# DISK DRIVE INSTALLATION GUIDE

THE CORVUS CONCEPT



# DISK DRIVE INSTALLATION GUIDE THE CORVUS CONCEPT

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# Table of Contents

Scope	•••••	1
Chapter	1: Local Disk Setup	3
	Introduction	3
	Hardware and Software Required	3
	Hardware Setup	5
Chapter	2: Omninet Disk Setup	13
	Introduction	13
	Hardware and Software Required	13
	Installing the Terminators in the Network Tap Boxes	15
	Connecting a Tap Box to the Trunk Cable $\dots$	16
	Disk Drive Setup	18
Chapter	3: Disk Initialization	33
	Introduction	33
	Conventions	33
	Booting from Diskette	36
	Firmware Update	40
	Disk Initialization	47
	Booting from the Hard Disk	61
	Copying System Files to the Hard Disk $\dots$	66
	System Status	72

SCOPE

Before a Corvus hard disk can be used with your Concept Workstation the hardware connections between the disk system and the Workspace must be made. Also, the disk's operating instructions must be copied from diskettes. This data transfer is called disk initialization. Before using this Disk Installation Guide, you should already have set up your Concept Workstation and diskette drive using "The Corvus Concept Personal Workstation Installation Guide," and "The Corvus Concept Diskette Drive Installation Guide."

This manual contains two different installation procedures for the Corvus hard disk. If you are installing a Corvus Concept as a stand-alone workstation with a local disk you should follow the instructions in Chapter 1 and then proceed to Chapter 3 for disk initialization. If you are setting up a disk drive on an Omninet local area network you should skip Chapter 1, follow the instructions in Chapter 2, and then proceed to Chapter 3 for disk initialization.

This guide should be read, and its instructions carried out, in sequential order. Unless the instructions tell you, do not skip any steps.

LOCAL | DISK SETUP |

#### INTRODUCTION

This chapter contains the instructions for installing a Corvus Winchester disk with a Corvus Concept Workstation. Be sure that you have all the equipment needed for the setup by comparing your equipment with the list in the next section. Then follow the instructions in sequential order. Do not skip any steps, and be sure to read all instructions carefully before carrying out any tasks.

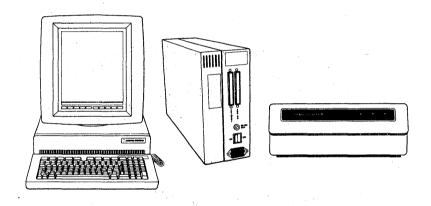
#### HARDWARE AND SOFTWARE REQUIRED

The following hardware and software is needed to initialize your Corvus Winchester disk system for use with a single Corvus Concept Workstation:

#### HARDWARE

- o Corvus Concept Workstation
- o Corvus 8-inch diskette drive and controller
- o Corvus hard disk system, disk interface card and cable

The equipment described here is pictured below.



#### SOFTWARE

- o Corvus FBOOT and FSYSGEN distribution diskettes
- o Corvus FCCSYS1, FCCSYS2 FCCSYS3, and FCCSYS4 distribution diskettes
- o Corvus FEDWORD and FPSYS distribution diskettes

#### HARDWARE SETUP

 Before making any hardware connections, be sure that all equipment is powered off.



POWER OFF

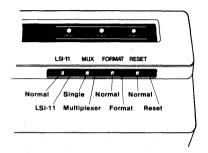
Place the Corvus hard disk unit on a flat surface. The Corvus disk system is a precision instrument which must be handled with care. Do not operate the Corvus disk drive when it is upside down or if the long axis is at an incline.

Make sure the disk drive has adequate ventilation. To ensure air flow, do not block the slots at the front or rear of the drive cabinet. Avoid placing the unit in a closed area (e.g., a box or a desk drawer).

Do not place a video cassette recorder, a display monitor, or a television on top of the drive cabinet. Such equipment generates electromagnetic fields that may erase data on the disk.

3. There are three red indicator lights on the front of the Corvus hard disk drive. Approximately two inches below these lights, the front panel protrudes slightly. Directly beneath the lights, and up under the lip of this protrusion, there are four drive controller switches.

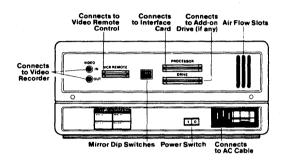
Flip all of the drive controller switches to the left.



#### SWITCH SETTINGS ON THE CORVUS DRIVE

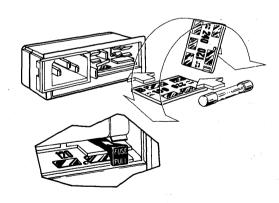
4. Verify that the voltage setting for the Corvus drive matches the local voltage supply (100, 120, 220 or 240 volt). The drive can work with either 50 or 60 Hertz power in any of the voltage settings. The voltage setting, fuse, and local voltage supply must match. A mismatch can damage the disk.

To verify the voltage setting, look at the bottom right corner of the drive's back panel. There you will find the ac power cord connector and fuse receptacle. The voltage setting is displayed directly underneath the fuse holder.



BACK PANEL OF CORVUS DRIVE

5. If the voltage setting displayed matches the voltage supply in your area, continue to Step 6. If you need to change the voltage setting, follow the procedure below:



CHANGING VOLTAGE SETTING

#### o REMOVE FUSE

Slide open the clear plastic door, pull the fuse-pull lever to the left, and remove the fuse.

#### O SET VOLTAGE CIRCUIT BOARD

Using long-nose pliers, carefully pull the voltage circuit board out of the fuse housing. To select the proper operating voltage, position the circuit board so that the desired voltage is displayed on the top-left side of the board. Firmly push the board back into the fuse housing.

#### O SELECT PROPER FUSE

Do not reinsert the fuse you removed if you have chosen a different voltage setting.

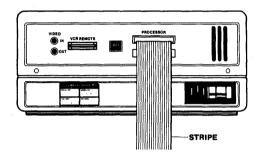
A 100 or 120 volt system uses a 2.0 amp fastblow fuse.

A 220 or 240 volt system uses a 1.0 amp fastblow fuse.

#### o INSERT FUSE

Firmly push the new fuse into the fuse holder. Slide the clear plastic door to the right, exposing the ac power cord connector.

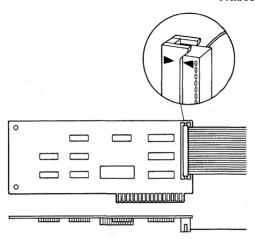
6. There are two flat cable sockets on the back panel of the hard disk drive cabinet. The top socket is labeled PROCESSOR, and the bottom socket is labeled DRIVE. Plug either end of the disk drive's flat interface cable into the socket labeled PROCESSOR. The cable should run down and away from the drive. When facing the drive's back panel, the colored stripe on the edge of the interface cable should be on the right side.



ATTACHMENT OF FLAT INTERFACE CABLE TO THE PROCESSOR CONNECTOR ON THE DRIVE'S BACK PANEL

NOTE: the colored stripe is on the right side of the cable.

7. Plug the other end of the flat interface cable into the Corvus Concept hard disk interface card. The cable should lead away from the interface card; do not connect the cable so that it crosses over the card. The grey arrow on the cable connector should line up with the grey arrow on the interface card's flat cable socket.



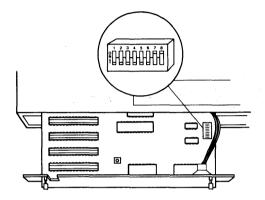
ATTACHMENT OF FLAT INTERFACE CABLE TO THE CORVUS CONCEPT HARD DISK INTERFACE CARD

- 8. If the drawer on the back of the Concept is closed, loosen the two latch screws on the back of the Concept's base unit. Turn the left screw clockwise and the right screw counterclockwise. Pull out the drawer.
- Along the left side of the drawer there are four input/output (I/O) slots, numbered from 1, at the rear of the Workstation, to 4 at the front.

The diskette controller card should already be in slot 3.

Firmly press the hard disk interface card into slot 2.

10. Eight numbered micro-switches are at the right side of the drawer (the opposite side from the four I/O slots). Switches 7 and 8 are the boot switches, and should both be ON. The ON position is to the right as you face the back of the workstation. Use the end of a straightened paperclip, or an object of similar size, to set these switches.

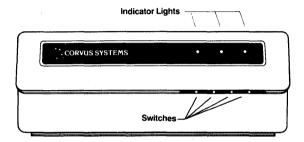


#### EIGHT MICRO SWITCHES INSIDE CONCEPT DRAWER

- Push the drawer in. Refasten the two screws by turning the left screw counterclockwise and the right screw clockwise.
- Connect the ac power cord to the hard disk unit, then to a power outlet.
- 13. Power on the Corvus hard disk drive.

The power switch is located at the bottom center of the drive's back panel. The power switch has two positions: depressing the right side turns the drive ON, depressing the left side turns the drive OFF.

14. Looking at the front of the drive cabinet, in the upper right hand corner, there are three red indicator lights labeled FAULT, BUSY, and READY. When you power on the drive, all three indicator lights become lit. When the drive is ready (after approximately 20 seconds), only the READY light should stay lit, and you may proceed to Chapter 3.



#### INDICATOR LIGHTS ON CORVUS DISK DRIVE

- 15. If the drive does not become ready after one minute flip the reset switch to the right. The reset switch is the rightmost switch on the front of the drive cabinet. Continue with Chapter 3 when only the READY light stays lit.
- 16. If flipping the reset switch does not put your drive in the READY mode, recheck the hardware installation (Steps 1-14).
- 17. If your drive still does not go into the READY mode, see the "Troubleshooting" section of "The Corvus Concept System Manager's Guide."

OMNINET | : DISK SETUP |

#### INTRODUCTION

Following the instructions in this chapter you will create a simple start-up network. The network will include twenty feet of trunk cable. On one end will be a network tap, with a terminator, connected to a Corvus Concept Workstation. On the other end will be a network tap, with a terminator, connected to a disk server. The disk server is connected to the hard disk using a flat cable.

#### Hardware and Software Required

The following hardware and software is needed to initialize a Corvus Winchester disk system for use with a Corvus Concept Workstation using Omninet:

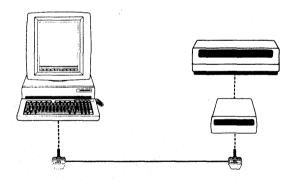
#### HARDWARE

- o Corvus Concept Worksatation
- o Corvus 8-inch diskette drive and controller card
- Corvus hard disk system, disk interface card and cable
- o Corvus Omninet disk server
- Corvus Omninet network, including 20 feet trunk cable, two tap cables, two tap boxes, and two terminating resistors

These parts are pictured below as they will appear when installed.

#### SOFTWARE

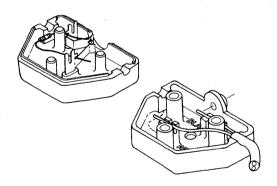
- o Corvus FBOOT and FSYSGEN distribution diskettes
- o Corvus FCCSYS1, FCCSYS2, FCCSYS3, and FCCSYS4 distribution diskettes
- o Corvus FEDWORD and FPSYS distribution diskettes



## Installing a Terminator in a Network Tap Box

A resistor should be inserted into each tap box to terminate the network on each end. To install the terminator place the wire leads of the 100 OHM resistor into the grooves provided on the metal connectors molded into the front cover of the tap box.

The following diagram shows where to install the network terminator resistor in the network Tap Box.

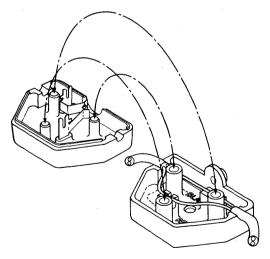


INSTALLING TERMINATING RESISTORS

# Connecting a Tap Box to the Trunk Cable

A tap box, with a terminator installed should be connected to each end of the 20 foot trunk cable. The following instructions describe how to connect the tap boxes to the trunk cable.

- Using a knife or razor blade, remove about one inch of insulation from the end of the network trunk wire, exposing the red and black wires.
- On the inside of the bottom of the Tap Box are two plastic wire guides. Push the black wire into the plastic wire guide labeled BLACK.
- Push the red wire into the plastic wire guide labeled RED.
- 4. Insuring that the trunk wire exits the Tap Box in the circular grooves provided, line up the top cover over the bottom and firmly squeeze the Tap Box halves together.



CONNECTING TAP BOXES TO THE TRUNK CABLE

Constellation II

Page 17

The network that you have just assembled can later be enlarged. After successfully initializing the hard disk drive using this network you can extend the Network and add additional workstations by consulting "Installation Guide Corvus Omninet."

#### Disk Drive Setup

 Before making any hardware connections, be sure that all equipment is powered off.



POWER OFF

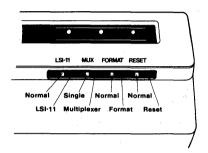
Place the Corvus hard disk unit on a flat surface. The Corvus disk system is a precision instrument which must be handled with care. Do not operate the Corvus disk drive when it is upside down or if the long axis is at an incline.

Make sure the disk drive has adequate ventilation. To ensure air flow, do not block the slots at the front or rear of the drive cabinet. Avoid placing the unit in a closed area (e.g., a box or a desk drawer).

Do not place a video cassette recorder, a display monitor, or a television on top of the drive cabinet. Such equipment generates electromagnetic fields that may erase data on the disk.

3. There are three red indicator lights on the front of the Corvus hard disk drive. Approximately two inches below these lights, the front panel protrudes slightly. Directly beneath the lights, and up under the lip of this protrusion, there are four drive controller switches.

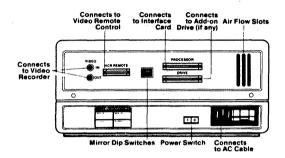
Flip all of the drive controller switches to the left.



SWITCH SETTINGS ON THE CORVUS DRIVE

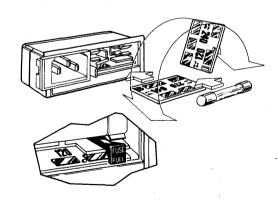
4. Verify that the voltage setting for the Corvus drive matches the local voltage supply (100, 120, 220 or 240 volt). The drive can work with either 50 or 60 Hertz power in any of the voltage settings. The voltage setting, fuse, and local voltage supply must match. A mismatch can damage the disk.

To verify the voltage setting, look at the bottom right corner of the drive's back panel. There you will find the ac power cord connector and fuse receptacle. The voltage setting is displayed directly underneath the fuse holder.



BACK PANEL OF CORVUS DRIVE

5. If the voltage setting displayed matches the voltage supply in your area, continue to step 6. If you need to change the voltage setting, follow the procedure below:



CHANGING VOLTAGE SETTING

#### o REMOVE FUSE

Slide open the clear plastic door, pull the fuse-pull lever to the left, and remove the fuse.

#### O SET VOLTAGE CIRCUIT BOARD

Using long-nose pliers, carefully pull the voltage circuit board out of the fuse housing. To select the proper operating voltage, position the circuit board so that the desired voltage is displayed on the top-left side of the board. Firmly push the board back into the fuse housing.

#### O SELECT PROPER FUSE

Do not reinsert the fuse you removed if you have chosen a different voltage setting.

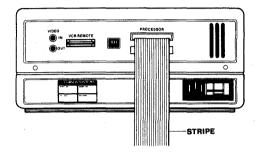
A 100 or 120 volt system uses a 2.0 amp fastblow fuse.

A 220 or 240 volt system uses a 1.0 amp fastblow fuse.

#### o INSERT FUSE

Firmly push the new fuse into the fuse holder. Slide the clear plastic door to the right, exposing the ac power cord connector.

6. There are two flat cable sockets on the back panel of the hard disk drive cabinet. The top socket is labeled PROCESSOR, and the bottom socket is labeled DRIVE. Plug either end of the disk drive's flat interface cable into the socket labeled PROCESSOR. The cable should run down and away from the drive. When facing the drive's back panel, the colored stripe on the edge of the interface cable should be on the right side.

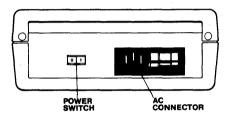


ATTACHMENT OF FLAT INTERFACE CABLE TO THE PROCESSOR CONNECTOR ON THE DRIVE'S BACK PANEL

NOTE: the colored stripe is on the right side of the cable.

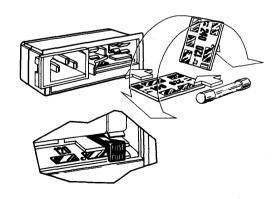
7. Verify that the voltage setting for the Corvus disk server matches the local voltage supply (100, 120, 220 or 240 volt). The server can work with either 50 or 60 Hertz power in any of the voltage settings. The voltage setting, fuse, and local voltage supply must match. A mismatch can damage the server.

To verify the voltage setting, look at the bottom right corner of the server's back panel. There you will find the ac power cord connector and fuse receptacle. The voltage setting is displayed directly underneath the fuse holder.



BACK PANEL OF CORVUS DISK SERVER

8. If the voltage setting displayed matches the voltage supply in your area, continue to step 9. If you need to change the voltage setting, follow the procedure below:



CHANGING VOLTAGE SETTING

#### o REMOVE FUSE

Slide open the clear plastic door, pull the fuse-pull lever to the left, and remove the fuse.

#### o SET VOLTAGE CIRCUIT BOARD

Using long-nose pliers, carefully pull the voltage circuit board out of the fuse housing. To select the proper operating voltage, position the circuit board so that the desired voltage is displayed on the top-left side of the board. Firmly push the board back into the fuse housing.

#### O SELECT PROPER FUSE

Do not reinsert the fuse you removed if you have chosen a different voltage setting.

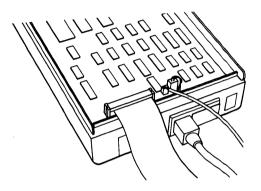
A 100 or 120 volt system uses a 2.0 amp fastblow fuse.

A 220 or 240 volt system uses a 1.0 amp fastblow fuse.

#### o INSERT FUSE

Firmly push the new fuse into the fuse holder. Slide the clear plastic door to the right, exposing the ac power cord connector.

9. Loosen the two screws on the back of the Omninet disk server and remove the top. As you face the rear of the disk server, there is a large grey flat cable connector on the rear left corner of the printed-circuit board. Connect the free end of the flat cable to this connector. As you face the back of the disk server, the cable should exit toward you with the colored stripe on the cable facing toward your right.



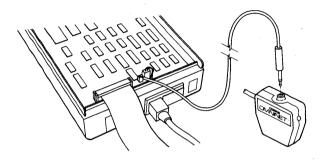
ATTACHMENT OF FLAT INTERFACE CABLE TO THE OMNINET DISK SERVER

NOTE: the colored stripe is on the right side of the cable.

Attach the three-pronged female connector end of a tap cable to the disk server. Attach the other end of this tap cable to a tap box. Replace the cover of the Omninet disk server and tighten the two screws at the rear of the disk server cabinet.

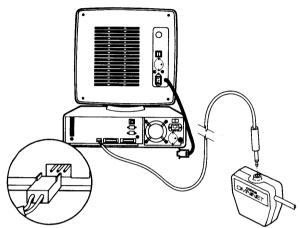
Constellation II

Page 26



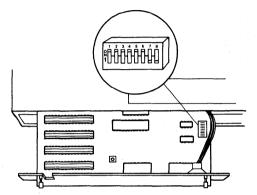
ATTACHING THE TAP CABLE TO THE DISK SERVER AND THE TAP BOX

- 10. If the drawer on the back of the Concept is closed, loosen the two latch screws on the back of the Concept's base unit. Turn the left screw clockwise and the right screw counterclockwise. Pull out the drawer.
- 11. As you face the rear of the Workstation base unit, near the bottom center is a three-pronged male Omninet connector similar to the one inside the Omninet disk server. Attach the three pronged female connector end of an Omninet tap cable to this connector, with the two tabs on the tap cable connector facing up. Attach the other end of this tap cable to the remaining tap box.



ATTACHING THE TAP CABLE TO THE WORKSTATION AND THE TAP BOX

12. Eight numbered micro-switches are at the right side of the drawer of the Concept, the side opposite the four input/output slots. Switches 7 and 8 are the boot switches, and should both be ON. The ON position is to the right as you face the back of the computer. Use the end of a straightened paperclip, or an object of similar size, to set these switches.



EIGHT MICRO SWITCHES INSIDE CONCEPT DRAWER

Using the table on the following page, set switches 1 through 6 to give your Concept a unique Omninet device address. Any unique number will work, however it may be easier to remember the numbers assigned if you start at one and work upward. The number zero should always be reserved for the disk server.

Address	Switch Setting				Address	Switch Setting			g					
	1	2	3	4	5	6			1	2	3	4	5	6
0	1	1	1	1	1	1		32	1	1	Ť	1	1	$\vdash$
1	-	t	1	1	1	t		33	=	1	1	1	1	<u> </u>
2	1	_	1	1	1	1		34	1	-	1	1	1	E
3		-	1	1	1	1	l	35			Ť	1	1	E
4	1	1		1	1	Î		36	1	1	_	1	1	
5	-	1	-	1	1	1		37	_	1	=	1	1	-
6	1	_		1	1	1		38	1	_	_	1	Ť	
7	_	1		1	1	1		39	_		_	1	1	-
8	1	1	1	Ŀ	1	î		40	1	1	1		1	E
9	_	t	1	_	1	t		41	-	1	1	<del>-</del>	1	-
10	1	_	1	_	1	1		42	1	-	1		1	F
11	<b> </b> -	Ŀ	1	=	1	t		43	<u> </u>		1	Ι=	1	E
12	1	1	E	E	1	t.		44	1	t	_		1	_
13	-	1	-	-	Ť.	1		45	_	Ť	_		1	1=
14	T†	-	<u> </u>	[-	1	1		46	1	=	=		T	<u> </u>
15	=	_	-	-	1	1		47	-	=	=		1	-
16	1	t	1	1		1		48	1	1	1	Ť	-	-
17	=	1	1	1	_	1		49	_	T	Ť	1	_	_
18	1	_	1	Ť	=	1		50	1	_	1	1	-	=
19	_		Ť	1	_	1		51	=	=	1	Ť	=	-
20	1	1	F	1	_	1		52	1	1	_	1	=	-
21	=	t	=	1	F	1		53	_	1	_	1	_	1
22	t	_	-	1	=	1		54	Ť		-	Ť	=	-
23	_	_	=	Ť	_	t		55	=	_	=	Ť	=	=
24	1	T	1	-	_	1		56	ī	1	1		-	1=
25		ī	Ť	-	_	1		57	=	Ť.	Ť	=	=	<u> </u>
26	1	_	1	<b>—</b>	F	1		58	1		Ť	_	=	_
27		-	1	_	-	Ť		59	<u> </u>	-	1	=	=	=
28	1	1	-	Ι=	=	1		60	1	1	Ė	=	Ε	-
29	-	1	-	-	<u> </u>	1		61	-	1	=	=		1-
30	1	-	-	<u> </u>		1		62	1	Ė	Ι=	_	-	F
31		-	=	-	=	Ť		63	Ė	=	=	=	_	=
	1	2	3	4	5	6			1	2	3	4	5	6
Address				Set		_		Address		-		<u> </u>		_
									<b>y</b>					
												on		
			_								_ :	of	_	_

NETWORK DEVICE ADDRESSES

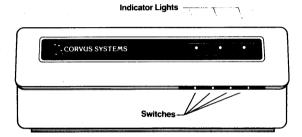
Constellation II

### Page 30

- 13. Push the drawer in. Refasten the two screws by turning the left screw counterclockwise and the right screw clockwise.
- 14. Connect the ac power cord to the hard disk unit, then to a power outlet.
- 15. Connect an ac power cord to the Omninet disk server, then to a power outlet.
- 16. Power on the Omninet disk server. The power switch is located just left of the center of the disk server's back panel, and has two positions: depressing the right side turns the disk server ON; depressing the left side turns the disk server OFF.
- 17. Power on the Corvus hard disk drive.

The power switch is located at the bottom center of the drive's back panel. The power switch has two positions: depressing the right side turns the drive ON, depressing the left side turns the drive OFF.

18. Looking at the front of the drive cabinet, there are three red indicator lights labeled FAULT, BUSY, and READY. When you power on the drive all three indicator lights become lit. When the drive is ready (after approximately 20 seconds), only the READY light should stay on, and you may proceed to Chapter 3.



# INDICATOR LIGHTS ON CORVUS DISK DRIVE

- 19. If after one minute the drive does not become ready, flip the reset switch (the rightmost switch on the front of the drive cabinet) to the right. Skip to Chapter 3 when only the READY light remains lit.
- 20. If flipping the reset switch does not put your drive in the READY mode, recheck the hardware installation (Steps 1-19).
- 21. If your drive still does not go into the READY mode, see the "Troubleshooting" section of "The Corvus Concept System Manager's Guide."

DISK INITIALIZATION

3

## INTRODUCTION

This manual contains two different sets of hard disk installation instructions. A local disk installation was described in Chapter 1 and an Omninet network disk installation in Chapter 2. This chapter describes how to initialize the hard disk for either disk installation procedure. You should read through this chapter carrying out the steps in the order presented. Skip only that material which you are instructed to skip.

## Conventions

The word "Type" is used throughout this chapter to mean that two or more letters or numbers are to be entered on the Concept keyboard. All words, symbols, spaces and punctuation to the right of the word Type should be typed exactly as shown. Do not add or delete punctuation at the end of a statement you are typing. Type ALL spaces that appear within the statement to be typed. Example:

Type /FCCGEN/SYSGEN

The word "Press" is used throughout this guide to mean that a single letter or number is to be entered on the Concept keyboard. Example:

Press Y

Keytop symbols following the word Press represent a

single key to be pressed. Examples of these keytop symbols include [RETURN] and [SPACE], where [SPACE] represents the space-bar at the bottom of the Concept keyboard. When a keytop symbol is used, press the key to which it refers; do not type out the individual letters of the word shown within the keytop symbol.

Function key labels are used like Keytop symbols. There are ten function keys at the top of the Concept keyboard, numbered Fl through FlO. The functions these keys représent within a program are displayed across the bottom of the Concept screen, and are also graphically depicted at the start of each section in this guide.

The function key labels change with each program, and each function key may represent up to four separate functions.

The first-level function is obtained by simply pressing the function key. For example, from the Dispatcher function key labels, "Press [ClrWndow]" equates to pressing the [F6] function key.

The second-level function is obtained by simultaneously depressing both the [SHIFT] key and the appropriate function key.

The third-level function is obtained by simultaneously depressing both the [COMMAND] key and the appropriate function key. For example, from the Dispatcher labels "Press [FileMgr]" equates to simultaneously depressing both the [COMMAND] key and the [F1] key.

The fourth-level function is obtained by simultaneously depressing the [COMMAND] key, the [SHIFT] key, and the appropriate function key. For example, from the Dispatcher function key labels "Press [Reboot]" equates to simultaneously depressing the [COMMAND] key, the [SHIFT] key, and the [F10] key.

Function key instructions in this guide are always given in terms of the function key labels which display at the bottom of the Concept screen. An instruction such as "Press [ListVol]" leaves little doubt that the function to be performed is listing a volume. But if the instruction said "Press [F5]," which is the Dispatcher function key

Page 35

# Constellation II

corresponding to the [ListVol] function key label, this guide would give no clear indication of what function is being performed.

#### Booting from Diskette

1. Be sure the Corvus hard disk drive is still powered on.

WARNING: DO NOT POWER ON OR POWER OFF THE CONCEPT
BASE UNIT WHEN A DISKETTE IS IN THE
DISKETTE DRIVE. THIS MAY CAUSE SOME OF
THE INFORMATION ON THE DISKETTE TO BE
DESTROYED.

- 2. Power on the diskette drive. The power switch is located near the bottom of the diskette drive's back panel, just above the ac power cord connector. The power switch has two positions: depressing the left side turns the diskette drive ON; depressing the right side turns the diskette drive OFF.
- On the front of the diskette drive is a latch lever.
   Turn this lever clockwise one-quarter turn, so that the lever is across the diskette drive opening.
- 4. Power on the Corvus Concept display unit. The power switch has two positions: when the display unit is vertical, the upper part depressed is ON, and the lower part depressed is OFF; when the display unit is horizontal, the left side depressed is ON, and the right side depressed is OFF.
- 5. Power on the Concept Workstation base unit. As you face the back of the computer, the power switch is at the top-right corner of the base unit's back panel. The power switch has two positions: having the left side depressed is ON, and the right side depressed is OFF.

The screen displays the following:

CORVUS CONCEPT INITIALIZATION (#.#)

(C) COPYRIGHT 1982 CORVUS SYSTEMS, INC.

ALL SYSTEM TESTS PASSED

SELECT BOOT DEVICE (D,F,L,O):

If there is some problem with the setup, or with the Concept itself, a boot error may appear. The following is a list of boot errors and what should be done if one appears.

BOOT	ERROR	#	SYSTEM	FAILURE	SOLUTION
	1		UART fa	ilure	
	2		Prom ch	ecksum	Call an
	3		Static	RAM	authorized Corvus service
	4		Dynamic	RAM	center
	5		Dynamic	RAM	
				-	Ensure all
	6		Slot de not read	,	local disks are ready then press return
	7		Duplica Omninet numbers		Change Omninet dip switches to a unique address

- 6. Place the CONCEPT BOOT DISKETTE FBOOT in the diskette drive. As you face the front of the diskette drive, the write-protect notch on the diskette should be toward the rear of the diskette drive, and the diskette name label should face toward the left.
- 7. Press F

The follo	wing is displayed	:	
Floppy	Disk Boot		

The screen clears, then displays several rows of dots. The cursor pauses several times while printing these dots on the screen. While this is happening the diskette drive will be making noises and its light will be flashing on and off.

8. After a minute or two, the Concept boots from the diskette. You will know when the Concept has booted, because three windows display on the screen. The "Statin: 1" on the top line only appears on a Concept attached to an Omninet network. The largest window, the System window, appears as follows:

ccos v	#.#	Station	: 1	Volume	/1	FBOOT	
CC.SETU	JP [#.#]	Mount	Conste]	lation	II	Volumes	•••

The middle, or Command window, looks like this:

+	
CC.DISPAT [#.#]	
Select function:	i
<del>+</del>	·÷

The lower window shows the Dispatcher function key labels. This is the main level of operating system functions, and from this level other groups of commands may be called. The labels should appear as they do in the diagram below:

F1	F2	DISPATCHEI F3	R <b>F4</b>	<b>F</b> 5
	!			į į
		! !	SetVol	ListVol
Ţ	T	r		r
F6	F7	F8	F9	F10
ClrWndow	SelWndow	Restart		
	,		,	
DIS F1	SPATCHER V	with [COMM	MAND] pres	ssed F5
+	+ !	+ I	+ !	++
+  FileMgr	    WndowMar	     FyecFile	   	SysUtils
+	+		 	++
F6			70	D10
+	F7 +	F8 +	F9 +	F10
	TmpWndow	l	İ	Reboot

# Pirmware Update

Before your Concept Workstation can communicate with a Corvus disk system, a firmware file must be copied onto the disk. The firmware acts as an interpreter for disk commands.

Corvus periodically issues new versions of disk controller code refered to as firmware. Corvus firmware version number 18.3 or later allows a Corvus disk to operate with a Corvus Concept Workstation.

Copying firmware onto the disk is known as updating the firmware, and is accomplished with the disk diagnostic program, called DDIAG, on the Corvus FBOOT diskette.

1. Type /FBOOT/DDIAG Press [RETURN]

For an Omninet installation the System window displays:

\_\_\_\_\_\_

Slot 1: no interface Slot 2: no interface

Slot 3: a Corvus 8" floppy interface

Slot 4: no interface

Slot 5: an OMNINET interface

Select slot number [5]: 5

\_\_\_\_\_\_

For a local disk installation the System window displays:

	Slot 1: no interface Slot 2: a Corvus disk interface Slot 3: a Corvus 8* floppy interface Slot 4: no interface Slot 5: no interface
	Select slot number [2]: 2
	Press [RETURN]
	For a local disk installation skip step 2 and continue with step 3. Step 2 only appears when performing an Omninet disk setup.
2.	When performing an Omninet setup the following prompt appears in the System window:
	Select server number [063]: 0
	This should be answered with the default value of 0 by pressing [RETURN].
	Press [RETURN]

	<ul><li>Version check</li><li>Display/modify drive parameters</li></ul>
X	- Perform servo exercise
С	- Perform CRC scan for bad tracks
	- Set diag data block file name
	<ul><li>Update firmware on disk</li><li>Perform platter format</li></ul>
	- Park heads of disk
	- Manual mode
H	- help
	- Exit
	a local disk drive system the line just below menu displays:
he 	
ne 	menu displays:
cu	menu displays: rrent slot is 2; server is 64

The DDIAG function key labels are:

Current slot is 5; server is 0

Fl	F2	DDIAG F3	F4	P5
	!	! !		!
Vrsion	1	Param	 	PrepNm
P6	P7	P8	F9	F10
	İ	 	 	i +
Exrcis	CRCtst	 	 	Exit +
Exrcis F1	DDIAG with	COMMANI	)] presse <b>F4</b>	+
	DDIAG with			+ d
	DDIAG with			+ d
	DDIAG with	F3 		d P5 +
F1	DDIAG with F2	F3      Update	F4	d F5

2. To update the firmware on the disk drive: Press [Update]

The System window displays the following:

The option you have selected may destroy data on the drive. Please make sure that you are talking to the proper drive.

Target controller is: slot 2, server 64

Continue? [Y/N]

In the case of the Omninet network disk system the first paragraph of the message is the same, and the rest appears as follows:

FORMAT and UPDATE options require the diag block and firmware files to be on a controller other than the target drive.

Target controller is: slot 5, server 0

Continue? [Y/N]

4. The above message simply serves to double-check that you are copying the firmware to the correct Corvus disk drive. Be certain that the slot number shown is the same as the slot to which the drive is connected (slot 2 for a local disk or slot 5 for an Omninet networked disk). If the slot numbers agree:

Press Y

The System window displays:

	late firmware on which drive? 1
Press	[RETURN]
The s	system window displays:
Cha	nge drive tables? N
Press	[RETURN]
The S	ystem window displays:
Ent	er firmware file name: CF18.4AP
Press	[RETURN]
The S	ystem window displays:
Rea	ding firmware from CF18.4AP.DATA
•••	•••••
Fir	mware written.

+					
1					1
Press <space></space>	to	continue	**	*	
+					

Press [SPACE]

The DDIAG menu will reappear in the System window, and the function key labels will redisplay.

8. You have now completed the firmware update procedure. The next step is to exit the DDIAG program:

Press [Exit]

The Dispatcher labels redisplay.

#### Disk Initialization

Before a Corvus hard disk can be used with the Concept, the operating system must be copied from diskettes. This data transfer is called disk initialization.

Initializing a Corvus drive erases most information which was previously placed on the disk drive. It does not affect the firmware file just copied onto the disk. As a general rule, you should not reinitialize a Corvus drive once you have placed text files or programs on the disk.

To initialize a Corvus disk drive for use with a Corvus Concept Workstation, follow the procedure below.

1. Make sure the /FBOOT diskette in is the diskette drive.

Type /FSYSGEN Press [SetVol]

When the message "Current volume is now /FSYSGEN" appears on the screen, and the top line shows "Volume: /FSYSGEN" take out the /FBOOT diskette and place the /FSYSGEN diskette in the drive.

Type SYSGEN Press [RETURN]

The Command window displays the following:

+				-+
i				i
١	Enter	SYSGEN	Password:	1
+				-+.

3. The password which comes with the drive, and with most Corvus programs, is HAI, the Japanese word for yes. Later on, you can change the password on any disk drive or on Corvus-supplied software (see "The Corvus Concept System Manager's Guide"). But until you change the password, HAI will prove to be an important password to know, since it will grant you access to most Corvus programs.

Do not be alarmed if anything you type does not show up on the screen at this point. Any time the Concept asks for a password, the response will not be shown. This feature is for your own security.

Type HAI Press [RETURN]

The System window displays:

I -	Initialize a new drive
> -	Display drives on-line
	Help
3 -	Exit

The Command window displays:

+		-+
1		1
i	Please select an option:	i
+		-+

The SYSGEN function key labels are:

F1	F2	SYSGEN F3	P4	P5
Drives		i		Init
Online		1	İ	Drive

F6	F7	F8	F9	F10
	İ	1	1.5	i i
Ī	İ	ĺ	Help	•

4. To initialize a Corvus disk drive:

Press [Init Drive]

If you are initializing a disk drive on Omninet network proceed to step 6. If you are initializing a local disk drive the System window displays the following:


System Generation [#.#]
Initialize a New Drive

Please select drive to be initialized.

Drive number: 1

5. Because up to four Corvus disk drives may be daisychained together, it is necessary to specify which
of the four is to be configured. The first drive
in the chain, the one connected directly to the
Concept, is drive 1. The second drive in the
chain (the one connected to drive 1) is drive 2,
and so on. To indicate which drive you wish to
initialize, type the number of that drive.

Press [RETURN]

The System window displays:
Slot is 2; drive is 1
Enter disk server name: SERVER
Since there is no disk server on this system
Press [RETURN]
Another prompt appears:
Enter disk server password: SERVER

This too is of no concern to a local disk setup.

Press [RETURN]

Then another prompt appears asking for the drive name. This is important, and is discussed in step number 9.

Skip steps 6, 7, and 8, and continue with step 9, since the next few steps explain Omninet installation procedures.

6.

Sv	rstem Generation [#.#]
In	itialize a New Drive
P1	ease select drive to be initialized.
	Server number: 0
	server number should be 0, so the default d be used.
Press	[RETURN]
Anoth	er prompt appears here:
	Server number: 0 Drive number: 1
	se up to four Corvus disk drives may be dais ed together, it is necessary to specify whic
chain of th in th	e four is to be configured. The first drive
chain of th in th disk	e four is to be configured. The first drive e chain, the one connected directly to the
chain of th in th disk Press	e four is to be configured. The first drive e chain, the one connected directly to the server, is drive 1.
chain of th in th disk Press The S	e four is to be configured. The first drive e chain, the one connected directly to the server, is drive 1.  [RETURN]

7.	You may give an Omninet disk server any name you
	wish, up to ten characters in length. The server
	name must begin with a letter, but the other
	characters may be letters, digits, or any of the
	following symbols: # \$ ' ( ) ^

You may type the server name in either lower case (unshifted) or upper case (shifted) characters. All characters become shifted on input.

To give the disk server the default name SERVER, the name which displayed on the Concept screen:

Press [RETURN]

The System window displays the followi:	The	System	window	displays	the	followir	19:
---	-----	--------	--------	----------	-----	----------	-----

Enter	disk	server	password:	SERVER	
			· · · · · · · · · · · · · · · · · · ·		

8. You may give a disk server any password you wish, up to eight characters in length. The server password must begin with a letter, but the other characters may be letters, digits, or any of the following symbols: \_ - . # \$ ' () ^

You may type the server password in either lower case (unshifted) or upper case (shifted) characters. All characters become shifted on input.

To give the drive the default password SERVER, the password which displayed on the Concept screen:

Press [RETURN]

The System window displays:

Enter	drive name:	DRIVE1	

9. You may give a Corvus disk drive any name you wish, up to ten characters in length. The drive name must begin with a letter, but the other characters may be letters, digits, or any of the following symbols: \_ - . # \$ ' ( ) ^

You may type in the drive name in either lower case (unshifted) or upper case (shifted) characters. All characters become shifted on input.

To give the drive the default name DRIVEL, the name which displayed on the Concept screen:

Press [RETURN]

The System window displays:

Enter	drive	password:	DRIVE		1,1

10. You may give a Corvus disk drive any password you wish, up to eight characters in length. The drive password must begin with a letter, but the other characters may be letters, digits, or any of the following symbols: \_ - . # \$ ' ( ) ^

You may type the drive password in either lower case (unshifted) or upper case (shifted) characters. All characters become shifted on input.

To give the drive the default password DRIVEI, the password which displayed on the Concept screen:

Press [RETURN]

The System window displays the following:

Total drive capacity is 35860 blocks.

Enter information for volume: CORVUS
Starting block address: 1032

The drive capacity displayed on the Concept screen will vary according to the size of the drive. A 6 MB drive contains 11220 blocks, an 11 MB has 21220 blocks, and a 20 MB has 35860 blocks.

\_\_\_\_\_\_

11. Information is stored on a Corvus disk in 512-byte units called blocks. Each block of data is numbered, and a directory at the beginning of the disk keeps track of each block's number, called the block's ADDRESS.

Corvus disk space is divided into variable-size segments called volumes. Like a floppy, a volume is a set of files with a file directory. The first block of a volume on a Corvus drive is called its starting block address. For example, if a volume starts at block 1024 of the disk, and ends at block 2048, the volume's starting block address is 1024 and its block length is 1024. The starting block address of the next volume would be 2048.

The first nine blocks of the disk contain special disk tables and pointers. This is followed by a 1023-block area sometimes used for Constellation I software. The first free block for the Corvus volume, then, is block 1032, which is the default address displayed on the Concept screen.

The Corvus volume contains the code your Concept Workstation needs to boot from the Corvus disk drive. To place the Corvus volume at block 1032:

Press [RETURN]

The System window displays:

Length of volume: 200	

12. The size you choose for the Corvus volume determines certain characteristics of the system, as shown in the chart below.

Size of Corvus volume:	100-199 blocks	200-1000 blocks   
Maximum system users:	128	512
Maximum volumes on drive:	128	512
Maximum no. boot blocks:	16-68	22-182

Using the above chart, make the Corvus volume large enough to accomodate anticipated future expansion of your Corvus system, including number of system users. The number of boot blocks allocated is also very important, because the more different brands of computers your system will include, the more boot blocks need to be available.

To make the Corvus volume 200 blocks long (the default value displayed on the Concept screen):

Press [RETURN]

The System window displays the following:

Do you want to install the operating system? Y

The default is yes which is what we want.

Press [RETURN]

The initialization process begins here. The System window displays the following:

Enter information for volume: CCSYS
Starting block address: 1232

13. The volume CCSYS contains most of the programs the Concept needs in order to operate. Whenever the Concept is booted, it automatically looks for the volume CCSYS. This volume is usually placed immediately after the Corvus volume--that is, its starting block address will be the same as the address displayed on the screen. To accept the displayed address:

Press [RETURN]

The System window displays:

Length of volume: 2048

If you are a system developer and expect to have Pascal and FORTRAN we reccomend you create a larger volume for CCSYS. A volume of 3072 blocks will allow for all the present software, and future additions to your system.

If you are not a system developer you can accept the default value.

Press [RETURN]

The System window displays the following:

Enter information for volume: CCUTIL Starting block address: 3280
The volume CCUTIL contains most of the utilities programs supplied by Corvus. This volume should normally be placed immediately after the volume CCSYS. To accept the displayed address:
Press [RETURN]
The System window displays:
Length of volume: 2048
Bength of Volume. 2040
If you are a system developer and expect to have Pascal and FORTRAN we recommend you create a larger volume for CCUTIL. A volume of 3072 blocks will allow for all the present software, and future additions to your system.
If you are not a system developer you can accept the default value.
Press [RETURN]
The System window displays:
OK to continue (Y/N)? N

14. Press Y
Press [RETURN]

(1)	i ne		
Initializing Sy	ystem Tables.		
[ 40]			• • • • •
Opening file BO	le blocks inition OOT.CONCEPT written to Corv	e e gaze i	
6 blocks writte	en to Corvus vo	lume direct	ory.
CCSYS volume in	nitialized.		
CCUTIL volume i	nitialized.		
Primary drive i			

15. Press [SPACE]

The SYSGEN main menu and labels redisplay.

16. Press [EXIT]

The Dispatcher labels redisplay.

17. At this point the diskettes must be changed again. Remove the /FSYSGEN diskette and place the /FBOOT diskette in the diskette drive. Then,

Type /FBOOT Press [SetVol]

When	the	me	ssag	e "Cui	rent	volum	ne i	s now	/FB00'	T'
appea	rs	on	the	screen	n, an	d the	top	line	shows	
"Volu	me:	/F	BOOT	" you	are	ready	to	conti	nue.	

18.	Hold down the [COMMAND] key and
	Press [ExecFile]
	The Command window asks for the file name:
	Execute which command file?
	Type SYSTEM.UPDATE Press [RETURN]
	The System window displays the following:
	File ID: /FBOOT/SYSTEM.UPDATE
	${\tt SYSTEM.UPDATE}$ assumes volumes /CCSYS and /CCUTIL exist and have read/write access
	Continue? [Y/N]:

# 19. Press Y

All files on this diskette are automatically copied to the hard disk. When the Dispatcher labels return the copy is complete.

The Command window displays:

+		+
1		- 1
Select	function:	١

Your Corvus Winchester disk drive has now been initialized for use with a Corvus Concept workstation. To verify that the above procedure was successful, continue to the next section, "Booting from the Hard Disk."

# Booting from the Hard Disk

To verify that the disk initialization was successful, try booting your Concept from your Winchester disk, rather than from the floppy drive. The following procedure explains how to make this test.

 Hold down [CTRL] Press [BREAK]

In a few seconds, the following is displayed:

CORVUS CONCEPT INITIALIZATION (#.#)

(C) COPYRIGHT 1982 CORVUS SYSTEMS, INC.

ALL SYSTEM TESTS PASSED

SELECT BOOT DEVICE (D,F,L,O):

If there is some problem with the setup, or with the Concept itself, a boot error may appear. The following is a list of boot errors and what should be done if one appears.

Constellation II

BOOT ERROR	*	SYSTEM FAILURE	SOLUTION
1		UART failure	
2		Prom checksum	Call an
3		Static RAM	authorized Corvus service
4		Dynamic RAM	center
5		Dynamic RAM	
6		Slot device not ready	Ensure all local drives are ready then press [RETURN]
7		Duplicate Omninet host numbers	Change Omninet dip switches to a unique address

2. If the disk is connected to an Omninet network Press O. If you have a local disk attached to the Concept Workstation Press L.

The following is displayed:

~	$\sim$	D	77	TT	C

# CONSTELLATION II (#.#)

PLEASE ENTER YOUR NAME:

3. The only user name that comes with the drive is SMGR. Later on, you can add more users to the drive. See "The Corvus Concept System Manager's Guide."

Type SMGR Press [RETURN]

The following is displayed:

Please enter your password:

4. The password that comes with the drive is HAI, the Japanese word for yes. Later on, you can change this password on any disk drive or on Corvus-supplied software (see "The Corvus Concept System Manager's Guide"). But until you change the password, HAI will prove to be an important password to know, as it will grant you access to most Corvus-supplied programs.

Do not be alarmed if anything you type does not show up on the screen at this point. Any time the Concept asks for a password, the response will not be shown. This feature is for your own security.

Type HAI Press [RETURN]

Several rows of dots print on the screen. When the screen clears, the system window displays:

CCOS v #.# User: SMGR Station: 1 Volume: /CCSYS

CC.SETUP [#.#]: Mount Constellation II volumes ...

Mounting volume FBOOT on unit 9
Mounting volume CCUTIL on unit 10
Mounting volume CCSYS on unit 4

The Command window displays:

| CC.DISPAT [#.#] | Select function:

\_\_\_\_\_

The Dispatcher function key labels are:

F2	DISPATCHE	P4	P5
	!		
		SetVol	ListVol
F7	F8	F9	F10
	İ		
SelWndow	Restart		İ
HER with	[COMMAND]	pressed <b>F4</b>	F5
			i
WndowMgr	ExecFile		SysUtils
<del>-</del>	+		†
F7	F8	F9	F10
F7	+		F10 +  Reboot
	F7 SelWndow HER with	F7 F8  F7 F8    SelWndow   Restart  HER with [COMMAND] F2 F3	F7 F8 F9

If the above displayed on the screen, your Corvus hard disk drive has been successfully initialized. If you were unable to boot from the hard disk, repeat the Disk Initialization procedures.

When the drive has been successfully initialized, continue to the next section, "Copying System Files to the Hard Disk."

# Copying System Files to The Hard Disk

Your Corvus Winchester disk has now been installed and initialized. The final step, before using a Corvus disk system, is to copy other Corvus-supplied software onto the disk from diskettes.

١.	Place the CONCEPT SYSGEN DISKETTE FSYSGEN in the diskette drive and close the latch.
	Hold down the [COMMAND] key and
	Press [ExecFile]
	You will be prompted for a filename in the Command Window:
	Execute which command file?
	Type /FSYSGEN/SYSTEM.UPDATE Press [RETURN]
	The System window displays:
	File ID: /FSYSGEN/SYSTEM.UPDATE
	SYSTEM.UPDATE assumes volumes /CCSYS and /CCUTIL exist and have read/write access
	Continue? [Y/N]:

Press Y

All files on this diskette are automatically copied to the hard disk. When the Dispatcher labels return, the copy is complete.

2. Place the CONCEPT UTILITIES DISKETTE -- VOL 1 OF 4
FCCSYS1 in the diskette drive and close the latch.
Hold down the [COMMAND] key and
Press [ExecFile]
You will be prompted for a filename in the Command Window:

Execute which command file?

Type /FCCSYS1/SYSTEM.UPDATE
Press [RETURN]
The System window displays:

File ID: /FCCSYS1/SYSTEM.UPDATE
SYSTEM.UPDATE assumes volumes /CCSYS and /CCUTIL exist and have read/write access

Press Y

Continue? [Y/N]:

All files on this diskette are automatically copied to the hard disk. When the Dispatcher labels return, the copy is complete.

\_\_\_\_\_\_

Place the CONCEPT UTILITIES DISKETTE VOL 2 OF 4 FCCSYS2 in the diskette drive and close the latch.
Hold down the [COMMAND] key and
Press [ExecFile]
You will be prompted for a filename in the Command Window:
Execute which command file?
Type /FCCSYS2/SYSTEM.UPDATE Press [RETURN]
The System window displays:
File ID: /FCCSYS2/SYSTEM.UPDATE
File ID: /FCCSYS2/SYSTEM.UPDATE  SYSTEM.UPDATE assumes volumes /CCSYS and /CCUTIL  exist and have read/write access

Press Y

All files on this diskette are automatically copied to the hard disk. When the Dispatcher labels return, the copy is complete.

Place the CONCEPT UTILITIES DISKETTE VOL 3 OF 4 FCCSYS3 in the diskette drive and close the latch.
Hold down the [COMMAND] key and
Press [ExecFile]
You will be prompted for a filename in the Command Window:
Execute which command file?
Type /FCCSYS3/SYSTEM.UPDATE Press [RETURN]
The System window displays:
Bila TD. /BCCCVC2/GVCMDW UDDAMD
File ID: /FCCSYS3/SYSTEM.UPDATE
SYSTEM.UPDATE assumes volumes /CCSYS and /CCUTIL exist and have read/write access
Continue? [Y/N]:
Press Y
All files on this diskette are automatically copied to the hard disk. When the Dispatcher labels return, the copy is complete.

Place the CONCEPT UTILITIES DISKETTE VOL 4 OF 4 FCCSYS4 in the diskette drive and close the latch.
Hold down the [COMMAND] key and
Press [ExecFile]
You will be prompted for a filename in the Command Window:
Execute which command file?
Type /FCCSYS4/SYSTEM.UPDATE Press [RETURN]
The System window displays:
File ID: /FCCSYS4/SYSTEM.UPDATE
SYSTEM.UPDATE assumes volumes /CCSYS and /CCUTIL exist and have read/write access
Continue? [Y/N]:

All files on this diskette are automatically copied to the hard disk. When the Dispatcher labels return, the copy is complete.

Press Y

1	Place the CONCEPT UCSD RUNTIME P-SYSTEM DISKETTE FPSYS in the diskette drive and close the latch.				
Hold down the [COMMAND] key and					
Press [ExecFile]					
	You will be prompted for a filename in the Command Window:				
-					
Execute which command file?					
	Type /FPSYS/SYSTEM.UPDATE				
E	ress [RETURN] The System window displays:				
E	ress [RETURN] The System window displays:				
E	ress [RETURN] The System window displays:				

All files on this diskette are automatically copied to the hard disk. When the Dispatcher labels return, the copy is complete.

Place the CONCEPT EDWORD DISKETTE FEDWORD in the diskette drive and close the latch.					
Hold down the [COMMAND] key and					
Press [ExecFile]					
You will be prompted for a filename in the Command Window:					
Execute which command file?					
Type /FEDWORD/SYSTEM.UPDATE Press [RETURN]					
The System window displays:					
File ID: /FEDWORD/SYSTEM.UPDATE					
SYSTEM.UPDATE assumes volumes /CCSYS and /CCUTIL exist and have read/write access					
Continue? [Y/N]:					

Press Y

All files on this diskette are automatically copied to the hard disk. When the Dispatcher labels return, the copy is complete.

System Status

When all software has been copied from 8-inch diskettes onto the Corvus hard disk drive:

Hold down [CTRL]

# and Press [BREAK]

Perform a boot like the one that was performed in the section called "Booting From The Hard Disk." This will cause the operating system to recognize the new software that has been placed into the system.

At this point your Dispatcher labels should look like this:

F1	F2	DISPATCHE	R <b>F4</b>	<b>P5</b>						
Ì	į	<u>i</u>	İ	<u> </u>						
p-System	!	Edword	SetVol	ListVol						
P6	F7	F8	F9	F10						
		İ	   	!						
ClrWndow	SelWndow	Restart	Help							
DISPATCHER with [COMMAND] pressed F1 F2 F3 F4 F5										
!	İ		i I							
FileMgr	WndowMgr	ExecFile	Const II	SysUtils						
F6	. <b>F</b> 7	F8	F9	F10						
,	TmpWndow	+ 	 	Reboot						

As hard as it may be, the system is still not ready for you to play with and begin learning. You have two volumes on your disk, CCSYS and CCUTIL. Both of these contain valuable system files that should

|RevBkgnd|CreWndow| |MountMgr| |

-----+---

not be played with until another volume is created.

At this time the only user that may log-on to the Concept is SMGR with the password HAI.

To create more users and more volumes consult the chapter "Account Creation and Management" in "The Corvus Concept System Manager's Guide."

After creating another volume or two, and another user, give the users access to the volumes and proceed to the Workstation User Guide to learn how to use the Concept.