Diamond Digital

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A101
Wireless USB Adaptor

User's Manual

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Reference Information	
For future reference, write the following information about your product in the space below. The serial number is found on the back of the product or on the bottom of its stand.	
Product Information	
Product Name:	A101 Wireless USB Adaptor
Serial Number:	
Date of Purchase:	
Dealer Information	
Dealer:	
Telephone Number:	
Address:	

Contents

Contents

About this guide

This user guide contains the information you need to install and configure your A101 Wireless USB Adaptor.

How this guide is organised

This guide contains the following parts:

- **Chapter 1: Product introduction**

  This chapter describes the physical features of the A101 Wireless USB Adaptor. This section also presents the package contents, LED indicators, and recommended network settings.

- **Chapter 2: Hardware installation**

  This chapter provides information on how to install the A101 Wireless USB Adaptor.

- **Chapter 3: Configuration**

  This chapter provides information on the contents of the Driver CD.

- **Chapter 4: Troubleshooting**

  This chapter contains a troubleshooting guide for solving common problems you may encounter when using the A101 Wireless USB Adaptor.

Conventions used in this guide

To make sure that you perform certain tasks properly, take note of the following symbols used throughout this guide.

WARNING: Information to prevent injury to yourself when trying to complete a task.

CAUTION: Information to prevent damage to the components when trying to complete a task.

IMPORTANT: Information that you MUST follow to complete a task.

NOTE: Tips and additional information to aid in completing a task.

A101 specification summary*

Standard	IEEE 802.11g
Interface	USB 2.0
Technology	Orthogonal Frequency Division Multiplexing (OFDM) Direct Sequence Spread Spectrum (DSSS)
Data transfer rate	802.11g: 54Mbps with auto-fallback to 48, 36, 24, 18, 12, 9, and 6Mbps 802.11b: 11Mbps with auto-fallback to 5.5, 2, and 1Mbps
Network types	Supports Infrastructure and Ad-hoc networks
Frequency band	2.4 GHz ~ 2.5 GHz
Security	64-bit/128-bit configurable WEP & WPA encryption
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)
Compatibility	Compatible with IEEE 802.11b and 802.11g devices
Power requirement	Powered USB port
Dimensions	86mm x 62mm x 17mm
Supported OS	Windows® 2000 (SP4)/XP (SP1)
Antenna	Two internal 3D Inverted-F antennas
Mounting options	Desktop or wall installation
Software support	Control Center Wireless Settings Mobile Manager Site Monitor TroubleShooting

* *Specifications are subject to change without notice.*

** *Line-of-Sight*

The A101 operating distance may be shorter if there are walls, barriers, or interferences in the home layout or operating environment.

Chapter 1

This chapter describes the physical features of the A101 Wireless USB Adaptor. This part presents the package contents, LED indicators, and recommended network settings.

Product Introduction

1.1 Welcome!

Thank you for choosing the A101 Wireless USB Adaptor!

The A101 is an easy-to-install wireless LAN adaptor. Conforming to the IEEE 802.11g standard for wireless local area networks (WLAN), the A101 is capable of up to 54Mbps data transmission rate using the Direct Sequence Spread Spectrum (DSSS) and the Orthogonal Frequency Division Multiplexing technologies.

The A101 also comes with the latest wireless technology to keep you ahead in the world of wireless computing.

1.2 Package contents

Check the following items are in your A101 Wireless USB Adaptor package. Contact your retailer if any item is damaged or missing.

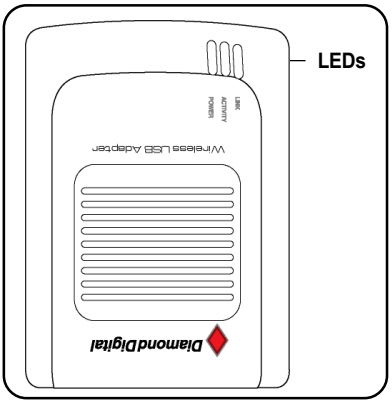
- ☑ Diamond Digital USB Wireless LAN Adaptor (A101)
- ☑ USB cable
- ☑ Driver CD
- ☑ Quick Start Guide

Unless otherwise specified, the term “device” in this User Guide refers to the A101 Wireless USB Adaptor.

1.3 Features

1.3.1 Top view

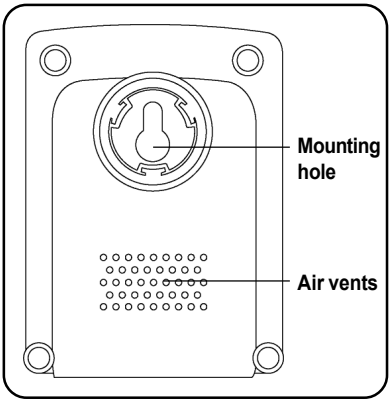
LEDs: The A101 Wireless USB Adaptor comes with three LED indicators. Refer to section 1.4 “LED indicators” for details.



1.3.2 Bottom view

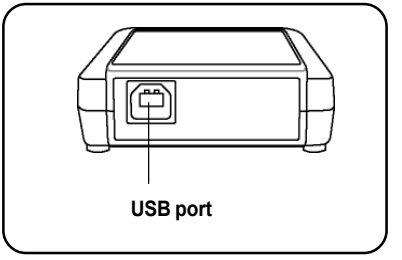
Mounting hole: Use the mounting hole to install the device on concrete or wooden surfaces using a roundhead screw.

Air vents: These vents provide ideal ventilation to the device.



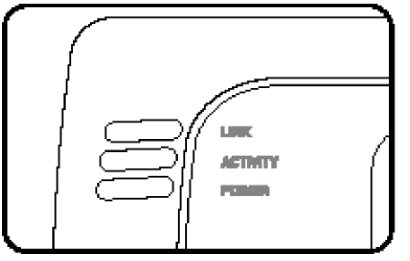
1.3.3 Rear view

USB port. This USB port connects the device to a computer via the supplied USB cable.



1.4 LED Indicators

The device comes with Power, Activity, and Link LED indicators. Refer to the table below for LED indications.



LED	Status	Indication
Power	**On** **Off**	The adaptor is receiving power from the USB port. The adaptor is not receiving power from the USB port. The USB cable may be disconnected or the computer is off.
Activity	**Blinking**	The adaptor is transmitting or receiving data packets.
Link	**On** **Blinking**	The adaptor is linked to a wireless network. The adaptor is searching for a wireless network to connect to.

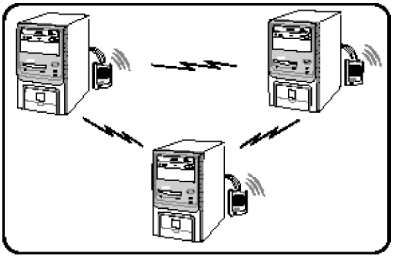
1.5 Network setup

The A101 Wireless USB Adaptor may be used in both Ad-hoc and Infrastructure network types. The following sections decribe the device functions in these network types.

Determine your network settings before installing the device to make all its features available. The following network settings are recommended.

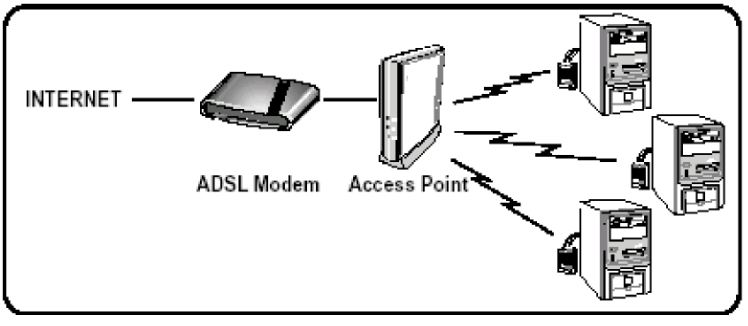
1.5.1 Ad-hoc network

In an Ad-hoc network type, the device connects to another wireless LAN adaptor in a wireless network. No access point (AP) is present in this wireless environment.



1.5.2 Infrastructure network

In an Infrastructure network, the wireless network is centered on an access point (AP) that provides a central link for wireless clients to communicate with each other or with a wired network.



Chapter 2

This chapter provides information on how to install the A101 Wireless USB Adaptor.

Installation

2.1 System requirements

Before installing the A101 Wireless USB Adaptor, make sure that your system meets the following requirements:

- Intel® Pentium® 4 or AMD K7/K8 system
- Minimum 64MB system memory
- Windows® 2000 (SP4)/XP (SP1) operating system
- Optical drive (for software installation)
- An available USB port (USB 2.0 recommended)

2.2 Installation procedures

Follow these instructions to install the A101 Wireless USB Adaptor in your computer.

1. Install the device drivers and utilities from the Driver CD.
2. Connect the device to your computer.

You must install the A101 drivers and utilities before connecting the device to your computer.

2.2.1 Installing the device drivers and utilities

To install the device driver and utilities on your computer:

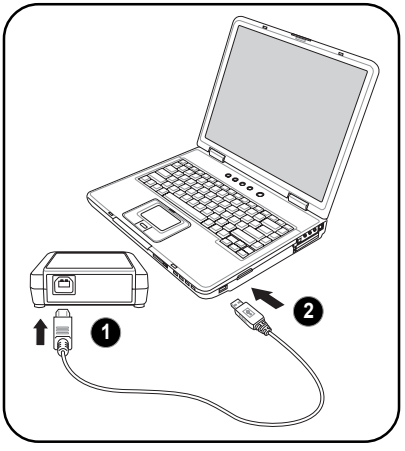
1. Insert the Driver CD into the optical drive.
2. Click "**Install A101 Wireless USB Adaptor Utilities/Driver**" when the installation window appears.
3. Follow the prompts to install the A101 drivers and utilities, then restart the computer once installation is complete.

If Autorun is NOT enabled on your computer, browse the contents of the Driver CD and double click the Setup.exe file to run the CD.

2.2.2 Installing the device

To install the A101 Wireless USB Adaptor in your computer:

1. Connect one end of the USB cable to the USB port of the device.
2. Connect the other end of the USB cable to the USB port of your computer.
3. Windows® automatically detects the device and displays the **Found New Hardware** dialogue box. Follow the on-screen instructions to proceed.



4. After completing installation, configure the A101 Wireless USB Adaptor using the Wireless Settings utility. Refer to the next chapter for details.

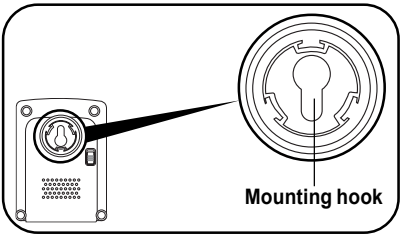
2.3 Placement

Take note of the following before placing the device.

- Place the device on a flat, stable surface as far from the ground as possible
- Keep the device away from metal obstructions and direct sunlight.
- Keep the device away from transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators and other industrial equipment to prevent interference and signal loss.

2.3.1 Wall mounting

Aside from desktop placement, you may install the A101 Wireless USB Adaptor vertically on a concrete or wooden wall using the mounting hook at the bottom of the device and a mounting screw.



To mount the device on a concrete or wooden wall:

1. Locate the mounting hook on the bottom of the device.
2. Select an ideal location for the device following the considerations mentioned previously.
3. Tighten a round head screw on the concrete or wooden wall until only 1/4” is showing.
4. Latch the device onto the screw.

Adjust the screw if you cannot latch the device or if the screw is too loose.

Chapter 3

This chapter provides information on the software and utilities supplied on the Driver CD

Software Support

3.1 Control Center

The Control Center utility is management software that launches applications and configures network settings. Clicking the A101 Control Center on the desktop starts the program and displays a Control Center icon in the Windows® taskbar. The Control Center icon serves as an application launcher and indicator of signal quality and Internet connection.

3.1.1 Control Center icons

The Control Center icon indicates the quality of link to the access point and connection to the Internet. Refer to the table below for icon indications.

Infrastructure network (Wireless USB adaptor to an access point)

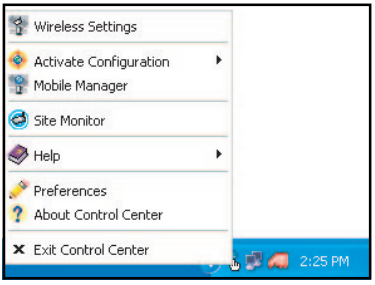
	Excellent link quality and connected to the Internet		Excellent link quality but not connected to the Internet
	Good link quality and connected to the Internet		Good link quality but not connected to the Internet
	Fair link quality and connected to the Internet		Fair link quality but not connected to the Internet
	Poor link quality but connected to the Internet		Poor link quality and not connected to the Internet
	Not linked but connected to the Internet		Not linked and not connected to the Internet

Ad-hoc network (Wireless USB adaptor to other Wi-Fi device)

	Linked
	Not Linked
	Connected to the Internet

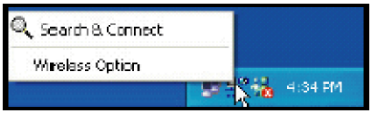
3.1.2 Control Center right-click menu

Right-clicking the Control Center icon displays the software and utilities for the A101 Wireless USB Adaptor. Refer to the following sections for details on these utilities and software programs.

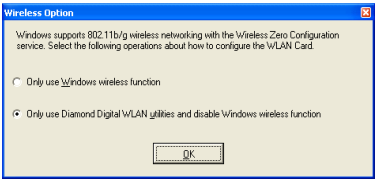


3.1.3 Control Center left-click menu

Left-clicking the Control Center icon displays the left-click menu.



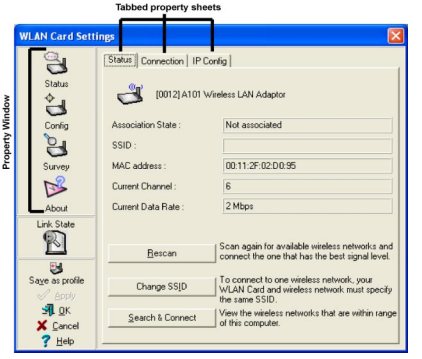
Search & Connect – View available wireless networks within range.



Wireless Option – Sets your Windows® XP wireless networking environment. The **Wireless Option** window appears when you select this option. Select **"Only use Diamond Digital WLAN utilities and disable Windows wireless function"** to activate all A101 USB Wireless LAN Adaptor features.
Click **OK**.

3.2 Wireless Settings

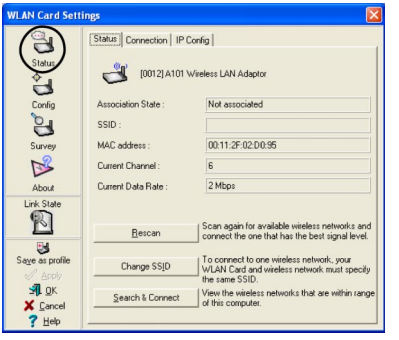
The Wireless Settings is the main interface that allows you to control the A101 Wireless USB Adaptor. Use the Wireless Settings to view the operational and connection status, or to modify the Wireless USB adaptor configuration.



The Wireless Settings window is composed of the property window and tabbed property sheets. Click the icons in the property window to display their tabbed property sheets.

3.2.1 Status

Status tab



The Status tab provides general information on the wireless USB adaptor.

Association State. This field displays the connection status and MAC address of the network device the unit is connected to.

Service Set Identifier (SSID). This field displays the SSID of the network to which the adaptor is associated or is intending to join. The **SSID** is a group name shared by every member of a wireless network. Only client PCs with the same SSID are allowed to establish a connection.

The **MAC Address** field displays the hardware address of the adaptor connected to a network.

The **Current Channel** field displays the radio channel that the adaptor is currently tuned to. The channel changes as the Wireless USB adaptor scans the available channels.

The **Current Data Rate** field displays the data transfer rate between the Wireless LAN adaptor and the access point.

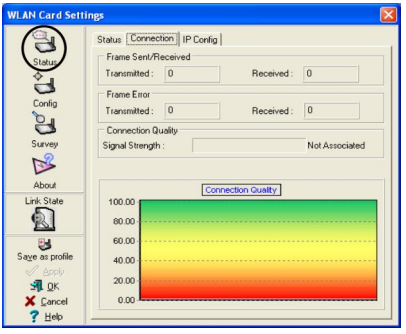
Rescan button - Click to allow the Wireless USB adaptor to scan available wireless networks and to connect to the network with the best signal quality.

Change SSID button - Click to change the SSID. Clicking this button opens the Config-Basic window. See “Basic tab” on page 3-7.

Search and Connect button - Click to view all wireless networks within the range of your system. Clicking this button opens the Site Survey window. See page 3-9.

Connection tab

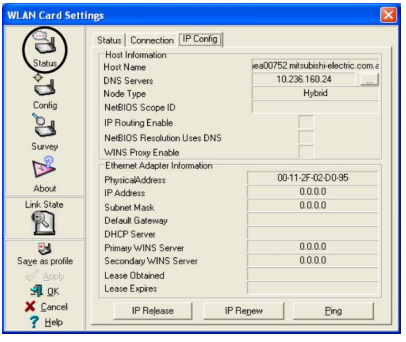
The Connection tab provides real-time information on connection throughput, frame errors, signal strength, link quality and overall connection quality in graphical form.



IP Config tab

The IP Config tab displays the current host and Ethernet adaptor configurations. IP Config displays TCP/IP information including the IP address, subnet mask, default gateway, DNS and Windows Internet Naming Service (WINS) configurations.

Use the IP Config Tab to verify your network settings.



IP Release. Click to release the DHCP IP address for the Wireless USB adaptor.

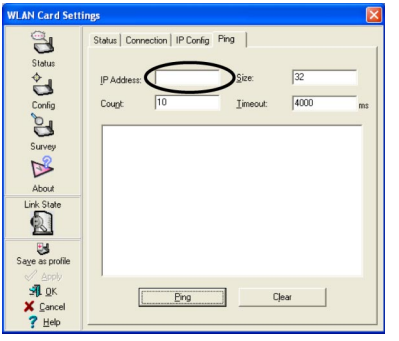
IP Renew. Click to renew the DHCP IP address for the Wireless USB adaptor.

Ping. Click to display the Ping tab. Use ping to verify a connection to a particular host name or IP address.

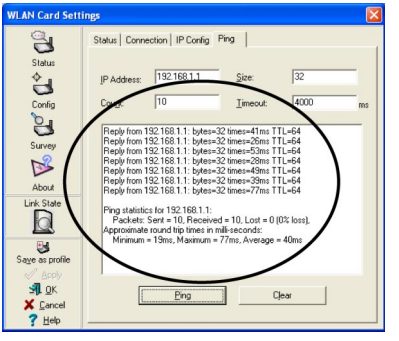
The IP Release and IP Renew buttons may only be used on a DHCP-configured Wireless USB adaptor.

Ping tab

The Ping tab allows you to verify the connection of your computer with another computer in the network. To ping a connection:



1. Type the IP address of the connection you want to verify in the **IP Address** field.
2. Configure the ping session by assigning the size and count of packet to send, and the time limit for a ping session to continue (in milliseconds).
3. Click the **Ping** button.



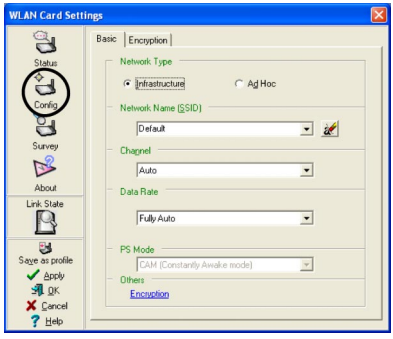
During the ping session, the **Ping** button toggles into a **Stop** button. Click **Stop** anytime to cancel the ping session.

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

Click the **Clear** button to clear the session field.

3.2.2 Configuration

Basic tab



The **Basic** tab provides general information on network types and other configurations.

Network Type. Select the type of network that you wish to use. Select *Infrastructure* mode to establish a connection with an access point (AP). In this mode, your system can access wireless LAN and wired LAN (Ethernet) via the AP. Select the *Ad-Hoc* mode to communicate directly with other mobile clients within the Wireless LAN adaptor range.

Network Name - Displays the network SSID. The network SSID is a string used to identify a wireless LAN. Assign different SSIDs to segment the wireless LAN and increase network security. Set the SSID to a null string to allow your station to connect to any available access point. A Null string may not be used in Ad-hoc mode.

Channel. In Infrastructure mode, the wireless USB adaptor automatically tunes in to the access point channel. In Ad-hoc mode, select a channel that is allowed for use in your country/region.

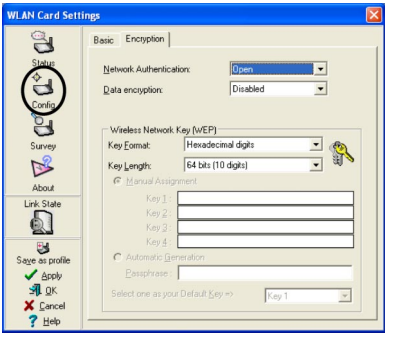
Data Rate. Sets the data transmission rate to Fix or Auto. Select *Fully Auto* to allow the device to adjust to the most suitable connection. You may also fix data transfer rates to 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2 and 1 Mbps.

Operating the device at very high data rates reduces the operating range.

PS Mode. This field allows control of the Wireless USB adaptor power saving features. The *CAM (Constantly Awake mode)* is recommended for systems running on AC power. Other options include MAX_PSP (Maximum power savings) and Fast_PSP (Fast power-saving mode)

Others. Click the *WEP* or *Advanced* link to open the Encryption or Advanced property tab sheet.

Encryption tab



Wireless data transmissions between your Wireless LAN adaptor and the AP are secured using the Wired Equivalent Privacy (WEP) encryption. Check the **Data encryption** *(WEP enabled)* option to assign the WEP keys.

Check the **Network Authentication** *(Shared Mode)* option if you wish to use a network key to authenticate a preferred wireless network. Unchecking this option allows the network to operate on an Open System mode.

Key Format allows you to set a hexadecimal digit or ASCII character WEP key.

Key Length allows you to choose a 64-bit or a 128-bit WEP key. A 64-bit encryption contains 10 hexadecimal digits or 5 ASCII characters. A 128-bit encryption contains 26 hexadecimal digits or 13 ASCII characters.

All wireless clients in a network must have identical WEP keys to communicate with each other or with an access point.

Two ways to assign WEP keys

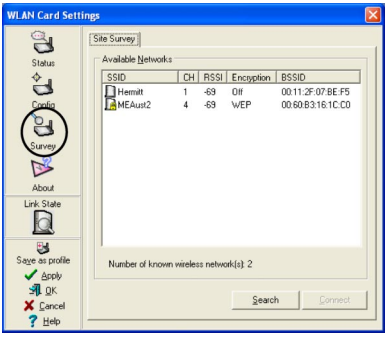
Manual Assignment. For a 64-bit encryption, enter 10 hexadecimal digits (0~9, a~f, A~F) or 5 ASCII characters in each of the four WEP keys. For 128-bit encryption enter 26 hexadecimal digits (0~9, a~f, A~F) or 13 ASCII characters in each of the four WEP keys.

Automatic Generation. Type a combination of up to 64 letters, numbers, or symbols in the Passphrase field. The Wireless Settings utility uses an algorithm to generate four WEP keys based on the typed combination.

- 64-bit and 40-bit WEP keys use the same encryption method and can interoperate on wireless networks. This lower level of WEP encryption uses a 40-bit (10 hexadecimal digits assigned by the user) secret key and a 24-bit Initialisation Vector assigned by the wireless LAN adaptor. 104-bit and 128-bit WEP keys also use the same encryption method.
- After assigning the WEP keys, click **APPLY** to save and activate the encryption. Manually assigned encryptions are more secure than automatically generated encryptions.
- Use Manual Assignment instead of Automatic Generation if you are not sure whether other wireless clients use the same algorithm as that of the Wireless LAN adaptor.
- Keep a record of the WEP encryption keys.

3.2.3 Site Survey

The **Site Survey** window displays the available networks within the wireless LAN adaptor range and the following network settings.



BSSID - The IEEE MAC address of the available wireless networks.

SSID - SSID (Service Set Identifier) of the network.

CH - Direct sequence channel used by the network.

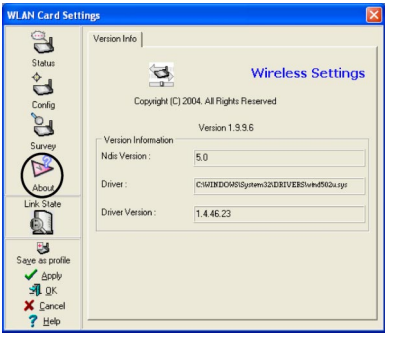
RSSI - Received Signal Strength Indicator (RSSI) in dB..

Encryption - shows whether a network has enabled WEP encryption enabled or disabled.

Select an available network and click **Connect** to establish a connection. Click **Search** to rescan available networks.

3.2.4 About Wireless Settings

Click the **About** icon to view the software version, driver version, and copyright information.



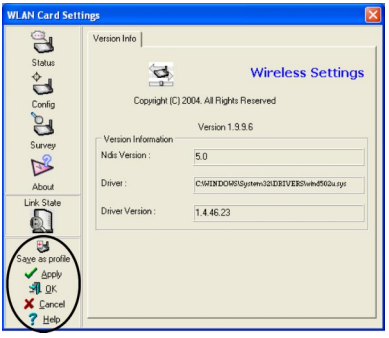
3.2.5 Link State

Displays the current connection status of the Wireless USB adaptor to the AP or to other Wi-Fi devices. An icons represents the Link State for easy identification. Refer to the table below for icon indications.

Table of Icon Indications

	Excellent link quality (Infrastructure)
	Good link quality (Infrastructure)
	Fair link quality (Infrastructure)
	Poor link quality (Infrastructure)
	Not linked (Infrastructure)
	Linked (Ad-hoc)
	Not linked (Ad-hoc)

3.2.6 Command icons



Apply. Click to apply the changes made on the Wireless Settings utility.

OK. Click to close the Wireless Settings utility window.

Cancel. Click to cancel any changes made on the Wireless Settings utility. Clicking **Cancel** closes the Wireless Settings utility window.

Help. Click to display the help menu.

3.2.7 Other right-click options

Activate Configuration

This option allows you to select the wireless profile to use.

Mobile Manager

Click this button to launch the Mobile Manager utility. See section 3.2 “Mobile Manager” for details.

Site Monitor

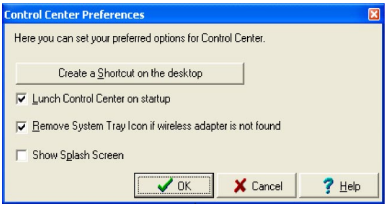
Click this button to launch the Site Monitor utility. See section 3.3 “Site Monitor” for details.

Help Menu

The Control Center utility has a Help menu to guide you in using the Control Center and Wireless Settings utilities. Right-click the Control Center icon, then select **Help**. Select a utility to display the help window.

Preferences

The **Preferences** window allows you to customize the Control Center utility settings.



About Control Center

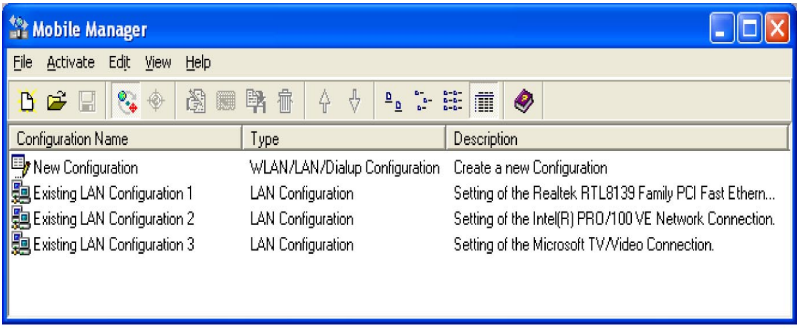
Select the **About Control Center** option to display the Control Center software version and copyright information.

3.3 Mobile Manager

The Mobile Manager is a convenient tool to set up and manage network location settings. This utility allows users to configure multiple alternative configurations for different locations. You need to set up this utility so you can easily switch configurations when you change your location.

To launch the Mobile Manager utility:

1. Click the Windows® **Start** button. Select **Programs** > **A101 Wireless LAN Adaptor** > **Mobile Manager**, or right-click the **Control Center** icon on the Windows® taskbar, then select **Mobile Manager.**
2. The Mobile Manager main window appears.



3.3.1 The Main Window

You may use the Mobile Manager utility main window to create, edit, or activate a configuration. The main window displays the menu bar, tool bar, and existing configurations.

The toolbar buttons allow quick access to some common commands in the Mobile Manager utility. All toolbar button commands are also available from the menu bar.

File menu

New Configuration – Select this option to launch the New Configuration Wizard. See the next section for details.

Import Configuration – Select this option to load a configuration from an INI File.

Export Configuration – Save the selected configuration (containing Wireless Settings, TCP/IP Settings, Network Settings, etc.) to an INI file. The INI file may be saved on a floppy disk, and may be imported by other computers with the Mobile Manager utility. You may also use this file as backup.

Exit – Select to close the Mobile Manager utility.

Mobilise menu

Auto Roaming – Activating this option allows the A101 Wireless USB Adaptor to switch to another association you have specified when changes to an existing association occur. If no associations are made, Auto Roaming automatically connects to a wireless network based on your specified configurations.

Activate Configuration – Applies the configuration you selected from the list. Follow the screens instructions to activate a configuration.

Windows® 2000/XP OS does not require system restart after you activate a configuration.

Edit menu

Edit Configuration – The Edit Configuration option allows you to edit selected configuration items. See the "Editing a Configuration" section on page 3-19 for details.

Rename – Changes the name of the selected configuration.

Copy – Duplicates the selected configuration.

Delete – Discards the selected configuration.

Up – Raises the position of a selected wireless network configuration in the preferred network list.

Down – Lowers the position of the selected wireless network configuration in the preferred network list.

Edit menu commands appear when you right-click a configuration in the Mobile Manager window.

View menu

Large Icons – Displays large icons for each configuration.

Small Icons – Displays small icons for each configuration.

List – Shows a list of available configurations.

Details – Displays the name, type, and description of a selected configuration.

Help menu

Contents – Displays the WinHelp window for online help.

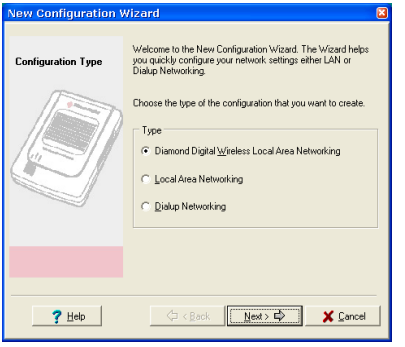
About Mobile Manager – Displays the Mobile Manager version number and copyright information.

3.3.2 Creating a new configuration

To create a new configuration:

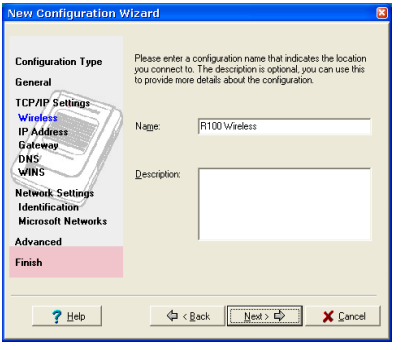
1. Launch the New Configuration Wizard by clicking **File** from the menu bar, then select **New Configuration** from the drop-down menu, or single-click the **New Configuration** icon on the Mobile Manager toolbar. The New Configuration Wizard dialog box appears.

2. Choose the type of configuration you want to create. The configuration types are described below. Click **Next** when done.

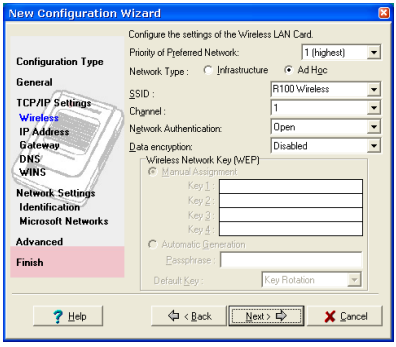


- **Diamond Digital Wireless Local Area Networking .** Select this option if you have an installed A101 Wireless USB Adaptor in your computer.
- **Wired Local Area Network Configuration.** Select this if your computer has an installed network interface card other than A101 Wireless USB Adaptor.
- **Dialup Networking Configuration.** Select this option if your computer has an installed modem.

3. Enter the name and description of the configuration you wish to create, then click **Next**.

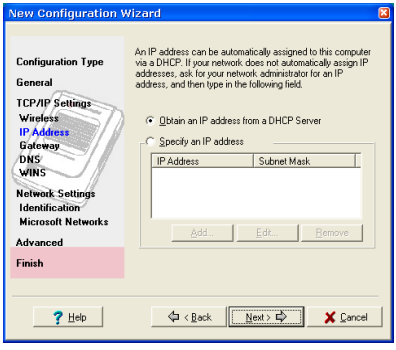


4. Configure the wireless settings including the network type, SSID, channel and WEP encryption. Click **Next** when done.

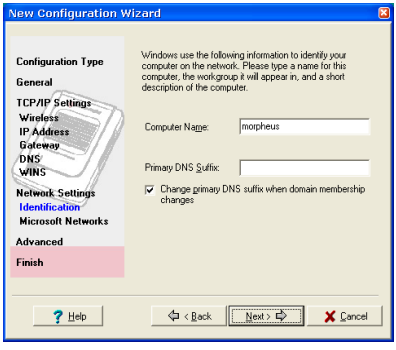


5. Set the IP address of the configuration using this window. Specify the IP address using the DHCP server (automatic) or manual assignment. The wizard auto-detects and displays the current system settings.

   Click **Next** when done.



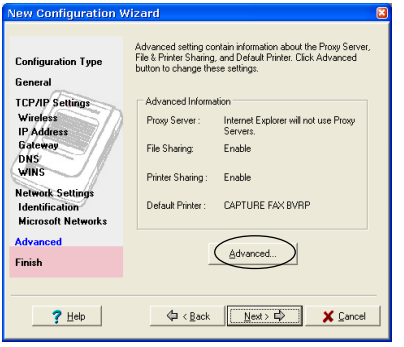
6. Enter the computer name, then click **Next**.



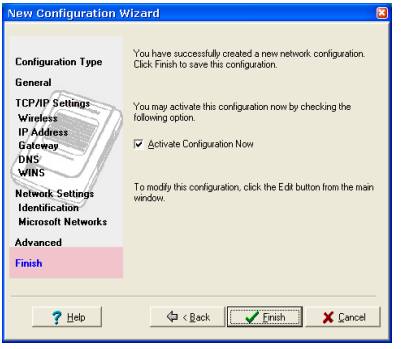
7. Use this window to set the proxy server and printer sharing.

   Click **Advanced** to display the proxy server and printer sharing options.

   Click **Next** when finished.



8. Check the **Activate Configuration Now** option to start using the created configuration. The Mobile Manager window displays the created configuration when it is not activated. Click **Finish** to close the wizard.

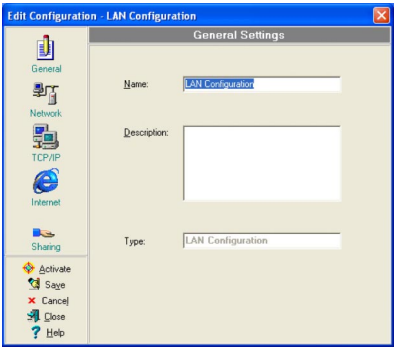


3.3.3 Editing a configuration

To edit a configuration:

1. Select a configuration from the Mobile Manager window.
2. Click **Edit** from the menu bar, then select **Edit Configuration**.

The **Edit Configuration** dialog box appears. Navigate through the windows by clicking the buttons on the left.



General settings

Name – The configuration name indicates the location from where you are dialing or connecting to a network. For example, name your configuration "Work-Meeting Room" if you are using this connection at your workplace meeting room.

Description – Enter additional details of the configuration in this field. This field is optional.

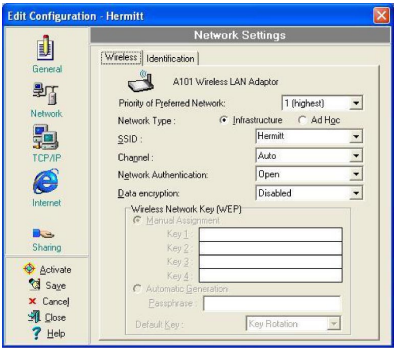
Network settings - Wireless tab

Priority of Preferred Network – This field allows you to select the priority of the preferred network.

Network Type

Infrastructure – Select the Infrastructure mode to establish connection to an access point.

Ad hoc – Select the Ad hoc mode to communicate directly with other WLAN devices without using an access point.



SSID – SSID stands for Service Set Identifier, a string used to identify a wireless LAN. You can only connect with an Access Point, that has the same SSID. Use different SSIDs to segment the wireless LAN and add security.

Channel – The Channel field allow you to select the radio channel for the A101 Wireless USB Adaptor. In an Infrastructure network, your wireless LAN adapter automatically selects the correct frequency channel required to communicate with an Access Point.

WEP – This option allows you to disable or enable (64-bit or 128-bit) WEP encryption. The WEP Key is a 64-bit (5 character) or 128-bit (13 character) hexadecimal code used to encrypt transmitted data packets and decrypt received data packets.

Network settings - Identification tab

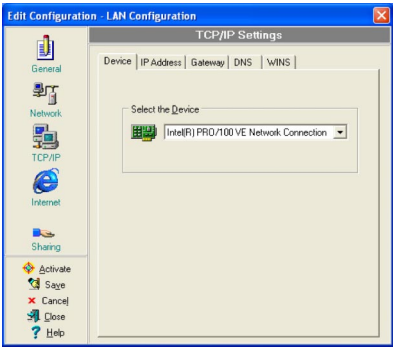
Computer name – Assign your computer a unique name of up to 15 characters. The computer name allows other users in a network to recognize your computer. The computer name is generally the same with the DNS hostname.

Avoid using spaces or symbols in your computer name.

TCP/IP settings - Device tab

Select the network adaptor you want to use for this configuration.

This item appears only when you are editing a wired LAN configuration.



TCP/IP settings-IP Address tab

Obtain an IP address from a DHCP server – The Dynamic Host Configuration Protocol (DHCP) server assigns IP addresses automatically within a specified range of devices.

Specify an IP address – Ask your network administrator for the IP address and subnet mask you should use. Type in the IP Address and Subnet Mask manually.

TCP/IP settings - Gateway tab

Specify the gateways. You may specify more than one gateway. Set up the primary gateway first.

Add – Click this button to add a new TCP/IP gateway address. The added gateway appears in the **Default gateways** list. Repeat the process to add another gateway. The value in each gateway field must be between 0 and 255. You can have up to eight IP addresses for gateways.

Edit – Click this button to edit a selected gateway address.

Remove – Click this button to delete a selected gateway address.

TCP/IP settings - DNS tab

The DNS tab allows you to configure the DNS settings of the selected configuration. This tab also allows you to add a DNS server and arrange them in order of their use. You may also assign a DNS suffix for a specified DNS server.

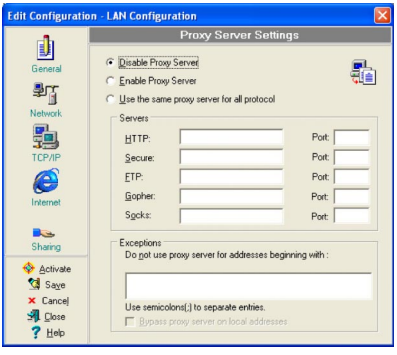
TCP/IP settings - WINS tab

The WINS tab allows you to configure the WINS settings of the selected configuration. This tab allows you to add WINS addresses and arrange them in order of use. This tab also allows you to enable or import LMHOST lookup and adjust the NetBIOS settings.

Internet settings

A proxy server acts as a security barrier between your internal network (Intranet) and the Internet. A proxy server restricts other people on the Internet from gaining access to confidential information on your internal network or your computer.

Disable Proxy Server – Allows you to disable the proxy server.



Enable Proxy Server – Use the Proxy server to access the Internet.

Use the same proxy server for all protocols – Specifies whether you want to use the same proxy server to gain access to the Internet using all protocols.

Servers field – Provides fields for you to type the address and port number of the proxy server you want to use to gain access to the Internet over HTTP, Secure, FTP, Gopher or Socks protocol.

Exceptions field

Do not use proxy server for address beginning with – Type the Web addresses that do not need to be accessed through the proxy server. If you want to connect to a computer on your Intranet, make sure you type its address in this box. You may use wild cards to match domain and host names or addresses, for example, "*.company.com", "192.72.111.*".

Bypass proxy server for local addresses – This option allows you to use the proxy server for all local (Intranet) addresses.

You may gain access to local addresses easier and faster if you do not use the proxy server.

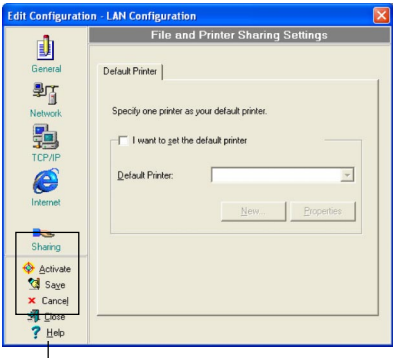
Sharing settings

I want to set the default printer– Allows you to select the default printer for printer sharing.

Default printer – Allows you to select the default printer from a list of installed printers.

Click **New** to add a new printer using the Windows® Add Printer Wizard.

Click **Properties** to display the properties of a selected printer.



Command buttons

Use these buttons to activate, save, or cancel changes made in the configuration. Click **Close** to close the Edit Configuration window. Click **Help** to view the help files.

3.4 Site Monitor

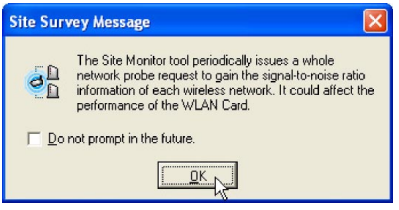
The Site Monitor utility measures the signal-to-noise (SNR) values of all available wireless networks. Use this utility to determine the best placement of access points in a wireless network.

3.4.1 Launching Site Monitor

To launch the Site Monitor:

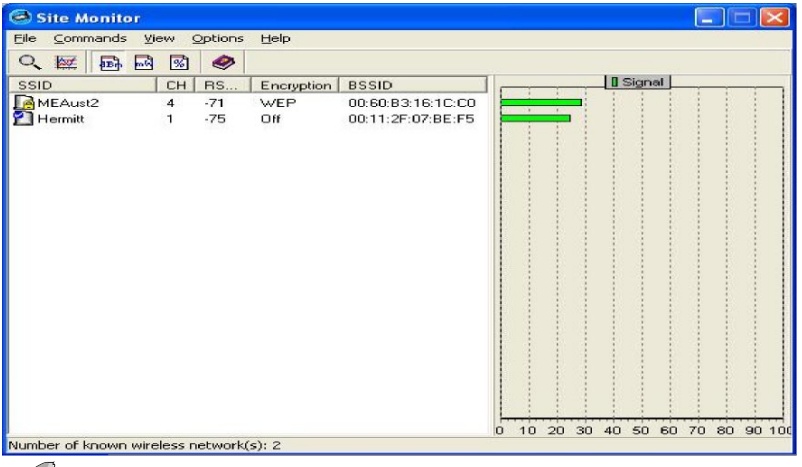
- Click the Windows® **Start** button, then select **Programs** > **A101 Wireless LAN Adaptor** > **Site Monitor**, or
- Right-click the **Control Center** icon on the Windows taskbar, then select **Site Monitor**.

The Site Monitor survey message appears. Click **OK**.



3.4.2 Site Monitor main window

The Site Monitor main window displays the available wireless connections and the signal-to-noise (SNR) value of a selected connection.



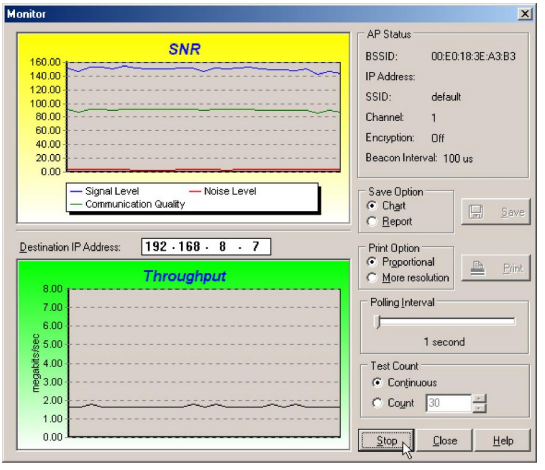
Some Access Points disable their SSID broadcasting to hide themselves from “Site Survey” or “Site Monitor”. You may join these APs if you know their SSID.

3.4.3 Monitoring a connection

To monitor a connection:

1. Select the connection from the list.
2. Select Command from the menu bar, then select Monitor. You may also press <Ctrl> <M> on your keyboard.

The Monitor window appears.



The following connection parameters are displayed in a graphical representation.

SNR. This indicates the quality of communications within the current network. The communication quality is based on signal level and noise level measurements. The higher the SNR, the better the connection quality.

Communication Quality. This indicates the communication quality of the Basic Service Set to which the station is connected.

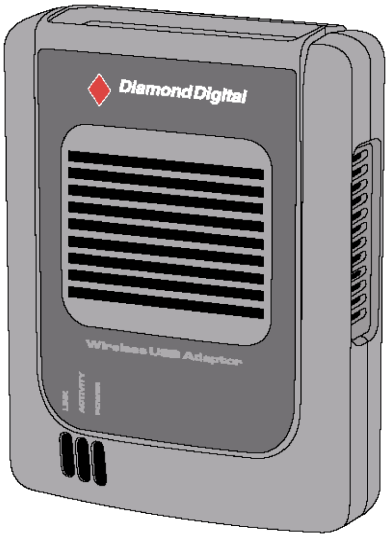
Signal Level. This line specifies the average signal level of the Basic Service Set to which the station is connected.

Noise Level. Specifies the average noise level of the Frequency Channel currently used for connection.

Throughput. The Throughput graph sends a specified number of data packets to the remote host and calculates the average transmission rate in megabits per second.

During the test, the **Start** button toggles to **Stop**. Click **Start** button to begin the link test. Click the **Stop** button at any time to stop the test.

Chapter 4



This chapter contains a troubleshooting guide for solving common problems you may encounter when using the A101 Wireless USB Adaptor.

Troubleshooting

Troubleshooting

This troubleshooting guide provides answers to some common problems which you may encounter while installing and/or using Diamond Digital Wireless LAN products. These problems require simple troubleshooting that you can perform by yourself. Contact the Wireless LAN Technical Support if you encounter problems not mentioned in this section.

Problem	Action
My computer does not recognise the installed A101 Wireless USB Adapter.	Verify if the A101 drivers are properly installed by following these instructions: 1. Open the Control Panel window from the Start menu. 2. Double-click on the **System** icon. 3. *Windows® 2000/XP users*: Select the **Hardware** tab then click the **Device Manager** button. 4. Click the "+" symbol preceding the **Network Adapters** item, then check the **A101 Wireless LAN Adaptor** item. A yellow exclamation mark or a red cross sign preceding the network adapter means that the device driver is not properly installed. Re-install the device driver following the instructions below.
A yellow exclamation mark or a red cross sign appears on the A101 Wireless LAN Adaptor item.	The device driver is not properly installed. Follow these instructions to uninstall and re-install the driver. 1. Insert the Support CD into the CD-ROM drive. 2. When the A101 Wireless USB Adaptor installation window appears, click "**Uninstall A101 Wireless USB Adaptor Utilities/Driver"** option.

Troubleshooting

Problem	Action
	3. Restart your computer and repeat the software installation following the instructions contained in this User Guide.
I cannot connect to an Access Point.	• Check if the **Network Type** of the device is set to **Infrastructure** mode. • Check if the device has the same **Service Set Identifier (SSID)** as that of the AP. • Check if the device and the AP have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP. • Check if the MAC address of the device is added in the AP Authorisation Table. Confirm this with your LAN administrator. • There is poor signal reception. Shorten the distance between the device and the access point.
I can connect to an Access Point but I cannot connect to the Internet.	• Check if the device and the AP have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP. • Make sure the network protocol parameters (IP address, subnet mask, gateway, and DNS) of your computer are correctly set. • Check the proxy settings of the web browser.
I cannot connect to another station with a wireless LAN device.	• Check if the **Network Type** of the device is set to **Ad-hoc** mode. • Check if the device has the same **Service Set Identifier (SSID)** with that of the other station. • There is poor signal reception. Shorten the distance between the device and the station.

Troubleshooting

Problem	Action
	• Check if the device and the other station have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP.
I cannot connect to other computers linked via an Access Point or Ad-hoc network.	• Check if the device and the other APs and/or clients have the same **Encryption**. If you enable WEP encryption, you must set the same WEP keys for the device and the other APs and/or clients. • Check the TCP/IP settings (IP address, subnet mask, gateway, and DNS) of your computer. • Enable file and printer sharing in each client computer to allow file sharing.
I always have poor link quality and low signal.	Do the following to achieve better link quality and stronger signal: • Keep the device away from microwave ovens and large metal objects to avoid radio interference. • Shorten the distance between the device and the AP/station.
Why do I get the warning "Hi-Speed USB Device Plugged Into Non-Hi-Speed USB Hub" message when I connected the A101 USB Wireless LAN Adapter to the USB port?	This warning mesage appears when you plug the A101 Wireless USB Adaptor into a USB 1.1 port. • For Windows® XP users, you need to upgrade your OS to Service Pack 1 to add USB 2.0 support. • For Windows® 2000 users, you must install Service Pack 4 in order to add USB 2.0 support. You can download these service packs from the Windows Update website (windowsupdate.microsoft.com)

Service Contacts

If problems remain after checking this manual, please contact your place of purchase or contact:

Australian Service Contacts
Visit the Customer Support section of Mitsubishi Electric Australia's web site at:

www.mitsubishielectric.com.au

for details of your nearest Mitsubishi Electric Authorised Service Center or contact the Service Department for your state:

New South Wales and Australian Capital Territory
348 Victoria Road
Rydalmere, NSW, 2116
Telephone: (02) 1300 651-808
Fax: (02) 9684-7684

Queensland
Unit 12, 469 Nudgee Road
Hendra, QLD, 4011
Telephone: (07) 3623-2000
Fax: (07) 3630-1888

South Australia and Northern Territory
77 Port Road
Hindmarsh, SA, 5007
Telephone: (08) 8340-0444
Fax: (08) 8340-0555

Victoria and Tasmania
4 / 303 Burwood Hwy
East Burwood, VIC, 3151
Telephone: (03) 9262-9899
Fax: (03) 9262-9850

Western Australia
5 / 329 Collier Road
Bassendean, WA, 6054
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