System 6300 Software Installation Guide

SOFTWARE RELEASE FE03





87601338C



MOTOROLA Information Systems

List of Effective Pages

This publication contains 86 pages consisting of the following:

Page Number	Date	Page Number	Date	Page Number	Date
Title	15 Jun 84	10-1 thru 10-8	15 Jun 84		
A	15 Jun 84	A-i			
i and ii		A-ii (Blank)			
1-i		A-1 thru A-15	15 Jun 84		
1-ii (Blank)	15 Jun 84	A-16 (Blank)	15 Jun 84		
1-1 thru 1-8		B-1			
2-1		B-2 (Blank)	15 Jun 84		
2-2 (Blank)		C-1 and C-2			
3-i		D-1 thru D-3	15 Jun 84		
3-ii (Blank)		D-4 (Blank)	15 Jun 84		
3-1 thru 3-3		E-i			
3-4 (Blank)		E-ii (Blank)	15 Jun 84		
4-1 and 4-2		E-1 thru E-3			_
5-1		E-4 (Blank)	15 Jun 84		
5-2 (Blank)		F-i	15 Jun 84		r
6-1 thru 6-3		F-ii (Blank)	15 Jun 84		
6-4 (Blank)		F-1 and F-2	15 Jun 84		
7.1		User's Comments			
7-2 (Blank)		Reply Card			
8-1 and 8-3		Inside Back Cover (Blank)			
8-4 (Blank)		Back Cover			
9-1 and 9-2	15 Jun 84				

* Asterisks indicate pages changed, added or deleted by the current change. The issue date for the change appears in place of the previous issue date at the bottom of each changed page included in the change package. Where a change involves a technical correction or the addition of new material, a vertical line appears at the appropriate place in the margin of the affected page. Deletions and editorial corrections are not specifically indicated.

Document Number: S6000-40-1C Stock Number: 87601338C

Issue A: 23 March 1984 Issue B: 18 May 1984 Issue C: 15 June 1984

Specifications subject to change. Copyright ©1984, Motorola Inc. All rights reserved. Printed in U.S.A.

15 June 1984

Preface

This guide is intended for users who wish to install the UNIX-derived Operating System on a System 6300 and/or wish to install Uniview or other software.

Installing software either with or without UNIVIEW is discussed. In addition, this guide covers the use of the software upgrade utility, which is used to install future software products or revisions to already installed products.

You should be familiar with the <u>System</u> 6300 <u>Hardware</u> <u>Installation</u> and <u>User's</u> <u>Guide</u> (S6000-22-1). You must use the Software Release Guide (SRG) shipped with your system in conjunction with this guide to install software on the System 6300.

You may also wish to familiarize yourself with the command syntax of the UNIX-derived operating system and UNIVIEW, contained in the following publications:

- Series 6000 Operating System Reference Manual Volumes 1 & 2 (S6000-50-6, S6000-50-7)
- Series 6000 General Functions (S6000-50-2)

We welcome any comments you have on this guide. Please use the handy form at the back of this manual for your comments.

This is the second issue of this guide. Changes are marked with change bars. Terminal booting procedure and screen displays are the only changes that have been made in this revision.

UNIX is a trademark of Bell Laboratories Inc. UNIVIEW is a trademark of Motorola, Inc.

RESTRICTED RIGHTS LEGEND

Use, duplication, or disclosure by the Government is subject to restrictions as set forth in paragraph (b) (3) (B) of the Rights in Technical Data and Computer Software clause in DAR 7-104.9 (a).

> Motorola, Inc. 10700 North De Anza Boulevard Cupertino, California 95014

i

Contents

Section 1	System Installation	1 —1
Section 2	Processor and Terminal Initialization	2-1
Section 3	Formatting the Fixed Hard Disc	3-1
Section 4	Installing the Minimal Operating System	4-1
Section 5	Booting the Minimal Operating System	5-1
Section 6	Installing UTILSETs 2 and 3	6-1
Section 7	Rebooting the System	7-1
Section 8	Installing UNIVIEW	8-1
Section 9	Installing Other Software	9-1
Appendix A	Backing Up and Restoring Files	A-1
Appendix B	Freeing Up Block Space	B-1
Appendix C	Error Messages and Actions	C-1
Appendix D	Do's and Don'ts for Handling Diskettes	D-1
Appendix E	Diskette Formatting	E-1
Appendix F	Duplicating UNIX-Derived Software	F-1

June 15, 1984

ii

<u>System Installation</u>

Introduction, 1-1 Notations and Conventions, 1-2 Physical Page Layout, 1-2 Messages and Prompts, 1-2 Reset, 1-2 The Installation Procedures, 1-2 System Password, 1-3 Where is It?, 1-3

Illustrations

1-1 Terminal Orientation (Front), 1-4
1-2 Terminal Orientation (Rear), 1-5
1-3 System 6300 Processor (Front), 1-6
1-4 System 6300 Processor (Rear), 1-7
1-5 Inserting Diskettes, 1-8

System Installation

INTRODUCTION

Using the procedures outlined in this guide you will perform the necessary functions to accomplish the following:

- initialization of the terminal and processor
- formatting of the fixed hard disc
- installation of the minimal operating system
- booting the minimal operating system on the processor and terminal(s)
- installation of UTILSETs 2 and 3
- rebooting the system
- installation of UNIVIEW using the upgrade utility
- configuring your system to run under UNIVIEW
- (optional) installation of other software using the upgrade utility

In addition, the guide contains several appendixes with information on the following subjects:

- backing up and restoring files from or to your system (Appendix A)
- freeing up block space on your system (Appendix B)
- instructional/error messages and codes (Appendix C)
- proper diskette care and handling (Appendix D)
- formatting new diskettes (Appendix E)
- software transfers (Appendix F)

June 15, 1984

1-1

NOTATIONS AND CONVENTIONS

Before you begin to use the procedures outlined in this guide, you need to know how the guide is physically laid out, what it contains, and how the guide is presented. The paragraphs that follow explain these things for you.

Physical Page Layout

The page immediately following the preface page is the master table of contents for this guide. It lists the title of each section. The page immediately following the master table of contents is the section table of contents for Section 1, "First-Time System Installation," that lists those topics that the section contains as well as any illustrations or tables contained in the section. Some sections do not have a section table of contents, because they do not contain subordinate topics, illustrations, or tables. Each such section begins immediately below its section title which is centered at the top of that section's first page.

Messages and Prompts

Throughout this guide's procedural steps the messages and prompts from the system are shaded. The information you must enter is <u>underlined</u>. When asked to type a response or command, type it exactly as shown in both upper and lower case characters. The UNIX-derived operating system recognizes both upper and lower case entries.

Reset

There is a RESET button on the processor as well as a RESET key on the terminal keyboard, which is function key number 10. To avoid confusion between the two, the keyboard RESET key is noted as "RESET (F10)" throughout this guide, although it is not marked RESET, it is marked F10. When asked to press RESET you are either instructed to "press RESET on the processor" or "press RESET (F10) on the keyboard" explicitly.

THE INSTALLATION PROCEDURES

This guide contains terminology that you may not be familiar with. However, the intention of the guide is to get your system installed and operating as easily and as quickly as possible. Detailed explanations of some commands and terminology have therefore been omitted to avoid confusion. Where appropriate, you are referred to other publications for more information.

It is very important that you read each section in order and perform each of the procedures in the order given. At the beginning of each section is a brief description of what is to be accomplished in that section. At the end of each section you are told where to proceed next.

June 15, 1984

1-2

SYSTEM PASSWORD

The System 6300 is shipped with a password present on the operating system diskettes. When you install the operating system the password is automatically "Series6K." Whenever you are asked to enter your password, type <u>Series6K</u> and press RETURN. The password must be typed exactly as shown in both upper and lower case. When you type your password it is not echoed (displayed) on the screen; this blank screen prevents someone near you from learning the password.

To prevent unauthorized access to your system, this password should be changed by your system administrator. (See the <u>System 6300</u> <u>Administrator's Guide</u> for further details.) The password should be changed as soon as your installation is completed.

WHERE IS IT?

Before you begin the procedures in this guide, it is important for you to familiarize yourself with the locations of various keys, buttons, lights, cables, and connections located on the terminal and the processor. Figures 1-1 and 1-2 orient you to the terminal, and Figures 1-3 and 1-4 orient you to the System 6300 processor. Figure 1-5 illustrates how to insert diskettes into the diskette drive properly. Look these illustrations over carefully and refer back to them as necessary while using this guide.

Proceed next to Section 2, "Processor and Terminal Initialization."



BASE ASSEMBLY

KEYBOARD

Figure 1-1. Terminal Orientation (Front)

CABLE

POWER CORD

Ð

(TO WALL OUTLET)

POWER SWITCH

June 15, 1984

S6000-40-1C

CONNECTOR

COILED

A3892A

THE REAL PROPERTY OF

Contraction of the second

REAR VIEW TM30



Figure 1-2. Terminal Orientation (Rear)

June 15, 1984

A 3893A



Figure 1-3. System 6300 Processor (Front)



A3891A

Figure 1-4. System 6300 Processor (Rear)



Figure 1-5. Inserting Diskettes

Processor and Terminal Initialization

This section assumes that you have read the <u>System</u> 6300 Hardware Installation and User's Guide, and that your system hardware is installed.

Before your processor and terminal can work together they must be initialized. The procedural steps below accomplish this task and prepare your system to respond to your instructions.

Take a few minutes to read over all of the procedures before you start, then reread each procedure carefully and execute it exactly as specified.

- 1 Set the I/O switch (located on the rear of the processor) to the "I" position.
- 2 At the terminal connected to the processor through the RS-232 cable, press the spacebar and turn ON the power switch (on the left side of the terminal). Do not release the spacebar until the lights on the keyboard go out.

If there are no lights lit on the keyboard, check and reseat (if necessary) all cable connections to the terminal and processor ports.

3 The terminal now displays the prompt B,C,E,F,M,R,S,T:

If you do not see this prompt on your terminal, reach under the left lower edge of your terminal screen and locate the roller switch that controls the screen brightness. Adjust it until the screen display is satisfactory. If this action fails, repeat step 2.

4 Type E. (You do not have to use the shift key.)

- 5 Open the disc drive door by pulling the latch in the center of the drive slot towards you. Insert the "Diagnostic .xx" diskette (labeled as #1 of 7) into the diskette drive and close the drive door.
- 6 Press RESET on the processor.
- 7 Within 20 seconds the following message appears on your terminal:

S6300 MC68010 DIAGNOSTIC DEBUGGER (version) S6300 DIAGNOSTICS -V (Release #) Parity interrupts disabled, memory tests will begin at 2B000, end at FFFFC. command>

When this message appears, your processor and terminal are ready for use. Proceed to Section 3, "Formatting the Fixed Hard Disc."

June 15, 1984

2-1/2

Section <u>3</u> Formatting the Fixed Hard Disc

Minimal Operating System, 3-1 Utilsets 2 and 3, 3-1 Fixed Disc Configuration, 3-2 Planning Ahead, 3-2

June 15, 1984

3**-**i/ii

Section 3 Formatting the Fixed Hard Disc

The fixed hard disc on your system must be configured prior to the installation of the operating system or any other software. To configure the fixed hard disc, you activate a utility program that is contained on the diagnostic diskette, which should still be in the disc drive. When the utility is executed it begins asking you for information about how you want the fixed hard disc configured. You are provided with the information necessary to respond to the questions (prompts) that the system asks.

Before you begin the actual configuration, you must decide what level of the operating system you are going to install and configure the fixed hard disc accordingly. Information about the three available levels of the UNIX-derived operating system is contained in the paragraphs that follow and in the Software Release Guide (SRG).

MINIMAL OPERATING SYSTEM

The minimal UNIX-derived operating system contains those commands and utilities that are most frequently used in day-to-day processing. It occupies 2.04 megabytes of space on your fixed disc, and is installed by using the standalone procedures described in Section 4, "Installing the Minimal Operating System." The minimal operating system must be installed first, before you attempt to install UTILSETS 2 and 3 or any other software on your system.

UTILSETS 2 AND 3

Utility sets 2 and 3 of the UNIX-derived operating system contain additional files and utilities not found in the minimal operating system. These utility sets require additional fixed disc space above that of the minimal operating system, which remember, must be installed first.

If you have a 20 megabyte (M byte) fixed disc, you may also install UTILSET 2 on your system. If you have a 40M byte fixed disc, you can install both UTILSET 2 and 3 on your system. However, you cannot install UTILSET 3 on a 20M byte system in place of UTILSET 2--the sets must be installed in order. These additional utility sets are installed by using the software upgrade utility, resident on your system after you install the minimal operating system.

FIXED DISC CONFIGURATION

The formatting of the fixed disc requires that configuration information be supplied in response to prompts based on the size of your system's hard disc, the level of the UNIX-derived operating system you want to install, and the contents of the reserved area in partition zero. (The size of your hard disc can be found on the invoice that accompanies your processor.) The <u>Software</u> <u>Release</u> <u>Guide</u> (SRG) shipped with your system gives you the information you need to answer these prompts correctly.

PLANNING AHEAD

While you may initially want to install only the minimal operating system, at some point in the future you may want to upgrade to UTILSETS 2 and 3, by using the upgrade utility. To do so, you must configure the fixed disc at this time to include UTILSETS 2 and 3 on it at some later time.

Read each step of the procedures carefully before attempting to execute it. Make sure that you execute the step exactly as instructed.

- 1 The "Diagnostic .xx" diskette labeled as #1 of 7 should still be in the disc drive. The command> prompt should be on your screen. (If you have removed the diagnostic diskette, insert it back into the disc drive, close the door, and press RESET on the processor.)
- 2 From the command> prompt, type i and press RETURN.
- 3 The following question is displayed:

Do you want to format the Winchester?

4 Type Y and press RETURN.

The fixed disc configuration prompts now begin. In response to each prompt, supply the information in the SRG that corresponds to the level of the UNIXderived operating system you wish to install. Insure that you are entering the information required for the particular size of your fixed disc.

<u>NOTE</u>: Do not be concerned if you do not know what the prompts mean. At present it is only necessary for you to enter the information as shown. For further descriptions of these prompts, see the <u>Series</u> 6000 <u>Operating</u> <u>System</u> <u>Reference</u> Manual, Volumes 1 and 2.

<u>NOTE</u>: If you make a typing mistake while answering the configuration prompts, press RESET on the processor, then when the command> prompt appears, type <u>i</u> and press RETURN. This action restarts the utility program that configures the fixed disc.

After you answer the prompts, the processor begins formatting the fixed disc. You can verify that the disc is running by looking into the vent at the bottom right corner at the front of the processor. A red light on the fixed disc inside the processor should be on, or blinking; if it is not, press RESET and type \underline{i} from the command> prompt, and begin the procedures again. If this action fails, contact your Customer Service Representative.

The formatting process takes two to twelve minutes, depending on the size of your fixed disc. The larger the disc, the more time that is required for formatting. If the format process finds bad blocks, they are displayed on the terminal and entered into the bad block table.

June 15, 1984

3-2

The message

Bad block table contains xx entries

should be displayed on your terminal ("xx" is typically a number between 0 and 30). The bad block check flags those areas on the fixed disc that may not record information properly. The processor makes a note of these bad areas in the table and then remembers not to write information to those areas.

If any other message appears, RESET the processor and return to step 2 of these procedures.

The process is complete when the following prompt is displayed on your terminal: (It takes several minutes for this message to appear.)

Enter the partition # to instally

When this prompt appears, your system is ready to install software.

Proceed next to Section 4, "Installing the Minimal Operating System."

Installing the Minimal Operating System

The procedures that follow install the minimal UNIX-derived operating system. You have been provided with three sets of diskettes, one for the minimal operating system (seven diskettes), and two sets of extended utilities. These last two sets have the product names UTILSET2 (eight diskettes) and UTILSET3 (nine diskettes). These two sets are installed after the minimal operating system (fixed disc size permitting), by using the software upgrade utility.

The software upgrade utility is on your system once the minimal operating system has been installed. You use it to install UTILSETs 2 and 3 and any other software you wish.

You can end the installation at any time by pressing the INS key. (If you have an older version of the TM30 keyboard this key is labeled FINISH.) The screen prompts tell you to press ESCAPE to cancel the installation, however, there is no key labeled ESCAPE on the keyboard so press either INS or FINISH.

If you make a mistake and insert a diskette out of sequence, the following message appears:

floppy not in sequence, number xx

You are also given the correct diskette number to insert.

<u>NOTE</u>: If you make a typing error make sure diskette #1 of 7 is in the drive, then press RESET on the processor and type <u>i</u> from the command> prompt. Answer <u>N</u> to the prompt, Do you want to format the Winchester? and begin the procedures again.

Read each step carefully before executing it.

1

While the diskette labled as #1 of 7 is still in the drive, you are prompted:

Enter partition number to install:

Respond by typing \emptyset and pressing RETURN.

2. You see the prompt:

Insert floppy #2, type RETURN when ready (or ESCAPE to cancel):

Insert diskette #2 of 7 into the drive and press RETURN.

The following message is displayed:

Volume Name: Floppy DISK TEST Winchester

3

The following prompt is displayed when diskette #2 is read:

(Subtest 18) Install partition from floppies. Volume Name: Winche Enter the partition number to install:

Type 1 and press RETURN.

4 When the prompt:

Insert floppy #3, type RETURN when ready (or ESCAPE to cancel)

is displayed, remove the previous diskette from the drive, insert diskette #3 into the drive, and press RETURN.

Do not be concerned that the disc drive access light stays on during diskette swaps, this is normal. The drive unit has a timer that keeps the drive spinning several minutes after diskette removal for faster disc access.

5 You are next prompted, to install diskette #4 up to diskette #7 in sequence during the installation of the "root" file system in partition number 1.

<u>NOTE</u>: After each diskette is installed, place it face down in a single pile to keep track of where you are in the sequence.

6 When the installation is complete you see the command> prompt. Remove the last diskette from the drive and leave the drive door open. This action allows the system to boot from the fixed disc.

Proceed next to Section 5, "Booting the Minimal Operating System."

<u>Section 5</u> Booting the <u>Minimal Operating System</u>

The minimal operating system is now installed. What must be done next is to activate it. To do this, the processor and terminal must be rebooted. By following the procedures below, you bring up the operating system for use.

- 1 Make sure that you have removed the last diskette from the drive.
- 2 Turn the power switch on the left side of the terminal OFF and then on again. This action boots the terminal as an RS-422 terminal.
- <u>3</u> Reboot the system by pressing the RESET button on the rear of the processor unit.
- 4 The level of the UNIX-derived operating system previously installed on your processor now comes up automatically. You see something like the information below on your screen (within about 45 seconds):

/dev/fp001	270 files	4566 blocks	xxxxx free
/dev/fp003	2 files	2 blocks	xxxxx free
WARNING!!- mc	ounting: <> as		
cron started			
update starte	d		
RSL200			
login:			

Your system is now ready to start doing serious work, such as installing your other software. In addition, all of the keys on your keyboard now function normally. This is because the operating system instead of the diagnostic diskette is now controlling the system.

<u>NOTE</u>: If your system does not come up as shown above, restart the procedures in this section. If your system still fails to operate, contact your Customer Service Representative.

To bring other terminals on line with the system, turn each terminal OFF and then ON again. This action automatically boots the terminals as RS-422 terminals "daisy-chained" from the system console terminal.

Proceed next to Section 6, "Installing UTILSETs 2 and 3."

Section 6 Installing UTILSETs 2 and 3

You are now going to use the software upgrade utiltiy to install UTILSETs 2 and 3 of the UNIX-derived operating system. The software upgrade utility prompts you for the software release diskettes by name and number.

Log on to your system as root and press RETURN. When asked for your password, type <u>Series6K</u> and press RETURN. (Note the shifted "S" and "K" in Series6K.)

Remember, your password is not echoed (displayed) on your screen. If you make a typing error the system will ask you for the password again. You must type the password and all commands exactly as shown in both upper and lower case.

NOTE: You can exit the upgrade by pressing Ctrl-D. To restart the upgrade utility, type upgrade from the # prompt.

- 2 Type upgrade and press RETURN. The following prompt is displayed: Do you wish to do a full system backup? (Y/N)
- <u>3</u> If your response is <u>Y</u> then UPGRADE is terminated. Answer <u>N</u> to the prompt and the upgrade will begin. The following question is displayed:

What media are you installing from? (F:Floppy; S:Syquest; T:Streaming tape)

4 Type F and press RETURN. The following prompt is displayed:

Mount disk #1. Hit return when finished mounting.

5 Insert the diskette labeled #1 of 8 for UTILSET 2 into the drive unit and press RETURN. The following message is displayed on your terminal:

UTILSET 2, (release number) is about to be updated. Is that what you wanted (Y/N)?

This notice allows you to verify the product and release number being installed. If your response is \underline{N} , then the upgrade is terminated, otherwise, the upgrade proceeds.

6 Type Y and press RETURN. The following message is displayed:

UPGRADE IN PROGRESS nnnnnn bytes read.

As the upgrade continues, it updates the display after every 10K bytes are read. The maximum number of bytes that can be read from a single diskette is 634K. Each diskette takes about three minutes to read. After each diskette is successfully read, the following prompt line is displayed:

Mount disc # for (product name). Hit return when finished.

7

Mount the next diskette in order and press RETURN. The following message line appears:

UPGRADE CONTINUING nnnnnn bytes read.

You are now prompted for each of the diskettes in the supplied diskette set for UTILSET 2. If any diskettes are mounted out of order, or if the diskette is unreadable for some reason, an error message is displayed and an audible beep is sounded. You must respond to the message by pressing RESET (F5) on the keyboard and take corrective action. (See Appendix C for a list of error messages and corrective actions.) After upgrade has copied the last diskette of UTILSET 2 into its temporary memory location, the message:

Final file copy in progress.

is displayed. This message remains on your terminal for a few minutes while the temporary copy is written to the fixed disc.

Once the upgrade of the product is finished, you see the prompt,

File copy is finished. Do you wish to install another product? (Y/N)

8

Type <u>Y</u> and press RETURN. (Type <u>N</u> and press RETURN if you do not want to install UTILSET 3.)

The upgrade utility begins again. You now install UTILSET 3 in the same way you installed UTILSET 2 above. After disc #1 is mounted, the following question appears on the screen:

UTILSET 3, (release number) is about to be updated Is that what you wanted? (Y/N)

June 15, 1984

6-2

After you have finished the installation of UTILSET 3, the prompt

File copy is finished. Do you wish to install another product? (Y/N)

appears again.

<u>9</u> Type <u>N</u> and press RETURN. The # prompt reappears. Remove the last diskette of UTILSET 3 from the disc drive and leave the drive door open.

Proceed next to Section 7, "Rebooting the System."

1

2

Section 7 Rebooting the System

Your system must be halted/shutdown and rebooted before you proceed with the installation of UNIVIEW.

From the # shell prompt, type <u>/etc/shutdown 0</u> and press RETURN. The following information is displayed on your screen:

(system date and time appear here)

SHUTDOWN PROGRAM

Broadcast Message from root (console) (system date and time here)... SYSTEM BEING BROUGHT DOWN NOW ! ! ! All processes being killed now.

Do you want to continue? (y or n):

Answer Y to the prompt and press RETURN. The screen displays the messages:

All currently running processes will now be killed.

*** SYSCON CHANGED TO /dev/tty000 *** Wait for 'INIT: SINGLE USER MODE' before stopping or resetting... INIT: New Run Level: S

INIT: SINGLE USER MODE
Node: S6300, VERSION: (Product), RELEASE: (#), DATE: (mm/dd/yy)
ok to stop or reset processor

<u>3</u>

Press RESET on the processor, the screen displays the following: (This information scrolls past very rapidly.)

/dev/fp001 xxxx files xxxxxx blocks xxxxx free /dev/fp003 xxxx files xxxxxx blocks xxxxx free

When the information above has scrolled out of view the following information is left at the top of the screen:

WARNING !	! - mounti	$ng: \langle \rangle$	as (/usr)
cron star		•	
update st			
updace st	alteu		
RSL200			
Sector and the sector se			1
login:			

Once the login: prompt appears, proceed to Section 8, "Installing UNIVIEW."

June 15, 1984

7-1/2

Now that you have installed your desired level of the operating system and rebooted the system, UNIVIEW is ready to be installed next. You do this, using the software upgrade utility in the same manner as you installed the operating system on your fixed hard disc.

Read each step of the procedure carefully before executing it.

1

Log on as <u>root</u> and press RETURN. Enter the password <u>Series6K</u> and press RETURN. The following information is displayed on your screen:

NODE: RSL200, VERSION: CTIX x.xx, RELEASE :SYSTEM5, DATE: mm/dd/yy Welcome to S6300 (Trademarks of Four-Phase Systems (ISG) of Motorola, Inc. TERM=(terminal type)

2 Type upgrade and press RETURN. The upgrade utility begins by asking,

Do you wish to do a full system backup? (Y/N)

3 Type <u>N</u> and press RETURN. The following question is then displayed:

What media are you installing from?

(F:Floppy; S:Syquest; T:Streaming tape)

4 Type <u>F</u> and press RETURN. The following message is displayed:

Mount disk #1, press RETURN when ready (or ESCAPE to cancel):

- 5 Insert the diskette of UNIVIEW labled #1 of 10 into the drive unit, close the door, and press RETURN.
- 6 The upgrade utility now prompts with:

UNIVIEW, Release x.x is about to be updated. Is that what you wanted (Y/N)?

7 Type \underline{Y} and press RETURN.

The upgrade utility now prompts you for the product release diskettes for UNIVIEW (ten diskettes total). The following message is displayed:

UPGRADE IN PROGRESS nnnnnnn bytes read

June 15, 1984

Sect

After each diskette is read the following message appears:

Mount disk #x for Uniview. Hit return when finished.

Continue with the installation as instructed by the screen prompts. When diskette #10 has been read and the temporary copy written to the fixed disc, your screen displays the following:

(system time and date here)
make_special is starting in the following directories...
The release directory is: /user/uniview/release
The BINDIR directory is: /user/uniview/release/lbin
The PRODIR directory is: /user/uniview/release/Pro

The system begins displaying configuration questions and waits for your response after each question.

/user/uniview/release/Pro/make_special: Do you want to replace user/uniview/.profile?

<u>9</u> Type \underline{Y} and press RETURN. The next message and question are displayed:

The Uniview version of user/uniview/.profile is installed. user/uniview/release/Pro/make_special: Do you want to replace /etc/inittab?

10 Type \underline{Y} and press RETURN. The next message and question are displayed:

The Uniview version of /etc/inittab is installed. user/uniview/release/Pro/make-special: Do you want to replace /etc/group?

<u>11</u> Type \underline{Y} and press RETURN. The next message and question are displayed:

The Uniview version of /etc/group is installed. user/uniview/release/Pro/make_special: Do you want to replace /etc/passwd?

<u>12</u> Type \underline{Y} and press RETURN. The next message and question are displayed:

The Uniview version of /etc/passwd is installed. spellprog (used by CAP) is installed in /usr/lib/spell. Special installation procedures for the Upgrade Package are done. Special installation procedures for the Print Sys are done. Special installation procedures for the Profile Editor are done. Special installation procedures for VIT are done.

Do you want to install default configuration files (Y/N)? (Answer Yes if this is the first installation on this machine.)

June 15, 1984

8-2

8

Type \underline{Y} and press RETURN. The following message and question are displayed:

profit.login is installed in the /user/uniview/unibin directory. Do you wish to install File Transfer files (Y/N)? (Answer Y if you are not currently using uucp.)

14

13

Type Y and press RETURN. The following message is displayed:

make_special is done.
#

After "make-special" has finished building its special files, the following question is displayed:

Do you wish to install another product? (Y/N)

15

If you want to install more software type \underline{Y} and press RETURN. Otherwise, type \underline{N} and press RETURN, and the upgrade utility will end. Remove the last diskette from the disc drive.

 $\underline{\text{NOTE}}$: If you remove the diskette before answering the question you may see the message: Floppy removed: may be inconsistant. Ignore this message if it does appear.

After the # reappears, press the CTRL key and the D key (CTRL D), this brings back the login prompt to the screen.

Proceed next to Section 9, "Installing Other Software."
Section 9 Installing Other Software

<u>NOTE</u>: Before you start to install or update any software product on your system, refer to the installation procedures in the Software Release Guide (SRG) for the product.

To install other software on your system, such as COBOL and PASCAL, follow the procedures below carefully.

- Log on as root and press RETURN. When asked the password, type Series6K and press RETURN.
- 2 Type <u>upgrade</u> and press RETURN. The upgrade utility begins by asking: Do you wish to do a full system backup? (Y/N):
- 3 Type N and press RETURN. The following question is displayed:

What media are you installing from?

(F:Floppy; S:Syquest; T:Streaming tape)

4 Type F and press RETURN. The following prompt appears:

Mount disk #1, press RETURN when ready (or ESCAPE to cancel):

5 Insert disc #1 for the product into the drive and press RETURN. The following prompt is displayed:

cyroduct> <release #> is about to be updated.
Is that what you wanted (Y/N)?

6

Type <u>Y</u> and press RETURN. The following message appears:

UPGRADE IN PROGRESS nnnnnnn bytes read

When all of diskette #1 is read the following prompt appears:

Mount disk #2 for <product>. Hit return when finished.

7 Insert diskette #2 into the drive and press RETURN. The upgrade utiliity will continue to prompt you for diskettes until the upgrade or installation is complete. When all of the diskettes for the product have been read the following message appears:

Final file copy in progress.

When the new software is transferred from memory to the hard disc the following message and question appear:

```
Final file copy is finished.
Do you wish to install another product? (Y/N)
```

Type \underline{N} and press RETURN. The # prompt is displayed. Remove the last diskette.

 $\underline{8}$ If you have more software to be installed, type \underline{Y} in response to the last question and go back to step 5 and begin the installation procedures again for that product.

This completes the System 6300 installation procedures. Information on additional processes and functions are located in the appendixes that follow this section.

<u>Section 10</u> Using Upgrade with UNIVIEW

The Software Upgrade Package prompts you for the software release diskettes by name and number. You can terminate the upgrade package by pressing EXIT on any menu screen.

NOTE: Menus are not used if UNIVIEW is the software being upgraded. The upgrade package determines if UNIVIEW is being upgraded, and if so, exits to the standalone version of upgrade.

1

From the Uniview Initial System menu, choose the "OTHER functions" option and press ACCEPT.

o Program COMPILATION/execution
o Unix-derived TEXT manipulation
o System BACKUP/restore

June 15, 1984

10-1

2 Select and accept "UPGRADE a product" from the OTHER Functions menu.



- If your answer is YES to the prompt Do you wish to do a backup?, the following message is displayed on the message line of the menu screen: Use backup/restore. Then restart upgrade. (See Appendix A for backup/restore procedures.)
- 4 If your response is NO, the upgrade continues and the Upgarde Media menu is displayed.

June 15, 1984

10-2



5 Select and accept the default option, FLOPPY.

- 6 When the prompt Mount Disk #1 appears, insert the first diskette into the drive unit and press RESET.
- 7 If there is not enough space on your system to copy the product into a temporary directory, the Upgrade Insufficient Space menu appears.

	UPGRADE
	There is insufficient space to create a copy of the product being upgraded. Would you like to directly overwrite the current version?
	o YES o NO
essage:	
Command:	

8 If you answer NO to this menu, the following prompt appears on the message line: Not enough space available. Need "nnnn" more blocks in directory '/'.

You must free-up this amount of block space before you continue with the upgrade. (See Appendix B for procedures on freeing-up block space.)

<u>9</u> If you answer YES, the upgrade continues and directly overwrites the old release of the product.

CAUTION

If you elect to overwrite the existing software and errors are encountered during the upgrade, the old version is destroyed, and you will have to recover the software from your back up discs.

June 15, 1984

10-4

10

If there is not enough space or inodes available on the system, the Upgrade Current Version menu appears.



11

If there is sufficient space on the system, the Upgrade Warning menu appears.

	UPC	RADE	
	is about to	(release number) be upgraded. you wanted?	
	o YES	o NO	
essage: ommand:			

- 12 The Upgrade Warning menu allows you to verify the product and release being installed. If your response is NO, the upgrade is terminated.
- 13 Select and accept the answer YES. The upgrade now proceeds.

If any errors occur during the copy from the discs, the old version of the software product remains intact within the system.

14 If the upgrade package finds enough space in the system to perform its temporary copy routine, or you respond YES to the Upgrade Warning menu, the upgrade process continues with the Upgrade-In-Progress menu.

June 15, 1984

10-6



Respond by inserting the next diskette into the drive unit and pressing RESET. The display is updated after every 1024 bytes are read. The maximum number of bytes that can be read from a single diskette is 634K.

This menu also sends various messages to you on the message line at the bottom of the display. Each message is terminated by an audible beep, and you must acknowledge the message by pressing RESET.

Messages concerning

- Removing and inserting successive product diskettes
- Error conditions generated by UPGRADE during execution

are displayed on this message line. (For a complete listing of error messages and corrective actions see Appendix C.)

Once the upgrade of the product is completed the Upgrade Next Query menu appears.



16

If you respond YES to this menu, the upgrade package begins the process again for the next product. Responding NO ends the upgrade session.

<u>Appendix A</u> Backing Up and Restoring Files

Standalone Method, A-1
Backing Up a Partition to Diskette, A-1
Copying Files to Diskette, A-2
Restoring a Partition From Diskettes, A-2
UNIVIEW Method, A-4
Initializing a Backup Diskette, A-5
Backing Up and Retoring Files Systems, A-8
Backing Up a File System, A-10
Restoring to a File System, A-13

<u>Appendix A</u> Backing Up and Restoring Files

STANDALONE METHOD

If you do not have UNIVIEW on your system, use the procedures below for backing up and restoring files to or from diskettes, and copying files individually to diskettes. If you do have UNIVIEW on your system, then proceed to the heading "UNIVIEW Method," which details these procedures using UNIVIEW.

Backing Up a Partition to Diskette

- 1 Boot the system (see Section 5 for procedures).
- 2 Insert the diagnostic diskette into the drive unit and press RESET on the processor.
- <u>3</u> Remove the diagnostic diskette, insert a blank formatted diskette into the drive, and close the door.
- 4 Type <u>:6,19</u> and press RETURN.
- 5 The following prompt is displayed:

Enter partition number to archive to floppies:

- <u>6</u> Enter <u>1</u> to archive the UNIX-derived partition or <u>3</u> for a user partition. Press RETURN.
- 7 The prompt Enter number of blocks to archive: appears.
- 8 Press RETURN. This action archives all blocks of the given partition.
- 9 Now the system starts prompting for formatted diskettes with

Insert floppy #m, type return when ready:

- 10 Insert a blank formatted diskette into the drive and press RETURN.
- 11 When the next Insert floppy... message appears, remove the diskette from the drive. Label it with the number that appeared in the previous Insert floppy... message, insert another blank formatted diskette into the drive, and close the door.
- 12 Press RETURN. Continue this process until the system no longer prompts for another diskette, but issues the command> prompt instead. Then remove the last diskette from the drive and label it.
- 13 Reboot the system. The partition is now backed up on diskettes.

Copying Files to Diskette

To copy individual files to a diskette, follow the procedures below. The UNIXderived operating system must be up and running.

- Log on to the system as root and press RETURN. When asked for the password, type Series6K and press RETURN.
- 2 Insert a blank formatted diskette into the drive and close the door. (See Appendix E, "Diskette Formatting," if you have not already formatted your backup diskettes).
- <u>3</u> Type <u>mkfs</u> <u>/dev/fp021</u> <u>1272</u> <u>1</u> <u>16</u> and press RETURN. This action installs a file system onto the diskette.
- <u>4</u> Type mount /dev/fp021 /flp and press RETURN. This action mounts the diskette onto the system.
- 5 For each file that is to be copied to the diskette type cp filename /flp/filename and press RETURN. Where "filename" is the name of the file you want to copy.
- 6 When you have finished copying all of your files, type <u>dismount</u> -f and press RETURN.
- 7 Remove the diskette from the drive.

Restoring a Partition From Diskettes

To restore a previously backed up partition to the fixed disc on your system, follow the procedures below: (Restoring a partition takes about one minute for each diskette).

- Insert the diagnostic diskette into the drive unit and press RESET on the processor.
- 2 Type :6,18 and press RETURN. Remove the diagnostic diskette.
- 3 This prompt is displayed:

Enter partition number to install:

- <u>4</u> Enter <u>1</u> to restore the UNIX-derived partition or <u>3</u> to restore a user partition. Press RETURN.
- 5 The system starts prompting you for the diskettes with:

Insert floppy #m, type return when ready:

June 15, 1984

A-2

- 6 Insert the diskette labled "m" into the drive, close the door, and press RETURN.
- 7 When the next Insert floppy... message appears, remove the old diskette from the drive and insert the next requested diskette. Press RETURN.
- 8 Continue this process until the system no longer prompts for another diskette, but returns the command> prompt.
- <u>9</u> Reboot the system. The partition has now been restored to the fixed disc from the diskettes.

UNIVIEW METHOD

To back up and restore files using UNIVIEW, select and accept "System BACKUP and Restore" from the Other Functions menu (a continuation of the Initial Systems menu shown below).

With UNIVIEW you have the choice of backing up all the files on a diskette or just the files you choose. The first option is called a "full backup" and the second, an "incremental backup." Likewise, you can restore all the files from the backup to the original diskette, or just the files you choose. These two options are called "full restore" and "partial restore," respectively.

CAUTION

Backing up and restoring files must be done ONLY when no one is using the system. Make certain that everyone is off the system before attempting a backup or restore. Otherwise, valuable files may be overwritten or destroyed on your systems fixed disc.

Initial System Menu (Uniview 1.01) o DOCUMENT processing o OTHER functions o PRINT functions o Receive NOTICES o FILE/directory management o UNIX-derived commands o Remote file TRANSFER o SIGN OFF o System STATUS Message: ACCEPT one item for uniview Command: uniview

June 15, 1984

A-4

INITIALIZING A BACKUP DISKETTE

Use the Initialize a Backup Disc menu to label the diskette by putting header information onto it. The system can then verify, when necessary, that you are backing up the correct diskette. This menu appears when it is selected from the Backup and Restore menu (see "Backing Up and Restoring File Systems," below) and when the system cannot recognize the backup header on the backup diskette. By using this menu, you can label individual backup diskettes.

NOTE: Initializing a backup diskette does not format it. You still must format diskettes using the procedure outlined in Appendix E, "Diskette Formatting."

Initialize a Backup Disc What LABEL do you want for the backup disk? What is the VOLUME number for this backup disk? _ Enter the drive NAME that contains the uninitialized disk: Current List Of Drive Names Drive Name winchester_drive_0 fixed 0 removable_2 diskette_drive_2 Message: Fill in fields for initialize Command:

Appendix A Backing Up and Restoring Files

S6000-40-1C

The items on this menu are

• What LABEL name do you want for the backup disc. Enter the name on the LABEL of the backup diskette. On the case that holds the diskette there should be a label naming that particular diskette. The name should refer to the contents of the diskette. It is a good idea to include the following information on the label: that it is a backup diskette, the name of the system you are backing up, the type of backup done (permanent full, temporary full, or incremental), and the volume number if that diskette is one of a series of backup diskettes. Thus you could use the label "Backup D TF 3" to refer to a backup done to system "D", where it is a temporary full backup, and the third diskette of that backup.

> If there is no label yet, make one and tape it to the disc's case, making certain that the name and volume number run no more than 14 characters. Enter that same name, but not the volume number (if any), next to this item. This way the system can later prompt you for the disc by name so you can be sure you are using the correct backup disc.

- What is the VOLUME number for this backup disc. Enter the VOLUME number for this backup disc. It can take many diskettes to backup a fixed disc. You should, therefore, number each diskette in the set you used to backup the disc. Whatever volume number you have labeled your diskette enter it here so that the system can verify that you have mounted the correct diskette. If you use sequential volumes of a backup, the system increments the volume number of the backup diskette for each new volume mounted. The default volume number for this item is 1. It is incremented each time you run through this menu in a backup and restore session. To reset the number back to 1, press EXIT and enter the number again. You can also write over this number to create a label for a bad diskette.
- Enter the drive NAME that contains the uninitialized disc. Select this item to choose which disc drive you want to set up for the backup diskette.

COMMAND

The command that calls the Initialize a Backup Disc menu is:

INITIALIZE Fill in the following: LABEL "label name" VOLUME <volume sequence number> NAME "drive name of uninitialized disc"

Example: The following command and parameter string, when typed on the command line, gets the same results as the LABEL "label name," VOLUME <volume sequence number>, and NAME "drive name of uninitialized disc" options selected from the menu.

Command: <u>LABEL "label name</u>" VOLUME <volume sequence number> NAME "drive name of uninitialized disc"

BACKING UP AND RESTORING FILE SYSTEMS

Use the Backup and Restore menu to set up various backup and restore functions for your system. With this menu, you can define which files you want to backup and restore, which diskettes the files are on, which disc drives the diskettes are in, and when you want to backup and restore files on your system. You should, however, make certain that any diskettes you use are formatted.

<u>NOTE</u>: You can choose only one of these options at a time on this menu. Selecting an option automatically excludes the others. Your choices are mutually exclusive so that you do not try to back up and restore files at the same time.



The items on this menu are

- <u>BACKUP a file system</u>. Select this item to specify a system of files that you want to backup, as well as choose the type of backup you want to do. You can then make copies of all the files your fixed disc, or just the files you choose.
- <u>RESTORE to a file system</u>. Select this item to restore one or more files you choose from the disc drive you specify.
- <u>INITIALIZE</u> a backup disc. Select this item to name the diskette onto which you will copy files. This way the system can later prompt you for the diskette by name so you can be sure you are backing up the correct diskette.

COMMAND

The command that calls the Backup and Restore menu is

BACKUP Choose one of the following: BACKUP RESTORE INITIALIZE

Example: To get the same results as selecting the RESTORE option on this menu, type the following command and parameter string:

Command: BACKUP RESTORE

Appendix A Backing Up and Restoring Files

BACKING UP A FILE SYSTEM

The Backup a File System menu allows you to backup all the files on a system, or one or more particular systems of files that you want to backup.

If you back up a file system and put into the disc drive an initial backup diskette whose label does not match what is expected, the following error message appears:

Backup device "name", volume "number", is not the one expected.

Press RESET. The Backup a File System menu reappears so that you can change the label name or put in another diskette.

If you put in subsequent mislabeled backup diskettes, the following message appears:

Backup device "name", volume "number", is not the one expected.

Hit ACCEPT to force the use of this device. Hit EXIT to mount a new device.

When this prompt appears you can press EXIT and put in another diskette. Or you can press ACCEPT, labeling the diskette with the label the drive expected. The backup then continues using this diskette.

Enter the I	name on the LABEL of the backup disk:			
Enter the destination drive NAME for the backup:				
Enter the path name to BACKUP (blanks for a full backup)				
Current Lis	st Of Drive Names			
Name fixed_0 removable_2	Drive winchester_drive_0 diskette_drive_2			

The items on this menu are

- Enter the name on the LABEL of the backup disk.
- <u>Select the destination drive NAME</u> for the backup. At the bottom of this menu there is a list of the disc drives into which you can put a backup diskette. Select from this list the drive you want to hold the backup diskette.
- Enter the path name to BACKUP (blanks for a full backup). Enter the pathname of one or more directories whose files you want to back up. All the files and directories under the directory you name are then backed up. If you want to make a backup copy of all the files on the fixed disc, leave this item blank.

Appendix A Backing Up and Restoring Files

COMMAND

The command that calls the Backup a File System menu is

BACKUP Fill in the following: LABEL "label name" NAME "destination drive name" BACKUP "path name to be backed up"

Example: To get the same results as selecting the LABEL, NAME, and BACKUP options on this menu, type the following command and parameter string:

Command: <u>BACKUP LABEL</u> "label name" <u>NAME</u> "destination drive name" <u>BACKUP</u> "path name to be backed up"

RESTORING TO A FILE SYSTEM

Use the Restore to a File System menu to restore one or more files from the drive you specify.

If you restore a file system and put into the disc drive an initial backup diskette whose label does not match what is expected, the following error message appears:

Backup device "name", volume "number", is not the one expected.

Press RESET. The Backup a File System menu reappears so you can change the label name or put in another diskette.

If you put in subsequent mislabeled backup diskettes, the following message appears:

Backup device "name", volume "number", is not the one expected.

Hit ACCEPT to force the use of this device. Hit EXIT to mount a new device.

When this prompt appears you can press EXIT and put in another diskette. Or you can press ACCEPT, labeling the diskette with the label the drive expected. The restoration then continues using this diskette.

S6000-40-1C

Enter the nam	ne on the LABEL of the backup disk:
Enter the dri	ve NAME you are restoring from:
Inter file, c estoration)_	or directory name to be RESTOREd (blanks for full
Current List	Of Drive Names
fixed O	Drive winchester_drive_0 diskette_drive_2

The items on this menu are

- Enter the name on the LABEL of the backup disk.
- Enter the drive NAME you are restoring from. At the bottom of this menu is a list of the disc drives known to the system. Select one of these drives from which to restore files. The name you enter here can be no more than 14 characters long.
- Enter file, or directory name to to be RESTOREd (blanks for full restoration). Use this item to choose whether you want to restore a full file system or just selected files. To restore all the files in a directory, enter the full pathname followed by /*. To restore a file or directory by itself, enter the full pathname without these added characters. To restore all the files possible on the fixed disc, leave this item blank.

COMMAND

The command that calls the Restore a File System menu is

RESTORE

Fill in the following: LABEL "label name" NAME "input drive name" RESTORE "file or directory name to be restored"

Example: To get the same results as selecting the LABEL, NAME, and RESTORE options on this menu, type the following command and parameter string:

Command: <u>RESTORE LABEL "label name" NAME "input drive name" RESTORE</u> "file or directory name to be restored"

<u>Appendix B</u> Freeing Up Block Space

To free-up block space in any directory you will have to use the "rm" command of the UNIX-derived operating system. This command will delete individual files from a directory. Removal of a file requires write-permission in its directory.

<u>NOTE</u>: Before removing any files or their associated directory, ensure that you have a backup copy (see Appendix A for backup/restore procedures). Once files have been deleted through the "rm" command, they are unrestorable, unless they have been backed up to diskettes.

Follow the procedures below to remove a file:

- <u>1</u> From the \$ prompt of the UNIX-derived operating system, type cd / and press RETURN.
- You are now in the / (that is, root directory). To list the contents of this directory, type <u>ls -la | more</u> and press RETURN. This action displays a screenfull of information and then prompts

more?

Press the spacebar to display another screenfull of information or type q and press RETURN to exit.

This is the long-listing option and will show you how much block space each file occupies in the directory. Decide which files you want to remove, in order to free-up the amount of space specified by "nnnn," on the Insuffcient Space Menu of UNIVIEW or the standalone upgrade utility prompt.

3 Type rm filename and press RETURN for each file you want to remove, where "filename" is the name of the particular file you want to remove from the system.

When you have removed enough files to fulfill the block space required by "nnnn," restart the upgrade package by either typing <u>upgrade</u> and pressing RETURN from the \$ prompt of the UNIX-derived Operating System, or selecting UPGRADE from the Other Functions menu of UNIVIEW.

Appendix C Error Messages and Actions

Message: Use backup/restore. Then restart upgrade.

Action: If UNIVIEW is not on your system, do a manual backup of files and then restart upgrade. If you do have UNIVIEW on your system, use the backup/restore facility of UNIVIEW and then restart upgrade.

Message: Mount disk #1.

Action: Insert diskette #1 into the drive, close the door, and press RETURN.

Message: Mount diskette #n.

Action: Insert the diskette specified by "n" into the drive and close the door. Press RETURN.

Message: Disk #m was mounted. You need to mount disk #n.

- Action: You have inserted the wrong diskette into the drive, remove it and replace it with the diskette specified by "n."
- Message: Disk #n was mounted for (product1). You need to mount disk #n for (product2).
- Action: The diskette you have mounted is not for the product you are upgrading, remove it and insert the diskette #n for (product2).
- Message: Not enough space available. Need n more blocks in directory '/'.
- Action: There is not enough space on the system to create a temporary copy of the product being upgraded. Free-up the amount of block space specified by "n" in the root directory.
- Message: Error during open. Be sure disk is in drive.
- Action: Insure that the diskette is in the drive properly (foil notch on the bottom), and that the drive door is closed.

Message: Cannot read from disk. Make sure disk is in drive.

Action: Insure that the diskette is in the drive properly (foil notch on the bottom), and that the drive door is closed.

Message: Still cannot read from disk.

- Action: Attempt to restart upgrade. If restart fails to correct the problem contact Field Engineering.
- Message: Still can't open device.
- Action: Attempt to restart upgrade. If restart fails to correct the problem contact Field Engineering.

Message: Error encountered during menu initialization.

Action: Contact Field Engineering.

Message: File copy is finished.

Action: Remove the diskette from the drive.

<u>Appendix D</u> Do's and Don'ts for Handling Diskettes

The permanent protective jacket (which is black) contains a flexible diskette that is coated with a magnetic substance. When in use, the diskette spins inside the jacket. The read/write head inside the diskette drive comes into contact with the recording surface through a long hole in the protective jacket, called the head slot. Information is written to or read from the magnetic surface of the diskette, similar to the way an ordinary tape recorder operates.

The information on a diskette can be read by the processor as often as needed, or the processor can write new information on the diskette in an unused space.

The processor may also replace old information with new information by writing over it. In this case, the old information is erased and can no longer be read, just as in the case of an audio cassette.

Figure D-1 illustrates the various parts of a typical 5-1/4 inch diskette.



Figure D-1. Typical 5-1/4 Inch Diskette Parts

Your system uses 5-1/4 inch diskettes for storing information (you may also have heard the terms "floppy diskette," "mini-floppy," or "disk"; we use "diskette"). Be careful with your diskettes. We'd like to emphasize the following:

• To remove a diskette from a drive, wait until the screen prompt tells you that it is alright to remove the diskette. Then open the drive door and gently pull the diskette straight out of the drive. Do not pull it to one side; you may permanently bend the diskette.

> Never remove a diskette while you can hear the drive accessing it (clicking or buzzing noises indicate that it is being accessed). Although the drive head disengages as soon as you open the drive door, you may interrupt the drive while it is writing to the diskette and this can destroy the data on the diskette.

> Sometimes the drive's in-use light remains on even though the diskette is not being accessed. This usually happens when you try to boot the system with a diskette which isn't a system diskette. The drive attempts to read the diskette and then gives up, but the drive's inuse light remains on. You can remove the diskette in this situation, even though the light is on.

- Do not touch the exposed recording surfaces of the diskette. (See Figure D-2.)
- Protect diskettes from dust by putting them back in their envelopes as soon as you remove them from the diskette drive.
- Store often-used diskettes in their envelopes. Don't lay heavy objects on top of them. If you stand them on edge, make sure they aren't bending or sagging.
- Store seldom-used diskettes in storage boxes, away from heat and magnetic field sources such as telephones, dictation equipment, CRT displays, and electronic calculators.
- Because each piece of information occupies such a tiny spot on the diskette, small scratches, dust, food, or tobacco particles may make the information unusable.

June 15, 1984

D-2

S6000-40-1C



A3902A

Figure D-2. Diskette Do's and Don'ts

June 15, 1984

D-3/4
.

<u>Appendix</u> <u>E</u> <u>Diskette</u> Formatting

Formatting Diskettes for Backing Up and Restoring File Systems, E-1 Preparing the System for Diskette Formatting, E-1 Formatting the Diskette, E-2

June 15, 1984

<u>Appendix E</u> <u>Diskette Formatting</u>

FORMATTING DISKETTES FOR BACKING UP AND RESTORING FILE SYSTEMS

To back up and restore files, you must use formatted diskettes. A formatted diskette has cylinder, track, and sector information written on it. This information tells the processor how much room is available on the diskette and how that space is divided up.

<u>NOTE</u>: The person who administrates your system can make a number of formatted diskettes for others to use. This way, if anyone wants to back up their files or use new diskettes, they need not know the "super-user" password.

PREPARING THE SYSTEM FOR DISKETTE FORMATTING

To format a new diskette so that you can use it for backing up and restoring files follow these steps:

- <u>1</u> Either a) Log on as <u>root</u> and press RETURN, or b) Sign on as you normally would, type <u>su</u> and press RETURN.
- When the system asks for your password, enter <u>Series6K</u> and press RETURN.
- 3 Type cd / and press RETURN.
- 4 Bring the system down by typing halt and pressing RETURN.
- 5 Load the diagnostic diskette into the drive unit. This diskette contains a routine for formatting new diskettes.
- 6 When the prompt appears telling you that you can reset the processor, press RESET on the processor.
- 7 After the command> prompt appears, type 3 and press RETURN.

The format diskette option now begins and displays the following message:

.8.2

DISK TEST Floppy (Subtest 2) Format Disk.

8

Remove the diagnostic diskette from the drive and insert a new blank diskette into the drive.

June 15, 1984

Appendix E Diskette Formatting

FORMATTING THE DISKETTE

You will now begin formatting the blank diskette. Once again, it is not necessary for you to know what the prompts mean at this time. Just respond to the questions the system asks by entering the default values (often just RETURN) supplied below.

Do you want to format the floppy disk (erasing contents)? 1 Type y and press RETURN. Give # of Cylinders (RETURN = default of 80) 2 Press RETURN. Give # of Tracks per Cylinder (RETURN = default of 2) 3 Press RETURN. 4 Give # of Sectors per Track (RETURN = default of 8) Press RETURN. Cylinders = 80, Tracks = 2, Sectors = 8 Give pack Name (RETURN = default of Floppy) 5 Press RETURN. 6 Give Density (RETURN = default of 2) Press RETURN. Give Step Rate (RETURN = default of 0) 7 Press RETURN. 8 Give Size of Partition 0 (RETURN = default of 640) Type 4 and press RETURN. 9 Give Size of Partition 1 (RETURN = default of 636) Press RETURN. Do you want a Loader (Answer [Y/y] or [N/n]) 10

Type <u>n</u> and press RETURN.

June 15, 1984

E-2

11 Do you want a Dump Area (Answer [Y/y] or [N/n])

Type n and press RETURN.

12 Do you want a Down Load File (Answer [Y/y] or [N/n])

Type n and press RETURN.

13 Do you want a Bootable Program (Answer [Y/y] or [N/n])

Type <u>n</u> and press RETURN.

14 Give Interlace Factor (Default = 1)

Press RETURN.

The system now formats your diskette. This process takes about two minutes for each diskette you format. When the diskette is formatted the following status message is displayed:

The Bad Block Table contains 0 entries.

If any number besides 0 appears, the diskette is bad and should not be used. Otherwise, remove the formatted diskette and insert the next one to be formatted, if any.

When you are finished formatting diskettes, remove the last one and store them in a safe plae until you are ready to use them.

Reboot your system by pressing RESET on the processor.

AppendixFDuplicatingUNIX-DerivedSoftware

The Software Transfer, F-1 Comparing the Transferred Copy, F-2

June 15, 1984

F-i/ii

<u>Appendix F</u> <u>Duplicating UNIX-Derived Software</u>

If you have only one System 6300 processor, disregard this appendix.

This section explains how to save yourself the trouble of swapping several diskettes to install the UNIX-derived operating system on your additional processors.

To copy the operating software from one processor's hard disc to another, both processors must be connected together with an RS-422 cable (see <u>System 6300</u> <u>Hardware Installation Manual</u>, for detailed procedures). The processor with the UNIX-derived operating system becomes the "sending" system and the blank processor the "receiving" system.

THE SOFTWARE TRANSFER

- 1 Insert a diagnostic diskette labeled #1 into the diskette drive of both systems. Close the doors on the drive units and press RESET on the processors. This action boots the systems from the diagnostic diskettes.
- 2 Both systems respond with a command> prompt.
- 3 On the "sending" system type :6,17 and press RETURN.
- 4 When the following prompts appear

Give start of logical block: Give # of blocks to transfer:

respond by typing 2 for the start of the logical block and press RETURN. Press RETURN a second time in response to the number of blocks to transfer (this action sends all blocks).

- 5 On the "receiving" system type :6,16 and press RETURN.
- $\underline{6}$ A question is displayed regarding writing to the Winchester. Type \underline{Y} and press RETURN. The following prompts are displayed:

Give start of logical block: Give # of blocks to transfer:

respond by typing 2 for the start of the logical block and press RETURN. Press RETURN a second time in response to the number of blocks to transfer (this action writes all blocks being transfered to the "recieving" system's hard disc). The transfer now begins and takes three to four minutes to complete, after which the command> prompt is displayed.

June 15, 1984

COMPARING THE TRANSFERRED COPY

To compare the copy from the "sending" system with that of the "receiving" system, follow the procedures below:

- 1 On the "sending" system type <u>:6,17</u> and press RETURN.
- 2 When the following prompts are displayed:

Give start of logical block: Give # of blocks to transfer:

respond by typing $\underline{2}$ for the start of the logical block and press RETURN. Press RETURN a second time in response to the number of blocks to transfer.

3 On the receiving system type :6,22 and press RETURN.

4 When these prompts appear:

Give start of logical block: Give # of blocks to transfer:

respond by typing 2 for the start of the logical block and press RETURN. Press RETURN a second time in response to the number of blocks to transfer (this action compares all blocks of the transfer).

- 5 When the duplication (transfer) of the operating system is complete the command> prompt reappears on both terminals. Remove the diagnostic diskette from the "receiving" system and leave the disc drive door open, this action allows the "receiving" system to boot the operating system just transfered to it.
- 6 Bring up the operating system on the "receiving" terminal by pressing RESET on the processor.
- 7 Respond with a Y to the check file question, and press RETURN. When the file check is complete the processor resets itself.
- 8 When the log on message appears your "receiving" system is ready for use. Disconnect the RS-422 cable from both processors.
- <u>9</u> Log on to the "receiving" system as <u>root</u> and press RETURN. When asked for the password, type <u>Series6K</u> and press RETURN. Then type <u>date mmddhhmiyy</u> (where mm=month, dd=day, hh=hour, mi=minutes and yy=year) and press RETURN. This sets the system date.

June 15, 1984

F-2

USER'S COMMENTS

System 6300 Software Installation Guide S6000-40-1C



Help us help you! Please take the time to complete this form and send it to us. If you do, you may see some of your own contributions in the next manual you obtain from us.

- Does this manual provide the information you need? \Box Yes \Box No . - What is missing?
- Is the manual accurate? \Box Yes \Box No . - What is incorrect? (Be specific.)
- Is the manual written clearly? \Box Yes \Box No . - What is unclear?
- What other comments can you make about this manual? .
- What do you like about this manual? .
- On a scale of 1 to 10, how do you rate this manual?



Was this manual difficult to obtain? \Box Yes \Box No

1 2 3 4 5 6

Please include your name and address if you would like a reply.

Name	
Company	
Address	

No postage required if mailed within the USA.

•	What is your occupation?				
	 Programmer Systems Analyst Engineer 	 Operator Instructor Student 	Manager Customer Eng Other	gineer	
•	How do you use this manual?				1 1 1
	 Reference Manual In a Class Self Study 	 Introduction to the Subject Introduction to the System Other 	-		
	fold		3	fold	
		BUSINESS REPLY MAIL		FIRST CLASS Permit No. 194 Cupertino, California	Cut Along Here)))
No Postage Necessary if Mailed in the United States					ut Alon
		Postage will be Paid by			0
		MOTOROLA INC. 10700 N. De Anza Blvd. Cupertino, CA 95014		برهی وارد از بینیمی مقامی ا	(
	Attention: Technical Services, MS	42-1C8		والما المرابع المرابعين والبري	
f	old			fold	
					(
		Staple Here			

R1947A

.

