Apple III

profile

Owner's Manual

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Preface

Your ProFile disk drive is a valuable addition to your Apple III. It is extremely reliable, quiet, and very easy to use. This manual will explain how to unpack, install, operate, and care for your ProFile drive.

Before reading this manual or attempting to use ProFile, first *read your Apple III Owner's Guide.*

This manual contains three chapters and one appendix. Chapter 1 introduces you to the drive and explains how to unpack it. Chapter 2 tells how to connect the drive to the Apple III, apply power, and verify that it is operating properly. You should pay particular attention to the paragraph in this chapter entitled "*Checking Out Your ProFile*". Chapter 2 also introduces the ProFile device driver and gives important information on the care and handling of your drive.

The third chapter describes the device driver software. It explains how to use the System Utilities, Version 1.1 or future revisions, to transfer the ProFile driver to the Apple III boot diskettes.

Appendix A describes how to transfer the Pascal system from diskettes to the ProFile drive. This information is recommended for those who use Pascal as their primary programming language. An index follows the appendix.

Throughout this Owner's manual you will see three symbols that are used to point out paragraphs of special interest.

This symbol precedes a paragraph that contains especially useful or noteworthy information.

Watch out! This symbol precedes a paragraph that warns you to be careful.

Stop! This symbol precedes a paragraph warning you that you are about to destroy data or damage hardware.

Introduction

Getting Familiar

Powerful computers, such as the Apple III, need large amounts of data storage in a physically small package. They also require their data storage systems to be highly reliable. Your new ProFile disk drive (Figure 1-1) will more than satisfy these requirements.
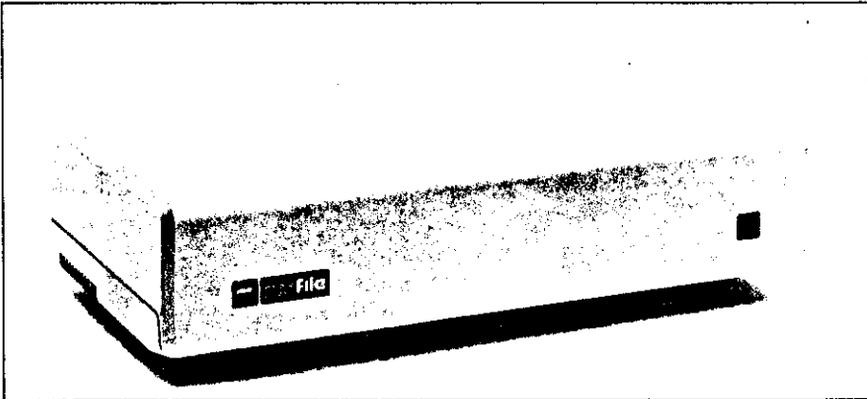
Figure 1-1. ProFile Disk Drive

The ProFile disk storage system consists of a fixed-media, random-access, 5-1/4 inch disk drive and a disk controller card packaged together in a lightweight, compact cabinet. ProFile is a Winchester-type device, meaning that the read/write heads, the disks, and the actuator

mechanism are all part of a unitized assembly enclosed in a sealed, protective, non-removable housing. Your ProFile drive is portable. If you handle your ProFile with care, you can easily move it from one location to another. You may stack your ProFile on top of the Apple III or place it on top of a desk close to your computer.

Never, under any circumstances, place the ProFile drive on a thick carpet or any other surface that might obstruct the air vents on the bottom of the unit.

As a general rule, you should place the unit on a hard surface where it is convenient to operate and air flow is not restricted.

ProFile differs from a flexible ("floppy") disk drive in that the ProFile media consists of rigid disks rather than floppy disks. Since the ProFile disks are enclosed in a sealed housing, they cannot be removed or interchanged and therefore cannot be damaged or lost as floppy disks can.

The main advantages ProFile has over a floppy drive are:

- Much greater data storage capacity (It takes about 70 floppy disks to store the same amount of data as a 10 Megabyte ProFile disk drive).

- Higher reliability.

- Improved performance.

ProFile is controlled by the Apple III's Sophisticated Operating System, usually called "SOS". The SOS automatically keeps track of files, saves and retrieves information, and does a multitude of other housekeeping tasks. The few special commands needed to manipulate files and use the drive are described in the reference manual for the particular product or programming language being used, for example Apple III Business Basic.

Unpacking Your Drive

Your ProFile drive is packed in two shipping cartons. The larger of the two cartons contains your ProFile disk drive, a power cord, and unpacking instructions. The smaller, rectangular shaped carton is your ProFile accessory kit. It contains your manuals, supporting software, an interface card, installation hardware, and some important documents. Be sure to read your ProFile Unpacking Instruction sheet and as you unpack the drive, check your packing list to make sure you have received all items listed.

Your ProFile drive is a delicate instrument. Be very careful when you remove it from the shipping carton. Extensive damage may result if the unit is accidentally jarred, bumped, dropped, or handled roughly.

As an added precaution against possible damage, you should leave the foam end caps strapped on until you have turned on and checked out your drive for the first time as described in Chapter 2. Be sure to save the end caps, the carrying container, the shipping carton, and packing material in case you wish to transport your ProFile. Remember, if you attempt to transport the drive without proper packing, serious damage may result.

Preparing To Use Your Drive

Turning On Your ProFile for the First Time

Now that your ProFile is unpacked, you are probably getting anxious to use it. However, before you remove the protective foam end caps and connect the drive to your computer, you should first turn on your drive to make sure that it starts up properly. Do this as follows:

1. Turn OFF the power switch on the back of the ProFile.

WARNING: THIS EQUIPMENT IS INTENDED TO BE ELECTRICALLY GROUNDED

This product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type AC outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact a licensed electrician to replace the outlet, and if necessary, install a grounding conductor.

DO NOT DEFEAT THE PURPOSE OF THE GROUNDING TYPE PLUG.

2. Plug the power cord into the recessed 3-pin connector on the back of the ProFile.

3. Plug the other end of the Power cord into a wall outlet.

4. Turn ON the power switch on the back of the ProFile.

Notice that the READY (red) light on the front panel comes on for an instant and then goes out for about 20 seconds while the drive comes up to operating speed. Then the light flashes for about 60 seconds while the drive performs some internal tests on its disks. After that, the light comes on and stays on continuously (does not flash) to indicate that the startup operation is complete and your drive is ready for operation.

Failure of the READY light to stay on after the startup operation indicates a possible drive malfunction. If this condition occurs, turn OFF your ProFile and contact your dealer for service.

If the READY light stays on, you are ready to connect your drive to the computer. First, turn OFF your ProFile and unplug its power cord. Next, remove the foam end caps and place your drive close to the computer.

Installing the ProFile Interface Card

WARNING: Electrical equipment can be hazardous if misused. Operation of this or similar products must always be supervised by an adult. The installation of products, including peripheral and interface devices must be performed by an adult. Do not allow children access to the interior of any electrical product or to handle power or I/O cables.

The interface card is a device that exchanges address, data, and control information between the Apple III and the ProFile controller. Before you can install the card, you must remove the Apple III's top cover to allow access to the inside of the computer.

1. Turn OFF the power switch on the rear of the computer and any other attached peripheral devices.

If you try to connect or disconnect anything inside of the computer when power is on, you are likely to damage the circuitry.

2. The Apple III's cover is attached to the case by two screws (Figure 2-1) located on the underside of the left and right corners of the face of the computer. Remove the cover as follows:

    a. Remove all cable connections from the back of the Apple III so that you do not accidentally damage a connector when you tilt the computer.

    b. Tilt the Apple III slightly to either side, then use a short flat-bladed screwdriver (not supplied) to turn the corresponding screw one-quarter turn in either direction. The screws should fall loose, however they won't fall out of the case because they are held captive.

   c. Carefully remove the cover by tilting it straight forward and lifting it up.

Because of electromagnetic interference regulations, the United States Federal Communications Commission (FCC) prohibits the operation of an Apple III with its cover removed. To remind you of this, there is a small red light on the left side of the main board, near the back. If you see that this light is on, TURN YOUR APPLE III OFF. (Don't forget to save any programs or data you might be working on.) Remember, never remove the cover from the Apple III, or connect or disconnect anything on either the Apple III or the ProFile while the power is on.

3. Look down into the rectangular well on the inside of the Apple III and locate the four identical peripheral card connectors (usually called slots) on the main circuit board. See Figure 2-2. The software supplied with your drive requires you to install the ProFile interface card in slot 4, the closest slot to your right when looking into the computer from the keyboard side.

You can choose any slot, but if you choose a slot other than slot 4, you must reconfigure your software by changing the peripheral slot assignment of the ProFile driver as explained in Chapter 3.
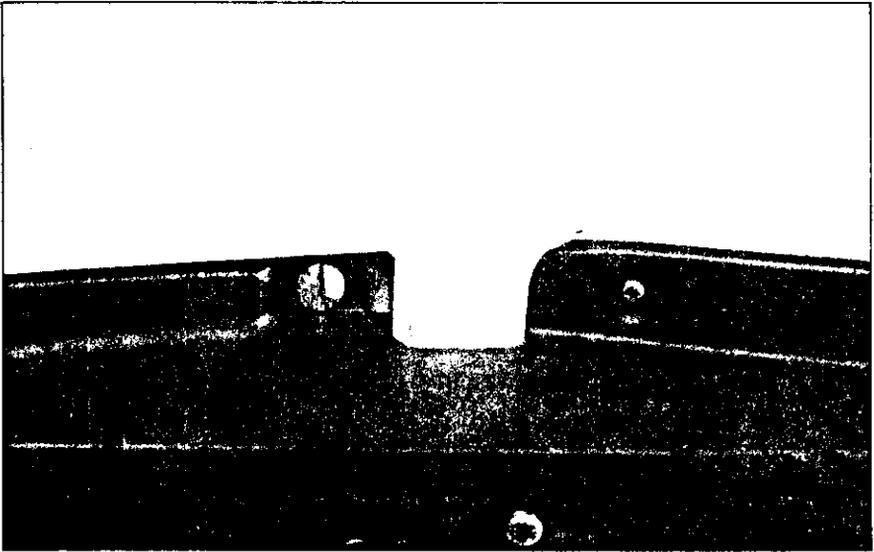
Figure 2-1. Apple III Cover Attachment Screw Locations
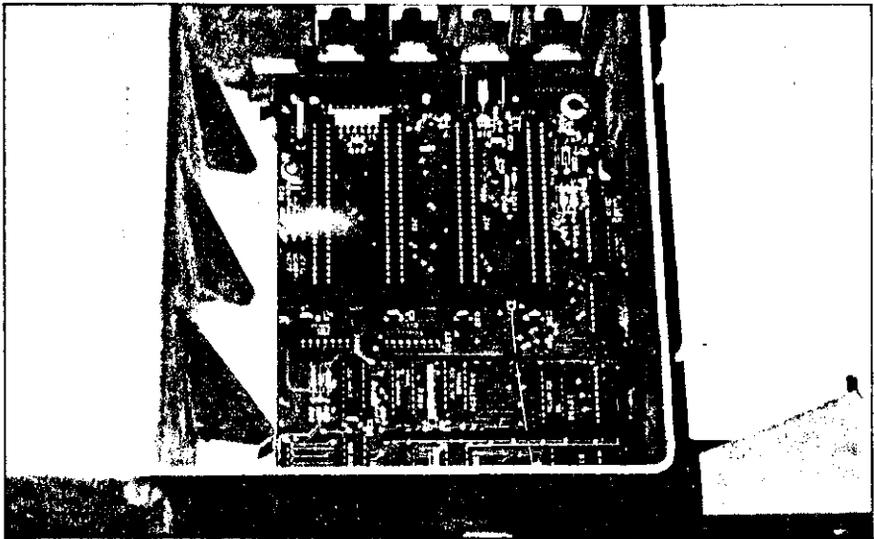
Figure 2-2. Apple III Peripheral Card Slots

4.　If you already have another peripheral card in slot 4, you can remove it by rocking the card slightly toward the keyboard and then pulling it straight up and out of the well. Now you are ready to install your ProFile interface card.

Handle the ProFile interface card with care. Grasp it only by the corners or edges, and try not to touch the delicate components. Above all, don't grasp the card by the gold "fingers" on its bottom edge connector—they are the medium through which the computer communicates to the card and their efficiency decreases if they are dirty or scratched.

5.　With the computer facing you, hold the interface card with its gold "fingers" pointing down. The component side of the card should be facing to the right. Slide the front edge of the card into the card guide as shown in Figure 2-3. Continue to slide the card down until the "fingers" begin to enter the peripheral connector. At this point, you're probably going to have to exert force (not too much) to fit the interface card completely into its slot. A fully inserted interface card is shown in Figure 2-4. If the interface card doesn't seem to fit, remove it completely and try again, making sure that the card enters the card guide straight up and down.

Figure 2-3. Installing the Interface Card
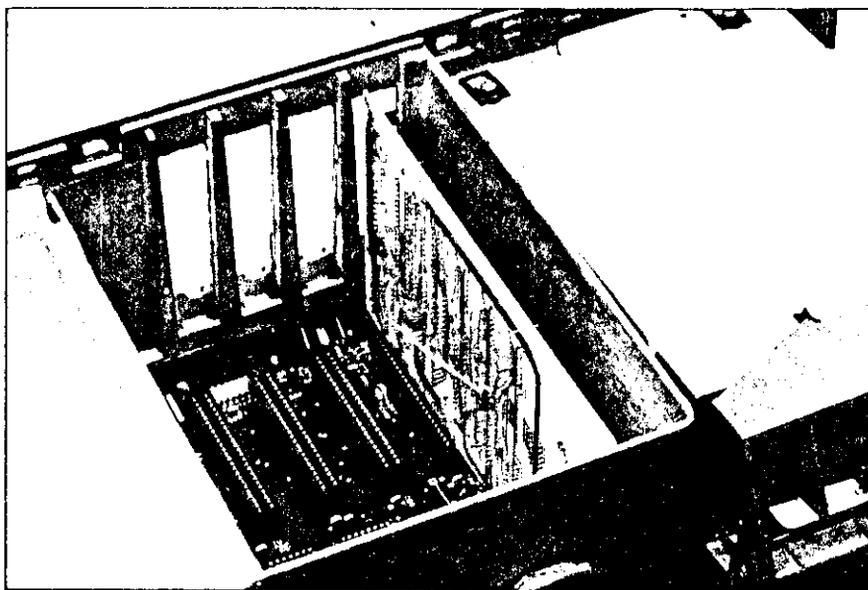
Figure 2-4. Fully Inserted Interface Card

6. Look at the back of your Apple III. If your computer has screw holes above and below each of the four peripheral card slots, follow steps a through d. If your computer does not have the screw holes, disregard these steps.

   a. Locate the screw holes above and below the card slot in which you installed your interface card.

   b. Find the two anchor screws (1/2-inch and 1-inch) in your accessory kit. Insert the short (1/2-inch) anchor screw through the top hole and screw it into the grounding plate attached to the interface card's D-shaped connector.

   c. Insert the long (1-inch) anchor screw through the bottom hole and screw it into the grounding plate.

   d. Use a Phillips screwdriver (not supplied) to tighten down the two screws.

7. Place the cover onto the top of the Apple III so that the back of the cover is flush with the back of the computer and the holes on the underside of the front of the cover fit over the two captive screws. Using a short, flat-bladed screwdriver, tighten the two

captive screws by pushing up and turning them each one-quarter
turn in either direction (it may be necessary to tilt the Apple III
slightly to each side to get access to the screws).

Connecting the Cables

Two cables are provided with the ProFile drive; the power cable and
the interface cable. The power cable supplies AC power to the drive
from an external source. The interface cable transfers control and data
signals between the computer and the disk drive.

Before connecting any cables, make sure that the
power switches on the back of both the Apple III and
the ProFile are off.

The Interface Cable

The interface cable is a round, shielded cable with identical 25-pin, D-
shaped connectors on each end. It is used to transfer control and data
signals between the computer and the ProFile. This product was FCC
certificated using a shielded interface cable. To prevent electromagnetic
interference it is important that you use the interface cable provided.
Before making any connections, turn the computer around until the
back is facing you.

Do not try to connect the interface cable to the 25-pin,
D-type connector on the back of your Apple III. This
connector, designated "PORT C", is only for a
peripheral device requiring an RS-232 interface.

Connect the interface cable as follows:

1. Plug one end of interface cable into the D-shaped connector
    protruding from the ProFile interface card that you just installed in
    your Apple III. See Figure 2-5. (The connector can go on in only
    one direction because of its shape.) As you make this connection,
    be sure you do not loosen the interface card from its slot in the
    Apple III.

2. Plug the other end of the interface cable securely to the D-type mating connector on the back of the ProFile (see Figure 2-6).

3. Use a small, flat-bladed screwdriver to tighten down the retaining screws on each connector.

The Power Cable

The power cable supplies AC power to your drive from an external source.
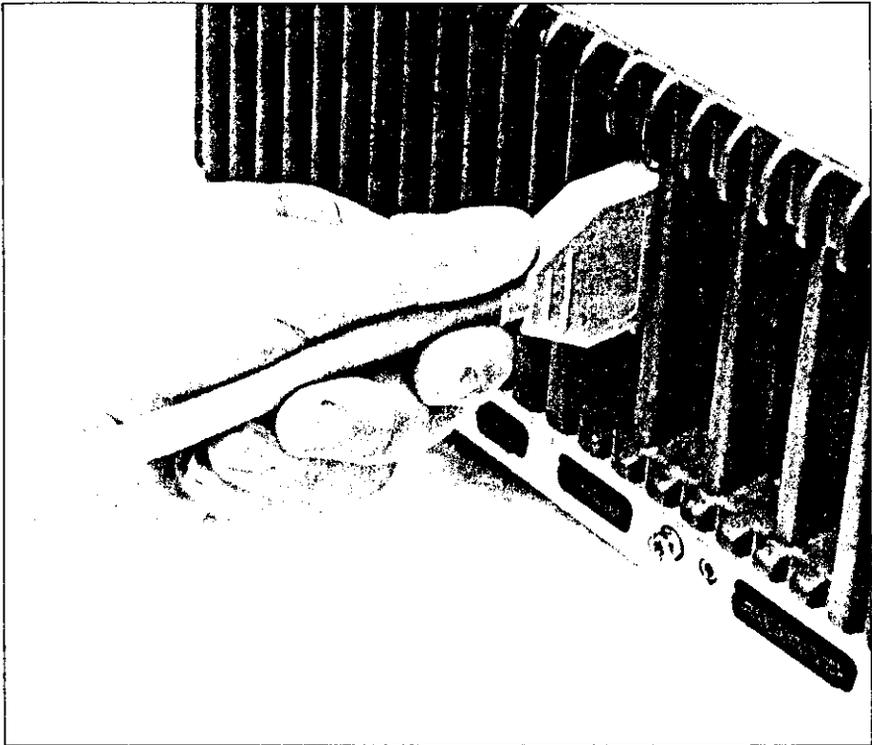
Figure 2-5. Connecting the Interface Cable to the Apple III
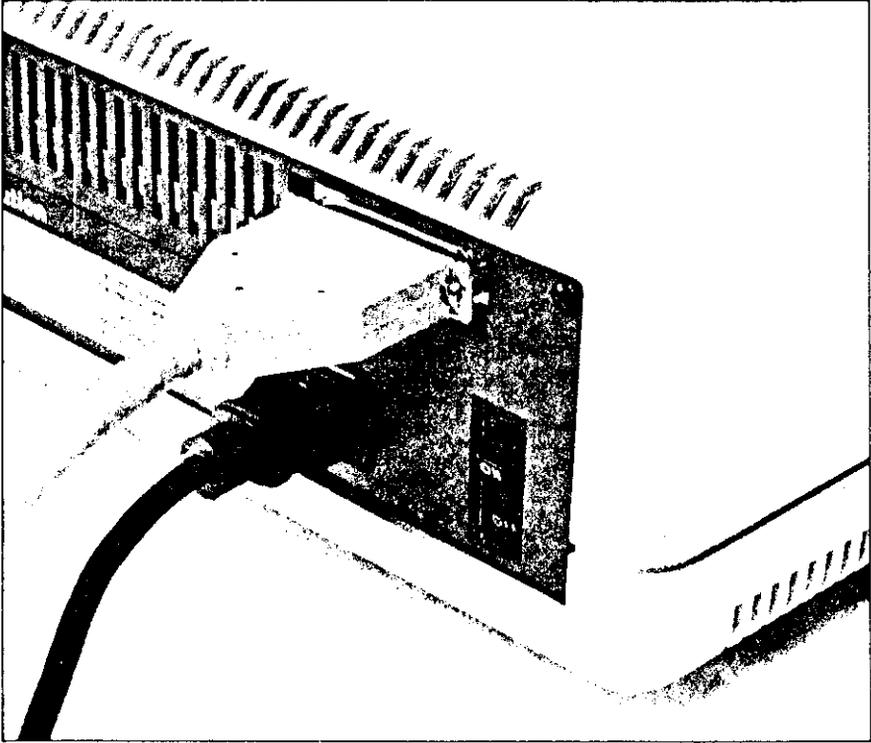
Figure 2-6. Connecting the Cables to the ProFile Drive

1. Plug one end of the power cable into the recessed 3-pin AC power connector (Figure 2-6) on the back of the ProFile (the plug can go on in only one direction).

2. Plug the other end of the power cable into a wall outlet. Your system is now completely connected and is ready to turn on.

Turning On Your ProFile

1. Reach around to the back of the ProFile and turn on the power switch. After your ProFile comes up to operating speed and completes its internal test sequence, the READY light remains on continuously to indicate that your ProFile is ready for operation.

In addition to indicating that the drive is ready by remaining on continuously, the READY indicator also shows activity by flashing rapidly whenever the drive communicates with the computer.

Turning Off Your ProFile

As a general rule, you should keep your ProFile on continuously unless there are long periods of time in which you do not intend to use it. When you do turn off your ProFile, observe the following precautions.

- Do not turn off your ProFile while it is active (READY light flashing). If you do, the read/write heads will return to their home position outside of the data area, but data will be lost if a write operation is in progress.

- When the ProFile is no longer active, make sure that the READY light remains on continuously for at least 4 seconds before you turn off power.

Checking Out Your ProFile

Included in your ProFile accessory kit is a special diskette called "Utilities Loader". This diskette will allow you to copy the Apple III System Utilities directly onto your ProFile. Once you have copied this information, you can access it by starting up your computer with the "ProFile Driver and System Utilities Software" diskette that also comes in your ProFile accessory kit.

Loading the System Utilities Into the ProFile

1. Make sure you have installed the ProFile interface card in slot 4 of the Apple III.

2. Insert the "Utilities Loader" diskette into the Apple III's built-in drive.

3. Turn on your video monitor (or television set) and then reach back behind your Apple III and turn its power switch ON.

4. The built-in drive starts to whir and its red light comes on indicating that information on the disk is being loaded into the computer. When the drive stops running, the screen will display a message that tells you the copy is completed. This means that the System Utilities program is now stored on your ProFile. The message will also explain that you can run the system utilities on your ProFile by inserting the "ProFile Driver and System Utilities Software" diskette into your built-in drive and re-booting the system.

Accessing the ProFile's System Utilities

You can access the system utilities that you just loaded on your ProFile and at the same time check out the operation of your drive by following these steps.

1. Remove the "Utilities Loader" diskette from the built-in drive and insert the "ProFile Driver and System Utilities Software" diskette.

2. Boot the Apple III (hold the CONTROL key down and press RESET).

3. The built-in drive will start to run and the red light on the front of the ProFile will flash rapidly . When the operation is complete, the screen will display the System Utilities Main Menu.

By bringing up the System Utilities Main Menu, you have proven that your computer is able to communicate with your ProFile. However, before you can use your ProFile to run any of the other Apple III programs, you must add the ProFile device driver, described in the following paragraph, to any boot diskettes that you will be using in the Apple III's built-in drive. Later, when you get to Chapter 3, you can use your ProFile-based System Utilities programs to perform the step-by-step procedures required to install your driver software.

Using the Device Driver

A device driver is a machine language subroutine that is used by the Apple III's Sophisticated Operating System, SOS, to communicate with a peripheral device such as your ProFile drive. The device driver program works directly with the computer's hardware and electronics to perform the actual electronic manipulation of the disk drive.

To record information on or retrieve information from your ProFile, SOS must communicate with the ProFile device driver. The device driver will, in turn, communicate directly with the controller in the ProFile disk drive.

Each time your Apple III boots a diskette in its built-in drive, the device drivers are read from the diskette and loaded into memory. The device drivers are stored in a system file called SOS.DRIVER in the root directory of every boot diskette. Once loaded, the drivers remain in your Apple III's memory until you turn off power or reboot the system.

The SOS.DRIVER file on a boot diskette usually contains drivers for the console, graphics, audio, the printer, and any other peripheral devices already connected to your Apple III. However, it does not include a driver for ProFile. Instead, this driver is included on the "ProFile Driver and System Utilities Software" diskette supplied in your ProFile accessory kit. The name of the driver is .PROFILE.

To use your ProFile disk drive, you must first boot the Apple III with a diskette that contains the .PROFILE driver. When you get to Chapter 3, you will learn how to add the .PROFILE driver to boot diskettes that do not yet have this driver as part of their SOS.DRIVER file.

Duplicating Your Diskettes

People often make duplicate copies of important documents, so that if one copy is accidentally lost or destroyed there will always be another. For this same reason, we can't stress enough the importance of making copies of your boot diskettes. There are many ways to destroy a diskette: leaving it out in the sun or in a hot car trunk, bending it,

leaving it close to a powerful magnetic field, and so on. Failure to make a backup copy may cause you to lose hours, or days, of work.

In Chapter 3, you will learn how to make copies of the diskettes that came in your ProFile accessory kit. These diskettes can be used in the Apple III's built-in drive or in an attached drive such as the Disk III. Remember that some diskettes are protected and cannot be copied. If you need more detailed information, your Apple III Owner's Guide includes a section on how to use the System Utilities Copy-volume command to make copies of diskettes.

Operating Your Drive

With the exception of the AC power switch, the ProFile drive contains no operating controls. After initial power up, all drive operations are controlled by the Apple III. Programs that keep track of files, save information, and retrieve information are part of the Apple III's operating system. The few special commands required to use the drive and manipulate files are described in the reference manual for the product or programming language you are using. For example, if you are using Business Basic as your Apple III's programming language, you should first read, and later refer, to the applicable chapters of the Apple III Business Basic Reference Manual.

Remember! Before your Apple III can communicate with the ProFile, the ProFile device driver must be added to the SOS.DRIVER file of your boot diskettes as described in Chapter 3.

Backing Up Your ProFile Files

Backing up is the process of copying your ProFile files onto one or more "floppy" diskettes. Included in your ProFile accessory kit is a Backup III diskette and a Backup III User's Manual that explains how to run the Backup III program. This program is extremely useful when you are using the ProFile as your primary source of data storage and an Apple flexible disk drive, such as your Apple III's built-in drive or an attached Disk III drive, as your backup device.

The Backup III program provides two major functions, backing up and restoring files. Backing up is the process of saving a file's information so that you can retrieve it if the original is lost or damaged. Restoring is the process of retrieving information from the backup and putting it in a file.

To back up files, Backup III transfers information from the ProFile to a set of diskettes in the backup device. To restore files, Backup III transfers information from the set of diskettes.

Backup III does not make a carbon copy of your information. It uses its own format for the data, and this format cannot be used by other programs. For example, the Apple III System Utilities program cannot read information that has been transferred to backup diskettes by the Backup III program. Instead, you must use Backup III's restore option to recreate useable files from the backup diskettes.

Read your Backup III User's Manual for a complete description of the Backup III program.

Copying Your ProFile Files

If you want your backup data to be immediately readable by programs other than Backup III, you may prefer to copy files from your ProFile using the System Utilities Copy-files command. This permits you to transfer files between the ProFile and the built-in drive, or an attached drive such as a Disk III. However, you must remember that the physical size of the file you are transferring from the ProFile cannot exceed the number of blocks available on the diskette. You will learn how to use the file copying routine in Chapter 3 in the paragraph entitled "Copying Files". Detailed instructions on how to use the System Utilities Copy-files command are provided in the Apple III Owner's manual.

If Pascal is your primary programming language, you can use the Pascal Filer's Transfer command to transfer files from your ProFile to a diskette. Again, the physical size of the file being transferred from the ProFile cannot exceed the number of blocks available on the diskette.

Caring for Your Drive

The ProFile disk drive, unlike the computer, is a mechanical device, with motors and moving parts. Therefore it is somewhat more delicate than the computer. The ProFile drive is completely aligned and tested at the factory, and with proper care and handling should provide troublefree operation. However, rough handling, such as dropping the drive, sharply jarring it, or allowing heavy objects to fall on it, could cause a malfunction.

If Your Drive Doesn't Work

If your ProFile does not operate, re-read this manual carefully to make sure that the interface card is correctly installed in the appropriate slot in the Apple III (usually slot 4) and the cables are properly connected —this cures most problems.

If you cannot get your operational programs to work with ProFile, make sure that the software you are using is based on SOS, version 1.1 or future revisions, and that you have reconfigured your boot diskettes as explained in Chapter 3.

This isn't likely, but if your drive received excessive rough handling during shipping or unpacking, one of the connectors inside of the ProFile cabinet may be loose. If this condition is suspected, contact your dealer—he/she will be glad to help you.

Do not attempt to open the ProFile cabinet as this could void your warranty.

Installing The Driver Software

Reconfiguring a Boot Diskette

The information in this chapter is condensed from the chapter in your Standard Device Drivers manual entitled "The System Configuration Program". For a complete description of how the System Configuration Program (SCP) is used to configure the Sophisticated Operating System (SOS), refer to the Standard Device Drivers manual and to your Apple III Owner's Guide.

This chapter is written assuming that you have already loaded the System Utilities program into your ProFile as described in Chapter 2. If you have not, you should go back to to Chapter 2 and follow the instructions in the paragraph entitled "Loading the System Utilities into the ProFile". Now, you will be able to use the "ProFile Driver and System Utilities Software" diskette, supplied in your ProFile accessory kit, to boot the Apple III and access your ProFile's System Utilities program.

The "ProFile Driver and System Utilities Software" diskette also contains a file named PROFILE.DRIVER. This file contains the driver that permits the Apple III's Sophisticated Operating System (SOS) to communicate with your ProFile. The boot diskettes used with your Apple III do not include the ProFile driver, therefore, before you can use your ProFile with any of these boot diskettes, you must transfer the .PROFILE driver from your driver diskette to the SOS.DRIVER file of each boot diskette. To do this, follow the steps listed in the paragraph titled "Adding the ProFile Device Driver".

The Apple III's built-in drive is mentioned throughout the following procedures. The built-in drive must be used for booting the system but if you have another drive, such as a Disk III, attached to your computer, you can use it for any of the other functions and reduce the inconvenience of swapping diskettes. Remember to identify any attached drives correctly as .D2, .D3, or .D4 when entering information from the keyboard.

Adding the ProFile Device Driver

Before your ProFile can communicate with your Apple III, you must add the ProFile device driver to your boot diskettes (Business BASIC, Backup III, VisiCalc, Pascal, etc.). It's easy to do if you follow these steps and observe the prompts on the monitor screen.

1. Using the System Utilities Copy-volume routine, make a copy of the boot diskette that you wish to reconfigure. The Copy-volume routine is described later in this chapter in a paragraph titled "Copying a Diskette". Remember, you cannot make a copy of a copy protected diskette. Use your duplicate copy for the remaining steps of this procedure.

2. Insert the "ProFile Driver and System Utilities Software" diskette into your Apple III's built-in drive.

3. Boot the Apple III—hold the CONTROL key down and press RESET. The screen displays the System Utilities main menu.

4. Type S for the System Configuration Program (SCP) option. The screen displays the SCP menu.

5. Type R for the Read a Driver File option. The screen displays the message "No Drivers are Loaded".

6. Remove the "ProFile Driver and System Utilities Software" diskette from the built-in drive and insert the boot diskette that you wish to reconfigure.

7. Type .D1/SOS.DRIVER and press RETURN. The screen displays a list of all drivers currently in the SOS.DRIVER file of your boot diskette.

8. Remove the boot diskette from the built-in drive and insert the "ProFile Driver and System Utilities Software" diskette.

9. Type .D1/PROFILE.DRIVER and press RETURN. Notice that a driver named .PROFILE is added to the driver configuration list.

10. Remove the "ProFile Driver and System Utilities Software" diskette from the built-in drive and insert the boot diskette.

11. Press ESCAPE and the screen displays the SCP menu.

12. Type C for the Change System Parameters option. The screen displays the current system parameters.

13. Type 2 for the Peripheral Slot Assignments option. The screen displays a list of all presently installed device drivers and their current peripheral slot assignments in the Apple III. The ? mark following the .PROFILE driver indicates that a slot is not yet assigned to this driver.

14. Type the number appearing to the left of .PROFILE and press RETURN.

15. Type a number from 1 to 4 (usually 4). This number must correspond to the slot in the Apple III where you installed your ProFile interface card.

16. Press RETURN. The slot number that you just assigned now replaces the ? mark following the .PROFILE driver.

17. Press ESCAPE twice to display the SCP menu.

18. Type G for the Generate New System option. The screen displays a message asking you to "Enter Driver File Name".

19. Type .D1/SOS.DRIVER and press RETURN. Now type Y (for yes) to indicate that you wish to delete the existing SOS.DRIVER file. If the message "File Is Write Protected" appears on the screen, type Y (for yes) to indicate that you wish to delete the file anyway.

20. If the operation is successful, the screen will display the message "System Generated". If it does, skip step 21 and go on to step 22. However, if the screen displays messages such as "Driver File To Large" or "No Room On Volume", you must delete one or more of the existing drivers as explained in step 21.

For example, if you do not have a printer, you could choose to delete the printer driver from your boot diskette's SOS.DRIVER file. However, on some boot diskettes you may have to delete at least two drivers before you can add the ProFile driver.

21. Delete a driver as follows:

   a. Press ESCAPE

   b. Type D for the Delete a Driver option.

   c. Type the number of the driver you wish to delete and press RETURN.

   d. Type Y (for yes).

   e. Press ESCAPE to display the SCP menu.

   f. Repeat steps 18 through 20.

22. You have successfully added the ProFile driver to the SOS.DRIVER file of your boot diskette. Now, whenever you boot the Apple III with this diskette, you can communicate with your ProFile. To verify operation, boot the computer with your newly configured diskette and use the appropriate command to display the ProFile's directory. This command will differ depending upon the programming language being used. For Business BASIC, the command is CATALOG.PROFILE.

Changing all Boot Diskettes

Since you are already using the System Configuration Program, now may be a convenient time to incorporate the .PROFILE driver into the SOS.DRIVER file on all of your boot diskettes. To do this, repeat the steps described in the previous paragraphs for each boot diskette you want to use with the ProFile drive. You don't have to add the .PROFILE driver to any diskettes that are not boot diskettes or that you don't intend to use with the ProFile.

Copying a Diskette

You can use your System Utilities Copy-volume command to make duplicate copies of your diskettes by following these steps. You cannot make a copy of a copy-protected diskette such as VisiCalc. Also, the source volume must be the same kind as the destination volume. For example, you cannot make a volume copy between the ProFile and a Disk III floppy disk drive, or vise versa. For copying between different kinds of volumes, use the file-copying procedure described in the next paragraph.

1. Insert the "ProFile Driver and System Utilities Software" diskette into the built-in drive.

2. Boot the Apple III—hold the CONTROL key down and press RESET.

3. Type D for Device Handling commands.

4. Type F for Format a Volume.

5. Remove the "ProFile Driver and System Utilities Software" diskette from the built-in drive and insert the destination (blank) diskette.

6. Type .D1 and press RETURN twice.

7. After the the screen displays the message "Formatting Successful", press ESCAPE.

8. Type C for Copy One Volume onto Another.

9. Remove the destination diskette from the built-in drive and insert the boot diskette.

10. Type .D1 and press RETURN.

11. If you do not have an external floppy disk drive, ignore this step and go to step 12. If you do have an external drive, insert the destination diskette into this drive, type .D2, and press RETURN twice. If the message "Destroy Old Blank" appears, type Y (for yes). When the copy is completed, the message "Copy Successful" is displayed on the screen. Remove your new copy from the drive and disregard the remaining steps of this procedure.

12. Type .D1 and press RETURN twice.

13. Swap source (boot) and destination (blank) diskettes in the built-in drive as directed by prompts on the monitor screen. If the message "Destroy Old Blank" appears, type Y (for yes). When the copy is completed, the message "Copy Successful" is displayed on the screen.

Copying Files

In Chapter 2, you learned that by using the Backup III program on a regularly scheduled basis, you can backup your ProFile files onto a series of "floppy" diskettes. This backup program is provided to insure

you against possible loss of your ProFile data. However, this backup data cannot be read by any other programs until Backup III's Restore option is used to recreate useable files.

If you wish to make exact, immediately readable copies of your ProFile files on diskettes, you can use the System Utilities Copy-files routine. But you must remember that the physical size of the file you are copying from the ProFile cannot exceed the number of blocks available on the diskette. Refer to your Apple III Owner's Manual for a more detailed explanation of file copying.

Use your System Utilities Copy-files routine as follows.

1. Insert the "ProFile Driver and System Utilities Software" diskette into the built-in drive.

2. Boot the Apple III—hold the CONTROL key down and press RESET.

3. Type F for File Handling commands.

4. Type C for Copy Files.

5. Type the device and file names you wish to copy from. (Do not type the word "filename" but type the name actually assigned to the file.)

    .PROFILE/filename

6. Press RETURN.

7. Type the device and file names you wish to copy to.

    .D1/filename

8. Remove the "ProFile Driver and System Utilities Software" diskette from the built-in drive and insert the destination diskette.

9. Press RETURN.

If Pascal is your primary programming language, you may prefer to use the Pascal Filer's Transfer command to copy files. This procedure is described in the Apple III Pascal manual titled "Introduction, Filer, and Editor".

Reformatting the Drive

Formatting prepares your ProFile for use by establishing a directory structure and dividing up the recording surfaces into areas where you can later store information and programs. Your ProFile was already formatted before it left the factory. However, your System Utilities includes a routine that allows you to reformat your ProFile if its directory structure becomes damaged, or if you desire to recover all available space on the ProFile without having to erase each file and subdirectory.

WARNING! You should not reformat your ProFile unless it is absolutely necessary because formatting removes all previously recorded data, including your System Utilities. If you must reformat your ProFile, you can restore your System Utilities by going back to Chapter 2 and following the instructions in the paragraph entitled "Loading the System Utilities into the ProFile".

Format your ProFile as follows:

1. Insert the "ProFile Driver and System Utilities Software" Diskette into the built-in drive.

2. Boot the Apple III—hold the CONTROL key down and press RESET.

3. Type D for Device Handling commands.

4. Type F for Format a Volume.

5. Type .PROFILE and press RETURN.

6. Type a volume name (for example PROFILE) and press RETURN.

Selecting Write/Verify or Write

Your ProFile writes data in either of two modes: Write/Verify or Write. In the Write/Verify mode, information is written during one revolution of the disk and read back (verified) during the following revolution. This is the default mode, and is the mode your ProFile will operate in unless you change the driver configuration. If you wish to increase your data

transfer rate, you can reconfigure your driver for the Write mode, but you must remember that the information that you write on the disk is no longer automatically verified. To configure your ProFile for the Write mode follow these steps.

This procedure assumes you have already added the .PROFILE driver to the SOS.DRIVER file of your boot diskette as described earlier in this section in the paragraph entitled "Adding the ProFile Device Driver".

1. Insert the "ProFile Driver and System Utilities Software" diskette into the built-in drive and boot the Apple III.

2. Boot the Apple III—Hold the CONTROL key down and press RESET.

3. Type S for the System Configuration Program (SCP) option and you see the SCP menu on the screen.

4. Type R for the Read a Driver option. The Apple tells you that no drivers are loaded.

5. Remove the "ProFile Driver and System Utilities Software" diskette and insert the boot diskette.

6. Type .D1/SOS.DRIVER and press RETURN. A listing of the Current Driver Configuration appears.

7. The computer again asks you to Enter Driver File Name. Ignore this request and press ESCAPE to display the SCP menu.

8. Type E for the Edit Driver Parameters option.

9. Type the number of the driver to be edited, press RETURN, and Edit Driver Parameters appears on the screen.

10. Type the number of the Configuration Block Data option. The driver configuration block appears on the screen.

11. Notice that the value in byte 0 is FF, which is the default (Write/Verify) value. To change to the Write mode, type 00 and press RETURN.

12. Press ESCAPE three times to return to the SCP menu. Type G to select the Generate New System option. The computer asks you to Enter Driver File Name.

13. Type .D1/SOS.DRIVER and press RETURN. The computer again asks you to Enter Driver File Name. Ignore this request.

14. Reboot your Apple III with your newly configured boot diskette. Your ProFile drive will now operate in the Write mode.

Following is a summary of the SCP configuration block data that can be changed to allow your ProFile to operate in either the write/verify or write modes.

Parameter Name	Byte	Possible Values	Default Value
Write/Verify	00	00, FF	FF (Mode Enabled)

The Pascal Language System

Adding Pascal to ProFile Drive

The following information is intended for those persons whose
programming requirements are primarily based on the Pascal language
system. The files making up the Apple III Pascal System are supplied
on three diskettes identified as PASCAL1, PASCAL2, and PASCAL3.
The following table lists the system files found on each diskette.

PASCAL1	PASCAL2	PASCAL3
SOS.KERNEL	SYSTEM.EDITOR	LIBMAP.CODE
SOS.DRIVER	SYSTEM.SYNTAX	LIBRARY.CODE
SOS.INTERP	SYSTEM.COMPILER	SETUP.CODE
SYSTEM.PASCAL	SYSTEM.ASSMBLER	AllFORMAT.CODE
SYSTEM.MISCINFO	OPCODES.6502	SYSTEM.LIBRARY
SYSTEM.LIBRARY	ERRORS.6502	
SYSTEM.FILER	SYSTEM.LINKER	

To eliminate the inconvenience of having to repeatedly swap the Pascal
diskettes to access the different files, you can transfer the files from the
Pascal diskettes to your ProFile drive as follows:

The Pascal system must be booted with your boot
diskette in the built-in drive. You will find it easier and
more convenient to perform the other steps of this
procedure if you have an external drive such as a Disk
III attached to your Apple III. If you do not have an
external drive, all of the steps can be performed on your
built-in drive, but the operation will require more
frequent exchanges of diskettes.

1. Make copies of PASCAL1, PASCAL2, and PASCAL3 using your
   System Utilities Copy-volume command.

2. Use your System Utilities Format a Volume command to format a
   new diskette called PROFILEPASCAL.

3. Use the System Utilities Systems Configuration Program (SCP) to
   add the .PROFILE driver from the "ProFile Driver and System
   Utilities Software" diskette to the SOS.DRIVER file of the
   PASCAL1 diskette as described in Chapter 3. Write the combined
   driver file onto the PROFILEPASCAL diskette as
   /PROFILEPASCAL/SOS.DRIVER. (It is necessary to write the file
   onto the PROFILEPASCAL diskette because there is not enough
   space on the PASCAL1 diskette.)

4. Place the copy of PASCAL1 you made in step 1 into the Apple
   III's built-in drive and boot the Pascal system.

5. Enter the Pascal Filer and perform the following transfer
   commands to transfer files from the PASCAL1 diskette to the
   PROFILEPASCAL diskette.

   /PASCAL1/SOS.KERNEL   to /PROFILEPASCAL/SOS.KERNEL
   /PASCAL1/SOS.INTERP   to /PROFILEPASCAL/SOS.INTERP
   /PASCAL1/SYSTEM.MISCINFO   to /PROFILEPASCAL/SYSTEM.MISCINFO
   /PASCAL1/SYSTEM.PASCAL   to /PROFILEPASCAL/SYSTEM.PASCAL

6. Remove the PASCAL1 diskette from the built-in drive and insert
   the PASCAL3 diskette.

7. Enter the Pascal Filer and perform the following transfer.

   /PASCAL3/SYSTEM.LIBRARY   to /PROFILEPASCAL/SYSTEM.LIBRARY

8. Remove PASCAL3 from the built-in drive, insert your
   PROFILEPASCAL diskette, and reboot the Pascal system.

9. Place the PASCAL1 diskette in an external drive.

10. Enter the Pascal Filer and transfer the SYSTEM.FILER from the PASCAL1 diskette to your ProFile disk drive using the following transfer commands:

/PASCAL1/SYSTEM.FILER   to   .PROFILE/SYSTEM.FILER

11. Quit from the Filer.

12. Remove the PASCAL1 diskette from the external drive.

13. Enter the Filer—this will execute the copy of the Filer which you just recorded on ProFile.

14. Place the PASCAL2 diskette into the external drive and use the following Filer Transfer command to copy all of the PASCAL2 files onto the ProFile drive:

T /PASCAL2/=,.PROFILE/=

15. Place the PASCAL3 diskette into the external drive and use the following Filer Transfer command to copy all of the PASCAL3 files onto the ProFile drive:

T /PASCAL3/=,.PROFILE/=

After completing the above steps, your ProFile drive will contain all of the necessary Pascal files, and PROFILEPASCAL will be the only diskette you need to boot the Pascal language system. This results in the following advantages to a Pascal user:

- faster program initiation

- minimum ProFile storage space is needed (approximately 175 kilobytes)

- convenience

- less shuffling of diskettes.

Detailed information on the Apple III Pascal system can be found in the following three manuals:

Apple III Pascal: Introduction, Filer, and Editor
Apple III Pascal Program Preparation Tools
Apple III Pascal Programmer's Manual (Volumes 1 and 2)

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