or wireless networking must be purchased separately. Contact your Internet service provider to inquire about the additional equipment and cables you may need.

About the WebSTAR Model DPW941 Wireless Ethernet Adapter

This section describes the physical features of the WebSTAR DPW941 Wireless Ethernet Adapter. This section also presents a detailed description of the LED indicators.

Top View and LED Indicators

The DPW941 has three LED indicators (Ethernet, Wireless, and Power). Refer to the following table for additional details about the LED indicators.
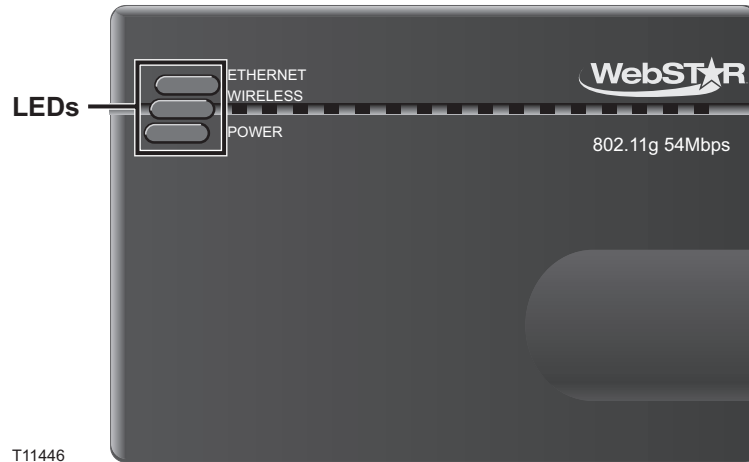

T11446

LED	Status	Indication
Ethernet	On	The device is connected to an Ethernet network.
	Off	The device is off or not connected to an Ethernet network.
Wireless	On	The device is associated with an access point or other wireless device.
	Off	The device is not associated with an access point or other wireless device.
	Blinking	The device is transmitting or receiving data.
Power	On	The device is on and ready.
	Off	The device is off or performing boot sequence.
	Blinking	A firmware upgrade failed.

Bottom View

Mounting hole—Use the mounting hole to install the device on wall or cabinet surfaces using a roundhead screw.

**Air vents—**These vents provide ventilation to the DPW941.

Mounting Hole

Air Vents

T11447
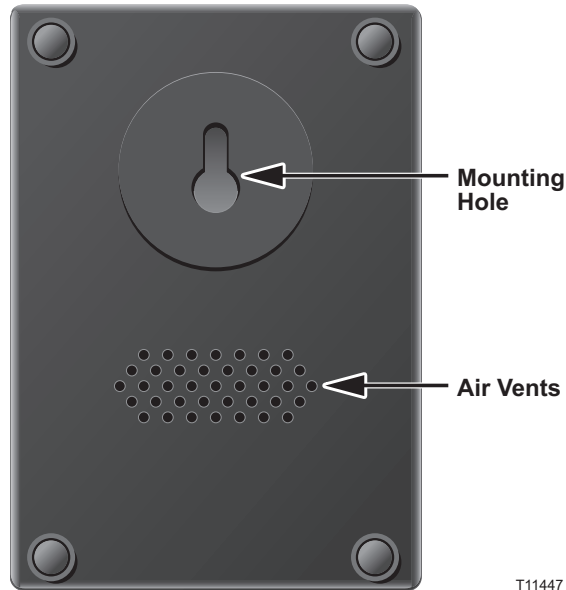
Rear View

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

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

Reset button—Press this button for more than 5 seconds to load the default values. In Ethernet adapter mode, press this button for less than 5 seconds to connect to the first saved wireless connection in the profile table.

Ethernet Port   **Reset Button**

DC IN Socket T11448
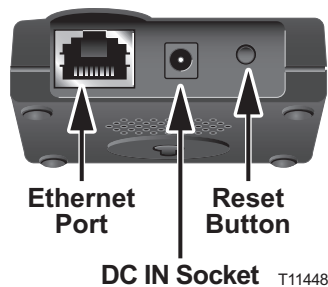
Recommended Network Settings

The WebSTAR DPW941 Wireless Ethernet Adapter operates as a wireless Ethernet adapter. This section describes the recommended network settings for operating as a wireless Ethernet adapter.

The WebSTAR DPW941 Wireless Ethernet Adapter connects to one of the following:

- Another wireless device (Ad-hoc mode)
- An access point (Infrastructure mode)

Ad-hoc mode

When in ad-hoc mode, the WebSTAR DPW941 Wireless Ethernet Adapter connects to another wireless device. No access point is present in this wireless environment. An access point is a hardware device or a computer's software that acts as a communication hub for users of a wireless device to connect to a wired local area network.

Infrastructure mode

When in infrastructure mode, the wireless network is centered on an access point that provides a central link for wireless clients to communicate with each other or with a wired network. In this configuration, the WebSTAR DPW941 Wireless Ethernet Adapter connects to an access point using a single or multiple Internet protocol (IP) to establish connection to a wired or wireless LAN.

Single IP bridge environment

In a single IP bridge environment, the WebSTAR DPW941 Wireless Ethernet Adapter connects to an access point using a single IP address. In this configuration, the media access control (MAC) cloning feature may be enabled to support certain applications and devices such as Xbox and PlayStation game consoles that use the MAC address to communicate with other devices. MAC cloning allows the WebSTAR DPW941 Wireless Ethernet Adapter to communicate with other devices in a wireless network using the MAC address of the host computer instead of its own.

Multiple IP bridge environment

In a multiple bridge environment, the WebSTAR DPW941 Wireless Ethernet Adapter connects two or more wired devices to a wireless network from a network hub or a switch.

Note: You must disable the MAC cloning feature when you set the DPW941 in Ethernet adapter mode under this environment. Enabling MAC cloning under this environment results in undefined and incorrect bridge behavior.

Hardware Installation

This section provides information on how to install the WebSTAR DPW941 Wireless Ethernet Adapter.

System Requirements

Before installing the WebSTAR DPW941 Wireless Ethernet Adapter, make sure that your system's network meets the following requirements:

- An Ethernet RJ-45 port (10BaseT/100BaseT)
- At least one IEEE 802.11b/g device with wireless capability
- TCP/IP protocol and Internet browser installed on a PC or laptop

Device Installation

Follow these instructions in the order shown to install the WebSTAR DPW941 Wireless Ethernet Adapter.

1. Install the device utilities from the support CD. Go to **Installing the Utilities** in the **Configuring the WebSTAR DPW941 Wireless Ethernet Adapter** for detailed installation instructions.

2. Connect the device to your computer, network hub, switch, or router.

Before You Proceed

Note the following guidelines before installing the WebSTAR DPW941 Wireless Ethernet Adapter:

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

To use DC power

Important: Be sure that all devices are powered down and disconnected from AC power before you begin.

1. Insert one end of the supplied RJ-45 cable to the Ethernet port on the DPW941.

2. Insert the other end of the RJ-45 cable to a computer, network hub, switch, or router Ethernet port.

3. Connect the power adapter plug to the DC-IN socket on the DPW941.

4. Connect the DPW941 power adapter to a wall socket.

5. Connect the power adapter plug for your device into the DC-IN socket.

6. Connect the power adapter for your device into a wall socket.
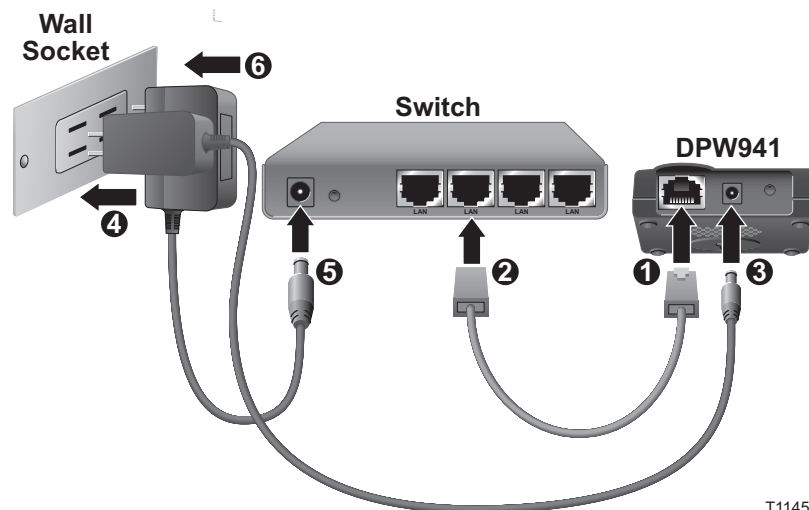
Note: The example on this page shows connections using a switch. If you are using another device, check the user's guide for that device to locate the appropriate connectors.

To use USB power

Important: Be sure that all devices are powered down and disconnected from AC power before you begin.

1. Insert one end of the supplied RJ-45 cable into the Ethernet port on the DPW941.

2. Insert the other end of the RJ-45 cable to the Ethernet port on your computer, notebook, network hub, switch, or router.

3. Insert one end of the supplied USB cable to the DC-IN socket of the device.

4. Insert the other end of the USB cable to any available USB port on your computer, notebook, network hub, switch, or router.

5. Power on your computer, notebook, or connect the power adapter for your device into a wall socket.

6. Connect the power adapter for your device into a wall socket.
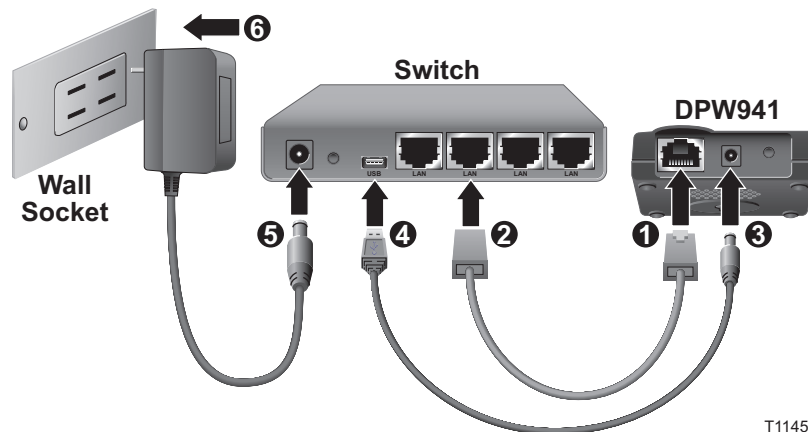
Note: The example on this page shows connections using a switch. If you are using another device, check the user's guide for that device to locate the appropriate connectors.

Placement

Aside from desktop placement, you can also install the WebSTAR DPW941 Wireless Ethernet Adapter vertically on a wall or cabinet using the mounting hook at the bottom side of the device.

T11452   **Mounting Hook**
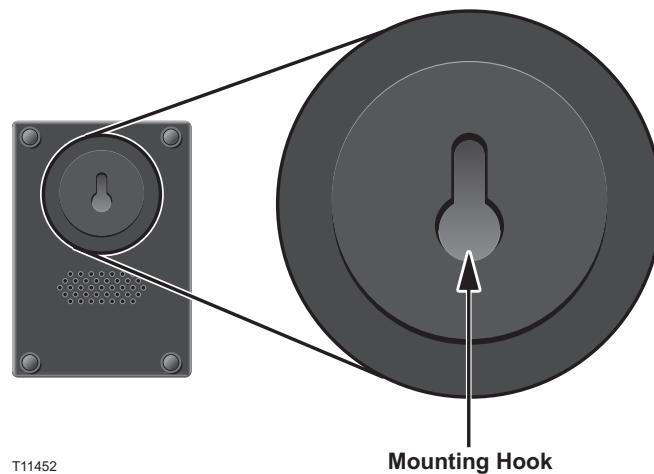
To mount the device on a wall or cabinet

1. Locate the mounting hook at the bottom of the DPW941.

2. Select an ideal location for the DPW941.

3. Tighten a round head screw on the wall or cabinet until only 1/4 inch is showing.

4. Push the DPW941 onto the head of the screw at the larger opening of the mounting hook and slide the adapter down so that the screw head is securely held in the smaller opening.

   Note: Adjust the screw if you cannot secure the DPW941 or if the screw is too loose. Continue until you obtain a secure mount.

Operating Range

The WebSTAR DPW941 Wireless Ethernet Adapter range is dependent on the operating environment. Every home or office layout varies in obstacles, barriers, or wall types that may reflect or absorb radio signals. For example, two 802.11b devices in an outdoor space may achieve an operating distance of up to 1000 feet (130 m) outdoors, while the same devices may only achieve up to 130 feet (40 m) of range when used indoors.

The device automatically adjusts the data rate to maintain an operational wireless connection. A wireless device that is close to an access point may operate at higher speeds than a device far from the access point. You can configure the data rates that a device uses. If you limit the range of data rates available to the WebSTAR DPW941 Wireless Ethernet Adapter, you may reduce the effective range of the wireless LAN coverage.

Site Survey

A site survey software utility provided with the WebSTAR DPW941 Wireless Ethernet Adapter analyzes the installation environment and provides users with recommendations for equipment and its placement. The optimum placement differs depending on the device design and specifications.

Roaming Information

Tips on Roaming

- The WebSTAR DPW941 Wireless Ethernet Adapter can only roam between access points of the same type.
- All computers with he WebSTAR DPW941 Wireless Ethernet Adapters must have the same SSID as the access points to enable roaming.
- If encryption is enabled, all wireless clients must use the same encryption to establish connection.
- We strongly recommended that you perform a site survey using the WebSTAR DPW941 Wireless Ethernet Adapter utility to determine the best location for each wireless device.

Configuring the WebSTAR DPW941 Wireless Ethernet Adapter

This section provides information on how to configure the WebSTAR DPW941 Wireless Ethernet Adapter using the utilities available on the support CD.

Installing the Utilities

Complete these steps to install the support CD.

1. Insert the support CD to the CD-ROM drive of your PC or laptop. The CD automatically loads and the 802.11b/g WebSTAR Wireless LAN installation window opens displaying three device installation options.

2. Select **DPW941 – Wireless Ethernet Adapter**. The DPW941 Wireless Ethernet Adapter installation window opens.
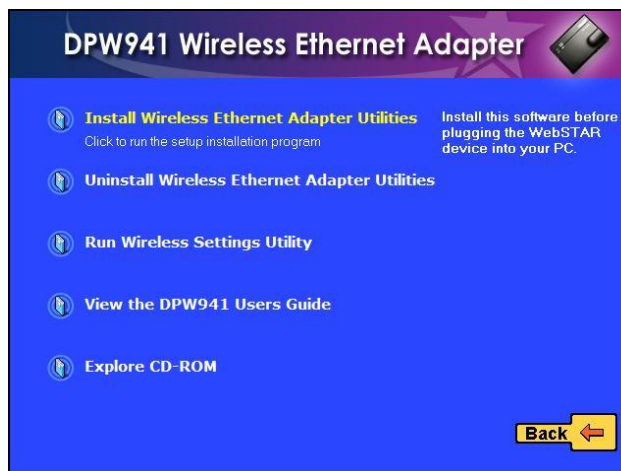
Note: If Autorun is NOT enabled in your computer, click Explore CD-ROM to browse the contents of the support CD. Then, double click the **Setup.exe** file to run the CD.

3. Select **Install Wireless Ethernet Adapter Utilities** and follow the on-screen instructions. The device drivers and utilities are copies to your computer.

4. Restart your computer if prompted to do so.

5. Go to **Launching the Wireless Setting Utility**, next in this guide.

Other support CD options:

- **Uninstall Wireless AP Utilities**—Click this option to uninstall the WebSTAR DPW941 Wireless Ethernet Adapter utilities from your system.
- **Run Wireless Setting Utility**—Click this option to run the Wireless Setting Utility.
- **View the DPW941 User's Guide**—Click this option to view the DPW941 User's Guide.
- **Explore CD-ROM**—Click this option to explore the support CD contents.

Launching the Wireless Setting Utility

The Wireless Setting Utility allows easy configuration of the WebSTAR DPW941 Wireless Ethernet Adapter. You can launch the Wireless Setting Utility directly from the support CD or from the Microsoft Windows desktop.

To launch the Wireless Setting Utility from the support CD

1. If the CD is not already in the CD-ROM drive, insert the support CD into the CD-ROM drive.

2. Select the **Run Wireless Setting Utility** option when the installation window appears. The Wireless Settings Utility window appears.

To launch the Wireless Setting Utility from the Microsoft Windows desktop

1. Install the device utilities following the steps in **Installing the Utilities**, earlier in this section.

2. From the Microsoft Windows desktop, click **Start > Programs > WebSTAR Wireless Ethernet Adapter > Wireless Settings**. The Wireless Settings Utility – Ethernet Adapter Status window appears.

Using the Wireless Setting Utility

To configure the device

1. The utility auto-detects and displays the DPW941 Ethernet adapter settings. Click **Configure** to continue.

2. Log on to the configuration window using the password **(admin)**. Check the **Remember my password** option, and then click **OK**.

3. Select a wireless network from the **Available Networks** field, and then click **Configure**.

    Note: Each wireless network is preceded by an icon for easy identification. Refer to the following Icon Description Table for icon indications.
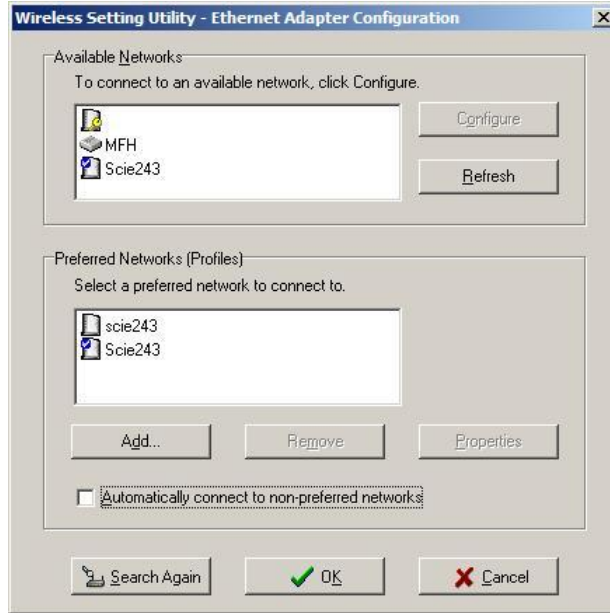
4. Click **Add** to connect to another wireless network not listed in the field.

    Icon Description Table

ICON	Indicates that
	the wireless network is an access point with no encryption
	the wireless network is an access point with enabled encryption
	the DPW941 is connected to this access point with no encryption
	the DPW941 is connected to this access point with enabled encryption
	the wireless network is a wireless device with no encryption
	the wireless network is a wireless device with enabled encryption
	the DPW941 is connected to this wireless device with no encryption
	the DPW941 is connected to this wireless device with enabled encryption

5. Click **OK** because the DPW941 automatically adjusts to the SSID and channel settings of the selected wireless network. The wireless network that you selected in step 3 now appears in the **Preferred Networks** (Profiles) field.

Important: If the selected network has encryption enabled, use the **Encryption** tab to set the DPW941 encryption settings the same with the selected network. The encryption settings of the network and the DPW941 must be the same to establish connection
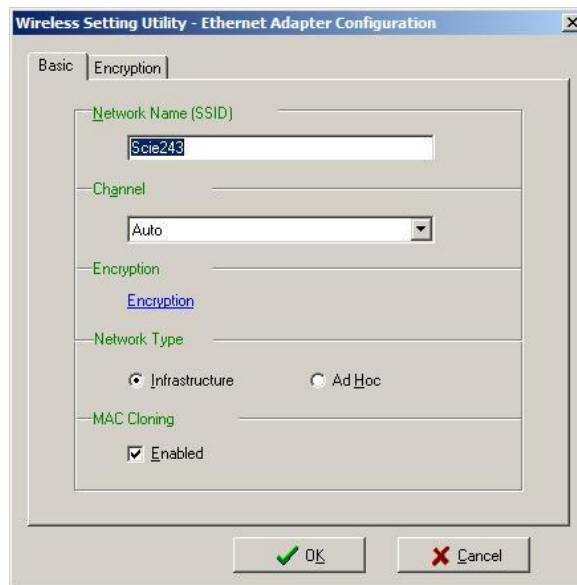
6. In the Preferred Network (Profiles) area, select the same network you selected in step 3, and then click **OK**.

7. The DPW941 attempts to connect to the selected wireless network.

8. When connection is established, the utility displays the DPW941 status. Click **Finish** to close the utility.

To adjust TCP/IP Settings

By default, the IP address of the WebSTAR DPW941 Wireless Ethernet Adapter is 192.168.1.1, and the Subnet Mask is 255.255.255.0. To access the configuration utility, assign a different IP address to the network interface card (NIC) to which the WebSTAR DPW941 Wireless Ethernet Adapter is connected.

Important: This IP address must be between **192.168.1.2** and **192.168.1.256**.

Complete these steps to adjust the TCP/IP settings of the network adapter.

1. Right-click the **My Network Places** icon in the Windows desktop, then select **Properties** from the pop-up menu. The **Network and Dial-up Connections** window opens.
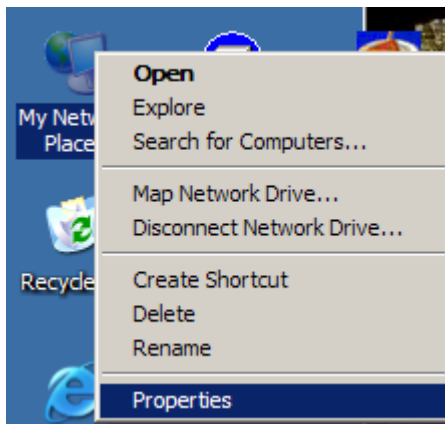
2. Right-click the network adapter used by the WebSTAR DPW941 Wireless Ethernet Adapter, then select **Properties** from the pop-up menu. The **Local Area Connection Properties** window opens.


24
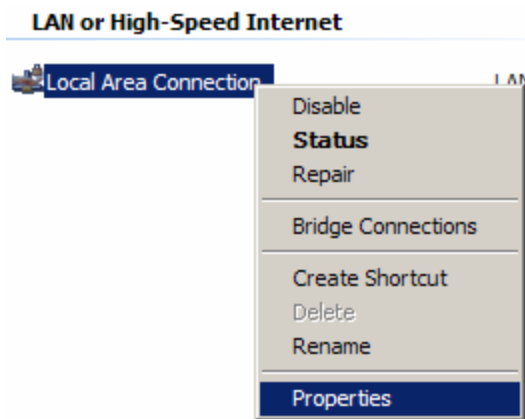
3. Double-click the **Internet Protocol (TCP/IP)** item to display the Internet Protocol (TCP/IP) Properties window.
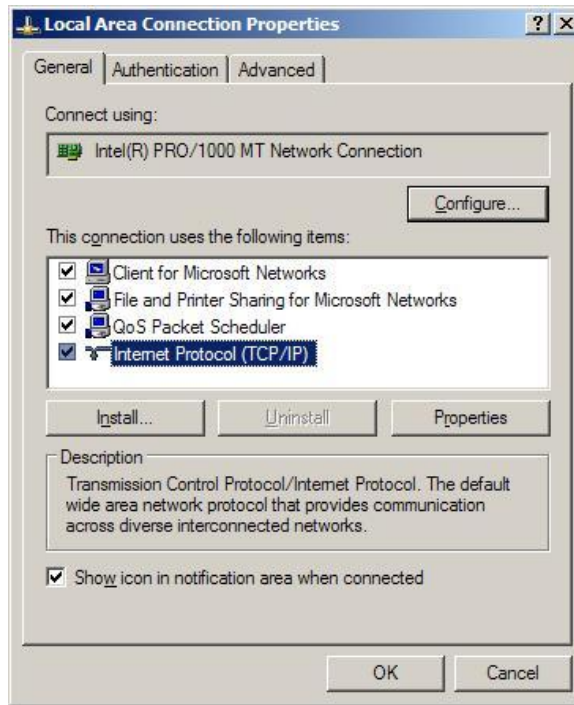
4. Check the **Use the following IP address** option, and then enter the IP address for the network adapter. The IP address must be 192.168.1.X. (X can be any number between 2 and 254 that is not used by another device in your network.)
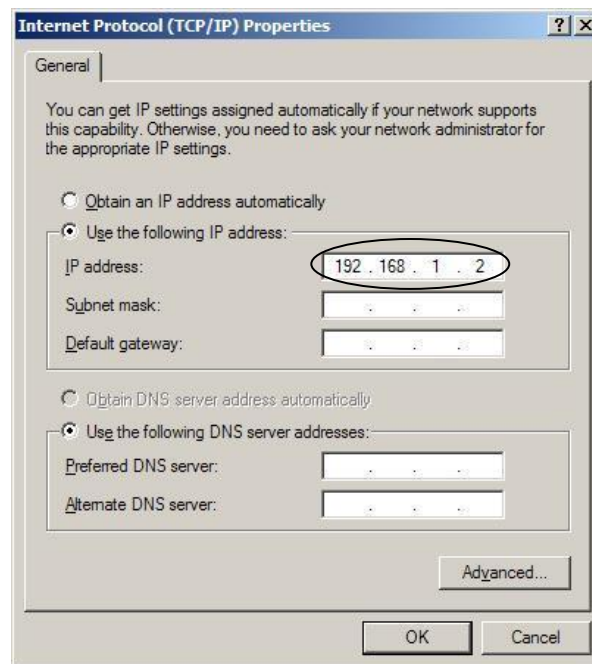
5.   Set the **Subnet Mask** to 255.255.255.0. Click **OK** when finished.
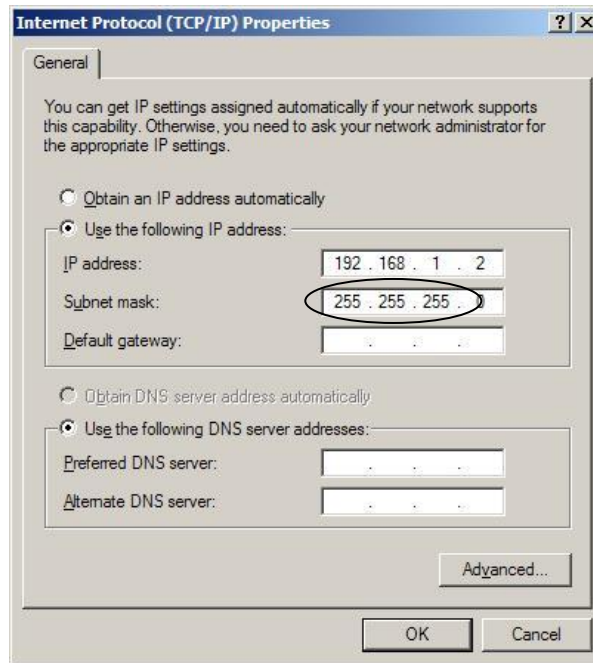
6.   After changing the TCP/IP settings, if you are prompted, restart your system.

7.   Apply power to the DPW941 immediately after rebooting.

8.   For advanced configuration of the DPW941, go to **Launching and Using the Web Configuration Utility**, next in this guide.
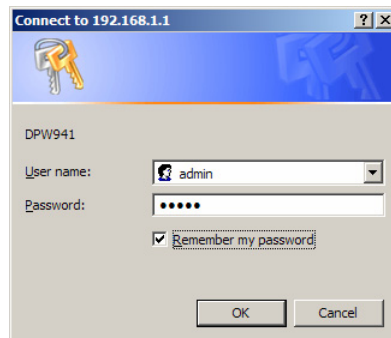
Launching and Using the Web Configuration Utility

The Web Configuration utility is an advanced configuration tool that allows you to configure the DPW941 using a Web browser on your computer.

To launch the Web Configuration utility using the Wireless Setting utility

1. Click **Start > All Programs > WebSTAR Wireless Ethernet Adapter > Wireless Settings**.

2. Click **Configure** when the Wireless Setting Utility window opens.

3. Log on to the configuration window using the default password **(admin)**, then click **OK**.

4. Disable your proxy settings on your PC (if necessary). Refer to the Windows Help for detailed instructions.

5. Click the **Advanced** tab, and then click the **Web Configuration Utility** button.
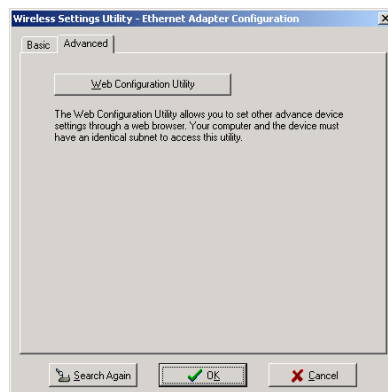
6. When prompted, enter the default password **(admin)**, check the **Remember my password** option, and then click **OK**. The Web Configuration utility page opens.

7. Go to **Changing the Ethernet Adapter Configuration**, later in this guide, for detailed instructions on using the Web Configuration utility.

To launch the Web Configuration utility using an Internet Web browser

Complete these steps to launch the Web Configuration utility using in Internet Web browser.

1. Open a Web browser.

2. Disable your proxy settings on your PC (if necessary). Refer to the Windows Help for detailed instructions

3. Type **http://192.168.1.1** on the address bar of the browser, and then press **Enter**.

   Important: This option requires you to change the IP address of the LAN adapter where the DPW941 is connected. Make sure the IP address of the DPW941 and your computer are on the same subnet. Go to **To adjust TCP/IP settings**, earlier in this guide, for detailed instructions for changing the IP address.

4. Go to **Changing the Ethernet Adapter Configuration**, next in this guide, for detailed instructions on using the Web Configuration utility.

Changing the Ethernet Adapter Configuration

The Web Configuration Utility Simple Setup page allows you to change the basic Ethernet adapter settings. You can use this page when setting the DPW941 SSID, operating mode, channel, station mode, transmission rate, preamble, or security. You can also use this page when enabling the MAC cloning and button scan mode features.

Simple Setup Page Example

The Web Configuration utility Simple Setup page opens when you launch the Web Configuration utility. The following illustration shows an example of the Web Configuration utility Simple Setup page.

Simple Setup Page Description

SSID (Service Set Identifier)—Allows you to specify the SSID of the WebSTAR DPW941 Wireless Ethernet Adapter in Ethernet adapter mode.

Operating Mode—Allows you to select the operating mode for the Ethernet adapter. In an **Infrastructure** mode, the WebSTAR DPW941 Wireless Ethernet Adapter connects to an available access point. In Ad-hoc mode, the WebSTAR DPW941 Wireless Ethernet Adapter connects to other wireless devices in the wireless network. Select **Ad-hoc Mode** when there is no available access point in your location.

Channel—Select the channel used by the access point (Infrastructure) or the wireless device (Ad-hoc mode) to establish connection.

Station Mode—Allows you to select the device wireless standard while in Ethernet adapter mode. Selecting 802.11b/g allows the device to connect to both wireless standards.

Transmission Rate—Allows you to adjust the data transmission rate between the DPW941 and the access point/wireless device.

Preamble—Allows you to set the preamble mode for a 2.4GHz/11Mb network to Long, Short, or Auto. The default preamble mode is **Long**.

Authentication Method—Allows you to select the encryption method for securing your wireless communication. Refer to the following table for details.

Method	Description
Open System or Shared Key	This method allows the device to accept connection requests from any wireless device within its operating range
Shared Key	Only wireless devices with the same encryption are allowed to connect to the access point.
WPA-PSK	Only wireless devices with the same Temporal Key Integrity Protocol (TKIP) encryption settings are allowed to connect to the access point.

Encryption—Allows you to set the encryption for your selected authentication method. Refer to the table below for a comparison of the encryption settings. Specify a 64-bit or a 128-bit WEP key.

Method	Encryption	Description
Open System or Shared Key	None	No encryption
Shared Key	64-bit WEP*	Contains 10 hexadecimal digits or 5 ASCII characters.
	128-bit WEP	Contains 26 hexadecimal digits or 13 ASCII characters.
WPA-PSK	TKIP**	Contains 8 to 63 alpha-numeric characters.

* *Wired Equivalent Privacy*
** *Temporal Key Integrity Protocol*

Pass Phrase—Allows you to type a combination of up to 64 letters, numbers, or symbols in the **Pass Phrase** field. The utility uses an algorithm to generate four WEP keys based on the typed combination.
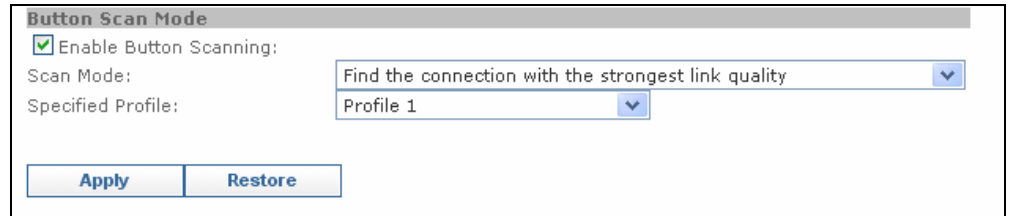
Default Key—Allows you to specify the default WEP encryption key in the **Default Key** field.

MAC cloning—Allows the WebSTAR DPW941 Wireless Ethernet Adapter to use the MAC address of the host computer in communicating with other wireless devices. MAC cloning supports certain software applications and devices such as Xbox and PlayStation 2 game consoles.

Scan Mode—Allows you to select the scan mode for button scanning from a drop-down list.

Using the Button Scan Mode Feature

The Button Scan Mode allows you to use the reset button to connect to an access point (Infrastructure mode) or wireless device (Ad-hoc mode) saved in the Profile Table of the configuration utility or in your location.
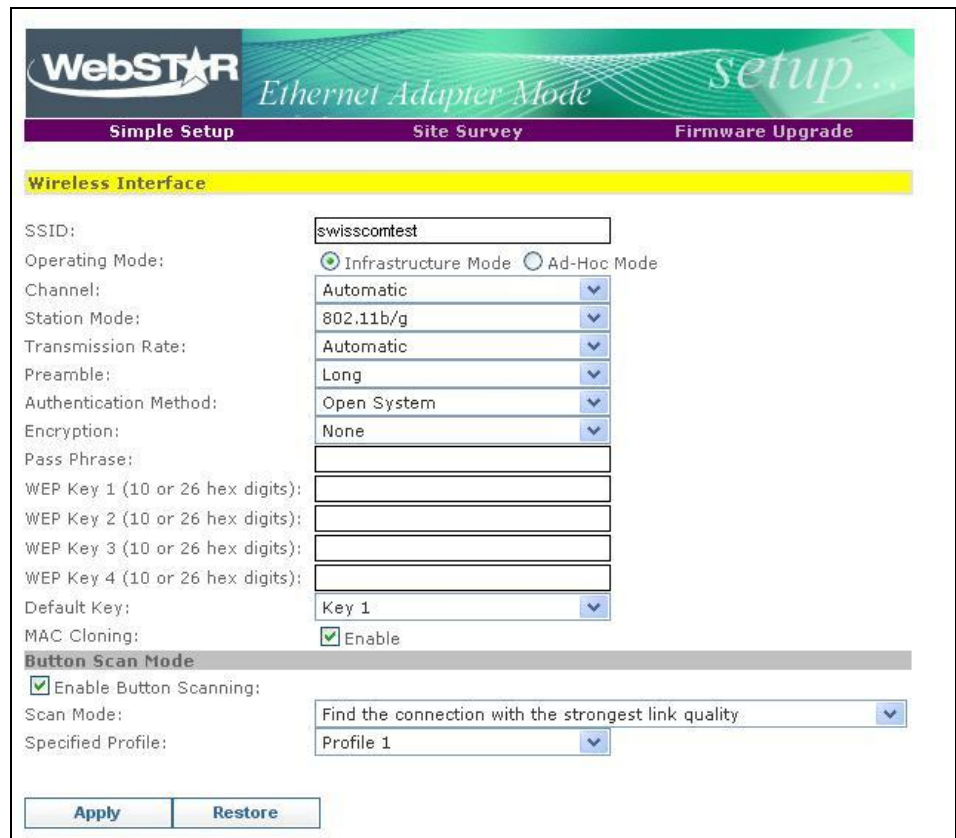
Button Scan Mode	
☑ Enable Button Scanning:	
Scan Mode:	Find the connection with the strongest link quality ▾
Specified Profile:	Profile 1 ▾
Apply	**Restore**

Save the profile of the wireless connection using the Site Survey window. For details, see **Saving Wireless Networks in the Profile Table**, later in this guide.

Important: You must save at least one wireless connection profile before using the Button Scan Mode.

WebSTAR Ethernet Adapter Mode	setup...	
Simple Setup	Site Survey	Firmware Upgrade

Wireless Interface	
SSID:	swisscomtest
Operating Mode:	⦿ Infrastructure Mode ◯ Ad-Hoc Mode
Channel:	Automatic ▾
Station Mode:	802.11b/g ▾
Transmission Rate:	Automatic ▾
Preamble:	Long ▾
Authentication Method:	Open System ▾
Encryption:	None ▾
Pass Phrase:	
WEP Key 1 (10 or 26 hex digits):	
WEP Key 2 (10 or 26 hex digits):	
WEP Key 3 (10 or 26 hex digits):	
WEP Key 4 (10 or 26 hex digits):	
Default Key:	Key 1 ▾
MAC Cloning:	☑ Enable
Button Scan Mode	
☑ Enable Button Scanning:	
Scan Mode:	Find the connection with the strongest link quality ▾
Specified Profile:	Profile 1 ▾
Apply	**Restore**

Scan Mode Options

Find the connection with the strongest link quality—When the **Reset** button is pressed for less than 5 seconds, the WebSTAR DPW941 Wireless Ethernet Adapter connects to an access point or wireless device with the strongest link quality.

Same as the above mode but only in the profile table—When the **Reset** button is pressed for less than 5 seconds, the WebSTAR DPW941 Wireless Ethernet Adapter searches for an access point or wireless device in the Profile Table; then the DPW941 connects to the device with the strongest link quality.

Same as the above mode but find extra site in my location—When the **Reset** button is pressed for less than 5 seconds, the WebSTAR DPW941 Wireless Ethernet Adapter searches for an access point or wireless device in the Profile Table and in your location; then the DPW941 connects to the device with the strongest link quality.

Profile Scan (total x) —Allows you to connect to a saved wireless network by their sequence in the Profile Table. Press the **Reset** button once to connect to the first wireless connection in the Profile Table. Press the **Reset** button again to connect to the second wireless connection, and so on.

For example, if you have three saved profiles in the Profile Table, the WebSTAR DPW941 Wireless Ethernet Adapter automatically connects to the first profile. Press the **Reset** button to connect to the second saved profile. Press the **Reset** button again to connect to the third saved profile.

Specified profile scan (just no. x)—When the **Reset** button is pressed for less than 5 seconds, the WebSTAR DPW941 Wireless Ethernet Adapter automatically connects to the specified profile. The saved profiles are numbered from 1 ~ x. You must select the profile number using the Specified Profile field.

Note: When using the Alphabet Scan, the access point or wireless device you wish to connect to must have a disabled WEP encryption and available SSID.

Specified Profile—Allows you to select a saved wireless network in the Profile Table. The WebSTAR DPW941 Wireless Ethernet Adapter automatically connects to the selected profile when **Scan Mode** is set to **Specified profile scan**.

Important: Click **Apply** when done. Otherwise, click **Restore** to load the default values.

Display Station Status

The Site Survey page displays the Station Status and allows you to scan and connect to available wireless networks within the DPW941 range. This page also allows you to save a wireless connection in the Profile Table for the Button Scan Mode feature. To access the Site Survey page, click **Site Survey** on the Web Configuration page.

Site Survey Options

Station Status—Displays the device wireless network connection SSID, operating mode, and encryption settings. You can use this information when you connect to an available wireless connection in the Site Survey table.

Site Survey—Lists the available wireless networks within the device range. The table displays the following wireless network information.

> **BSSID**—The Basic Service Set Identifier (BSSID) is the IEEE MAC address of the wireless network. SSID.

> **SSID**—Refers to the service set identifier of the wireless network.

> **CH**—The direct sequence channel used by the wireless network.

> **RSSI**—Received Signal Strength Indicator (RSSI) is a measurement of connection strength in dBm.

> **Type**—Shows whether a wireless network is in access point (AP) or station (STA) mode

To scan available wireless networks in your location

1. Click the **Survey** button on the bottom of the Site Survey page. A **Site Scanning** window appears.
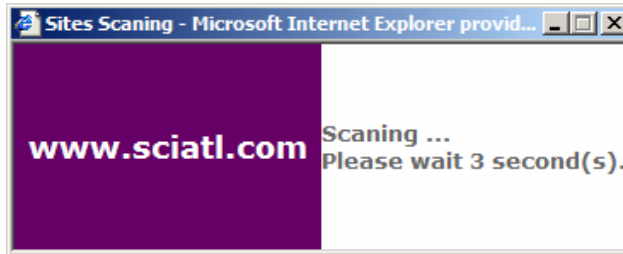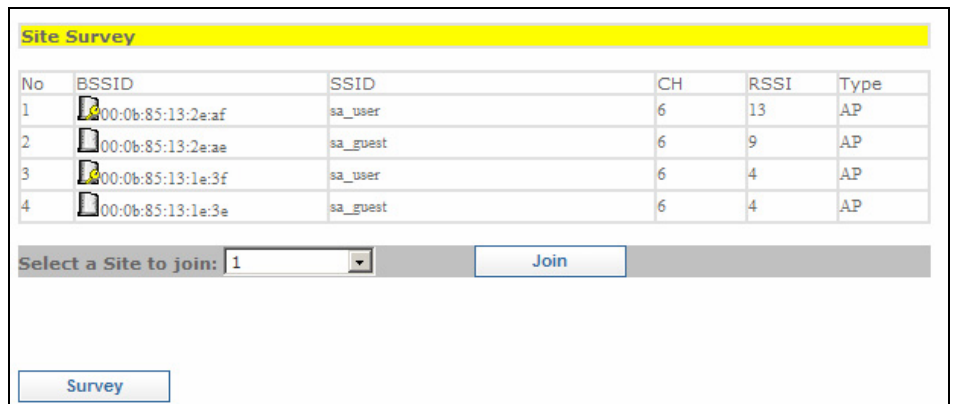

2. The utility displays the available wireless networks in the **Site Survey** table.

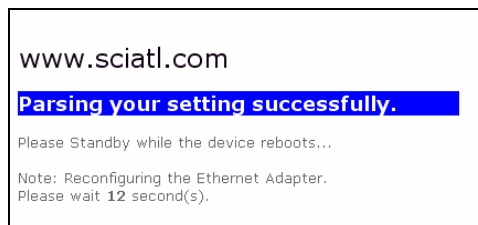**To connect to an available wireless network with a known SSID and disabled encryption**

1. From the Site Survey table, identify the wireless network you intend to join.

   Note: Take note of the icon preceding the wireless network for easy identification. See the icon table on page 21 for detailed icon descriptions.

2. Click the down arrow at the **Select a Site to join** field to select the number of the wireless network you intend to join, and then click the **Join** button.

   A message appears in the browser indicating that you have successfully joined the wireless network.

To connect to an available wireless network with a hidden SSID and disabled encryption

1. From the Site Survey table, select the wireless network with a hidden SSID and disabled encryption you intend to join.

2. Click the down arrow at the **Select a Site to join** field to select the number of the wireless network you intend to join, and then click the **Join** button.
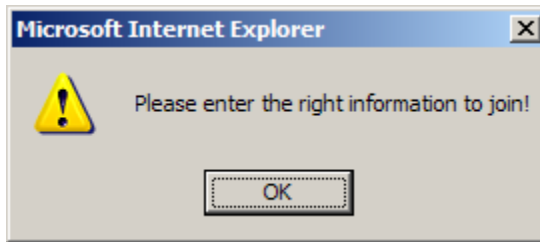
3. Click **OK** when the following window appears.

Note: Obtain the wireless network SSID from the network administrator.

4. Enter the SSID of the wireless network in the SSID field, and then click **Apply**.

A message appears in the browser indicating that you have successfully joined the wireless network.
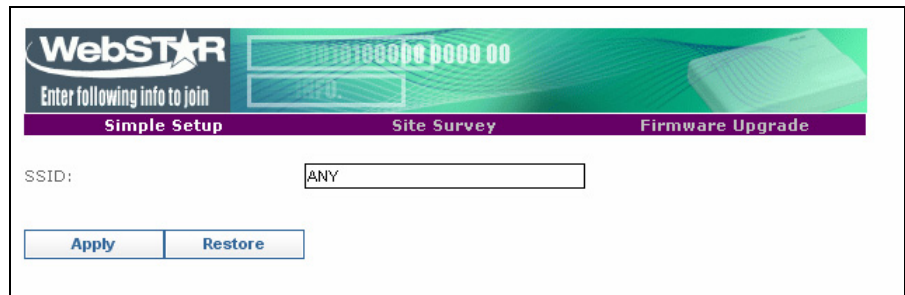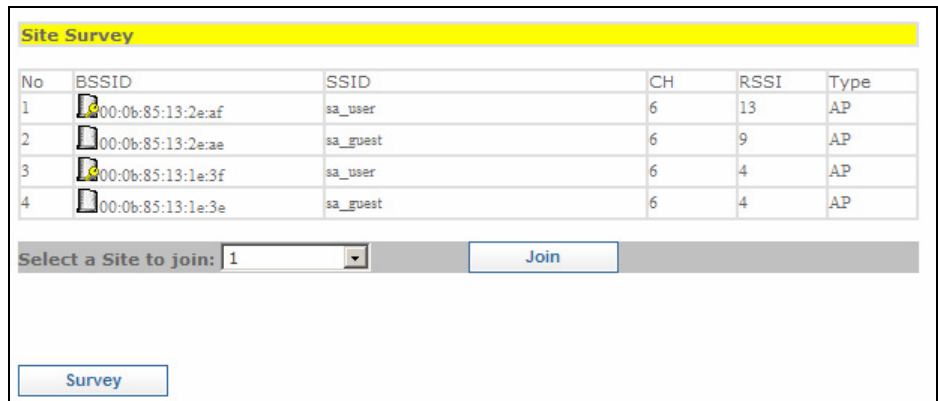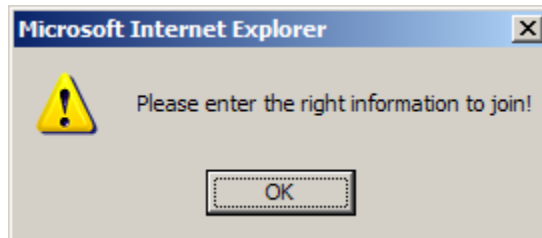
To connect to an available wireless network with a hidden SSID and enabled encryption

1. From the Site Survey table, select the wireless network with a hidden SSID and enabled encryption you intend to join.

2. Click the down arrow at the **Select a Site to join** field ⌄ to select the number of the wireless network you intend to join, and then click the **Join** button.

Site Survey					
No	BSSID	SSID	CH	RSSI	Type
1	00:0b:85:13:2e:af	sa_user	6	13	AP
2	00:0b:85:13:2e:ae	sa_guest	6	9	AP
3	00:0b:85:13:1e:3f	sa_user	6	4	AP
4	00:0b:85:13:1e:3e	sa_guest	6	4	AP

Select a Site to join: 1 ▾   Join

Survey

3. Click **OK** when the following window appears.

Microsoft Internet Explorer ✕

⚠ Please enter the right information to join!

OK

Note: Verify the wireless network SSID and encryption settings with the network administrator.

4. Enter the **SSID** of the wireless network, and then select the **Authentication Method** and **Encryption**. When done, enter the encryption keys in the key fields, and then click **Apply**. A message appears in the Web browser indicating that you have successfully joined the wireless network.

www.sciatl.com

Parsing your setting successfully.

Please Standby while the device reboots...

Note: Reconfiguring the Ethernet Adapter.
Please wait **12** second(s).

To connect to an available wireless network with a known SSID and enabled encryption

1. From the Site Survey table, select the wireless network with a known SSID and enabled encryption you intend to join.

2. Click the down arrow at the **Select a Site to join** field ![down arrow] to select the number of the wireless network you intend to join, and then click the **Join** button.

3. Click **OK** when this window appears.

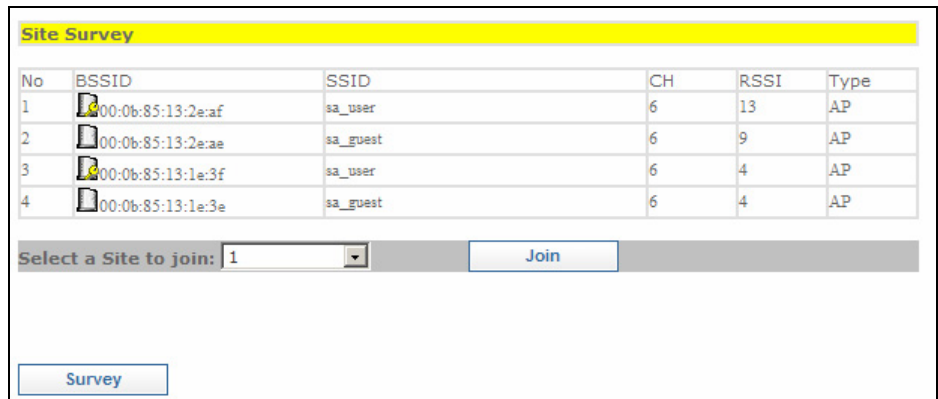   **Note:** Verify the wireless network encryption settings with the network administrator.
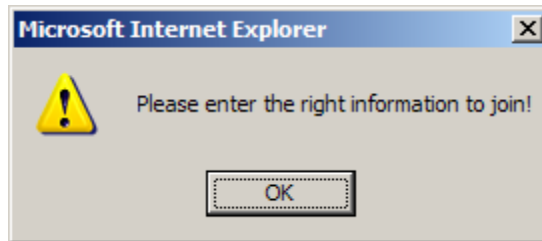
4. Select the Authentication Method and Encryption of the wireless network you intend to join, and then enter the encryption keys in the key fields. Click **Apply** when finished.

   Result: A message appears in the Web browser indicating that you have successfully joined the wireless network.

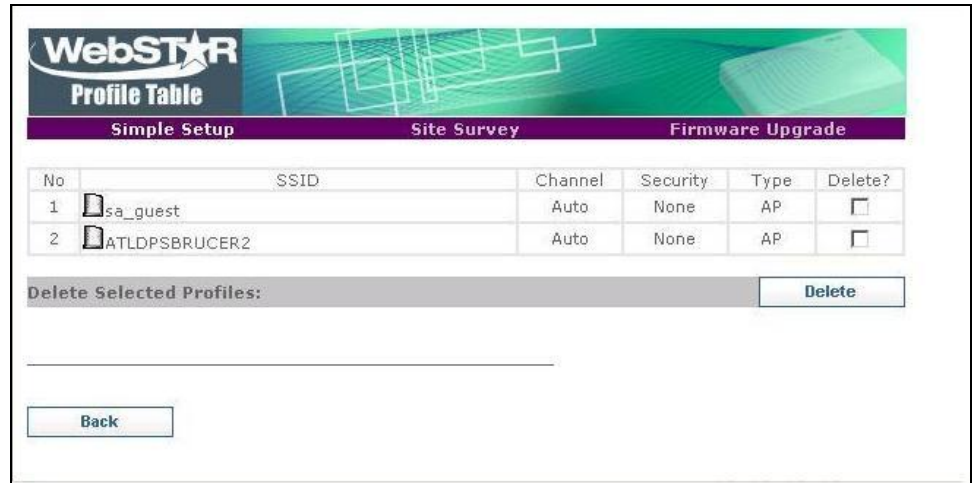## Saving Wireless Networks in the Profile Table

The Profile Table allows you to view or delete saved wireless networks. The table displays the saved wireless network SSID, channel, security settings, and network type. Click the **Profile Table** link on the Site Survey page to view the Profile Table.

Note: Saved wireless networks are preceded by an icon for easy identification. See the icon table on page 21 for detailed icon descriptions.
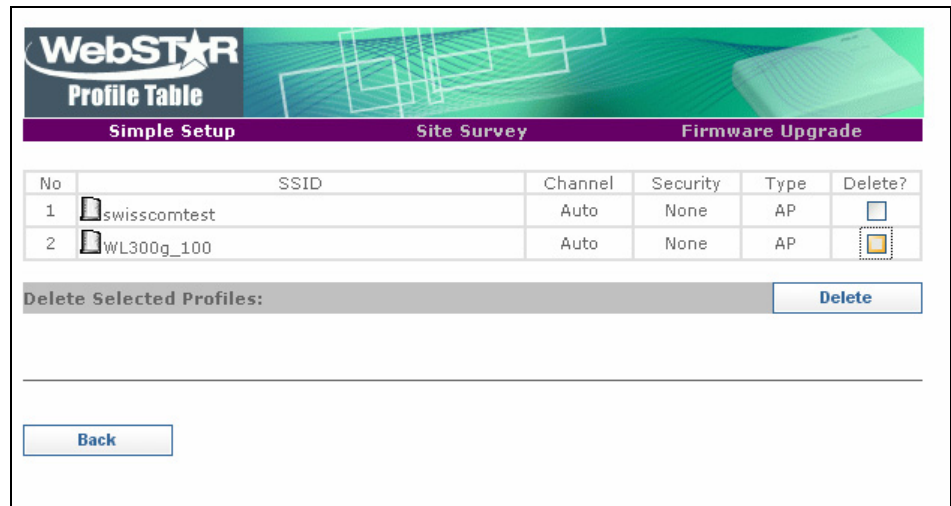
To save a wireless network in the Profile table

Complete these steps to save a wireless network in the Profile Table.

1. From the **Site Survey** page, select the wireless network you intend to join.

2. Click the down arrow at the **Select a Site to join** field to select the number of the selected wireless network, and then click the **Join** button.

3. When the WebSTAR DPW941 Wireless Ethernet Adapter is associated with the wireless network, click the **Save** button. The Profile Table appears with the saved wireless network.
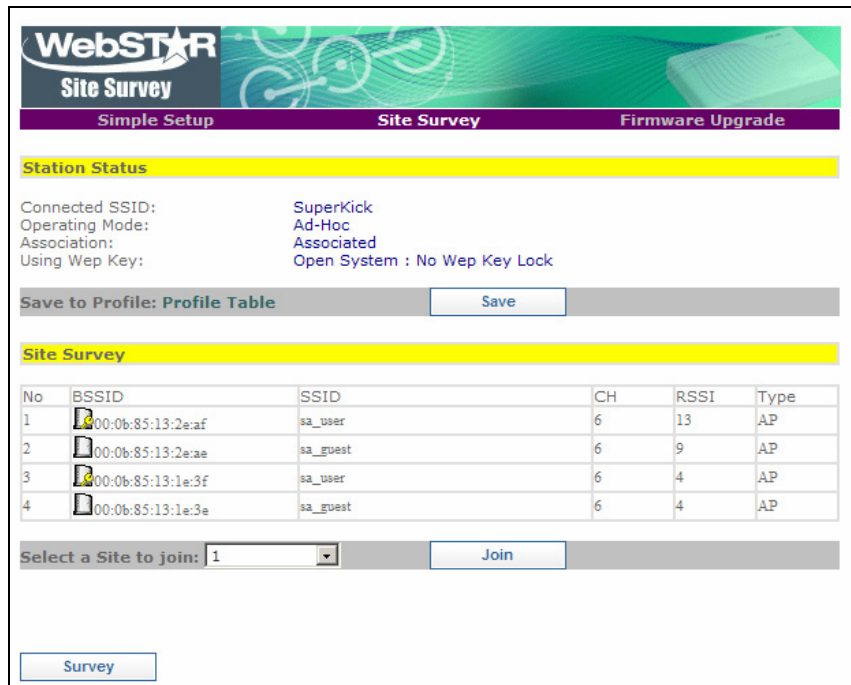
4. Click **Back** to return to the previous page.
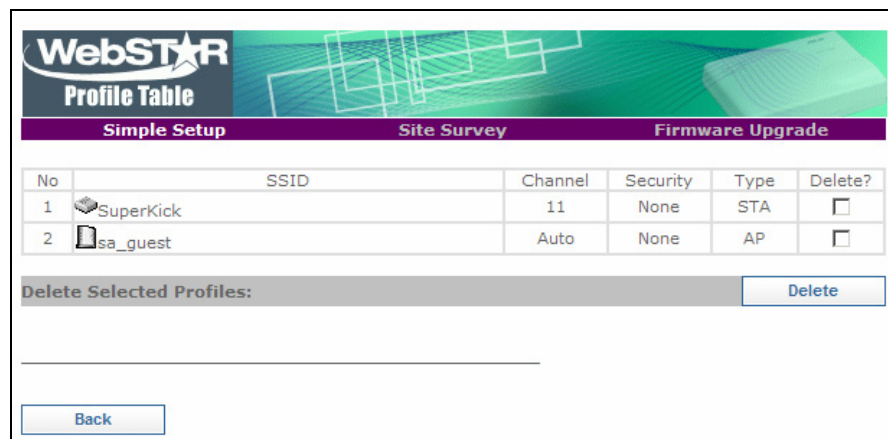
Note: The saved wireless networks in the Profile Table correspond to the number of profiles available for the Button Scan Mode feature.

For example, if you saved two wireless networks in the Profile Table then two profiles are available for button scanning.
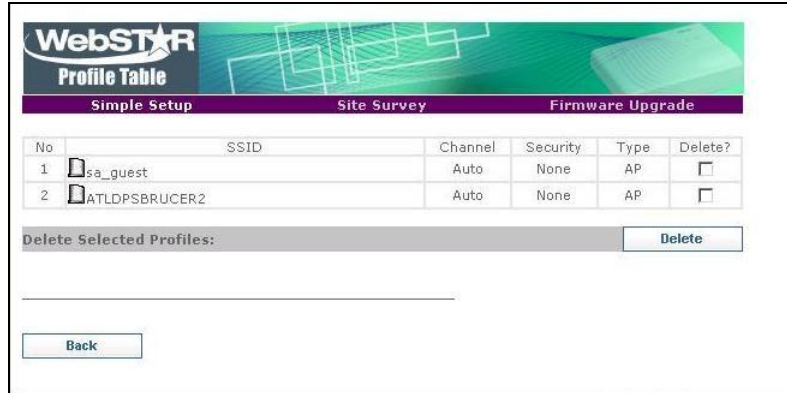
Note: The profile number represents the sequence of the saved wireless networks in the profile table.

Refer to **Using the Button Scan Mode Feature**, earlier in this guide, for details on the Button Scan Mode feature.

Deleting a Wireless Network from the Profile Table

Complete these steps to delete a wireless network from the Profile Table.

1. Open the Profile Table by clicking the **Profile Table** link on the Site Survey page.

2. Select the wireless network you intend to delete, and then select the **Delete?** check box at the end of the row for that wireless network.

3. Click the **Delete** button. The browser displays the Profile Table after the wireless network is deleted.

4. Click the **Back** button to return to the previous window.

Restoring the Default Values

The following are the default values of the WebSTAR DPW941 Wireless Ethernet Adapter when deployed in Ethernet adapter mode. You may restore these values by pressing the **Reset** button for more than 5 seconds.

Parameter	Default Value
Wireless Interface	
SSID	ANY
Operating Mode	Infrastructure Mode
Channel	Auto
Station Mode	802.11b/g
Transmission Rate	Automatic
Preamble	Long
Authentication	Open System
Encryption	None
MAC Cloning	Disabled
Button Scan Mode	
Enable Button Scanning	Enabled
Scan Mode	Find the connection with the strongest link quality
Specified Profile	No Saved Profile

Upgrading the Firmware and Change Log-On Password

The Firmware Upgrade page displays the product ID, firmware version, and regulation domain. This page allows you to perform the following tasks:

- Upgrade the firmware when it becomes outdated or corrupted
- Change the log-on password.

To upgrade the firmware

Note: The Power LED blinks continuously when the firmware is corrupted or when the firmware upgrade fails.

Complete these steps to upgrade the firmware on the DPW941.

1. Download and save the latest firmware from the WEBSTAR Web site.

2. Launch the Web Configuration Utility, and then go to the **Firmware Upgrade** page.

3. Click the **Browse** button to locate the new firmware file.

4. Click **Upgrade**. A **Firmware Upgrading!** message appears and the browser refreshes after the firmware upgrade process is completed.
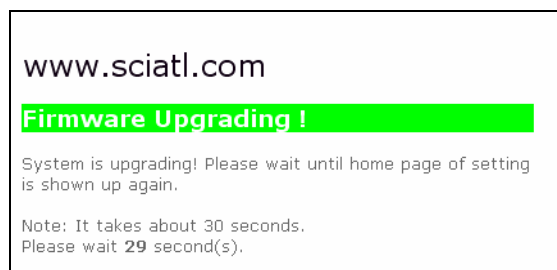
To change the log-on password

Complete these steps to change the log-on password.

1. Type the new password in both the New Password and Retype New Password fields, and then click **Apply**.

2. A message appears indicating that you have successfully changed the log-on password. The browser refreshes with the new password.

Note: Use your new password when launching *both* the Wireless Setting configuration window and the Web Configuration utility.

Restoring Firmware with the Firmware Restoration Utility

The Firmware Restoration utility is a rescue tool for the WebSTAR DPW941 Wireless Ethernet Adapter in the event that a previous firmware upload failed. This utility is available in the support CD that came with the WebSTAR DPW941 Wireless Ethernet Adapter package.

A failed firmware upgrade causes the WebSTAR DPW941 Wireless Ethernet Adapter to enter a failure mode. Use the Firmware Restoration utility to find and upload new firmware for the WebSTAR DPW941 Wireless Ethernet Adapter.

Complete these steps to restore the firmware in the WebSTAR DPW941 Wireless Ethernet Adapter.

1. Visit the WebSTAR Web site to download the latest firmware for the device.

2. Launch the Firmware Restoration utility from the Microsoft Windows desktop by clicking **Start** > **All Programs** > **WebSTAR Wireless Ethernet Adapter** > > **Firmware Restoration.**

   Result: The **Firmware Restoration** window appears.
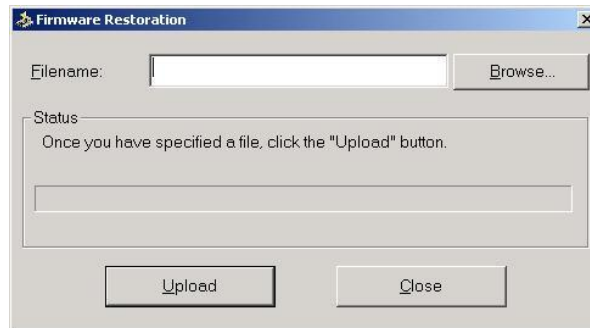
3. Click the **Browse** button to locate the firmware file.

4. After selecting the firmware file, click the **Upload** button to begin the firmware restoration.

   Note: The restoration process takes about 3 to 4 minutes to finish. During restoration, the Power and Wireless LEDs remain lit, while the Ethernet LED flashes slowly.

   If you have problems uploading a firmware file while using a network hub, try connecting your computer directly to the LAN port.

Operating the WebSTAR DPW941 Wireless Ethernet Adapter

This section provides instructions on how to use the WebSTAR DPW941 Wireless Ethernet Adapter on various network setups.

Connecting the DPW941 to a Local Network

You can use the DPW941 to connect a wireless LAN-enabled computer to a local network with or without a dynamic host configuration protocol (DHCP) server. Complete these steps to connect a wireless LAN-enabled computer to a local network.

1. Apply power to the DPW941.

2. Connect one end of the supplied RJ-45 cable to the Ethernet port of the device and the other end to the Ethernet port of the local network.

3. Use the wireless LAN adapter software in the wireless LAN-enabled computer to perform a Site Survey. Make sure the computer's wireless LAN adapter is set to Infrastructure mode.

4. Establish connection with the DPW941.

5. Set the IP configuration of the computer to establish connection to the local network. Verify your connection.

    Note: Use the Wireless Setting Utility to change the DPW941 SSID or encryption settings.

Replacing the computer Ethernet Connection

Complete these steps to use the DPW941 to replace your wireless LAN-enabled computer cable connection to an ADSL or cable modem.

1. Apply power to the DPW941.

2. Connect one end of the supplied RJ-45 cable to the Ethernet port of the device and the other end to the Ethernet port of the ADSL or cable modem.

3. Use the wireless LAN adapter software in the wireless LAN-enabled computer to perform a Site Survey. Make sure the computer's wireless LAN adapter is set to Infrastructure mode.

4. Establish connection with the DPW941.

5. Set the IP configuration of the computer to establish connection to the local network. Verify your connection.

Replacing the Cable Connections of Other Devices

Complete these steps to use the DPW941 to replace your Xbox, PlayStation 2, or set-top box network cable connection.

1. Apply power to the DPW941.

2. Place the DPW941 nearest the access point to which you wish to connect.

3. Connect one end of the supplied RJ-45 cable to the Ethernet port of the device and the other end to the Xbox, PlayStation 2, or set-top box Ethernet port.

4. Set the IP address of the Xbox, PlayStation 2, or set-top box to establish connection to the local network. Verify your connection.

    Note: Make sure the DPW941 MAC cloning feature is enabled when using the DPW941 in this setup. Use the Wireless Setting Utility to enable MAC cloning. See **Changing the Ethernet Adapter Configuration**, earlier in this guide, for details on MAC cloning.

Sharing an Internet Connection with Other Computers

Refer to the following typical network configuration example and the Internet connection sharing matrix for detailed information on Internet connection sharing with other computers in your office or home network.

Network configuration example

T11453
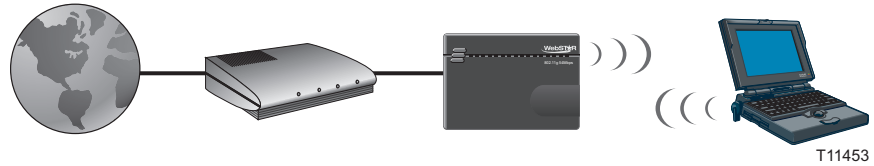
Internet connection sharing matrix

If your Internet connection is	Then	Number of Internet connections
DSL* with dynamic IP address (PPPoE** account)	The Internet Service Provider (ISP) automatically assigns the IP address using PPPoE dial-up	Depends on the ISP
DSL with static IP address	Set the IP address of the other computer(s) to the provided static IP address	Depends on the ISP
DSL/Cable with a router and enabled DHCP server	The DHCP server automatically assigns the IP address	Depends on the DHCP server, usually about 253

* DSL—*Digital Subscriber Line*
** PPPoE—*Point-to-Point Protocol over Ethernet*

Troubleshooting the WebSTAR DPW941 Wireless Ethernet Adapter

This troubleshooting guide provides solutions to some common issues that you may encounter while installing or using WebSTAR DPW941 Wireless Ethernet Adapter. These issues require simple troubleshooting that you can perform by yourself. Contact WebSTAR Technical Support at 1-800-722-2009 and select prompt 2 if you encounter issues not mentioned in this section.

Troubleshooting Tips

Issue	Action
The WebSTAR DPW941 Wireless Ethernet Adapter does not power up.	• Use a test meter to measure the voltage output of the power source through the power plug. • Verify that the power plug is properly connected to the DPW941.
The throughput seems slow.	• Avoid placing the device behind a metal object. Clear obstacles between the access point and the device. • Try moving the client closer to the WebSTAR DPW941 Wireless Ethernet Adapter to see if the throughput increases. • Consider adding a second WebSTAR DPW941 Wireless Ethernet Adapter to implement roaming.
I cannot access the WebSTAR DPW941 Wireless Ethernet Adapter Web configuration page.	• To access the WebSTAR DPW941 Wireless Ethernet Adapter Web configuration page, your computer must have the same subnet as that of the WebSTAR DPW941 Wireless Ethernet Adapter. • Adjust your network if your computer's subnet does not match that of the WebSTAR DPW941 Wireless Ethernet Adapter. • The default IP address of the WebSTAR DPW941 Wireless Ethernet Adapter is **192.168.1.1**. In some cases when the WebSTAR DPW941 Wireless Ethernet Adapter in Ethernet adapter mode joins an access point network with the same IP address, you must reset the WebSTAR DPW941 Wireless Ethernet Adapter to access the Web Configuration utility again.

Issue	Action
Where can I get a firmware file to upgrade the WebSTAR DPW941 Wireless Ethernet Adapter?	You must download the latest firmware file from the WebSTAR Web site (www.scientificatlanta.com/webstar). Use the Firmware Upgrade page in the Web Configuration utility to update the WebSTAR DPW941 Wireless Ethernet Adapter.
The WebSTAR DPW941 Wireless Ethernet Adapter Power LED blinks continuously for more than a minute.	• Power the DPW941 off and then on again and observe if the Power LED stops blinking. • If the blinking continues, you need to restore the WebSTAR DPW941 Wireless Ethernet Adapter firmware. Use the Firmware Restoration utility to restore or update the WebSTAR DPW941 Wireless Ethernet Adapter firmware.

Technical Specifications

This section provides the technical specifications for your WebSTAR DPW941 Wireless Ethernet Adapter.

Note: Specifications are subject to change without notice.

Hardware and Software Specifications

Specification	Parameter
Standard	IEEE 802.11g
Operation Modes	• Access Point (AP) Ethernet adapter • Ad-hoc mode • Infrastructure mode
Security Features	• SSID network identification for security • 64-bit and 128-bit WEP data encryption and decryption • WiFi Protected Access (WPA)
Data transfer rate	• 802.11g: 54 Mbps with auto-fallback to 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, and 6 Mbps • 802.11b: 11 Mbps with auto-fallback to 5.5 Mbps, 2 Mbps, and 1 Mbps
Technology	• Octagonal Frequency Division Multiplexing (OFDM) • Direct Sequence Spread Spectrum (DSSS)
Device Driver and Configuration Utility	Wireless Setting Utility and Firmware Restoration utility running on Microsoft Windows 98SE, ME, 2000 (SP4), and XP (SP1) platform **Note:** Under Windows XP, use the Windows XP built-in monitor and configuration utility.
Operating Distance	• Indoors @ 11Mbps : 130 ft (40 m) • Indoors @ 54Mbps : 80 ft (25 m) • Outdoors @ 11Mbps LOS* : 1000 ft (310 m) • Outdoors @ 54Mbps LOS* : 200 ft (60 m)

* Line-of-sight

Specification	Parameter
Frequency Band	2.4 GHz ~ 2.5 GHz
Mounting Options	Desktop or wall-mount installation
Dimensions	86mm x 62mm x 17mm
Compatibility	Compatible with IEEE 802.11b and 802.11g devices
Power Requirements	DC power using the supplied power cable and plug or USB powered
Antenna	Two internal 3D Inverted-F antennas
LED Indicators	• Ethernet • Wireless • Power
Safety and Regulatory Approvals	• FCC • VCCI • CE • TELEC & JATE

Glossary

10BaseT	An IEEE standard (802.3) for operating 10 Mbps Ethernet networks (LANs) with twisted pair cabling and a wiring hub.
Access Point	An inter-networking device that seamlessly connects wired and wireless networks. Access points, when combined with a distributed system, support the creation of multiple radio cells that enable roaming throughout a facility.
Ad-hoc	A network composed solely of stations within mutual communication range of each other (no access point connected).
BSS	Basic Service Set. A set of stations controlled by a single coordination function.
Channel	A medium used to pass protocol data units that can be used simultaneously in the same volume of space by other channels of the same physical layer with an acceptably low frame error ratio due to mutual interference.
Encapsulated	An Ethernet address mode that treats the entire Ethernet packet as a whole and places it inside an 802.11 frame along with a new header.
ESS	Extended Service Set. A set of one or more interconnected Basic Service Sets (BSSs) and integrated Local Area Networks (LANs) can be configured as an Extended Service Set.
Ethernet	The most widely used medium access method, which is defined by the IEEE 802.3 standard. Ethernet is normally a shared media LAN; i.e., all the devices on the network segment share total bandwidth. Ethernet networks operate at 10 Mbps using CSMA/CD to run over 10BaseT cables.
Gateway	A network component that acts as an entrance to another network.
IEEE 802.11	The IEEE 802.xx is a set of specifications for LANs from the Institute of Electrical and Electronic Engineers (IEEE). Most wired networks conform to 802.3, the specification for CSMA/CD-based Ethernet networks or 802.5, the specification for token ring networks. 802.11 defines the standard for wireless LANs encompassing three incompatible (non-interoperable) technologies: Frequency Hopping Spread Spectrum (FHSS), Direct Sequence Spread Spectrum (DSSS), and Infrared. IEEE standards ensure interoperability between systems of the same type.
Infrastructure	A wireless network centered about an access point. In this environment, the access point not only provides communication with the wired network but also mediates wireless network traffic in the immediate neighborhood.
IP	Internet Protocol. The standard protocol within TCP/IP that defines the basic unit of information passed across an Internet connection by breaking down data messages into packets, routing and transporting the packets over network connections, then reassembling the packets at their destination. IP corresponds to the network layer in the ISO/OSI model.

IP Address An IP address is a 32-bit number that identifies each sender or receiver of information sent across the Internet. An IP address has two parts: the identifier of a particular network on the Internet and an identifier of the particular device (which can be a server or a workstation) within that network.

ISP Internet Service Provider. An organization that provides access to the Internet. Small ISPs provide service via modem and ISDN while the larger ones also offer private line hookups (T1, fractional T1, etc.).

LAN Local Area Network. A communications network that serves users within a defined geographical area. The benefits include the sharing of Internet access, files, and equipment, such as printers and storage devices. Special network cabling (10BaseT) is often used to connect the PCs together.

NAT Network Address Translation. The translation of an Internet Protocol address (IP address) used within one network to a different IP address known within another network. One network is designated the internal network and the other is the external. The internal network then appears as one entity to the outside world.

Radio Frequency RF, Terms: GHz, MHz, Hz —The international unit for measuring frequency is Hertz (Hz), equivalent to the older unit of cycles per second. One megahertz (MHz) is one million Hertz. One gigahertz (GHz) is one billion Hertz. The standard U.S. electrical power frequency is 60 Hz. The AM broadcast radio frequency band is 0.55–1.6 MHz. The FM broadcast radio frequency band is 88–108 MHz. Wireless 802.11 LANs operate at 2.4 GHz.

SSID Service Set ID. A group name shared by every member of a wireless network. Only client PCs with the same SSID are allowed to establish a connection.

Subnet Mask A value that defines whether your computer communicates only within your LAN or communicates outside of your LAN, where it is routed out to the rest of the Internet. A Subnet Mask that has the same first three components (for example, 255.255.255.0) is the routing pattern for a Class C address.

TCP Transmission Control Protocol. The standard transport level protocol that provides the full duplex, stream service on which many applications' protocols depend. TCP allows a process on one machine to send a stream of data to a process on another. Software implementing TCP usually resides in the operating system and uses the IP to transmit information across the network.

WEP Wired Equivalent Privacy. The optional cryptographic confidentiality algorithm specified by 802.11. The algorithm is being used to provide data confidentiality that is subjectively equivalent to the confidentiality of a wired LAN medium that does not employ cryptographic techniques to enhance privacy.

Regulation Domain

IEEE 802.11b/g networks are regulated worldwide since these networks use the 2.4GHz ~ 2.5GHz ISM (Instrumentation, Scientific, and Medical) Band. The WebSTAR DPW941 Wireless Ethernet Adapter is shipped with a default regulation domain allowed in your country and location. The FCC (US) and ETSI (Europe) specify operation from 2.4 GHz to 2.4835 GHz. For Japan, operation is specified as 2.4 GHz to 2.497 GHz. For each supported regulatory domain, all channels marked with "Yes" are supported. The channel center frequencies and channel ID (CH ID) numbers are shown in the following table.

DSSS PHY frequency channel plan

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CH ID	Frequency	Regulatory Domain		
		X'10' FCC	**X'30' FCC**	**X'40'MKK**
1	2412 MHz	Yes	Yes	Yes
2	2417 MHz	Yes	Yes	Yes
3	2422 MHz	Yes	Yes	Yes
4	2427 MHz	Yes	Yes	Yes
5	2432 MHz	Yes	Yes	Yes
6	2437 MHz	Yes	Yes	Yes
7	2442 MHz	Yes	Yes	Yes
8	2447 MHz	Yes	Yes	Yes
9	2452 MHz	Yes	Yes	Yes
10	2457 MHz	Yes	Yes	Yes
11	2462 MHz	Yes	Yes	Yes
12	2467 MHz	–	Yes	Yes
13	2472 MHz	–	Yes	Yes
14	2484 MHz	–	–	–

In a multiple cell network topology, overlapping and/or adjacent cells using different channels can operate simultaneously without interference if the distance between the center frequencies is at least 30 MHz.

Important: Channel 14 is specifically for operation in Japan.

Regulating bodies and allowed channels

Country	Regulating Body	Allowed channels
Unites States	FCC	1-11
Europe	ETSI	1-13
Japan	MKK	1-14

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Canada EMI Regulation

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

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Regulatory Compliance

FCC Part 15 Declaration of Conformity (DoC)

FCC Declaration of Conformity

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

WebSTAR Model DPW941 Wireless Ethernet Adapter

Manufactured by: Scientific-Atlanta, Inc.; 5030 Sugarloaf Parkway; Atlanta, Georgia 30044; USA
Telephone US and Canada: **1-800-283-2636** (toll-free)
Telephone outside US: **1-800-236-2200** (toll-free)
Telephone within US: **+1-800-236-1077** (direct)

FCC Rules and Regulations – Part 15

This device has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the Federal Communications Commissions Rules and Regulation. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, 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:

- Relocate your wireless LAN equipped laptop computer
- Increase the separation between the wireless LAN equipped laptop computer and other electronics
- Connect the wireless LAN equipped laptop computer into an outlet on a circuit different from that of other electronics
- Consult the dealer or an experienced radio/TV technician for assistance

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator & your body.

For Information

If You Need Technical Assistance

If you need technical assistance, contact your cable service provider.