

Discovering Computers 2008



Chapter 4 The Components of the System Unit

Ports and Connectors

What are **ports** and **connectors**?

- **Port** connects external devices to system unit
- **Connector** joins cable to peripheral
 - Available in one of two genders: male and female



p. 206 Fig. 4-28



Ports and Connectors

What are different types of connectors?



p. 207 Fig. 4-29



Ports and Connectors

What is a **serial port**?

- Transmits one bit of data at a time
- Connects slow-speed devices, such as mouse, keyboard, modem



p. 207 Fig. 4-30



Ports and Connectors

What is a **parallel port**?

- Connects devices that can transfer more than one bit at a time, such as a printer



p. 208 Fig. 4-31



Ports and Connectors

What are **USB ports**?

USB (universal serial bus) port can connect up to 127 different peripherals together with a single connector type

PCs typically have six to eight USB ports on front or back of the system unit

Single USB port can be used to attach multiple peripherals in a daisy chain

Third USB device connects to second USB device, and so on

Second USB device connects to first USB device

First USB device connects to USB port on computer

USB 2.0

p. 208



Ports and Connectors

What are **FireWire** ports?

- Connects multiple types of devices that require faster data transmission speeds
- Allows you to connect up to 63 devices together



Click to view Web Link, click Chapter 4, Click Web Link from left navigation, then click FireWire Ports below Chapter 4 p. 209



Ports and Connectors

What are special-purpose ports?

- Allow users to attach specialized peripherals or transmit data to wireless devices
 - MIDI (Musical Instrument Digital Interface) port
 - eSATA port
 - SCSI port
 - IrDA (Infrared Data Association) port
 - Bluetooth port



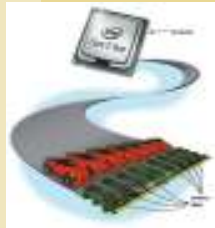
p. 209 - 210 Fig. 4-32



Buses

What is a **bus**?

- Channel that allows devices inside computer to communicate with each other
 - System bus connects processor and RAM
 - Bus width determines number of bits transmitted at one time
 - **Word size** is the number of bits processor can interpret and execute at a given time



p. 211 - 212 Fig. 4-35



Buses

What is an expansion bus?

- Allows processor to communicate with peripherals



p. 212



Bays

What is a **bay**?

- Opening inside system unit used to install additional equipment
- **Drive bays** typically hold disk drives

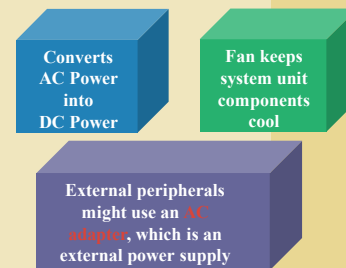


p. 212 Fig. 4-36



Power Supply

What is a **power supply**?



p. 213



Mobile Computers and Devices

What is a mobile computer?

- Notebook, weighing between 2.5 and 9 pounds, or mobile device such as a PDA



p. 213 - 214 Fig. 4-37



Mobile Computers and Devices

What ports are on a notebook computer?



p. 214 Fig. 4-38



Mobile Computers and Devices

What ports and slots are on a tablet PC?



p. 214 Fig. 4-39



Putting It All Together

What are suggested processor and RAM configurations based on the needs of various types of users?



p. 215 Fig. 4-40



Keeping Your Computer Clean

Over time, the system unit collects dust – even in a clean environment

- Preventative maintenance requires a few basic products:



p. 216 Fig. 4-41



Summary of the Components of the System Unit

Components of the system unit

How memory stores data, instructions, and information

Sequence of operations that occur when a computer executes an instruction

Comparison of various personal computer processors on the market today

How to clean a system unit

Chapter 4 Complete

Discovering Computers 2008



Chapter 11 Computer Security, Ethics and Privacy

Chapter 11 Objectives

- Describe the types of computer security risks
- Identify ways to safeguard against computer viruses, worms, Trojan horses, botnets, denial of service attacks, back doors, and spoofing
- Discuss techniques to prevent unauthorized computer access and use
- Identify safeguards against hardware theft and vandalism
- Explain the ways software manufacturers protect against software piracy
- Define encryption and explain why it is necessary
- Discuss the types of devices available that protect computers from system failure
- Explain the options available for backing up computer resources
- Identify risks and safeguards associated with wireless communications
- Recognize issues related to information accuracy, rights, and conduct
- Discuss issues surrounding information privacy
- Discuss ways to prevent health-related disorders and injuries due to computer use



Computer Security Risks

What is a **computer security risk**?

- Event or action that causes loss of or damage to computer system



Click to view Web Link, click Chapter 11, Click Web Link from left navigation, then click Computer Emergency Response Team Coordination Center below Chapter 11
p. 556 - 558 Fig. 11-1

