C H A P T E R

7

2.4 GHz Radio Upgrade

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

Upgrade Overview

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

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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 T-10 tamper-resistant Torx L-wrench (not used on 1100 series access points)

• Two 1100 series access point labels

• A 1200 series access point 2.4-GHz radio compliance label (not used on 1100 series access points)

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

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Removing the Back Cover

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

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.

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

Step 6   Remove the back cover retaining screw using a philips screwdriver (see Figure 7-1).

Figure 7-1   Access Point Back Cover Screw
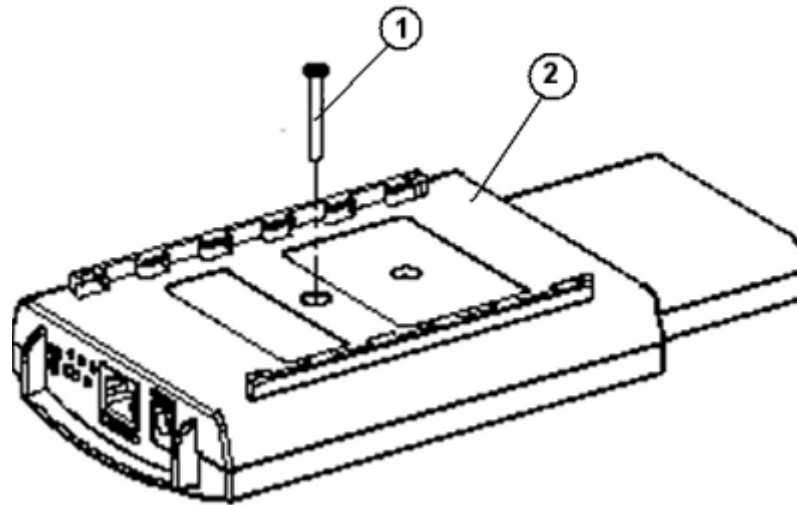
1	Back cover screw	2	Back cover

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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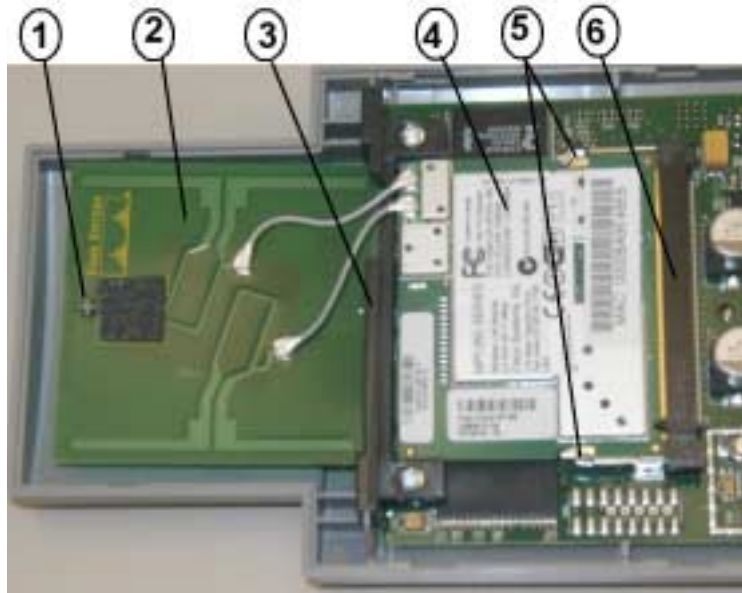
Removing a 2.4-GHz Radio

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

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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 7-2).

Figure 7-2   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 7-2). When released, the radio card springs up. Do not disconnect the antenna wires.

Step 4   Remove the 2.4-GHz radio card from the mini-PCI connector by performing the following operations:

    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.

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Step 6   Use your fingers 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.
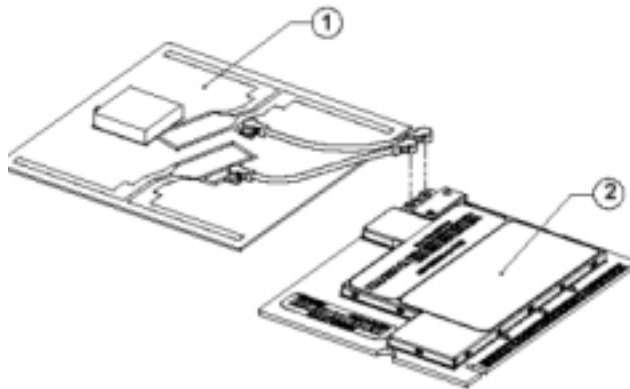
⚠

Caution   The antenna connectors can be damaged by using a pair of long-nose pliers during the removal process.

⚠

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

Figure 7-3   Antenna Wires

1	Antenna card	2	Radio card

Step 7   Place the removed 2.4-GHz radio card into an anti-static bag. The antenna card will be connected 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:

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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 7-3).

⚠

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:

  a. Tilt the radio card at approximately 20° to 30° so that its gold pins are aligned with the mini-PCI connector (see Figure 7-4).

Figure 7-4   Inserting Radio Card in Mini-PCI Connector
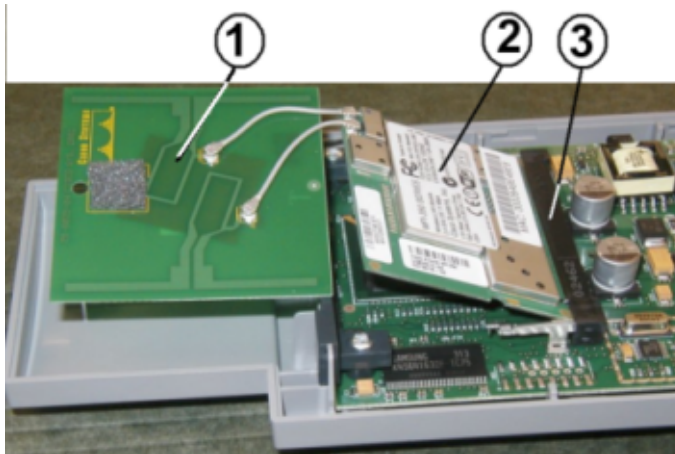
| 1	Antenna card	3	Mini-PCI connector
2	Radio card		

  b. Push the radio card into the mini-PCI connector until it clicks into place.

Step 6 Hold the top of the antenna card and carefully push the radio card down (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 7-5).

Figure 7-5   Inserting Antenna Card
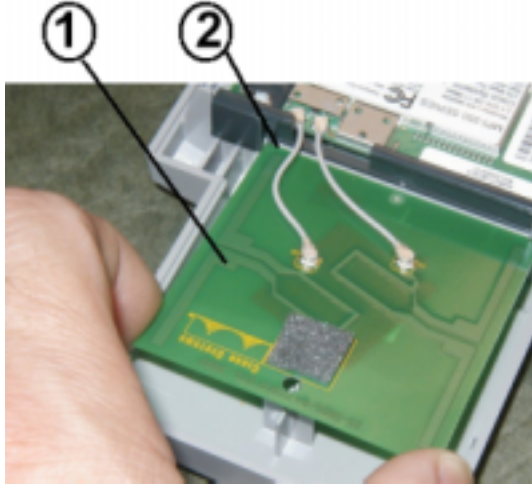
1	Antenna card	2	Support bracket notch

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.

Step 9   Carefully position the antenna wires so that the metal connectors do not touch each other.

⚠

Caution   Damage to the radio could occur if the antenna connectors are touching when power is applied. If they are touching, carefully rotate them in opposite directions until they are separated.

Go to the Replacing the Back Cover, page 7-8 section.

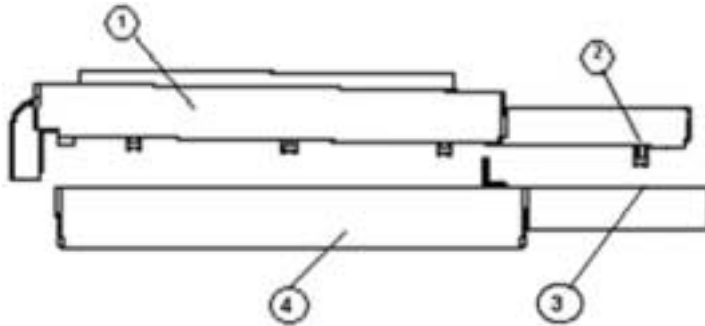*First Draft - CISCO CONFIDENTIAL*

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, carefully place the antenna end's latches into the detents on the antenna end of the front cover (refer to Figure 7-6).

Figure 7-6   Positioning the Back Cover Latches

1	Back cover	3	Detent
2	Latch	4	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 each 1100 series access point compliance label and carefully place the label over the existing label (see Figure 7-7).

Figure 7-7   Location of Compliance Labels
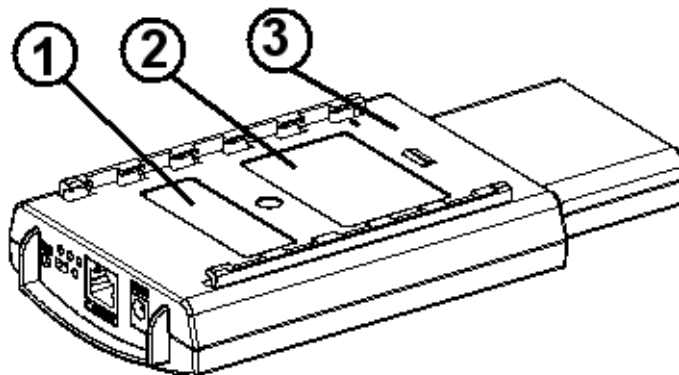
1	2.4-GHz radio label	2	Product compliance label
3	Back cover		

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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*.