PC Hardware
Chapter 10 Lab
Installing And Configuring CD-Rom Drives (CD-R, CD-RW, DVD)

Objective

The objective of this lab exercise is to install and configure a CD-ROM drive. After completing this lab exercise, you will be able to:

- Install an IDE CD-ROM drive.
- Describe how to load a device driver for an IDE CD-ROM drive.

Lab Setup & Safety Tips

- The installation files for Windows 9x should be copied to the hard drive of each lab workstation.
- Always unplug the power cord and properly ground yourself before touching any component inside a computer.
- The CD-ROM drive should not be installed prior to beginning this lab.

ACTIVITY

Installing an IDE CD-ROM drive

1. Note the rear view of the IDE CD-ROM drive in Figure 10-2, and then power off the lab workstation and unplug the power cord.
2. Remove the case from the lab workstation.
3. Locate an available 5 $^{1/4}$-inch drive bay.
4. Remove from the front of the case any blanks that might be present.
5. Verity that the hard drive is set to Master.
6. Change the CD-ROM jumper to Slave.
7. Slide the CD-ROM drive into the drive bay and use the screw to mount it to the inside of the case.
8. Connect the IDE data cable and be sure that the red stripe is aligned with pin one. *(Note:* Sometimes the stripe is blue.)
9. Plug in the power connector.
10. If there is a sound card present, connect the audio cable to the back of the CD-ROM drive.

Verify that the workstation boots properly

1. Stand back from the case and plug in the power cord.
2. Turn on the workstation and verify that the system boots properly. If the workstation doesn't boot properly, the jumpers might be set incorrectly.

3. Power off the workstation.
4. Remove the power cord.
5. Replace the case.
6. Plug in the power cord.

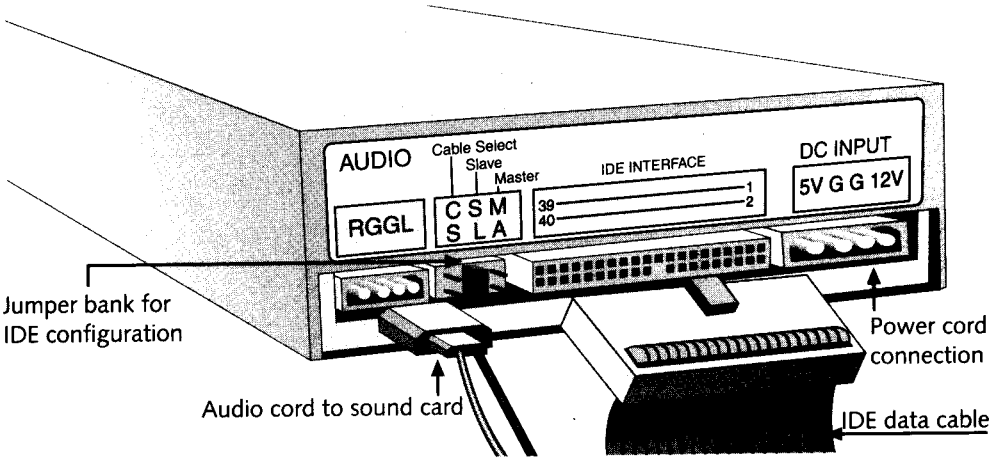

Figure 10-2 Rear view of an IDE CD-ROM drive

Testing an IDE CD-ROM installation

1. Allow your lab workstation to boot into Windows 9x.
2. Double-click the **My Computer** icon.
3. Verify that Windows 9x recognizes the CD-ROM drive.
4. Insert a CD-ROM into the drive.
5. Double-click the **CD-ROM drive** icon and verify that you can view the contents of the disc. If a CD-ROM icon doesn't appear in the My Computer window, follow the steps in "Installing an IDE CD-ROM driver in Windows 9x" below.

Installing an IDE CD-ROM driver in Windows 9x

Windows 9x normally detects a CD-ROM drive installation the first time it is booted with one installed. In the event that Windows 9x doesn't detect a CD-ROM drive, follow the steps below.

1. Click the **Start** button.
2. Point to Settings and click **Control Panel.**
3. Double-click the **Add New Hardware** icon.
4. Click the Next button three times to allow Windows to detect new hardware.
5. When the process is completed, allow Windows to install the proper device driver.
6. Reboot your lab workstation, and follow the steps in the section, "Testing an IDE CD-ROM

installation."

Lab Notes

Ejecting a stuck CD—Most CD-ROM drives have an emergency eject hole, as shown in Figure 10-3, that can be used to eject a CD-ROM from the drive in the event of a mechanical failure.

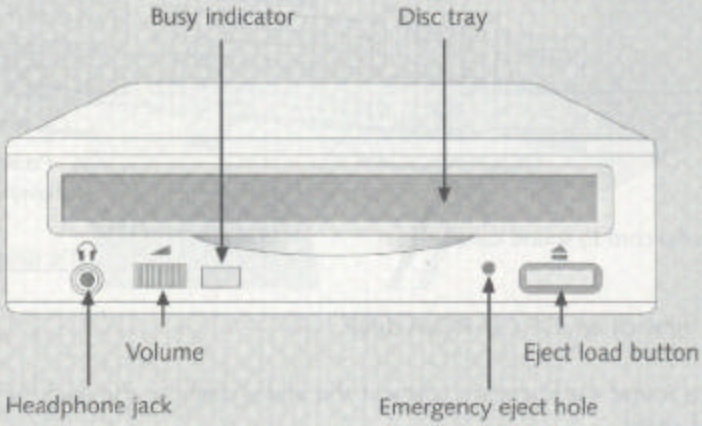

Figure 10-3 Front view of a typical CD-ROM drive

Multisession—Multisession is a feature that allows data to be read (or written) on a CD during more than one session. This is important if the disc was only partially filled during the first write.

CD-R (recordable CD)—A CD-R is a type of CD-ROM drive that can record or write data to a CD. The drive may or may not be multisession, but the data cannot be erased once it is written. A CD-R is often referred to as a "burner" because it can write or "burn" data to the CD only once.

CD-RW (rewritable CD)—A CD-RW is a type of CD-ROM drive that can record or write data to a CD. Later, the data can be erased and overwritten. CD-RW drives may or may not be multisession. It also is referred to as a burner.

Digital video disc (DVD)—A faster, larger CD-ROM format that can read older CDs, store over 8 gigabytes of data, and hold full-length motion picture videos.

Installing other types of CD-ROM drives—Although technology has progressed and there are now many different types and speeds of CD-ROM drives, generally speaking, all of them are installed the same way. Typically the exceptions are CD-R, CD-RW, and DVD, all of which require additional software to be installed so that the operating system can take full advantage of the drives' extended capabilities.

Review Questions

Circle True or False.

1. All CD-ROM drives are installed into 3 ½ - inch bays. True / False

2. A CD-RW drive has the ability to read, write, and rewrite data to a disc.

3. DVDs can hold up to 10 gigabytes of data. True / False

4. A computer can have only one CD-ROM drive installed at a time. True / False

5. The term burner is used to refer to what type of CD-ROM drives?

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6. Amanda has installed a CD-ROM drive into her computer. Now when she powers on the Windows 95 system, it doesn't recognize the CD-ROM drive. Describe how Amanda could use the Add/Remove hardware wizard to resolve her CD-ROM issue.

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