CIP L750

SOFTWARE RELEASE BULLETIN

June 25, 1990

Note: For CYBER models 960/962/992/994 with a CC598 console, read the CC598 Software Release Bulletin before installing CIP L750.

Important

Two copies of the CIP L750 Software Release Bulletin (SRB) are included in the CIP field kit. One copy is for the customer and the other is for the Control Data Customer Engineer (CE). The Maintenance Software Reference manuals and microfiche also need to be provided to the CE. Please ensure your CE receives this information. It is important that the CE be aware of all CIP features and cautions.

Control Data Corporation recommends that this Software Release Bulletin be read in its entirety prior to any CIP L750 installation.

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Appendix A

Chapter 1
Introduction

The CYBER Initialization Package (CIP) consists of hardware/software interface modules. The modules are released on tape and must be installed to disk for system operation. The CIP L750 release supports CYBER models 810, 815, 825, 830, 835, 840, 845, 850, 855, 860, 870, 960, 962, 990, 992, 994, and 995.

NOTE: Please consult your Field Change Announcement (FCA) sheet to verify that the hardware is at the appropriate level prior to the installation of CIP L750.

The CIP L750 described in this document is being released at the following levels:

Module	Level
CTI	750
MSL	750
EDD/RCM	750
DFTx/DBDx/ECRx	07
EI	22
MDD	13
SCI	06
SCD	05

The file structure of the CIP L750 tape for CYBER models 810/815/825/830 835/840/845/850/855/860/870/960/990/994/995 is as follows:

File 1 CIP L750 deadstart file.

File 2 CTITEXT.

File 3 Empty file.

File 4 NOS peripheral microcode.

File 5 NOS/BE peripheral microcode.

File 6 Procedure to install peripheral microcode onto the NOS/BE operating system.

File 7 Seldom used and obsolete diagnostics that can be loaded at the option of the site maintenance personnel. Instructions for copying file 7 to a tape for installation are contained in chapter 5.

The file structure of the CIP L750 tape for CYBER models 962/992 only contains the CIP L750 deadstart file.

Audience

The SRB is written primarily for the site analyst and hardware maintenance personnel. Chapter 2 contains CIP installation information. Chapter 3 contains information concerning maintenance software. Chapter 4 contains configuration management information. Chapter 5 contains information intended for hardware maintenance personnel.

CIP L750 Support

Any problem with CIP L750 should be reported on a Programming System Report (PSR), specifying the nature of the problem. Please include the CIP type and level number on each PSR, for example CIP 960 L750 where 960 is the type and 750 is the level.

Microcode problems should be reported on Technical Action Request (TAR) forms. To communicate verbally, contact Customer Service Support: 1-800-345-6628 for the United States and Canada and 1-612-482-3434 for other countries.

Any problem with the media or CIP L750 package contents should be reported to Software Manufacturing and Distribution (SMD). A report form, "THE SOFTWARE MANUFACTURING AND DISTRIBUTION CRITIQUE LETTER," accompanies each CIP tape. To order replacement CIP tapes, please complete this form. Be sure to include a description of the problem, your return mailing address and the type of tape you require, such as CIP 960 L750. Send the form with the defective tape to SMD so that a replacement tape can be sent to you.

Replacement tapes may also be ordered by phone, by calling 1-612-482-3409. Even if the replacement tape is ordered by phone, please return the defective CIP L750 tape accompanied by the form.

Your site may also try to copy the defective CIP tape to another tape with the operating system. Try to use the new copy of the CIP tape. The recovery process is more extensive on the operating system and the new copy may correct your problem. If this does not correct the problem, please return the defective CIP tape accompanied by the form.

Chapter 2
Installation

Enhancements

CTI

The features to Computer Test and Initialization (CTI) are as follows:

- On CYBER models 960, 962, 990, 992, 994 and 995 CTI was modified to correctly set the PP masks in the FSM register on an I4C IOU (model 44).

EDD/RCM

The Express Deadstart Dump (EDD) and Restore Central Memory (RCM) utilities contain the following enhancements:

- EDD corrections for dump to IPI tape on CYBER models 962 and 992. The problem was reported with PSR EXD0020.

DFT

The Dedicated Fault Tolerance (DFT) module has the following modifications:

- DFT incurring an OS bounds error in dual state operation as a result of a channel 17 error. The problem was corrected on CYBER models 810, 815, 825, 830 ,835, 840, 845, 850, 855, 860, 870, 960, 962, 990, 992, 994, and 995.

- DFT hanging if no PC system console configured or is not powered up on a CYBER model 960 mainframe.

- Hourly reload of soft control memories on CYBER models 990, 992, 994 and 995.

SCI

The System Console Interface (SCI) module was not modified for the CIP L750 release.

Mainframe Microcode

The 96x-31/32 mainframe microcode was modified for this release to support executing NOS in both CPUs of a dual CPU system CYBER 960-32. The 96x-11 microcode contains a correction to the 180 compare instruction using the x register for the length field. The problem with this intruction was found during a benchmark test of SORT/MERGE feature of NOS/VE. It caused this operation to take much longer than expected.

Peripheral Microcode

The revised peripheral microcode MB103 supports the 799x (Cartridge System/VE for 799x).

The revised peripheral microcode MB468 supports 5680 cartridge tape.

The peripheral microcode MH426 for 9853 has added two functional changes plus other various features. These changes are transparent to the user and improve performance. Field tests show a 12-13% performance improvement from these enhancements. To install MH426 the utility LEEP is used. The documentation for LEEP is contained in the CYBER Systems Peripheral Diagnostic Reference Manual, publication number 60000144 revision G.

The utility LEEP, which loads the EEPROM in the CM3 may not terminate correctly. LEEP normally terminates with the following message: MICROCODE XX SUCCESSFULLY LOADED, where XX is the level number. If LEEP halts with a DISK SUBSYSTEM ERROR, DRIVE STATUS=8004H, and a LOW LEVEL ERROR = 0063H, the EEPROM has been properly loaded. This can be verified by rerunning LEEP. Enter an R on the keyboard, followed by a space bar. The initial warning message is displayed. Note the currently loaded portion of the message, which should reflect level 09, which was just loaded.

The MH426 features are described as follows:

- Dual process: This features provides two processes under the kernel for each drive on the string. If there are two more commands in the command buffer (IPI-3 buffer) for the same drive, the first command is parsed and executed and the second command is parsed and readied for execution during the seek for the first command. However, other drive commands could be parsed and put into execution prior to the second or subsequent commands for that drive. In other words, a second command for each drive could be parsed and readied for execution during the execution of commands for that drive to be complete before beginning the next command on that drive.

- Split buffer: This feature allows for another drive's data to be loaded into the buffer and transferred to the host prior to completion of the command for the drive currently transferring data. The following conditions must be met for this feature to work:

  - the last burst for the current transfer is in the buffer
  - the next drives RPS interrupt occurs
  - the next drive has the same sector size as the current drive.

  When these conditions are satisfied the data transfer for the next drive occurs before the command completes class 1 transfer packet for the current command is transferred.

- Defect list error recovery: Error recovery was added to all data sets on the defect management cylinder. It prevents a catastrophic failure if one of the replicated sectors is unreadable. This error recovery allows the operation in progress to continue in the event of a data error.

- Defect list sector length: The length field in the defect list was changed to 3FE (1024) instead of the actual length of the data to comply with the ANSI standard.

- Unformatted status: Drives that fail diagnostics or are removed from the CM-3 drive tables due to a hardware status were being reported as unformatted. This was changed to reflect a more accurate description of the drive condition.

Notes and Cautions

- The CIP User's Handbook publication 60457180 has been replaced by six reference manuals according to computer models as follows:

  60000417 - CYBER Initialization Package (CIP) for CYBERs 810/830/815/825

  60000418 - CYBER Initialization Package (CIP) for CYBERs 835/840/845/850 855/860 with IOU AB115A

  60000419 - CYBER Initialization Package (CIP) for CYBERs 840/845/850/855 860/870/990/995 with IOU AT478A/AT481A

  60000420 - CYBER Initialization Package (CIP) for CYBERs 960/994

  60000421 - CYBER Initialization Package (CIP) for CYBERs 962/992

  60000422 - CYBER Initialization Package (CIP) for CYBERs 170-865/875 and non-model 8xx/9xx

- The CIP for CYBER models 962 and 992 can be delivered on cartridge tape for the next CIP release. Complete the form in appendix A and return it to Software Manufacturing and Distribution to change the media for CIP.

- After the installation of the CC598 L750 console software, the L739 console software becomes obsolete and should never be used.

- It is recommended that only one CIP L750 operating system deadstart device per mainframe be used, due to the retention of mainframe configuration information between deadstarts by CTI on the deadstart disk. It is not recommended to have two mainframes share a common CIP L750 device.

- After performing any physical (hardware) mainframe reconfiguration, the mainframe reconfiguration table (MRT) must be cleared prior to an operating system load. After the MRT is cleared, any logical (CTI) reconfiguration information must be reentered. The steps required to clear the MRT are as follows:

  1. Deadstart from the CIP L750 disk.

  2. At the CIP L750 Initial Options display, enter a U (Utilities).

  3. At the Utilities display, enter an H (clear the mainframe reconfiguration table). The following messages are displayed:

```
CLEARING THE MRT WILL CAUSE THE
FOLLOWING ITEMS ON THE NEXT
DEADSTART,

ALL MAINFRAME MEMORIES WILL
BE INITIALIZED FOR OS LOADS.

CM RELOAD FROM EDD TAPE OPTION
WILL NOT BE AVAILABLE.

(CR) TO CONTINUE
```

  4. Enter a (CR).

The MRT is now cleared and all previous reconfiguration entries are deleted. Please reference the CYBER Initialization Package (CIP) manual for your mainframe for a detailed description.

- MDD mode of SCI is designed to allow an analyst to observe the condition of a mainframe before NOS/VE begins its initialization routines. For SCI to begin the deadstart of NOS/VE, the user should press the F7 key on a CC634B or CC598A/CC598B console. If a console other than a CC634B or CC598A/CC598B is used, the operator should enter an RS (RECORD SEPARATOR = 1E hexadecimal) and a lower case w. This is true regardless of the origin port of the deadstart or the port that MDD is to drive.

- When using dual state, if you deadstart NOS/BE on a dual CPU CYBER 995, a false (218) FATAL CPU1 ERROR is received in the CERFILE which is also displayed on the NOS/VE console when that system is deadstarted. This error message does not prevent NOS/VE from using the CPU, thus the message can be ignored. To avoid having the error message appear, obtain PSR NB0E611 from SOLVER and install it in your NOS/BE system.

- CIP does not support tape drives configured on channels 0 or 1.

- On CYBER models 960/962 DFT fault codes DI40Z501, DI44Z501, DI40Z502, and DI44Z502 messages are reported by HPA or HPA/VE. An intermittent packet error occurs between DFT and the Environmental Power Monitor which causes these errors (501 = bad packet response and 502 = packet sequence mismatch). These messages should be ignored for the L750 release and will be fixed in a future release.

CIP L750 Installation Procedure

CIP L750 and Operating System Compatibility

CIP L750 may be installed as released if your site is running any of the following operating system release levels on a single IOU system. Operating systems released prior to those listed are outside the support window and may not work. Sites that wish to use a previously released operating system may do so at their own risk.

NOS	2.7.2 L750
	2.7.1 L739
	2.7.1 L716
NOS/BE	1.5 L712
	1.5 L682
	1.5 L664
NOS/VE	1.5.2 L750
	1.5.1 L739
	1.4.2 L727
	1.4.1 L716

CIP L750 on Systems with Dual IOUs

Dual IOU systems can not be used on a dual state system running NOS/BE unless they have installed modsets NB0E640, NB0E643, NB0E644, NB0E645, and NB0E649 which adds DFT V5 support to NOS/BE.

CC598 Installation

To install the console software, refer to the CC598 SRB. To install CIP L750, refer to the CYBER Initialization Package (CIP) manual for your mainframe.

CIP Installation

- Do not install CIP when the CIP disk is in use. Installation of CIP should be accomplished only when CIP has sole access to the disk to avoid conflicts with operating system access and possible file corruption.

  In dual state, the CIP device must be defined to the host operating system (NOS or NOS/BE). The CIP disk may either be defined in the NOS/VE configuration as STATE=OFF or must be omitted entirely from the NOS/VE configuration. NOS/VE does not use a device with STATE=OFF unless it is a CIP disk, and then only for DFT access.

  You may alternate between dual state and standalone, using the same PHYSICAL_CONFIG file and configuration prolog file, by changing the state of the CIP disk to STATE=OFF when running dual state.

- Perform the following steps to install CIP L750 to the CIP disk:

  1. The update option may be used to install CIP L750 and permanent files do not require dumping and reloading. Use of the update option is documented in the CYBER Initialization Package (CIP) manual for your mainframe. After identifying the type of CIP installation and if necessary, dumping permanent files, deadstart from the CIP L750 tape and perform either the update or the initial installation.

  2. If your site does not use NOS/VE, skip to step 7; otherwise, deadstart from the CIP L750 disk.

  3. Select the U (Utilities) option.

  4. Select the V (Install NOS/VE Boot Programs) option.

  5. Mount one of the following based on the descriptions given:

     a. If you plan to run NOS/VE 1.4.1 L716, NOS/VE 1.4.2 L727, or NOS/VE 1.5.2 L750, mount the NOS/VE deadstart tape. (Note that the CIP L750 tapes do not contain the required NOS/VE boot programs.)
     b. In any other case, mount the CIP tape that matches the level of NOS/VE that you plan to run.

  6. Describe the path to the tape drive containing the tape identified in step 5 and install the NOS/VE boot programs.

  7. The CIP L750 installation process is complete. You may proceed to the Peripheral Microcode Installation Section.

  If you wish to alternate between two levels of NOS/VE for any reason, you may do this using the same CIP disk by following steps 2-6 to install the NOS/VE boot components matching the NOS/VE system level you are deadstarting. Steps 2-6 must be repeated immediately before each deadstart of a NOS/VE system that is at a different release level than the NOS/VE system most recently executed on that mainframe.

Peripheral Microcode Installation

New levels of peripheral microcode for NOS and NOS/BE are distributed via CIP. The NOS/VE operating system obtains peripheral microcode from the common disk area, which is installed with CIP L750, and does not require the operating system deadstart tape to be modified.

Acquiring the peripheral microcode from the CIP L750 tape for installation onto the operating system is an operation separate from CIP L750 installation. NOS peripheral microcode is contained on file 4 of the CIP tape and NOS/BE peripheral microcode is on file 5. File 6 is a procedure to aid in the installation of peripheral microcode onto the NOS/BE operating system. The steps in the following NOS and NOS/BE Installation sections describe how to install peripheral microcode onto an operating system deadstart tape.

NOS Installation

NOS sites must update the operating system deadstart tape if they are not at NOS 2.7.1 L716 or a later release. The following procedure installs peripheral microcode onto an operating system tape and directs its installation.

1. Deadstart NOS.

2. Mount the CIP L750 tape.

3. Enter the following commands at the system console under DIS or from an interactive terminal:

```
REQUEST,CIP,VSN=CIP,D=PE,F=SI,LB=KU,PO=RF.
SKIPF,CIP,3.
COPYBF,CIP,LGO.
RETURN,CIP.
COMMON,SYSTEM.
SYSGEN,DST,SYSTEM,LGO,NEW,USERD,density.
```

where density is the density of the new deadstart tape (PE or GE)

These steps create a new deadstart tape containing the new peripheral microcode. The new tape is requested with a VSN of NDT. It should be assigned with the VSN,est,NDT command from the system console, where est is the EST ordinal of the tape drive where the operating system tape is to be written.

4. If CIP L750 has not been installed to disk yet, use the process documented in the CIP Installation section, mentioned previously.

5. Perform a level 0 (zero) NOS deadstart with the new tape.

NOS/BE Installation

To incorporate the latest peripheral microcode from the CIP L750 tape onto NOS/BE, follow the steps below:

1. Deadstart NOS/BE.

2. Mount the CIP L750 tape.

3. Enter the following commands at the system console:

   ```
   n.DIS.                                  (where n is the control point number)
   REQUEST,CIP,VSN=CIP,NT,PE,NORING.
   SKIPF,CIP,5,17.
   BEGIN,,NOSBE,CIP.
   ```

   When this procedure terminates, all peripheral microcode used by NOS/BE is CATALOGed with ID=CWARE. The deadstart tape must now be rebuilt using the appropriate NOS/BE build job (DST1 or DST3) as described in the NOS/BE Installation Handbook.

4. If CIP L750 has not been installed to disk yet, use the process documented in the CIP Installation section, mentioned previously.

5. Deadstart NOS/BE with the new tape.

NOS/BE UEM Requirements

CIP allocates Central Memory (CM) space on the system mainframes for EI, page tables and required CM resident binaries. In addition, DFT requires CM space for its tables. These requirements change depending on the type of mainframe, the amount of memory and the number of CPUs. The CM remaining for User Extended Memory (UEM) is summarized in the following table:

	CM Size times 1000B			
Mainframe Type	8 MB	16 MB	32 MB	NOS/BE Level
810/810A/815/825/830/830A/835	2737	6735	6777	L682 or prior
	2736	6734	6776	L712
840/840A/845/850/850A/855/860	2735	6733	6777	L682 or prior
860A/870/870A	2733	6731	6775	L712
960	N/A	N/A	N/A	L682 or prior
	2706	6704	6774	L712
990/990E/994/995E	2665*	6663*	6775*	L682 or prior
	2662*	6660*	6772*	L712

* If the mainframe has a second CPU, subtract another 1000B.

All values should be multiplied by 1000B. The first line gives the values for NOS/BE systems at level 682 or prior and the second gives values for level 712. The 32 MB size includes all systems greater than 32 MB.

Chapter 3
Maintenance Software Library

Enhancements

The enhancements to the Maintenance Software Library (MSL) are as follows:

- New CPU utility DXC and command buffers used to execute CYBER 170 diagnostics in the second CPU of CYBER 960-32.
- New diagnostic DASI4 used to test 5830 (DAS).
- New utility LEED used to load EEPROM for 5830 (DAS).
- Modified DPDI/LEEP to make parameter word 3, which contains channel, equipment, and unit, consistent with DASI4/LEED. The unit number field was expanded from 3 bits to 6 bits.
- Added command buffers DASI4, DPDI4, and LEED to support 5830 (DAS).
- On CIP 810/815/825/830 command buffers EXC1A and EXC1B were modified to correct EME hangs with MAINTENANCE CHANNEL TIMEOUT messages displayed. The command buffers A1701A and A1701B were deleted and a new command buffer A1701C added to correct the same problem with the A170 command buffer. This correction is in response to TAR 291409. Problem was corrected on CYBER models 810, 815, 825, and 830 only.

Notes and Cautions

- Microfiche program listings of CTI, microcode, SCI, SCD, MDD, DFT, and EI are available at the discretion of the District Technical Operational Support (TOS) managers or the Country Central Office.
- To run the I4 (CIO) PP based diagnostics, central memory has to be enabled at the initial CMSE display by entering 8.3 (parameter change). The diagnostics do not run without CM enabled. Refer to Service Bulletin 6945. The diagnostics that are affected are:

  - CCA4 - 170 DMA (CIO) channels
  - ISI4 - Intelligent Subsystem Interface (ISI) channels
  - IPI4 - Intelligent Peripheral Interface (IPI) channels
  - HYDR - DMA enhanced ISI channel adapter to 887 disk test
  - UESM - ESM/STORNET monitor
  - UHYD - ISI channel offline monitor of 887 disk inline test
  - DEMOT diagnostics (CIO)

  Note: The 170 DMA IOU diagnostic CCA4 leaves the CIO IOU in a state that the DEMOT diagnostics can't use. A deadstart followed by a U-I-M sequence corrects the problem.

- Deleting DEMOT's OUTPUT files (*DP,fn command, where fn is the file name), or any other file created without a 77 table (such as the flaw map from FMU), results in the error message PRFX TABLE MISMATCH appearing in the keyboard area error/message line. Although the file was deleted and the error message can be cleared with no need to retry the command, the disk space used by such a file is not released by CMSE. If a SRT FULL situation is encountered, CIP L750 requires reinstallation using the update installation option.

- The memory tests generally do not execute properly if CMSE is using central memory for communication.

- The diagnostic CMEM executes with a 16000 byte page size on CYBER models 960 and 962. This has caused the diagnostic to move in memory. Please note the parameter address displayed by the test at parameter entry time. Refer to the MSL15x Model Independent Tests and Maintenance Software Reference Manual, publication number 60469390, for a description of the control words and parameters.

- The PSR MSLB089 documents a problem with BYTE on CYBER models 960 and 962, which reports PIT losses during execution. This is not a concern. Checking of PIT interrupts by the test has been turned off. The problem will be resolved in a future release.

- The CIP User's Handbook was modified with a section that describes how to remove maintenance software for sites that no longer have maintenance contracts.

Chapter 4
Configuration Management

Mainframe Microcode Levels

Mainframe System Type	Release Level	Mainframe System Type	Release Level
CYBER 180-810/810A	M14AA16	CYBER 170-815	M11AA16
CYBER 180-830/830A	M13AA16	CYBER 170-825	M12AA16
CYBER 180-840/840A	M340x09	CYBER 170-835	M20AA17
CYBER 180-850/850A	M330x12	CYBER 170/180-845	M310x11
CYBER 180-860/860A	M320x11	CYBER 170/180-855	M300x10
CYBER 180-870/870A	M320x11	CYBER 180-990/995	M40Ax22
CYBER 960/962-31/32	M3A0x07*	CYBER 180-990/995	M41Ax22
CYBER 960/962-11	M3B0x07*	CYBER 180-994	M44Ax22
CYBER 992	M42Ax22		

* Changed with the CIP L750 release when compared to CIP L739.

Peripheral Microcode Levels

These are the versions of peripheral microcode furnished on the CIP L750 tape and the current versions with which CIP was tested.

Name	Version	Description
MA401	08	844FT disk peripheral microcode
MA454	04	FSC disk peripheral microcode
MA462	06	ISD disk adapter peripheral microcode
MA464	10	895 disk peripheral microcode
MA466	03	5870 NIP peripheral microcode
MA710	13	844HT disk peripheral microcode
MA721	12	885/FMD disk peripheral microcode
MA722	03	885/FMD DEMA disk peripheral microcode
* MB103	02	799x (Cartridge System/VE for 799x)
MB301	012	IPI tape peripheral microcode
MB401	04	FSC tape peripheral microcode
MB434	14	66X tape peripheral microcode
MB465/CW63X	04	639 ISMT tape control module peripheral microcode
MB466	03	7990 mass storage subsystem peripheral microcode
MB467	02	698 CMTS tape peripheral microcode
* MB468	02	5680 cartridge tape peripheral microcode
MD422	07	834 disk diagnostics
MD424	03	836 disk diagnostics
MH422	07	834 disk COS
MH424	03	836 disk COS
* MH426	09C	9853 disk COS
** MH427	01	DAS disk COS

* = Changed this release.
** = New for this release.

Field Change Announcement (FCA) Index Levels

Mainframe Model	Mainframe Index	Mainframe Model	Mainframe Index
CYBER 170-815	10	CYBER 180-810/810A	7
CYBER 170-825	11	CYBER 180-830/830A	7
CYBER 170/180-835	11	CYBER 180-840/840A	8
CYBER 170/180-845	11	CYBER 180-850/850A	8
CYBER 170/180-855	14	CYBER 180-860/860A/870A	8
CYBER 960	3	CYBER 990/995	16
CYBER 962	2	CYBER 992	2
		CYBER 994	3

NOTE: CIP releases are no longer placed on a hardware FCA unless CIP is is interdependent with the hardware change.

Chapter 5
Seldom Used or Obsolete Diagnostics

Notes and Cautions

This section contains information about file 7 for CIP L750 tapes with MSL. The following programs, which are seldom used or obsolete diagnostics, can be installed at the option of the local site maintenance personnel for all systems except a CYBER model 962 or 992.

FFU01-FFU99A
FLM00-FLM99C
FSM00-FSM99A
F4401-F4499A
F7X00-F7X99A
F8801-F8899A
PDP01-PDP99B
BCX-9X6
MY8-9VJ
MY9-9VT
LDC-9V5
MTC-9UP
S2C-8JU
SCX
CID-7AZ
MYP-9VX

PAGE2	CYBERs 960/990/994/995 only
STAT2	CYBERs 960/990/994/995 only
TASE2	CYBERs 960/990/994/995 only
TIVE2	CYBERs 960/990/994/995 only
PAGE065	CYBERs 840/840A/845/850/850A/855/860/860A/870/870A only
STAT065	CYBERs 840/840A/845/850/850A/855/860/860A/870/870A only
TASE065	CYBERs 840/840A/845/850/850A/855/860/860A/870/870A only
TIVE065	CYBERs 840/840A/845/850/850A/855/860/860A/870/870A only
GENM	CYBERs 840/840A/845/850/850A/855/860/860A/870/870A only
CACHE-CACHEB	CYBERs 840/840A/845/850/850A/855/860/860A/870/870A only
TRPEM-TRPEB	CYBERs 840/840A/845/850/850A/855/860/860A/870/870A only
VAUTO-VAUTOB	CYBERs 840/840A/845/850/850A/855/860/860A/870/870A only

Installation Instructions

To copy file 7 to another tape for installation by TDX, refer to the NOS or NOS/BE instructions below.

NOS Instructions

```
JOB.
USER,user,pw,family.
CHARGE,charge,project.
REQUEST,CIP,VSN=CIP,NT,PE,F=SI,LB=KU,PO=R.
REQUEST,COPY,VSN=COPY,NT,PE,F=SI,LB=KU,PO=W.
SKIPF,CIP,6.
COPYBF,CIP,COPY.
```

NOS/BE Instructions

```
JOB/account
REQUEST,CIP,VSN=CIP,NT,PE,NORING.
REQUEST,COPY,VSN=COPY,NT,PE,RING.
SKIPF,CIP,6,17.
COPYBF,CIP,COPY.
```

Refer to the MSL15X Reference Manual for a description of TDX, which is used to install the diagnostics to the CIP disk from the tape created.

Appendix A
CIP 962/992 Media Order Form

With the next CIP field update kit you receive, the CIP deadstart media will be on the media indicated on this form when received by SMD. This is only applicable if your site has a CYBER model 962 or 992. If the form is not completed and returned, you will receive CIP on open-reel tape not on a cartridge tape.

Please print or type and return the completed form to:

Software Manufacturing and Distribution
Mail Drop ARH230
4201 Lexington Avenue North
Arden Hills, Mn 55126 USA

CIP 962 _____ Cartridge Tape _____ Open-Reel Tape ____ (default)
Mainframe Serial Number _____

CIP 992 _____ Cartridge Tape _____ Open-Reel Tape ____ (default)
Mainframe Serial Number _____

Completed By _____
Telephone Number _____

Site Name _____
Site Address _____
_____
_____
_____
_____

Notice: This page has been added to the Level 750 SRB.

The Level 750 Console Software contained in this package has been replaced with Level 750A, part number 10322177 Revision E.

In addition to the changes described in this SRB, Level 750A contains three critical fixes to Console Software Level 750.

PSR CSWA103. After approximately 56 hours of continious run time and while processing DFT EPM packet requests, the console would hang with memory allocation problems. This problem has been fixed and tested at the sites reporting the problem.

During the fixing of the above problem, a problem associated with the synching of all of the devices in the system during CTI mainframe initialization and the year is between 1990 and 1997 was uncovered. This problem has also been fixed.

PSR CSWA104. The Console Software was changed to write the current time and date into the EPM's ROM at EPM initialization time. Previously, the EPM's ROM was not updated with the current time and date.