



# Troubleshooting

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This section describes how to troubleshoot the Catalyst 4224 Access Gateway Switch. This section describes the LEDs that indicate port connectivity problems and overall switch performance.



## Note

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You can obtain statistics about your switch from the browser interface, from the command-line interface (CLI), or from a Simple Network Management Protocol (SNMP) workstation. Refer to the *Cisco IOS Desktop Switching Software Configuration Guide*, the *Cisco IOS Desktop Switching Command Reference* (online only), or the documentation that came with your SNMP application for details.

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Common switch problems fall into the following categories:

- Poor performance
- No connectivity
- Corrupted software

[Table 5-1](#) describes how to detect and resolve these common problems.

Table 5-1 Common Problems and Solutions

Symptom	Possible Cause	Resolution
Poor performance or excessive errors.	Duplex auto-negotiation mismatch.	Refer to the <i>Cisco IOS Desktop Switching Software Configuration Guide</i> for information on identifying auto-negotiation mismatches.
	<b>Cabling distance exceeded.</b> <ul style="list-style-type: none"> <li>• Port statistics show excessive frame check sequence (FCS), late-collision, or alignment errors.</li> <li>• For 100BaseTX connections: <ul style="list-style-type: none"> <li>– The distance between the port and the attached device exceeds 100 meters.</li> <li>– If the switch is attached to a repeater, the total distance between the two end stations exceeds the 100Base-T cabling guidelines.</li> </ul> </li> <li>• For 10BaseT connections: The distance between the port and the attached device exceeds 100 meters.</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to the <i>Cisco IOS Desktop Switching Software Configuration Guide</i> for information on displaying port statistics.</li> <li>• Reduce the cable length to within the recommended distances. Refer to your 100BaseT repeater documentation for cabling guidelines.</li> <li>• Reduce the cable length to within the recommended distances.</li> </ul>
	<b>Bad adapter in attached device.</b> <ul style="list-style-type: none"> <li>• Excessive errors are found in port statistics.</li> <li>• Spanning Tree Protocol is checking for possible loops.</li> </ul>	<ul style="list-style-type: none"> <li>• Run the adapter card diagnostic utility.</li> <li>• Wait 30 seconds for the LED to turn green.</li> </ul>

Table 5-1 Common Problems and Solutions (continued)

Symptom	Possible Cause	Resolution
No connectivity.	<p><b>Incorrect or bad cable.</b></p> <p>The following causes are indicated by no link at both ends:</p> <ul style="list-style-type: none"> <li>• A crossover cable was used when a straight-through cable was required, or vice-versa.</li> <li>• The cable is wired incorrectly.</li> <li>• Spanning Tree Protocol is checking for possible loops.</li> </ul>	<ul style="list-style-type: none"> <li>• For the correct pinouts and the proper application of crossover versus straight-through cables, see the <a href="#">“Crossover and Straight-Through Cable Pinouts”</a> section on page B-4.</li> <li>• Replace with a tested good cable.</li> <li>• Wait 30 seconds for the LED to turn green.</li> </ul>
Unreadable characters on the management console.	Incorrect baud rate was detected.	Reset the emulation software to 9600 baud.
System LED is amber.	<p>LED is amber until the system is online. Once online, the LED is green.</p> <p>If the POST fails or the system is overheating, the status LED is red.</p>	Check the POST errors logged on the console.

Table 5-1 Common Problems and Solutions (continued)

Symptom	Possible Cause	Resolution
System LED is red.	<ul style="list-style-type: none"> <li>Switch is overheating.</li> <li>Nonfatal or fatal POST error detected.</li> </ul>	<ul style="list-style-type: none"> <li>Use the <b>show env</b> command to check if an over-temperature condition exists. If it does: <ul style="list-style-type: none"> <li>Place the switch in an environment that is within 32 to 113°F (0 to 45°C).</li> <li>Make sure fan intake and exhaust areas are clear.</li> </ul> </li> </ul> <p>If a multiple-fan failure is causing the switch to overheat, replace the switch.</p> <ul style="list-style-type: none"> <li>Check the POST errors logged on the console.</li> </ul>
Cisco IP Phone fails to power on when connected to a Catalyst 4224.	Improper cabling.	Make sure the switch is connected to the LAN-to-phone jack on the Cisco IP Phone.