



## 2.4-GHz Radio Upgrade for Autonomous Access Points

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This chapter provides upgrade instructions for the autonomous access point 2.4-GHz (IEEE 802.11b-compliant or IEEE 802.11g-compliant) radio card and includes the following sections:

- [Upgrade Overview, page 4-2](#)
- [Unpacking the Radio, page 4-2](#)
- [Removing the Back Cover, page 4-3](#)
- [Removing a 2.4-GHz Radio, page 4-4](#)
- [Installing a 2.4-GHz Radio, page 4-5](#)
- [Replacing the Back Cover, page 4-8](#)
- [Finding the Software Version, page 4-9](#)

# Upgrade Overview

This section provides instructions for upgrading the autonomous access point 2.4-GHz radio.

**Caution**

Your autonomous access point must be running Cisco IOS 12.2(13)JA or later before you upgrade to the IEEE 802.11g-compatible radio, otherwise your access point may not be able to complete the boot sequence until the radio is removed. For additional information, refer to the [“Finding the Software Version”](#) section.

The following operations summarize the upgrade procedure:

1. Remove all cables and power connections from the access point.
2. Follow standard electrostatic discharge (ESD) procedures.
3. Place the access point on an ESD-protected work surface.
4. Remove the access point’s back cover.
5. Remove the existing 2.4-GHz radio card.
6. Install the new 2.4-GHz radio card.
7. Replace the access point’s back cover.
8. Install the new compliance label.

**Caution**

ESD can damage the Cisco Aironet radio and the internal components of the access point. It is recommended that the 2.4-GHz radio upgrade procedures be performed by an ESD-trained service technician at an ESD-protected workstation.

**Note**

After you install the new radio, all configurable radio settings will be at default values. Refer to the Cisco IOS Software Configuration Guide for Cisco Aironet Access Points for complete instructions on configuring the new radio.

## Unpacking the Radio

Each 2.4-GHz (IEEE 802.11g) radio is shipped with the following items:

- Quick Start Guide
- A product registration card
- A 1100 series access point product compliance label
- A 1200 series access point product compliance label (not used on 1100 series access points)
- A 1200 series access point 2.4-GHz radio compliance label (not used on 1100 series access points)
- A T-10 tamper-resistant Torx L-wrench (not used on 1100 series access points)

If anything is missing or damaged, contact your Cisco representative for support.

# Removing the Back Cover

To remove the access point's back cover, follow these steps:

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- Step 1** Remove all cables and power connections from the access point.
  - Step 2** Remove all static-generating items from the work area, such as plastic material, styrofoam cups, and other similar items.
  - Step 3** Place the access point and the new 2.4-GHz radio (in its antistatic bag) on an antistatic work surface.
  - Step 4** Discharge any static buildup on your body by touching a grounded surface (antistatic work surface) before proceeding.
  - Step 5** Position the access point so that the back cover is facing up.

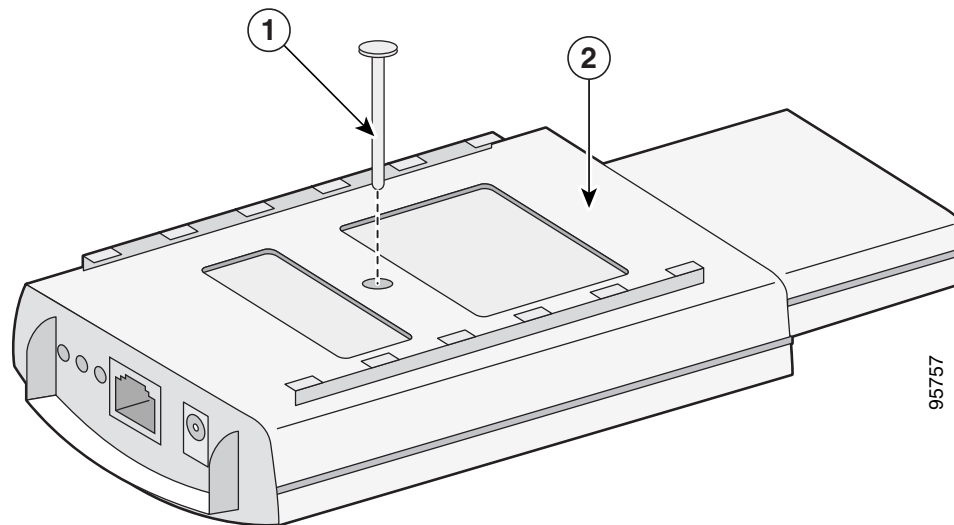


**Caution**

The internal access point components and the 2.4-GHz radio can be damaged by ESD from improper handling.

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- Step 6** Remove the back-cover retaining screw using a Philips screwdriver (see [Figure 4-1](#)).

**Figure 4-1 Access Point Back Cover Screw**



<b>1</b>	Back cover screw	<b>2</b>	Back cover
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- Step 7** Hold the front cover with one hand, and with the other hand gently slide the back cover towards the connector end of the unit.
  - Step 8** Gently lift the connector end of the back cover and remove the cover.  
Go to the [“Removing a 2.4-GHz Radio”](#) section.
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# Removing a 2.4-GHz Radio

To remove a 2.4-GHz radio card from your access point, follow these steps:

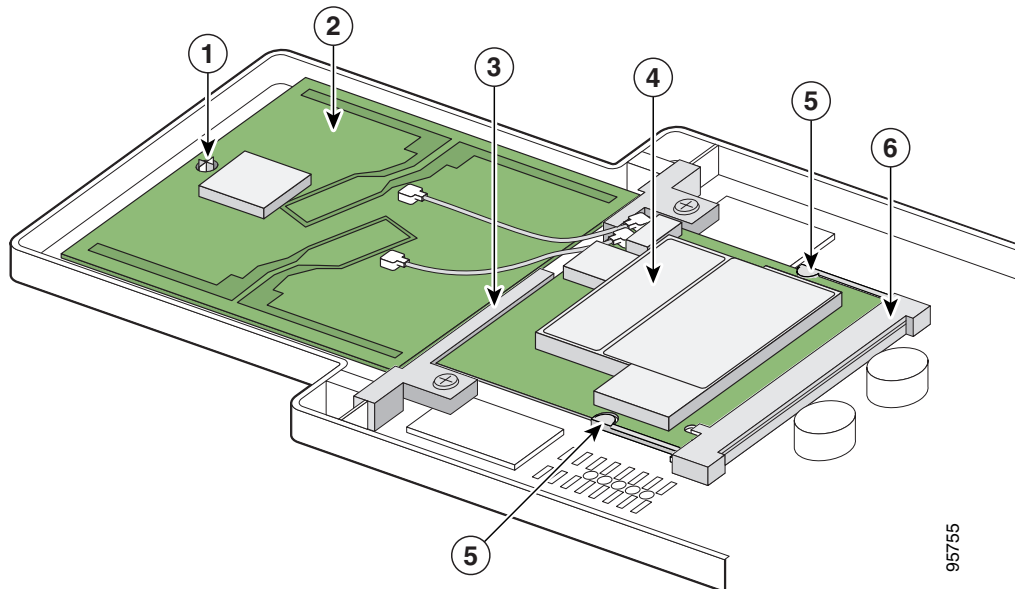


## Caution

The internal access point components and the 2.4-GHz radio can be damaged by ESD from improper handling.

**Step 1** Gently lift the top of the antenna card until it clears the plus shaped (+) support post (see [Figure 4-2](#)).

**Figure 4-2** Radio Card and Antenna Card



1	Support post	4	Radio Card
2	Antenna card	5	Card-retaining clips
3	Support bracket	6	Mini-PCI connector

**Step 2** Gently pull the antenna card to remove it from the notch in the support bracket. Do not disconnect the antenna wire connectors.

**Step 3** Push the card-retaining clips (on each side of card) away from the radio card (see [Figure 4-2](#)). When released, the radio card springs up. Do not disconnect the antenna wires.



## Note

If the radio card does not spring up, slightly loosen the support bracket screws.

**Step 4** Remove the 2.4-GHz radio card from the mini-PCI connector:

- a. Grasp the radio card only on the edges, being careful not to touch components on the board or the gold connector pins.
- b. Remove the 2.4-GHz card from the mini-PCI connector.

**Step 5** Place the radio card and antenna card on the ESD-protected work surface.

**Step 6** Use your fingernail to carefully remove the antenna wire connectors from the 2.4-GHz radio card. Do not remove the antenna wire connectors from the antenna board.

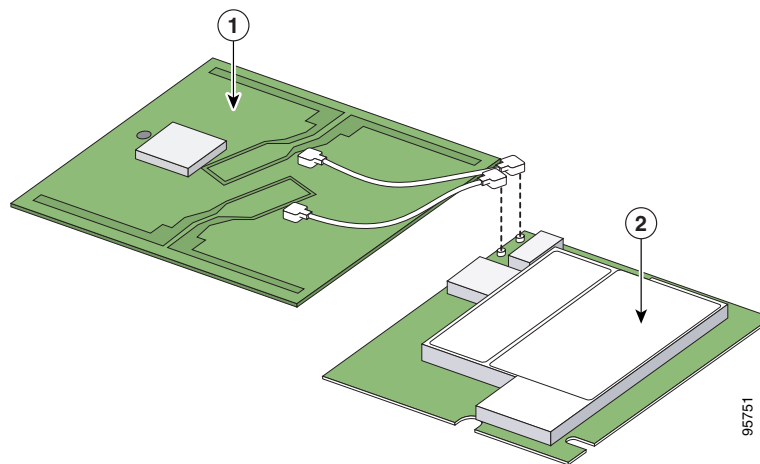


**Caution** The antenna connectors can be damaged if you use long-nose pliers during the removal process.



**Caution** To avoid damaging the antenna wire assemblies, handle them by their connectors.

**Figure 4-3** Antenna Wires



<b>1</b>	Antenna card	<b>2</b>	Radio card
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**Step 7** Place the removed 2.4-GHz radio card into an anti-static bag. The antenna card connects to your new radio card.

Go to the [“Installing a 2.4-GHz Radio”](#) section.

## Installing a 2.4-GHz Radio

To install a new 2.4-GHz radio card into the access point, follow these steps:



**Caution** The internal access point components and the 2.4-GHz radio can be damaged by ESD from improper handling.

**Step 1** Carefully remove the new Cisco Aironet 2.4-GHz radio card from its anti-static bag.

**Step 2** Grasp the radio card only on the edges, being careful not to touch components on the board or the gold connector pins.

- Step 3** Place the radio card on the anti-static work surface next to the antenna card.
- Step 4** Use your fingers to carefully connect the antenna wire connectors to the connectors on the 2.4-GHz radio card (see [Figure 4-3](#)).



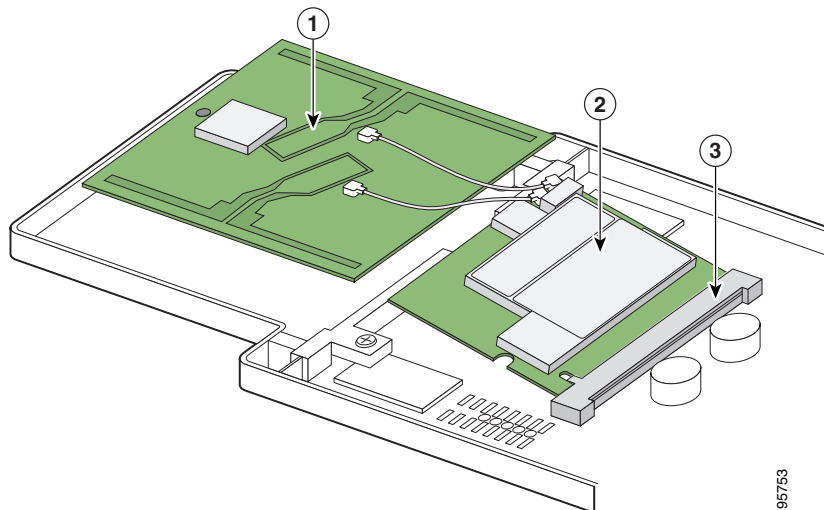
**Caution** The antenna connectors can be damaged by using a pair of long-nose pliers.



**Caution** To avoid damaging the antenna wire assemblies, handle them by their connectors.

- Step 5** Insert the radio card into the access point's mini-PCI connector by following these steps:
- Tilt the radio card at approximately 20° to 30° so that its gold pins are aligned with the mini-PCI connector (see [Figure 4-4](#)).

**Figure 4-4** Inserting Radio Card in Mini-PCI Connector

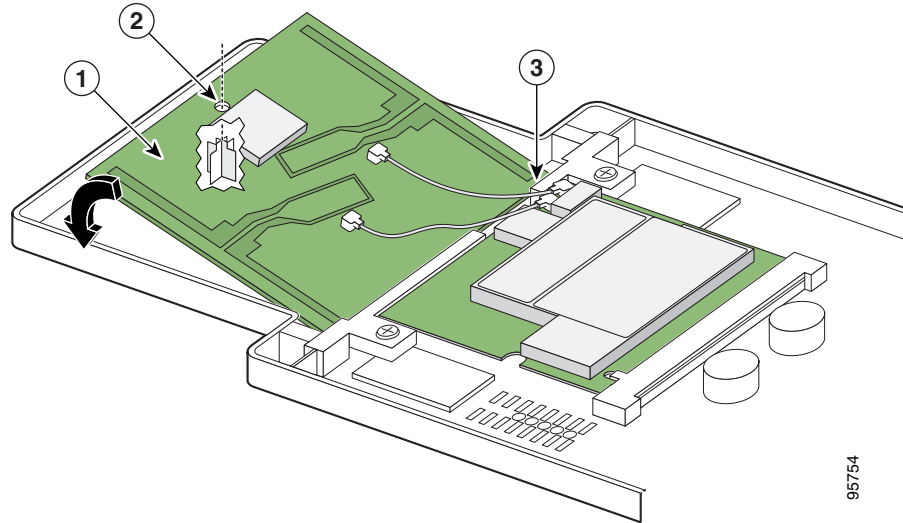


<b>1</b>	Antenna card	<b>3</b>	Mini-PCI connector
<b>2</b>	Radio card		

- Push the radio card into the mini-PCI connector until it is fully seated (you will hear a slight snap).
- Step 6** Hold the top of the antenna card with one hand and carefully push the radio card down with your other hand (towards the access point's motherboard) until the card-retaining clips lock into the notches on the side of the radio card (you will hear a click).

- Step 7** Insert the antenna card into the notch in the support bracket and gently push until it is seated (see [Figure 4-5](#)).

**Figure 4-5** *Inserting Antenna Card*



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<b>1</b>	Antenna card	<b>3</b>	Support bracket notch
<b>2</b>	Support post hole		

- Step 8** Align the hole on the top of the antenna board with the support post and gently push down until the board is fully seated on the support post (see [Figure 4-5](#)).

- Step 9** Verify the following:

- a. The radio card is properly secured with both retaining clips engaged.
- b. The antenna board is properly seated.
- c. The antenna connectors are not touching.



**Caution**

Do not allow antenna connectors to touch while power is applied, or the radio can be damaged. If they are touching, carefully rotate them in opposite directions until they are separated.

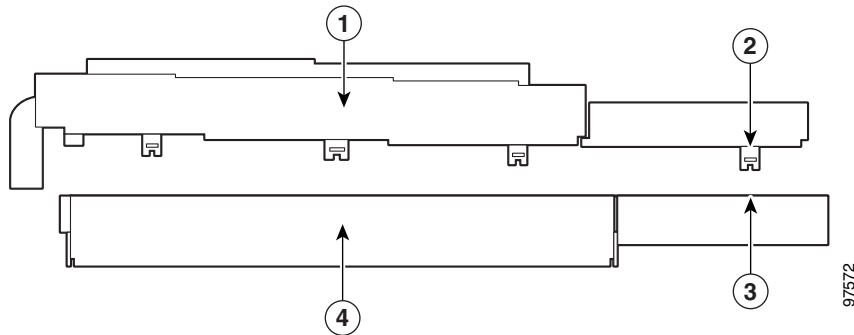
Go to the [“Replacing the Back Cover”](#) section on page 4-8.

# Replacing the Back Cover

To replace the back cover on the access point, follow these steps:

- Step 1** While holding the back cover near the connector end of the access point, position it at a slight angle and carefully place the latches on the antenna end into the detents on the antenna end of the front cover (refer to [Figure 4-6](#)).

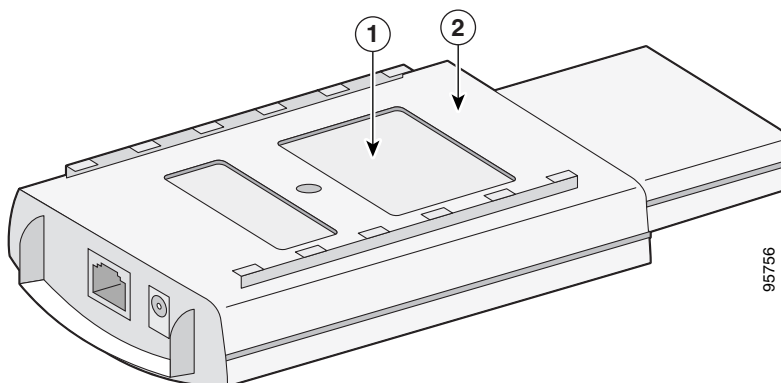
**Figure 4-6** Positioning the Back Cover Latches



<b>1</b>	Back cover	<b>3</b>	Antenna end detent
<b>2</b>	Antenna end latch	<b>4</b>	Front cover

- Step 2** Release the back cover and with one finger gently push the connector end of the back cover towards the antenna end. The back cover drops into place and slides forward until it is fully seated.
- Step 3** Use a Philips screwdriver to hand tighten the cover's retaining screw.
- Step 4** Remove the backing paper from the 1100 series access point product compliance label and carefully place the new label over the existing label (see [Figure 4-7](#)).

**Figure 4-7** Location of Compliance Labels



<b>1</b>	Product compliance label	<b>2</b>	Back cover
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The radio card installation is now complete. To configure the new radio with your new wireless network settings, refer to the Cisco IOS Software Configuration Guide for Cisco Aironet Access Points.

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## Finding the Software Version

To find the version of operating system software running on your autonomous access point, refer to the *Cisco IOS Software Configuration Guide for Cisco Aironet Access Points*.

