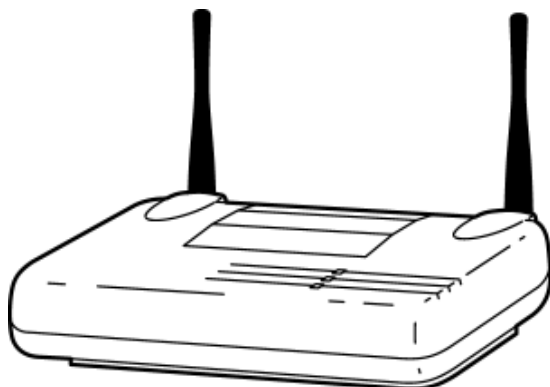




4800B Series Access Point Quick-Start Guide

***Models supported by this Guide:
AP4810B, AP4820B, AP4821B, AP4822B,
AP4823B***

DOC-710-005311-A0



Aironet Wireless Communications, Inc.

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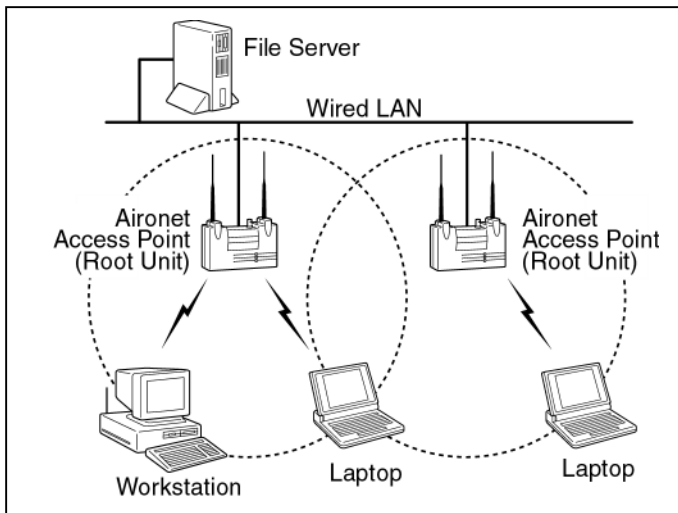
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Introduction: Aironet 4800B Series Access Point

Overview

The Aironet 4800B Series Access Point connects to your Ethernet network and acts as a wireless connection point for network users. Workstations equipped with a wireless LAN adapter can connect to the network without being tethered to a network cable.



Before you begin Installation

Before setting up your Access Point, ask your network system administrator for the following information:

- An **IP (Internet Protocol) address** for the Access Point. Each station or device on your network must have a unique IP address. The IP address should resemble this example: 10.0.0.1
- The **MAC address** from the label on the bottom of the Access Point. The MAC address should resemble this example: 0040961234BC

Note: You should configure the Access Point before mounting it on a pole or a ceiling. Some configuration steps, such as communicating with the AP through a serial cable, may be difficult if the AP is inaccessible.

Installation Requirements

Before you begin installation, make sure that you have the following items:

- The Aironet 4800B Series Access Point
- The Access Point power supply
- The Aironet 4800 Series CD

If any of these items are missing from the Aironet 4800B Series Access Point package, contact your Access Point supplier.

You will also need:

- A computer that is connected to the same network as the Access Point
- A nine-pin serial cable (if you use a DHCP server)

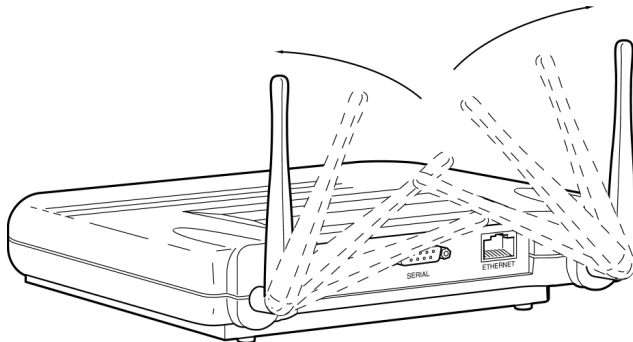
Installing the Aironet 4800B Series Access Point

Follow the instructions below to install the Aironet 4800B Series Access Point. To take advantage of more of the 4800B Series Access Point's features, follow the instructions in the User Guide.

1. Adjust the antennas.*

For maximum range, make sure the antennas on your Access Point point straight up or straight down, no matter where your Access Point is mounted.

If you keep your Access Point on a table or a desk, turn the antennas so they point straight up. If you mount your Access Point on a wall or a pole, turn the antennas so they are vertical, even though the Access Point is on its side. If you mount your Access Point on the ceiling, turn the antennas so they point straight down.

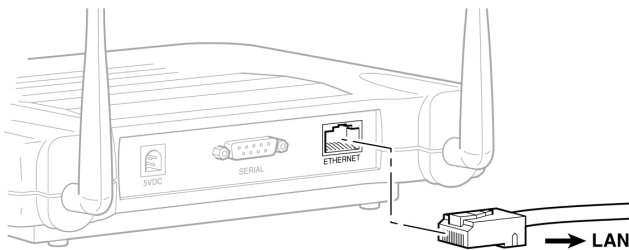


* The AP4810B has one antenna. The AP4822B and AP4823B have reverse TNC connectors so you can attach a wide range of antennas.

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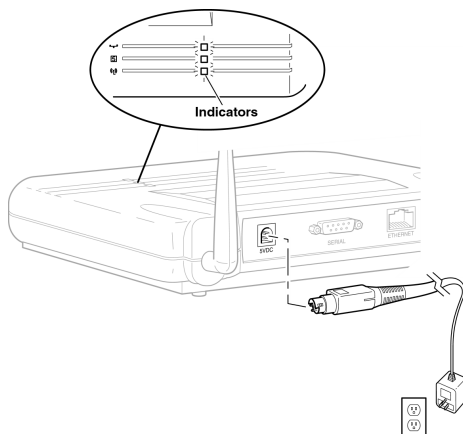
2. Connect the Ethernet cable from your wired LAN to your Access Point.

Make sure the AP is not powered up when you connect your network cable.



3. Connect the power pack.

Plug the Power Pack into a wall outlet or a power strip, and plug the connector into the power receptacle on the back of the AP.

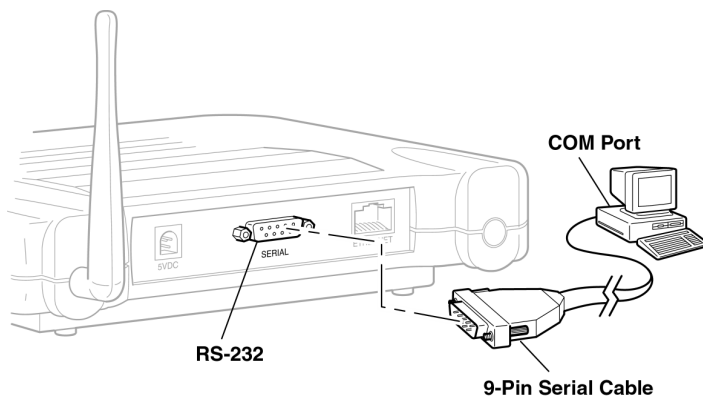


All three indicators on top of the access point will slowly blink amber, red, and then green in sequence. During normal operation, the indicators will blink green. If the indicators display a solid color without blinking, see the Top Panel Indicator Descriptions in the User Guide.

Note: If you are **not** using a DHCP server, skip to step 9.

4. If you have a DHCP server, the server automatically assigns an IP address to the Access Point when you connect it to your network. To use the Access Point's browser-based management system, you need to find out the assigned IP address.

Use a 9-pin serial cable to connect the COM 1 or 2 port on your computer to the RS-232 on the back of the access point. After you find the assigned IP address, you can remove this cable. You might need the cable again if you need to update the AP's configuration in the future.



5. Open the HyperTerminal program* on the workstation attached to the Access Point. This window appears:



Type a name for the connection and click OK.

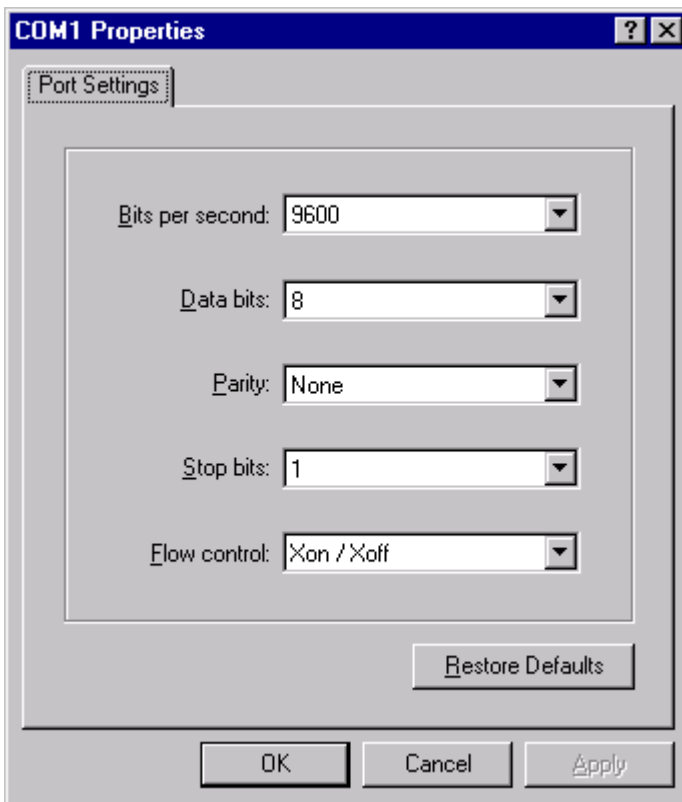
* These instructions describe HyperTerminal, but you can use any terminal-emulation program to communicate with the Access Point.

6. The Connect To window appears:



Choose the port on your computer to which the serial cable is connected. Click OK.

7. The port settings window appears:



Set Bits per second (baud rate) to 9600, Data bits to 8, Parity to None, Stop bits to 1, and Flow control to Xon/Xoff. Click OK.

8. The Express Setup screen appears in the HyperTerminal window:

```
AP4800-E:25854d          Express Setup          Uptime: 00:03:16

System [Name           ] [AP4800-E:25854d       ]
[Terminal Type        ] [teletype             ]
MAC Address           : 00:40:96:25:85:4d
Config. Server [Protocol] [DHCP                 ]
IP [Address            ] [149.23.129.95       ]
IP [Subnet Mask       ] [255.255.255.0       ]
Default [Gateway      ] [149.23.129.50       ]

[Radio Service Set ID (SSID)] [tsunami              ]
[Role in Radio Network   ] [Access Point/Root    ]
[Optimize Radio Network For] [Throughput           ] [Hw Radio]
Ensure Compatibility With: [2Mb/sec Clients] [_] [non-Aironet 802.11] [_]

[SNMP Admin. Community  ] [                     ]

[Apply] [OK] [Cancel] [Restore Defaults]

[Home] - [Network] - [Associations] - [Setup] - [Logs] - [Help]
[END]

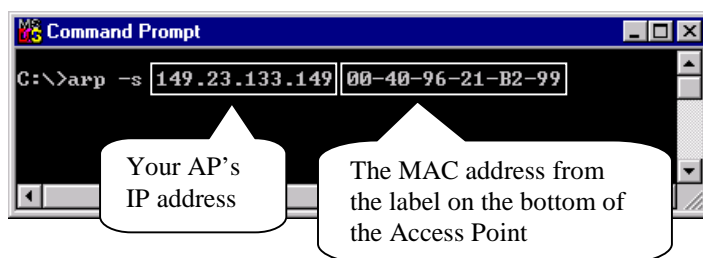
^R, =, <RETURN>, or [Link Text]:
```

Make a note of the IP address. In this example, the assigned IP address is 149.23.129.95.

Exit HyperTerminal.

Note: If you have a DHCP server, skip to step 10. If you have a DHCP server, your Access Point's IP address is assigned automatically, and cannot be overwritten with the "arp" command described in step 9.

9. Assign an IP address to your Access Point with the "arp" command. Follow these steps:
 - Open a Command Prompt window (usually located on your Start menu under Programs).
 - Type **arp -s** followed by the IP address from your system administrator, followed by the MAC address from the label on the bottom of the Access Point. Your complete "arp" command might look like the entry below.
 - Press Enter to set the IP address of your Access Point.




Note: Windows 95 may require you to include your computer's IP address in the "arp" command immediately following the AP's MAC address. Type `arp` in the Command Prompt window and press Enter to check the proper command format for your version of Windows.

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10. Browse to your Access Point's Management Pages.

- Open your internet browser (Microsoft Explorer or Netscape Navigator, for example).
- Type your Access Point's IP address on the browser's address line and press Enter. Your Access Point's Express Setup Management Screen appears.

AP4800-E:25854d Express Setup 

Aironet AP4800-E 10.00 Uptime: 00:33:19

[Home](#) [Map](#) [Help](#)

System Name:

MAC Address:

Configuration Server Protocol:

Default IP Address:

Default IP Subnet Mask:

Default Gateway:

Radio Service Set ID (SSID):

Role in Radio Network:

Optimize Radio Network For: Throughput Range Custom

Ensure Compatibility With: 2Mb/sec Clients non-Aironet 802.11

SNMP Admin. Community:

[\[Home\]](#)[\[Map\]](#)[\[Login\]](#)[\[Help\]](#)

Aironet AP4800-E 10.00 © Copyright 1999 Aironet Wireless Communications, Inc. [credits](#)

Your Access Point is up and running. Consult the User Guide for a description of all the Access Point's system management functions.

Note: If you have trouble browsing to your Access Point, you may need to use a terminal emulator to assign your AP's IP Address and Default Gateway. Follow the steps in the next section to assign these settings through a terminal emulator.

Assigning an IP Address and Default Gateway with the Terminal Emulator

If you need to use the terminal emulator to assign an IP address and Default Gateway to the AP, follow these steps:

- Complete steps 4 through 8 in the installation section above.
- At the Express Setup screen, type **address** and press Enter.
- Type the IP address provided by your network system administrator and press Enter.
- Type **gateway** and press Enter.
- Type the Default Gateway provided by your network system administrator and press Enter.
- Type **apply** and press Enter.

Exit the terminal emulator.

Getting Help

Use the following information to contact the Aironet Technical Support group:

Telephone: (330) 664-7903
Fax: (330) 664-7990
e-mail: techsupp@aironet.com

For additional product information and technical support, including the capability to download new firmware and drivers, use the Aironet web site at:

<http://www.aironet.com>

Safety Information

The FCC with its action in ET Docket 96-8 has adopted a safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC certified equipment. Aironet products meet the uncontrolled environmental limits found in OET-65 and ANSI C95.1, 1991. Proper operation of this radio according to the instructions found in this manual will result in user exposure that is substantially below the FCC recommended limits.

- Do not touch or move antenna(s) while the unit is transmitting or receiving.
- Do not hold any component containing the radio such that the antenna is very close or touching any exposed parts of the body, especially the face or eyes, while transmitting.
- Do not operate a portable transmitter near unshielded blasting caps or in an explosive environment unless it is a type especially qualified for such use.
- Do not operate radio or attempt to transmit data unless the antenna is connected, if not, the radio may be damaged.

Dipole Antenna

Always orient antenna such that it is at least 15 cm (6 inches) away from your body.

High Gain Antennas

High gain wall mount or mast mount antennas are designed to be professionally installed and should be located at a minimum distance of 30 cm (12 inches) or more from your body. Please contact your professional installer, VAR, or antenna manufacturer for proper installation requirements.

Warning for Laptop User

In order to comply with the FCC RF exposure limits, it is recommended when using a laptop with a Wireless LAN

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Adapter Card, that the Card's integrated antenna should not be positioned closer than 5 cm (2 inches) from your body or nearby persons for extended periods of time while it is transmitting (or operating). If the antenna is positioned less than 5 cm (2 inches) from the user, it is recommended that the user limit exposure time.

Glossary

Association

Each root unit or repeater in the radio network contains an Association Table that controls the routing of packets between the Access Point (AP) and the wireless devices. The Association Table maintains entries for all the nodes situated below the Aironet Access Point in the radio network including repeaters and client nodes.

End Node

A fixed or mobile wireless device that communicates with an AP to access the wired LAN.

Radio Network

The radio network is the communications system that combines Access Points, mobile nodes, and fixed nodes. Access Points within the radio network can be either root units, which are physically wired to the LAN backbone, or can act as wireless repeaters that extend the range of a root AP. Other wireless devices serve as fixed nodes or mobile client nodes.

Parent/Child Node

Refers to the relationships between nodes in the wireless infrastructure. The complete set of relationships is sometimes described as a Network Tree. For example, the Access Point (at the top of the tree) would be the parent of the end nodes. Conversely, the end nodes would be the children of the Access Point.

Repeater

A repeater is an Access Point that extends the radio range of the infrastructure. A repeater is not physically attached to the wired LAN, but communicates via radio to another Access Point, which is either a root unit or another repeater.

Root Unit

The root unit is an Access Point that is located at the top, or starting point, of a wireless infrastructure. A root unit provides the physical connection to the wired LAN and contains

configuration information in its association table that covers all nodes that access the wired infrastructure. All Access Points directly attached to the wired LAN backbone are root units.

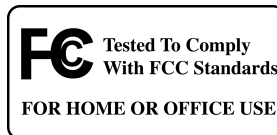
Service Set Identifier (SSID)

A unique set of characters that identifies which network, of potentially several radio networks in an area, the fixed or mobile node should join.

Declarations of Conformity

Manufacturer's Federal Communication Commission Declaration of Conformity Statement

Model: AP4800B
FCC Certification Number:
LOZ102035



Manufacturer:

Aironet Wireless Communications, Inc.
3875 Embassy Parkway
Akron, OH 44333-8357
330-664-7900

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

- Reorient or relocate the receiving antenna.
- Increase separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician.

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Department of Communications—Canada

Canadian Compliance Statement

This Class B Digital apparatus meets all the requirements of the Canadian Interference - Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte les exigences du Règlement sur le matériel brouilleur du Canada.

This device complies with RSS-210 of Industry of Canada. 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.

The device is certified to the requirements of RSS-139-1 for 2.4 GHz spread spectrum devices. The use of this device in a system operating either partially or completely outdoors may require the user to obtain a license for the system according to the Canadian regulations. For further information, contact your local Industry Canada office.

European Telecommunication Standards Institute

Statement of Compliance

Information to User

This equipment has been tested and found to comply with the European Telecommunications Standard ETS 300.328. This standard covers Wideband Data Transmission Systems referred in CEPT recommendation T/R 10.01.

This type accepted equipment is designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Declaration of Conformity

***Aironet Model Numbers:
AP4810B, AP4820B,
AP4821B, AP4822B, AP4823B***

Radio CE Type Certificate Number: BCL/EC/98-008/G
Radio Type Approval Examination Number: R0170 SRD 3a

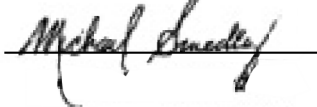
Application of Council Directive: 89/336/EEC
Application of Council Directive: 72/23/EEC

Standards which Conformity is Declared:

EN 55022 (B)
EN 55011 (B)
EN 50082-1
EN 60950

Manufacturer: Aironet Wireless Communication
3875 Embassy Parkway
Akron, OH 44333

*The undersigned hereby declares the above specified equipment
conforms to the above Directives and standards.*



Michael Smedley
Director, Manufacturing Engineering
Aironet Wireless Communications, Inc.