Hardware Installation and Facts

XEROX

610E02610

This equipment has been certified to comply with the limits for 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. This equipment was tested using Xerox shielded cables to connect peripherals. Operation with non-certified peripherals or non-shielded cables is likely to result in interference to radio and TV reception.

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B Computing Device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the computer with respect to the receiver.
- Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, you may consult an experienced radio/television technician for additional suggestions. You may find the following booklet prepared by the Federal Communications Commission helpful: "How To Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

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Introduction

Congratulations on the purchase of your new Xerox Personal Computer (PC) -- one of the most powerful and versatile computers on the market today.

Whether you are an experienced user or new to computers, we want you to feel thoroughly comfortable with your system. This manual will explain how to set up your system, how to verify that it is working properly, and even how to move it when the need arises.

When choosing a place for your system, remember to avoid exposing it to the following:

- direct sunlight or objects which radiate heat
- . excessive dust
- . electrical "noise" or devices that cause excessive voltage variations, such as air conditioners, fans, or high-frequency security devices
- static electricity, which may be produced by a plastic table or nylon carpeting.

The following pages will explain how to unpack your system. If you anticipate a major move in the near future, you may want to save the packing materials.

Unpacking the System





Figure 1-3. Remove the processor.

3. Pull the processor with its protective end pieces from the carton.



Figure 1-4. Remove the protective end pieces.

4. Carefully remove the end pieces from each end of the processor.

5. Remove the protective plastic wrapping.

6. Place the processor on a desk or table.

Note: Look at the bottom of your processor to locate your processor's serial number. Write this number down and file it for future reference, as you will need to refer to it if you should ever need to call your service representative.



Figure 1-5. Processor with dual floppy disk drives.

Compare the floppy disk drive(s) on your processor with the illustration above. If you have a hard disk system, there will only be one floppy drive.

7. Repeat the previous steps with the other boxes.

Note: If your system came with a mouse device, be sure you **keep** the gray card that is packed inside the mouse box.



Figure 1-6. Mouse and gray card.

System Components

Basic System



Figure 1-7. Basic system with optional mouse and printer

When your system is set up, it will look something like Fig. 1-7 above, which illustrates a processor with dual floppy disk drives, PC keyboard, and color display. The mouse and the printer are optional.

System Options



Figure 1-8. Illustration of some system options.

You may have purchased one or more of the options shown in Fig. 1-8. System options include communications boards, like the Modem Option Board or the ASA Communications Adapter Board, network access boards, and a memory board. You might also have a co-processor (8087-2) or memory chips to increase your system's memory.

If you have system options to install, turn to Section 2: Options, beginning on page 2-1. Then return to page 1-7 to complete the remaining instructions in this Section.

If you do not have system options to install, go to **Installing the Basic System**, p.1-7.

Installing the Basic System





The steps below are for installing a partial-page (25 line) monochrome display. If you have a color display to install, turn to page 1-10. If you have a full-page (66 line) display, turn to page 1-14.



Figure 1-11. Connecting a monochrome display.

- 3. Connect the monochrome display to the processor.
 - Place the display on top of the processor.
 - Look at the end of the plug on the display cable. Notice that the ring around the pins is wider on one side. Turn the plug so that the wider side is on the left, as shown in Fig 1-11.
 - Insert the display plug (matching plug to connector) into the CRT connector at the rear of the processor.
 - Secure the connection by tightening the two screws on both sides of the plug. Take care not to overtighten the screws.
 - When finished, go to Step 11 on page 1-16.

The steps below are for installing a color display. If you have a partial-page monochrome display to install, turn to page 1-9. If you have a full-page display, turn to page 1-14.

4. Look at the back of your color display to determine whether you have the display illustrated in Fig. 1-12 or the display illustrated in Fig. 1-13. (Notice that the display cable is not attached to the former unit, but is attached to the latter.)

If you have the display pictured in Fig. 1-12, go to Step 5. Go to Step 6 if you have the display pictured in Fig. 1-13.



Figure 1-12. Connecting the color display cable.

- 5. Connect the color display cable to the processor.
 - Place the display on top of the processor.
 - Locate the display cable. Notice that there is a different plug at each end of the cable. The end with the pins connects to the back of the processor; the end with the holes connects to the back of the display.
 - Look at the end of the plug with the pins. Notice that the ring around the pins is wider on one side. Turn the plug so that the wider side faces left, as shown in Fig. 1-12.

- Insert the plug (matching plug to connector) into the connector marked CRT at the rear of the processor and tighten the screws.
- Look at the end of the other plug. Notice that it too is wider on one side. Turn the plug so that the wider side is up (Fig. 1-12).
- Insert the plug into the connector at the bottom left corner of the rear of the display (Fig. 1-12). Tighten the screws.
- . Go to Step 7.



Figure 1-13. Connecting the color display cable.

- 6. Connect the color display cable to the processor.
 - . Place the display on top of the processor.
 - Look at the plug on the end of the display cable. Notice that the ring around the pins is wider on one side. Turn the plug so that the wider side faces left, as shown in Fig. 1-13.
 - Insert the plug (matching plug to connector) into the connector marked **CRT** at the rear of the processor and tighten the screws.
 - . Go to Step 8.



Figure 1-14. Connecting the color display power cord.

- 7. Connect the color display's power cord to the processor.
 - Locate the display's power cord. (It is shorter and thinner than the processor's power cord.)
 - Insert the female plug into the power socket on the back of the display unit, and the male (pronged) plug into the power socket on the rear of the processor (Fig. 1-14).
 - Press both plugs firmly into place.
 - . Go to Step 11 on p. 1-16.

Caution: Never plug the display's power cord into a wall outlet; always plug it into the processor.



Figure 1-15. Connecting the color display power cord.

- 8. Connect the color display's power cord to the processor.
 - Locate the display's power cord. (It is shorter and thinner than the processor's power cord.)
 - Locate the power socket beneath the left rear corner of the display (Fig. 1-15). Insert the female plug into this power socket, and the male (pronged) plug into the power socket on the rear of the processor (Fig. 1-15).
 - Press both plugs firmly into place.
 - . Go to Step 11 on p. 1-16.

Caution: Never plug the display's power cord into a wall outlet; always plug it into the processor. The steps below are for installing a full-page display. If you have a partial-page monochrome display, turn to page 1-9. If you have a color display, turn to page 1-10.

The full-page controller board (9R80892) must have been installed in your processor so that the display connector is available for the display, as shown below. The location of the connector will depend upon where the board is installed. In Fig. 1-16, it is located in option slot 3. If your processor does not have this board installed, your service representative will install it for you.



Figure 1-16. Connecting the full-page display cable.

- 9. Connect the full-page display cable to the processor.
 - . Place the display on top of the processor.
 - Look at the plug on the end of the display cable. Notice that the ring around the pins is wider on one side. Turn the plug so that the wider side is on the left. (See Fig. 1-16.)
 - Insert the plug (matching plug to connector) into the connector on the end of the full-page controller board.

- Tighten the screws on either end of the plug to secure the connection. Take care not to overtighten them.



Figure 1-17. Connecting the full-page power cord.

- 10.Connect the full-page display's power cord to the processor.
 - Locate the display's power cord. (It is shorter and a lighter shade of gray than the processor's power cord.)
 - Locate the power socket in the lower right corner of the rear of the display unit (Fig. 1-17). Insert the female plug into this power socket, and the male (pronged) plug into the power socket on the rear of the processor (Fig. 1-17).
 - Press both plugs **firmly** into place.

Caution: Never plug the display's power cord into a wall outlet; always plug it into the processor.

Not all printers use the same connector interface. Some use a PARALLEL interface while others use a SERIAL interface. Xerox has provided both types of connectors on the back of the processor. You'll need to read your printer manual to determine whether your printer uses a parallel or serial interface. You'll also use your printer manual to set up your printer.

If you're using a Xerox printer, you may need to change the printer switch settings before operating the printer. This information is provided in Section 3: Printers, beginning on page 3-1.



Figure 1-18. Parallel and serial printer connectors.

11. Connect the printer to the processor.

- Plug the printer cable into the proper connector on the back of the processor, either "parallel" or "serial", matching plug to connector.
- Secure the connection by tightening the screws on both sides of the plug.

INSTALLATION



Figure 1-19. Location for the main power cord.

12. Connect the main power cord to the processor.

- Connect the female end of the main power cord to the main power socket on the back of the processor (Fig. 1-19).
- Insert the male (pronged) end into a grounded wall outlet.
- Press both plugs firmly into place.



Power-on Self Test

- 15. Locate the screen's brightness and contrast controls.
 - . If you have a partial page monochrome display, they will be located at the back of the display, as shown in Fig. 1-22.
 - If you have a full-page display, they will be located at the front of the unit, as shown in Fig. 1-24.
 - If you have a color display, they will either be located at the back of the display, as shown in Fig. 1-22, or on the sides of the display, as shown in Fig. 1-23.



Figure 1-22. Location of brightness and contrast controls.







Figure 1-24. Location of brightness and contrast controls.

16. Turn these controls clockwise as far as they will go. Then turn them back about half way.

IMPORTANT: If your screen is monochrome (black & white), it is recommended that you set the brightness to the lowest practical setting. Using high brightness can result in a residual image being etched on the screen.

You are now ready to turn the system on.

When you do, it will automatically complete a Self-Test which checks to be sure memory and basic components are working properly. This test will take from 15 to 90 seconds, depending on the amount of memory installed.



Figure 1-25. Location of On/Off switch.

- 17. The On/Off switch is located above the power cable sockets on the back of the processor.
 - Turn the system on. Your screen will display information similar to that shown in Fig. 1-26.
 - Adjust the screen's brightness and contrast to a level that you find comfortable to view.

Resident Diagnostics Rev 1.1

CPU (i8086)	Pass
ROM Module	Pass
DMA Timer	Pass
DMA Control	Pass
Interrupts	Pass
512 kb RAM	Pass
RT Clock	Pass
Fixed Disk	Not Present
Floppy (A:)	Not Ready

Primary Boot-Strap ... Primary Boot-Strap DISK READ ERROR.

Figure 1-26. Successful Power-on Self-Test.

Note: The blinking **DISK READ ERROR** message appears when there is no disk in the drive.

- 18. If your system completed its Self-Test successfully:
 - Be sure you leave the system on for 12 hours in order to recharge the battery for the PC's internal clock.

Then

- . Go to Section 3: Printers, if you have a printer to install, or
- . Turn the page and learn how to get started on your system, if you have no printer to install.

If your system did not complete its Self-Test, and the screen remained dark or an error message was displayed:

- . Adjust the brightness and contrast controls.
- Turn the system off. Check to be sure all plugs and connectors are secure. Check the wall outlet to be sure it has power. (Plug in a working lamp.) Plug the system back into the outlet and turn it on again.
- If you still have a dark screen or an error message, contact your service representative.

Getting Started

	Xerox has provided an easy-to-use tutorial disk which will instruct you on how to use your system.
	If you have purchased Xerox Writer software, locate the Writer Training manual and follow its instructions to learn how to use your system.
	If you did <u>not</u> purchase Xerox Writer software, locate the Getting Started booklet in the box marked "Software Disks" and follow the instructions there.
	Should you have questions about your system's components in the future, you can refer to this manual.
<u> </u>	Instructions for installing software are provided in Appendix A of the MS-DOS with ScreenMate Operator's Guide . There you will be instructed on how to copy the MS-DOS Operating System to another floppy disk or the hard disk of a hard disk system. (If you decide not to use ScreenMate, use the instructions in Appendix A of the MS-DOS Operator's Guide .)
Floppy Disk Tips	
	Improper handling can damage your floppy disk. Be sure to follow the tips below.
	 Never write on disks with anything but a felt tip pen.
	- Never bend disks.

- Never expose disks to magnets or heat.
- Never clean a disk with cleaning fluid.
- Never touch the exposed surface of a disk.
- Always store disks in their protective jackets.



Installing a Memory Board in Your PC

These instructions apply only to the Xerox Personal Computer. If you are installing memory in a Writer System, go to p. 2-21, How to Install Memory Chips in Your Writer System.
This installation requires that both the top and bottom covers of the processor be removed. Remove the covers CAREFULLY to avoid cutting yourself on sharp edges or damaging delicate computer parts.
If you have a hard disk system which has been in use, you'll need to put it into shipping mode before turning your processor over to remove the bottom cover. See Moving , p.6-1, for instructions on how to put your system into shipping mode.
If you're adding memory to a system already set up:
- BE SURE the computer's power switch is OFF.
- Unplug the power cord.
. Check that the power switches on your printer and other devices are OFF.
- Disconnect all plugs from the back of the processor.
1. Loosen the two screws securing the top cover of the processor. (The screws do not have to come all the way out.)
Figure 2-1. Location of top cover screws

- 2. Remove the processor's top cover.
 - Stand facing the back of the processor.
 - Place your hands on the top cover. Applying pressure with both hands, give one quick push away from you. The processor cover will move away from the back panel about $\frac{1}{4}$ inch.



Fig. 2-2. Give one quick push away from you.

- Move your hands to the sides of the top cover. Applying pressure with both hands, lift up on the cover with a quick pull. The sides will release.
- Lower the back of the cover a little and begin working the cover toward the front of the processor.
- If you look over the top to the front of the processor, you will be able to tell when the top cover has cleared the disk drives. When it does, begin lifting the cover up until it is completely off the processor.

Note: If you have memory chips to install on the memory board, turn to "How to Install Memory Chips in Your PC", beginning on page 2-10.



The **memory board** must be installed in the row of double sockets farthest from the disk drives.

Figure 2-3. Location for memory board

- 3. Locate the position for the memory board.
- 4. Remove the screw and the option slot plate and set them aside. See Fig. 2-3.
- 5. Locate the two wires connected to the back left corner of the processor. Gently move the wires back out of the way so you can insert the memory board as shown in Fig. 2-4 on the next page.



- 7. Insert the edge connectors into the sockets and press down **firmly** until the board "snaps" into place.
- 8. Secure the memory board in the slot with the screw removed earlier.
- 9. Replace the top cover of the processor as follows:

Lower the front of the cover into place. Press in on the sides of the cover as you lower them into place, making sure the cover edges fit inside the processor frame. See Fig. 2-5.




- With hands pressing firmly against the sides of the cover, give one quick pull toward the rear of the processor. Make sure the sides stay inside the processor frame. See Fig. 2-6.



Figure 2-6. Slide the cover into place.

- Tighten the two screws on the back to secure the top cover.



- 12. Locate DIP Switch 0 on the processor board. See Fig. 2-8.
- 13. Determine your system's total memory using the following as a guideline.
 - Your processor board has 256K RAM (Random Access Memory).
 - Your memory board will have either 128K, 256K, or 384K. Check the label on the box if you're unsure.
 - If you added memory chips, add 128K to the total memory for each kit (group of 18 chips) added.



Chart 2-1. DIP Switch 0 switch positions 1 through 4.

14. Position the switches on Dip Switch 0.

- Look in the total memory column above and find the total memory for your system.
- To the right of the total memory column are the switch positions for switches 1 through 4. **Do not** change the positions of switches 5, 6, 7, and 8.
- Look at DIP Switch 0 on the processor board to determine which way is ON. (There may be a very small ON somewhere on the switch. ON may also be represented by the number 1 or an up arrow, and OFF, by the digit 0.)
- Set switches 1 through 4. To change a switch setting, use the tip of a ball point pen or small screwdriver to push the switch lever into the other position.



16. Return to Section 1: Installation, page 1-7 to finish installing your system.

If you added a memory board to a system that was already set up:

- Connect all plugs to the back of the processor.
- Connect the power cord.
- Turn the system on.

The screen will display a message indicating the amount of total memory in the system.

If the new memory is properly installed, the amount of memory displayed on the screen will be the total amount of memory now installed in your system.

If the screen indicates a different amount of memory, remove the bottom cover and double check the settings of DIP Switch 0.

How To Install Memory Chips in Your PC





Figure 2-1. Location of top cover screws.

- 2. Remove the processor's top cover.
 - Stand facing the back of the processor. Place your hands on the top cover. Applying pressure with both hands, give one quick push away from you. The top cover will move away from the back panel about $\frac{1}{4}$ inch.



Figure 2-2. Give one quick push away from you.

- Move your hands to the sides of the top cover. Applying pressure with both hands, lift up on the cover with a quick pull. The sides will release.
- Lower the back of the cover a little and begin working the cover toward the front of the processor.
- If you look over the top to the front of the processor, you will be able to tell when the top cover has cleared the disk drives. When it does, begin lifting the cover up until it is completely off the processor.

3. The memory board is installed in the row of double sockets farthest from the disk drives. If the memory board is already installed, it will need to be removed.



Figure 2-3. Removing the memory board.

- Locate and remove the screw securing the memory board. Set it aside.
- Grasp the board by the top and bottom edges and lift it straight up. Be careful not to cut yourself on the board's pins and components. All existing chips will be in rows across the upper left corner of the board as shown in Fig. 2-4.
- If your board has 128K of memory, the existing chips will fill rows A and B; you will install the new chips in rows C and D.
- If your board has 256K of memory, the existing chips will fill rows A, B, C, and D; you will install the new chips in rows E and F.







Figure 2-7. Installing the memory board.

- 7. Locate the two wires connected to the back left corner of the processor. Gently move the wires back out of the way so you can insert the memory board as shown in Fig. 2-7 above.
- 8. Align the edge connectors over the sockets. See Fig. 2-7.
- 9. Insert the edge connectors into the sockets and press down **firmly** until the board "snaps" into place.
- 10. Secure the memory board in the slot with the screw removed earlier.





Figure 2-8. Replacing the top cover.

- Lower the front of the cover into place. Press in on the sides of the cover as you lower them into place, making sure the cover edges fit inside the processor frame. See Fig. 2-8.



Figure 2-9. Slide the cover into place.

- With hands pressing firmly against the sides of the cover, give one quick pull toward the rear of the processor. Make sure the sides / stay inside the processor frame. See Fig. 2-9.
- Tighten the two screws on the back to secure the top cover.

Options

12. Carefully turn the processor over and loosen the two screws securing the bottom cover. See Fig. 2-10.



Figure 2-10. Location of bottom cover screws.

- 13. Remove the processor's bottom cover.
 - Stand facing the back of the processor.
 - Place your hands on the bottom cover. Applying pressure with both hands, give one quick push away from you. The processor cover will move away from the back panel.
 - Lift up on the back of the cover and then push it away from you off the front of the processor.



Figure 2-11. Location of DIP Switch 0.

14. Locate DIP Switch 0 on the processor board. See Fig. 2-11.

- 15. Determine your system's total memory using the following as a guideline.
 - Your processor board has 256K RAM (Random Access Memory).
 - Your memory board has 128K if rows A and B are filled with chips; 256K if rows A, B, C, and D are filled with chips, and 384K if rows A, B, C, D, E, and F are filled with chips.

Processor <u>Board</u>		Memory <u>Board</u>		Total <u>Memory</u>	Dip <u>Switch 0</u>			
256K	+	128K	=	384K	1 OFF	2 OFF	3 ON	4 ON
256K	+	256K	=	512K	ON	2 ON	OFF	4 ON

Chart 2-1. DIP Switch 0 switch positions 1 through 4.

16. Position the switches on DIP Switch 0.

- Look in the total memory column above and find the total memory for your system.
- To the right of the total memory column are the switch positions for switches 1 through 4. **Do not** change the positions of switches 5, 6, 7, and 8.
- Look at DIP Switch 0 on the processor board and determine which way is ON. (There may be a very small ON somewhere on the switch. ON may also be represented by the number 1 or an up arrow, and OFF, by the digit 0.)
- Set switches 1 through 4. To change a switch setting, use the tip of a ball point pen or small screwdriver to push the switch lever into the other position.



18. Return to Section 1: Installation, page 1-7 to finish installing your system.

If you added memory chips to a system that was already set up:

- Connect all plugs to the back of the processor.
- Connect the power cord.

- Turn the system on.

The screen will display a message indicating the amount of total memory in the system.

If the new memory is properly installed, the amount of memory displayed on the screen will be the total amount of memory now installed in your system.

If the screen indicates a different amount of memory, remove the bottom cover and double check the settings of DIP Switch 0.

How to Install Memory Chips in Your Writer System

These instructions apply only to the Writer System. If you are installing additional memory in a Xerox Personal Computer, go to p.2-1, Installing a Memory Board in Your PC , or p.2- 10, How to Install Memory Chips in Your PC .
This installation requires that both the top and bottom covers of the processor be removed. Remove the covers CAREFULLY to avoid cutting yourself on sharp edges or damaging delicate computer parts.
If you prefer, a service representative can install the memory chips for a fee.
If you have a hard disk system which has been in use, you'll need to put it into shipping mode before turning your processor over to remove the bottom cover. See <u>Moving</u> , p.6-1, for instructions on how to put your system into shipping mode.
Before you begin, be sure there are 18 memory chips in the Memory Expansion Kit. You will also need a flat-bladed screwdriver.
If you're adding memory to a system already set up:
. BE SURE the computer's power switch is OFF.
. Unplug the electrical power cord.
. Disconnect all plugs from the back of the processor.

1. Loosen the two screws securing the bottom cover of the processor. (The screws do not have to come all the way out.)



Figure 2-1. Location of the bottom cover screws.

- 2. Remove the processor's bottom cover.
 - . Stand facing the back of the processor.
 - . Place your hands on the bottom cover. Applying pressure with both hands, give one quick push away from you. The processor cover will move away from the back panel.
 - . Lift up on the back of the cover and then push it away from you off the front of the processor.
- 3. Locate the sockets for the new memory chips. (You will use the last two rows of memory chip sockets on the processor board. See Fig. 2-2.)



Figure 2-2. Location of the sockets on the processor board

4. Align the notch on the chip with the notch on the socket. See Fig. 2-3. Note: If either the chip or socket have no notch, position the chip so that the wording on its back is in line with the wording on memory chips that are already installed.



Figure 2-3. Location of chip and socket notches.

Note: If the chips are not aligned correctly, a memory failure may occur.



Figure 2-4. Installing the memory chip.

- 5. Install the memory chips one at a time, as described below. See Fig. 2-4.
- . Align the pins on the chip with the holes in the socket.
- . Tilt the chip **slightly** to insert one side before bringing down and inserting the other side.
- . Press down firmly on the center of the chip until it is seated. Be sure all pins are inserted before continuing.



Chart 2-1. DIP Switch 0 Configuration



- . Tighten the two screws to secure the bottom cover.
- 9. Return to Section 1: Installation, page 1-7, to finish installing your system.

If you added memory chips to a system that was already set up:

- . Connect all plugs to the back of the processor.
- . Connect the power cord.
- . Turn the system on.

The screen will display a message indicating the amount of total memory in the system.

If the new memory is properly installed, the amount of memory displayed on the screen will be the total amount of memory now installed in your system.

If the screen indicates a different amount of memory, remove the bottom cover and double check the settings of DIP Switch 0.

How To Install A Co-Processor (8087-2)





4. Prepare the chip for installation.

Options

- Notice that the pins on the chip spread outward. See Fig. 2-3.
- Straighten the pins by holding first one side and then the other against a flat surface and pressing gently.





Figure 2-4. Location of chip and socket notches.

5. Align the notch on the chip with the notch in the socket. See Fig. 2-4.

Note: If either the chip or socket have no notch, position the chip so that the wording on its back is in line with the wording on memory chips that are already installed.



Figure 2-5. Installing the 8087-2 chip.

- 6. Install the 8087-2 chip. See Fig. 2-5.
 - Align the pins on the chip with the holes in the socket.



8. Slide switch 5 to the OFF position. To change the switch setting, use the tip of a ball point pen or small screwdriver to push the switch lever into the other position. **Do not** move any other switches.

Note: If you're installing other options, you may need to make additional changes to the processor board. Check the instructions for your other options to see if additional changes are required before you replace the bottom cover.



Figure 2-8. Replacing the bottom cover.

- 9. Replace the bottom cover of the processor.
 - Position the front of the cover over the RESET button CAREFULLY to avoid damaging it.
 - Slide the cover toward the rear of the processor until it is in place. Be sure that the edges of the cover fit over the processor frame.
 - Tighten the two screws to secure the bottom cover.
- 10. Return to Section 1., Installation, page 1-7 to finish installing your system.

If you added a Co-Processor (8087-2) chip to a system that was already set up:

- Connect all plugs to the back of the processor.
- Connect the power cord.
- Turn the system on.

How To Install A Modem Option Board

	This installation requires that the top cover of the processor be removed. Remove the cover CAREFULLY to avoid cutting yourself on sharp edges or damaging delicate computer parts.			
	If you prefer, a service representative can install the board for a fee.			
	If you're adding a modem board to a system already set up:			
	. BE SURE the computer's power switch is OFF.			
	. Unplug the electrical power cord.			
	. Disconnect all plugs from the back of the processor.			
	1. Loosen the two screws securing the top cover of the processor. (The screws do not have to come all the way out.)			
	Figure 2-1. Location of top cover screws.			
	2. Remove the processor's top cover.			
	. Stand facing the back of the processor.			
`	. Place your hands on the top cover. Applying pressure with both hands, give one quick push away from you. The processor cover will move away from the back panel about $\frac{1}{4}$ ".			
	• Move your hands to the sides of the top cover. Applying pressure with both hands, lift up on the cover with a quick pull. The sides will release.			

- . Lower the back of the cover a little and begin working the cover toward the front of the processor.
- . If you look over the top to the front of the processor, you will be able to tell when the top cover has cleared the disk drives. When it does, begin lifting the cover up until it is completely off the processor.
- 3. Look at Fig. 2-2 and Fig. 2-3 to identify your modem option board. Notice that the board pictured in Fig. 2-2 has a round speaker in the lower right corner. If you have this board, go to Step 4. If you have the board pictured in Fig. 2-3, go to Step 5.



Fig. 2-2. Modem option board with speaker.



Fig. 2-3. Modem option board without speaker.

- 4. Make sure the jumpers on your board are positioned over the following pairs of pins: E4 and E5; and E1 and E2. See Fig. 2-2.
 - If any jumper is positioned incorrectly, grasp it between thumb and forefinger and lift it straight up, taking care not to bend the pins.
 - . Reposition it carefully over the correct pins, then go to Step 6.
- 5. Make sure the jumpers on your modem option board are positioned over the following pairs of pins: E1 and E2; E4 and E5; E7 and E8; E11 and E12; E13 and E14. See Fig. 2-3.
 - . If any jumper is positioned incorrectly, grasp it between thumb and forefinger and lift it straight up, taking care not to bend the pins.

Note: You may find it easier to remove the jumpers with a pair of tweezers or needle-nosed pliers.

Reposition it carefully over the correct pins.



Figure 2-4. Location for modem option board.

6. Locate the position for the modem option board.

Note: Because the modem option board has only one edge connector, it should be inserted into the first available single row socket to the right.



Figure 2-6. Replacing the top cover.

- . Lower the front of the cover into place. Press in on the sides of the cover as you lower them into place, making sure the cover edges fit inside the processor frame. See Fig. 2-6.
- . With hands pressing firmly against the sides of the cover, give one quick pull toward the rear of the processor. Make sure the sides stay inside the processor frame.
 - Tighten the two screws on the back to secure the top cover.
- 13. Return to Section 1, Installation, page 1-7 to finish installing your system.

If you added a modem board to a system that was already set up:

- Connect all plugs to the back of the processor.
- . Connect the power cord.
- . Turn the system on.

How To Install A Coax Option Board



- Move your hands to the sides of the top cover. Applying pressure with both hands, lift up on the cover with a quick pull. The sides will release.
- . Lower the back of the cover a little and begin working the cover toward the front of the processor.
- . If you look over the top to the front of the processor, you will be able to tell when the top cover has cleared the disk drives. When it does, begin lifting the cover up until it is completely off the processor.
- 3. Locate the DIP switches on the coax option board. See Fig. 2-2.



Figure 2-2. Location of DIP switches.

4. See Chart 2-1 to determine the settings of your DIP switches.

Left	1	2	3	4	5	6	7	8
Bank	ON	OFF	ON	OFF	OFF	Off	OFF	Off
Right Bank	1 0N	2 ON	3 ON	4 ON	5 ON	6 OFF		

Chart 2-1. Coax DIP switch settings.

- 5. Position the DIP switches.
 - . Look at your DIP switches to determine which way is ON. (There may be a very small ON somewhere on the switch. ON may also be represented by an up arrow or by the number 1, and OFF, by 0.)
 - . Use the tip of a ball-point pen or small screwdriver to change your switch settings.
- 6. Locate the position for the coax option board.

Because the coax option board has only one edge connector, it should be inserted into the first available single row socket to the right.



Figure 2-3. Location for coax option board.

- 7. Remove the screw and the option slot plate and set them aside. See Fig. 2-3.
- 8. Locate the two wires connected to the back left corner of the processor. Gently move the wires back out of the way so you can insert the coax option board as shown in Fig. 2-4 on the next page.


Figure 2-4. Installing the coax option board.

- 9. Insert the edge connector into the socket and press down firmly until the board "snaps" into place.
- 10. Secure the coax option board in the slot with the screw removed earlier.
- 11. Replace the top cover of the processor as follows:
 - . Lower the front of the cover into place. Press in on the sides of the cover as you lower them into place, making sure the cover edges fit inside the processor frame. See Fig. 2-5.
 - . With hands pressing firmly against the sides of the cover, give one quick pull toward the rear of the processor. Make sure the sides stay inside the processor frame.
 - . Tighten the two screws on the back to secure the top cover.



12.Return to Section 1, Installation, page 1-7 to finish installing your system.

If you added a coax board to a system that was already set up:

- . Connect all plugs to the back of the processor.
- . Connect the power cord.
- . Turn the system on.

How To Install An ASA Communications Adapter Board

Adapter Board	
	This installation requires that the top cover of the processor be removed. Remove the cover CAREFULLY to avoid cutting yourself on sharp edges or damaging delicate computer parts.
	If you prefer, a service representative can install the board for a fee.
	If you're adding an ASA Communications Adapter Board to a system already set up:
	. BE SURE the computer's power switch is OFF.
	. Unplug the electrical power cord.
	. Disconnect all plugs from the back of the processor.
	1. Loosen the two screws securing the top cover of the processor. (The screws do not have to come all the way out.)
	Figure 2-1. Location of top cover screws.
	2. Remove the processor's top cover.
	. Stand facing the back of the processor.
	Place your hands on the top cover. Applying pressure with both hands, give one quick push away from you. The processor cover will move away from the back panel about $\frac{1}{4}$ ".



- . Lower the back of the cover a little and begin working the cover toward the front of the processor.
- If you look over the top to the front of the processor, you will be able to tell when the top cover has cleared the disk drives. When it does, begin lifting the cover up until it is completely off the processor.
- 3. Locate the DIP switches on the ASA Communications Adapter board. See Fig. 2-2.



Figure 2-2. Location of DIP switches on ASA Communications Adapter board.

4. See Chart 2-1 to determine the settings of your DIP switches.



- 5. Position the DIP switches.
 - . Look at your DIP switches to determine which way is ON. (There may be a very small ON somewhere on the switch. ON may also be represented by the number 1 or an up arrow, and OFF, by 0.)
 - Use the tip of a ball-point pen or small screwdriver to change your switch settings.
- 6. Locate the position for the board.

Note: Because the ASA Communications Adapter Board has only one edge connector, it should be inserted into the first available single row socket to the right.



Figure 2-3. Location for the board.

7. Remove the screw and the option slot plate and set them aside. See Fig. 2-3.





Figure 2-5. Replacing the top cover.

12. Return to Section 1, Installation, page 1-7 to finish installing your system.

If you added an ASA Communications Adapter Board to a system that was already set up:

- Connect all plugs to the back of the processor.
- . Connect the power cord.
- . Turn the system on.

How To Install An XC 24 Network Access Board

This installation requires that the top cover of the processor be removed. Remove the cover **CAREFULLY** to avoid cutting yourself on sharp edges or damaging delicate computer parts. If you prefer, a service representative can install the board for a fee. Check Fig. 2-1 to verify that the board you are installing is an XC 24 Network Access Board. . If your board looks like Fig. 2-1, continue with the installation instructions below. If your board does not look like Fig. 2-1, you may be installing an XC 22 Network Access Unit. Compare your board to Fig. 2-1 on and continue with those 2-58 page instructions, if applicable. 19 18 17 16 15 14 13 12

Figure 2-1. XC 24 Network Access Board

1. Locate the jumpers on the XC 24 Network Access Board and ensure that they are positioned as shown in Fig. 2-1. If any jumper is positioned incorrectly, grasp it between thumb and forefinger and lift it straight up, taking care not to bend the pins.

Note: You may find it easier to remove the jumpers with a pair of tweezers or needle-nosed pliers.

- . Carefully reposition it over the correct pins.
- 2. Look at Fig. 2-2, which illustrates three connectors located on a corner of the board near the option slot plate. If you look at your board, you will see that a jumper block is positioned over two of these connectors.



Figure 2-2. Connectors for the jumper block

3. Look at Fig. 2-3 and Fig. 2-4. Notice that the jumper block mentioned above should be positioned over connectors 1 and 2 if you are connecting a BNC T-adapter to your board, and over connectors 2 and 3 if you are connecting a D-connector to your board.

Note: If you are connecting your computer to a network with Thin-Cable Ethernet (RG-58), you will connect a BNC T-adapter to your board. If you are using Thick Cable Ethernet to connect your computer to a network, you will connect a D-connector to your board.



Options



Figure 2-5. Removing the jumper block

- . Carefully insert the tip of a small, flatbladed screwdriver under one end of the jumper block and lift up gently until the jumper block is partially free of the connectors (Fig. 2-5).
- . Lift up gently on the other end until it is parallel with the first. Then grasp both ends of the jumper block between thumb and forefinger and pull straight up, taking care not to bend the pins.



Figure 2-6. Inserting the jumper block

. Reposition the jumper block over the correct connectors. Align the pins on the jumper block with the holes in the connectors (Fig. 2-6).

- . Press down firmly on the center of the jumper block until it is seated. Be sure all pins are inserted before continuing.
- 5. If you're adding an XC 24 Network Access Board to a system that is already set up:
 - . BE SURE the computer's power switch is OFF.
 - . Unplug the power cord.
 - . Check that the power switches on your printer and other devices are OFF.
 - . Disconnect all plugs from the back of the processor.
- 6. Loosen the two screws securing the top cover of the processor. (The screws do not come all the way out.)



Figure 2-7. Location of top cover screws

- 7. Remove the processor's top cover.
 - . Stand facing the back of the processor.
 - Place your hands on the top cover. Applying pressure with both hands, give one quick push away from you. The processor cover will move away from the back panel about $\frac{1}{4}$ ".

- Move your hands to the sides of the top cover. Applying pressure with both hands, lift up on the cover with a quick pull. The sides will release.
- . Lower the back of the cover a little and begin working the cover toward the front of the processor.
- . If you look over the top to the front of the processor, you will be able to tell when the top cover has cleared the disk drives. When it does, begin lifting the cover up until it is completely off the processor.

8. Locate the position for the board.

Note: Because the XC 24 Network Access Board has only one edge connector, it should be inserted into the first available single row socket to the right.



Figure 2-8. Location for the XC 24 Network Access Board

- 9. Remove the screw and the option slot plate and set them aside. See Fig. 2-8.
- 10. Move the colored wires that cross the socket away from the socket itself. Position the wires so that they will be either beneath or above the board when it is installed.







- 14. If you are using Thick-Cable Ethernet to connect your computer, go to Step 17. If you are using Thin-Cable Ethernet (RG-58), continue with the instructions below.
 - . Locate the BNC T-adapter that came with your XC 24 Network Access Kit. See Fig. 2-11.



Figure 2-11. BNC T-adapter

- Look at Fig. 2-12 to locate the BNC connector on the XC 24 Network Access Board.
- . Connect the BNC T-adapter to this connector.



Figure 2-12. Connect the BNC T-adapter to the XC 24 Network Access Board.

- 15. Connect a length of Thin-Cable Ethernet to one end of the T-adapter, as shown in Fig. 2-13.
 - . Locate the two small posts protruding from the open ends of the T-adapter.
 - See Fig. 2-13 to locate the slots on the connector attached to the cable. Slide the posts into these slots.
 - Twist the collar of the cable connector until the cable is locked in place.



Figure 2-13. Attach a length of Thin-Cable Ethernet to either end of the T-adapter.

16. If you have two lengths of Thin-Cable Ethernet ready to connect, repeat the procedure outlined above to connect the second cable to the other end of the T-adapter. Then go to Step 18.

If you have one cable and a terminator, use the same procedure to connect the terminator to the other end of the T-adapter. (See Fig. 2-14.) Then go to Step 18.



Figure 2-14. Connect a terminator to the T-adapter.

17. Connect the D-connector attached to your drop cable to the connector on the XC 24 Network Access Board (Fig. 2-15).

Note: Contact your site planner or network coordinator if you need to have a drop cable installed.



Figure 2-15. Connect a D-connector to the XC 24 Network Access Board.

18. Return to Section 1, Installation, to finish installing your system.

If you added an XC 24 Network Access Board to a system that was already set up:

- . Connect all plugs to the back of the processor.
- . Connect the power cord.
- . Turn the system on.

How To Install An XC 22 Network Access Board

This installation requires that the top cover of the Remove the cover processor be removed. CAREFULLY to avoid cutting yourself on sharp edges or damaging delicate computer parts. If you prefer, a service representative can install the board for a fee. Check Fig. 2-1 to verify that the board you are installing is an XC 22 Network Access Board. If your board looks like Fig. 2-1, continue with the installation instructions below. . If your board does not look like Fig. 2-1, you may be installing an XC 24 Network Access Board. Compare your board to Fig. 2-1 on 2-47 and continue with those page instructions, if applicable. RAM MEMORY 0 0 0 Figure. 2-1. XC 22 Network Access Board

1. Locate the small red plastic connectors on your XC 22 board. These connectors are called jumpers. Check that the jumpers on your board are positioned as shown in Fig. 2-1.

2. If any jumper is positioned incorrectly, grasp it between thumb and forefinger and lift it straight up, taking care not to bend the pins.

Note: You may find it easier to remove the jumpers with a pair of tweezers or needle-nosed pliers.

- **3.** Carefully reposition the jumper over the correct pins.
- 4. If you're adding an XC 22 board to a system that is already set up:
 - BE SURE the computer's power switch is OFF.
 - Check that the power switches on your printer and other devices are OFF.
 - . Unplug the power cord.
 - . Disconnect all plugs from the back of the *p*rocessor.
- 5. Loosen the two screws securing the top cover of the processor. (The screws do not come all the way out.)



Figure 2-2. Location of top cover screws

- 6. Remove the processor's top cover.
 - Stand facing the back of the processor.
 - Place your hands on the top cover. Applying pressure with both hands, give one quick push away from you. The processor cover will move away from the back panel about 4". If the cover does not move, loosen the screws a bit more and try again.
 - Move your hands to the sides of the top cover. Applying pressure with both hands, lift up on the cover with a quick pull. The sides will release.



Figure 2-3. Give one quick push away from you.

- . Lower the back of the cover a little and begin working the cover toward the front of the processor.
- . If you look over the top to the front of the processor, you will be able to tell when the top cover has cleared the disk drives. When it does, begin lifting the cover up until it is completely off the processor.



8. Move the colored wires that cross the socket away from the socket itself. Position the wires so that they will be either beneath or above the XC 22 board when it is installed (Fig. 2-5).

- 9. Hold the board by the edges as you align the edge connector over the socket (Fig. 2-5).
- 10. Insert the edge connector into the socket and press down firmly until the board "snaps" into place.
- 11.Be sure that the XC 22 board is not touching any other option board. If it is, move it to another single row socket.
- 12. Locate the 10-foot modular cord packaged with the XC 22 board. Check the alignment of the board by plugging one end of the cord into the "Phone" jack on the XC 22 board, and the other end into the OUT jack (Fig. 2-6).





- 13. Secure the board in the slot with the screw removed earlier.
- 14. Remove the modular cord from the Phone jack and the OUT jack.

- 15. Check the instructions for your other options to see if you need to install other boards before you replace the top cover.
- 16. Replace the top cover of the processor as follows:
 - . Lower the front of the cover into place. Press in on the sides of the cover as you lower them into place, making sure the cover edges fit inside the processor frame (Fig. 2-7).
 - . With hands pressing firmly against the sides of the cover, give one quick pull toward the rear of the processor. Make sure the sides stay inside the processor frame.
 - . Tighten the two screws on the back to secure the top cover.



Figure 2-7. Replacing the top cover

- 17.Connect your workstation to the XC 22 network by linking it to another workstation or to an XC 22 NEU (Network Expansion Unit).
 - Plug one end of the modular cord that came with your XC22 Network Access Board kit into your workstation's OUT jack (Fig. 2-9).

Determine whether the cord is long enough to connect your workstation to another workstation or an NEU. If it is not long enough, connect it to another DW8A-DE cord with a 451A Adapter. See Fig. 2-8.



Figure 2-8. Connecting the cord to another DW8A-DE cord

. If you are connecting your workstation to another workstation, plug the other end of the cord into the IN jack of the other workstation's NAU. See Fig. 2-9.



Figure 2-9. Connecting one workstation to another

- . If you are connecting your workstation to an NEU that has already been installed, plug the other end of the cord into the first unused IN jack on the NEU. Start with the IN jack labeled 1 (Fig. 2-10).
 - . If you are planning to connect your workstation to an NEU but have not yet installed the NEU, go to page 2-66, How to Install an XC 22 Network Expansion Unit, and complete those instructions.



18. Return to Section 1, Installation, to finish installing your system.

If you added an XC 22 board to a system that was already set up:

- . Connect all plugs to the back of the processor.
- . Connect the power cord.
- . Turn the system on.

How To Install An XC 22 Network Expansion Unit

Your XC 22 NEU (Network Expansion Unit) kit should contain the following: (a) the NEU itself; (b) a wire mounting frame to hold the NEU; (c) a label holder attached to the wire mounting frame; (d) two wall anchors; (e) two screws; (f) a set of pre-printed labels for identifying each NEU that you install; (g) a power transformer.



Figure 2-1. Contents of the NEU kit

Before you proceed with the steps on the following pages, be sure that you have enough wall space to install your unit or units, and that there is a nearby wall outlet. 1. Remove the NEU from the wire mounting frame (Fig. 2-2).



Figure 2-2. Remove the NEU from the frame.

2. Position the wire mounting frame where you want to install the NEU and mark the location of the screws with a pencil.



Figure 2-3. Screw the frame onto the wall.

- 3. Mount the frame on the wall, using the screws that came with the kit (Fig. 2-3). If there is no stud behind the wall where you are mounting the frame, insert the two wall anchors into the wall before you insert the screws.
- 4. Snap the NEU into the frame (Fig. 2-4).



Figure 2-4. Snap the NEU into the frame.

5. Locate the three-pin connector on the bottom of the NEU (Fig. 2-5).



Fig. 2-5. Locate the connector on the bottom of the NEU.

6. Plug the cord on the power transformer into this connector (Fig. 2-5).

7. Insert the plug on the back of the power transformer into the wall outlet. If you are installing several NEUs at the same location, plug the power transformer into one of the outlets on a power strip (Fig. 2-6).



Figure 2-6. Installing several NEUs side by side

- 8. Be sure that the LEDs on the front of the NEU light up when the power transformer is plugged in (Fig. 2-6). If the LEDs do not light up:
 - . Check the wall outlet by plugging in a working lamp.
 - . If the wall outlet is providing power and the LEDs do not light up, call your service representative.
- 9. Repeat Step 1 through Step 8 for each additional NEU that you install. If possible, install any additional NEUs to the right of the unit that has already been installed, as illustrated in Fig. 2-6, so that your NEUs can be labeled from left to right in numerical order.

10. Look at Fig. 2-7 to locate the label holder on the wire mounting frame. Remove the clear plastic strip from the label holder.

Note: The plastic strip is flexible and can be removed easily if you insert your thumb nail beneath one edge of the strip and press until it bends in the middle.

11. Locate the pre-printed labels that came with the NEU kit.

12. If you are installing only one NEU:

- Insert the label NEU 1 -- Master into the label holder and replace the plastic strip. Insert one edge of the plastic strip first, then bend the strip so that you can insert the other edge more easily.
- Go to Step 18.

NEU 1-Master



Figure 2-7. Labelling a single NEU

13. If you are installing several NEUs:

- . Insert the label NEU 1 -- Master into the label holder of the unit at the far left.
- . Replace the plastic strip. Insert one edge of the plastic strip first, then bend the strip so that you can insert the other edge more easily.
- . Label additional units from left to right in numerical order, as illustrated in Fig. 2-8.



Fig.ure 2-8. Labelling a row of NEUs

- 14. Locate a D8W modular cord.
- 15. Plug one end of the D8W cord into the OUT jack of NEU 2, as illustrated in Fig. 2-9.
- 16. Plug the other end of the cord into IN jack 11 on the NEU 1 -- Master (Fig. 2-9).

17. Repeat this procedure to connect all of your NEUs to the NEU 1 -- Master. Use the IN jacks on the NEU 1 -- Master in reverse numerical order. (i.e. Connect NEU 3 to IN jack 10, NEU 4 to IN jack 9, NEU 5 to IN jack 8, etc.)



Fig. 2-9. Connecting a row of NEUs

18. Connect a workstation equipped with an XC 22 Network Access Board to an NEU.

Note: If you have not yet installed your XC 22 Network Access Board, go to How to Install an XC 22 Network Access Board on page 2-58.

- . Locate the DW8A-DE modular cord that was packaged with your XC 22 Network Access Board.
- Determine whether the cord is long enough to connect the workstation to an NEU. If not, connect it to another DW8A-DE cord with a 451A Adapter (Fig. 2-10).



Figure 2-10 Connecting two modular cords with a 451A Adapter

- . Locate the OUT jack on your XC 22 board (Fig. 2-11).
- Plug one end of the modular cord into this OUT jack, and the other end into the first unused IN jack on an NEU, beginning with IN jack 1.





19. Repeat this procedure until you have connected all of your workstations to an NEU.

Notes:
620 API Printer

The 620 API (All Purpose Interface) Printer can be set up as either a parallel or serial printer. To use it as a parallel printer, follow the steps below. To use it as a serial printer, go to p. 3-3.

How to set up the 620 API Printer as a parallel printer



Figure 3-1. Switch location for 620 API Printer.

Switch Settings

The 620 API Printer has one 8-position switch and a label that identifies the function and On/Off position of each switch. Position the switches as follows:

- Position switches 1 through 7 to the right (Off).
- Position switch 8 to the left (On).

To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.



620 API Printer (cont.)

How to set up the 620 API Printer as a serial printer

To use the 620 API (All Purpose Interface) printer as a serial printer:

- Plug an RS-232 cable with a modem eliminator into the connector marked "Serial" on the back of the processor. You can order RS-232 cables either from your local Xerox/Diablo sales representative or directly from Diablo. The modem eliminator (also called a "null modem" or "direct connect cable") is a common computer part which can be found at most computer stores, or ordered directly from Xerox.
- . Check to be sure the operating mode switches are set exactly as illustrated on the next page.

The operating mode switches for the 620 API printer are located to the left of the external control panel, and are covered when the front cover is in place.



Figure 3-2. Switch location for 620 API Printer.

Switch Settings

The 620 API Printer has one 8-position switch and a label that identifies the function and On/Off position of each switch. Position the switches as follows:

- Position switches 1, 2, 5, 6, 7 and 8 to the right (Off).
- Position switches 3 and 4 to the left (On).

To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.



. Run the CONFIGUR program. (If you have a dual floppy system, it is located on the Utilities disk.)
 Press F3-Configur Serial Ports. The Configur Serial Ports Menu will be displayed.
. Press F2-Device until it displays XRX620.
. Check to be sure that F3-Baud Rate is set to 1200 .
• Check to be sure that F4-Stop Bits is set to 1.
• Check to be sure that F5-Word Length is set to 7.
. Check to be sure that F6-Parity is set to Even.
 Press F7-Protocol. The Protocol Menu will be displayed.
. Check to be sure that F1-Soft Protocol is set to Xon/Xoff.
. Check to be sure that F3-Data Terminal Rdy is set to High.
. Check to be sure that F4-Request to Send is set to High .
. Check to be sure that F5-Clear to Send is set to High.
• Check to be sure that F6-Carrier Detect is set to High .
If you have made any changes in the Protocol Menu
. Press F9-Accept this Configuration.
 Press F10-Return to Previous Menu. The Configur Serial Ports Menu will be displayed.

•	Press F9-Accept this Configuration.
•	Press F10-Return to Main Menu . The Configur Main Menu will be displayed.
•	Press F4-Reroute Devices . The Reroute Devices Menu will be displayed.
•	Press F3-Redirect Printer . The Redirect Printer Menu will be displayed.
•	Press F2 until it displays Serial Port 1.
•	Press F9-Accept this Configuration.
•	Press F10-Return to Reroute Menu . The Reroute Devices Menu will be displayed.
•	Press F10-Return to Main Menu . The Configur Main Menu will be displayed.
•	Press F9-Activate Changes . The Configur Activate Menu will be displayed.
	If you have a dual floppy system, save the ges on the MS-DOS "Boot" Disk.
•	Check to be sure F2 on the Configur Activate Menu is set to the correct destination drive.
•	Press F4-Save and Activate.

620 w/ SPI Printer



Figure 3-3. Switch location for 620 w/ SPI Printer.

620 w/ SPI Printer (continued)

Switch Settings

The 620 w/ SPI Printer has one 8-position switch and a label that identifies the function and On/Off position of each switch. Position the switches as follows:

- Position switches 1, 2, 5, 6, 7 and 8 to the right (Off).
- Position switches 3 and 4 to the left (On).

To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.



630 API Printer

The 630 API (All Purpose Interface) Printer can be set up as either a parallel or serial printer. To use it as a parallel printer, follow the steps below. To use it as a serial printer, go to p. 3-11.

How to set up the 630 API Printer as a parallel printer



Figure 3-4. Switch location for 630 API Printer.

Switch Settings

The 630 API Printer has one 8-position switch and a label that identifies the function and On/Off position of each switch. Position all switches as follows: - Position all eight switches towards the front of the printer (Off). To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position. SLIDE SWITCHES JUMPER STRIP API INTERFACE RS232 INTERFACE PROTOCOL 0000000 the first of an a transfer and the second se FORM PAUSE READ POW OPERATOR I OPERATING Ł COMMAND STATUS SWITCHES **INDICATORS** 2 OFF Ţ 3 4 5 OFF 6 7 8 OFF OFF OFF OFF OFF OFF Note: The "jumper strip" to the right of the lswitches should not be covered with a jumper plug.

How to set up the 630 API Printer as a serial printer

To use the 630 API (All Purpose Interface) printer as a serial printer:

- Plug an RS-232 cable with a modem eliminator into the connector marked "Serial" on the back of the processor. You can order RS-232 cables either from your local Xerox/Diablo sales representative or directly from Diablo. The modem eliminator (also called a "null modem" or "direct connect cable") is a common computer part which can be found at most computer stores, or ordered directly from Xerox.
- Check to be sure the operating mode switches are set exactly as illustrated on the next page.

The operating mode switches for the 630 API printer are located behind the external control panel, and are covered when the front cover is in place.



Figure 3-5. Switch location for 630 API Printer.

Switch Settings

The 630 API Printer has one 8-position switch and a label that identifies the function and On/Off position of each switch. Position all switches as follows:

- Position switches 1, 2, 3, and 8 towards the front of the printer (Off).
- Position switches 4, 5, 6 and 7 towards the back of the printer (On).

To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.



Note: The "jumper strip" to the right of the (switches should not be covered with a jumper plug.

•	Run the CONFIGUR program. (If you have a dual floppy system, it is located on the Utilities disk.)
•	Press F3-Configur Serial Ports . The Configur Serial Ports Menu will be displayed.
•	Press F2-Device until it displays XRX630 .
•	Check to be sure that F3-Baud Rate is set to 1200 .
•	Check to be sure that F4-Stop Bits is set to 1 .
•	Check to be sure that F5-Word Length is set to 7.
•	Check to be sure that F6-Parity is set to Even .
•	Press F7-Protocol . The Protocol Menu will be displayed.
•	Check to be sure that F1-Soft Protocol is set to Xon/Xoff .
•	Check to be sure that F3-Data Terminal Rdy is set to High.
•	Check to be sure that F4-Request to Send is set to High .
•	Check to be sure that F5-Clear to Send is set to High.
•	Check to be sure that F6-Carrier Detect is set to High .
If you	have made any changes in the Protocol Menu
•	Press F9-Accept this Configuration.
	Press F10-Return to Previous Menu . The Configur Serial Ports Menu will be displayed.

•	Press F9-Accept this Configuration.
•	Press F10-Return to Main Menu . The Configur Main Menu will be displayed.
•	Press F4-Reroute Devices . The Reroute Devices Menu will be displayed.
•	Press F3-Redirect Printer . The Redirect Printer Menu will be displayed.
•	Press F2 until it displays Serial Port 1.
•	Press F9-Accept this Configuration.
•	Press F10-Return to Reroute Menu . The Reroute Devices Menu will be displayed.
•	Press F10-Return to Main Menu . The Configur Main Menu will be displayed.
•	Press F9-Activate Changes . The Configur Activate Menu will be displayed.
Note: chang	If you have a dual floppy system, save the ges on the MS-DOS "Boot" Disk.
•	Check to be sure F2 on the Configur Activate Menu is set to the correct destination drive.
	Pross F4-Save and Activate

630 w/ SPI Printer



Figure 3-6. Switch location for 630 w/ SPI Printer.

Printers

630 w/ SPI Printer (continued)

Switch Settings

The 630 w/ SPI Printer has one 8-position switch and a label that identifies the function and On/Off position of each switch. Position all switches as follows:

- Position switches 1, 2, 3, and 8 towards the front of the printer (Off).
- Position switches 4, 5, 6 and 7 towards the back of printer (On).

To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.



Note: The "jumper strip" to the right of the switches should not be covered with a jumper plug.

630 ECSC Printer



Printers

630 ECSC Printer (continued)

Switch Settings

The 630 ECSC Printer has two sets of 8-position switches each and labels that identify the function and On/Off position of each switch.

Set the eight switches on the left as follows:

- Position switches 2, 4, 5, 6, 7, and 8 towards the front of the printer (Off).
- Position switches 1 and 3 towards the back of the printer (On).

	1 ON	2 OFF	3 ON	4 OFF	5 OFF	6 OFF	7 OFF	8 OFF	
--	---------	-----------------	---------	-----------------	----------	-----------------	----------	-----------------	--

Set the eight switches on the right as follows:

- Position all switches 1 through 8 towards the front of the printer (OFF).



To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.

Diablo Series 36 API Printer

To use the Diablo Series 36 API (All Purpose Interface) Printer:

- Plug the printer cable into the connector marked "Parallel" on the back of the processor, using a "parallel" cable. You can order parallel cables either from your local Xerox/Diablo sales representative or directly from Diablo.
- . Check to be sure the operating mode switches are set exactly as illustrated on the next page.

The operating mode switches for the Series 36 API Printer are located under the small access cover next to the external control switches on the front panel.



Figure 3-8. Switch location for Diablo Series 36 API Printer.

Diablo Series 36 API Printer (continued)

Switch Settings

The Series 36 API Printer has one 8-position switch and a label that identifies the function and On/Off position of each switch. Position the switches as follows:

- Position switches 1 through 7 to the right (Off).
- Position switch 8 to the left (On).

To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.



Diablo C-150 Ink Jet Printer

To use the Diablo C-150 Ink Jet Printer:

- Plug the printer cable into the connector marked "Parallel" on the back of the processor, using a "parallel" cable. You can order parallel cables either from your local Xerox/Diablo sales representative or directly from Diablo.
- . Check to be sure the operating mode switches are set exactly as illustrated on the next page.

The operating mode switches for the Diablo C-150 Ink Jet Printer are located at the back of the printer next to the Interface Connector.



Figure 3-9. Switch location for Diablo C-150 Ink Jet Printer.

Diablo C-150 Ink Jet Printer (continued)

Switch Settings



Advantage D25 Printer

To use the Advantage D25 printer:

- Plug the printer cable into the connector marked "Parallel" on the back of the processor, using a "parallel" cable. You can order parallel cables either from your local Xerox/Diablo sales representative or directly from Diablo.
- . Check to be sure the operating mode switches are set exactly as illustrated on the next page.

The operating mode switches for the Advantage D25 printer are located under the small access cover in the center of the printer front.



Figure 3-10. Switch location for Advantage D25 Printer.

Advantage D25 Printer (continued)

Switch Settings

The Advantage D25 Printer has two sets of 8position switches, and a label that identifies the function and On/Off position of each switch. Position all sixteen switches as follows:

- Position all sixteen switches to the left (Off).

To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.



Model P 10I Dot Matrix Printer



Figure 3-11. Switch location for Model P 10I Matrix Printer.

Model P 10I Dot Matrix Printer (continued)

Switch Settings

The P 10I Dot Matrix Printer has one 8-position switch and two 4-position switches with labels to identify the On/Off positions.

Starting with the 8-position switch at the far left, set the print attribute switches as follows:

- Position switches S01 through S03 towards the back of the printer (On).
- Position switches S04 through S08 towards the front of the printer (Off).

501	502	503	504	505	SOG	507	soa	↓
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	0 F

Set the two 4-position switches as follows:

- Look at the bank of switches identified as DNP4. Position switch S01 towards the back of the printer (On).
- Position switches S02, S03 and S04 on the same bank towards the front of the printer (Off). Position all four switches on the bank identified as MP4 toward the front of the printer (Off).



To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.

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Models P 12 & P 32CQI Dot Matrix Printers



Models P 12 & P 32CQI Printers (continued)

Switch Settings

Both the P 12CQI & P 32CQI Printers have one 4position switch and, to its right, one 8-position switch. Each switch has a label to identify its On/Off positions. Starting with the 4-position switch at the far left, set the print attribute switches as follows: Position switches S01 through S04 towards the front of the printer (Off). **S02** S03 S01 S04 0 OFF OFF OFF OFF Now set the 8-position switch to the right as (follows: Position switches S01 through S03 towards • the back of the printer (On). - Position switches S04 through S08 towards the front of the printer (Off). S02 S03 **S04** S07 **S01** S05 **S06 S08** 0 ON ON ON OFF OFF OFF OFF OFF To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the other position.

Xerox Memorywriter 610 C1



Xerox Memorywriter 610 C1 (continued)

- Locate jumper J22 on the Comm Board . Check to be sure that jumper plug P22 is covering pin positions 1 and 2, as shown in the illustration below.
- Locate jumper J23. In the illustration below, jumper plug P23 is covering pin positions 2 and 3. Hold jumper plug P23 between thumb and forefinger and lift straight up, taking care not to bend the pins. Then reposition it over jumper pins 1 and 2.



Put the 610 C1 Comm Board back into the Memorywriter. Replace the top cover.

Connect the modem eliminator cable.

- Plug one end of the modem eliminator cable into the EIA cable supplied with the Memorywriter 610 C1. Tighten the screws.
- Plug the other end of the modem eliminator cable into the "serial" port on the back of the processor. Tighten the screws.

Use the Comm options default settings. They are: Baud 300, Parity even, Auto linefeed On, and ESC On. If you need help with these settings, refer to the 610C1 Communications Handbook 610P72110.

Xerox Memorywriter 610 C1 (continued)

Appendix A of the MS-DOS with ScreenMate manual will step you through a one-time software installation procedure. After completing the procedure, follow the steps below.
. Run the CONFIGUR program. (If you have a dual floppy system, it is located on the Utilities disk.)
. Press F3 - Configur Serial Ports
. Press F2 - Device until it displays XRX610C .
. Press F9 - Accept this Configuration
. Press F10 - Return to Main Menu
. Press F4 - Reroute Devices
. Press F3 - Redirect Printer
. Press F2 - Parallel Port 1 (Parallel Port 1 will change to Serial Port 1.)
. Press F9 - Accept this Configuration
Press F10 - Return to Reroute Menu
 Press F10 - Return to Main Menu. The Configur Main Menu displays.
<i>Note:</i> If you have a dual floppy system, save the changes on the MS-DOS "Boot" Disk.
 Check to be sure F2 on the Configur Activate Menu is set to the correct destination drive.
. Press F9 - Activate Changes
. Press F4 - Save and Activate

Model 34LQ Dot Matrix Printer

The 34LQ Dot Matrix Printer can be set up as either a parallel or serial printer. To use it as a parallel printer, follow the steps below. To use it as a serial printer, go to p. 3-22.

How to set up the 34LQ Printer as a parallel printer





•	ope swi swi	eratir itches itch,	ng swi s, lab	itche eled ed R	s. Th S01 otar	ere a and	re tw. S02 ,	identify the vo 8-position one rotary e 4-position	1
•	S0 the	Í. Po prin	ositio Iter (n sw On.)	itch 8 Pos	3 tow ition	ards the	itch labeled the front of other seven rinter (Off).	f
Note: screw	U: driv	se th ver to	e tip chan	of a ge sv	ball vitch	point setti	; pen ngs.	or a small	l
•	eig	ht of		e swi	labe itches			Position all the back of	
•	Set	the i	otar	y swi	tch to	0.			
•		r swi						Position all f the printer	
			g	501					
4	8 ON	7 OFF	6 OFF	5 OFF	4 OFF	3 OFF	2 OFF		
			9	502					
[8 OFF	7 OFF	6 OFF	5 OFF	4 OFF	з OFF	2 OFF		
			9	503					
			4 OFF	3 OFF	2 OFF	1 OFF	↑ 0 F F		

How to set up the 34LQ Printer as a serial printer

- . Locate a Serial RS232 cable with a modem eliminator and plug the cable into the connector marked "Serial" on the back of the processor. You can order Serial RS232 cables from your local Xerox/Diablo sales representative, or directly from Diablo. The modem eliminator (also called a "null modem" or "direct connect cable") is a common computer part which can be found at most computer stores, or ordered directly from Xerox.
- Remove your paper guide by lifting up and pulling forward on it.
- You will find a panel behind the carriage assembly. Lift up on this panel to locate the operating switches. See Fig. 3-14.



Figure 3-14. Location of operating switches

. Look at the back of the panel to identify the operating switches. There are two 8-position switches, labeled S01 and S02, one rotary switch, labeled Rotary, and one 4-position switch, labeled S03.
. Begin with the 8-position switch labeled S01 . Position switch 8 towards the front of the printer (On.) Position the other seven switches toward the back of the printer (Off).
<i>Note:</i> Use the tip of a ballpoint pen or a small screwdriver to change switch settings.
. Locate the switch labeled S02 . Position all eight of these switches towards the back of the printer (Off).
. Set the rotary switch to 0.
. Locate the switch labeled S03 . Position switches 1, 3 and 4 towards the back of the printer (Off). Position switch 2 towards the front of the printer (On).
S01
8 7 6 5 4 3 2 1 ON OFF OFF OFF OFF OFF OFF OFF F
S02
8 7 6 5 4 3 2 1 OFF OFF OFF OFF OFF OFF OFF OFF F
S03
4 3 2 1 OFF OFF ON OFF F

•	Run the CONFIGUR program. (If you have a dual floppy system, it is located on the (Utilities disk.)
•	Press F3-Configur Serial Ports . The Configur Serial Ports Menu will be displayed.
•	Press F2-Device until it displays CUSTOM .
•	Press F3-Baud Rate until it displays 9600 .
•	Check to be sure that F4-Stop Bits is set to 1.
•	Press F5-Word Length until it displays 8 .
•	Check to be sure that F6-Parity is set to Even .
•	Press F7-Protocol . The Protocol Menu will be displayed.
•	Check to be sure that F1-Soft Protocol is set to Xon/Xoff .
•	Check to be sure that F3-Data Terminal Rdy is set to High .
•	Check to be sure that F4-Request to Send is set to High .
•	Check to be sure that F5-Clear to Send is set to High .
•	Check to be sure that F6-Carrier Detect is set to High .
If you	have made any changes in the Protocol Menu
•	Press F9-Accept this Configuration.
•	Press F10-Return to Previous Menu. The Configur Serial Ports Menu will be displayed.
Model 34LQ Dot Matrix Printer (continued)

Press F9-Accept this Configur	ration.
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- Press F10-Return to Main Menu. The Configur Main Menu will be displayed.
- Press F4-Reroute Devices. The Reroute Devices Menu will be displayed.
- Press F3-Redirect Printer. The Redirect Printer Menu will be displayed.
- . Press F2 until it displays Serial Port 1.
- . Press F9-Accept this Configuration.
- Press F10-Return to Reroute Menu. The Reroute Devices Menu will be displayed.
- Press F10-Return to Main Menu. The Configur Main Menu will be displayed.
- Press **F9-Activate Changes**. The Configur Activate Menu will be displayed.

Note: If you have a dual floppy system, save the changes on the MS-DOS "Boot" Disk.

- . Check to be sure F2 on the Configur Activate Menu is set to the correct destination drive.
- . Press F4-Save and Activate.

XEROX 4045 LASER PRINTER

The Xerox 4045 Laser Printer can be set up as either a parallel or serial printer. To use it as a parallel printer, follow the steps below. To use it as a serial printer, go to p. 3-40.

How to set up the 4045 Laser Printer as a parallel printer



Figure 3-15. Location of the cartridge

- Remove the cartridge and check to be sure that your switches are positioned as follows:
- In Bank A, switches 1, 3, 4, 7 and 8 should be positioned to the left (Off). Switches 2, 5 and 6 should be positioned to the right (On). If you are using **Writer**, Switch 6 should be positioned to the left (Off).
- . In Bank B, switches 7 and 8 should be positioned to the left (Off). Switches 1 through 6 should be positioned to the right (On).
- . All switches in Bank C should be positioned to the left (Off).
- . In Bank D, switch 6 should be positioned to the right (On). All other switches should be positioned to the left.

Note: Use the tip of a ballpoint pen or a small screwdriver to change switch settings, if necessary.

Bank A	1 OFF	Bank B	1 ON	Bank C	1 OFF	Bank D	1 OFF
	2 ON		2 ON		2 OFF		2 OFF
	3 OFF		3 ON		3 OFF		3 Off
	4 OFF		4 0N		4 OFF		4 OFF
	5 ON		5 ON		5 OFF		5 OFF
6 OFF	6 0N		6 ON		6 OFF		6 ON
For Writer	7 OFF		7 OFF		7 OFF		7 OFF
Witter	8 OFF		8 OFF		8 OFF		8 OFF

How to set up the 4045 Laser Printer as a serial printer



- . Remove the cartridge and check to be sure that your switches are positioned as follows:
- . In Bank A, switches 3, 4, 7 and 8 should be positioned to the left (Off). Switches 1, 2, 5 and 6 should be positioned to the right (On). If you are using **Writer**, Switch 6 should be positioned to the left (Off).
- . In Bank B, switches 7 and 8 should be positioned to the left (Off). Switches 1 through 6 should be positioned to the right (On).
- . In Bank C, switches 2, 6, 7 and 8 should be positioned to the left (Off). Switches 1, 3, 4 and 5 should be positioned to the right (On).
- . In Bank D, switches 2, 3 and 6 should be positioned to the right (On). Switches 1, 4, 5, 7 and 8 should be positioned to the left.

Note: Use the tip of a ballpoint pen or a small screwdriver to change switch settings, if necessary.



•	Run the CONFIGUR program. (If you have a dual floppy system, it is located on the Utilities disk.)
•	Press F3-Configur Serial Ports. The Configur Serial Ports Menu will be displayed.
•	Press F2-Device until it displays CUSTOM.
•	Press F3-Baud Rate until it displays 9600 .
•	Check to be sure that F4-Stop Bits is set to 1 .
•	Check to be sure that F5-Word Length is set to 8 .
•	Check to be sure that F6-Parity is set to Even .
•	Press F7-Protocol. The Protocol Menu will be displayed.
•	Check to be sure that F1-Soft Protocol is set to Xon/Xoff.
	Check to be sure that F3-Data Terminal Rdy is set to High .
•	Check to be sure that F4-Request to Send is set to High .
•	Check to be sure that F5-Clear to Send is set to High .
•	Check to be sure that F6-Carrier Detect is set to High .
If you	have made any changes in the Protocol Menu
	Press F9-Accept this Configuration.
•	Press F10-Return to Previous Menu. The Configur Serial Ports Menu will be displayed.

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•	Press	F9-Accept	this Configuration.	
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- . Press F10-Return to Main Menu. The Configur Main Menu will be displayed.
- Press F4-Reroute Devices. The Reroute Devices Menu will be displayed.
- Press F3-Redirect Printer. The Redirect Printer Menu will be displayed.
- . Press F2 until it displays Serial Port 1.
- . Press F9-Accept this Configuration.
- Press F10-Return to Reroute Menu. The Reroute Devices Menu will be displayed.
- . Press F10-Return to Main Menu. The Configur Main Menu will be displayed.
- . Press F9-Activate Changes. The Configur Activate Menu will be displayed.

Note: If you have a dual floppy system, save the changes on the MS-DOS "Boot" Disk.

- . Check to be sure F2 on the Configur Activate Menu is set to the correct destination drive.
- . Press F4-Save and Activate.

Diablo D80IF Daisywheel Printer

To use the Diablo D80IF Daisywheel Printer:

- Plug the printer cable into the connector marked "Parallel" on the back of the processor, using a "parallel" cable. You can order parallel cables either from your local Xerox/Diablo sales representative or directly from Diablo.
- The D80IF Printer has a push button panel rather than operating mode switches. (See Fig. 3-17.) You need not change any settings in order to operate the printer. Should you wish to make any optional changes, consult your printer manual.





635 Printer

The 635 Printer can be set up as either a parallel or serial printer. To use it as a parallel printer, follow the steps below. To use it as a serial printer, go to page 3-47.

How to set up the 635 Printer as a parallel printer

To use the 635 Printer as a parallel printer:

- Plug a parallel printer cable into the connector marked "Parallel" on the back of the processor. You can order parallel cables either from your local Xerox/Diablo sales representative or directly from Diablo.
- Locate the interface cartridge at the back of the printer. (See Fig. 3-18.)





- Lift the access cover on the interface cartridge to locate the operating mode (switches.
- Check that the switches are set exactly as illustrated below.

Switch Settings

The parallel interface cartridge for the 635 Printer has one bank of four switches. A label above the switches identifies the function of each switch. Position the switches as follows:

- Position all four switches in the direction away from the printer (Off).

To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the desired position.

1 2	34
OFF OFF	OFF OFF

635 Printer

How to set up the 635 Printer as a serial printer



- Plug an RS-232 cable into the connector marked "Serial" on the back of the processor. You can order RS-232 cables either from your local Xerox/Diablo sales representative or directly from Diablo.
- Locate the interface cartridge at the back of the printer. (See Fig. 3-19.)





Printer

- Lift the access cover on the interface cartridge to locate the operating mode switches.
- Check that the switches are set exactly as illustrated below.

Switch Settings

The serial interface cartridge for the 635 Printer has one bank of eight switches. A label above the switches identifies the function of each switch. Position the switches as follows: - Position switches 1 through 6 in the direction away from the printer (Off). Position switches 7 and 8 toward the printer (On). To change a switch setting, use the tip of a ballpoint pen or small screwdriver to push the switch lever into the desired position. 2 3 OFF OFF 7 ON 4 5 6 8 OFF OFF OFF OFF ON.

	. Run the CONFIGUR program. (If you have a dual floppy system, it is located on the Utilities disk.)
-	 Press F3-Configur Serial Ports. The Configur Serial Ports Menu will be displayed.
	. Press F2-Device until it displays CUSTOM.
	. Check to be sure that F3-Baud Rate is set to 9600 .
	. Check to be sure that F4-Stop Bits is set to 1.
	. Check to be sure that F5-Word Length is set to 7.
	. Check to be sure that F6-Parity is set to Even .
	 Press F7-Protocol. The Protocol Menu will be displayed.
	. Check to be sure that F1-Soft Protocol is set to Xon/Xoff.
	. Check to be sure that F3-Data Terminal Rdy is set to High .
	. Check to be sure that F4-Request to Send is set to High .
:	• Check to be sure that F5-Clear to Send is set to High.
	. Check to be sure that F6-Carrier Detect is set to High .
	If you have made any changes in the Protocol Menu
	. Press F9-Accept this Configuration.
	 Press F10-Return to Previous Menu. The Configur Serial Ports Menu will be displayed.

. Press F9-Accept this Configuration.		
• Press F10-Return to Main Menu. Configur Main Menu will be displayed.	The '	\bigcirc
• Press F4-Reroute Devices . The Re Devices Menu will be displayed.	route	
 Press F3-Redirect Printer. The Red Printer Menu will be displayed. 	direct	
. Press F2 until it displays Serial Port 1.		
. Press F9-Accept this Configuration.		
 Press F10-Return to Reroute Menu. Reroute Devices Menu will be displayed 		
 Press F10-Return to Main Menu. Configur Main Menu will be displayed. 	The	
 Press F9-Activate Changes. The Con Activate Menu will be displayed. 	ufigur	\frown
Note: If you have a dual floppy system, sav changes on the MS-DOS boot disk.	e the	
• Check to be sure F2 on the Configur Act Menu is set to the correct destination dr		
. Press F4-Save and Activate.		
		\frown
	/	

Using "diagnostics"

The term "diagnostics" refers to programs which verify that the components of your system are working properly.

In the Software Disk box that came with your system, you'll find a disk labeled DIAGNOSTIC DISK. It will test the following components:

- Main Board in the Processor
- Memory (including optional board)
- Keyboard
- Display
- Parallel Interface Port
- Serial Interface Port
- Disk Drives

You should use the Diagnostic Disk whenever you suspect a faulty component. The information you collect by running this program can reduce repair time.

Before you run diagnostics, you will need to know the following information about your computer:

- how much memory your computer has
- whether you have one or two floppy disk drives
- whether you have a hard disk
- whether your printer is connected to the computer's parallel port or to its serial port
- whether you have a monochrome (black and white) or color display.

Inserting Your Diagnostics Disk

- 1. Find the disk labeled DIAGNOSTIC DISK in the software disk box.
- 2. Also obtain two <u>blank</u> (or erasable) floppy disks.
- 3. Remove the Diagnostic Disk from its jacket and check to see that it is protected by a write-protect tape, as shown in Fig. 4-1.



Figure 4-1. Be sure the write/protect tape is on.

Compare the floppy disk drive(s) on your processor with the illustrations below. (If your system has a hard disk, it will have only one floppy drive.)



Figure 4-2. Illustration of floppy disk drives.

4. Open your floppy disk drive(s) by turning the disk drive lever up and to the right.

5. Holding the disk with its label up, gently insert it in the <u>bottom</u> disk drive. When you hear a click, the disk is all the way in.





6. Close your floppy disk drive (s) by pulling the disk drive lever down and to the left.



Figure 4-4. Closing the disk drives.

Note: Never remove a disk when its drive indicator light is on. Doing so may destroy data on the disk.

Formatting a Disk

If you have a new system, you will need to format one or two disks before you run your diagnostic program. Obtain two new (or used erasable) disks and go to Step 1 below.

If you already have two formatted disks, go to page 4-7, Running Diagnostics.

- 1. If your system is not turned on:
 - Turn on your printer first.
 - Turn on your processor.
- 2. If your Diagnostic Disk is in drive A, the following will display on the screen.

The XEROX Personal Computer MS-DOS Release 1.0 -- Created 2/19/85 vr.59

Microsoft MS-DOS version 2.11 Copyright 1981,82,83 Microsoft Corp.

Command v.2.11

A > customer

After a few seconds, the following message will appear:

= = >TO EXIT CUSTOMER TEST PROGRAM DURING TESTING, PRESS THE 'ctrl-break' KEYS

DO YOU WISH TO RUN THE TESTS IN AUTOMATIC MODE? ('0' = NO, '1' = YES)

When making selections you'll press the which is called ENTER or RETURN.



3. Type the number 0 (to choose nonautomatic) and press the RETURN key.

The following message will be displayed:

TESTING OPTIONS

0-EXECUTE TESTS ONCE 1-FORMAT SCRATCH DISKETTE 2-EXIT DIAGNOSTICS PROGRAM

4. Type the number 1 and press RETURN.

The following message will appear:

SELECT DISKETTE DRIVE:

0-drive 'A' 1-drive 'B'

ENTER DESIRED ACTION

5. Type the number 0 and press RETURN.

The following message will appear:

INSERT DISKETTE IN DRIVE A:

PRESS 'ENTER' KEY TO CONTINUE-

- 6. Remove the Diagnostic Disk.
- 7. Insert a blank (or erasable) disk in the bottom drive, close the drive, and press RETURN.

The following message will appear:

FORMATTING....

When formatting has been completed, the following message will appear:

FORMATTING....FORMAT COMPLETE

PRESS 'ENTER' KEY TO CONTINUE

8. Press the RETURN key.

You will return to the following screen:

TO EXIT CUSTOMER TEST PROGRAM DURING TESTING, PRESS THE 'ctrl-break' KEYS DO YOU WISH TO RUN THE TESTS IN AUTOMATIC MODE? ('0' = NO, '1' = YES)

9. If you have a hard disk system, go to page 4-8.

If you have a dual floppy disk system, remove the newly formatted disk and insert the other blank (or erasable) disk in the bottom drive. Then return to Step 3 on page 4-5, and format the second disk.

- When you have completed formatting both disks, go to Step 3 on page 4-8.

Running Diagnostics

1.	Start with the system turned on.
	- Turn on your printer first.
	- Turn on your processor.
2.	 Insert the Diagnostic Disk in the bottom (A) disk drive. (See illustrations on page 4-3.) If the system has just been turned on, diagnostics will start running.
	 If the system has other software loaded, press the RESET button on the front of the processor.
	The following will display:
	The XEROX Personal Computer MS-DOS Release 1.0 Created 2/19/85 vr.59
	Microsoft MS-DOS version 2.11 Copyright 1981,82,83 Microsoft Corp.
	Command v.2.11
	A> customer
	After a few seconds, the message below will also appear:
	TO EXIT CUSTOMER TEST PROGRAM DURING TESTING PRESS THE 'ctrl-break' KEYS
	DO YOU WISH TO RUN THE TESTS IN AUTOMATIC MODE? ('0' = NO, '1' = YES)

Automatic Mode checks your computer's parts one at a time, according to a prearranged checklist. The test takes 15 to 20 minutes. At the end of the test, a summary of test results will be displayed.

Nonautomatic Mode allows you to choose which component you wish to test. In addition, you may select how many times you want a specific test to run. You would choose nonautomatic mode if you were concerned about the functioning of a particular component.

In either mode, any errors that are detected will be displayed on the screen.

In the following pages, you will learn how to select various options in Nonautomatic Mode. If you wish to use Automatic Mode, simply press 1 and follow the instructions on the screen.

3. If you wish to use **Automatic Mode**, type the number 1 and press the RETURN key. Then go to step 5.

If you wish to use **Nonautomatic Mode**, type the number **0** and press the RETURN key.

In the Nonautomatic Mode, the following message will be displayed:

TESTING OPTIONS

0-EXECUTE TESTS ONCE 1-FORMAT SCRATCH DISKETTE 2-EXIT DIAGNOSTICS PROGRAM

- 4. Type 0 and press RETURN.
- 5. Check the list on your screen to see that it corresponds with your system's hardware.

This list will vary according to your system.

THE INSTALLED HARDWARE IS:

- 1 MAIN BOARD
- 2 128 KB MEMORY
- 4 KEYBOARD
- **5 MONOCHROME VIDEO SYSTEM**
- 6 1 PARALLEL PORT
- 7 1 SERIAL PORT (USING 8250)
- 8 48 TPI FLOPPY DISK DRIVES
- 9 10 MBU DRIVE AND CONTROLLER

IS THE LIST OF HARDWARE CORRECT? ('0 = NO, '1' = YES) ENTER DESIRED ACTION -

For example, you may have a color video system rather than a monochrome, or you may have more memory than is shown. Check to be sure that what appears on the screen corresponds to your system.

- 6. If the list is correct, go to step 7. If it is not correct, type 0 and press RETURN.
 - Write down any differences and contact your service representative.

When 0 is typed, the message shown below will be displayed and the Diagnostic test will stop.

ERROR - HARDWARE DOES NOT AGREE WITH CONFIGURATION TESTS

= > Record any difference(s) between the list of hardware on the screen and the hardware that should be listed PROGRAM TERMINATED! ! !

- 7. If the list is correct, type 1 and press RETURN.
 - If you selected Automatic Mode, insert a formatted disk in the bottom drive -- (if your system has two floppy drives) -- insert the second formatted disk in the top drive -- then press the RETURN key. Go to step 1 on page 4-12.
 - If you selected Non-automatic Mode, you will see a second screen listing your computer's hardware. This screen is used to select the tests that you want to run in Nonautomatic Mode.
 - 1 MAIN BOARD
 - 2 128 KB MEMORY
 - 4 KEYBOARD
 - 5 MONOCHROME VIDEO SYSTEM
 - 6 1 PARALLEL PORT
 - 7 1 SERIAL PORT (USING 8250)
 - 8 48 TPI FLOPPY DISK DRIVES
 - 9 10 MBU DRIVE AND CONTROLLER
- 8. Type the numbers of the components you wish to test (separate the numbers with a space, such as 1 3 6) and press the RETURN key.
 or
 To select all tests, press the RETURN key only.
- 9. Follow the messages on the screen to complete the test.

For an example, the steps to run the MAIN BOARD test are on the next page.

Running a Sample Test

Although the procedures for these tests vary slightly, the following example will serve as a general guideline on how to run a test. To select the Main Board test: 1. Type the number 1 and press RETURN. The following message will appear: PAUSE ON ERROR? ('0' = NO, '1' = YES) 2. Type the number 0 and press RETURN. Whether you choose to pause when an error is detected or continue the test uninterrupted, any errors that are found will be displayed on the TEST RESULTS summary screen. If you were running a test other than the Main Board test, your screen could display additional messages or instructions at this point. These messages would be self-explanatory. When the test is near completion, you will hear an ascending tone and a beep, then see the following message flash briefly on the screen: **TEST 100 - MAIN BOARD 0 ERRORS IN MAIN BOARD TESTS (LOOP #1)**

Diagnostics

Completing the Diagnostic Test

1. Wait for the message:

Tests completed. Number of test loops = 1 Total errors during testing = 0

PRESS "ENTER" KEY TO CONTINUE -

2. Press the RETURN key.

A TEST RESULTS summary screen (similar to the one below) will be displayed.

TESTING RESULTS:

TEST #	ERRORS	PASSES	TEST TITLE
1	i	(
100	0	1	MAIN BOARD
300	0	1	256 KB MEMORY
400	0	1	83 KEY KEYBOARD
500	0	1	MONOCHROME VIDEO SYSTEM
600	0	1	1 PARALLEL PORT(S)
700	0	1	1 SERIAL PORT(S) (USING 8250)
800	0	1	248TPI FLOPPY DISK DRIVE(S)

If an error occurs, run the test a second time. If an error occurs again, write it down and contact your service representative.

- 3. Press the RETURN key to return to the diagnostics screen. If you wish to run additional tests, press the appropriate test number and repeat the steps outlined in this example.
- 4. Be sure the Diagnostic Disk is removed. If you have a dual floppy system, insert the MS-DOS Boot Disk. Press the RESET button on the front of the processor.

Warning: The formatted disks used in this Diagnostic exercise need to be reformatted before they can be used again as data disks. Failure to do so will result in data loss.

The Processor

The processor unit is the electronic core of your system. It contains your disk drives, the computer's memory, and the main circuit board. This board contains a powerful Central Processing Unit (CPU), an Intel 8086 8MHz 16 bit microprocessor, which reads and executes all programming instructions.

Inside your processor unit are seven expansion slots, which you may use to add a memory board or other options. At the back of the unit, you will see the connectors that enable you to connect a keyboard, display unit, printers, communications equipment or other computers. (See Fig. 5-1.)



Figure 5-1. Back of the processor

Disk Drives Designed to Suit Your Needs

One versatile feature of the Xerox PC is that you can use either dual floppy disk drives or a combination of hard and floppy disk drives. Your choice will depend upon your particular storage needs.

The dual floppy system consists of two doublesided floppy disk drives capable of reading and writing standard single- or double-density $5\frac{1}{4}$ inch disks.



Figure 5-2. Dual Floppy Disk System

These disks look like flexible phonograph records, and in fact operate much like records. When information is stored or retrieved, the disks are rotated at very high speeds, and a read/write head can be positioned over any part of the rotating disk. Because the disks are double-density, you can store up to twice the information as you could on a singledensity disk.

Since additional floppy disks can be purchased as needed, this system is ideally suited to the customer who wants to store many small blocks of data (i.e., letters, reports, etc.). The hard disk system consists of one double-sided floppy disk drive which has a nonremovable disk. The floppy disk drive is included so that you can read software programs purchased on floppy disks, and so that you can make backup copies of information stored on your hard disk to protect you against accidental data loss.



Figure 5-3. Hard Disk System

The hard disk system holds much more information than the dual floppy system, and allows you faster access to data. In addition, it spares you the inconvenience of changing disks.

The Display Unit

The Xerox PC may be purchased with either a 12inch color or a 12-inch monochrome display unit. Both have high-resolution flicker-free screens which have been specially treated to reduce glare, and both are capable of displaying text and graphics.

Whether you choose a color or monochrome display, you will have one of two different styles. One style features a continuous friction joint on the base that allows you to swivel your screen 360° , as shown in Fig. 5-4. The other style can be swiveled 45° to the left or right, as shown in Fig. 5-5.

All display units may be tilted as much as 20° up or 10° down. Simply adjust the screen to the angle that seems most comfortable to you.







Figure 5-5. Other screens can be swiveled 45° in either direction.



Figure 5-6. Tilt the screen 20° up or 10° down.

Brightness and Contrast Controls

Locate the screen's brightness and contrast controls.

- . If you have a partial page monochrome display, they will be located at the back of the display, as shown in Fig. 5-7.
- . If you have a full-page display, they will be located at the front of the unit, as shown in Fig. 5-8A.
- . If you have a color display, they will either be located at the back of the display, as shown in Fig. 5-7, or on the sides of the display, as shown in Fig. 5-8.



Figure 5-7. Brightness and contrast controls located at the back of the unit



Fig. 5-8. Brightness and Contrast Controls located at the sides of the unit



Figure 5-8A. Location of brightness and contrast controls on the full-page display

IMPORTANT: If your screen is monochrome (black & white), it is recommended that you set the brightness to the lowest practical setting. Using high brightness can result in a residual image being etched on the screen.

<u>Notes</u> :		
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		\frown

The Keyboard

The keyboard is your means of communicating with the processor. Through it, you select and run software programs and enter data.

Look at Fig. 5-9 and Fig. 5-10 to determine whether you have a PC keyboard or a Word Processing keyboard. If you have a PC keyboard, go to p.5-8. If you have a Word Processing keyboard, go to p. 5-12.



Figure 5-9. The PC Keyboard



Fig. 5-10. The Word Processing Keyboard

The PC Keyboard

To make it more convenient to use, your PC keyboard is divided into three sections:

- a typewriter section, which holds the alphanumeric keys found on a standard typewriter, plus a few special keys
- a numeric keypad, which is used to enter numeric data and control movement of the cursor
- a block of ten function keys, which can be programmed to carry specific instructions to the computer

The following pages describe the specific functions of certain keys as they are used on your computer.

The Typewriter Section



The Return key, also called the Enter key, must be pressed whenever you want to enter a command. In addition, it functions like the carriage return on a standard typewriter.



The Backspace key erases the last character typed as it moves the cursor one position to the left.



Print Screen, when pressed along with the Shift key, sends a copy of whatever is displayed on the screen to the printer. It types an asterisk when unshifted.



The two Shift keys function like the Shift keys on a standard typewriter.



The Caps Lock key, which affects only the characters A through Z, locks these letters in the uppercase position. To get lowercase letters while the Caps Lock key is on, press the Shift key.


The Escape key usually cancels an entry. Its function depends upon the software you're using.



The Alternate key is also used with other keys to perform many different functions. When used with keys on the numeric keypad, it displays special characters on the screen.



The Tab key moves the cursor one tab position to the right each time it is pressed. When the cursor comes to the end of a line, it will move to the first tab position on the next line when Tab is pressed. When pressed with Shift, it moves the cursor one tab position to the left.



The Control key is used to modify the function of other keys. Its function depends upon the software you're using.

The Space Bar moves the cursor one character position to the right each time it is pressed. Any character the cursor moves over is erased.



Numeric Keypad





When the Number Lock key is pressed once, its light will go on and the numeric keypad will be activated. When pressed again, keys 0 through 9 return to cursor control.

The Scroll Lock key is not used by MS-DOS. In most application programs, when Scroll Lock is activated it will stop the screen from scrolling up or down. See your application software manual for more information. The Break key is pressed with the Control key to exit or terminate a command or program.



The Delete key is used to edit previously entered commands. It erases the character at the current cursor position and moves text following the deleted character one position to the left.



The Insert key allows you to add characters in the middle of a line and moves the text that follows the insertion to the right. To turn Insert off, press the key a second time.



The Home Key moves the cursor to the first character on the first line of the screen. It is not used by MS-DOS.



The Up Arrow moves the cursor up one line on the screen.



Each time the Left Arrow key is pressed, it moves the cursor one position to the left.



The Right Arrow key moves the cursor one *position to the right.*



The Down Arrow moves the cursor down one line on the screen



The function of the End key depends upon the application software package that you are using.



The Page Up key, which is not used by MS-DOS, scrolls the display upward.



The Page Down key scrolls the display downward. Page Down is not used by MS-DOS.

Caution: Never use a lowercase 1 or an uppercase I for the digit one. Similarly, never use the letter O for the digit zero, as the computer will not recognize these characters as numbers.

The Function Keys

Function Keys F1 through F10 are controlled by the software being used. Consult your MS-DOS manual for information about the many ways that they can be used.



The Word Processing Keyboard

Your Word Processing keyboard is conveniently arranged in four distinct sections:

- a typewriter section, which holds the alphanumeric keys found on a standard typewriter, plus a few special keys
- a block of four arrow keys which control the movements of the cursor. The EXEC key, used to enter commands, is also found in this block.
- a numeric keypad, which is "...ed to enter numeric data.
- a row of special feature keys which are used to implement many of the important functions available on your keyboard.

Designed with versatility in mind, your keyboard can also be used as a PC keyboard. The functions printed on the front of certain keys are PC functions which are automatically activated whenever a PC program is loaded in your computer. For detailed information on these functions, refer to **The PC Keyboard**, p. 5-8.

The following pages describe in detail the word processing functions of certain keys.

The Typewriter Section





The Return key functions like the carriage return on a standard typewriter.

The Backspace key erases the last character typed as it moves the cursor one position to the left.



The two Shift keys function like the Shift keys on a standard typewriter.



The Code key is used with other keys to perform many different functions. When pressed in conjunction with any key with a green legend on the keycap, it activates the function described by that legend. When pressed with a key in the top row of the typewriter section of the keyboard, it activates the function described immediately above that key.



The Lock key, which affects only the characters A through Z, locks these letters in the uppercase position. To get lowercase letters while the Lock key is on, press the Shift key.



The Upper Tab key indents the first line of a paragraph.



The Lower Tab key indents the entire paragraph.

The Space Bar is used like the spacebar on a standard typewriter.



Cursor Control Keys



The Up Arrow moves the cursor up one line on the screen.



Each time the Left Arrow key is pressed, it moves the cursor one position to the left.



The Right Arrow key moves the cursor one position to the right.



The Down Arrow moves the cursor down one line on the screen.



The Exec key must be pressed to activate a command after it has been selected.

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Features
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Special Feature Keys



When the Trnsf key is pressed, a menu is displayed on the screen which allows you to retrieve or store a file, restore format lines to their original settings prior to editing, or restore a page to its original form prior to editing.



The Mrg key is used in Records Processing.



The Rplc key calls up a menu which allows the user a number of options when doing a global search and replace.



The Find key is used to locate a string of text within a document. It too calls up a menu which allows the user a variety of options.



Tab St is used to set or change tabs within a document. Fmt brings up a menu which allows the user to set the format for a document.



When the Centr key is pressed, all text will be centered between left and right margins. When this key is pressed together with the Code key, Cn Tab is activated, and text is centered over a tab setting.



Dc Tab is used to align text at a decimal point. Rt. Tab is used to type text with an even right margin. The cursor moves to the left as text is entered.



Rg Pg inserts a required page break. Tmp Pg inserts a temporary, or non-required, page break.



The Go To key brings up a menu which is used to move to different locations within a document.



Cmmd and Fnct both bring up menus which list a wide variety of special functions.



The Copy key allows you to copy text from one document to another, or from one location within a document to another.



The Move key allows you to move text from one document to another, or to a different location within the same document.



When the Ins key is pressed once, text may be inserted at the cursor position. When pressed again, Typeover Mode is activated and any text that is entered will replace existing text.



The Mark key is used to highlight more than one character, word, line, or paragraph at a time for editing. Col Mk is used to highlight a single column for editing.



When the Del key is pressed, all highlighted text will be deleted.



The Cancl key is used to stop an operation in progress or to exit from a menu.



The Help key is used to display special documents to help the user with specific questions about the Writer System.



The Phrase key is used to recall previously stored phrases.



The Windw key is used to open up more than one document at a time.

Adjusting Your PC Keyboard

Your keyboard can be left at a five-degree tilt or, if you prefer, it can be adjusted to stand at a tendegree tilt. To raise your PC keyboard:

- Turn the keyboard over.
- Locate the two adjustable feet on either side of the keyboard. (See Fig. 5-9.)
- Press the feet in as you flip them up.



Figure 5-8. Your keyboard can be tilted ten degrees.



Figure 5-9. Press the feet in as you flip them up.

Adjusting Your Word Processing Keyboard

Your keyboard can be adjusted to stand at two different tilts. To raise your keyboard:

- Turn the keyboard over.
- Locate the two adjustable feet on either side of the keyboard. (See Fig. 5-10.)
- Insert a finger in the indented space beneath each foot and flip the foot up. The feet may be set at two different positions.



Figure 5-10. Locate the feet on either side of the keyboard.

The Mouse

One of the options offered with your Xerox PC is an optical mouse. When moved across the surface of the gray card that came with it, it controls the movements of the cursor on the screen and makes your job faster and easier.

Once you have connected your mouse to the keyboard:

1. Choose a convenient location for your gray card. If you are left-handed, you may want to place it to the left of your keyboard.



Figure 5-11. Choose a location for your card.

- 2. Remove the transfer tape on the back of the card.
- 3. Stick the card to your desk.
- 4. Practice moving the mouse across the card as you press the two buttons on the mouse. (See Fig. 5-12.) You will find that the left button highlights the cursor's position and the right button enters commands, much like the RETURN key on your keyboard.



Figure 5-12. P ress the buttons as you move the mouse.

Notes:

Moving Your Xerox Personal Computer

Whether you are moving your system to another floor or to another city, care must be taken to be sure that the system is not damaged.

If you have a hard disk, you must move the disk head before moving the system. Go to Step 1.

If you have a dual floppy system, go to Step 7.

1. Insert your MS-DOS disk with Screenmate and turn your system on.

The User's Mode menu will be displayed.



Figure 6-1. User's Mode Menu

2. Press F6 to go to the Maintenance Mode menu.

06-27-84 01:30:21 p.m.				\bigcirc
Maint. Mode)
MAINT. MODE				
F1-Directory F2-Dir Maint.				
F3-Disk Maint. F4-File Maint. F5-Screen Maint.				
F6-Profile Mode F7-Alter Command F8-Help				
F9-Exit				
#	↔	PgUp	PgDn	

Figure 6-2. Maintenance Mode Menu

3. Press F3 to go the Disk Maintenance Actions menu.

4. Press F4 to go to the Hard Disk Maintenance menu.



Figure 6-3. Hard Disk Maintenance Menu

5. Press F7.

The following message will appear:

Do you wish to place into shipping mode? ,N.

6. Press Y to answer "yes".



Moving

9. If you have saved your cardboard insert(s), put them back into the floppy disk drive(s).



Figure 6-5. Replace the cardboard inserts.

- 10. Unplug the main power cable from its power source.
- 11. Disconnect all plugs from the backs of the units.
- 12. Wrap the cables to protect the plugs.
- 13. Tape the cables to the units with masking or filament tape.
- 14. If you are moving your system a short distance (i.e., from one room to another), move each unit separately.

- 15. If you are moving your system a longer distance and have saved the original cartons and packing material:
 - Place each unit in its protective plastic wrapping.
 - Replace the end pieces on each unit.
 - Place each unit in the appropriate box.
 - Replace the protective cover pieces.

If you have not saved the original packing material, place each unit in a separate box and cushion well.

Application Software Programs designed for a specific use (i.e., Word Processing) and distributed on floppy disks.

Central Processing Unit (CPU) An 8086 chip located on your processor board. The CPU is the microprocessor which controls all computer operations.

Co-Processor An 8087 chip which can be added to your system to expand the arithmetic functions of your CPU.

Command An instruction to the computer which is entered from the keyboard.

Cursor A blinking underline or rectangle which indicates where the next entry from the keyboard will appear on the screen.

Data Information used by the computer.

Diagnostics A series of tests used to determine whether the different parts of the computer are functioning correctly.

Directory A list of the files found on a floppy disk or hard disk.

Floppy Disk A flexible magnetic storage medium similar in looks and operation to a phonograph record.

Format The process whereby a disk is prepared for use by the computer.

Function Keys Special keys which can be programmed to carry specific instructions to the computer.

Hard Disk A permanent storage device which allows for rapid retrieval of information and is capable of holding large quantities of data. **Memory** An area within the computer itself where instructions and data are held. The two principal kinds of memory are Read Only Memory (ROM) (and Random Access Memory (RAM).

Menu A list of options appearing on the screen from which the user may choose what operation he wants the computer to perform.

Mouse A manually operated device which controls the movements of the cursor on the screen.

MS-DOS The operating system used by the Xerox PC, MS-DOS controls the system's most basic operations (i.e., file management, loading and execution of user programs, etc.)

Operating System The program that acts as an interface between the computer and the computer user. See **MS-DOS.**

Parallel Port The socket, or port, on the back of the processor used to connect a parallel printer.

Processor The main unit of your system, the processor contains the disk drives, the memory, and the processor board.

Processor Board The main circuit board, which is located beneath the bottom cover of the Xerox PC.

Program A set of instructions that tells the computer how to receive, store, process and deliver data. Some programs are designed to accomplish very specific goals, such as balancing a checkbook.

Random Access Memory (RAM) Temporary memory located within the computer itself. You may write into RAM as well as read from it, but data will only remain in RAM as long as the computer is turned on.

Read Only Memory (ROM) Permanent memory stored in the computer at the time of manufacture. You can read from but cannot write onto ROM. **Reset Button** The button located on the front of your processor which can be used to restart the system without turning the power switch off and on again.

Serial Port The socket, or port, on the back of the processor which is used to connect a serial printer or other device using a serial communications method.

Write-Protect A method of ensuring that data on a disk is not accidentally erased. To write-protect a disk, place a write-protect tab over the notch on the side of the disk. Notes:

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