

Chapter 4: Electricity and Power Supplies

Objectives

In this chapter, you will learn:

- How electricity is measured
- How to protect your computer system from damaging changes in electrical power
- About different form factors and computer cases
- How to detect and correct power supply problems
- About Energy Star applications

Electricity: A Basic Introduction

Voltage

Amps

Ohms

Relationships Among Voltage, Current, and Resistance

Wattage

AC and DC

Quick Quiz

1. List the three units of measure for electricity.
2. Describe how to figure wattage.
3. True or False: A PC power supply converts DC into AC.

Protecting Against Electricity

Static Electricity

EMI (Electromagnetic Interference)

Surge Protection and Battery Backup

Quick Quiz

1. True or False: Since static electricity is simply a charge at rest, it poses no threat to electronic devices.
2. What interference can be caused by improperly shielded electronic devices?
3. True or False: The least expensive surge suppressors provide little or no power protection.
4. If your location frequently experiences power outages, what device could you install to protect your PC?
5. The current motherboard form factor is called _____.