

## 3.4 Motherboard Troubleshooting

As you study this section, answer the following questions:

- What are the symptoms of system power problems? How do you troubleshoot system power problems?
- How do you interpret BIOS/UEFI error codes generated during POST?
- What are the symptoms of system overheating? How do you troubleshoot overheating issues?
- What are the symptoms of internal and external device failures? How do you troubleshoot internal and external device failures?

In this section, you will learn to:

- Troubleshoot system power issues

Key terms for this section include the following:

Term	Definition
Distended capacitors	Over time, the capacitors on the motherboard may become overstressed or overheated.
Overheating	When a computer's internal components generate heat that does not dissipate, harming the computer's functions and hardware.

This section helps you prepare for the following certification exam objectives:

Exam	Objective
TestOut PC Pro	4.1 Troubleshoot hardware components 4.1.2 Troubleshoot system power
CompTIA 220-1101	5.2 Given a scenario, troubleshoot problems related to motherboards, RAM, CPUs, and power. <ul style="list-style-type: none"><li>■ Common symptoms<ul style="list-style-type: none"><li>■ Unexpected shutdowns</li><li>■ System lockups</li><li>■ POST code beeps</li><li>■ Blank screen on bootup</li><li>■ BIOS time and setting resets</li><li>■ Attempts to boot to incorrect device</li><li>■ Continuous reboots</li><li>■ No power</li><li>■ Overheating</li><li>■ Loud noise</li><li>■ Intermittent device failure</li><li>■ Fans spin – no power to other devices</li><li>■ Indicator lights</li><li>■ Smoke</li></ul></li></ul>

- Burning smell
- Proprietary crash screens (BSOD/pin wheel)
- Distended capacitors
- Log entries and error messages

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