



Troubleshooting the Installation

This chapter describes how to troubleshoot the Catalyst 2948G, 2948G-GE-TX, and 2980G switch installations. It contains these sections:

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- [Problem Solving to the System Component Level, page 5-2](#)
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If you have problems starting up your system, use the information in this chapter to help isolate the cause. Problems with the initial startup are often caused by poor or improper connections. Temperature conditions above the maximum acceptable level are rarely the source of problems at startup; however, environmental monitoring functions are included in the following sections because they also monitor DC-line voltages.

For configuration questions or problems, refer to the software configuration guide or the command reference for your switch.

Getting Started

When the initial system boot is complete, verify the following:

- Power supplies are supplying power to the system.
- On Catalyst 2948G and 2980G switches, the system fan assembly is operating.
- On Catalyst 2948G-GE-TX switches, the blower is operating.

If all of these conditions are met and the hardware installation is complete, refer to the software configuration guide and the command reference for your switch to troubleshoot the software. However, if any of these conditions is not met, use the procedures in this chapter to isolate and, if possible, resolve the problem.

Problem Solving to the System Component Level

The key to success when troubleshooting the system is to isolate the problem to a specific system component. The first step is to compare what the system *is* doing to what it *should be* doing. Because a startup problem can usually be attributed to a single component, it is more efficient to isolate the problem to a subsystem rather than troubleshoot each component in the system separately.

The switch consists of the following subsystems:

- Power supply—Includes the power supplies and power supply fans (see [“Troubleshooting the Power Supply” section on page 5-4](#))
- Fans—The fan assembly should operate whenever system power is on. The fan assembly continues to operate even when the environmental monitor shuts the system down because of an overtemperature or overvoltage condition (although it will shut down in the event of a power supply shutdown).

The following are simple checks you can make to determine if there is a fan problem:

- Determine if the software is reporting a temperature problem.
- Listen to the fan assembly to determine if it is operating.
- Check for any obstructions that might be restricting the airflow through the switch.

If you encounter a problem in performing any of the above checks, you should contact a customer service representative.

Identifying Startup Problems

LEDs indicate all system states in the startup sequence. By checking the LEDs, you can determine when and where the system failed in the startup sequence. If you have problems after the switch is powered on and the startup sequence is complete, refer to the software configuration guide for your switch.

After you connect the power cord to the Catalyst 2948G, 2948G-GE-TX, or 2980G switches, follow these steps:

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- Step 1** You should immediately hear the system fans begin to operate. If you do not, see the [“Troubleshooting the Power Supply” section on page 5-4](#). If you determine that the power supplies are functioning normally and that the fans are faulty, contact a customer service representative.
- Step 2** Check the power supply LEDs as follows:
- The power supply LED should turn green immediately when power is applied to the switch. The LED should remain on during normal system operation.
 - If the LED turns amber, see the section, [“Troubleshooting the Power Supply” section on page 5-4](#).
- Step 3** Check that the LEDs on the front panel light as follows:
- The STATUS LED flashes amber once and stays amber during diagnostic boot tests. It turns green when the switch is operational (on line). If the system software is unable to start up, this LED stays amber.
 - The Link LED flashes amber once after diagnostic boot tests, and turns green when the module is operational (on line). If no signal is detected, the Link LED turns off. The Link LED blinks amber continuously if the port is bad.



Note After the diagnostic boot tests, the single flash of amber on the Link LED may occur too quickly to be detected visually.

- If a STATUS LED is red or amber, contact a customer service representative for instructions.

- Step 4** If the boot information and system banner are not displayed, verify that the terminal is set correctly and that it is connected properly to the console port.
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Troubleshooting the Power Supply

To help isolate a power subsystem problem, follow these steps:

- Step 1** Check the power supply LED:



Note Power supply LEDs are labeled PSI, PWR, and RPS.

- If the LED is either off or amber, unplug the power cord, and then plug the power cord in again.
- If the LED remains off, there might be a problem with the AC source, or the power cable. Connect the power cord to another power source (if one is available).

If the LED then lights, the problem is the first power source.

- If the LED fails to light after you connect the power supply to a new power source, replace the power cord.

If the LED still fails to light, the power supply is probably faulty.

- Step 2** If a Redundant Power System (RPS) is installed, check the RPS LED:

If the LED is amber or off, repeat the previous procedure to troubleshoot the second power supply.



Note If the power supply is a Cisco RPS 675 and the LED is amber, the RPS may be in standby mode. Press the Standby/Active button on the RPS to put it in active mode and the LED should then turn to green.



Note If you are using an RPS, do not apply power to the RPS *and* the switch simultaneously. Disconnect power from the internal power supply before turning the power on for the RPS. The RPS contains multiple power supplies for redundant power protection. Refer to the RPS documentation for installation and configuration details.

Step 3 If you are unable to resolve the problem, contact a customer service representative for instructions.

Contacting Customer Service

If you are unable to solve a startup problem after using the troubleshooting suggestions in this chapter, contact a customer service representative for assistance and further instructions. Before you call, have the following information ready to help your customer service representative assist you as quickly as possible:

- Date you received the switch
- Chassis serial number (located on a label on the right of the rear panel of the chassis)
- Type of software and release number
- Maintenance agreement or warranty information
- Brief description of the problem
- Brief explanation of the steps you have already taken to isolate and resolve the problem

