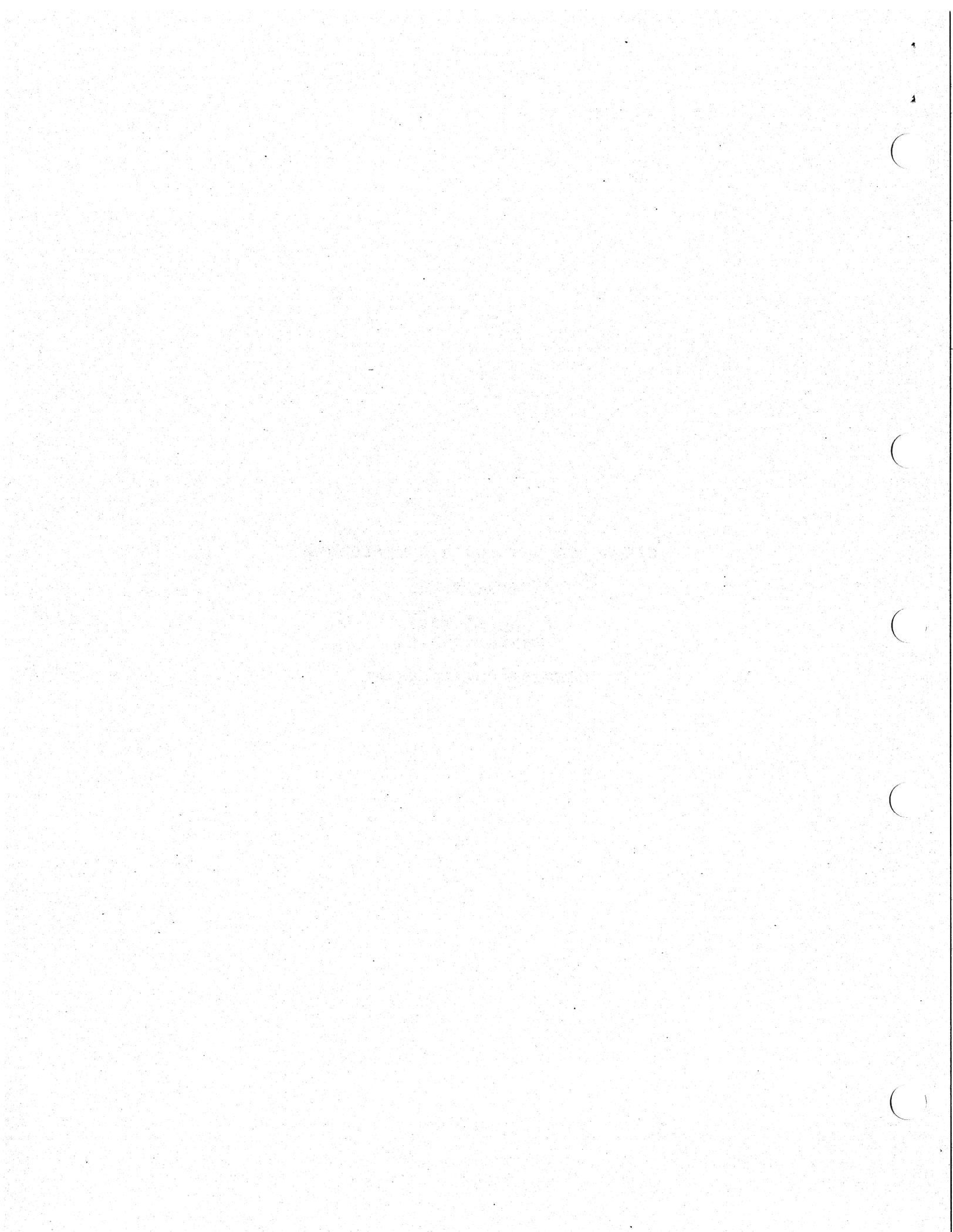


CIBCA Diagnostics and Microcode

Release Notes

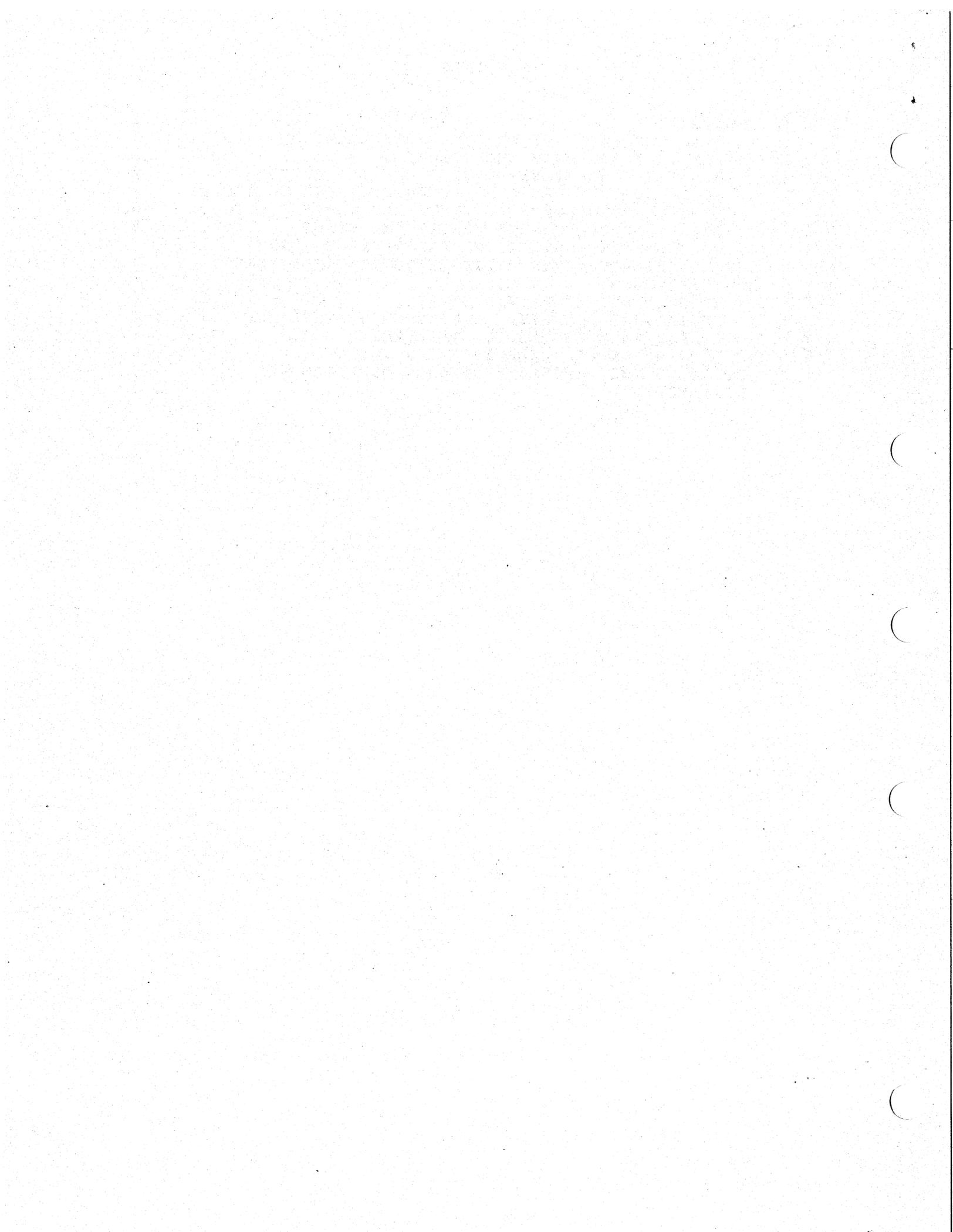
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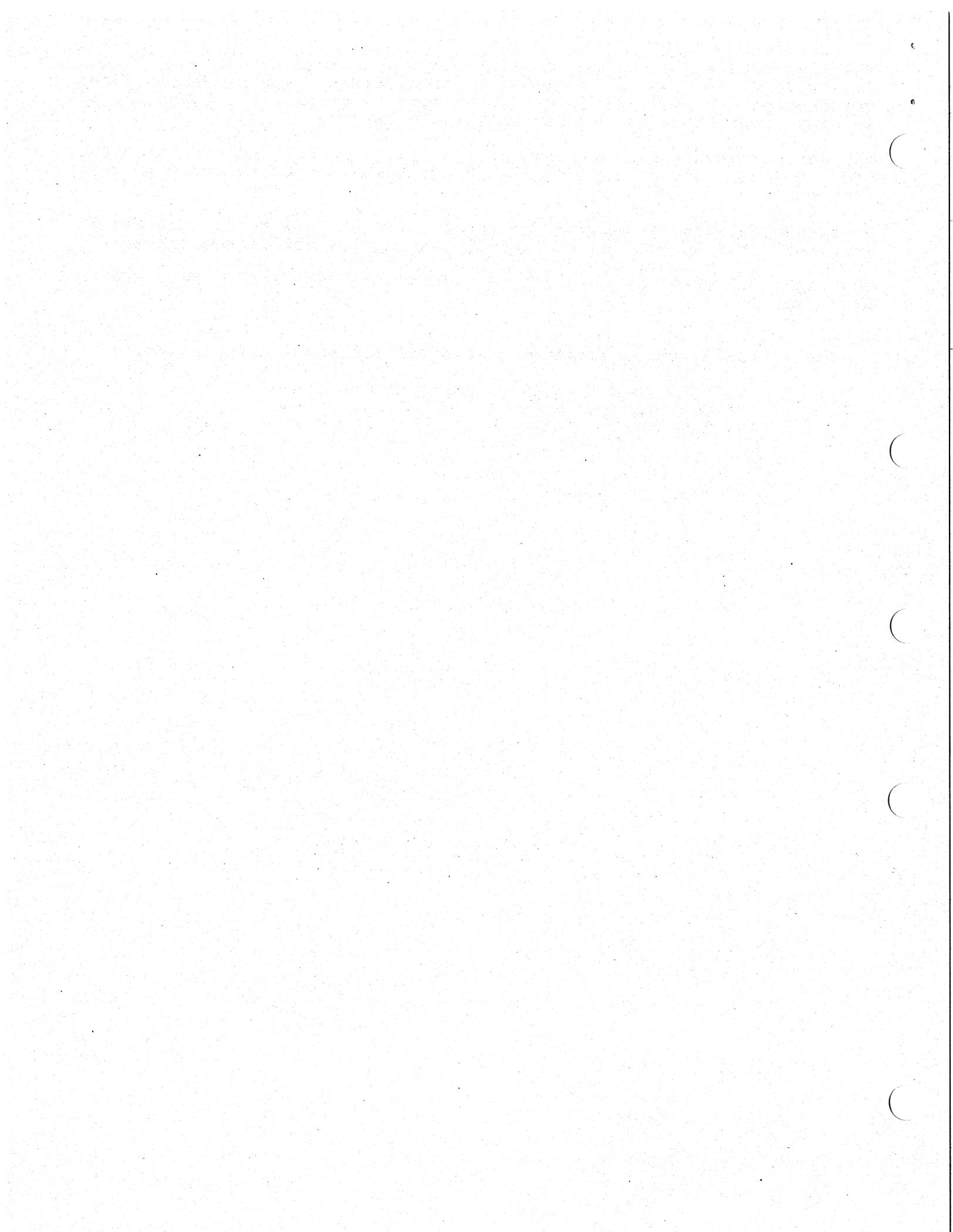
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1 ABSTRACT

This document provides the necessary information relative to usage and support of CIBCA Diagnostics and Microcode.

1.1 DIAGNOSTIC/MICROCODE MEDIA DISTRIBUTION

The CIBCA Job Shop Diagnostics and Microcode are distributed on 4 RX50's. All of the 4 floppies are being kitted in this manner until Diagnostic Release 28. Two of the floppies will ship with the CIBCA hardware from manufacturing. When the released VAX82X0/83X0 console floppy contains the latest released CIBCA.BIN microcode, it will cease to be shipped with the CIBCA hardware from manufacturing. The two manufacturing supplied RX50s are;

BL-ZZNNB-JS VAX8200/8300 CONSOLE FLOPPY
BL-ZZNOB-JS VAX CIBCA MICROCODE UPDATE FLOPPY

The other 2 floppies contain the CIBCA Repair Level Diagnostics and the VAX CI Functional Diagnostics that provide CIBCA device support. They will be distributed in a pre-release mode until Diagnostic Release 28. The CI Exerciser Diagnostic (EVXCI 8.1 or CIE081) that provides CIBCA support was made available in Diagnostic Release 26 so it is not included in this diagnostic kit.

PR-ZZNMB-JS VAX CI FUNCTIONAL DIAGS
PR-ZZNPB-JS VAX CIBCA REPAIR LEVEL DIAG

These floppies were put together with a mindset of supporting both VAX82X0/83X0 and VAX85X0/8700/8800/897X type machines from 1 set of distribution media. These following sections identify what files are placed on each piece of media.

All media, except for the VAX82X0/83X0 Console Floppy, is initialized using ODS1 format. This was done so that the RX50s could be used on the VAX85X0/8700/8800/897X console for updating from the console RX50 to the Winchester. The VAX82X0/83X0 Console Floppy is RT11 format.

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2 MEDIA SUPPLIED WITH THE CIBCA

2.1 BL-ZZNNB-JS - VAX82X0/83X0 CONSOLE FLOPPY

This media represents the VAX82X0/83X0 Console floppy. The contents of this RX50 are:

<u>Floppy Directory:</u>	<u>Description:</u>
BOOT58.EXE;Rev	CONVERSATIONAL BOOT FILE
VMB.EXE	VAX/VMS PRIMARY BOOT FILE
CI780.BIN	CI780/CI750/CIBCI FUNCT UCODE
CIBCA.BIN	CIBCA MICROCODE FILE V3.0
CSABOO.CMD	CSA BOOT COMMAND FILE
CIBOO.CMD	CLUSTER INTERCONNECT BOOT COMMAND FILE
KDBBOO.CMD	KDB BOOT COMMAND FILE
CONSOL.HLP	CONSOLE HELP FILE
CI78V5.BIN	CI780/CI750/CIBCI FUNCT UCODE
CI78V6.BIN	CI780/CI750/CIBCI FUNCT UCODE

2.2 BL-ZZNOB-JS - VAX CIBCA MICROCODE UPDATE FLOPPY

This is the CIBCA Microcode update floppy. This media has been initialized in ODS1 format so it can be used on either the VAX82X0/83X0 or the VAX85X0/8700/8800/897X console RX50. This contains the latest version of the microcode file, CIBCA.BIN and the CIBCA EEPROM Programming and Update utility, EVGDA, which is used to update the CIBCA EEPROM. EVGDA is an off-line level 3 diagnostic program. This floppy is also used to update the CIBCA.BIN microcode image on either the VAX82X0/83X0 console using EXCHANGE or the VAX85X0/8700/8800/897X console using PRO DCL commands. The VMB.EXE on this RX50 MUST be copied to the VAX85X0/8700/8800/897X console Winchester for CONSOLE Version 4.0 (BT-ZMAAD-V22D) or earlier prior to any attempt to boot with the CIBCA until the correct version is available with VAX/VMS Version 4.6. The contents of this RX50 are;

<u>Floppy Directory:</u>	<u>Description:</u>
EVGDA.EXE;REV. 1.1	CIBCA EEPROM PROGRAM UTILITY
EVGDA.HLP	HELP FILE FOR EVGDA
CIBCA.BIN;V3.0	CIBCA MICROCODE FILE V3.0
VMB.EXE	VAX/VMS PRIMARY BOOT FILE (VAX85X0/8700/8800/897X BCA PATCH)

3 PRE-RELEASED DIAGNOSTIC FILES AND MEDIA

3.1 PR-ZZNMB-JS - VAX CI FUNCTIONAL DIAGS

This piece of media contains the CI Functional Diagnostics. This media has been initialized in ODS1 format so it can be used on either the VAX82X0/83X0 or the VAX85X0/8700/8800/897X console RX50. The contents of this RX50 are;

Floppy Directory:	Description:
-----	-----
CI780.BIN	CI780 MICROCODE
CIBCA.BIN;V3.0	CIBCA MICROCODE FILE V3.0
EVGAA.EXE;REV. 4.0	VAX CI FUNCTIONAL DIAG-PART 1
EVGAA.HLP	HELP FILE FOR EVGAA.EXE
EVGAB.EXE;REV. 4.0	VAX CI FUNCTIONAL DIAG-PART 2
EVGAB.HLP	HELP FILE FOR EVGAB.EXE

3.2 PR-ZZNPB-JS - VAX CIBCA REPAIR LEVEL DIAG

This piece of media contains all of the CIBCA Repair Level Diagnostics. This media has been initialized in ODS1 format so it can be used on either the VAX82X0/83X0 or the VAX85X0/8700/8800/897X console RX50. The contents of this RX50 are:

Floppy Directory:	Description:
-----	-----
EVGCA.EXE;REV. 2.0	CIBCA REPAIR LEV T1015 DIAG PT 1
EVGCA.HLP	HELP FILE FOR EVGCA
EVGCB.EXE;REV. 2.1	CIBCA REPAIR LEV T1015 DIAG PT 2
EVGCB.HLP	HELP FILE FOR EVGCB
EVGCK.BIN;REV. 2.1	CIBCA RPR LEV EVGCB MICROCODE
EVGCC.EXE;REV. 2.1	CIBCA REPAIR LEV T1015 DIAG PT 3
EVGCC.HLP	HELP FILE FOR EVGCC
EVGCL.BIN;REV. 2.1	CIBCA RPR LEV EVGCC MICROCODE
EVGCD.EXE;REV. 1.0	CIBCA REPAIR LEV T1015 DIAG PT 4
EVGCD.HLP	HELP FILE FOR EVGCD
EVGCM.BIN;REV. 1.0	CIBCA RPR LEV EVGCD MICROCODE
EVGCE.EXE;REV. 2.1	CIBCA REPAIR LEV T1025 DIAG
EVGCE.HLP	HELP FILE FOR EVGCE
EVGCN.BIN;REV. 2.1	CIBCA RPR LEV EVGCE MICROCODE

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4 EVXCI RELEASE NOTES/INSTALLATION INSTRUCTIONS

Reference the following sections for Release notes, Installation, and invocation instructions.

4.1 TERMINOLOGY

What follows defines the terminology used throughout this section.

Controller node	- a node from which EVXCI runs
Responder node	- a node servicing requests from EVXCI
CXdriver	- class driver for controller interface
CYdriver	- class driver for responder interface

4.2 VERSION 8.1 CHARACTERISTICS

The limit on cluster size for prior versions of EVXCI was specified as 16, which was consistent with the hardware then available. In version 8.1 the limit was raised to 224, which is consistent with the limit imposed by the VAX-CI architecture.

4.3 INSTALLING COMPUTER INTERCONNECT EXERCISER

To install the CI Exerciser follow the instructions below.

- 1.) Log into the system manager's account
- 2.) Insure no users are logged and DECnet is inactive. If DECnet must remain operational, temporarily stop the network executor as follows:

```
$ MC NCP
NCP> set executor state off
NCP> EXIT
$
```

- 3.) Invoke VMSINSTAL as follows:

```
$ Sys$update:VMSINSTAL CIEnnn ddcn:

nnn      is the version number for
         the product, currently 081

ddcn     is the device identifier
         (type, controller, unit); e.g. a
         TU58 or RX01 console medium would
```

probably require CSA1:

This kit is distributed on 3 RX50. The BACKUP utility will prompt for second and third volume, as required, on the same drive as the first volume. For example:

```
%BACKUP-I-RESUME, resuming operation on volume 2
%BACKUP-I-READYREAD, mount volume 2 on ddcn: for reading
Enter YES when ready :
```

Enter YES after the second or later volume has been mounted. If you enter NO, the query will be repeated: to terminate VMSINSTAL at this point requires <CTRL>Y. Note that when VMSINSTAL exits on account of <CTRL>Y it will first delete the files it created prior to detecting the <CTRL>Y.

On completion of this installation all of the required files will have been installed in the SYSS\$MAINTENANCE area. If your system is part of a cluster in which SYSS\$MAINTENANCE is defined the same for all nodes, previous versions of CIE in a node-specific area will be deleted and CIE need only be installed once. When a different definition of SYSS\$MAINTENANCE is used at each node, the CI Exerciser must be installed separately at each node.

4.4 PREPARING A SYSTEM TO RUN EVXCI

The CI Exerciser version 8.1 requires VAX/VMS Version 4.4 or later for correct operation. When the VAX/VMS guidelines for communication service parameters are followed, the results are usually adequate for CI Exerciser operation.

The first table below contains the formulas for SCS parameters to correctly configure a controller node.

The second table contains similar formulas for a responder node. If your system currently can not provide the calculated minimum of system resources, contact your system manager for modifications. Keep in mind that this is the maximum resources that the CIE consumes while running and should be compared against available free resources.

The mnemonics used in for tables are as follows:

```
C : maximum number of controllers in the cluster
R : maximum number of responders in the cluster
+ : add
* : multiply
```

Parameter	Value to add to existing parameter
-----+	-----

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NPAGEDYN		17k + (2.5k * C) bytes
SRPCOUNT		15 + (2 * R) + (5 * C)
IRPCOUNT		(8 * R) + (8 * C)
LRPCOUNT		(7 * R) + (2 * C)
SCSCONNCNT		(2 * R) + C
SCSBUFFCNT		2 + (2 * C)

Table 1 - Controller Node

Parameter		Value to add to existing parameter
NPAGEDYN		5k + (2.5k * C) bytes
SRPCOUNT		(C * R) + R + (5 * C)
IRPCOUNT		(4 * R) + (8 * C)
LRPCOUNT		(2 * R) + (2 * C)
SCSCONNCNT		R + C
SCSBUFFCNT		2 * C

Table 2 - Responder Node

4.5 RUNNING THE CI EXERCISER

The exerciser can be run from any account (default quotas) having DIAGNOSE, CMKRNL, LOGIO, PHYIO, PSWAPM privileges. Buffered I/O limit must be at least 16K.

CIELOAD.COM (CX AND CY driver loader) will load both of the class drivers required for CI Exerciser operation. Invocation of this command procedure should be made part of the boot procedure, i.e.

```
$ @SYS$MAINTENANCE:CIELOAD
```

In addition the CI Exerciser should be invoked by foreign command which could be defined as, for example,

```
$ CIE == "$ SYS$MAINTENANCE:EVXCI"
```

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within the user's LOGIN procedure. This would permit interactive invocation of the CI Exerciser by simply entering

\$ CIE/Prompt

Documentation provided in the .HLP file at installation contains a brief description of options and controls.

5 UPDATING THE VAX85X0/8700/8800/897X CONSOLE WINCHESTER

It will be necessary, for at least the CIBCA Microcode file, to move file(s) from the RX50 distribution media to the Console PRO Winchester area for CONSOLE Version V4.0 (BT-ZMAAD-V22D) or earlier. To do this use the following example (putting the CIBCA microcode file on the winchester from the CIBCA Microcode Update Floppy).

>>> EXIT

At this point insert the RX50 in either
the TOP drive (DZ1:) or the BOTTOM drive (DZ2:).

```
$ SET DEFAULT DW1:[USERFILES]
$ COPY/CONT DZ1:[SYSMAINT]CIBCA.BIN
To: *.*
$ SET DEFAULT DW1:[CONSOLE]
$ COPY/CONT DZ1:[SYSMAINT]CIBCA.BIN
To: *.*
$ RUN CONTROL
>>>
```



