VAX 8800/8700/8550/8500 CUSTOMER CONSOLE KIT

Order Number: BT-ZMAAD-C3-V22D

The MINIMUM HARDWARE REVISION supported by this kit is REV A1.
The MINIMUM VMS REVISION supported by this kit is VMS VERSION V4.4.
The MIMINMUM DIAGNOSTIC REVISION supported by this kit is VERSION 4.0

Contents of this kit are

36-20220-01	KEYBOARD STRIP
AA-FH28C-TE	CONSOLE USER GUIDE
AA-FH29D-TE	CONSOLE RELEASE NOTES
BL-FH05D-ME	RX107 MICRODIAG #1
BL-FH11D-ME	RX104 DIAG SUPER
BL-FH22A-ME	RX105 VAX DISK FORMATTERS
BL-FH23A-ME	RX106 VAX AUTOSIZER
BL-FH31A-ME	P/OS HARD DISK SYSTEM CONSOLE
BL-FH32A-ME	P/OS HARD DISK SETUP CONSOLE
BL-FH33A-ME	P/OS LIBRARIES CONSOLE
BL-FH34A-ME	P/OS UTILITIES CONSOLE
BL-FH35A-ME	P/OS DISPATCHER CONSOLE
BL-FH36A-ME	PRO/COMM 1/3 CONSOLE
BL-FH37A-ME	PRO/COMM 2/3 CONSOLE
BL-FH38A-ME	PRO/COMM 3/3 CONSOLE
BL-FH39D-ME	COMMAND LANGUAGE 1/2 CONSOLE
BL-FH40A-ME	COMMAND LANGUAGE 2/2 CONSOLE
BL-FH41D-ME	RX100 CONSOLE TASKS
BL-FH42D-ME	RX101 ISP MICROCODE
BL-FH43D-ME	RX102 BOOT COMMAND FILES
BL-FH67D-ME	RX99 REVISION HISTORY
BL-FI48A-ME	RX98 CI VMB SYSTEM CODE

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CONSOLE/FIRMWARE/VMS RELEASE NOTES FOR VAX 8800/8700/8550/8500

Abstract: NEW DIRECTORY STRUCTURE AND REVISION CONTROL CHANGES REQUIRE INSTALLATION OF CONSOLE OPERATING SYSTEM, PRO COMMUNICATIONS, AND CONSOLE INSTALLATION

Version V22D of the CONSOLE includes two new directories and revision control changes. Therefore, you should reinstall P/OS, PROCOMMUNICATIONS, and the CONSOLE so the software is loaded on a fresh disk. Not reinstalling P/OS and PROCOMMUNICATIONS with this version of the CONSOLE will cause problems when trying to use V22D of the CONSOLE.

Please follow the directions included in the release notes for installing P/OS, PROCOMMUNICATIONS and the CONSOLE software.

*** NOTE ***
This process initializes your disk. Save to diskettes all private files.

The default directory on the CONSOLE is [CONSOLE]. VAX 8800 specific files are in directory [8800], VAX 8700 specific files are in directory [8700], VAX 8550 specific files are in directory [8550] and VAX 8500 specific files are in directory [8500]. When copying/reading from the CONSOLE be sure to specify the specific directory you need.

*** NOTE ***
Changing the PRO/COMM file transfer default directory does *not* change the default DECNET directory. The default directory for DECNET operations is hardwired to BIGDISK:[USERFILES]. Therefore, now that [CONSOLE] is the main directory, you should explicitly specify this in the logical name that you use for remote access.

Abstract: PARALLEL EXECUTION OF COMMAND FILES HAS BIZARRE EFFECTS

The CONSOLE has multiple command streams from which command files can be executed. An example is the REBOOT STREAM and the local port both executing commands from command files. The effect is that the CONSOLE processes one command from one stream, then one from the other. If they're both executing commands that affect the CPU, the effects are unpredictable. The CONSOLE does not support interlocking of accesses to devices.

Abstract: CONSOLE FLOPPY NOT SEEN BY VMS

When the CONSOLE is powered on, and DZ1 and/or DZ2 are loaded with diskettes, the devices become owned by the P/OS operation system and are no longer accessible by the CONSOLE. When this happens, VMS cannot access these 2 devices. The restriction is NOT to have any floppy diskettes in any of the drives when the CONSOLE is powered on. Only after the CONSOLE banner has been displayed may any floppy be inserted.

Abstract: AFTER PRO AND CONSOLE SOFTWARE INSTALLATION, SET VMS TIME_OF_DAY

After P/OS, PROCOMMUNICATIONS and the CONSOLE applications have been installed or reinstalled it is necessary when booting VMS to set the time of day.

One of two conditions will exist:

(1) The '$' prompt appears if the VMS SYSGEN "TIMEPROMPTWAIT" parameter is set to zero. A "SET TIME" command must then be issued at the '$' prompt with the following parameters: DD-MM-YR:HR:MIN:SEC . Note: :SEC is optional.

For example:

Using Date:May 7,1986 and Time:14:14:00
Type the following:

```
$SET TIME=07-05-1986:14:14
```

Then display the time by typing:

```
$Show Time
```

(2) If the VMS SYSGEN "TIMEPROMPTWAIT" parameter is not set to zero then upon booting VMS, an "ENTER TIME-DATE" prompt with instructions will be present. Enter the appropriate information using these instructions.

*** NOTE ***
NOT setting the time/date results in VMS containing bogus date and time values.

Abstract: IPRs A0, B0, and C0 ARE NOT ACCESSIBLE BY THEIR MNEMONIC NAMES

The following VAX 8800/8700/8550/8500 specific IPRs are accessible using their associated numeric literals. The symbolic or mnemonic names are not supported.

CBER	A0	C-box error register
EBER	B0	E-box error register
IBER	C0	I-box error register

Abstract: CBOX ERROR REGISTER

The high order byte of the CBOX error register (CBER) in a machine check stack frame is not correctly pushed on the stack. The high order byte should be 0. Instead it is a copy of CBER bits <23:16>. Bits <23:0> of CBER are correct. Therefore, when examining the copy of CBER in a machine check frame, simply ignore bits <31:24>.

Abstract: THE CI780 MICROCODE IS IN TWO DIRECTORIES

The CI780 microcode is set by default to version 7.0. We also provide versions 5.0 and 6.0 of the microcode. These files are labeled:

```
CI780.BIN          VERSION 7.0
CI780V50.BIN       VERSION 5.0
CI780V60.BIN       VERSION 6.0
```

These files are duplicated in directories [CONSOLE] and [USERFILES]. If you need to run version 5.0 or 6.0 as the default microcode you have to rename the file to "CI780.BIN" in BOTH the directories [CONSOLE] and [USERFILES]. PLEASE SEE CI780 RELEASE NOTES.

For example:
To run version 5.0 as the default version type

```
>>> EXIT

$   RENAME [CONSOLE]CI780.BIN          [CONSOLE]CI780V70.BIN;
$   RENAME [USERFILES]CI780.BIN        [USERFILES]CI780V70.BIN;
$   RENAME [CONSOLE]CI780V50.BIN       [CONSOLE]CI780.BIN;
$   RENAME [USERFILES]CI780V50.BIN     [USERFILES]CI780.BIN;
$   RUN CONTROL
```

*** NOTE ***
There is NO version number after the file name in the above example, just a ";" after the renamed file.

Abstract: HELP PRINTS BUFFER ON LINE PRINTER IF TERMINATED

When terminating the CONSOLE HELP command with any character other than RETURN in response to the CONSOLE prompt

```
'Press RETURN for more ...'
```

the character and whatever else is in the buffer is printed on the line printer if the latter is enabled.

Abstract: DISABLE PRINTER LEAVES PRINTER OFFLINE

DISABLE PRINTER leaves printer DISABLED and OFFLINE.
ENABLE PRINTER sometimes leaves the printer ENABLED but OFFLINE.
Hit the READY switch on the printer to establish the connection ONLINE.

Abstract: CONSOLE KIT CONTENTS

A new file, KITCONT.TXT, has been included with V22D of the CONSOLE kit to display the kit contents. This file also displays pertinent files and revision numbers associated with the CONSOLE diskettes. It can be found in the [CONSOLE] directory.

Abstract: CONSOLE USER'S GUIDE COMMANDS

Please correct error in CONSOLE User's Guide:
SHOW REVISION, example 2:

```
>>> SHOW REVISION SENSED ALL
```

VERIFY RTI, example 1:

```
>>> V RT
```

Abstract: NEW CONSOLE COMMAND ENABLE/DISABLE LOCAL CONSOLE

ENABLE LOCAL CONSOLE

Allows commands which will change the state of the machine to be processed by the local terminal, even when a remote diagnostic session is in progress.

FORMAT:
ENABLE LOCAL CONSOLE
EN L C for short

DESCRIPTION:
Normally, when the remote terminal is active, commands that would change the state of the VAX hardware are not permitted on the local terminal. This prevents the local operator from inadvertently changing the hardware state while a remote operator is diagnosing the system. However, if there is a situation in which the remote operator needs to allow the local operator to issue some of these commands, ENABLE LOCAL CONSOLE is used to permit the local commands.

An informational message is printed on both the local and remote terminals.

The state of local CONSOLE enable is retained across power failures.

DEFAULTS:
LOCAL CONSOLE is initially enabled.

RESTRICTIONS:
ENABLE LOCAL CONSOLE is not accepted from the local terminal. An error message is printed. Note however that DISABLE REMOTE USER and DISABLE REMOTE CONSOLE implicitly do ENABLE LOCAL CONSOLE.

DISABLE LOCAL CONSOLE

Blocks commands which would change the state of the VAX hardware from being executed on the local terminal.

FORMAT:
DISABLE LOCAL CONSOLE
DI L C for short

DESCRIPTION:
DISABLE LOCAL CONSOLE can be entered by either the remote or local operator, typically after the remote operator has enabled the local CONSOLE, and after the local operator has finished the operations needed by the remote operator. An informational message is printed on both the local and remote terminals.

The state of local CONSOLE enable is retained across power failures.

DEFAULTS:
LOCAL CONSOLE is initialliy enabled.

Abstract: PROBLEMS WITH REMOTE PORT

Connect modem as specified by modem installation instruction booklet.
To set up CONSOLE at remote site, type at local CONSOLE:

```
ENABLE REMOTE MODEM
ENABLE REMOTE CONSOLE
```

*** NOTE ***
When ENABLE REMOTE CONSOLE is typed, it is followed by a CONSOLE prompt, several carriage returns and another CONSOLE prompt. Wait for a second prompt before typing a command.

To monitor the remote CONSOLE at the local port:

```
ENABLE REMOTE MONITORING
```

To run program I/O mode at the remote site:

```
ENABLE REMOTE USER
SET TERMINAL OPAn  !n=0 Input and output logged to logfile
                   !n=4 or n=5 Program mode data not logged
                   !to logfile
SET TERMINAL PROGRAM
```

*** NOTE ***
To ENABLE REMOTE USER, REMOTE CONSOLE must also be enabled. Do not DISABLE REMOTE CONSOLE if remote user is enabled.
*** NOTE ***
If the remote terminal is set to OPA4 or OPA5, VMS must recognize it. System manager privileges are needed:

```
$ MCR SYSGEN
SYSGEN> CONNECT CONSOLE/REMOTE
SYSGEN> CONNECT CONSOLE/USER
SYSGEN> EXIT
```

For printer output:

```
ENABLE PRINTER
```

*** NOTE ***
If DISABLE PRINTER is typed, printer goes offline and ENABLE PRINTER does not put it online. The READY switch on the printer must be toggled to get printer back online.

*** NOTE ***
When running diagnostics from the remote port, there is a problem with character loss at the remote CONSOLE.

*** NOTE ***
There is only one "MICROMONITOR" mode. When one port executes the TEST command, both command streams enter "MICROMONITOR" mode. Care must be taken at this point to ensure that conflicting commands are not entered on the ports. For example, if the remote port is running a diagnostic, then the local port should not enter an exit command. If an exit command is entered, then the remote command will hang and a ^C will be needed to unhang it. Commands that need the CPU to execute on their behalf should not be executed if the other port is running diagnostics. To be safe, when running diagnostics leave the other port alone.

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RX101 ISP MICROCODE
Order Number: BL-FHD-ME

UCODE.BIN	-	ISP MICROCODE
DRAM.BIN	-	decoder ram data
SDFDEF.BIN	-	slow data file
CCODE.BIN	-	cache control store MICROCODE

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RX102 BOOT COMMAND FILES
Order Number: BL-FH43D-ME

SYSINIT.COM	-	command file for initializing the CPU loads ucode.bin, sdfdef.bin, dram.bin, ccode.bin
DEFBOO.COM	-	default boot file when BOOT command type
CRASH.COM	-	crashes VMS in a control manner
RESTAR.COM	-	executed after halt on the CPU if auto restart is enabled
LOADNBOOT.COM	-	executed after halt on the secondary if auto restart is enabled
EXIT.COM	-	invoked by CONSOLE command files that abort
LINK.COM	-	invoked by the CONSOLE LINK command
NMIRESET.COM	-	utility command file to clear nmi faults
MICEXIT.COM	-	invoked by MICROMONITOR to exit micmon mode

VMS BOOT FILES

SECBOO.COM	-	boots the secondary CPU
BCIBOO.COM	-	device specific boot file
BCIGEN.COM	-	conversational boot
BCIXDT.COM	-	boot file that incorporates xdelta
BDABOO.COM	-	device specific boot file
BDAGEN.COM	-	conversational boot
BDAXDT.COM	-	boot file that incorporates xdelta
UDABOO.COM	-	device specific boot file
UDAGEN.COM	-	conversational boot
UDAXDT.COM	-	boot file that incorporates xdelta
CSBOO.COM	-	standalone boot
CSBGEN.COM	-	standalone boot. Conversational boot
CSXDT.COM	-	standalone boot. Conversational boot.XDELTA

DIAGNOSTIC BOOT FILES

DIABOO.COM	-	boots diagnostic supervisor
SDABOO.COM	-	boots vds from a kdb50
SCIBOO.COM	-	boots vds from a CIBCI
SUABOO.COM	-	boots vds from a uDA50

ULTRIX BOOT FILES

BCIRA.COM	-	device specific boot file
BDARA.COM	-	device specific boot file
BUARA.COM	-	device specific boot file
CNSL.COM	-	standalone boot

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CONSOLE INSTALLATION

*** WARNING ***
Do not operate your CONSOLE with the system unit cover removed.

When installing the CONSOLE software, you must follow the procedure described below.

DISK WITHOUT P/OS INSTALLED

1. Perform steps under "CONSOLE Operating System Installation".
2. Perform steps under "PRO Communications Installation".
3. Perform steps under "CONSOLE Installation".

DISK WITH P/OS INSTALLED

1. Perform steps under "CONSOLE Installation".

PREFACE to INSTALLING CONSOLE/PRODCL

1. To SELECT an item:
   Use arrow keys on keyboard to select item and then press <DO>.

2. Disk drives 1(top) and 2(bottom) are known as DZ1: and DZ2: respectively, and the fixed disk is known as DW1:.

3. When inserting disks remember to line up the orange line from the disk to the the orange line in the disk drive.

4. The doors to the disk drives DZ1: and DZ2: are opened by pushing in on the bottoms of the doors, not by pulling them open.

The "NAME" of the diskette indicates its contents. The "VOL NAME" is the volume label that is written on the diskette and used by the operating system to verify that the correct volume has been inserted in the diskette drive.

CONSOLE OPERATING SYSTEM INSTALLATION

*** WARNING ***
Do not operate your CONSOLE with the system unit cover removed.

You will find the P/OS diskettes in the release package accompanying this release notice. It is a subset of the release package. The contents are listed below. The diskettes are labeled PROSYSTEMV2, PROSETUPV2, PRODISPATV2, PROLIBRARV2, and PROUTILV2. Store your P/OS diskettes in this box or in some other container made for storing diskettes. You may need to use these diskettes as backups if the copy on the disk becomes unusable or if you need to reinstall P/OS.

Order number	Title	Volume Label
BL-FH31A-ME	P/OS HARD DISK SYSTEM CONSOLE	PROSYSTEMV2
BL-FH32A-ME	P/OS HARD DISK SETUP CONSOLE	PROSETUPV2
BL-FH33A-ME	P/OS LIBRARIES CONSOLE	PROLIBRARV2
BL-FH34A-ME	P/OS UTILITIES CONSOLE	PROUTILV2
BL-FH35A-ME	P/OS DISPATCHER CONSOLE	PRODISPATV2

To install the CONSOLE operating system, follow this procedure:

1. Press the power switch on the system unit to "0" (off)

2. Insert diskette, VOL NAME: PROSYSTEMV2, into diskette drive slot 1 (the top slot) and press the diskette drive door closed. Leave this diskette in the drive until the entire installation procedure is completed.

   *** NOTE ***
   The diskette, VOL NAME: PROSYSTEMV2 must *not* be write protected. If the diskette has a write protect label on it please remove it.

3. Insert the diskette labeled VOL NAME: PROSETUPV2, into diskette drive slot 2

4. Press the power switch to "1" (on)

5. After the DIGITAL logo, the following display appears on your screen, (see user's manual page E-4)

6. Press the <DO> key at the top of the keyboard to continue the installation procedure.

   Press the <EXIT> key instead of <DO> to discontinue the installation

   a) The installation procedure erases all information on the disk. If any information is found on the disk you will then be asked if you want to continue. At this point, press <DO> to continue the installation procedure or <EXIT> to prevent the installation.

7. Wait for the date and time form to appear

   a) If you don't need to correct the time or date as shown press <RETURN>, and then go to step number 8 below

   b) If you need to make a correction to the date/time then:

      Fill in the form as instructed by typing the appropriate numbers from the auxiliary keypad (far right on your keyboard)

      Press <RETURN> to move from one entry to another. Be sure to enter 24-hour time. For example, if the time is 3:30 p.m., enter 15:30.

      If you make a mistake and have not yet pressed <RETURN>, press the DELETE < <X] > key to erase the mistake and then retype.

      If you want to change an entry after you have already pressed <RETURN>, press <CANCEL> and start again

      If you type an impossible number (such as 13 for the month), the keyboard will beep and you can enter a correct number

      When you have entered the date and time, press <DO> to continue (or <EXIT> to discontinue the installation)

8. Wait for P/OS to format and initialize the disk. This procedure, which takes from 10 to 50 minutes depending on the type of hard disk that you have, formats the disk so the operating system can write information on it

9. When the formatting and initialization completes, a message asks you to press <DO> to change your keyboard setting or <RESUME> to continue without changing your keyboard setting. Press <RESUME> without changing the keyboard setting

10. When the diskette is copied, a message tells you to remove the PROSETUPV2 diskette from slot 2 and which P/OS diskette to insert next. (Make sure you leave the PROSYSTEMV2 diskette in slot 1 the entire time.) When you have inserted the new diskette, close the diskette slot door and press <RESUME> to continue

    If you do not insert the diskette correctly, the message telling you which diskette to insert reappears, and you can try again

11. You will be asked to insert the following diskettes:

    PRODISPATV2
    PROLIBRARV2
    PROUTILV2

12. When the diskette is copied, a message tells you to remove that diskette and insert the next diskette. You will be told the name of each disk to insert. When you have inserted the next diskette, press <RESUME>

13. Continue copying the operating system diskettes until a message tells you the installation is complete

14. Remove and store the diskettes. These are your backup diskettes. If anything should happen to the operating system on the disk, you will need to use these diskettes again

15. Turn the power switch off and then back on. The PRO runs a self-test then returns to the MAIN MENU screen

16. The next step is to install PRO COMMUNICATIONS

PRO COMMUNICATIONS INSTALLATION

The following diskettes are required to install PRO COMMUNICATIONS

Order number	title	Volume Label
BL-FH36A-ME	PRO/COMM 1/3 CONSOLE	COMV20BL6HD1
BL-FH37A-ME	PRO/COMM 2/3 CONSOLE	COMV20BL6HD2
BL-FH38A-ME	PRO/COMM 3/3 CONSOLE	COMV20BL6HD3

1. From the MAIN screen select:
   Disk/diskette services.

2. From the Disk/diskette services screen select:
   Install Application.

3. Insert disk VOL NAME: COMV20BL6HD1 into the top disk drive
   then press <RESUME>.

4. From the Application Install menu select:
   Pro Communications

5. From the Application/Group menu select:
   Main menu application

6. From the Application Group name change menu press <DO>

7. Insert diskette VOL NAME: COMV20BL6HD2, press <RESUME>

8. Remove diskette from drive 2 (the bottom drive). Insert
   diskette labeled COMV20BL6HD3, press <RESUME>

9. Remove all diskettes and press <EXIT>

10. PRO COMMUNICATIONS should now be installed on the main menu

11. <Exit> to the main menu and select PRO/Communications

12. You are then asked to press the <Resume> key, do it.

13. You are then instructed to turn the CONSOLE unit off and on,
    do it.

14. The next step is to install the CONSOLE.

*** NOTE ***
PRO COMMUNICATIONS must always be installed before the CONSOLE.

VAX 8800/8700/8550/8500 CONSOLE INSTALLATION

If you install the CONSOLE Operating System, you need to install PRO/Communications and then install the CONSOLE/PRODCL application. If you need to install the CONSOLE/PRODCL application only, first remove the existing application by following the instructions below. To install the CONSOLE/PRODCL application, also follow the steps described below.
This installation procedure assumes that the CONSOLE already has POS Rev 2.0A and PRO COMMUNICATIONS installed.

The CONSOLE/PRODCL application consists of eight diskettes, labeled as follows:

NAME:	VOLUME NAME:
COMMAND LANGUAGE 1/2 CONSOLE	CONSOLEDCL1
COMMAND LANGUAGE 2/2 CONSOLE	CONSOLEDCL2
RX99 REVISION HISTORY	NCON3
RX100 CONSOLE TASKS	NCON1
RX101 ISP MICROCODE	NCON2
RX102 BOOT COMMAND FILES	NCON4
RX98 CI VMB SYSTEM CODE	NCON5
RX107 MICRODIAG #1	NDIAG4

Installing CONSOLE/PRODCL

(1) Power up CONSOLE. The first time the CONSOLE system is powered up it displays the Main Menu. If you are re-installing the CONSOLE/PRODCL application, powering up the CONSOLE will run the CONSOLE application and enter CONSOLE mode, >>> prompt. If this occurs perform the following steps:

(a) Exit CONSOLE application to the '$' prompt by typing the CONSOLE command, EXIT.

(b) Then type EXIT at the '$' prompt to display the Main Menu.

(2) If there is no CONSOLE/PRODCL on the main menu then skip to step number 3 below. Remove the application labeled CONSOLE/PRODCL from the main menu:

(a) At Main Menu select:
> Disk/diskette services

(b) At Disk/Diskette Services Menu select:
> Remove application

(c) At Application Group Menu select:
> Main Menu Applications

(d) At Applications Within a Group Menu select:
> CONSOLE/PRODCL

(e) After the REMOVE is done EXIT to main menu.

(3) With P/OS and PRO/Communications installed, install the CONSOLE/PRODCL application. The installation procedure is not drive specific, therefore, you may insert the application diskettes into either diskette drive.

(a) From the main menu select:
Disk/diskette service

(b) From Disk/diskette services select:
Install application

(c) You are now instructed to insert the application diskette CONSOLEDCL1. Insert the diskette and press the key labeled RESUME.

(d) From Application Installation menu select:
CONSOLE/PRODCL

(e) From Application Group Menu select:
Main Menu Application

(f) You are then asked if you want to change the application name, press key <DO>

(g) You are then asked to insert CONSOLEDCL2:
Remove diskette labeled CONSOLEDCL1,
Insert diskette labeled CONSOLEDCL2,
Press <RESUME>

(h) You are then asked to insert NCON1:
Remove diskette labeled CONSOLEDCL2,
Insert diskette labeled NCON1,
Press <RESUME>

(i) You are then asked to insert NCON2:
Remove diskette labeled NCON1,
Insert diskette labeled NCON2,
Press <RESUME>

(j) You are then asked to insert NCON3:
Remove diskette labeled NCON2,
Insert diskette labeled NCON3,
Press <RESUME>

(l) You are then asked to insert NCON4:
Remove diskette labeled NCON3,
Insert diskette labeled NCON4,
Press <RESUME>

(m) You are then asked to insert NCON5:
Remove diskette labeled NCON4,
Insert diskette labeled NCON5,
Press <RESUME>

(n) You are then asked to insert NDIAG4:
Remove diskette labeled NCON5,
Insert diskette labeled NDIAG4,
Press <RESUME>

(o) Installation is now complete. Remove all diskettes and save them as backups.

(4) After CONSOLE/DCL is installed, <EXIT> to the Main Menu

(5) At the Main Menu select:
> CONSOLE/PRODCL

NOTE: At this point you may see a new LOGFILE being created. Please wait until completed.

You should see the CONSOLE prompt '>>>'

(6) Exit from CONSOLE mode to the '$' prompt by typing "EXIT"

(7) Set up a pointer in [ZZSYS] to make the P/OS boot procedure automatically run the CONSOLE when the CONSOLE system unit is powered on:

(a) At the '$' prompt type:
$ SHOW LOGICAL APPL$DIR

P/OS will display:
APPL$DIR = SYSDISK:[ZZAP000nn] SYSDISK:[ZZAP00002]

Write down the number showing [ZZAP000nn]

(b) Make [ZZSYS]FIRSTAPPL.PTR point to the APPL$DIR:

RUN EDT
EDT>[ZZSYS]FIRSTAPPL.PTR

the following line will be displayed:

ZZAP000nn

edit this line so that it matches the value returned by P/OS in response to the SHOW LOGICAL APPL$DIR command above. For instructions on using the editor see Chapter 4 of the VAX 8800/8700/8550/8500 CONSOLE USERS GUIDE

(c) exit EDT by typing ^Z followed by typing "EXIT".

(8) Before powering up, be sure ALL floppies have been removed from the drives

(9) This procedure in not complete until this step (9) is complete:
Switch the CONSOLE system unit to off (0) and then back on (1)

VAX DIAGNOSTIC SUPERVISOR AND DISK FORMATTER INSTALLATION

Exit the CONSOLE application. You will be prompted with a '$'.
Copy all files from NDIAG1, NDIAG2 and NDIAG3 floppies to
DW1:[CONSOLE] following the directions below:

Put each floppy into drive #1 (top drive) and type the following:

```
$ COPY DZ1:[USERFILES]*.*   [CONSOLE]*.*
```

The three files are called:

BL-FH11D-ME	RX104 DIAG SUPER
BL-FH22B-ME	RX105 VAX DISK FORMATTERS
BL-FH23A-ME	RX106 VAX AUTOSIZER

DISK FORMATTER NOTES

1. EZSAA - Nautilus VAX Diagnostic Supervisor

To load the VDS from CONSOLE RD50 and start it do the following:

```
>>> @diaboo                ! A banner should be printed and
                           ! the prompt will now be DS>.
        "Banner"
DS>
```

To invoke the VDS from an HSC disk do the following:

```
>>> @sciboo
```

To invoke the VDS from an UDA50 disk do the following:

```
>>> @suaboo
```

To invoke the VDS from an KDB50 disk do the following:

```
>>> @sdaboo
```

***Note: all command procedures except DIABOO need to be modified.

The following register deposits must be done before executing those command procedures or must be edited to correspond to the hardware configuration:

R1 - Bus address information
R2 - CI port # of HSC(s) to which drive is ported, if booting over HSC.
R3 - device unit number

For more information refer to VAX Diagnostic Supervisor User's Guide: EK-VXDSU-UG-001.

2. EVRLB - Disk Formatter

Once VDS is started, do the following:

```
DS> LOAD EVRLB
DS> ATT NBIA HUB NBIA0 (adapter # 0 or 1)
DS> ATT NBIB NBIA0 NBIB0 (BI #) (BI node #)
DS> ATT KDB50 NBIB0 DUA (BI node #)
DS> ATT RA60 DUA DJA0                  ! if RA60 is used
DS> ATT RA81 DUA DUA0                  ! if RA81 is used
DS> SEL DJA0                           ! or DUA0
DS> HELP EVLRB                         ! to get more information
DS> ST
```

POWER UP DIAGNOSTICS MOVED FROM SYSINIT.COM TO POWERUP.COM

Power up diagnostics have been moved from SYSINIT.COM to the command file POWERUP.COM. Cluster users will not have to comment code out of the SYSINIT.COM file. Executing the POWERUP.COM file will run power up diagnostics which then chains to SYSINIT.COM

Power up diagnostics can be run by typing @POWERUP at the CONSOLE prompt ">>>" The following information illustrates this step.

```
>>> @POWERUP
```

The two diagnostic sections, EZKPA and EZKPB, give a basic confidence in the system.
These sections may be invoked from the Micro Monitor also. To run the Micro Monitor type TEST/COMMAND at the CONSOLE prompt.

```
>>>TEST/COMMAND                          !Enter the Micro Monitor

At the MIC> prompt type the following:

MIC>set CPU both                 !If Vax8800 run both cpu's

MIC>set clock normal             !Set clock speed

MIC>diagnose/section:EZKPA       !Run power up diagnostic EZKPA

   This will run the power up micro diagnostic EZKPA.

You may specify certain tests in a section by using the
        /TEST: specifier.

DIAG/SECT:EZKPA/TEST:1                   ! run test 1 of EZKPA

To run multiple passes of either a test or section
add the /PASS:x switch, x is the number of passes desired,
if 0 is typed the loop will continue indefinitely.

DIAG/SECT:EZKPB/PASS:5                   ! run 5 passes of EZKPB
```

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!!!! I M P O R T A N T "CIBCI" N O T E !!!!

CIBCI MICROCODE V7.0 IMPLEMENTATION RELEASE NOTES: 19-MAR-1986

Version 7.0 (V7.0) of the CIBCI microcode (CI_UCODE) will be installed in all manufacturing shipped CIBCIs as of 1-APR-1986. This cover letter will describe the VAX 8800/8700/8550/8500 CONSOLE MEDIA changes, CI_UCODE enhancements, and requirements for supporting V7.0 CIBCI microcode in the Field: spare L0101 V7.0 CI_UCODE PROMs for L0101 @ Rev-"J1"; and new CI diagnostic versions.

CIBCI/CI780/CI750 V7.0 MICROCODE APPLICABILITY

V7.0 CI_UCODE has been ECO'd into the CIBCI as of 1-APR-1986; and is being made available in mid-APR-1986 as a limited-distribution unofficial FCO for customers and VAXclusters heavily impacted by known V6.0 and earlier CI_ucode problems. CSSE and the Cluster Program Office are advising that VAXclusters with VAX 8800/8700/8550/8500 and/or with the known problems (below) should have all CI780s, CI750s, and CIBCIs upgraded to V7.0.

> NOTE: There are no known problems with running mixed CI_UCODE versions (V5.0, V6.0, & V7.0), except for diagnostic (older) revision incompatibility; but all CI nodes should be upgraded to V7.0 for consistency and reliability.

Official V7.0 CI_UCODE FCOs to CI780/CI750 products are scheduled for JUL-86, (CIBCI: Q4-FY86) to coincide with the new VAX CONSOLE media of EVNDX Diag. RELEASE-24. However, the official CI7x0 FCOs will also be packaged with another L0101 module ECO modifying logic to fix the "CROSSED PATH" error.

Current candidate systems and VAXclusters for upgrading CI7x0 to V7.0 CI_UCODE are those exhibiting either of the following two failures at an excessive rate:

1. CI "ARBITRATION Timeouts (ARB_TO)" or "MISC_ERR_50000 (IQRE)" at a high rate, typically seen on large clusters (8600/8650/8800/8700 /8550/8500).
2. CI "BUFFER LENGTH VIOLATION" packet error on any VAX system, which is crashing with CI DATAGRAM_FREE_Q corruption, or experiencing frequent CI_PORT RESETs for CI_BUF_LEN_VIO.

   NOTE THAT PRE-RELEASE V7.0 FCO IS INCOMPLETE, AND WILL NOT BE OFFICIALLY RELEASED (WITH L0101 LOGIC ECO) UNTIL JUL-86 !

CIBCI/CI780/CI750 V7.0 MICROCODE ENHANCEMENTS

CI_UCODE V7.0 solves several CI_ucode problems: "Sanity timer & ARB_TO" Cluster HANG problem with V6.0, Insufficient ARBITRATION TIMEOUT (ARB_TO) detection period, MISC_ERR_5 (IQRE: Internal Queue Retry Expired), stale BUFFER DESCIPTOR (BDT) CACHE, and CI BUFFER LENGTH VIOLATION (BUF_LEN_VIO). Other changes include adding a "variable sanity time" (instead of fixed 99 seconds); and removal of CI_UCODE support for CI Maintenance Mode commands.

V7.0 CI_UCODE requires new L0101 V7.0 PROMs & new CI780.BIN CI_UCODE file, and is not compatible with V6.0 L0101 ROMs ! The V7.0 ROMs upgrade the L0101 to Part Revision "J1".

VAX 8800/8700/8550/8500 VERSION 22D CONSOLE MEDIA

The CIBCI microcode file, CI780.BIN, contains V7.0 CIBCI microcode as the default version. There are two (2) other CIBCI microcode files provided, CI780V60.BIN (V6.0) and CI780V50.BIN (V5.0), if your CIBCI has not been upgraded with V7.0 Microcode PROMs on the L0101 (Part Rev-"J1"); or the correct L0101 PROM spares are unavailable. The V5.0 or V6.0 CI_UCODE files can be invoked, if the L0101 PROMs are at the wrong revision (see L0101 CI_UCODE PROM VERIFICATION, below) by file renaming:

For example, to use version 5.0 instead of version 7.0 type at the "CONSOLE/DCL" prompt "$":

```
$ RENAME [USERFILES]CI780.BIN    [USERFILES]CI780V70.BIN;
$ RENAME [USERFILES]CI780V50.BIN [USERFILES]CI780.BIN;
$ RENAME [CONSOLE]CI780.BIN      [CONSOLE]CI780V70.BIN;
$ RENAME [CONSOLE]CI780V50.BIN   [CONSOLE]CI780.BIN;
```

For example, to use version 6.0 instead of version 7.0 type at the "CONSOLE/DCL" prompt "$":

```
$ RENAME [USERFILES]CI780.BIN    [USERFILES]CI780V70.BIN;
$ RENAME [USERFILES]CI780V60.BIN [USERFILES]CI780.BIN;
$ RENAME [CONSOLE]CI780.BIN      [CONSOLE]CI780V70.BIN;
$ RENAME [CONSOLE]CI780V60.BIN   [CONSOLE]CI780.BIN;
```

*** NOTE ***
This renaming must be done every time you install the CONSOLE application.

ORDERING INFO FOR V7.0 CI780/CI750 MICROCODE

V7.0 CI780/CI750 PRE-RELEASE CI_UCODE FCO will available in SR17/Field Service Stockroom as of APR-86. The pre-release V7.0 FCO #'s are: CI780-F1-I-005 and CI750-E1-I-004. The FCO EQ kit part numbers are:

CI750	CI780	DESC.
EQ-01421-01	EQ-01422-01	FCO Doc. & 6 V7.0 L0101 PROMs for 1 CI7x0: PROM P/N's = 23-296F3-00 thru 23-301F3-00; upgrades L0101 to Part Revision "J1".

SPARES NOTE: Field Service Spares/SR17 will not be stocking the Rev-"J1" L0101 until JUL-1986, only supporting Rev-"H1" V5.0 L0101s. This requires that spare V7.0 PROMs be kept on-site by ordering extra EQ-kits below; or that V7.0 PROMs be migrated to replacement L0101 modules when swapped.