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Cisco SwitchProbe Interface Installation Instructions

This document describes the procedure for installing interfaces in small (PB6), large (PB7), and front-access (PB8) SwitchProbe devices.

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Document Conventions



Warning This warning symbol means *danger*. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.



Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

General Safety Warnings

To see translations of the warnings that appear in this document, see the appendix “Translated Safety Warnings” in the *Cisco SwitchProbe Installation and Configuration Guide*.



Warning Only trained and qualified personnel should be allowed to install, replace, or service this equipment.



Warning Before working on a system that has an on/off switch, turn OFF the power and unplug the power cord.



Warning Before opening the chassis, disconnect the telephone-network cables to avoid contact with telephone-network voltages.



Warning Do not work on the system or connect or disconnect cables during periods of lightning activity.



Warning Do not touch the power supply when the power cord is connected. For systems with a power switch, line voltages are present within the power supply even when the power switch is off and the power cord is connected. For systems without a power switch, line voltages are present within the power supply when the power cord is connected.



Warning Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.



Warning Ultimate disposal of this product should be handled according to all national laws and regulations.

Contents of the Interface Installation Kit

The SwitchProbe interface installation kits contain the following items:

- This document.
- Phillips head screwdriver.
- Electrostatic discharge (ESD) grounding wrist strap.
- New “Warranty Void if Seal is Broken” label.
- Interface card label(s).
- Module support bracket (for upgrades to PB6 devices only).
- One or more of the interfaces listed in Table 1.

Contents of the Interface Installation Kit

Table 1 **Interface Types**

Chassis	Interface Type	Slot(s)
Small (PB6) (see Figure 2 on page 7)	Second Ethernet interface	3
Large (PB7) (see Figure 7 on page 12)	Second half-duplex 100BaseTX interface	6
	Second half-duplex 100BaseFX interface	6
	<p>Note These interfaces are intended <i>only</i> for adding additional half-duplex capabilities. To upgrade the device to achieve full-duplex capabilities, you must purchase an additional full-duplex tap kit (<i>not</i> included in this installation kit), and download an updated firmware image from Cisco Systems as follows:</p> <p>Step 1 Log into Cisco Connection Online (CCO) using the instructions in the “Cisco Connection Online” section on page 19.</p> <p>Step 2 Click Software & Support.</p> <p>Step 3 Under the heading Software Center, click Network Management Products.</p> <p>Step 4 Click SwitchProbe Software Planner.</p> <p>Step 5 Click the most recent version of the firmware image associated with your SwitchProbe model.</p> <p>Step 6 To review the instructions for properly configuring your browser <i>before</i> downloading the SwitchProbe firmware image, click the link to Mime Type Configuration.</p> <p>Step 7 To review the instructions before proceeding, click the link to the readme file.</p> <p>Step 8 To continue with the firmware download, follow the instructions in the readme file.</p>	
	Additional third WAN interface (sold separately)	3
	Additional fourth WAN interface (sold separately)	7
Front-Access (PB8) (see Figure 11 on page 15)	Additional WAN interfaces (2), 32 MB models	6, 7
	Additional WAN interfaces (2), 64 and 128 MB models	3, 4
	<p>Note This installation kit is available <i>only</i> for two-port PB8 T1/E1 models (not the T1D/E1D models) as an upgrade to four-port. These kits are not available for adding more interfaces to existing four-port models. This installation kit includes two WAN tap kits—one for each additional interface.</p>	

Table 2 shows the factory-preset specifications for the second Ethernet interface used with small (PB6) SwitchProbe devices.

Table 2 **Factory-Preset Specifications for Second Ethernet Interface (Slot 3)**

Location	Setting
Address	0x320
DRQ Channel	6
DACK Channel	6
IRQ Channel	12
PROM Base	No PROM
LAN	A
PROM size	16K
UTP/AUI/BNC	<i>Not preset</i> —You must manually set this jumper to UTP, AUI, or BNC, depending on your network connection.

Electrostatic Discharge Wrist Strap Instructions

Electrostatic discharge (ESD) is the release of stored static electricity that can damage electrical circuitry. Static electricity is often stored in your body, and discharged when you come in contact with an object with a different potential. The ESD wrist strap safely channels this electricity from your body to a proper ground.



Warning Before working on a system that has an on/off switch, turn OFF the power and unplug the power cord.



Caution The SwitchProbe device is no longer grounded after you remove the power supply. Therefore, you must ground to something other than the chassis, such as a different chassis or another piece of equipment that is plugged in and grounded. Make sure the equipment having a grounding type plug is properly grounded.

You must use an ESD wrist strap whenever you open a chassis, particularly when you handle circuit cards and appliques. To work properly, the wrist strap must make good contact at both ends—with your skin at one end, and with a proper ground at the other.

Attaching the ESD Wrist Strap

To use the ESD wrist strap correctly, follow these steps:

Step 1 Ensure that the equipment is properly grounded.



Caution Make certain that you are not in contact with grounded objects other than through the wrist strap.

Step 2 Turn the chassis power switch OFF.

Step 3 Unplug the power cord.

Step 4 Make sure the wrist strap is grounded.

Step 5 Remove the wrist strap from the bag and note the following:

- One end terminates with a metal alligator clip (at the equipment end).
- The other end has an adjustable elastic, fabric-coated wrist band that slips onto your wrist.
- The middle section is a coiled ground cord.

Step 6 Snap the cable fastener at the end of the coiled ground cord onto the wrist band.



Caution A one megaohm resistor is located in the wrist strap ground cord. *Do not remove the resistor.* If it becomes damaged, replace the ground cord immediately.

Step 7 Slip the wrist band firmly around your wrist for a snug fit.

Step 8 Connect the alligator clip to the device that you are using as a ground.

Installing Interfaces in Small (PB6) SwitchProbe Devices

Figures 1 and 2 show the front and rear panels of a small (PB6) SwitchProbe device.

Figure 1 Front Panel—Small (PB6) SwitchProbe Device

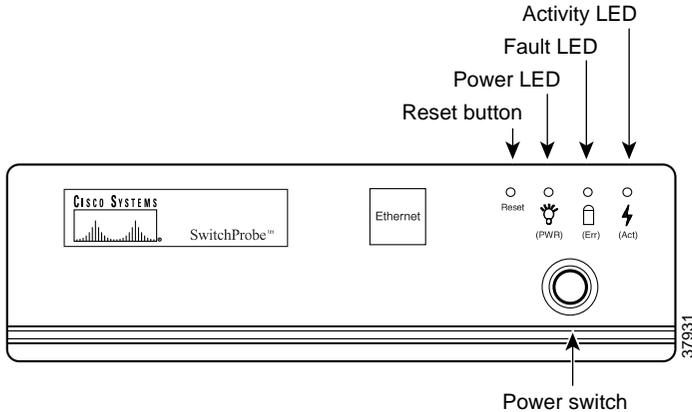
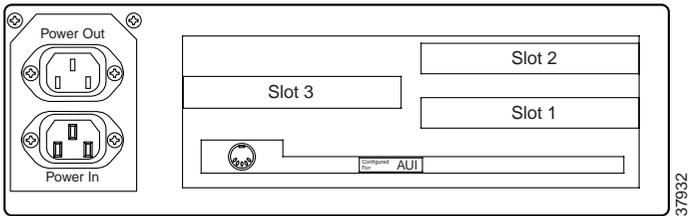


Figure 2 Rear Panel—Small (PB6) SwitchProbe Device



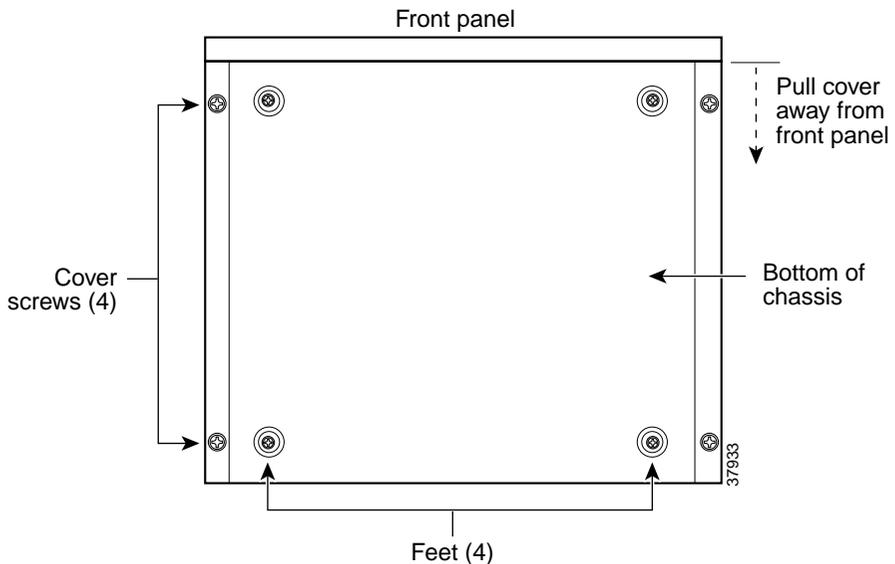
To install interfaces in a PB6 device, follow these steps:



Warning During this procedure, wear a grounding wrist strap to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.

- Step 1** Put on the ESD wrist strap, following the instructions in “Electrostatic Discharge Wrist Strap Instructions” on page 5.
- Step 2** Turn the chassis power switch OFF.
- Step 3** Remove all cables from the back of the chassis, including the power cable.
- Step 4** Turn the chassis upside-down.
- Step 5** Remove the four screws located near the edges of the chassis (Figure 3).
- Step 6** Set the screws aside for later reassembly.

Figure 3 Removing Screws from Small (PB6) Chassis



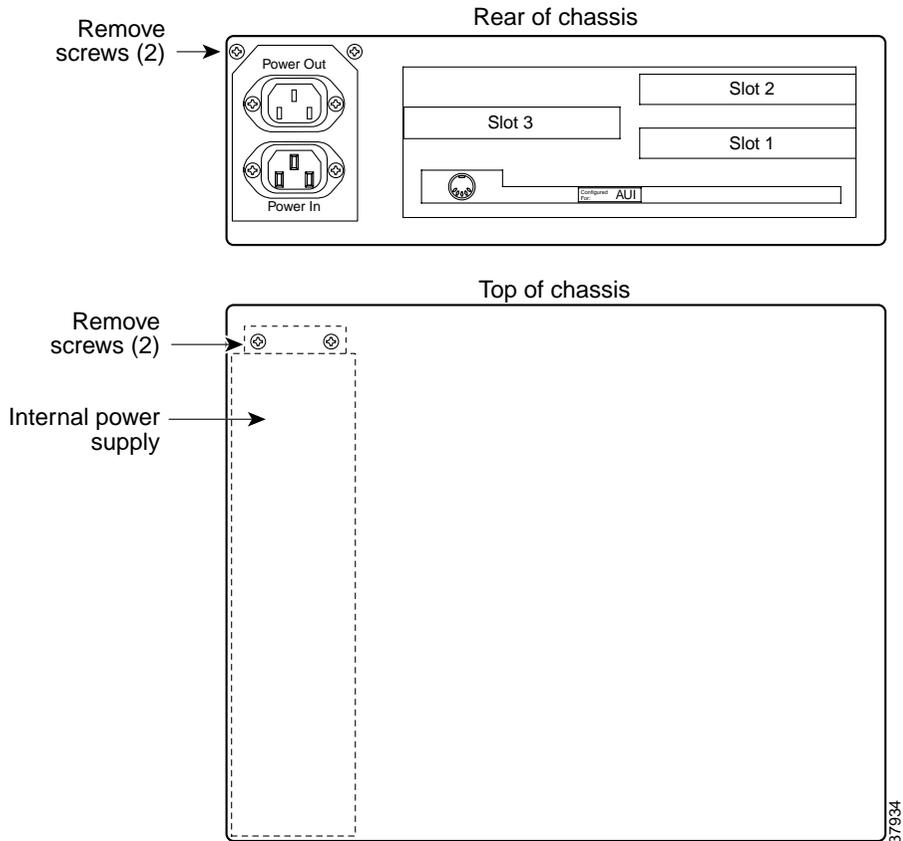
- Step 7** Turn the device right-side up.
- Step 8** Remove the top cover by moving it upward and away from the back panel.



Warning Do not touch the power supply when the power cord is connected. For systems with a power switch, line voltages are present within the power supply even when the power switch is off and the power cord is connected. For systems without a power switch, line voltages are present within the power supply when the power cord is connected.

- Step 9** Disconnect the green/yellow ground wire from the power supply.
- Step 10** Remove the power supply by removing the four screws (Figure 4).

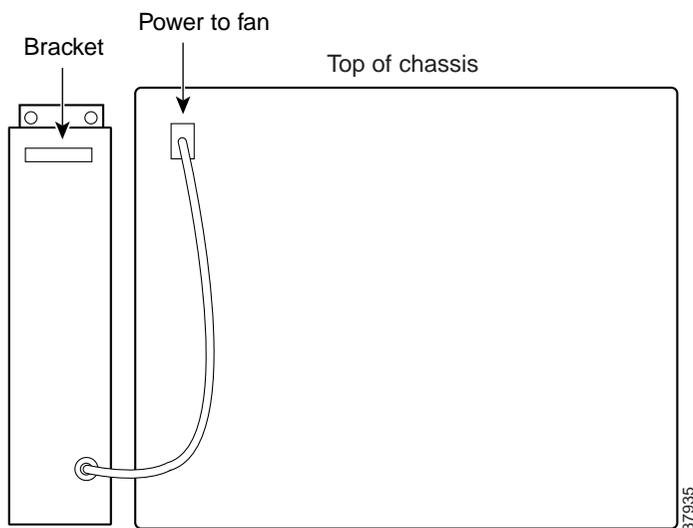
Figure 4 Removing Power Supply from Small (PB6) SwitchProbe Device



- Step 11** Place the power supply to the side of the chassis, *using care not to stress the existing wiring.*
- Step 12** Insert the interface card into slot 3 of the device.
- Step 13** Secure the interface card into the chassis.

- Step 14** Place the module support bracket onto the power supply (Figure 5) to support the interface card you installed in slot 3.

Figure 5 Module Support Bracket on Ethernet Interface



- Step 15** Rotate the power supply so that the cables protrude from the side facing you.
- Step 16** Insert the two feet of the module support bracket into the holes in the power supply farthest from the electrical input/output. (Insert the bracket so that the notch is closer to the top edge.)
- Step 17** Return the power supply to its original location inside the chassis.
- Step 18** Use the original hardware to connect the power supply to the device.
- Step 19** Secure the green/yellow ground wire to the power supply, closest to the inside of the device.
- Step 20** Reassemble the unit.
- Step 21** Remove the ESD wrist strap.

- Step 22** Power up the unit to verify successful boot sequence.
- A successful installation is indicated by one long beep and several short beeps.
 - An unsuccessful installation is indicated by one long beep only.
- Step 23** Place the new “Warranty Void if Seal is Broken” label over the old, torn label.
- Step 24** Place the interface card label (provided with the kit) beside the new interface you installed in slot 3.

Installing Interfaces in Large (PB7) SwitchProbe Devices

Figures 6 and 7 show the front and rear panels of a large (PB7) SwitchProbe device.

Figure 6 Front Panel—Large (PB7) SwitchProbe Device

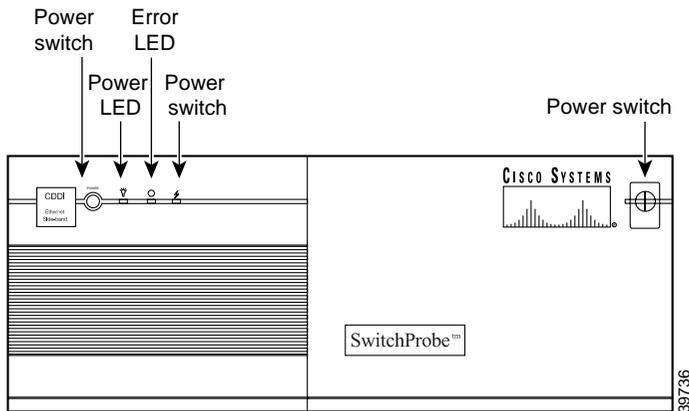
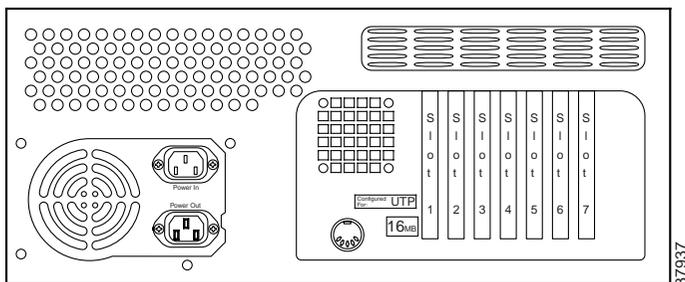


Figure 7 Rear Panel—Large (PB7) SwitchProbe Device



To install interfaces in a PB7 device, follow these steps:



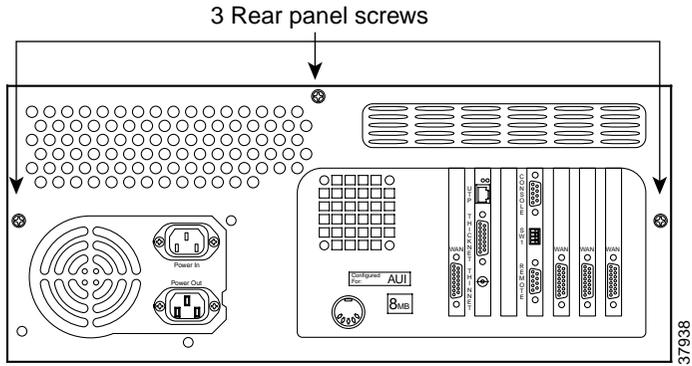
Warning During this procedure, wear a grounding wrist strap to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.



Caution See Table 1 on page 4 to ensure you are using the correct interface and have chosen the correct slot into which to install the interface.

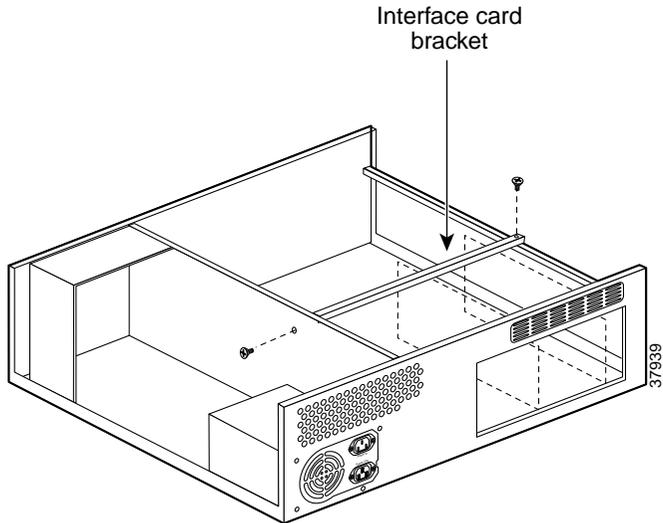
- Step 1** Put on the ESD wrist strap, following the instructions in “Electrostatic Discharge Wrist Strap Instructions” on page 5.
- Step 2** Turn off the power to the SwitchProbe device.
- Step 3** Remove all cables from the back of the chassis, including the power cable.
- Step 4** Rotate the chassis so that the rear of the chassis is facing you.
- Step 5** Remove the three screws located at the edge of the case (Figure 8).
- Step 6** Set screws aside for later reassembly.
- Step 7** Remove the top cover by moving it upward and away from the back panel.

Figure 8 Removing Screws from Large (PB7) Chassis



Step 8 Remove the interface card bracket by removing the two screws (Figure 9).

Figure 9 Removing Interface Card Bracket from Large (PB7) Chassis



Step 9 Insert an interface card into the appropriate slot in the chassis. (See Table 1 on page 4.)

Step 10 Secure the interface card into the chassis.

Note Repeat this step for as many new interfaces as you are installing.

Step 11 Reinstall the module support bracket (Figure 9).

Step 12 Reassemble the unit.

Step 13 Remove the ESD wrist strap.

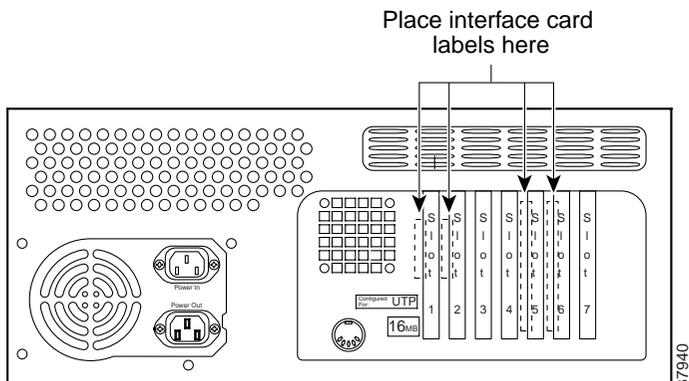
Step 14 Power up the unit to verify successful boot sequence.

- A successful installation is indicated by one long beep and several short beeps.
- An unsuccessful installation is indicated by one long beep only.

Step 15 Place the new “Warranty Void if Seal is Broken” label over the old, torn label.

Step 16 Place the interface card label(s) (provided with the kit) beside the new interface(s) you installed (Figure 10).

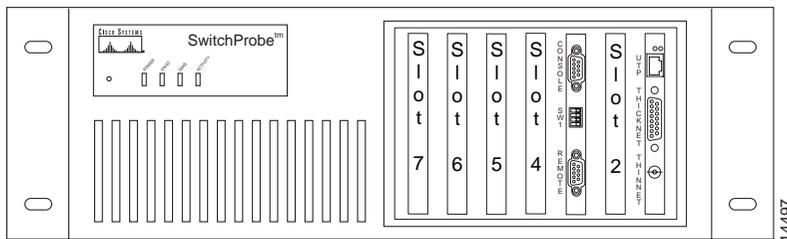
Figure 10 Placement of Interface Label(s)



Installing Interfaces in Front-Access (PB8) SwitchProbe Devices

Figure 11 shows the front panel of a front-access (PB8) SwitchProbe device.

Figure 11 Front Panel—Front-Access (PB8) SwitchProbe Device



Depending on SwitchProbe model you have, Figures 12 and 13 show the rear panel of a front-access chassis SwitchProbe device.

Figure 12 Rear Panel—Front-Access (PB8) SwitchProbe Device (Some Models)

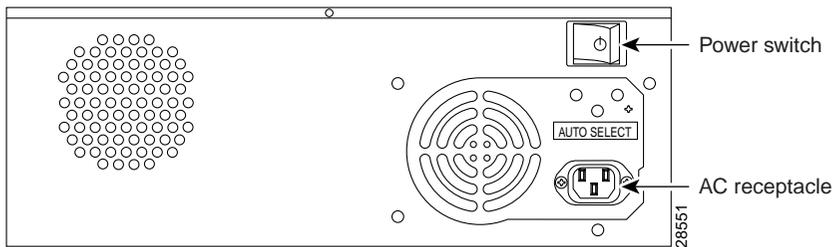
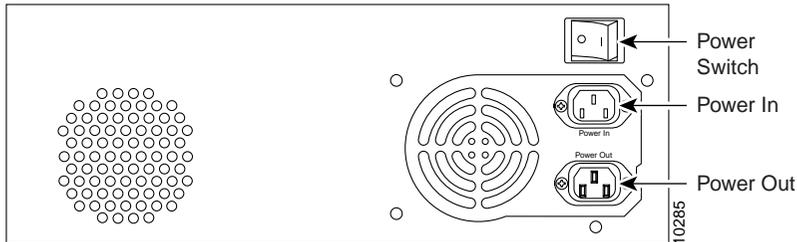


Figure 13 Rear Panel—Front-Access (PB8) SwitchProbe Device (Other Older Models)



To install interfaces in a PB8 device, follow these steps:



Warning During this procedure, wear a grounding wrist strap to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.



Caution See Table 1 on page 4 to ensure you are using the correct interface and have chosen the correct slot into which to install the interface.

Step 1 Put on the ESD wrist strap, following the instructions in “Electrostatic Discharge Wrist Strap Instructions” on page 5.

Step 2 Turn off the power to the SwitchProbe device.

Step 3 Remove all cables from the chassis, including the power cable.

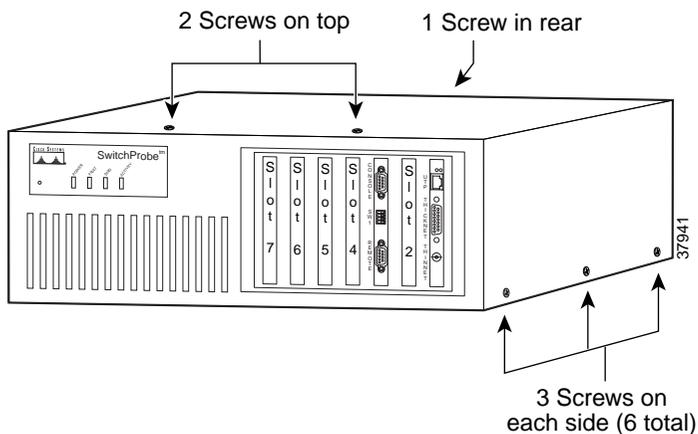
Step 4 Turn the chassis so that the rear of the chassis is facing you.

Step 5 Remove the nine screws.

There are three screws on each side, one in the rear, and two on the top surface of the chassis (Figure 14).

Step 6 Remove the top cover by lifting the rear and pulling up.

Figure 14 Removing Screws from Front-Access (PB8) Chassis



Step 7 Insert the interface card into the appropriate slot in the chassis.
(See Table 1 on page 4.)

Step 8 Secure the interface card into the chassis.

Note Repeat this step for as many new interfaces as you are installing.

Step 9 Reassemble the unit.

Step 10 Remove the ESD wrist strap.

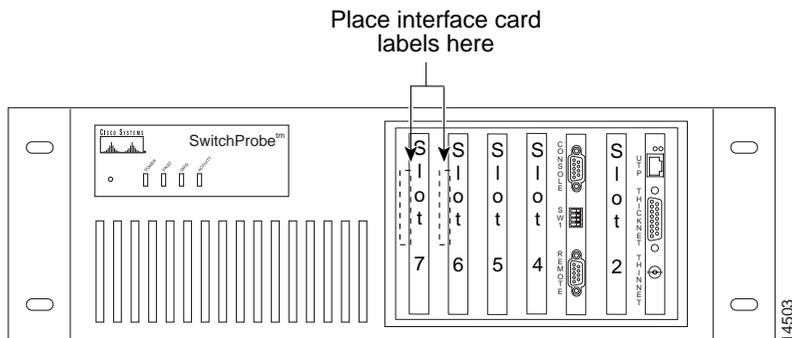
Step 11 Power up the unit to verify successful boot sequence.

- A successful installation is indicated by one long beep and several short beeps.
- An unsuccessful installation is indicated by one long beep only.

Step 12 Place the new “Warranty Void if Seal is Broken” label over the old, torn label.

Step 13 Place the interface card label(s) (provided with the kit) beside the new interface(s) you installed (Figure 15).

Figure 15 Placement of Interface Label



Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more current than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at <http://www.cisco.com>, <http://www-china.cisco.com>, or <http://www-europe.cisco.com>.

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- WWW: <http://www-china.cisco.com>
- Telnet: [cco.cisco.com](telnet://cco.cisco.com)
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

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