



Quick Installation Guide

Compaq Wireless LAN MultiPort W200

Document Part Number: 225839-005

May 2002

This guide provides information on installing and setting up the Wireless LAN MultiPort W200 as well as tips on solving common problems.

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Getting Started

Introduction

The Compaq Wireless LAN MultiPort W200 allows you to access wireless Local Area Networks, share a local printer and files with others in your network, access the Internet, and roam about the office—wire-free.

This wireless Local Area Network solution is designed for both large and small businesses, and it is scalable so that you can add users and new network features as your networking needs grow.

Using a Wireless Local Area Network

This product is a Local Area Network (LAN) device. A LAN is two or more computers that are connected to each other in order to share files or common equipment such as a printer or a modem. A wireless LAN provides the same functionality of a wired network, but it eliminates the need to install networking cables and other networking equipment. Not only is a wireless LAN easier to deploy, but it also allows for “roaming.”

For example, when using a notebook computer with a Wireless LAN MultiPort W200, you can roam from a conference room to an office without being disconnected from the network.

Features and Requirements

A wireless LAN includes the following features:

- Support for the IEEE 802.11b Standard
- 2.4-GHz band operation
- Network speeds up to 11 Mbps
- Wired Equivalent Privacy (WEP) encryption

To participate in a wireless LAN, you need the following items:

- Compaq Wireless LAN MultiPort W200
- Software CD containing application, drivers, software reference guide, and help file
- A computer with a MultiPort bay, a CD drive, and Microsoft Windows 98 SE, Windows 2000 Professional, or Windows XP Professional or Home Edition.

The Wireless LAN MultiPort W200 is WiFi (Wireless Fidelity) certified and will work with any other WiFi certified base station or wireless client adapter.

Selecting a Network Mode

A wireless LAN can be configured for two different modes of operation. While each method has its advantages, one may be better suited for your needs. Review the following configurations to determine which mode is best for you.

- “Peer-to-Peer Network”
- “Base Station Network”

Peer-to-Peer Network

Also called “ad hoc” network. This mode is the easiest to deploy and is ideal for small offices. As a user on this type of network, you are able to share files with other employees, print to a shared office printer, and access the Internet through a shared modem. However, with peer-to-peer networking your computer is only able to communicate with other wireless computers that are within range and in your wireless workgroup.

Characteristics	<ul style="list-style-type: none">• Networked computers send data directly to each other
Advantages	<ul style="list-style-type: none">• Simple to set up• Cost-efficient
Disadvantages	<ul style="list-style-type: none">• Communication is limited to those who are in range

Base Station Network

Also called “infrastructure” network. The key difference between a wireless Base Station network and a peer-to-peer network is the addition of one extra element—the base station or access point. Additionally, the wireless Base Station can provide access to an existing wired LAN. This link allows computers on the infrastructure wireless LAN to access the other wired LAN’s resources and tools, including Internet access, electronic mail delivery, file transfer, and printer sharing.

Characteristics	Networked computers communicate with each other through a dedicated base station. All data transmitted between the computers on this wireless LAN passes through the base station.
Advantages	<p>Extended range: The access point extends the range of the wireless LAN. Each computer can communicate with other computers equipped for wireless networking that are within the range of the access point.</p> <p>Roaming: As you move throughout the building, the Wireless LAN MultiPort W200 determines the best access point to use to ensure continuous communication with the network.</p> <p>Network connectivity: An access point can provide <i>wireless</i> LAN access to an existing <i>wired</i> network by bridging the two networks together. This gives users of the wireless LAN access to all the functions of a wired network—from file server access to electronic mail and the Internet.</p>
Disadvantages	Because this network mode offers more features, it requires additional components and setup time to deploy.
Requirements	One base station, such as the: <ul style="list-style-type: none">• WL310 Wireless Home Office Gateway• WL410 Wireless SMB Access Point• WL510 Wireless Enterprise Access Point

Installing Software & Hardware

Before you start

Read and follow these guidelines where applicable:

- **New Computers**—Before installing the Wireless LAN MultiPort W200, complete the system software setup process and ensure that your operating system is fully operational. Refer to the *Getting Started* guide included with your computer for instructions.
- **Existing Computers**—If you previously installed a wireless LAN device, such as a WL110 Wireless PC Card or WL215 Wireless USB Adapter, you must uninstall the wireless LAN drivers and software according to the device manufacturer's instructions.

Preparing for Installation

The Wireless LAN MultiPort W200 Software CD includes a wizard that will guide you through the installation and install the correct drivers and software for your computer.

To ensure a successful installation, follow these guidelines.

1. Ask your network administrator for the settings that apply in your wireless network.

Alternatively:

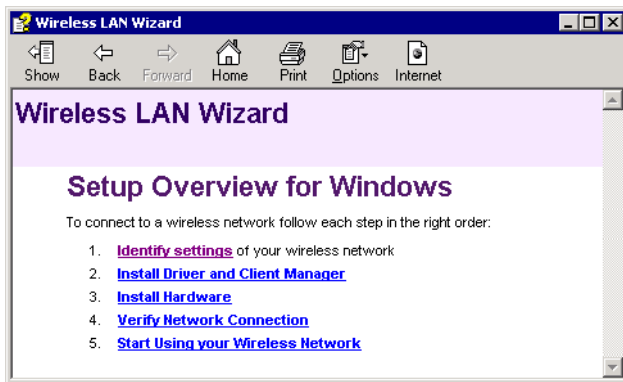
- Consult your peers for this information.
 - Consult the documentation that came with your base station equipment for its default settings.
2. Install Software before Hardware (see page 2-3).
 3. Turn off the computer and install the Wireless LAN MultiPort W200 (see page 2-7).
 4. Turn on the computer again and complete the system software setup process.

After completing the installation, refer to the Microsoft Windows operating system manual, included with your computer, for information on sharing network resources such as printers.

Installing Software

1. Turn on your computer.
2. Insert the Wireless LAN MultiPort W200 Software CD into the CD drive of your computer.

The CD-ROM will start automatically and display the screen pictured below.



If the CD-ROM does not start automatically, consult the section "Solving Common Problems" on page B-2.



Some screens in the wizard look different for computers running Microsoft Windows XP Professional or Home Edition.

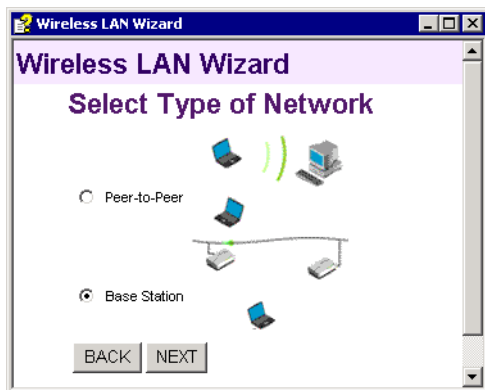
This is because the architecture of this operating system behaves differently when compared to Windows 98 SE or Windows 2000 Professional. If your computer runs Windows XP, skip steps 3 through 7 and continue with step 8 on page 2-5.

3. Select "Identify Settings" (not applicable for Windows XP).

Follow the instructions on your screen and:

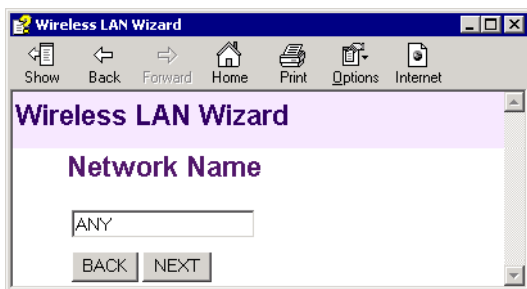
- ❑ Click the button "Next" to proceed to the next step.
- ❑ Click the button "Back" to return to the previous screen.

4. Select the type of network to which you wish to connect your computer.



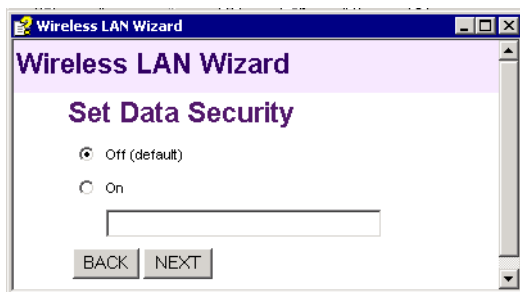
Consult the section “Selecting a Network Mode” on page 1-3 for more information.

5. Enter the name of your wireless network.



The Network Name is also referred to as Service Set Identification Designator (SSID).

6. Select the Security Settings



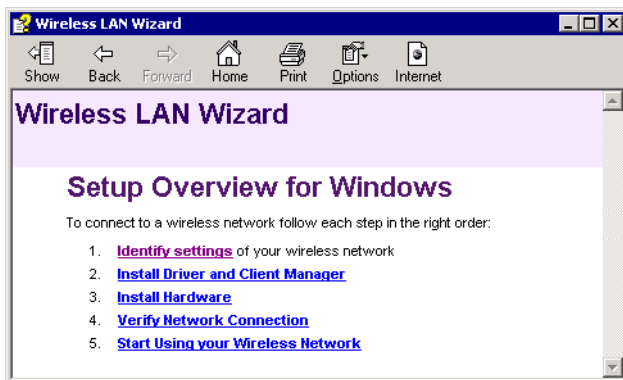
To secure your wireless communications, use this screen to enable data encryption and enter the Encryption Key. Your selection on this window must match the values of the Base Station or your peer-to-peer group partners.

Valid values are:

- 5 or 13-digit alphanumeric keys
- 10 or 26-digit hexadecimal keys, preceded by 0x.

For more information about encryption keys, consult the electronic User's Guide provided on the CD-ROM

7. Click the "Next" button to return to the screen "Setup Overview for Windows".



8. Click the link "Install Driver & Client Manager".

This will install the correct drivers for your computer and the Client Manager tool.

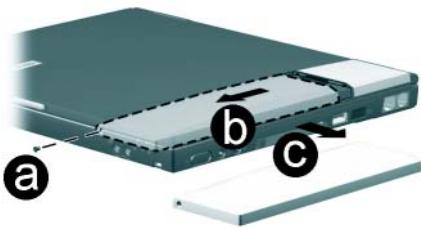
9. Now close the installation wizard and continue with “Installing the Wireless LAN MultiPort W200” on page 2-7.

Installing the Wireless LAN MultiPort W200

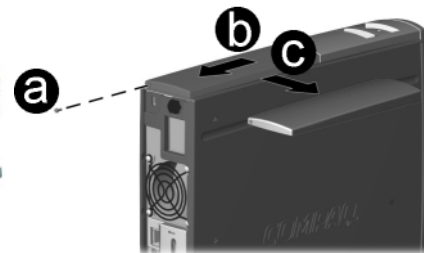
Removing the Multiport Cover

1. Turn off your computer.
2. Disconnect all external devices connected to the computer, including AC power.
If you have a notebook computer, remove all battery pack(s) from the computer.
3. Perform the following steps according to your computer model.

Notebook computers



Desktop computers



- a. Remove the Phillips screw securing the MultiPort cover to the computer.
- b. Slide the cover from its position:
 - For notebooks, slide toward the front of the computer.
 - For desktops, slide toward the back of the computer.
- c. Finally slide the cover to the right to remove it from your computer.

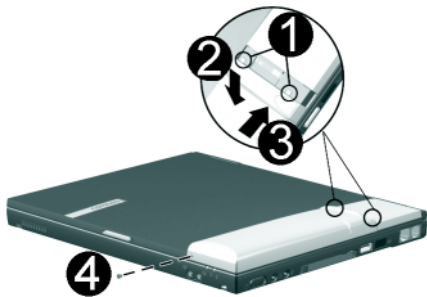


Save the cover so you can reinstall it on the computer if you choose to remove the Wireless LAN MultiPort W200 at a later date.

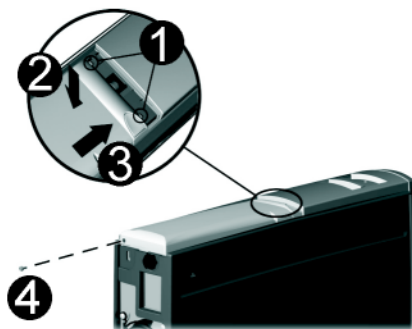
Mounting the Wireless LAN MultiPort W200

Perform the following steps according to your computer model.

Notebook computers



Desktop computers



1. Place the module in the MultiPort bay, making sure to rest the tabs on the back of the module against the rear wall of the MultiPort bay.
2. Press down on the left rear corner of the Wireless LAN MultiPort W200.
3. Slide the Wireless LAN MultiPort W200 into position until the connectors are seated:
 - ❑ For notebooks, slide towards the back of the computer
 - ❑ For desktop models slide towards the front of the computer.



CAUTION: Do not slide the Wireless LAN MultiPort W200 any further than the length of the tabs on the back edge of the module. Doing so can damage the connectors inside the module and computer.

4. Install the Phillips screw to secure the Wireless LAN MultiPort W200 to the computer.
5. Reconnect all external devices, including AC power.

If you have a notebook computer, reinstall the battery pack(s).

6. Turn on the computer and continue with “Completing the Installation” on page 2-10.

Completing the Installation

When you turn on your computer, the Windows operating system will find a new USB device and start the “New Hardware Wizard”. Allow it to guide you through the driver installation process.



If you are using a notebook computer and Windows does not find the device, press **Fn+F2** to turn on the Wireless LAN MultiPort W200.

A steady green Power LED on the Wireless LAN MultiPort W200 indicates the module is properly connected to your computer and that it is operational.

If the LED is not green, consult the section “Troubleshooting” on page B-1.

Using the Wireless LAN MultiPort W200

Introduction

This chapter provides general information on how to use your Compaq Wireless LAN MultiPort W200.

It also shows you how to use the Client Manager tool to:

- View Wireless Link Quality
- View/Modify Wireless Settings
- Disable/Enable the Wireless LAN MultiPort W200 radio.

Radio Antennas

The built-in radio and antennas of your Wireless LAN MultiPort W200 perform best in an open environment with as few obstacles as possible. To achieve the maximum range for wireless communications, do not cover the Wireless LAN MultiPort W200 device with any objects.

Maintenance

To clean the Wireless LAN MultiPort W200, gently wipe it with a soft (damp) cloth. To avoid damage to the Wireless LAN MultiPort W200 do not use abrasive materials, or rinse the device with liquids.

Using the Client Manager

You can use the Client Manager to:

- Verify the quality of your wireless connection to the network.
- View/Modify the settings of your wireless connection.
- Disable the radio of the Wireless LAN MultiPort W200




The Client Manager icon resides in the “System Tray” of your Windows task bar at the right-bottom side of your screen.

- Click the icon once with your **left** mouse button to retrieve a more detailed status overview.
- Click the icon once with your **right** mouse button to display a menu with more options.

Starting Client Manager







The Client Manager will start automatically every time you power up your computer.

If your Client Manager icon is not visible:

1. Click the  **Start** button from the Windows task bar.
2. Select **Programs**, and then select the **Compaq Wireless LAN** program group.
3. Next select Client Manager to start the program.

View Wireless Link Quality

The Client Manager icon indicates the wireless link quality of your network connection.

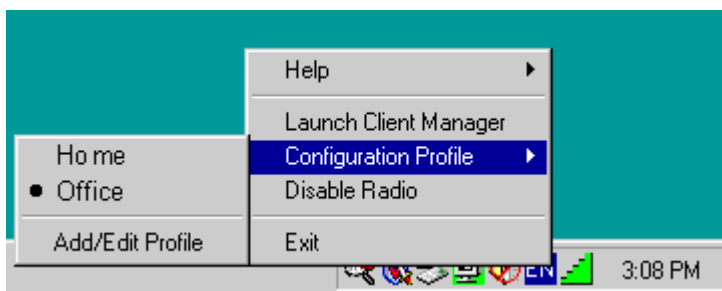
Icon	Color	Description
	Green	Excellent radio connection
	Green	Good radio connection
	Yellow	Marginal radio connection: The radio signal is weak. Move closer to the Base Station
	Red	Poor radio connection: The radio signal is very weak. Save your files and move closer to the Base Station.
	Red	No radio connection because: <ul style="list-style-type: none">• Looking for initial connection, or• You have moved out of range of the network.
	Blank	No wireless interface detected or Peer-to-Peer network connection.

View/Modify Wireless Settings




Some screens in the Client Manager look different for computers running Microsoft Windows XP Professional Edition or Windows XP Home Edition. This is because the architecture of this operating system behaves differently when compared to Windows 98 SE or Windows 2000 Professional.

1. Right-click on the Client Manager icon.
2. From the menu, select **Configuration Profile** and select:
 - ❑ **Add/Edit Profile** to add a new profile or to modify an existing profile.
 - ❑ **One of the existing profiles** (if present) to select another profile without viewing or modifying the settings.
Note: This option is not available for computers running Windows XP Professional Edition or Home Edition.



Alternatively you can change the Wireless LAN MultiPort W200 settings via the Control Panel:

1. Click the  Start button from the Windows task bar.
2. In the Control Panel window, double-click the **Wireless Network** icon.
3. (Optional) Change the parameters you would like to modify, and click:
 - the **OK** button to confirm your changes, or
 - the **Cancel** button to ignore your modifications.

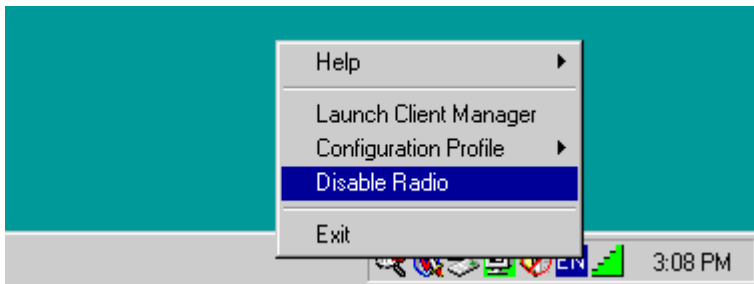
Disable Radio

Local safety regulations may restrict the use of wireless equipment in specific locations. For example on-board of a plane or in a hospital environment.

If such regulations require you to switch off radio equipment:

1. Right-click the Client Manager icon on your task bar.
2. Select Disable Radio to disable your Wireless LAN MultiPort W200.

CAUTION: When you disable the radio you will lose your connection to the network. Before you disable the radio, make sure you have closed all files and network applications (such as E-mail).



Enable Radio

To enable the radio again:

1. Right-click the Client Manager icon on your task bar.
2. Select Enable Radio to activate your Wireless LAN MultiPort W200.

Removing the Wireless LAN MultiPort W200

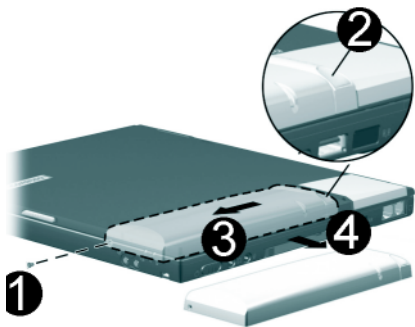
If you do not need the wireless connectivity of your Wireless LAN MultiPort W200, you can disconnect and remove the Wireless LAN MultiPort W200.

CAUTION: When you remove the Wireless LAN MultiPort W200 you will lose your connection to the network. Before you remove the Wireless LAN MultiPort W200, make sure you have closed all files and network applications (such as E-mail).

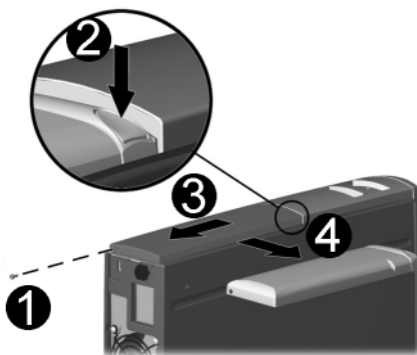
Before you start, turn off the computer, disconnect all external cables (including AC power), and remove all battery packs.

See the following illustrations and perform the following steps according to your computer model.

Notebook computers



Desktop computers



1. Remove the Phillips screw securing the Wireless LAN MultiPort W200 to the computer.
2. Press the Wireless LAN MultiPort W200 release button.
3. Slide the Wireless LAN MultiPort W200 from its position:
 - For notebooks, slide toward the front of the computer.
 - For desktops, slide toward the back of the computer.
4. Slide the Wireless LAN MultiPort W200 to the right to remove it.

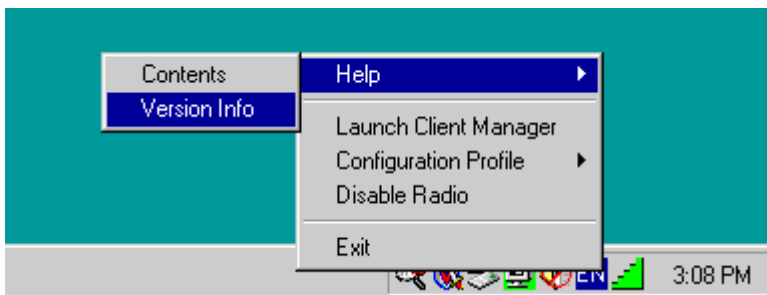
Do not slide the Wireless LAN MultiPort W200 any further than the length of the tabs on the back of the module. Doing so can damage the connectors inside the module and computer.

5. Reinstall the MultiPort cover and secure it to the computer using the Phillips screw.

Finding Information

For more information than contained in this Quick Installation Guide, please consult one of the following options:

- The Compaq Wireless LAN on-line help system:
 - a. Right-click the Client Manager icon on your task bar.
 - b. Select Help Contents
- <http://www.compaq.com/products/wireless> - for frequently asked questions (FAQ's) and Software Updates.
- The Compaq Wireless LAN MultiPort W200 User's Guide provided on the CD-ROM.
- The Microsoft Windows operating system manual, included with your computer, for information on sharing network resources such as printers.



Specifications

Physical Specifications

Dimensions	(LxWxH)	165 x 65 x 14 mm
Weight	100 gram	
Temperature & Humidity (non condensing)		
Operation	0° to 55° C	maximum humidity 95%
Transit	-4° to 80° C	humidity 15 to 95%
Storage	-4° to 80° C	humidity 10 to 90%

Power Characteristics

Standby Mode	1 mA
Receive Mode	400 mA (Nominal)
Transmit Mode	600 mA (Nominal)
Power Supply	5V and 3.3 V

Networking Characteristics

Compatibility	<ul style="list-style-type: none"> • IEEE 802.11 Standard for Wireless LANS (DSSS) • Wi-Fi (Wireless Fidelity) certified by the Wireless Ethernet Compatibility Alliance (WECA). • Universal Serial Bus Revision 1.1. specification
Host Operating System	<ul style="list-style-type: none"> • Microsoft Windows® 98 SE • Microsoft Windows 2000 Professional • Microsoft Windows Professional Edition • Microsoft Windows Home Edition
Media Access Protocol	CSMA/CA (Collision Avoidance) with Acknowledgment (ACK)

Regulatory Information

Wireless communication is often subject to local radio regulations. Although wireless networking products have been designed for operation in the license-free 2.4 GHz band, local radio regulations may impose a number of limitations to the use of wireless communication equipment.

Refer to the flyer “Information to the User” for more regulatory information that may apply in your country.

Radio Characteristics

R-F Frequency Band	2.4 GHz (2400-2500 MHz)		
sub-channels	1	2412	
	2	2417	
	3	2422	
	4	2427	
	5	2432	
	6	2437	
	7	2442	
	8	2447	
	9	2452	
	10	2457	
	11	2462	
	12	2467	ETSI approved countries and Japan only
	13	2472	
	14	2484	Japan only
Spreading	11-chip Barker Sequence		
Bit Error Rate (BER)	Better than 10 ⁻⁵		
Nominal Output Power	15 dBm		
Encryption	128-bit (RC4), also supports 64-bit RC4/WEP (Wired Equivalent Privacy)		

Modulation Technique	Direct Sequence Spread Spectrum			
	CCK	CCK	DQPSK	DBPSK
Range/Transmit Rate	11 Mb/s	5.5 Mb/s	2 Mb/s	1 Mb/s
Open Office	160 m (525 ft.)	270 m (885 ft.)	400 m (1300 ft.)	550 m (1750 ft.)
Semi-Open Office	50 m (165 ft.)	70 m (230 ft.)	90 m (300 ft.)	115 m (375 ft.)
Closed Office	25 m (80 ft.)	35 m (115 ft.)	40 m (130 ft.)	50 m (165 ft.)
Receiver Sensitivity	-82 dBm	-87 dBm	-91 dBm	-94 dBm
Delay Spread (FER of <1%)	65 ns	225 ns	400 ns	500 ns

The range of the wireless signal is related to the Transmit Rate of the wireless communication. Communications at lower Transmit Rates will travel larger distances.

- The range of your wireless devices can be affected when the antennas are placed near metal surfaces and solid high-density materials.
- Range is also impacted due to “obstacles” in the signal path of the radio that may either absorb or reflect the radio signal.

The listed range values listed are typical distances as measured at the Compaq laboratories. These values may provide a rule of thumb for indoor installations, and may vary according to the actual radio conditions at the location where the product will be installed.

- In Open Office environments, antennas can “see” each other, i.e. there are no physical obstructions between them.
- In Semi-open Office environments, work space is divided by shoulder-height, hollow wall elements; antennas are at desktop level.
- In Closed Office environments, work space is separated by floor-to-ceiling brick walls.

Troubleshooting

Using the World Wide Web

Support services are available on the Internet through the Compaq support forum. You can either browse the postings as a guest, or register as a user and submit your own questions. Compaq responds to questions within one business day.

To access the Compaq support forum, go to the Compaq Web site at <http://www.compaq.com>.

Preparing to Call Technical Support

If you cannot solve a problem using the troubleshooting tips in this section, you may need to call technical support. To receive the fastest possible solution when you call, run the computer's diagnostic utility. Refer to your computer documentation for information on running diagnostics. Refer to the *Worldwide Telephone Numbers* guide included with the computer for information about contacting a Compaq authorized dealer, reseller, or service provider. Have the following information available before calling Compaq:

- Compaq Wireless LAN MultiPort W200 serial number and model name and number
- Applicable error messages
- Add-on options
- Operating system
- Third-party hardware or software
- Detailed questions
- Technical Support Registration number, if you have previously called Compaq Technical Support for assistance with your product (this number is assigned to you the first time you call Technical Support)

Solving Common Problems

The following table lists possible problems and the recommended solutions.

Solving Problems

Problem	Solution
Installation CD-ROM does not start	<ul style="list-style-type: none">• Open Windows Explorer• Navigate to the CD-ROM drive• Double-click the file "EZSetup.exe".
Cannot connect to one of the users in the network.	<ul style="list-style-type: none">• Make sure each network client is up and running.• Make sure your Network Name (SSID) settings are correct.• Make sure your WEP settings are correct.• Move your computer closer to the base station or other network client.• Make sure the network client you need to reach is within range, or within range of an access point.• Make sure the network settings are correct for your local area network.• On a notebook computer, the Wireless LAN MultiPort W200 may not be enabled. Press Fn+F2 to enable the Wireless LAN MultiPort W200.• Make sure the Wireless LAN MultiPort W200 status light is solid green. Contact your network administrator for other networking issues.

Solving Problems (Continued)

Problem	Solution
Windows 98 SE & Windows 2000 Professional: The Client Manager icon does not appear in the system tray.	<ul style="list-style-type: none">• Make sure the Wireless LAN MultiPort W200 is seated correctly. Refer to Chapter 2 for instructions.• Make sure the Wireless LAN MultiPort W200 status light is solid or flashing green. If you are using a notebook computer and the Wireless LAN MultiPort W200 status light is not on, press Fn+F2 to enable the Wireless LAN MultiPort W200.• Make sure the drivers are installed. Select Start > Settings > Control Panel > Network and see if the Compaq Wireless LAN MultiPort W200 is listed as a network adapter.• Refer to Chapter 2 for more information.• The wireless LAN software may not be installed. Refer to Chapter 2 for more information.
Windows 98 SE & Windows 2000 Professional: The Client Manager icon in the system tray is always red.	<ul style="list-style-type: none">• Make sure your computer and each network client to which you are trying to connect have the same Network Name (SSID). The Network Name is case sensitive.• Make sure your WEP settings are correct.• Make sure you are within range of an access point or network client.

For more information consult the Compaq Wireless LAN MultiPort W200 User's Guide provided on the CD-ROM.