



Troubleshooting the Installation

This chapter describes how to troubleshoot the installation of SIPs and SPAs on the Cisco CRS-1 router.

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Troubleshooting the SIP

If a SIP fails to operate or to power up upon installation:

- Make sure that the SIP is seated firmly in the line card chassis slot. One easy way to verify physical installation is to see whether the front faceplate of the SIP is even with the fronts of the other PLIMs installed in the card cage.
- Make sure that the corresponding MSC is installed and operating correctly.
- Check whether the ejector levers are latched and that the captive screws are fastened properly. If you are uncertain, unlatch the levers, loosen the screws, and attempt to reseat the SIP.
- Determine whether there are any active alarms by looking at the alarm LEDs on the alarm module (16-slot) or the route processor (8-slot). See *Cisco CRS-1 Carrier Routing System 8-Slot Line Card Chassis System Description* or *Cisco CRS-1 Carrier Routing System 8-Slot Line Card Chassis System Description* for more information about alarms.
- Examine the power shelves (16-slot chassis) or power distribution units (PDUs) (8-slot chassis) to see whether the chassis, as a whole, is receiving power.
- Use the LED on the SIP to verify the correct installation and operation of the card. The STATUS LED indicates whether the card is properly seated and operating correctly:
 - Green—The SIP is properly installed and operating correctly.
 - Amber—A problem exists on the SIP.

- Off (dark)—Verify that the SIP is installed correctly. Also verify that there is power to the SIP by looking at the indicators on the power shelf (16-slot) or PDU (8-slot).

Troubleshooting the SPA

If you attempt to install a SPA that oversubscribes the SIP, the SPA does not power up, and you receive an error message similar to the following:

```
LC/0/2/CPU0:Jan 31 11:52:57.335 : jacket[159]: %JACKET-3-RULES_FATAL_ERROR
: SPA subslot 4: FAILED: Not enough bandwidth for 1xOC192 POS/RPR HHSPA with XFP
```

When this happens, the SPA subslot is locked in the failed state. To enable the use of the SPA subslot, perform the following procedure.



Note Before you perform this procedure, you must resolve the oversubscription of the SIP by removing one of the SPAs that is causing the oversubscription.

DETAILED STEPS

	Command or Action	Purpose
Step 1	<p>configure</p> <p>Example:</p> <pre>RP/0/RP0/CPU0:router# configure</pre>	Enters global configuration mode.
Step 2	<p>hw-module subslot <i>node-id</i> shutdown</p> <p>Example:</p> <pre>RP/0/RP0/CPU0:router(config)# hw-module subslot 0/1/0 shutdown</pre>	Administratively shuts down the specific shared port adapter (SPA) subslot. The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
Step 3	<p>commit</p> <p>Example:</p> <pre>RP/0/RP0/CPU0:router(config)# commit</pre>	Saves the configuration changes to the running configuration file and remains within the configuration session.
Step 4	<p>no hw-module subslot <i>node-id</i> shutdown</p> <p>Example:</p> <pre>RP/0/RP0/CPU0:router(config)# no hw-module subslot 0/1/0 shutdown</pre>	Returns the SPA to the up state. The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
Step 5	Do one of the following:	Saves configuration changes.

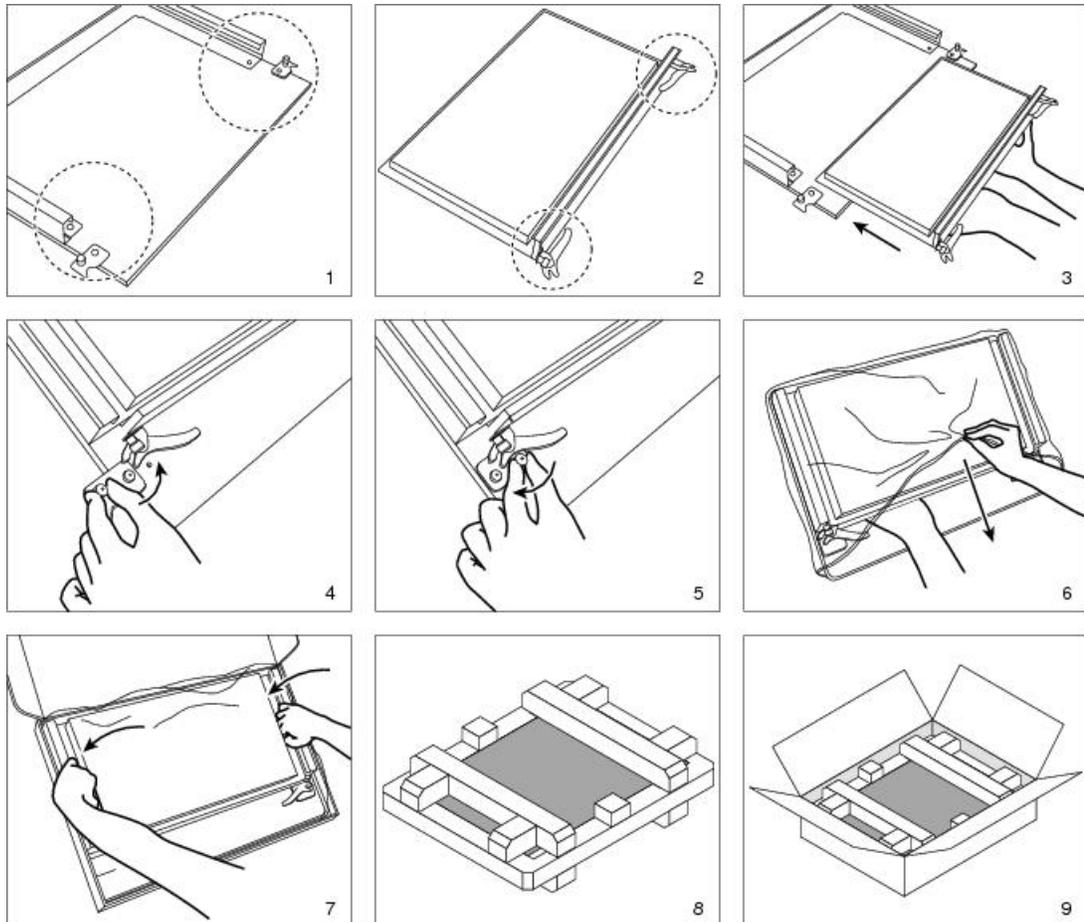
	Command or Action	Purpose
	<ul style="list-style-type: none"> • end • commit <p>Example:</p> <pre>RP/0/RP0/CPU0:router(config)# end</pre> <p>Example:</p> <pre>RP/0/RP0/CPU0:router(config)# commit</pre>	<ul style="list-style-type: none"> • When you issue the end command, the system prompts you to commit changes: <pre>Uncommitted changes found, commit them before exiting(yes/no/cancel)?[cancel]:</pre> <ul style="list-style-type: none"> ◦ Entering yes saves configuration changes to the running configuration file, exits the configuration session, and returns the router to EXEC mode. ◦ Entering no exits the configuration session and returns the router to EXEC mode without committing the configuration changes. ◦ Entering cancel leaves the router in the current configuration session without exiting or committing the configuration changes. • Use the commit command to save the configuration changes to the running configuration file and remain within the configuration session.

Using debug Commands

The **debug spa** command is intended for use by Cisco Systems technical support personnel.

Debugging output is assigned high priority in the CPU process and, therefore, can affect system performance. For more information about the impact on system performance when using **debug** commands, refer to *Using Debug Commands on Cisco IOS XR Software* .

Packing a SIP for Shipment



Packing a SPA for Shipment

This section provides step-by-step instructions for packing a SPA and the cable-management brackets for shipment. Before beginning this procedure, you should have the following original Cisco Systems packaging materials:

- Thermoform container (transparent plastic-molded clamshell)
- Carton



Caution

The Cisco Systems original packaging is to be used for the shipment of all SPAs and cable-management brackets. Failure to properly use Cisco Systems packaging can result in damage or loss of product.

**Danger**

During this procedure, wear grounding wrist straps 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. Statement 94

**Note**

These instructions assume that the SPA and cable-management brackets have been removed from the router according to the recommended procedures specified in this guide.

To pack a SPA and the cable-management brackets for shipment, perform the following steps:

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- Step 1** Open the Thermoform container and place the SPA and each of the cable-management brackets into the appropriate cavities.
- Caution** Always handle the SPA by the carrier edges and handle; never touch the SPA components or connector pins.
- Step 2** Close the Thermoform container. Be sure to lock the snaps securely.
- Step 3** Check that the Thermoform container is fully closed. Apply tape or a label closure over the opening to ensure the container stays closed during shipping.
- Step 4** Place the Thermoform container into the carton.
- Step 5** Close the carton.
- Step 6** Apply tape over the carton flap to ensure the carton stays closed during shipping.
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What to Do Next

