

Terminal (TERMDSM)
On-Line Diagnostic/Support Monitor
reference manual



Distributed Systems Network

**TERMINAL (TERMDSM) ON-LINE
DIAGNOSTIC/SUPPORT MONITOR**

Reference Manual



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Effective Pages

Date

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PREFACE

This manual describes the On-Line Diagnostics and Support functions for the Advanced Terminal Processor (ATP) and the Asynchronous Data Communications Controller (ADCC). This manual should be used with systems that are currently running with MPE V (Version G.00.00 or later) operating system. If you are on MPE V (Version E.00.00 or F.00.00 or earlier) refer to the Advanced Terminal Processor (DSN/ATP) On-Line Diagnostics Manual (part number 30144-90004) for the ATPDSM program.

The ATP is an asynchronous device controller for HP 3000 Series 44, 48, 64 and 68 computer systems. A minimum ATP subsystem consists of one System Interface Board (SIB), one Asynchronous Interface Board (AIB), and one Hardwired Port Controller or one Modem Port Controller. It requires two I/O slots, uses one IMB channel address and can support twelve terminal ports. A maximum subsystem uses one System Interface Board (SIB) and eight Asynchronous Interface Boards (AIB's), requires nine slots, uses one IMB channel address, and can support 96 terminal ports. A Series 68 computer may have a maximum of 3 ATP subsystems installed. Each ATP subsystem requires one unique IMB channel address.

The ADCC is an asynchronous device controller for HP 3000 Series 30, 33, 40, 42, 44 and 48 computer systems. It is an interface for low-speed bit-serial asynchronous devices. Each interface consists of an ADCC main and, optionally, one extend PCA. Each PCA multiplexes data transmission for four ports which may be hardwired or modem connected or any mix thereof. Thus, each interface can support eight terminal ports and requires one IMB channel address.

This manual is written for the HP Customer Engineer, the HP System Engineer and the HP customer user, with the assumption that the reader has a good working knowledge of the HP 3000 System environment, and is trained in working with on-line diagnostics. This manual may be used in conjunction with related documentation for the HP 3000 Series 30, 33, 40, 42, 44, 48, 64 and 68 Computer Systems. Related documents include the following technical manuals:

- *HP 3000 Computer Systems, Communications Handbook*, (30000-90105).
- *HP 3000 Distributed Systems Network/Advanced Terminal Processor Off-line Diagnostic Procedures Manual*, (30144-90003).
- *HP 3000 Distributed Systems Network/Point-to-Point Workstation I/O Reference Manual*, (30000-90250).
- *HP 3000 Distributed Systems Network/Advanced Terminal Processor Installation Manual*, (30144-90002).
- *MPE V System Operation and Resource Management Reference Manual* (for series 40/44/64), (32033-90005).

PREFACE (continued)

This manual contains information for the use of the Hewlett-Packard Advanced Terminal Processor (ATP) and Asynchronous Data Communication Controller (ADCC) On-line Diagnostic/Support Monitor (TERMDSM). TERMDSM is a software tool that can be used for both verification testing and for more detailed troubleshooting. TERMDSM can be used as an aid to the computer user, as well as an installation tool and troubleshooting tool for the HP Customer Engineer (CE) and the HP System Engineer (SE).

Since TERMDSM is more flexible and versatile than most diagnostic programs, this manual is structured to reflect this versatility rather than merely outlining the typical step-by-step procedures.

This manual is organized as follows:

Section 1, General Information, briefly describes the main features of TERMDSM, and the TERMDSM philosophy. Required hardware and software are also listed.

Section 2, Operating Instructions, presents an overview of how TERMDSM is organized and how to use it.

Section 3, TERMDSM Commands and Test Descriptions lists and describes the diagnostic tests and commands.

Appendix A, contains Loopback Connector pictures.

CONVENTIONS USED IN THIS MANUAL

NOTATION	DESCRIPTION
nonitalics	Words in syntax statements which are not in italics must be entered exactly as shown. Punctuation characters other than brackets, braces and ellipses must also be entered exactly as shown. For example:

EXIT;

<i>italics</i>	Words in syntax statements which are in italics denote a parameter which must be replaced by a user-supplied variable. For example:
----------------	---

CLOSE *filename*

[]	An element inside brackets in a syntax statement is optional. Several elements stacked inside brackets means the user may select any one or none of these elements. For example:
-----	--

$\begin{bmatrix} A \\ B \end{bmatrix}$ User *may* select A or B or neither.

{ }	When several elements are stacked within braces in a syntax statement, the user must select one of those elements. For example:
-----	---

$\begin{Bmatrix} A \\ B \\ C \end{Bmatrix}$ User *must* select A or B or C.

...	A horizontal ellipsis in a syntax statement indicates that a previous element may be repeated. For example:
-----	---

[,*itemname*]...;

In addition, vertical and horizontal ellipses may be used in examples to indicate that portions of the example have been omitted.

⋮	A shaded delimiter preceding a parameter in a syntax statement indicates that the delimiter <i>must</i> be supplied whenever (a) that parameter is included or (b) that parameter is omitted and any <i>other</i> parameter which follows is included. For example:
---	---

itema[⋮*itemb*][⋮*itemc*]

means that the following are allowed:

itema
itema,itemb
itema,itemb,itemc
itema,,itemc

CONVENTIONS (continued)

Δ When necessary for clarity, the symbol Δ may be used in a syntax statement to indicate a required blank or an exact number of blanks. For example:

```
SET[(modifier)] $\Delta$ (variable);
```

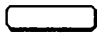
underlining When necessary for clarity in an example, user input may be underlined. For example:


```
NEW NAME? ALPHA
```

In addition, brackets, braces or ellipses appearing in syntax or format statements which must be entered as shown will be underlined. For example:

```
LET var[[subscript]] = value
```

shading Shading represents inverse video on the terminal's screen. In addition, it is used to emphasize key portions of an example.



The symbol  may be used to indicate a key on the terminal's keyboard. For example, **RETURN** indicates the carriage return key.

CONTROL *char*

Control characters are indicated by **CONTROL** followed by the character. For example, **CONTROL**Y means the user presses the control key and the character Y simultaneously.

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INTRODUCTION

The purpose of the HP Advanced Terminal Processor and the HP Asynchronous Data Communications Controller Online Diagnostic/Support Monitor (TERMDSM) is to provide a comprehensive support tool for use with terminal I/O ports. TERMDSM has an interactive, user friendly interface, suitable for use by both HP personnel and customers. The most valuable and critical use for the TERMDSM utility is to handle terminal port failures, allowing the necessary portions of the MPE tables to be "dumped" to a disc file and the "problem" port reset without the need to halt system operation for a memory dump and WARMSTART. (The disc file may be copied to a line printer for submittal to the factory).

TERMDSM runs in an MPE session, invoked either locally or through a dial-up port. TERMDSM will run diagnostics on one or more ports, abort jobs or I/O, reset one or more ports and associated tables, display tables, dump (to a disc file) tables for later analysis, format failure information dumped by the ATP/ADCC software, or identify ports considered broken by the ATP/ADCC software.

TERMDSM PHILOSOPHY

The philosophy behind TERMDSM is to provide an on-line mechanism for gathering information concerning a failure of an ATP/ADCC port, testing the ATP or ADCC hardware and terminal connections, and reinitializing the ATP/ADCC software and tables to a known good state.

Gathering information is provided by the BROKEN, DUMP and DISPLAY commands. The BROKEN command identifies ports considered to be broken and/or unfixable by the ATP/ADCC software subsystem. The DUMP and DISPLAY commands provide a means of gathering and formatting the ATP/ADCC tables and data areas for analysis by trained support personnel.

Troubleshooting the ATP subsystem is aided by the DIAGNOSTIC command. It allows testing of one or more ATP ports and hardware and terminal connection. (ADCC ports may be tested offline using ADCCDIAG).

The RESET command is provided to allow the re-initializing of one or more ATP/ADCC ports to a known good state after aborting any session associated with the port.

For convenience, TERMDSM provides ABORTIO and ABORTJOB commands similar in function to those provided by MPE.

CAUTION

TERMDSM provides very powerful commands that could cause the aborting of jobs and sessions, and the loss of data if used incorrectly. You should familiarize yourself with the commands being employed and the consequences of their use by reading the command descriptions provided in Section 3.

OPERATIONAL OVERVIEW

The ATP/ADCC Online Diagnostic/Support Monitor runs in session mode, and the user must have certain capabilities in order to run TERMDSM. Operator (OP) capability is required to use TERMDSM. Diagnostician (DI) capability is required to use the DIAGNOSTIC command. Save Files (SF) capability is required to use the DUMP command.

The Diagnostic/Support Monitor is dependent upon the MPE operating system. Therefore, if MPE is not functioning on the system with the ATP or ADCC to be tested, TERMDSM is not operational.

REQUIRED HARDWARE

The following hardware is required:

- A minimal mainframe configuration (an HP 3000 Series 44 or an HP 3000 Series 64)
- A minimal ATP system, ie: one SIB, one AIB, and one Port Controller, Modem or Direct Connect; or a minimal ADCC system (Series 44 only), ie: one ADCC main; either an ATP or an ADCC must be configured into the MPE I/O system.
- Loopback Connectors, which are included in the ATP product support package (p/n 30144-67801). (See Appendix A).
 - Twelve 25 pin Connectors for HP-Modem B 30146-60002
 - Twelve 3 pin Connectors for HP-DC B 30148-60002
 - Twelve 5 pin Connectors for HP-DC A 30147-60002

REQUIRED SOFTWARE

Required software for operation of TERMDSM Diagnostic/Support Monitor is:

- The HP Multiprogramming Executive (MPE) operating system
- An ATP or ADCC Driver
- The TERMDSM Diagnostic/Support Monitor



TERMDSM ORGANIZATION

There are seven parts of TERMDSM which correspond to the seven options open to you when TERMDSM is run. These options are:

- run diagnostics
- abort job(s)
- abort I/O
- reset one or more ports and associated tables
- display tables
- dump one or more ports and associated tables
- obtain a list of broken ports

Once you have created an MPE Session, you can invoke the TERMDSM job by entering:

```
RUN TERMDSM.PUB.SYS RETURN
```

Use of TERMDSM requires operator (OP) capability; therefore, when TERMDSM has verified that you have MPE operator capability, it will output:

```
HP32196G.uu.ff - TERMDSM - Terminal Diagnostics (C) Hewlett-Packard Co. 1983
```

```
ATP software version - v.uu.ff  
ADCC software version - v.uu.ff
```

```
Type HELP for aid
```

```
->
```

NOTE

These v.uu.ff levels indicate the current version of the ATP or ADCC software currently installed on the system. They are global identification numbers for these controllers. In addition, there also exists individual ID numbers for each of the modules of the ATP and ADCC. These module version numbers can be obtained by using DISPLAY mode (explained later in this section), and typing: ldev#, TDS, (where TDS is the terminal data segment).

The software version numbers displayed will change depending on what modifications have been included in that specific version. (The v.uu.ff levels will be increased by one each time any fix is made to any of the modules included in the ATP or ADCC software. These are the v.uu.ff numbers that should be specified as the "current product number" when inquiring about either controller or when submitting Service Requests (SR's) to the factory through the STARS data base).

In order to make TERMDISM easy for infrequent users, there will be a HELP facility to output messages when requested. The message output when you enter HELP will change depending on where you are in what dialog.

Whenever // is entered, TERMDISM will terminate, EXCEPT when in the DIAGNOSTIC command dialog. When in Diagnostics, EXIT must be entered before //.

In addition, DEBUG may be entered from any prompt except while in Diagnostics, to invoke the MPE debug facility.

ONLINE TESTS AND COMMANDS

The Online tests and commands are described below and are followed by representative dialog. The format for each description is: the command, its syntax, and a verbal description. The **DIAGNOSTIC** command is the only true online test, therefore specific operating instructions as well as error messages are contained in this section. The rest of the commands are tools for which to troubleshoot the ATP or ADCC subsystem. For ease of reference, the commands are listed in alphabetical order.

COMMANDS

The upper case letters indicate the abbreviated form of each command.

ABORTIO

->ABORTIO **RETURN**

This command is given to initiate dialog for aborting I/O pending on an ATP/ADCC port. Its function is identical to the MPE command interpreter ABORTIO command, except that it will only allow aborting I/O on ATP/ADCC ports.

Sample Dialog

->ABORTIO
ABORTIO

Enter LDEV#: ldev#
Enter LDEV#: ldev#
Enter LDEV#: **RETURN**

->

The LDEV # (nnn) is a logical device number of an ATP/ADCC device. Respond with a **RETURN** to return to the main block of TERMDSM. When the LDEV# of an ATP/ADCC device is entered, all I/O pending on that device will be aborted and the prompt will be repeated in order to abort I/O for other devices.

ABORTJOB

->ABORTJOB **RETURN**

This command is given to initiate the dialog for aborting one or more jobs or sessions. Its function is identical to the MPE command interpreter ABORTJOB command.

Sample Dialog

-> ABORTJOB
ABORTJOB

Enter Job ID: #jobid
Enter Job ID: #jobid
Enter Job ID: **RETURN**

->

The job ID can either be a job number (#Jnnn) or a session number (#Snnn). The job ID prompt is repeated to allow you to abort multiple jobs and sessions. Respond with a **RETURN** to terminate the command and return to the main block of TERMDSM.

BROKEN TERMINAL PORTS

->Broken **RETURN**

This command is given to obtain a list identifying ATP/ADCC ports considered to be in a broken state and/or in an unfixable state by the ATP/ADCC software subsystem. A broken state is the result of an error detected by the ATP/ADCC software and can be cleared up by using the RESET command.

Consult the RESET command description before attempting a reset.

An unfixable state is the result of an error that cannot be cleared unless the cause of the error is corrected first. RESET will not fix an unfixable port. Listed below are some of the causes resulting in a port being unfixable:

- Port configured on a missing AIB,
- ATP initiator program can't build the ATP data segment,
- Self-test on Port Controller Chip (PCC) failed.

NOTE

This list is not conclusive. Certain errors may go undetected by the ATP software subsystem.

Sample Dialog

->Broken
BROKEN TERMINAL PORTS

LDEV #	BROKEN	UNFIXABLE
101	*	*
102	*	

->

No additional response is required. The BROKEN command will examine each ATP/ADCC port in the system and list those considered broken and/or unfixable by the ATP/ADCC software subsystem, by placing an asterisk in the appropriate column. The DUMP command will RESET the port if it is broken and fixable at the end of a dump, or if PCC memory was dumped. (See DUMP command description).

DIAGNOSTICS

-> DIAGnostics **RETURN**

This command is given to initiate the dialog for running diagnostics on one or more ATP ports, and is used to diagnose suspected problems with the ATP hardware and terminal connection.

Use of this command requires diagnostician (DI) capability.

NOTE

This diagnostic does not test ADCC hardware or terminals connected via the ADCC.

Operating Instructions and Error Messages

The command provides three tests which progressively test the hardware data paths from the mainframe ATP hardware to the terminal.

Entering "EXIT" in response to any Diagnostic prompt will return to the main block of TERMDSM.

The first diagnostic test is run without loopback connectors. This test checks the operation of the ATP's Port Controller Chip (PCC) and the data paths from the HP 3000 I/O hardware to the PCC. If all the ports on a particular Asynchronous Interface Board (AIB), are to be tested, the test will also check the paths from the PCC to the Modem Controller Chip (MCC).

NOTE

All twelve ports on an AIB must be configured into the MPE I/O system for modem tests to be performed.

The second diagnostic test is run with the loopback connectors installed on the Port Connectors/Junction Panels for the specified ports. The required connectors are listed in the "Required Hardware" section.

This test performs the same checks as does the diagnostic test without loopback connectors, but also performs a check on the data paths out through the Port Connector/Junction Panel Assembly interface and back to the mainframe for the specified port.

The third test is a Write then Read test to HP264x and HP262x terminals strapped for the ENQ/ACK handshake. This test writes a line of data to the terminal and then triggers a read back from the terminal and compares the returned data. This test senses the terminal speed and parity, so that the terminals need only be set up for one of the ATP supported speeds and powered on. (The speeds supported on the ATP are 110, 300, 600, 1200, 2400, 4800, 9600, or 19.2K Baud only).

NOTE

The diagnostic test with the loopback connectors installed cannot be run at the same time as the terminal Write then Read test. Nor can it be run at the same time as the diagnostic test without loopback connectors.

The tests may be run from 1 to 32767 passes per each test. Each pass through a test will give a pass or fail indication for that specific test. In each pass, ports are tested one AIB at a time.

A number of options are available to the user of the diagnostic command for listing pass/fail information and controlling the testing of devices. The first option is to list only devices for which a test fails. This will substantially reduce the output required to be examined for failures.

The next option is to stop the diagnostic tests when the first failure occurs. This is useful when both pass and fail messages are being output so that the failure information does not run off the screen.

The final option is to stop testing a device when it fails a test. This is useful when reporting only failing devices and if a particular port has a hard failure, which otherwise would cause failure information for other ports to run off the screen.

Specification of the ports to be tested can be accomplished in two ways. First, by the logical device number of the port to be tested. Secondly, by a port specification in the form of:

P<SIB#>-<list of AIB's> [(<list of ports>)].

For example:

When running on a Series 64, the SIB# is given by:

$(16 * \text{IMB\#}) + (\text{SIB thumbwheel address})$.

Thus P35 would be:

SIB #3 on IMB #2, since $(16 * 2) + 3 = 35$

If the list of ports is omitted, all the ports on the AIB selected will be tested. The list of AIB's and ports can include individual numbers and ranges of numbers. For example:

<p>1,2,4/7 would be a valid list of ports.</p>
<p>20,21,99,100,101,102 would be a valid list of ldev numbers.</p>

Termdsm Commands and Test Descriptions

Several groups of ports can be listed on one line separated by semicolons. For example:

P1-0,1;3(0,2/4) would specify SIB 1, all ports
on AIB's 0 and 1, and the ports 2,3,4, on AIB 3.

The two modes of specifying the ports to be tested cannot be mixed on the same line. However, the prompt is repeated until just a **(RETURN)** is entered thereby allowing the use of both modes.

The diagnostic command runs with the system break facility disabled. Should termination of the command be desired, the subsystem break facility (control Y), can be used to interrupt the diagnostic. The diagnostic will prompt the user with the current pass count and ask if the diagnostic tests are to be aborted. Due to the structure of the diagnostic command, entering more than one subsystem break may be required to suspend execution of the diagnostic.

Sample Dialog

->DIAGnostic
DIAGNOSTIC

Enter ports to be tested:
> (ldev# or port specification)

Enter ports to be tested:
> **(RETURN)**

Do you want to list failing devices only?
Do you want to stop testing all devices after one failure?
Do you want to stop testing a device after it fails?
How many times do you want to run the test? (1-32767)
Do you want to test the ports with the loopback connectors
on the Junction Panel (Port Connectors)?
Do you want to test the ports without the loopback connectors
on the Junction Panel (Port Connectors)?
Do you want a write/read test to the terminals?

->

The proper response to the above mentioned questions is "E" for exit, "Y" for yes, "N" or **(RETURN)** for no.

If the diagnostic test with loopback connectors is requested, the command will prompt the user with a list of questions about the junction panels. An example is:

There are two types of ATP junction panels:
25-pin Modem panels and
3-pin or 5-pin Direct-Connect panels
Does each AIB have a Modem Junction panel
connected to it ?

A positive response will cause TERMDISM to attempt modem tests whenever a full AIB is being tested. A negative response indicates to TERMDISM that the ports specified for testing are using direct-connect junction panels, or a combination of direct-connect and modem panels. Therefore, modem tests should not be performed.

Also, if the diagnostic test with the loopback connector on the Port Connectors is requested, the command will prompt the user with a list of ports and logical device numbers to attach the appropriate loopback connectors to. An example is:

Install the loopback connectors on the Junction Panel(s)
for ports,
P1-0(9) (ldev# 109)
P1-0(10) (ldev# 110)
Are all the connections installed?

A negative response will terminate the command.

If the terminal write/read tests are selected, the command will prompt the user to be sure that the terminals are powered on. The example is:

Are all the terminals powered on for the write/read test?

A negative response will terminate the command.

Recommended Testing Procedure

The TERMDSM Diagnostic command gives the user the ability to test the ATP hardware and the terminal connection through the three provided tests.

The recommended procedure for diagnosing a suspected ATP hardware or terminal connection problem is as follows:

1. Perform the diagnostic test without loopback connectors on the Port Connectors/Junction Panel. This will test the port's circuitry on the AIB. A failing test will indicate a problem with the AIB, and the AIB should then be replaced. If the tests pass, then proceed to step 2.
2. Perform the diagnostic test with the appropriate loopback connectors on the Port Connectors/Junction panel. This will test the circuitry associated with the port connector interface in addition to the port's AIB circuitry which was verified as properly functioning in step 1. A failing test indicates a problem with the port's port connector circuitry, and it should be replaced. If the test passes, proceed to step 3.
3. Perform the Write/Read test with an HP264x or HP 262x terminal strapped for the ENQ/ACK handshake. This will test the connection from the Port Connectors/Junction Panel to the terminal and back. A failing test indicates a problem with the connection. Check the cable from the Port Connector to the terminal. If it passes, proceed to step 4.
4. At this point the ATP hardware and terminal connections appear to be functioning properly. If the problem is intermittent, the above tests may have to be run extensively in order to pin down the problem. If the failure is of a consistent nature, a hard failure, and all the above tests have passed, the problem probably lies in the configuration of the terminal. Check the I/O configuration of the terminal.

Diagnostic Command Limitations

The diagnostic tests do not completely test the modem Port Connector Assembly circuitry unless all the ports on the AIB are tested.

The diagnostic command does not provide detailed failure information for performing component level diagnosis. This type of diagnosis is performed by the ATP Offline Diagnostic.

The TERMDSM diagnostic command does not explicitly test the SIB circuitry. It is assumed to be in working order. Should the SIB be in question, the ATP Offline Diagnostic is to be used to do extensive testing.

System Break is disabled during diagnostics.

DISPLAY

->DIS **RETURN**

This command is given to initiate the dialog for displaying ATP or ADCC tables and data areas for a particular port to the user's terminal. It provides for visual inspection of the ATP or ADCC environment, and should only be employed by those users with an intimate knowledge of the ATP/ADCC software and its associated tables.

NOTE

DISPLAY should never be used to submit ATP or ADCC failure information to the factory. Instead use the DUMP command facility for this purpose.

The following tables can be inspected by the display command:

- TDS (terminal data segment header area)
- MONDIT (logical monitor dit)
- PDDIT (protocol and data manager dit)
- HWDIT (physical driver-hardware dit)
- CNTLPROG (control program for ATP)
- CHANPROG (channel program for ADCC)
- TBUF (terminal buffers)
- IOQ (ioq element)
- ILT (interrupt linkage table)
- DLT (driver linkage table)
- DRT (device reference table)
- LPDT (logical-physical device table)
- LDT (logical device table)
- PCB (process control block associated with the ioq)
- LDTPCD (process control block associated with the ldt)
- VFC (vertical forms control information)
- PPDIT (port protocol dit)

Termdsm Commands and Test Descriptions

Sample Dialog

-> DISplay
DISPLAY

Enter table name or LDEV number: ldev#

Enter table name or LDEV number: <table name>
(Table information will be displayed here).

Enter table name or LDEV number: **RETURN**

->

An ATP or ADCC logical device number should be entered first, and then the tables to be displayed. At any point in the dialog, a new logical device number can be entered and subsequent table requests will display information for this new device. DISPLAY remembers which logical device number was used last, and will look at any table for this device without the user having to re-enter the ldev#. Respond with a **RETURN** to exit the display command.

DUMP

->DUmp **RETURN**

This command is given to initiate the dialog for dumping the current state of ATP or ADCC tables, terminal buffers, and ATP PCC memory contents to a disc file. In addition, if an ATP or ADCC generated dump exists for the port to be dumped, this too will be placed into the disc file.

Use of this command requires save files (SF) capability.

The ATP/ADCC software subsystem has an area set aside in each terminal data segment to dump failure information at the time of a detected error. There is only enough storage for one dump, so information on the first detected failure is placed in this area.

If an ATP/ADCC generated dump exists in the subsystem, the message

```
An ATP/ADCC generated dump exists for ldev# n.  
Use DUMP to format it.
```

will appear when the TERMDSM is first activated and when the dump command is entered. By specifying this logical device to be dumped, the command will place the ATP/ADCC generated dump and a dump of the current state of the device into the disc file. After the ATP/ADCC generated dump has been placed into the disc file, the storage area in the terminal data segment is freed for logging information on another failure.

Dumps are placed into a disc file with the name TERMnnn in the logon group, where nnn is the logical device number of the device being dumped. There are two methods for getting a hard copy of the dump. First, a file equation may be entered prior to executing the TERMDSM and the DUMP command.

```
:FILE TERMnnn;DEV=LP
```

will direct the dump for logical device number nnn to the line printer device. Secondly, FCOPY may be used to copy the dump file to the line printer device after exiting the TERMDSM.

```
:FILE LP;DEV=LP  
:FCOPY FROM=TERMnnn;TO=*LP;CCTL
```

You also have the option of dumping the ATP's PCC memory contents. This option is destructive to the port's environment due to the fact that an automatic RESET of the port is issued upon completion of the command. If you do not wish to alter the state of the ATP tables, the DUMP command should be employed without specifying this option. If the port is already broken but not unfixable, a RESET will also be done.

Sample Dialog

```
->DUmp  
DUMP
```

```
Enter LDEV number: nnn  
Do you want to dump the PCC memory? Y
```

NOTE

With the ADCC driver, this question will not appear.

If the logical device specified is owned by a process, the following message will appear:

The device entered is owned. Dumping the ATP's PCC memory will result in an automatic RESET of this port that will probably abort the session associated with this device, therefore be sure that you have the correct logical device number. If you wish to dump the PCC memory, respond with "Y", if no, respond with "N" or RETURN.

Regardless of your reponse, the dialog continues with;

Do you want to include a message? Y
message-> A message explaining the reason
message-> for generating this dump.
message-> RETURN

Data dumped into file TERMnnn.

Enter LDEV number: <RETURN> to exit dump>

->

In the above dialog, nnn is a valid logical device number of an ATP or ADCC port. The prompt is repeated allowing multiple devices to be dumped until RETURN is entered. The message explaining the condition resulting in the dump may be up to 20 lines in length, and can be terminated at any time by entering RETURN .

EXIT

->Exit **RETURN**

Using the EXIT command when the TERMDISM prompt (->) is displayed causes termination of TERMDISM and returns control to MPE.

HELP

HELP **RETURN**

HELP causes TERMDISM to give you information pertaining to the particular section of the program which you are currently running. It may be entered in response to any prompt.

RESET

->RESET **RETURN**

This command is given to initiate dialog for resetting one or more ATP/ADCC ports to their initial settings when MPE was brought up. The session logged on via this port will be aborted, the ATP or ADCC tables and software reset to their initial state, and the port prepared for speed sensing.

CAUTION

Extreme care should be used when employing the RESET command to ensure that the correct port is being reset. Resetting a port will abort any job or session running on that port.

RESET should not be used on any port where an ABORTJOB of the session associated with it would not be considered.

NOTE

The RESET command will not always terminate successfully. Occasionally the command will fail the reset process because the MPE "critical" bit is set, preventing the current session from aborting. In this case, a WARMSTART is necessary to clear the broken (or hung) port.

Sample Dialog

->RESET
RESET

Enter LDEV #: ldev#

If the device to be reset is owned, the following will appear:

The device entered is currently owned. Resetting this device will probably abort the session associated with it; therefore be sure that you have the correct logical device number. If you wish to continue with the reset process, respond with "Y", if not, respond with "N" or **RETURN**.

If the reset continues and the port is not considered broken by the ATP/ADCC software subsystem, the following will appear:

The TERMINAL DRIVER does not consider this device broken. However, this does not exclude the possibility of a hung port. If you wish to continue with the reset process respond with "Y", if not, "N" or **RETURN**.

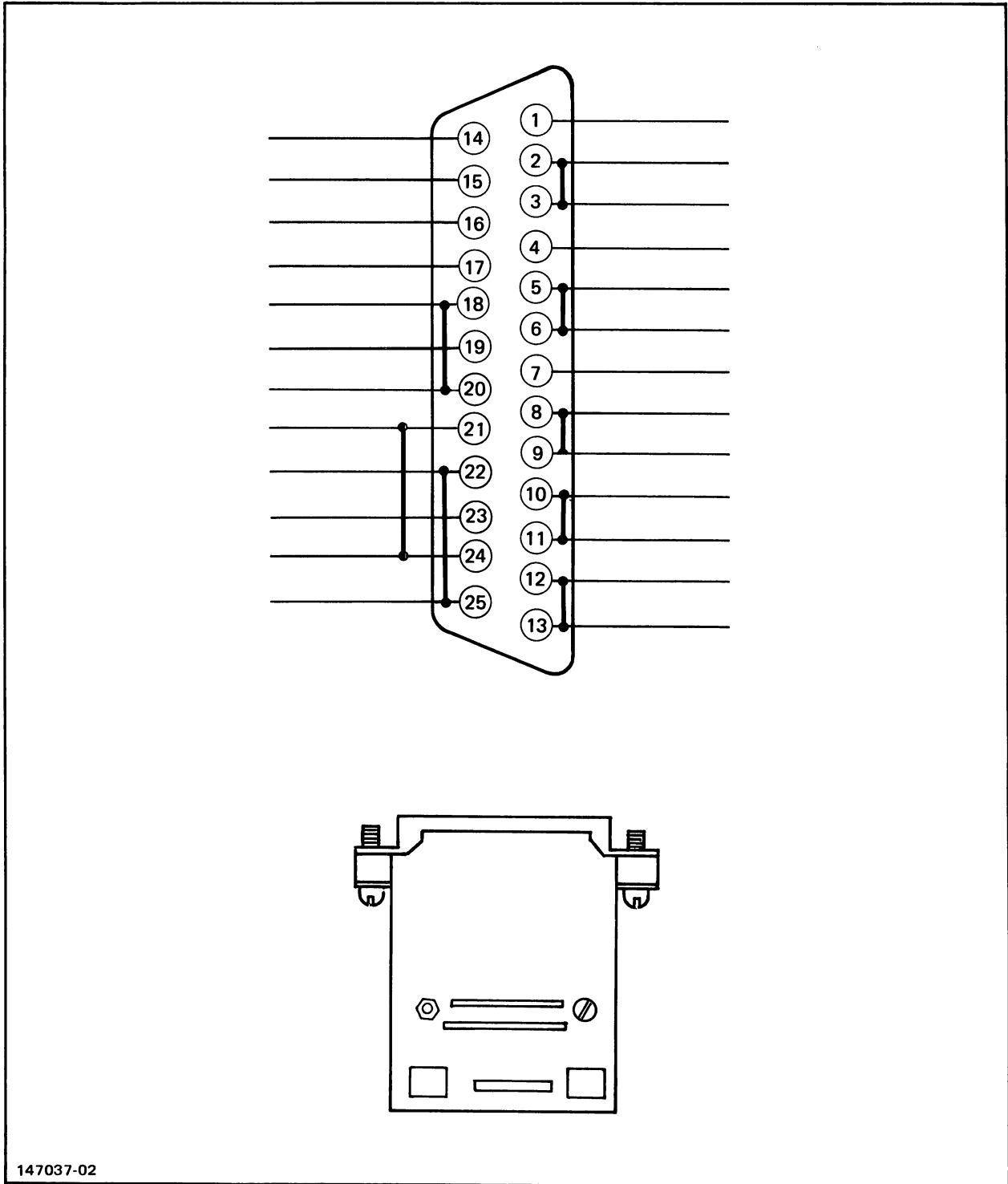
Enter ldev number: <**RETURN**> or ldev#>

->

The reset prompt will continue until a **RETURN** is entered.



LOOPBACK CONNECTORS



147037-02

Figure A-1. HP-Modem B Loopback Connector.

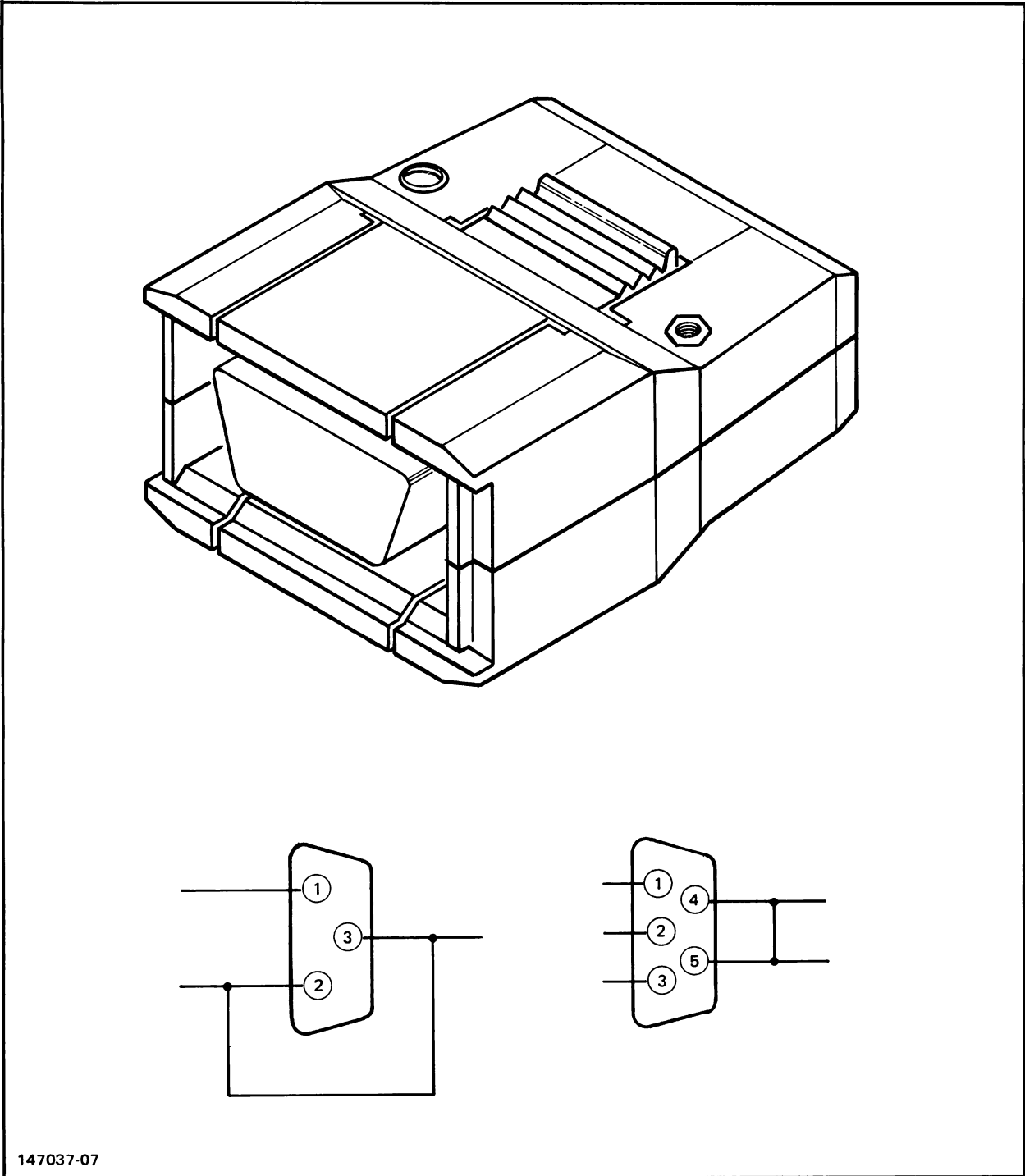


Figure A-2. HP-DC A and HP-DC B Loopback Connectors.

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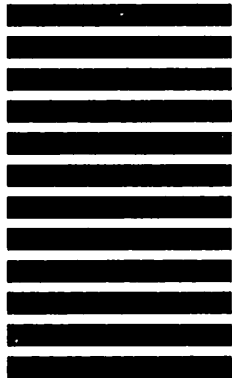
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Systems (CMS) Ltd.
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