

HEWLETT-PACKARD

Setting Up the Portable Vectra CS



Portable Vectra CS

Setting Up the Portable Vectra CS



Edition 1 July 1987

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FCC Statement

Federal Communications Commission Radio Frequency Interference Statement

Warning: This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this computer. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

More About Radio and Television Interference

Because your computer generates and uses radio frequency energy, it may cause interference with radio and television reception in a residential installation.

Hewlett-Packard's system certification tests were conducted with HP-supported peripheral devices and HP shielded cables, such as those you receive with your system. This computer meets the requirements for a Class B computing device in accordance with the specifications of Part 15, Subpart J, of FCC rules. These rules are designed to provide reasonable protection against interference with radio and television reception in a residential installation.

Hewlett-Packard provides instructions for using this computer in manuals covering setup, connection of peripheral devices, operation, service, and technical reference.

Installing and using the computer in strict accordance with Hewlett-Packard's instructions will minimize the chances that your computer will cause radio or television interference. However, Hewlett-Packard does not guarantee that the computer will not interfere with radio and television reception.

If you think your computer is causing interference, turn it off to see if the radio or TV reception improves. If the reception:

- Does not improve, your computer is not causing the problem.
- Does improve, your computer is causing the problem.

To correct interference, take one or more of the following steps:

- Relocate the radio or TV antenna.
- Move the computer away from the radio or television.
- Plug the computer into a different electrical outlet, so that the computer and the radio or television are on separate electrical circuits.
- Make sure that all of your peripheral devices are certified Class B by the FCC.
- Make sure you use only shielded cables to connect peripheral devices to your computer.
- Consult your computer dealer, Hewlett-Packard, or an experienced radio/television technician for other suggestions.
- Order the FCC booklet called *How to Identify and Resolve Radio-TV Interference Problems* from the U.S. Government Printing Office, Washington, D.C. 20402. The stock number of this booklet is 004-000-00345-4.

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Configuration Inventory Sheet

(Inside back cover)

List of Tasks

Use this list to locate quickly the instructions for individual tasks.

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Getting Started

Welcome to the HP Portable Vectra CS PC! Now that you've opened the box and see your computer, you probably want to start using it as soon as possible. That's the purpose of the Portable Vectra CS documentation—to take you quickly and easily to the point of using your computer to do the things you bought it to do.

Necessary Material

You'll use this manual to guide you as you set up your computer. After setup, you'll need the following to help you learn to use your system:

- The Setup disc.
- An operating system kit (manuals and at least one disc).
- The owner's manuals for any accessory adapters you have in your system (except for the display/printer adapter, which is covered in this manual).
- Your application software package(s).

If you don't have all of these items, contact your dealer or whoever supplied you with your computer system.

Before You Set Up Your Computer

The next page describes the overall steps to go through to set up and learn to use your computer. *Skim this information now, and then refer to it whenever you have questions about what to do next—it will show you what document to go to for help.*

Procedure for Setting Up and Learning To Use Your Computer

Step 1:



Read the System Checklist to get configuration information relating to your specific system. (*Put the letter in a safe place for later reference.*)

Step 2:



Follow the instructions in chapter 1 to get your computer ready for use. Use the rest of the manual when you want to:

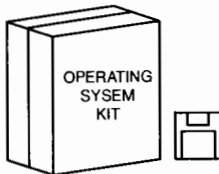
- Add peripheral equipment or accessories to your computer.
- Learn about or recharge your battery module.
- Learn about proper maintenance and care for your computer.

Step 3:



Run the *Introducing the Portable Vectra CS* program (on your Setup disc) to learn about your computer and how it operates.

Step 4:



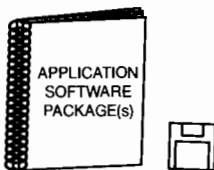
Use the Operating System Kit to load and learn to use your operating system.

Step 5:



Prepare the accessory adapters in your system for use by following the instructions in the accessory adapter owner's manuals.

Step 6:



Use your software documentation to learn to load and use the software for your applications.

1-2 Getting Started

If you ever find that you have a problem with your computer and don't know what to do, refer to your *Support Guide*. The *Support Guide* that came with your computer contains maintenance, warranty, and repair information.

Preparing Your Computer for Use

There are three major steps involved in preparing your computer for use:

- Opening the computer.
- Activating the battery module.
- Running the *Introducing the Vectra CS* program.

It should only take you a few minutes to get to the point of running *Introducing the Vectra CS*.

Note

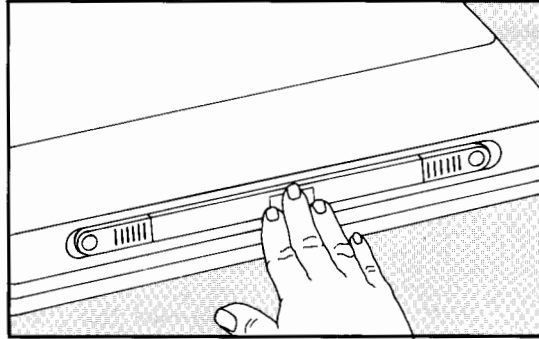


You can add an accessory adapter (for example, a serial adapter or modem) to your computer at any time; installing one does not have to be part of your initial setup. If you have an additional adapter to install, refer to chapter 4, "Installing Accessory Adapters," when you want to do it.

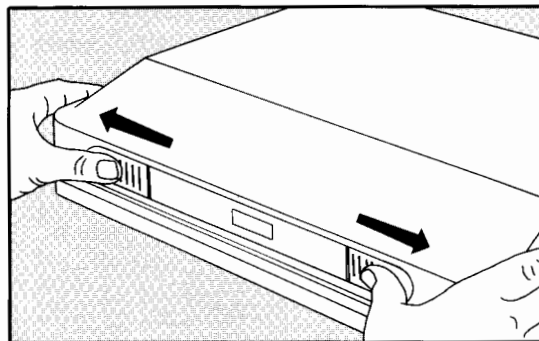
Opening the Computer

To open your computer:

1. Make sure the computer carrying handle is pushed in and flush with the case of the computer. (If the handle is out, push it in until it locks into place.)

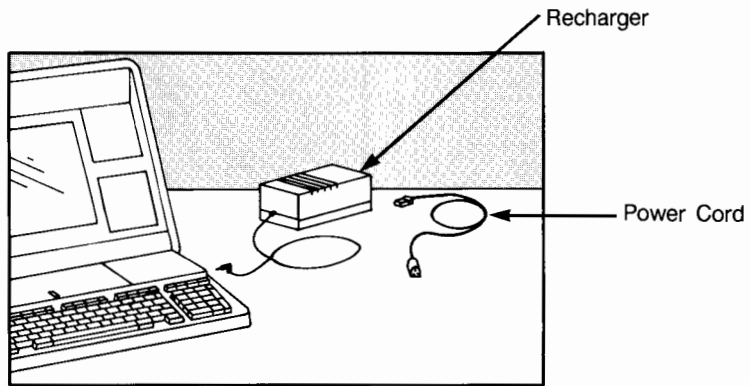


2. Slide the latches on both sides of the handle away from the center, then lift the top up and back. (The hinges will hold the top at any angle.)



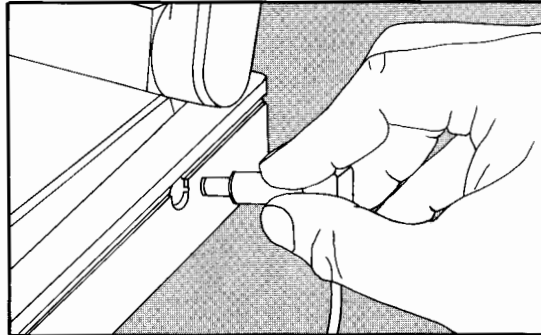
Activating the Battery Module

Once your computer is open, you are ready to connect the recharger to your computer and to an ac power source. The first time you do this the battery module is automatically activated, enabling you to use your system. Thereafter, you can connect the recharger whenever you want to recharge the battery. Appendix A contains more information on using and recharging your battery module.

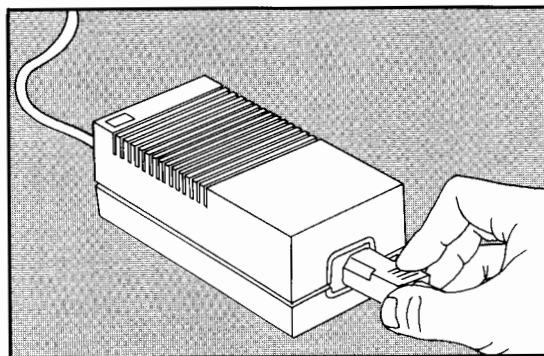


Follow these steps to activate the battery module:

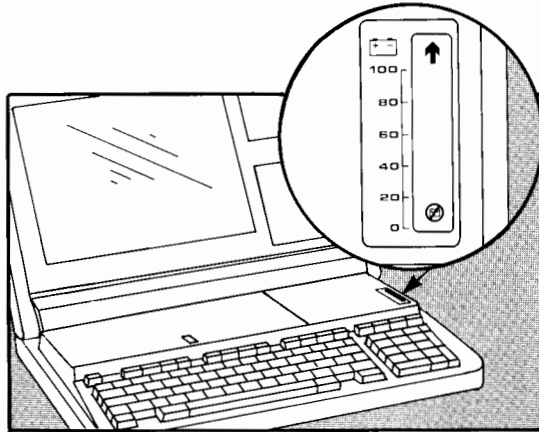
- 1.** Insert the connector coming from the recharger unit into the socket on the right side of the computer, as shown in the illustration below.



- 2.** Insert the connector on the power cord into the socket on the recharger unit.



3. Insert the plug on the power cord into an ac power outlet. A green indicator light on the recharger will glow to show that the recharger is working. Also, after a few seconds a flashing pattern on the battery gauge is replaced by an arrow at the top of the gauge, indicating that the battery is being recharged. (The computer can be used without any problem while the battery is being recharged.)



Note

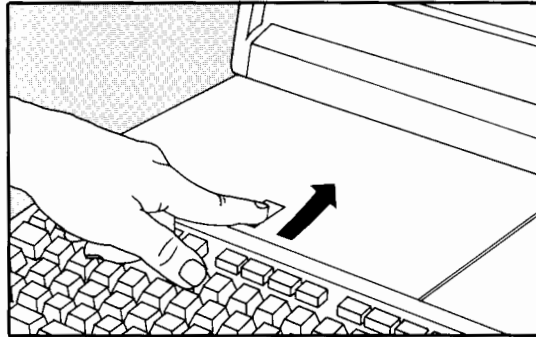
To help prolong battery life, you should leave the recharger connected until the battery is fully charged (about 12 hours). *You must leave the recharger connected at least until the battery gauge reads 20% or the battery will automatically deactivate when you disconnect the recharger.* Appendix A, "Using and Recharging the Battery Module," contains more information.

At this point the battery module is activated, and you're ready to run *Introducing the Portable Vectra CS* program, found on the Setup disc.

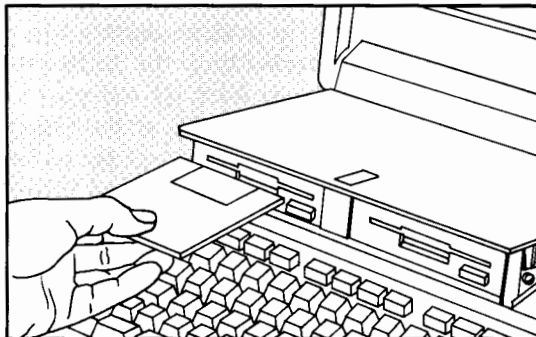
Running Introducing the Portable Vectra CS

Introducing the Portable Vectra CS teaches you more about your computer and allows you to give the computer important setup information. Follow these instructions:

1. Open the computer.
2. Slide the disc-drive latch toward the back of the computer. The disc drives will pop up.



3. With the disc label on top and the metal end of the disc toward the disc drive, insert the Setup disc completely into the left disc drive (called drive A:).

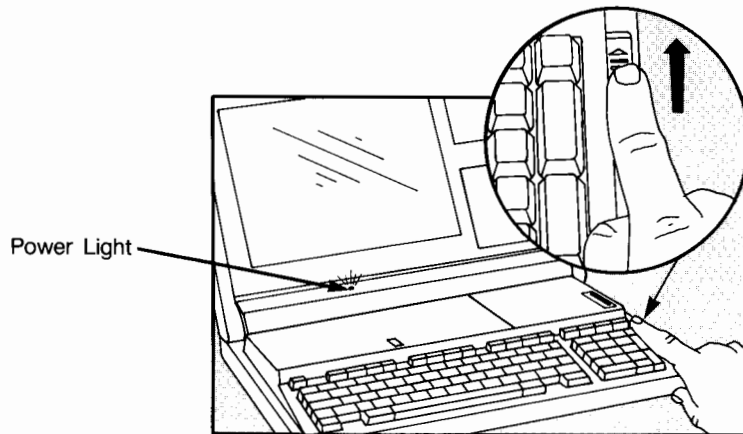


4. Turn the computer on by sliding the on/off switch (located on the right side of the computer) toward the back of the computer. The computer must be turned on *with the disc in the left disc drive (drive A:)* for *Introducing the Portable Vectra CS* to run.

Note



The on/off switch always returns to its initial position, whether the computer is being turned on or off. You turn the computer off by sliding the switch toward the back of the computer once more. The computer is on when the power light behind the disc drives is lit.



5. At this point, you may see messages and a small picture flashing on the display; don't worry about what these mean now. After about 10 seconds, they should be replaced by a menu of choices for the disc.

Note



When you first turn the computer on, you may need to adjust the display contrast to make the display readable. If the display appears hard to read or blank, gradually slide the contrast switch (located just beneath the display screen) to the right or left until you get optimum readability.

6. Notice in the disc menu that *Introducing the Portable Vectra CS* is highlighted. Press **Enter** to start the program.

At this point, you can put this manual aside and follow the displayed instructions to acquaint yourself with your computer system. However, remember that you can refer to this manual later to get information on:

- Connecting an external monitor (chapter 2).
- Connecting a printer (chapter 3).
- Installing accessory adapters (chapter 4).
- Using and recharging the battery module (appendix A).
- Troubleshooting your problems (appendix B).
- Caring for your computer (appendix C).
- The Portable Vectra CS keyboard (appendix D).

Connecting an External Monitor

The display/printer adapter in your computer gives you the option of connecting to one of three types of monitors using a standard nine-pin display connector. Also, once a monitor is connected and output is directed to it, the display/printer adapter automatically causes it to display information in the best possible resolution.

Note

Your computer will direct output to only one display at a time. Therefore, you *cannot* see output on both the attached LCD and an external monitor at the same time.

What's in This Chapter

This chapter contains the steps you follow to get display output on a monitor other than the LCD. These steps involve:

- Physically connecting an external monitor.
- Redirecting the display output to the external monitor.
- Removing the LCD unit from the computer (optional).

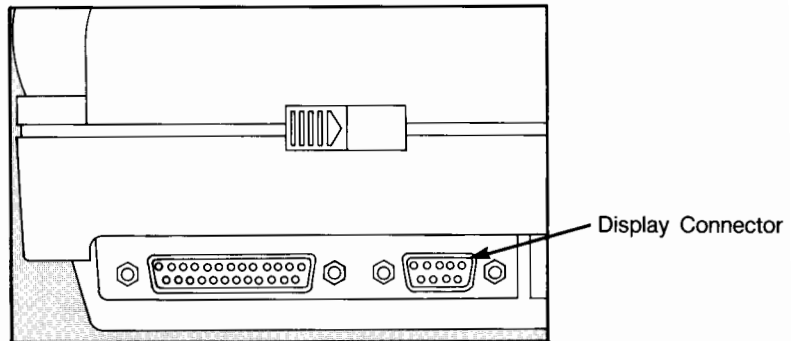
Connecting the Monitor to the Computer

You can connect any one of three types of industry-standard monitors:

- A monochrome monitor (for example, the HP 35731D Monochrome Display).
- An RGB (color) monitor.
- An enhanced graphics monitor (for example, the HP 35743A Enhanced Graphics Display).

To connect one of these monitors to your computer:

1. Make sure that both the computer and the monitor are turned off.
2. Locate the display/printer adapter on the back of the computer. When facing the back of the computer, you'll find it in the left-most slot. (The display connector is the smaller, nine-pin connector.)



3. Connect the cable coming from the monitor to the nine-pin display connector on the display/printer adapter.

4. If it's not already attached, connect the monitor power cord to the monitor.
5. Plug the monitor power cord into an ac outlet.

Redirecting Display Output to the External Monitor

Once the external monitor is connected, you must redirect the computer's display output to it. How you do this depends on whether or not you have an LCD unit.

Caution



When you redirect display output to an external monitor, be sure to specify correctly the type of monitor you have connected. If you specify a type of monitor other than the one you actually have connected, you may damage the external monitor.

Redirecting Display Output When You Have an LCD Unit

With the LCD unit attached to the computer, do the following:

1. Determine the type of external monitor you have connected to your computer—monochrome, RGB (color), or enhanced graphics.
2. Start the Setup program and follow the displayed instructions to run the part of the program that deals with redirecting display output to an external monitor. The program will lead you through the process and prompt you for the necessary information.
3. Turn off the computer and remove the LCD unit (optional). For instructions on how to do this, see "Removing the LCD Unit" later in this chapter.

The display setting that you select in the Setup program can be preserved until the computer's internal *configuration memory* is lost—a situation usually caused by the battery module being removed or completely running down. Whenever configuration memory is lost, the computer reverts to directing display output to the LCD if it is attached, and, if it is not attached, to the monitor specified by a *display switch* located under the battery module.

Also, remember that *when you start the computer, it automatically directs display output to the LCD whenever the LCD unit is attached to the computer*. This means that whenever you start your computer with the LCD unit attached, you'll have to run the Setup program again if you want to redirect the output to your external monitor. However, if the LCD unit is not attached at startup, the computer directs display output to the monitor last saved in the Setup program.

Redirecting Display Output When You Do Not Have an LCD Unit

You should use this method to redirect display output to your external monitor when you do not have an LCD unit for your computer.

This method involves changing a small switch located under the battery module to a setting that corresponds to the type of external monitor connected.

Note



When you remove the battery module to get at the display switch, your computer's configuration memory is lost and, therefore, you lose all choices previously made within the Setup program.

The following table shows the settings that correspond to the monitors supported by your computer:

Switch Setting	Monitor Supported
0	Attached LCD
1	RGB (color) monitor
2	Monochrome monitor
3	Enhanced graphics monitor

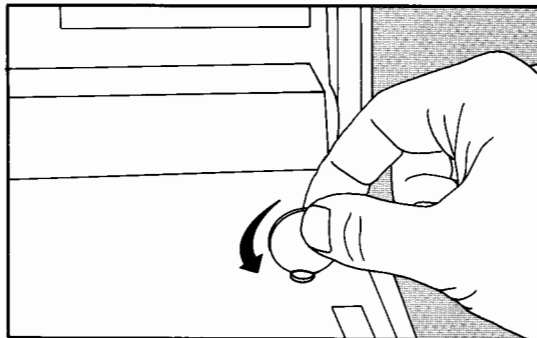
Follow these instructions to change the display switch to match your external monitor:

Note

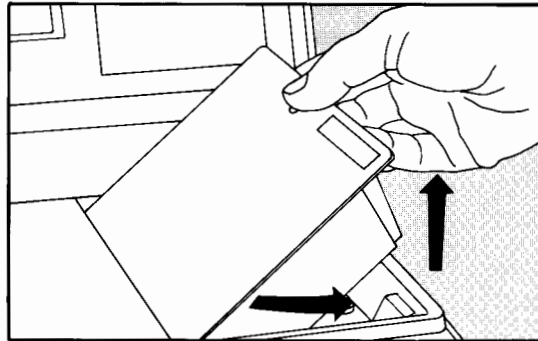


Changing the display switch requires the use of a small, flat-blade screwdriver.

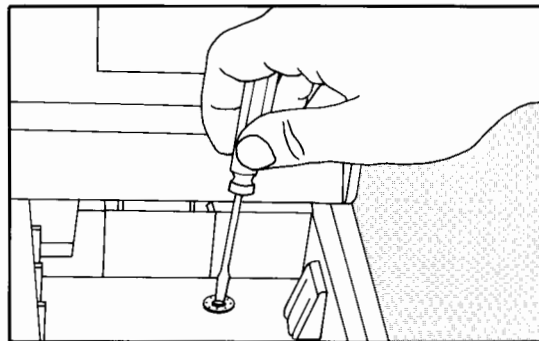
1. Make sure the computer and any connected peripheral equipment are turned off. Also, make sure the recharger is disconnected from the computer.
2. Use a coin to loosen the battery holding screw by turning it counterclockwise. The battery module will spring up slightly.



3. Raise the right side of the battery module up and then slide it out of the slot.

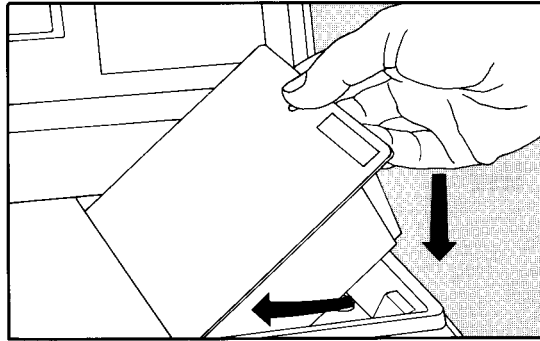


4. Use a flat-blade screwdriver to change the display switch on the bottom of the empty slot. (Refer to the table just before this procedure for information on which setting corresponds to what monitor.)

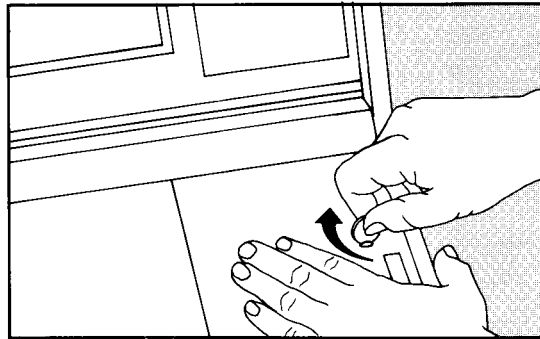


2-6 Connecting an External Monitor

5. Once you've changed the display switch, insert the left side of the battery module into the slot first; then lower the right side into the slot.



6. While holding the battery module firmly in place, tighten the battery holding screw with a coin by turning it clockwise.



7. Turn on your computer and external monitor. Note that the system clock needs to be set. Run the Setup program to reset the time and date.
8. Record the new setting for the display switch in the configuration inventory sheet at the back of this manual.

Removing the LCD Unit

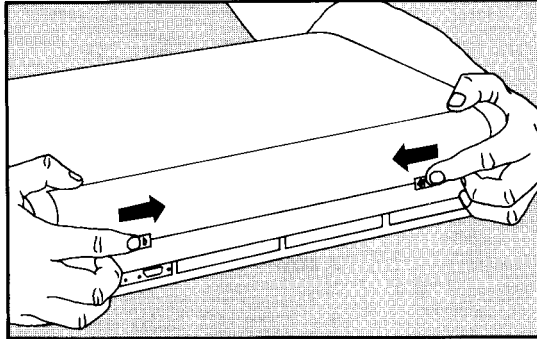
You may want to remove the LCD unit when your computer is connected to an external monitor to:

- Get it out of the way.
- Prevent the computer from displaying information on it when the computer is turned on. (Whenever the LCD is attached at startup, the computer automatically directs display output to it, no matter what is specified by the Setup program or what the display switch is set to.)

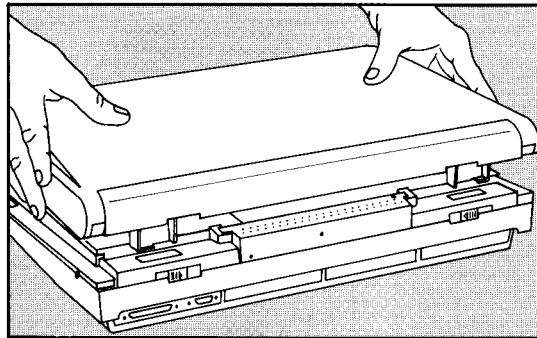
This procedure assumes that you have specified an external monitor to receive display output by running the Setup program or by changing the display switch.

To remove the LCD unit:

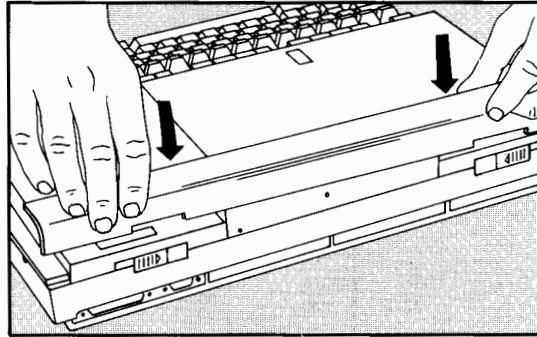
1. Turn off both the computer and the external monitor.
2. Move the LCD unit so that the computer is closed *but not latched*. (The computer will be open slightly.)
3. Slide the release latches on the back of the computer toward the center. The LCD unit will spring up slightly.



4. Lift the LCD unit straight up and off the computer.

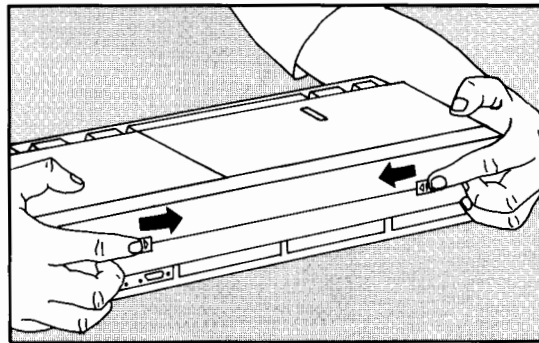


5. Press the *rear cover strip* onto the computer; it will click into place. (The plastic rear cover strip was shipped in the box with your computer.)

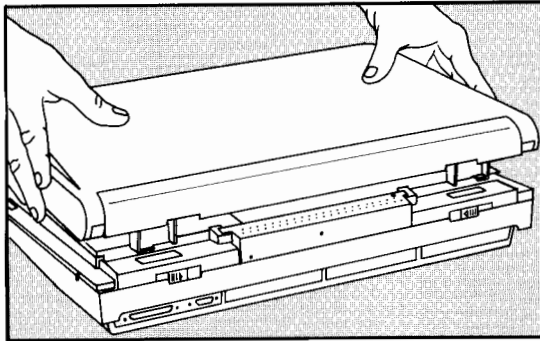


To replace the LCD unit:

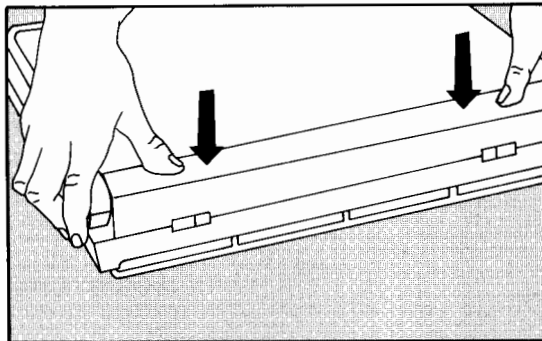
1. Turn off both the computer and the external monitor.
2. Remove the rear cover strip from the computer by sliding the release latches toward the center and then lifting it off.



3. Line up the hinges on the LCD unit with the hinge slots on the computer.



4. Press the unit into place. You should hear the latches on the back of the computer click when LCD unit is in its proper place.



Remember that whenever you start the computer with the LCD unit attached, the display output is automatically directed to the LCD. Also, after replacing the LCD unit, you may need to adjust the contrast to get optimum readability.

Connecting a Printer

Application software usually supports a limited number of printers. Before you connect a printer to your computer, you should make sure that the applications you plan to use support that printer.

You can connect a printer to your computer through the printer connector on the display/printer adapter. This 25-pin connector is an industry-standard parallel printer port and works with printers that have a parallel interface.

Note

If you prefer, you can connect a printer with a serial interface to your computer. However, to do so you must have a serial adapter installed in your computer and have the correct serial cable for your printer. For more information, see your dealer or whoever supplied you with your system.

What's in This Chapter

This chapter contains the general information and steps you need to follow to get printed output from a parallel printer. The general steps are:

- Gather the right equipment.
- Set up the printer.
- Physically connect the printer to the computer.
- Run the printer self-test (if your printer has one).
- Turn on the computer.

You'll need to have the documentation that came with your printer handy for setup and self-test instructions.

The Equipment You Need

In addition to the display/printer adapter in the back of your computer, you'll need the following equipment:

- A printer with a parallel interface.
- A parallel printer cable (correct for both the printer and the 25-pin connector on the display/printer adapter).

Note



If you need information about what parallel printer cable goes with your system, contact your dealer or whoever supplied you with your system.

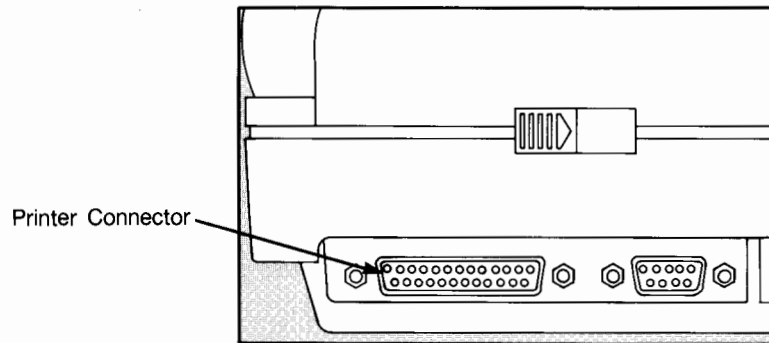
Setting Up the Printer

The first thing you need to do is set up the printer. The setup procedure usually involves unpacking the printer, putting it together, loading paper, and setting printer configuration switches. To complete these tasks you should follow the setup instructions that came with the printer.

Once the printer is set up, you are ready to connect it to your computer.

Connecting the Printer to the Computer

1. Make sure that both the computer and the printer are turned off.
2. Locate the display/printer adapter on the back of the computer. Facing the back of the computer, you'll find it in the left-most slot. (The printer connector is the larger, 25-pin connector.)



3. Connect the parallel printer cable to the computer (to the printer connector on the display/printer adapter) and to the printer.
4. If the printer has a power cord, plug it into an ac outlet.



Running the Printer Self-Test

At this point, if your printer has one, you should run the printer self-test to make sure that the printer is in proper working order. For instructions on how to do this, refer to the documentation that came with the printer.

Turning On Your System

Once you're sure the printer is working right, you're ready to turn on your equipment. To make sure that your computer properly recognizes the printer, you must follow the steps in this order:

1. Make sure that the computer is turned off.
2. Make sure that the disc containing your operating system is in the left disc drive.
3. Turn the printer on.
4. Turn the computer on.

A good test to make sure that everything is connected properly involves the `Print Screen` key. To try it, display a screen that you want to print and press `Print Screen`. As long as there is paper in the printer and the printer is on line, the screen should print out.

Once everything is properly connected and working, refer to the documentation that came with your application program(s) for information on how to get printed output.

Installing Accessory Adapters

An accessory adapter is the interface between the computer and another device (such as a printer or plotter). An adapter must be installed in your computer before you can connect (or install) another device. (Some devices, like modems, often come built into the adapter.) With the adapter properly installed, the device can “talk” to the computer.

You will need the documentation that came with your adapter along with the information in this chapter to install the adapter successfully. The adapter owner’s documentation should contain configuration information and user instructions along with installation instructions. If you find those installation instructions inadequate for installing the adapter, then refer to the general installation instructions contained in this chapter. However, your only source for configuration information and user instructions is the documentation that came with the adapter.

Note

Installing an adapter in your computer requires the use of either a T15 Torx® driver or a small, flat-blade screwdriver.

Handling Accessory Adapters Safely

- **Handle Gently.** Do not drop or handle roughly. Take care when unpacking and when handling during installation.
- **Protect From Static Electricity.** Accessory adapters contain electrical components that are easily damaged by small amounts of static electricity. Whenever you handle adapters:
 - Leave the accessory adapter in its anti-static bag until you are ready to install it.
 - If you can, use an anti-static wrist strap and a grounding mat such as those in the Electrically Conductive Field Service Grounding Kit (HP 9300-0933).
 - If you don't have a grounding kit, help discharge static electricity by touching a nearby metal surface for 5 seconds before removing the accessory adapter from the anti-static bag.
 - When you remove the accessory adapter from the anti-static bag, handle it only by its edges. *Try not to touch electrical components, traces, or connectors.*
 - Save the anti-static bag so you can protect the accessory adapter if you remove it from the computer.
 - Handle adapters as little as possible.

4-2 Installing Accessory Adapters

Installing Accessory Adapters

Accessory adapters go in the back of the computer, where there are "slots" for four adapters. One slot is always used by the display/printer adapter; the remaining three slots can contain other adapters (including modems).

Follow these instructions to install an accessory adapter in your computer:

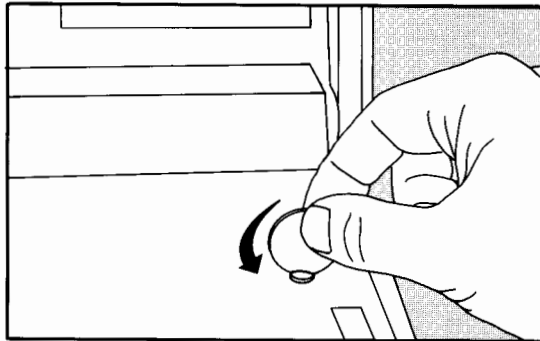
1. Turn off the computer, and make sure the recharger is disconnected from it.

Note

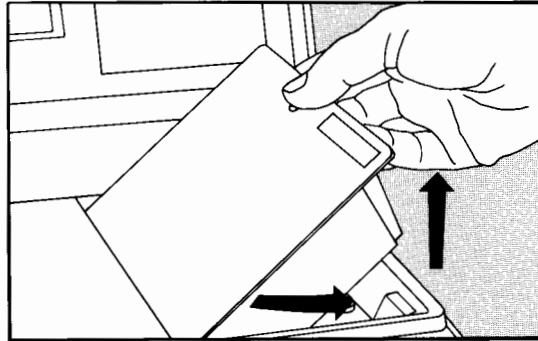


When you remove the battery module, your computer's configuration memory is lost, and therefore, you lose all choices previously made within the Setup program.

2. With the computer open, use a coin to turn the battery holding screw to the left to loosen the battery module. The module will spring up slightly.



3. Raise the right side of the battery module up and then slide it out of the slot.



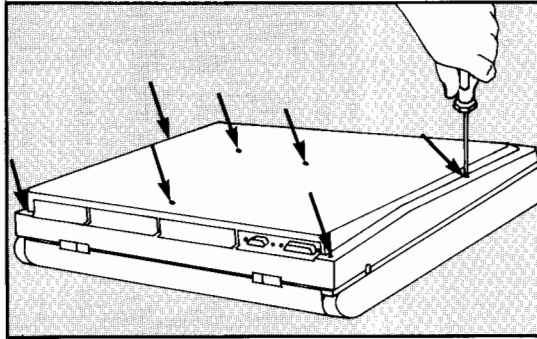
Caution



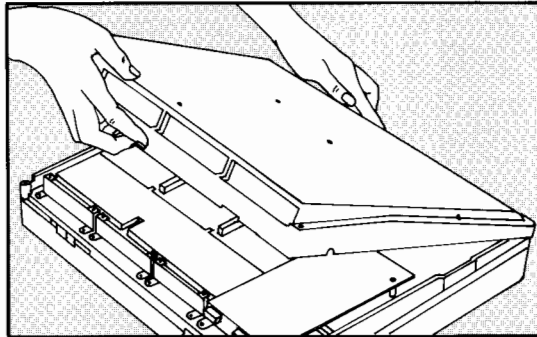
Failure to remove the battery module before installing an accessory adapter may result in damage to the battery.

4-4 Installing Accessory Adapters

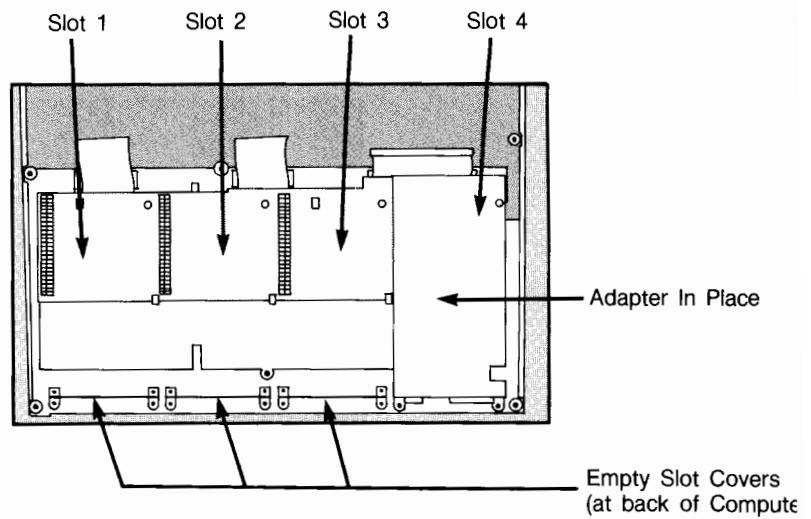
4. Close the computer so that it is securely latched.
5. With the back of the computer toward you, turn the computer over so that it rests on the topcase. Notice the seven screws that hold the bottomcase in place.



6. Remove the seven screws shown in the previous illustration. (Keep the screws handy. You'll need them to put the bottomcase back on.)
7. As shown in the illustration below, grasp the side of the bottomcase near the screw holes, then lift the bottomcase up and off.



8. Notice the adapter slots; each slot not occupied by an adapter has a cover held in place by two screws.



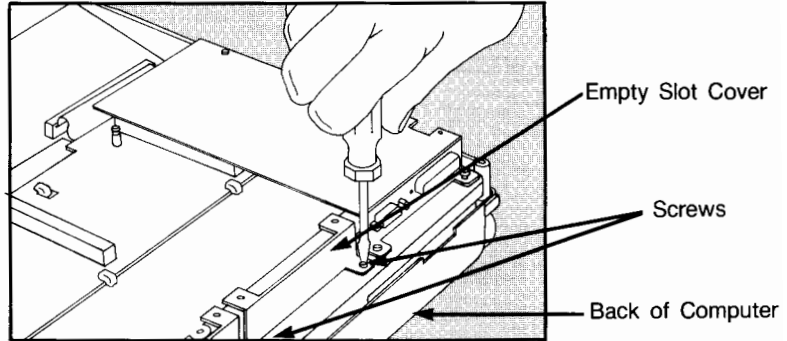
Caution



The components inside the computer are extremely sensitive and can be permanently damaged by static electricity. Therefore, avoid touching anything inside the computer except that which is expressly described in this procedure.

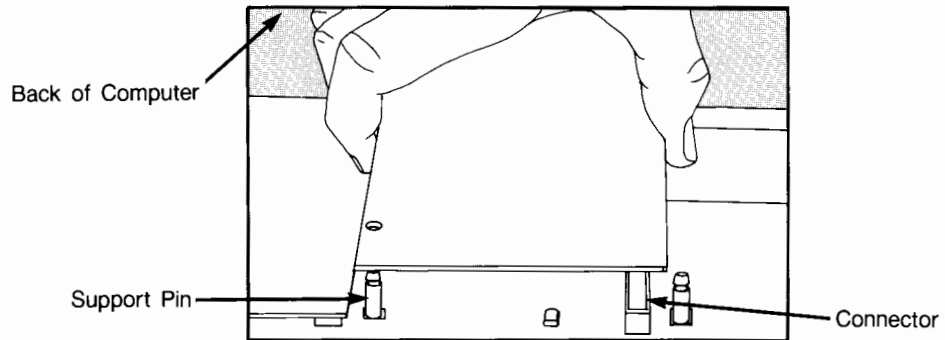
4-6 Installing Accessory Adapters

9. Select a slot in which to install the accessory adapter.
10. Remove the empty-slot cover by unscrewing the two screws holding it in place. Save the two screws; you'll need them when you install the adapter in the slot. (Also, save the cover in case you ever remove the adapter.)

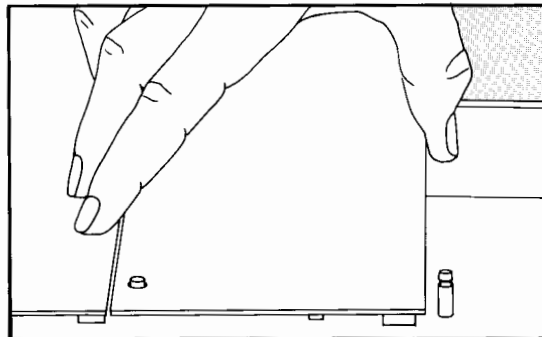


11. Remove the accessory adapter from its anti-static bag, handling it only by its edges.

- 12.** To get the adapter properly aligned with the slot,
- Line up the connector on the adapter with the connector on the computer.
 - Line up the plastic support pin on the computer with the support-pin hole on the adapter.

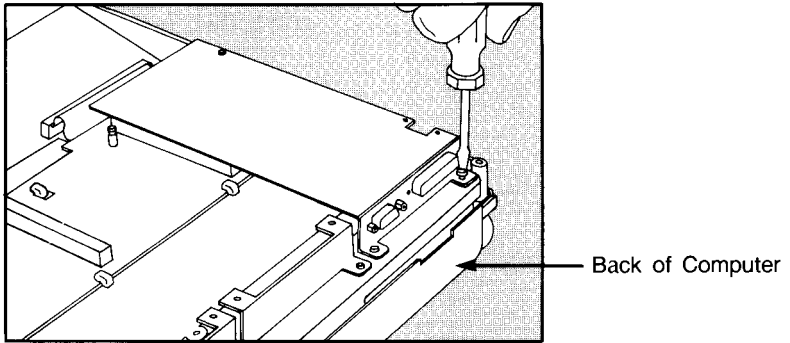


- 13.** Firmly and evenly press the aligned adapter into place. The adapter is properly seated when the connector on the adapter is *fully* inside the connector on the computer and when the support pin snaps through the support hole on the adapter.

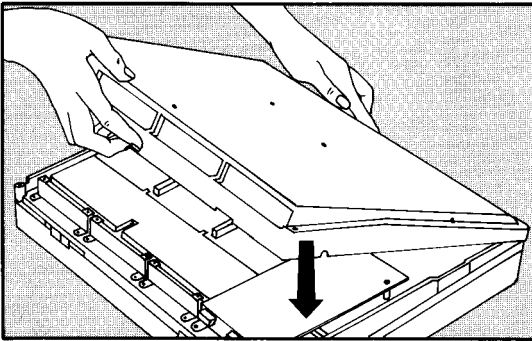


4-8 Installing Accessory Adapters

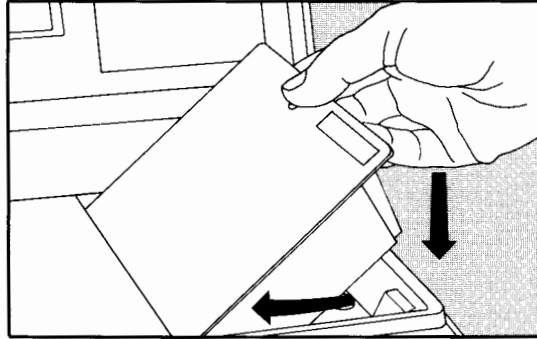
- 14.** Secure the adapter by replacing the two screws you removed when you took out the empty-slot cover (step 10).



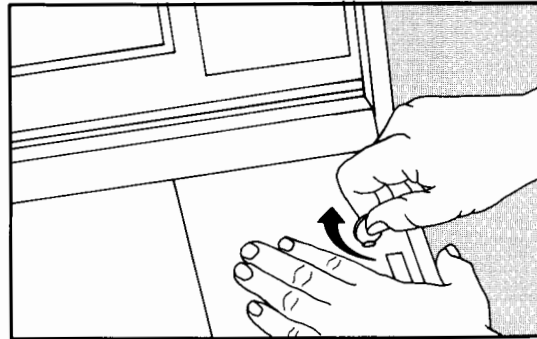
- 15.** Replace the bottomcase by lining up the hinge and then lowering it into place.



- 16.** Replace the seven screws that hold the bottomcase in place.
- 17.** Turn the computer over and open it.
- 18.** Insert the left side of the battery module into the slot first; then lower the right side into the slot.



- 19.** While holding the battery module firmly in place, tighten the battery holding screw with a coin by turning it clockwise.



4-10 Installing Accessory Adapters

20. Turn on your computer and run the Setup program to reset the system clock and re-specify configuration settings that were lost when the battery was removed.

Note



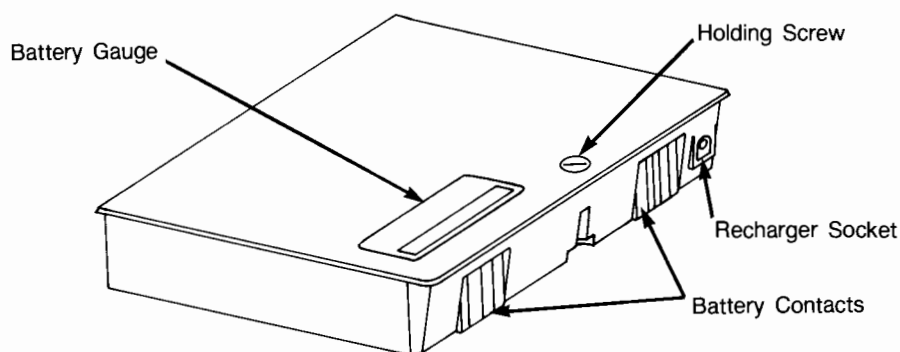
Some adapters require software in order to function. Check the documentation that came with the accessory adapter for information.

21. Turn to the Configuration Inventory Sheet at the back of this manual and record the information requested there for the adapter you just installed.

A

Using and Recharging the Battery Module

Your computer is powered by a rechargeable, removable battery module that gives you 6-10 hours of continuous use under normal operating conditions. This module contains a battery gauge that gives you a continuous reading of the level of charge in the battery.



There are some things to be aware of when handling the battery module:

Warning



- Do not burn or mutilate the battery module. Chemicals inside the battery constitute a serious danger under these conditions.
- Do not recharge the battery in an air-tight container.

Caution



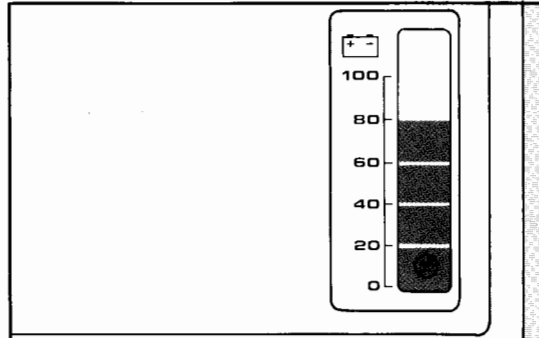
- Do not short the battery by connecting the battery contacts together. Shorting the battery will render it unusable.
- Removing the battery module causes immediate and complete memory loss in the computer.
- Very warm and very cold temperatures can adversely affect the life of the battery. For specific use and storage temperature limits, refer to appendix C, "Caring for Your Computer."

Using the Battery Module

The first time you use your computer you need to activate the battery module by connecting the recharger and then plugging the recharger power cord into an ac power outlet.

Once your battery module is activated, *try to keep the battery as fully charged as possible*. Also, try to use the computer with the recharger connected and plugged in whenever you have the chance. (You can't overcharge the battery, so don't worry about that.)

The battery module contains a battery gauge that always shows the current level of charge, even during recharging. The battery gauge looks like this:



A-2 Using and Recharging the Battery Module

The area on the gauge that is darkened at any time represents the current percentage of the full battery charge. If the level of charge is from 21% to 40%, the gauge will be darkened up to 40; if the level is from 41% to 60%, the gauge will be darkened up to 60; and so on. The level of charge in the illustration above is between 61% and 80%.

When the battery charge gets down to 20%, only the lowest area on the gauge is darkened. When the charge gets down to 10%, the lowest area begins to flash. *When you see the 20% area on the battery gauge begin to flash, you should recharge the battery as soon as possible.*

If the battery charge level gets to 0, the battery module is deactivated, the computer shuts off, and all information in the computer's memory is lost. When this happens, the battery gauge becomes blank, except for this indicator at the bottom:



To be used again, the battery module needs to be reactivated and the drained battery recharged. It takes about 12 hours to fully recharge a completely drained battery. (For specific instructions on how to activate the battery module and recharge your battery, refer to "Recharging the Battery" later in this appendix.)

Removing the Battery Module

The battery module does not have to be removed for the battery to be recharged. However, should you want to remove your battery module from the computer for any reason, instructions are contained here.

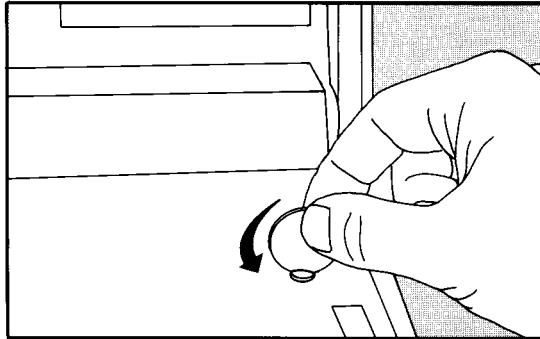
Note



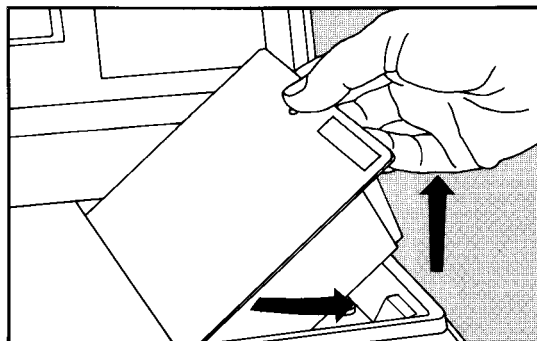
When you remove the battery module to get at the display switch, your computer's configuration memory is lost and, therefore, you lose all choices previously made within the Setup program.

To remove the system battery module:

1. Make sure the computer and any connected peripheral equipment are turned off. Also make sure the recharger is disconnected from the computer.
2. Use a coin to turn the battery holding screw counter-clockwise to loosen the battery module. It will spring up slightly.

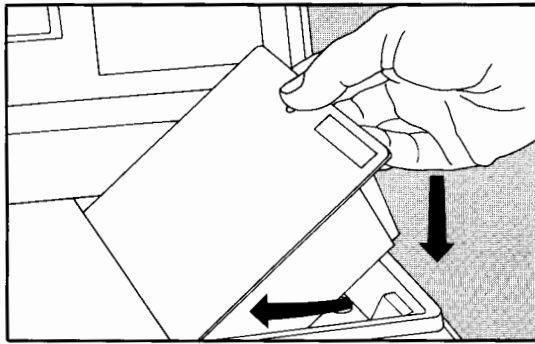


3. Raise the right side of the battery module up and then slide it out of the slot.

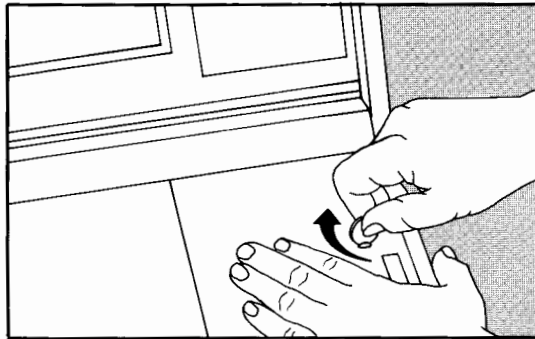


To replace the battery module:

1. Insert the left side of the battery module into the slot first; then lower the right side into the slot.



2. While holding the battery module firmly in place, tighten the holding screw with a coin by turning it clockwise.



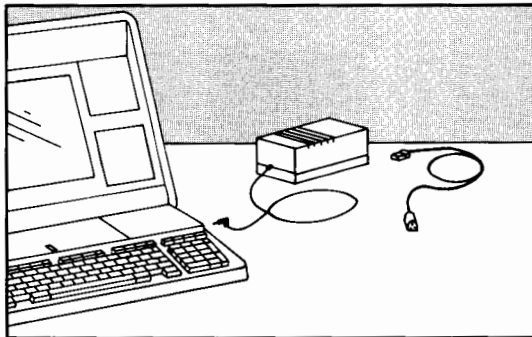
A-6 Using and Recharging the Battery Module

3. Turn your computer on and run the Setup program to reset the system clock and re-specify configuration settings that were lost when the battery was removed.

Recharging the Battery

To extend battery life, you should recharge the battery frequently and keep it as fully charged as possible. (Don't worry, you can't overcharge it.) The battery can be recharged while the battery module is in or out of the computer.

The recharger that came with your computer automatically adjusts to ac voltages of 110 to 240 and can be used in countries having voltages within this range. Often, however, different countries require different power cords to connect the recharger to the ac outlet. (For information on what power cords are required in what country, see your dealer or whoever supplied you with your system.)



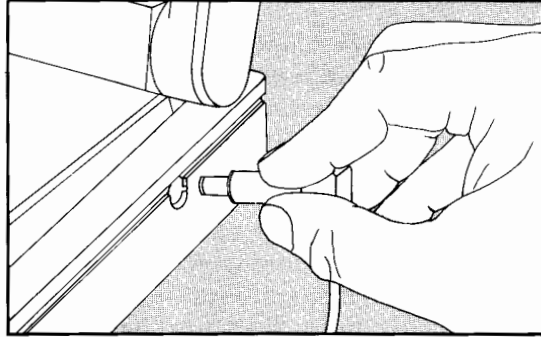
Caution



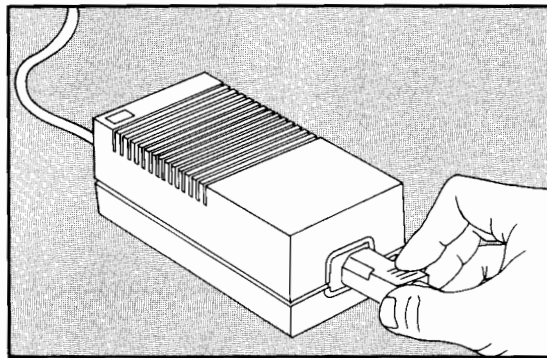
The battery module and recharger that came with your computer are specially designed to work together. Attempting to use another recharger not recommended by Hewlett-Packard for use with your computer may damage the battery.

Follow these instructions to recharge your battery:

1. Insert the connector coming from the recharger unit into the socket on the right side of the computer, as shown in the illustration below.



2. Insert the connector on the power cord into the socket on the recharger unit.



A-8 Using and Recharging the Battery Module

3. Insert the plug on the power cord into an ac power outlet. At this point an arrow should appear at the top of the battery gauge, indicating that the battery is recharging. (If the battery module was deactivated, a flashing pattern appears on the gauge for a few seconds and *then* the arrow appears. The flashing pattern occurs when the battery module is activated and indicates the module is completing its self test.)
4. You must leave the recharger connected until the battery gauge reads 20%, and try to leave it connected until the gauge reads 100%. (Regular and full recharges ensure a long battery life.) If you disconnect the recharger before the battery gauge reads 20%, the battery module will automatically deactivate.

Caution



Avoid putting papers on or covering the recharger in any way when it is in operation. Blocking the air flow around the recharger when it's in use could permanently damage it by causing it to overheat.

The computer can be used without any problem while the battery is recharging.

Preparing the Battery Module for Storage

Even when the computer is not in use, a slight drain occurs within the battery. (This is true even when the battery module is out of the computer.) Over a period of a few months of storage, a battery can become completely drained.

So, if you plan on not using your computer—or an additional battery module you might have—for a month or more, you should fully charge the battery first. Then, at least every two months, you should charge it again. This will help ensure a long battery life.

Caution



If your battery becomes completely drained and *remains that way for a week or more*, it may become permanently damaged. You should avoid this by regularly charging any battery in storage as described above.

Should your battery become completely drained during storage, the battery module will be deactivated. To once again activate the battery module, you should immediately follow the instructions under the heading “Preparing Your Computer for Use” in chapter 1.

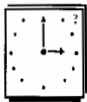
Troubleshooting Your Problems

This appendix covers three topics:

- The Power-On Self Test (POST).
- Helpful hints on how to overcome common problems.
- What to do when all else fails.

The Power-On Self Test (POST)

Whenever you turn your computer on, it performs a set of diagnostic checks on the hardware. These checks together form the power-on self test (POST). If a POST failure occurs, one of the following *icons* is displayed on the screen:



System clock not set. This icon indicates the system clock's date and/or time is invalid. When you see this, you need to run the Setup program to reset the clock. This icon is displayed for 10 seconds, then the computer tries to load the operating system. (Press any key to skip the 10-second delay.)



Boot failed. This icon indicates the computer was unable to boot (load) the operating system. When you see this icon, insert your system disc (the disc with the operating system) in the left disc drive and then press **F1**.



Machine broken. This icon indicates a hardware failure. Some failures will not allow you to continue using the machine; some will allow you to press **F1** to continue. With one exception, when you see this icon you need to get your computer serviced as soon as possible. (The exception occurs if you hold down any key during the POST. If you do this, the computer will mistakenly think the keyboard is broken. Simply ignore the icon.)

Problems and Solutions

Scan the **bold**, alphabetical entries to see if your problem is covered. Then, read and follow the accompanying solution(s). If your problem isn't covered here, see the next section in this appendix, "When All Else Fails..."

Battery gauge won't stop flashing. This generally means one of two things:


- If only the 20% band on the gauge is flashing, it means that you have less than a 10% charge in your battery. Recharge the battery as soon as possible to solve this problem.
- If the entire gauge flashes indefinitely, it means that the battery-module self test failed. Whenever a deactivated battery module is activated, it performs a self test. The self test, during which the battery gauge flashes, takes only a few seconds to complete. After a successful test, the battery gauge stops flashing. If the flashing continues indefinitely, the self test failed and you need a new battery module.

Computer won't turn on. Try the following:

1. Check to see if the power light behind the disc drives is lit. If it's lit, yet the display is blank, see the next problem, "display is blank or hard to read." If it's not lit, slide the on/off switch toward the back of the computer and see if it comes on.
2. If the light doesn't come on, check the battery gauge to see if the battery is charged. If the battery-deactivated indicator appears by itself at the bottom of the gauge (see appendix A for what this looks like), your battery has been completely discharged. To recharge it, connect the recharger and leave it connected until the battery has a full charge (about 12 hours). You can use your computer without any problem while the recharger is connected.

Display is blank or hard to read. Try the following:

1. Make sure the computer is turned on. (Check that the power light located behind the disc drives is lit.)
2. Check the display contrast switch (located just under the display screen) to see if it is set so as to make the screen appear blank or hard to read.
3. Change the viewing angle of the display to see if it is a glare problem.
4. If you have an external monitor connected, check to make sure that the display output is correctly directed to that type of monitor. (See chapter 2, "Connecting an External Monitor," for information.)
5. If you're using the LCD and parts of a screen seem to have disappeared, use the Setup program to change the color palette representation for the LCD, then view the screen again. (Application programs written for color monitors may not display well on the LCD unless you change the grey-scale to color mapping.)

Keyboard cursor keys don't work within an application program. If your cursor keys don't seem to work right when you're running a certain application program, it may be because that application requires the use of a dedicated cursor keypad that is not found on the Portable Vectra CS keyboard. Your computer has a key that remedies this situation—. For information on how to use this key, refer to appendix D, "The Portable Vectra CS Keyboard."

Keyboard doesn't work. There may be many reasons why your keyboard doesn't work. Generally, the most expedient solution is to start over. You can reset the computer by turning it off and then on again.

Peripheral devices don't work. Try the following:

- 1.** Make sure that both the computer and the peripheral are turned on.
- 2.** Make sure that all cables are connected properly.
- 3.** The adapter that the peripheral is connected to may require special software to be loaded before it functions properly. If you're unsure as to whether this has been done, check the adapter owner's manual for information on how to do it.
- 4.** For those peripherals that have one, run the self test or diagnostic utility to verify that the device itself is operating properly. See the peripheral documentation for information.

When All Else Fails...

If you have a problem with your computer system and can't seem to solve it yourself, it's time to go to your *Support Guide* for help. The *Support Guide* that came with your computer contains maintenance, warranty, and repair information. There are specific instructions to follow and, if necessary, phone numbers to call to ensure that you get prompt and effective attention to your problem.

Caring for Your Computer

Your computer is well-built and sturdy, but there are a few things you should be aware of to assure it a long and trouble-free life:

- Excessive smoke and dust are dangerous enemies of your computer. Keep your computer as free as possible from them. Also, to further protect it, keep your computer closed when not in use.
- Liquids spilled on the keyboard can damage it. It's a good idea to keep all liquids safely away from the computer.
- Excessive heat or cold can affect your computer when it's being used. You should not use your computer or recharge your battery outside the temperature range of 0°C (32°F) to 40°C (104°F).
- When your computer is not in use, it should be stored in a dry, dust- and smoke-free environment. The storage temperature should be between 0°C (32°F) and 35°C (95°F). Storing your computer outside of this temperature range will result in diminished battery life. (Note, however, that you can store your computer for short periods of time—up to 24 hours—at a temperature up to 50°C (122°F) without causing a problem.)



Caution

Avoid storing your computer in a closed automobile with the summer sun shining through the windows. Also, avoid storing it in an automobile trunk during the summer or winter. Temperatures under these circumstances can easily exceed the 0°C (32°F) to 50°C (122°F) range.*

- Your computer was designed to be used only when open. Using it with the lid closed can result in excessive temperatures within the computer.
- The battery module has special care instructions. Be sure to read appendix A, "Using and Recharging the Battery Module," for information.
- Dust can build up on the LCD. You can clean it by wiping it with a soft, static-free cloth.

If you think that your computer is damaged or broken, refer to the *Support Guide* that came with your computer for information on what to do about it.

* The *Portable Vectra CS Technical Reference Manual* (HP part number D1006A) contains additional and more specific information on the temperature limits for computer use and storage.

The Portable Vectra CS Keyboard

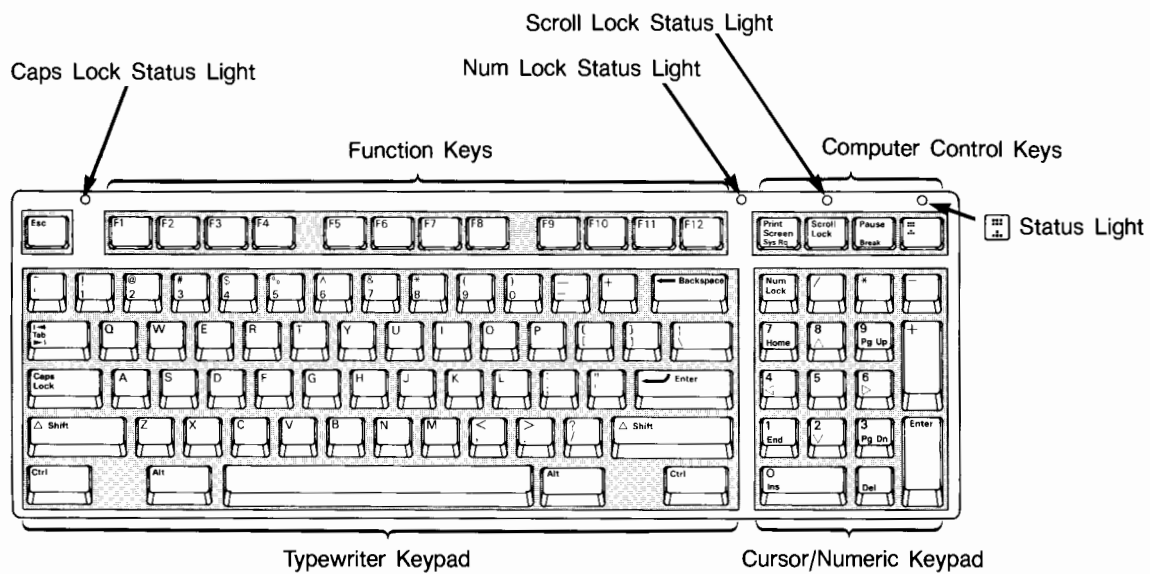
For description purposes, the keyboard can be broken into five groups—four keypads and the status lights.

Note



The exact functions of keys often vary between software programs. Therefore, to get precise functional descriptions of keys within a program, refer to your operating-system or application-program documentation.

The general keyboard groupings are shown below:




- The 12 *function keys* are usually defined to enable you to perform certain tasks by pressing one key rather than typing a long command.
- The *computer control keys* give you control over the behavior of the computer, usually to do things like interrupt a program or print a screen. Note that to get the System Request function, you must hold down **[Alt]** while you press **[Sys Rq]**. Also, to get the Break function, you must hold down **[Ctrl]** while you press **[Break]**.
- The *cursor/numeric keypad* is really two keypads in one. Depending on which mode you select, you can use these keys either to move the cursor around the screen or to enter numbers quickly and easily.
- The *typewriter keypad* contains the keys that correspond to a standard typewriter.
- The *status lights* reflect whether the “Lock” keys—**[Caps Lock]**, **[Num Lock]**, **[Scroll Lock]**, and **[Fn]**—are on or off. Each of these keys toggles “on” when you press it once, then “off” when you press it a second time. A glowing status light means that the corresponding key has been toggled on.

One key on the keyboard—the **[Fn]** key—is unique to your computer and warrants a description here.


Some application programs are designed to use a dedicated cursor keypad not found on the Portable Vectra CS keyboard. (This keypad is usually found between the typewriter keypad and the cursor/numeric keypad.) When you press **[Fn]** once, your cursor/numeric keypad becomes that dedicated cursor keypad. Only the cursor keys function, and *the numeric keys on this pad cannot be activated* (neither by using **[Shift]** nor **[Num Lock]**). Press this key again to return the keypad to its original function.

D-2 The Portable Vectra CS Keyboard

When you press , its corresponding status light comes on. It remains lit until you press this key again to return the cursor keypad to its original cursor/numeric function.

Note



The  key should only be used if your application program requires it. Check your application documentation to see if it requires the use of the dedicated cursor keypad not found on the Portable Vectra CS keyboard.

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Configuration Inventory Sheet

This sheet is provided for you to record important information about your computer and accessories that you may need to refer to later. Pencil in the information requested about your computer and any adapters that came built in. (Your System Checklist contains configuration information for your built-in adapters.) Then, when you install a new adapter in an I/O slot, fill in the same type of information for it. Note that, when facing the back of the computer, the four I/O slots are numbered from right to left, with the right-most slot being number 1.

Computer Purchase Date:

Serial #:

Display Switch Setting (and date):

I/O Slot #1 Adapter Name: Date Installed: Configuration Settings (Note or Sketch):	I/O Slot #2 Adapter Name: Date Installed: Configuration Settings (Note or Sketch):
I/O Slot #3 Adapter Name: Date Installed: Configuration Settings (Note or Sketch):	I/O Slot #4 Adapter Name: Date Installed: Configuration Settings (Note or Sketch):



HEWLETT
PACKARD

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