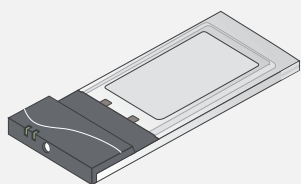


quick install guide



hp procurve
802.11b AP Card 150wl
and
802.11g AP Card 170wl

www.hp.com/go/hpprocurve

HP ProCurve 802.11b and 802.11g AP Cards

Quick Install Guide

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Publication Number

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March 2004

Applicable Products

HP ProCurve 802.11b 150wl Card – 11 Channel	(J8135A)
HP ProCurve 802.11b 150wl Card – 13 Channel	(J8136A)
HP ProCurve 802.11b 150wl Card – 14 Channel	(J8137A)
HP ProCurve 802.11g 170wl Card – 13 Channel	(J8430A)
HP ProCurve 802.11g 170wl Card – 14 Channel	(J8431A)
HP ProCurve 802.11g 170wl Card – 11 Channel	(J8432A)

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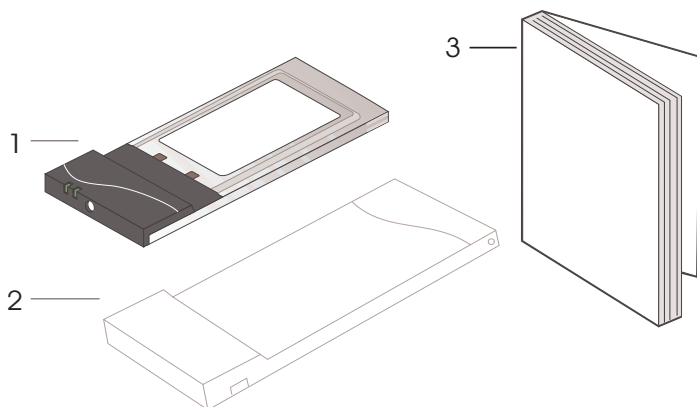
Introducing the 802.11b and 11g AP Cards

Kit Contents

The 802.11b and 11g AP Card kit includes the items as pictured in Figure 1:

1. One AP Card, (one of the following):
 - 802.11b AP Card 150wl 11 Channel (J8135A)–with 11-channel support for use in North America only
 - 802.11b AP Card 150wl 13 Channel (J8136A)–with 13-channel support for use in Europe and Asia only (except Japan)
 - 802.11b AP Card 150wl 14 Channel (J8137A)–with 14-channel support for use in Japan only
 - 802.11g AP Card 170wl 13 Channel (J8430A)–with 13-channel support for use in Europe and Asia only (except Japan)
 - 802.11g AP Card 170wl 14 Channel (J8431A)–with 14-channel support for use in Japan only
 - 802.11g AP Card 170wl 11 Channel (J8432A)–with 11-channel support for use in North America only
2. A transparent protective casing for storing your 802.11b and 11g AP Card while not in use.
3. The *HP ProCurve 802.11b and 802.11g AP Cards Quick Install Guide* (this document).

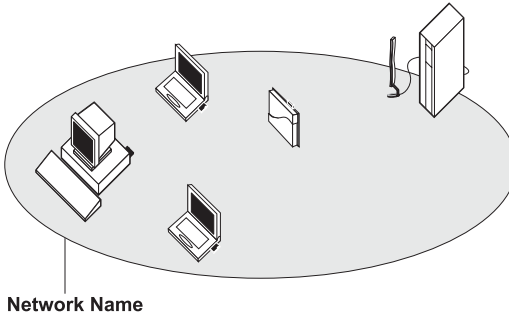
Figure 1. Kit Contents



Network Options

The 802.11b and 11g AP Cards enable you to provide 802.11b/g wireless communications from your HP ProCurve Wireless Access Point 520wl.

Figure 2. Stand Alone Wireless LAN

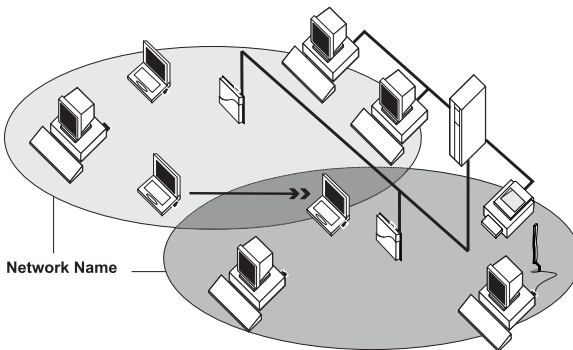


With the HP ProCurve Wireless Access Point 520wl you can connect to a corporate Local Area Network (LAN) infrastructure to have wireless access to all network facilities.

LAN Infrastructures may either be:

- Stand-alone wireless LANs as pictured in Figure 2.
- Wireless network infrastructures connected to an existing Ethernet network as pictured in Figure 3.

Figure 3. LAN Infrastructure



802.11b and 11g AP Cards Features

Note:

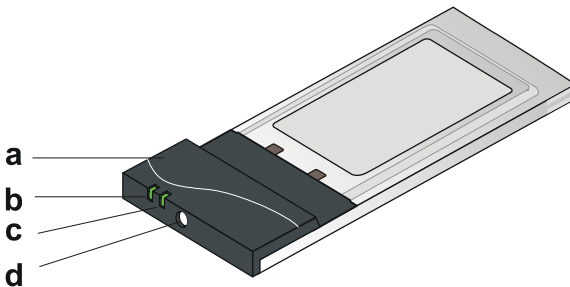
This is a partial list of features, for a complete list see the specifications in Appendix A, of the *HP ProCurve Wireless Access Point 520wl User Guide*. The 802.11b/g AP cards are radio products. Refer to the “Regulatory Information” section of this guide for information that may apply in your country.

The 802.11b and 11g AP Cards are wireless network cards that fit into either radio slot on an HP ProCurve Wireless Access Point 520wl. These cards have two LED indicators and two integrated antennas. Optionally you can use these cards in combination with the external HP ProCurve Range Extender Antenna 100wl.

Note:

See the HP ProCurve website for other available HP ProCurve antennas.
www.hp.com/go/hpprocurve

Figure 4. The 802.11b and 11g AP Card



- a. Integrated Antenna
 - b. Radio LED
 - Off - No wireless activity
 - Blinking - Sensing/transmitting wireless data
 - c. Power ON/OFF LED
 - Solid Green - standard operational mode
 - d. Connector for optional external HP ProCurve 100wl antenna.
-

802.11b and 11g AP Cards Features (continued)

The 150wl (802.11b AP card) supports the following wireless LAN features:

- The 802.11b AP card is Wi-Fi (Wireless Fidelity) certified by the Wireless Ethernet Compatibility Alliance (WECA). This means that your 802.11b AP card will communicate with other vendors' IEEE 802.11b compliant wireless LAN products. 
- Fully compatible with any other wireless LAN system based on Direct Sequence Spread Spectrum (DSSS) radio technology that complies with the IEEE 802.11 standard on wireless LANs.
- Supports all 802.11b data rates in the transmit range of 11, 5.5, 2 and 1 Mbps.
- Supports Automatic Frequency Channel Selection (2.4 GHz) allowing roaming over multiple channels.
- 128-bit RC4 data encryption (also supports 64-bit RC4/Wired Equivalent Privacy - WEP).

The 170wl (802.11g AP card) supports the following wireless LAN features:

- Fully compatible with any other wireless LAN system based on Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM) radio technology that complies with the IEEE 802.11 standard on wireless LANs.
- Supports all 802.11g data rates in the transmit range of 54, 48, 36, 24, 18, 12, 9 and 6 Mbps. The 802.11g AP card also supports the 802.11b data rates.
- Supports Automatic Frequency Channel Selection (2.4 GHz) allowing roaming over multiple channels.
- 128-bit RC4 data encryption (also supports 64-bit RC4/Wired Equivalent Privacy - WEP).
- Closed system support. This feature prevents wireless client access without the configured wireless network name.
- VLAN 16 with multiple SSIDs, extends support for compatibility with VLAN enabled wired networks by providing the user with the capability to configure up to 16 Network Names or SSIDs, and 16 corresponding VLAN identifiers per AP card.
- Secure Socket Layer (SSL) Browser support is an enhancement to the already existing HTTP management interface of the AP. This functionality will allow secure communication between the AP and the HTTP client.

- Rogue AP detection will provide the ability to detect unauthorized APs within a given coverage area. When enabled, the AP will scan the range of coverage and identify the active APs in the area.
- SNMPv3 support is for supporting the Simple Network Management Protocol version 3. The SNMPv3 feature is based on existing SNMP framework, but addresses security requirements for device and network management.
- Tx Power Control is an implementation of transmit power control by using standard 802.11d frames to control transmit power. The AP will allow four intervals of transmit power control: 100% (Regulatory Maximum), 50%, 25%, and 12.5%.
- Monitoring Station Statistics provides the capability to monitor a set of statistics for all active stations connected to an AP. A user can enable this feature and view statistics such as: IP address, MAC address, interface, station type, protocol, and so forth.
- HTTPS file transfer is an enhancement to the already existing HTTP management interface of APs. This functionality will allow transfer of configuration and kernel image files to and from the AP from any compliant HTTP/HTTPS browser.
- Auto configuration by DHCP server will allow for auto configuration of the AP devices in a given subnet to include an IP address and basic configuration.
- Multiple RADIUS authentication server support extends the existing authentication server configuration option available in APs. A user can configure separate primary and secondary servers for RADIUS and 802.1x servers that can be used for MAC based or 802.1x authentication, respectively. This also extends the server fallback capability to the new servers supported.

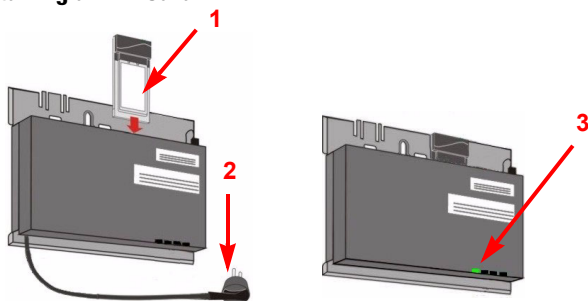
Installing and Configuring the 802.11b and 11g AP Cards

The 802.11b and 11g AP Cards can be installed only in HP ProCurve Wireless Access Point 520wl. To setup your 520wl, please see the documentation that came with that product.

Installing an AP Card

1. Slide the card into Slot A or B.
2. Connect the HP 520wl unit to a power source. (Cards can be installed when the 520wl is powered on.)
3. Wait for the power LED on the card to turn green before proceeding.

Figure 5. Installing an AP Card



4. Complete the basic configuration of the card, as described under “Configuring the Basic Items” on the next page.

Radio Antenna Notes:

- The built-in radio and antennas of the 802.11b and 11g AP Cards perform best in an open environment with as few obstacles as possible.
- To achieve the maximum range for wireless communications, do not cover the card with objects such as books or thick stacks of paper.
- If you are using the card in a non-open location, you may consider the purchase and use of the optional HP ProCurve Range Extender Antenna 100wl, which can be connected to either card. See the HP ProCurve website for other available HP ProCurve antennas.
www.hp.com/go/hpprocurve

Configuring the Basic Items

The first time you connect to an AP's HTTP interface, the Setup Wizard launches automatically. The Setup Wizard provides step-by-step instructions for how to configure the Access Point's basic operating parameter, such as Network Name, IP parameters, system parameters, and management passwords.

The following is a brief summary of the procedure. For a complete description, see your 520wl User Guide, Chapter Two, Getting Started.

1. Open your web browser on the network computer
2. If necessary, disable the browser's internet proxy settings.
3. Type in the IP Address of the HP 520wl. If you don't know the IP address, please see the *HP 520wl Unit Installation* foldout for information on how to determine the IP address.
4. Enter the network password (default is public), leave the user name field empty, and click OK. The Setup Wizard will launch automatically.

Figure 6. Network Password

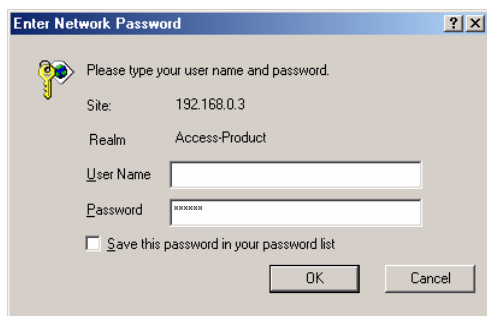
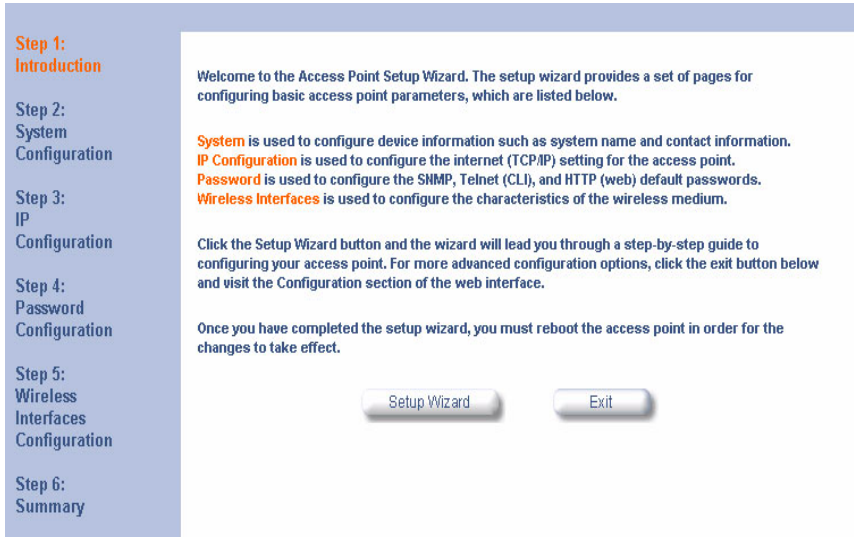


Figure 7. AP Configuration using Setup Wizard



5. Click on the Setup Wizard button to begin and follow the instructions. If you want to configure the AP without using the Setup Wizard, click Exit and see your 520wl User Guide, Chapter Four, Advanced Configuration.

Note:

For more detailed information on how to configure the AP, refer to the *520wl User Guide*.

Association Test

1. Install a separate 802.11b/g wireless PC Card (*not* the 150wl or the 170wl) in a laptop or other computer, including the drivers and the Client Manager application.
2. Configure that card to match the network name and encryption key of the 802.11b and 11g AP Card you just installed in the HP 520wl Access Point.
3. Verify the Client Manager application shows association with the HP 520wl Access Point.

Troubleshooting

Common Situations

If you encounter difficulty using and/or installing these cards in your Access Point, the error may be related to various causes:

- The cards are not firmly inserted into the card slot.
- Client is out of range (too far away from the access point). This prevents the cards from establishing a wireless connection with the client.
- Configuration mismatch, which prevents clients from establishing a wireless connection with the access point.

The configurations for the AP and the client may be different in some way, perhaps due to the wrong kind of radio or an improper setting in the configuration for one of the two devices.

Most configuration problems can be fixed by changing the settings for the 520wl Access Point using the browser-based interface. Configuration problems may include:

- SSID (Service Set Identification) misspelled
- IP Configuration (Static IP is incorrect). If you did not use auto configuration by DHCP server, then check configuration parameters to ensure they are correct.
- VLAN (May exclude your Access Point)
- Password Settings
- Management Services Settings (SNMP, Telnet, CLI, and HTTP)
- Intra-BSS Traffic Operation set to Block
- Security Settings (WEP Encryption Keys, 802.1x, MAC Access)

LED Activity

The starting point to troubleshoot problems with the card inserted into your Access Point is looking at the LED activity of the card.

The following table provides an overview of the various modes of operation and the associated LED activity. It also includes a number of troubleshooting hints, that may help solve the problem.

LED Activity		
Power LED	Radio LED	Description/Action
Continuous Green	Blinking	Standard operational mode. Card is powered on. Sensing/transmitting wireless data.
	Off	Card is powered on. No wireless activity. No action is required.
Off	Off	Card is not powered on, so it can not transmit/receive data. The cause may either be: • AP Card is not fully inserted into the slot • AP is not receiving power (LEDs on the AP are not lit)

Clients Cannot Connect to the Access Point

Here are some possible causes if clients are not able to connect to the access point.

Configuration Mismatch

Frequent configuration mismatches involve the following items:

- Network Name

The 802.11b and 11g AP Cards Network Name is case-sensitive. Each wireless AP Card in the HP 520wl should have a unique Network Name. This Network Name must match the active Network Name on client machines. The client software allows you to store Network Names in configuration profiles, then you can select a profile to fit your location. Network Names should be allocated and maintained by the Network Administrator.

- Encryption Key

If you have set a WEP encryption key in the 520wl configuration, the client wireless PC card must be configured to use the same key.

Client PC Card Does Not Work

1. Ensure you are using the latest PC Card driver software.
2. Download and install the latest client software.
3. Refer to the documentation that came with your client cards for additional troubleshooting suggestions.

Intermittent Loss of Connection

1. Ensure the client is within range of the HP 520wl. For more information regarding range see the Range/Transmit Rate chart on [page 16](#).
2. The signal strength can be checked by using the signal strength gauge from the client software.

Client Does Not Receive an IP Address - Cannot Connect to Internet

1. If the HP 520wl is configured as a DHCP server, open the Web-browser Interface and select the Configure button, then the Network tab and then the DHCP Server tab to ensure the proper DHCP settings are being used.

The screenshot shows the HP 520wl Web-browser Interface. The top navigation bar includes tabs for Alarms, Bridge, Security, RADIUS, and VLAN. Below this is a secondary bar with System, Network (selected), Interfaces, Management, and Filtering. On the left side, there is a vertical menu with buttons for Status, Configure (selected), Monitor, Commands, Help, and Exit. The main content area is titled 'DHCP Server' and contains the following text: 'The DHCP server in the access point allows for dynamic IP address assignment to both wireless clients and wired hosts.' Below this is a note: 'Note: The DHCP server can only be enabled after at least one entry has been added to the DHCP server IP pool table. Changes to these parameters require access point reboot in order to take effect.' The configuration fields are as follows: 'Enable DHCP Server' is checked; 'Subnet Mask' is 255.255.255.0; 'Gateway IP Address' is 192.168.0.100; 'Primary DNS IP Address' is 192.168.0.1; 'Secondary DNS IP Address' is 192.168.0.2; and 'Number of IP Pool Table Entries' is 1. There are 'OK' and 'Cancel' buttons below these fields. Below the configuration fields is the 'IP Pool Table' section, which includes 'Add' and 'Edit' buttons. The table itself has columns for Start IP, End IP, Default Lease, Maximum Lease, Comment, and Status. The first entry is: Start IP 192.168.0.101, End IP 192.168.0.110, Default Lease 86400, Maximum Lease 86400, Comment, and Status Enable.

Start IP	End IP	Default Lease	Maximum Lease	Comment	Status
192.168.0.101	192.168.0.110	86400	86400		Enable

2. If you are using the DHCP feature on the HP 520wl, then ensure your local DHCP server is operating on the same subnet mask as your HP 520wl.

NOTE:

For more information regarding DHCP Server settings, see the HP 520wl User's Guide.

3. From the client computer, use the ping network command to test the connection with the HP 520wl. If the HP 520wl responds, but you still cannot connect to the Internet, there may be a physical network configuration problem.

Other Problems

If you are unable to fix problems with the 802.11b and 11g AP Card using the suggestions in this chapter, you may want to try resetting the AP to factory default settings.

- On the 520wl Access Point hold the RESET button down for 5 seconds.
- Turn the power off and back on again to reboot the Access Point.
- In some cases you may need to reboot your computer or clients as well.
- Check the documentation that came with the client wireless cards for other troubleshooting procedures for those cards.

If you are still having problems with the 802.11b and 11g AP Card and you have not been able to fix them with the Troubleshooting suggestions from this booklet, please refer to the more detailed instructions in the Troubleshooting chapter of the *HP 520wl User Guide*.

Card Specifications

Physical

Dimensions	(LxWxH)	117.8 x 53.95 x 8.7 mm
Weight		45 grams
Temperature & Humidity (non condensing)		
Operation	0° to 40° C (32° to 104° F)	Maximum humidity 95%
Storage	-10° to 50° C (14° to 122° F)	Maximum humidity 95%

Networking

Media Access Protocol	CSMA/CA (Collision Avoidance) with Acknowledgment (ACK)	
	.11b Card	.11g Card
Compatibility	• IEEE 802.11 Standard for Wireless LANS (DSSS) • Wi-Fi certified	• IEEE 802.11 Standard for Wireless LANS (DSSS and OFDM)
Data Rates	• 11 Mbps • 5.5 Mbps • 2 Mbps • 1 Mbps	• 54 Mbps • 48 Mbps • 36 Mbps • 24 Mbps • 18 Mbps • 12 Mbps • 9 Mbps • 6 Mbps The .11g card also supports the .11b data rates.
Both cards use an automatic Transmit Rate Select mechanism.		

Radio Characteristics

RF Frequency Band 2.4 GHz (2400-2500 MHz) (Center Frequencies)		
Supported sub-channels	1	2412
	2	2417
	3	2422
	4	2427
	5	2432
	6	2437
	7	2442
	8	2447
	9	2452
	10	2457 (default) ^a
	11	2462 ^a
	12	2467 ^a
	13	2472 ^a
	14	2484 ^b
Modulation Technique	Direct Sequence Spread Spectrum CCK 11 & 5.5 Mbps, DQPSK for 2 Mbps, and DBPSK for 1 Mbps	
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)	

a. France is restricted to these channels.
b. Channel 14 is only available when using the 11b only mode.

11b Card Range/ Transmit Rate	11 Mbps	5.5 Mbps	2 Mbps	1 Mbps
Open Office	142 m (466 ft.)	177 m (581 ft.)	219 m (718 ft.)	272 m (892 ft.)
Semi-Open Office	98 m (322 ft.)	122 m (400 ft.)	151 m (495 ft.)	187 m (614 ft.)
Closed Office	67 m (220 ft.)	84 m (276 ft.)	104 m (341 ft.)	129 m (423 ft.)
Receiver Sensitivity	-82 dBm	-85 dBm	-88 dBm	-91 dBm
Tx Power (dBm)	15	15	15	15
Antenna Gain	0 dBi (integrated diversity antenna module; 2.4-2.5 GHz)			

11g Card Range/ Transmit Rate	54 Mbps	48 Mbps	36 Mbps	24 Mbps	18 Mbps	12 Mbps	9 Mbps	6 Mbps
Open Office	56 m (184 ft.)	69 m (226 ft.)	107 m (351 ft.)	164 m (538 ft.)	219 m (718 ft.)	272 m (892 ft.)	292 m (958 ft.)	314 m (1030 ft.)
Semi- Open Office	38 m (125 ft.)	48 m (157 ft.)	73 m (239 ft.)	113 m (371 ft.)	151 m (495 ft.)	187 m (614 ft.)	201 m (659 ft.)	216 m (709 ft.)
Closed Office	26 m (85 ft.)	33 m (108 ft.)	51 m (167 ft.)	78 m (256 ft.)	104 m (341 ft.)	129 m (423 ft.)	139 m (453 ft.)	149 m (489 ft.)
Receiver Sensitivity (dBm)	-68	-70	-75	-80	-84	-87	-88	-89
Tx Power (dBm)	12	13	14	15	15	15	15	15
Antenna Gain	0 dBi (integrated diversity antenna module; 2.4-2.5 GHz)							

The 11g card also supports the range and transmit rates of the 11b card.

11g Card Range/ Transmit Rate	11 Mbps	5.5 Mbps	2 Mbps	1 Mbps
Open Office	204 m (669 ft.)	236 m (774 ft.)	253 m (830 ft.)	338 m (1109 ft.)
Semi- Open Office	140 m (459 ft.)	162 m (531 ft.)	174 m (571 ft.)	232 m (761 ft.)

Closed Office	97 m (318 ft.)	111 m (364 ft.)	120 m (394 ft.)	160 m (525 ft.)
Receiver Sensitivity (dBm)	-83	-85	-86	-90
Tx Power (dBm)	15	15	15	15
Antenna Gain	3 dBi (integrated diversity antenna module; 2.4-2.5 GHz)			

The range of the wireless signal is related to the Transmit Rate of the wireless communication. Communications at lower Transmit range will travel larger distances. The range values listed above are typical distances as measured under controlled conditions. These values may vary according to the actual radio conditions at the location where the 802.11b and 11g AP Cards will be installed.

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 ranges are typical values when used indoors in “office environments” that can be described as follows:

- In Open Office environments, antennas can “see” each other, that is, 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.

Auto Channel Selection. When inserted into the HP ProCurve Wireless Access Point 520wl, the 802.11b and 11g AP Card will use the factory-set default channel (channel 10, printed in bold), unless the LAN Administrator selected a different channel when configuring the access point device.

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.

Notice for U.S.A.

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

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and the receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

The FCC requires the user to be notified that any changes or modifications made to the device that are not expressly approved by the Hewlett-Packard Company may void the user's authority to operate the device.

**Warning: Exposure to Radio Frequency Radiation**

The radiated output power of this device is below the FCC radio exposure limits. Nevertheless, you should use the device such that human contact during normal operation is minimized. To avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna should not be less than 20 cm (8 inches) during normal operation.

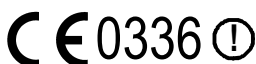
Warning: Radio Antenna Co-location

If your AP 520wl has two AP cards installed, a minimum separation of 20 cm must be maintained between the antennas of the two cards. This may require the use of an approved external antenna with any 11b or 11g card.

Notice for Canada

Operation of this device is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Notice for European Union



This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. Compliance with this directive implies conformity to the following European Norms:

- EN 60950 – Product Safety
- EN 300 328-1 / EN 300 328-2 – Technical requirements for 2.4 GHz radio equipment
- EN 301 489-1 / EN 301 489-17 – General EMC requirements for radio equipment

EU & EFTA country restriction notices

This device may be used in the following EU and EFTA countries:

- | | | |
|-----------------------|-----------------|------------------|
| • Austria | • Greece | • Netherlands |
| • Belgium | • Iceland | • Norway |
| • Denmark | • Ireland | • Portugal |
| • Finland | • Italy | • Sweden |
| • France ¹ | • Liechtenstein | • Switzerland |
| • Germany | • Luxembourg | • United Kingdom |

Notes:

1. For normal wireless LAN operation of this product, only a limited band is available for operation in France (Channels 10, 11, 12, and 13). L'Autorité de régulation des telecommunications (ART) has special regulations for hotspots allowing other channels, too. Please check with ART (<http://www.art-telecom.fr>) for local rulings and authorization.
2. For up-to-date information on worldwide country authorizations, power levels and usage restrictions, please visit <http://www.hp.com/go/hpprocurve>. Click on **technical support**, then **manuals**. Select your wireless product and open the document *Wireless Radio Country Approvals Matrix*.

EU Declaration of Conformity (11b AP Card)

DECLARATION OF CONFORMITY according to ISO/IEC Guide 22 and EN 45014	
Manufacturer's Name:	Hewlett-Packard Company
Manufacturer's Address:	8000 Foothills Blvd. Roseville, CA 95747-5502 U.S.A.
declares that the product	
Product Name:	HP ProCurve Wireless 802.11b AP Card 150wl
Product Number(s):	J8136A
Regulatory Model:	NC5041
conforms to the following Product Specifications:	
Safety:	EN 60950:2000 / IEC 60950:1999
Health:	EU 1999/519/EC
EMC:	EN 301 489-1 V1.2.1 (2000-08) EN 301 489-17 V1.1.1 (2000-09)
Radio:	EN 300 328-1 V1.2.2 (2000-07) EN 300 328-2 V1.1.1 (2000-07)
Supplementary Information:	
The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC, the EMC Directive 89/336/EEC and the R&TTE Directive 1999/5/EC and carries the CE marking accordingly.	
The Product was tested in a typical configuration with an HP ProCurve Wireless Access Point 520wl.	
Roseville, July 11, 2003	 Mike Avery, Regulatory Engineering Mgr.
European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ-TRE, Herrenberger Straße 140, D-71034 Böblingen (FAX: + 49-7031-14-3143)	

Regulatory Model Identification Number

For regulatory identification purposes, this product has been assigned a Regulatory Model Number (RMN). The RMN for your product is NC5040, NC5041 or NC5042 or RVLC-0402 depending on the card type and number of supported channels. The RMN should not be confused with the marketing name or the Product Number.

EU Declaration of Conformity (11g AP Card)

DECLARATION OF CONFORMITY

according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: Hewlett-Packard Company

Manufacturer's Address: 8000 Foothills Blvd.
Roseville, CA 95747-5502
U.S.A.

declares, that the product

Product Name: HP Procurve Wireless 802.11g AP Card 170w

Product Number(s): J8430A

Regulatory Model: RSVLC-0402

conforms to the following Product Specifications:

Safety: EN 60950:2000 / IEC 60950:1999

Health: EU 1999/519/EC

EMC: EN 301 489-1 V1.1.1 (2000-07)

EN 301 489-1 V1.2.1 (2001-08)

EN 301 489-17 V1.1.1 (2000-09)

Radio: EN 300 328-1 V1.2.2 (2002-07)

EN 300 328-2 V1.1.1 (2000-07)

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC, the EMC Directive 89/336/EEC and the R&TTE Directive 1999/5/EC and carries the CE marking accordingly.

Roseville, January 30, 2004


Mike Avery, Regulatory Engineering Mgr.

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ-TRE, Herrenberger Straße 140, D-71034 Böblingen (FAX: + 49-7031-14-3143)

Notice for Japan

この機器の使用周波数帯では、電子レンジ等の産業・科学・医療用機器のほか工場の製造ライン等で使用されている移動体識別用の構内無線局（免許を要する無線局）及び特定小電力無線局（免許を要しない無線局）が運用されています。

- 1 この機器を使用する前に、近くで移動体識別用の構内無線局及び特定小電力無線局が運用されていないことを確認して下さい。
- 2 万一、この機器から移動体識別用の構内無線局に対して電波干渉の事例が発生した場合には、速やかに使用周波数を変更するか又は電波の発射を停止した上、下記連絡先にご連絡頂き、混信回避のための処置等（例えば、パーティションの設置など）についてご相談して下さい。
- 3 その他、この機器から移動体識別用の特定小電力無線局に対して電波干渉の事例が発生した場合など何かお困りのことが起きたときは、次の連絡先へお問い合わせ下さい。

連絡先：日本ヒューレット・パッカード株式会社 TEL：0120-014121

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