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Welcome

1

Introducing the Avaya Wireless LAN

Welcome to the Avaya Wireless LAN, the easy way to wireless computing. Building your wireless network has never been easier.

This booklet introduces you to the Access Point-II, and will help you to get your network "on the air" very quickly. It describes the most common configurations and a quick start set-up.
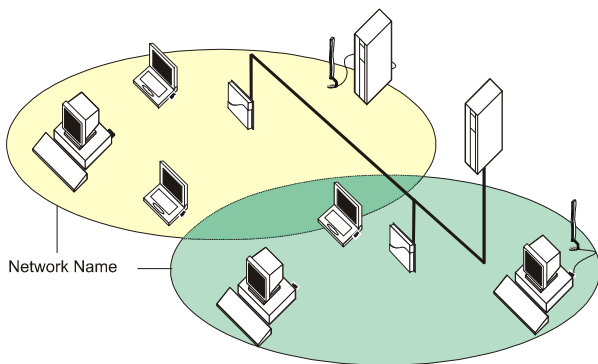
To install and manage Avaya Wireless LAN products, it is assumed that you have a working knowledge of installation procedures for network operating systems under Microsoft Windows.

About the Access Point-II

The Access Point-II is a wired to wireless bridge that you can use to connect wireless cells to one another or to a wired (Ethernet) Local Area Network (LAN). The access point can serve mobile wireless stations, roaming between various locations within a network premises.

To extend the total wireless coverage area you can add one or more Access Point-Is. In multiple cell networks the Access Point-Is are connected via a wired backbone that also allows to connect your wireless network to an existing wired infrastructure (see Figure 1-1).

Figure 1-1   Multiple Cell Network

Network Name

The Access Point-II is a modular unit with an integrated Ethernet interface, and two PC Card slots.

For normal operation you will need to install the Access Point-II with at least one PC Card. This card is not included with your kit, but must be ordered as an additional item.

With two PC Cards the unit can transmit at different channels. This allows you to load balance a heavily used access point and increase the scalability of the wireless LAN.

⟹ **NOTE:**

If you use your Access Point-II with two PC Cards, you must use at least one Range Extender Antenna and place it at a distance of at least 1.5 meters from the Access Point-II.

Finding Information

The Getting Started Guide was designed to give you a brief introduction about the Access Point-II, and the most important information to get it up and running.

When you install the AP Manager program, you can display context-sensitive help with each screen by clicking the ' Help ' or '**?**' button on your screen, or pressing the F1 key on your keyboard.

Alternatively you can consult the "Wireless LAN Manager - User's Guide" provided on the CD-ROM that was included with your product.

You can use the "Wireless LAN Manager - User's Guide" to find detailed information on how to:

- Design a wireless network.
- Setup a LAN administrator station.
- View and modify the start-up configuration of your Access Point-II.
- Monitor and optimize the performance of your wireless network.
- Troubleshoot unexpected performance.

Install the Access Point-II

<div style="text-align: right; font-size: 3em; font-weight: bold;">2</div>

Overview

Before you start, carefully read the flyer "Information to the User" that is included in your Access Point-II kit. This flyer contains installation requirements and important information about using this product.

Installing the Access Point-II is easy. Follow the steps below to power up your wireless network:

1. Verify Kit Contents.
2. Write Down Product Identification.
3. Fix Mounting Plate and Power Supply.
4. Mount the Processor Module.
5. Connect the Network Interfaces.
6. Mount the Cover Plate.
7. Power up your Access Point-II to start operation.

Verify Kit Contents

Unpack the Access Point-II and verify that all items are present as pictured in Figure 2-1.

Figure 2-1   Access Point-II Kit Contents

- a.   Mounting plate to mount the Access Point-II to a wall (see page 2-4).
- b.   Access Point-II processor module (see page 2-6).
- c.   Power supply & AC power cord (see page 2-4).
- d.   Slot Protector Card (see page 2-8).
- e.   Cover plate (see page 2-10).
- f.   Getting Started Guide (this document).
- g.   CD-ROM containing software and electronic documentation.

Write Down Product Identification

Before you proceed, write down the following values as printed on the identification label on the top right side of the processor module of your Access Point-II.

Serial Number	S/N
MAC Address	
Ethernet Interface	
Wireless Interface	

Figure 2-2   Access Point-II Identification Label


```
P/N aaa-aaaaaaa b
Comcode ccccccccc
Eth. MAC Add. ddddddddddddd
S/N yyUTmmppxXXX T/N jmmnnnnn
```

You are also advised to write down the Serial Number and MAC Address of the PC Card(s) that you use with your Access Point-II.

This information is printed on a small label at the backside of the PC Card.

Fix Mounting Plate and Power Supply

You can mount the Access Point-II on a vertical surface like a wall or place the unit on a flat surface such as a table or cabinet.

Prior to mounting it to a fixed location, consider performing a site survey to determine optimal and safe placement for your Access Point-II(s). See also "Installation Requirements" on page 3-4, and "Best Place for the Access Point-II" on page 3-5.
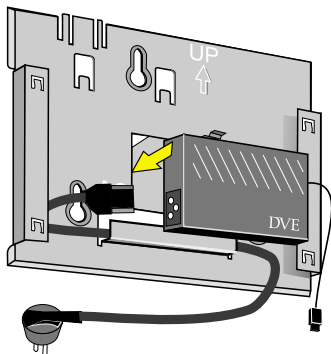
⚠ **WARNING:**

The mounting plate of the Access Point-II has not been designed for ceiling mounting. In environments where the unit will be exposed to vibrations, ceiling mounting might cause the processor module to slide off the mounting plate, causing severe personal injury and/or damage to your Avaya Wireless LAN equipment.

1. Fix the mounting plate of the Access Point-II as pictured in Figure 2-3 on page 2-5 (with the marked arrow pointing upwards). Use the screws and plugs provided.
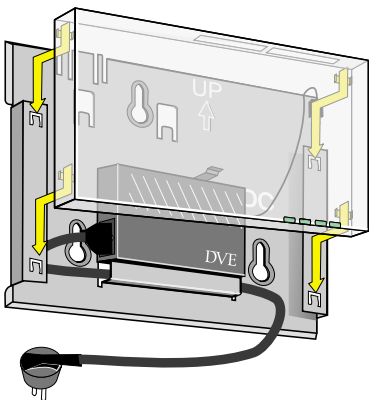
Figure 2-3   Mounting the Power Supply

2. Connect the AC power cord to the power supply unit.
3. Place the power supply unit at the mid section of the mounting plate as pictured in Figure 2-3.
4. Use tie-wraps to secure the power cord to the small loops on the mounting plate at the position where the cords will leave the unit.

Mount the Processor Module

1. Connect the DC power cable to the DC power inlet of the processor module.
2. Slide the four recesses of the processor module over the corresponding tabs on the mounting plate (see Figure 2-4 on page 2-6).
3. Press firmly to assure the processor module is properly attached.

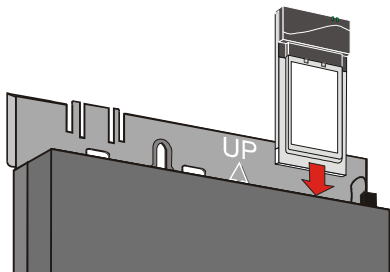**Figure 2-4   Attaching the Processor Module**

⚠️ **CAUTION:**
Before you proceed: Verify that all four recesses are fitted correctly onto the corresponding tabs of the mounting plate. If the processor module is not properly seated, it may drop causing severe personal injury and/or causing serious damage to the Access Point-II unit.

Connect the Network Interfaces

1. Insert your PC Card(s) into the processor module.

    One PC Card slot of the Access Point-II is equipped with a plastic Slot Protector Card. The purpose of this card is to protect the unit from dust when it is used with a single PC Card. Only when you intend to install two PC Cards, take out the Slot Protector Card. You are advised to keep the Slot Protector Card for situations when you would like to change the hardware configuration in the future.

Figure 2-5   Inserting the PC Card

2. (Optional) Connect your Ethernet cable to the 10/100Base-T Ethernet interface. Use tie-wraps to secure the Ethernet cable to the small loops on the mounting plate at the position where the cable will leave the unit.
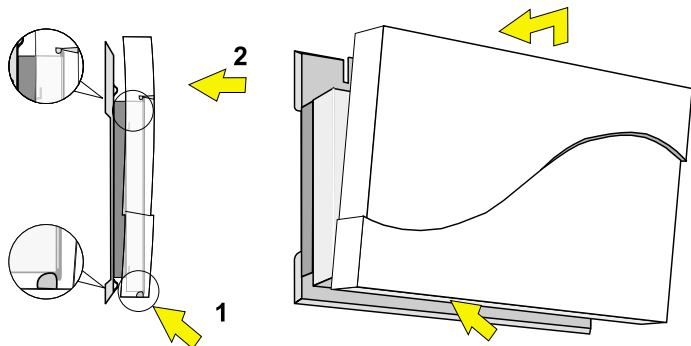
⚠ **WARNING:**

When using the device in combination with our Power over Ethernet (Active Ethernet) solution, always use Shielded Twisted Pair (STP) cabling.

Mount the Cover Plate

1. Position the latches at the inside of the cover underneath the rim at the bottom of the processor module (see arrow-1 in Figure 2-6).

Figure 2-6   Mounting the Cover Plate

2. Gently press the top of the cover plate towards the unit until it clicks (see arrow-2 in Figure 2-6).
3. Verify that the unit is properly seated.
4. Power up the device as described on page 2-11.

Power up your Access Point-II

To power up the Access Point-II, connect the unit to a grounding type AC wall-outlet (100-240 VAC) using the standard power cord as supplied with the unit.

Placement must allow for easily disconnecting the unit from the AC wall-outlet.

When powered on, the unit will perform start-up diagnostics characterized by a LED sequence. The LEDs will change color in the range Amber, Red and Green.

When finished (after about 60 seconds), the device will start bridging operation characterized by the LED activity as listed in Table 2-7.

Table 2-7   LED Activity Table

LED Definition		Activity	Description
⏻	Power	Green	Power enabled
•——	Ethernet	Flicker Green	Ethernet LAN activity
∿ A	Wireless interface A	Flicker Green	Wireless LAN activity
∿ B	Wireless interface B	Flicker Green	Wireless LAN activity

LED activity will only occur when there is network activity on the corresponding Access Point-II network interface.

If the Access Point-II does not switch to normal operation within two minutes, please consult the troubleshooting section of the "Wireless LAN Manager - User's Guide" (see "Finding Information" on page 1-4).

Using the Access Point-II

3

Connect Computers to the Access Point-II

When powering up the Access Point-II for the first time, your Access Point-II is ready for use.

The unit will start bridging operation using the parameters as listed in appendix B "Start-up Configuration".

This mode enables you to connect wireless computers to your Access Point-II, provided that they have been configured to use Avaya Wireless LAN parameter values that match the configuration of your Access Point-II.

To connect stations to a brand new Access Point-II:

- Set the configuration profile of the wireless client stations to connect to an "**Access Point**".
- Set the Network Name to "**ANY**".
- Leave Encryption disabled.

For more information, please refer to the documentation that was shipped with your Avaya Wireless LAN client devices.

Customize your Access Point-II

For example, you can use the AP Manager to change the Network Name and to enable wireless data encryption.

Install the AP Manager Software

1. Insert the Avaya Wireless LAN CD-ROM in the CD-ROM player of your computer.

   Your operating system will automatically start the CD.

2. Follow the instructions on your screen.

$\Longrightarrow$ **NOTE:**

   If the CD-ROM does not start automatically:
   1. Click the Windows Start button
   2. Select Run
   3. Browse to the CD-ROM

Previously installed versions of the software will be replaced automatically. The installation program will not delete or overwrite back-ups of configuration files that you might have created with a previous version of the program.

Installation Requirements

Placement of the Access Point-II must satisfy the following installation requirements:
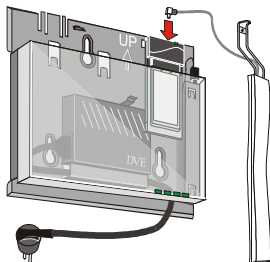
a. Connect the unit to a grounding type AC wall outlet (100-240 VAC) using the standard power cord as supplied with the unit.

b. Placement must allow for easily disconnecting the unit from the AC wall-outlet.

c. Do not cover the unit, or block the airflow to the unit with any other objects. Keep the unit away from excessive heat and humidity and keep the unit free from vibration and dust.

d. Installation must at all times conform to local regulations.

e. *When connecting the* unit *to an outdoor antenna system, consult the documentation that came with the outdoor antenna kit for additional regulatory information, safety instructions and installation requirements.*

Best Place for the Access Point-II

The integrated antennas of PC Cards perform best in an open environment with as few obstructions as possible. To ensure the best performance:

- Place the access point as high and as centrally as possible (relative to the wireless stations in the vicinity).
- Do not conceal the integrated antennas of the PC Card(s).
- Optionally you can use the access point in combination with a Range Extender Antenna (an omni-directional antenna for indoor use). It enables you to extend the wireless range of the Access Point-II when connected to a PC Card (see Figure 3-1).

Figure 3-1   Connect a Range Extender Antenna
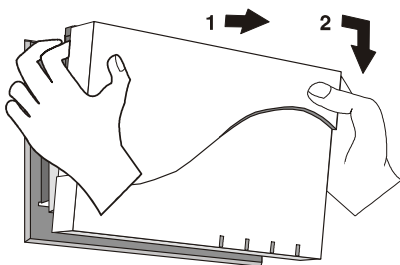
Remove the Cover Plate

Removing the cover plate of the Access Point-II may be required in the following situations:

■ changing or replacing the PC Card(s), or

■ getting access to the 'Reboot' and/or 'Forced Reload' buttons on the processor module.

To remove the cover plate:

1. Place your hands on the cover as pictured Figure 3-2.

2. Gently pull the top of the cover towards you to release the latches (located inside the cover).

3. Lower the cover to remove it from the processor module.

Figure 3-2   Remove the Cover Plate

Specifications

A

Hardware

Physical specifications	
Dimensions (hxwxl)	6x18.5x26 cm
Weight	1.75 kg
Power cord length	2 meter
Electrical specifications	
Voltage	100-240 V AC, (47-63 Hz)
Current	0.2 A
Power consumption	10 Watt
Temperature and Humidity (no condensing)	
Operating	0° to 40° C 20 to 80%
Storage	-40° to 60° C 15 to 95%
Transit	-10° to 50° C 10 to 90%
Network interfaces	
Ethernet interface	10/100Base-T RJ 45 female socket
Wireless interface	2 x PC Card Type II slots for PC Cards
Serial interface	RS232 Connector (will be supported in a future release)

Software

wpntxxx.bin	Factory installed operating software for the Access Point-II. This software, that is loaded into the FlashROM of the access point, controls its features and functions.
	The 'xxx' in the file name refer to the version level of the software.
	When new features and functionality become available, you can upgrade the Access Point-II by uploading the latest software as described in the "Wireless LAN Manager - User's Guide".
wman_ap.exe	AP Manager configuration and management software for Access Point-IIs. This software runs on Windows 95/98/2000/ME and Windows NT (v4.0).

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.

⟹ **NOTE:**
Refer to the flyer "Information to the User" for more regulatory information that may apply in your country.

Start-up Configuration

B

Your Access Point-II comes with the access point operating software factory installed. Together with this software, the access point has also been loaded with a factory-set configuration, that allows for 'out-of-the box' operation.

$\Longrightarrow$ **NOTE:**
> The 'factory-set' configuration should not be confused with a 'default' configuration. For example, the device will NOT return to the 'factory-set' configuration, but to the 'default' configuration, when performing a 'reboot' or 'forced reload' (as described in the "Wireless LAN Manager - User's Guide" provided on the CD-ROM).

To connect to a Access Point-II, the Avaya Wireless LAN parameters of each wireless station should be configured to match the values as identified for the Access Point-II.

- When powering up the access point for the very first time, these values should match the values listed in Table B-1.

- For normal operation these values should match the ones you identified when configuring the access point. You are advised to record this information on the Access Point Configuration Record in this appendix.

- When you set the Access Point-I to 'forced reload mode' these values should match the settings listed in the "Wireless LAN Manager - User's Guide".

⇒ **NOTE:**
   Consult the "Wireless LAN Manager - User's Guide" for detailed
   troubleshooting hints and procedures.

Table B-1   Factory-set Start-up Configuration

Access Point-II identifiers	
IP Address	153.69.254.254
Subnet Mask	255.255.0.0
Read Password	public
Read/Write Password	public
Wireless Interface	
Network Name	WaveLAN Network
Encryption	Disabled
RTS/CTS Medium Reservation	Disabled
Multicast Rate	Auto select 1-2 Mbit/s

When installing multiple Access Point-IIs, each unit should have a unique IP Address. In environments with DHCP or BOOTP services, this address will be assigned automatically.

If your network does not provide DHCP or BootP services, change the IP address of each Access Point-II into a unique address value using the AP Manager tool.

Access Point Configuration Record

Common Parameters

Wireless Network

Network Name:

_____

Access Control

Access Control ☐ Enabled

Table File Name: _____

RADIUS server ☐ Enabled

SNMP

System Location: _____
IP Subnet Mask: _____
Read Password: _____
Read/Write Password: _____

Access Point   Unique Identifiers

Serial Number	MAC Address	IP Address	IF	Frequency	Device Location	Date Installed	Configuration File
			☐E ☐A ☐B				
			☐E ☐A ☐B				
			☐E ☐A ☐B				
			☐E ☐A ☐B				
			☐E ☐A ☐B				
			☐E ☐A ☐B				
			☐E ☐A ☐B				
			☐E ☐A ☐B				
			☐E ☐A ☐B				