*in*reach™
WAP-200   *Quickstart*
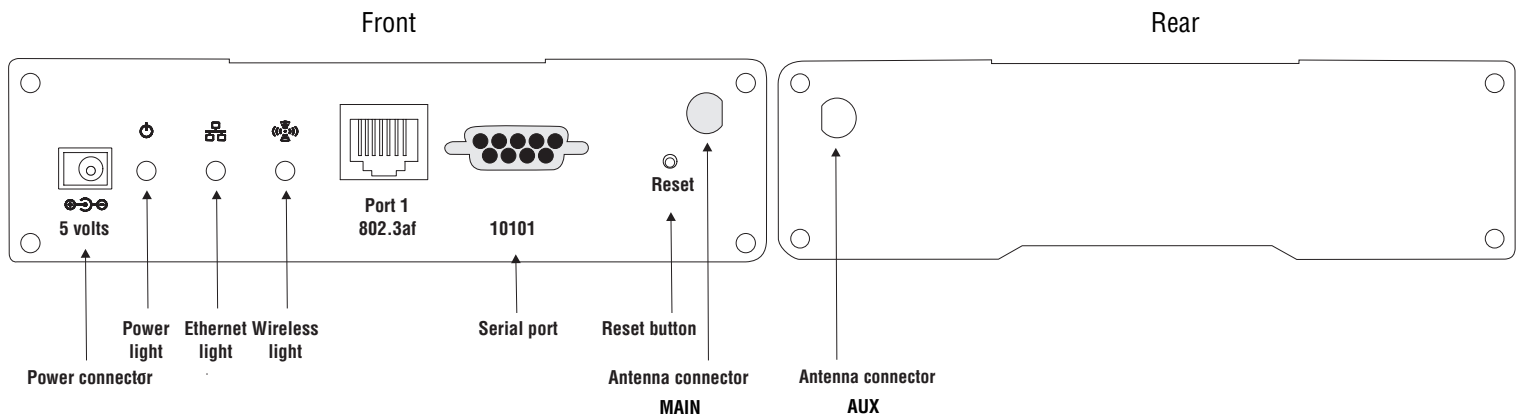
Colubris
NETWORKS™

This quickstart guide shows you how to start up and test the WAP-200 intelligent wireless access point. For detailed configuration and operating information, download the *WAP-200 Administrator's Guide* from the Colubris Networks web site at www.colubris.com (select *Support* and then *Product Registration*).

IMPORTANT NOTE ABOUT WIRELESS SECURITY: *For easy access to the management interface through a wireless connection, the WAP-200 ships with all wireless security options disabled. Colubris strongly recommends that once the unit is installed you enable a wireless security option in order to properly safeguard the wireless network from intruders. For more information see the WAP-200 Administrator's Guide.*

Hardware overview

Front

Rear

Port 1
802.3af   10101

Reset

5 volts

Power
light   Ethernet Wireless
light   light

Serial port   Reset button

Power connector

Antenna connector
MAIN

Antenna connector
AUX

Package contents

- WAP-200 unit

- Two 2.4 GHz (2 dBi) / 5 GHz (2 dBi) dual-mode omnidirectional antennas

- Power adapter and power cord

- Mounting bracket

- Spring clip—if needed, insert into one of the screw holes in the mounting bracket as shown to provide a tighter fit

Insert unit in
this direction
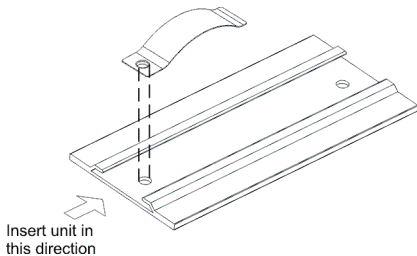
Antennas

The WAP-200 has a single radio with two antennas. It can create a single wireless cell. The antenna connectors are reverse-polarity SMA male jacks. This means antennas or cable connectors must be SMA female connectors with reverse polarity. Antennas can be either directly attached or attached via a coax cable. Colubris recommends attaching to the MAIN connector when using coax.

Reset button

- Press and release the button quickly to restart the WAP-200.

- To reset to factory default settings, press and hold the reset button until the status lights begin to flash, then release.

Important: *Resetting the WAP-200 deletes all your configuration settings, resets the Administrator username and password to 'admin', and sets the IP address of Port 1 via DHCP. If a DHCP server is not found connected to Port 1, the address 192.168.1.1 is assigned to Port 1 and the wireless port.*

Installation

Important: *Installation must be performed by a professional installer familiar with local regulations governing wireless devices.*

Important: *Shielded Ethernet cables must be used for all connections.*

Note: *Do not connect the Ethernet port directly to a metropolitan area network (MAN) or wide area network (WAN).*

When mounting the WAP-200 on a wall, or ceiling ensure that

- The surface you attach the WAP-200 to and the fasteners you use are able to support at least 5.1 kg (11.25 pounds)

- Cable pull (accidental or otherwise) does not make the unit exceed the 5.1 kg (11.25 pound) limit

Note: *Only indoor operation on channels 36 to 48—5.15 to 5.25 GHz— is allowed.*

Plenum installations

Plenum rated cables and attachment hardware must be used if the WAP-200 is installed in a plenum. Since the optional WAP-200 power adapter is not rated for plenum installations, only the WAP-200 and appropriate cabling can be located in the plenum.

Note: *PoE injectors available separately from Colubris Networks cannot be installed inside the plenum.*

Configuration

To configure the WAP-200 you use the built-in Web-based **Management Tool.** Access this tool by establishing a Web browser connection to the WAP-200. You must use a JavaScript-enabled Web browser—for example, Netscape 7.1 or higher, or Microsoft Internet Explorer 6.0 or higher with all applicable updates.

1 Connect your computer

a. Use a cross-over cable (not supplied) to connect the LAN port on your computer to port 1 on the WAP-200.

**b.** Configure your computer with the static IP address 192.168.1.2.

2 Power-on the WAP-200

Connect the power supply (sold separately) or use PoE (802.3af) to power-up the WAP-200.

The WAP-200 is fully operational when the power light stops flashing.

3 Start the management tool

a. Start your Web browser and specify the following address and press enter: **HTTPS://192.168.1.1.**

b. You are prompted to accept a Colubris Networks security certificate. Do so to continue.

c. The WAP-200 login page opens. Log in with username **admin** and password **admin**.
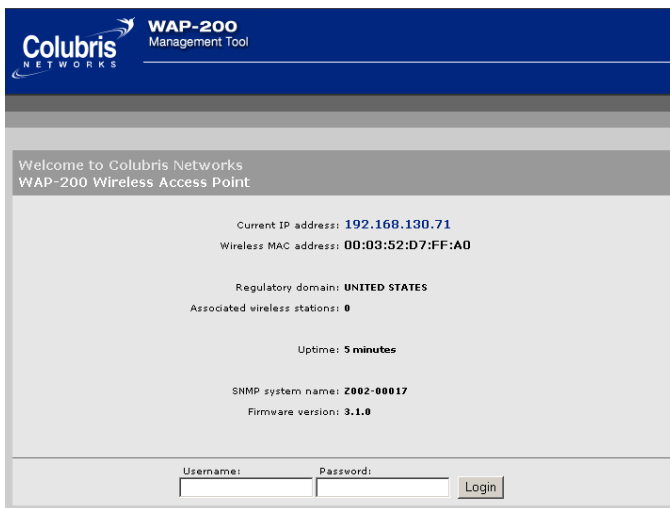
d. If this is the first time you are logging in, you are prompted to change the default administrator password. Specify a new password and click **Save**.

e. If you are using the WAP-200 outside of the United States, set the country that the WAP-200 is operating in on the **Management > Country** page.

4 Configure the wireless network

By default the WAP-200 is configured to

• Automatically select the best operating channel (frequency)

• Create a wireless network named *Colubris Networks*

There is no need to change these settings for most installations.

5 Configure the WAP-200

a. Open the **Virtual AP > Profiles** page and select the **Colubris Networks** profile.

• If the WAP-200 will be installed as a stand-alone device and not connected to an access controller, clear the **Wireless security filters** checkbox.

• If the WAP-200 will be connected to a Colubris Networks access controller, under **General**, select the **Use Colubris access controller** checkbox.

b. By default the WAP-200 operates as a DHCP client to obtain its IP address. In this configuration the WAP-200's serial number can be used to manage the device. If static IP addressing is preferred, configure it on the **Network > Ports** page by selecting the **Static** option and then clicking **Configure**.

The WAP-200 is now ready for operation

For additional configuration and operating information, see the *WAP-200 Administrator's Guide*.

Regulatory information

The WAP-200 complies with the following radio frequency and safety standards.

Canada—Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 et CNR 210 d'Industrie Canada.

USA—Federal Communications Commission (FCC)

The WAP-200 complies with Part 15 of FCC Rules. Operation of the WAP-200 in a system is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference that may cause undesired operation.

Caution: Exposure to Radio Frequency Radiation

The radiated output power of the WAP-200 is far below the FCC radio frequency exposure limits. Nevertheless, the WAP-200 should be used in such a manner as to minimize the potential for human contact during normal operation. When using this device in combination with Colubris Networks antenna products, a certain separation distance between the antenna and nearby persons has to be kept to ensure FR exposure compliance.

When an external antenna is connected to the WAP-200 it shall be placed in such a manner as to minimize the potential for human contact during normal operation. To avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

When no external antenna is connected, the RF output power of the WAP-200 is far below the FCC radio frequency exposure limits. Nevertheless, it is advised to use the WAP-200 in such a manner that human contact during normal operation is minimized.

Interference Statement

The WAP-200 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.

The WAP-200 generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If the WAP-200 causes harmful interference to radio or television reception, which can be determined by turning the WAP-200 on and off, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the WAP-200 and the receiver.
- Connect the WAP-200 to an outlet on a circuit different from that which the receiver is connected.
- Consult your dealer or an experienced radio/TV technician for help.

Colubris Networks, Inc., is not responsible for any radio or television interference caused by unauthorized modification of the WAP-200, or the substitution or attachment of connecting cables and equipment other than that specified by Colubris Networks Inc.

The correction of interference caused by such unauthorized modification, substitution or attachment is the responsibility of the user.

Europe

Colubris Networks products sold in Europe use a technique called Dynamic Frequency Selection (DFS) to automatically select an operating channel. The European Telecommunications Standard Institute (ETSI) requires that 802.11a devices use DFS to prevent interference with radar systems and other devices that already occupy the 5 GHz band.

In order to comply with specific spectrum allocations, Colubris Networks products must be set to the correct country of operation prior to use. Failure to do so may violate national requirements.

Les produits de Colubris Networks vendues en Europe utilisent une technique dénommée Sélection de fréquence dynamique (Dynamic Frequency Selection, DFS) pour qu'un canal de fonctionnement soit automatiquement choisi. Le l'institut périphériques 802.11a utilisent DFS pour empêcher toute intérference avec les systèms radar et d'autres périphériques qui occupent déja la bande des 5 GHz.

Le unità Colubris Networks vendetue in Europa impiegano una tecnologia denonimata Selezione di frequenza dinamica (Dynamic Frequency Selection, DFS) per la selezione automatica del canale operativo. L'Istituto europeo di standardizzaione delle telecomunicazioni (European Telecommunications Standard Institute, ETSI) sancisce che tutti i dispositivi 802.11a devonon usare la DFS per prevenire eventuali interferenze con sistemi radar ed altri dispositivi che gia occupano la banda de 5 GHz.

Die in Europa vertreibenen Colubris Networks verwenden die so genannte dynamische Frequenzauswhahl (Dynamic Frequency Selection, DFS), um automatisch einen gültigen Betriebskanal auszuwählen. Das European Telecommunications Standard Institute (ETSI) shreibt vor, dass 802.11a-Geräte DFS verwenden, um Störungen in Radarsystemen und anderen Geräten, die das 5-GHz Band verwenden, zu vermeiden.

Las unidades Colubris Networks vendidas en Europa usan una técnica llamada Selección dinámica de frecuencias (Dynamic Frequency Selection, DFS) para seleccionar automaticamente un canal de operacion. El Instituto Europeo de Nomas de Telecomunicaciones (European Telecommunications Stardard Institute, ETSI) require que los dispositivos 802.11a usen DFS para evitar las interferencias con sistemas de radar y otros dispositivos que ya ocupan la banda de 5 GHz.

Products labeled with the CE mark comply with EMC Directive 89/336/ECC and the Low Voltage Directive 72/23/EEC implying conformity to the following European Norms.

Tous les produits portant la margue CE sont conformes à la directive EMC (89/336/EEC) et à la directive sur les basses tensions (Low Voltage Directive - 72 23/EEC) qui impliquent la conformité aux normes de la Commission de la Communauté Européene.

Tutti i prodotti con il marchio CE sono conformi alle directtive "Compatibilatà elettromagnetica" (EMC Directive - 89/336/EEC) e "Bassa tensione" (Low Voltage Directive - 73/23/EEC) che rispetto le norme dalla Commissione della Comunità Europea.

Produkte mit der CE-Kennzeichnung erfüllen die EMV-Richtlinie (89/336/EEC) sowie die Niederspannungsrichtlinie (73/23/EEC), implizieren die Erfüllung der Normen der EU-Kommission.

Todos los productos con la narca CE cumplen con la directiva de compatibilidad electromagnética EMC (89/336/EEC) y la directiva de baja tensión (72/23/EEC) y implica conformidad con las normas de la Comissión de la Unión Europea.

Products labeled with the CE 1313 with the optional alert sign "!" contain a radio transmitter that compies with the R&TTE Directive 1999/5/ED implying conformity to the following European Norms.

Les produits protant la margue d'alerte CE 1313 avec la marque '!' contiennent u émetteur radio conforme à la directive R&TTE (1999/5/EC) qui impliquent la conformité aux normes de la Commission de la Communauté Européene.

I prodotti che recano l'avvertenza CE 1313 o CE contegono un trasmettitore radio conforme alla Direttiva R&TTE (1999/5/EC) emessa dalla Commissione della Comunità Europea.

Funkprodukte mit der CE 1313 order CE-Kennzeichnumg enthalten einen Funktransmitter, der die von der Kommision der EU veabschiedete Richtlinie R&TTE (1999/5/EC) erfüllt.

Los productos con la marca CE 1313 o Alerta CE contienen un tranmisor de radio que cumple con la Directiva R&TTE (1999/5/EC) emitada por la Comissión Europea.

- EN 60950 (IEC60950) - Product Safety
- EN 300328 - Radio LAN equipement operating in the 2.4 GHz band
- EN301893 - Radio LAN equipment operating in the 5 GHz band
- ETS 300826 and/or ETS 301489-17 - General EMC requirements for radio equipment

☒ A	☐ B	☐ DK	☐ FI
☐ D	☐ GR	☐ IRL	☐ I
☐ LI	☐ LUX	☐ NL	☐ N
☐ P	☐ E	☐ S	☐ CH
☐ IS	☐ GB	☒ FR	

Member states in EU with restrictive use for this product are crossed out.

Les etats membres de l'Union Europeenne aven use utillisation restrictive de ce produit sont rayes.

Mitgliedsstaaten der EU mit eingeschrankten Nutzungsrechten fur dieses Produkt sind harausgestrichen.

Gli Stati membri nella Comunita Europea (EU) con restrizionin sull'oso di questi prodotti sonon contrassegnati di sequito.

((1313 ⓘ

Important Notice

Low power radio LAN product operating in 5 GH band for Home and Office environments. Selection of proper country of operation satisfies national requirements.

Notice Importante

Produit reseau local radio basse puissance oprant dans la band frequence 5 GHz poir les envrionnements bureautiques et residentielles. Merci de vous referer au manuel pour les details des restrictions.

Wichtige Mittellung

Low Power FunkLAN Produkt fur den Home- und Office-Bereich, das im 5 GHz Band arbeitet. Weitere informationen bezuglich Einschrankungen finden Sie im Datanblatt/Handbuch.

Nota Importante

Apparati Radio LAN a bassa potenza, operanti a 5 GHz , per ambienti domestico ed ufficio. Fara riferimento alla Guida d'Utente per avera informazioni dettagliate sulle restrizioni.a

Information to the user

This document provides regulatory information for the following product: WAP-200. These are wireless network products based on the IEEE 802.11 standards for wireless LANs defined and approvaed by the Institute of Electrical and Electronics Engineers. Products designed according to the IEEE802.11astandard use Orthogonal Frequency Division Multiplexing (OFDM) radio technology. Products designed according to the IEEE802.11b standard use Direct Sequence Spread Spectrum (DSSS) redio technology. These products are designed to be interoperable with any other wireless rpduct that complies with the corresponding standard.

The Wireless Fidelity (WiFi) certification is defined by the WECA Wireless Ethernet COmpatability Alliance.

Health Information

The WAP-200, like other radio devices, emits radio frequency electromagnetic energy. The level of energy emitted by the WAP-200 is much less than the electromagnetic energy emitted by other wireless devices, such as mobile phones.

Because the WAP-200 operates within the guidelines found in radio frequency safety standards and recommendations, Colubris Networks believes that the WAP-200 is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, use of the WAP-200 may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may include, for example, using the WAP-200

- Onboard airplanes
- In any other environment where the risk of interference to other devices or services is perceived or identified as harmful

If you are uncertain of the policy that applies to the use of wireless devices in a specific organization or environment (for example, airports), you are encouraged to ask for authorization to use the WAP-200 prior to turning it on.

Declaration of conformity

Colubris Networks
200 West Street. Waltham
Massachusetts, 02451, USA

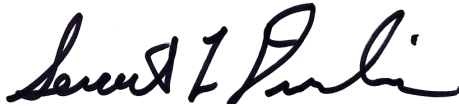Declares that the WAP-200 conforms to the
following standards;

European Directives and European Standards

- EMC Directive 89/336 EEC

- Low Voltage Directive 73/23 EEC

- Radio and Telecommunication Terminal
  Equipment Directive 1995/5/EEC

- EN 60950-1   Safety

- EN 300 328 V1.3.1   Data Transmission equipment operating in
  the 2.4 GHz ISM band

- 301 893 V1.2.3   5 GHz high performance RLAN

- EN 301 489-1 V1.4.1   EMC Standard for radio equipment and
  services; Part 1

- EN 301 489-17 V1.2.1   EMC Standard for radio equipment and
  services; Part 17; Specific conditions for
  2.4 GHz wideband transmission systems
  and 5 GHz high performance RLAN
  equipment.

North American Standards

- FCC Part 15-Subpart C-Title 47

- FCC Part 15-Subpart E-Title 47

- FCC Part 15-Subpart B   Radiated Emission

- UL60950-1, CAN/CSA   Safety
  C22.2 No. 60950-1-03

Dated this 27th day of April, 2005.

Gerrett L Durling
Principal Compliance Engineer
Colubris Networks

This device requires professional installation. CAUTION: Changes or modifications not expressly approved by Colubris Networks for compliance could void the user's authority to operate the equipment. The installation and operating configurations of this transmitter, including the antenna gain and cable loss, must satisfy MPE Categorical Exclusion Limits of 2.1091. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Installers and end users must be provided with operating instructions and antenna installation conditions for satisfying RF exposure compliance requirements.