Data General

Data General

ECLIPSE MV/1000™ DC,

MODELS 91680-91685, 91710, 91723, 91724

SERIES SYSTEMS USER FRIENDLY DIAGNOSTICS

015-000354-00

Prepared by

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PREFACE

THE USER FRIENDLY DIAGNOSTICS

Data General Corporation's Customer Service Division is providing this manual on how to install and operate the User Friendly Diagnostics. This is part of the service contract for our ECLIPSE MV/1000 DC Computer customers. As a service contract customer, the User Friendly Diagnostics have already been installed on your fixed disk.

The User Friendly Diagnostics test the system's features and devices quickly and easily. If you suspect that your system is under-performing or malfunctioning, and you can access your disk, you can use one or more diagnostic tests to help identify the source of the problem.

In addition, enhancements are added to the Central Processing Unit (CPU) automatic power-up self-test that occurs every time you turn on your ECLIPSE MV/1000 DC computer. This self-test often makes it possible to pinpoint a problem without running any system tests.

INSTALLING THE USER FRIENDLY DIAGNOSTICS

Section 1 lists the media needed for the Diagnostics installations and describes the preinstallation requirements that must be completed before you install them. Complete this section only if you are replacing your fixed disk drive.

Section 2 of this manual explains how to install the Diagnostics. The User Friendly Diagnostics are already installed on your fixed disk so you need to complete this section only if you are replacing the fixed drive. You install the User Friendly Diagnostics by copying the diagnostic files from the diskette package or the cartridge tape to the CORESIDENT diagnostic area of your system's fixed disk. The entire procedure is menu-driven, and the procedure is outlined in full in Section 2.

Since your hardware can accommodate any of three Data General operating systems, AOS/VS, DG/UX, or DG/RDOS you will also notice remarks about each of the operating systems in the instructions. The instructions for AOS/VS are the general rule and special instructions are added for DG/UX and DG/RDOS.

ENTERING AND STARTING THE USER FRIENDLY DIAGNOSTICS

Section 3 contains the procedures for Entering and Starting the User Friendly Diagnostics. After you enter the Diagnostics, you can start either by Creating a New Inventory List (if this is the first time you entered the diagnostic system) or by verifying the Current Inventory List (if you have already entered the Diagnostics one or more times). We outline in full the procedures for creating and verifying inventory lists. Since the diagnostic system itself generates most of the information required, you can complete the inventory list in a very short time with minimal effort.

Section 4 contains complete instructions and outlines of the menus for the diagnostic tests, the diskette cleaning utility, altering the initial power-up tests, exiting the Diagnostics, and re-entering the Diagnostics.

Section 4 also describes in detail the system testing strategy for the diagnostic system and what to do after testing is complete. Briefly, there are three types of testing:

- System tests for individual system features and devices.
- The System Exerciser, which simulates the activity of the operating system and is useful for identifying intermittent problems.
- The Full System Test, which includes all of the individual system feature and device tests and the System Exerciser.

RELATED DOCUMENTATION

If you need additional information on system installation, power-up procedures, loading operating systems, error message descriptions, or any other information not included in this manual, refer to any one of the following documents. (You should have received at least one of these documents with your shipment.)

- Installing and Maintaining Your ECLIPSE MV/1000 DC, Computer System (Part Number 014-001661)
- Learning to Use Your AOS/VS System (Part Number 069-000031)
- Starting and Updating Preinstalled AOS/VS (Part Number 069-000293)
- Starting and Updating Preinstalled AOS/VS II (Part Number 069-000294)
- How to Generate and Manage AOS/RT32 (Part Number 069-400027)
- Starting Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System (Part Number 014-001467)
- Using the Hardware Format Utility: ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, ECLIPSE MV/2500 DC, and DS/7500 Series Systems (Part Number 014-001349)
- Starting and Running AOS/VS on ECLIPSE MV/1400 DC, ECLIPSE MV/2000 DC, ECLIPSE MV/2500 DC, and DS/7500 Series System (Part Number 069-000129)
- Installing, Starting, and Stopping AOS/VS II (Part Number 093-000539)
- How to Generate and Run AOS/VS (Part Number 093-000243)
- How to Generate and Run DG/RDOS (Part Number 093-000470)
- DG/UX System Operator Guide (Part Number 093-701015)
- DG/UX System Administrator Guide (Part Number 093-701016)
- Installing and Managing the DG/UX™ System (DGC Number 069-701029)

IF YOU HAVE A PROBLEM

If you think you have a problem with your system, complete the following before calling the Customer Support Center (CSC):

1. If possible, determine the type of problem (e.g. incorrect characters appearing on the display screen) or location of the problem (e.g. diskette drive).

2. Exit the operating system and power down the system.

3. Power up the system to run the User Friendly Diagnostics (Section 4).

4. If you have not determined the type of problem, run the Full System Test to isolate the problem. If you know what device is failing, run the test specific to that device (e.g. if you think the diskette drive is failing, run the Test Diskette test) for confirmation.

5. If an error code message similar to the following appears on the screen:

```
System error
Fault code    xxx-yyy-zzz
```

   write down the error code (xxx-yyy-zzz) to report to the Customer Support Center.

6. Telephone the Customer Support Center (1-800-DGHELPS) and report your problem.

SECTION 1
PREINSTALLATION REQUIREMENTS

This section contains the preinstallation requirements for installing the User Friendly Diagnostics on the ECLIPSE MV/1000 DC Computer System. Complete this section only if you are replacing the fixed disk drive that already contains the User Friendly Diagnostics.

1.1 REQUIRED MEDIA

The following media is required in order to install the User Friendly Diagnostics:

- Model 31722G diskette package (4 diskettes, 091-000287, 091-000288, 091-000296 and 091-000289) if your system has the Model 6309-T diskette drive.
- Model 31722B 21 MB cartridge tape (060-000165) if your system has the Model 6351-T tape drive.

1.2 PRIOR TO INSTALLATION

Before you install the User Friendly Diagnostics, make sure the following requirements are met:

1. Your entire system, including the computer unit, the system console, and any other peripheral equipment (such as the combined storage subsystem, additional consoles, printers, etc.) is installed. If your system is not installed, refer to the Related Documentation section in the Preface of this manual for setting up your system.
2. Your system passes the initial power up tests. The following power up message is displayed on the system console screen (Figure 1-1):

```
TESTING...

   Model #8879; System Processing Unit (SPU)

     ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789, PASSED

-- Standard Hardware Tests Complete --

-- Optional Hardware Tests Beginning --

-- Optional Hardware Tests Complete --

-- Memory size is x Megabytes --
```

Figure 1-1. Power Up Tests (Before Loading Diagnostics)

3. If you do not have AOS/VS II, your operating system starts, and your operating system's root directory contains the ADESL file. The ADESL program links the operating system to the diagnostic area of the hard disk.

   To check for the ADESL file, make sure that your working directory is the root directory. Issue a filestatus command and look for an "ADESL" entry in the list of files that appear on your system console screen. If you do find ADESL in the list of root directory files, go directly to Section 2, Installing the User Friendly Diagnostics.

   If you do not find ADESL in the list of root directory files, refer to Using the Hardware Format Utility (Part Number 014-001349) for installation information.

SECTION 2
INSTALLING THE USER FRIENDLY DIAGNOSTICS

This section contains complete instructions on installing the Diagnostics on hardware systems which are equipped with either an AOS/VS, DG/UX, or DG/RDOS operating system. Complete this section only if you are replacing the fixed disk drive that already contains the User Friendly Diagnostics.

NOTES

Read Section 2 completely before you begin installing the Diagnostics because certain parts of the installation process must be performed within a brief time limit. By reading Section 2 first, you will be ready when the prompts which require quick action appear on your system console screen.

After you finish reading Section 2, install the Diagnostics according to the instructions you have just read.

When using the menus that appear throughout this manual, we will discuss only the options directly used with the CORESIDENT feature. For information on the other options, see the Related Documentation section in the Preface of this manual for more information.

2.1 BEGINNING THE INSTALLATION

To install the User Friendly Diagnostics, complete the following:

1. Exit the operating system and power down your computer.
2. If you are installing from diskette, insert the first diskette (Part Number 091-000287) in the diskette drive.

   If you are installing from a 21 MB cartridge tape, insert the cartridge tape (Part Number 060-000165) in the cartridge tape drive.
3. Power up your computer. The power up test message shown in Figure 2-1 appears on the system console screen.

```
TESTING...

   Model #8879; System Processing Unit (SPU)
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789, PASSED

-- Standard Hardware Tests Complete --

-- Optional Hardware Tests Beginning --
   [lists option boards, if any, on your system]

-- Optional Hardware Tests Complete --

-- Memory Size is xx Megabytes --

-- Testing CPU will take approximately 1 minute --
```

Figure 2–1. Power Up Tests (After Loading Diagnostics)

If an error message appears, refer to the manual for setting up your system, listed in the Related Documentation section of the Preface. Otherwise, the copyright legend appears on the screen. Press NEW LINE to continue.

2.2 THE DIAGNOSTIC INSTALLATION MENU

Immediately after power up testing is complete (Figure 2–1), the Diagnostic Installation Menu (Figure 2–2) appears on the system console screen.

```
        DIAGNOSTIC INSTALLATION MENU

   1  Exit to Load Operating System Load Menu

   2  Run disk test

   3  Install diagnostics

   Enter choice    [1]
```

Figure 2–2. Diagnostic Installation Menu

2.2.1 Option 1 – Exit to Load Operating System Load Menu

On an AOS/VS operating system, selecting Option 1 causes the Operating System Load Menu to appear on the system console screen, enabling you to start your operating system or to enter the Technical Maintenance Menu.

On a DG/UX operating system, selecting Option 1 causes the question "Do you want to load diagnostics [N]?" to appear on the system console screen. If you select the default, "[N]" (no), the DG/UX operating system will load. If you enter "[Y]" (yes), refer to Section 4 for instructions on Operating the Diagnostic Tests.

On a DG/RDOS operating system, selecting Option 1 causes the message "Filename:?" to appear. Enter the name of the operating system to continue with operating system load. To enter the Diagnostics, enter the response "ADESL".

2.2.2 Option 2 – Run Disk Test

Option 2 on the Diagnostic Installation Menu allows you to test the diagnostic area of your system's fixed (hard) disk before you install the Diagnostics on it. Type 2 and press NEW LINE, and the message "Testing disk" appears on the system console screen. When the test is complete, the Diagnostic Installation Menu reappears so that you can continue installing the Diagnostics.

NOTE

If an error message appears when you run the disk test, telephone your Data General Service Representative. In the United States, call 1-800-DGHELPS. In other countries, call your local service center.

If your fixed disk reports no errors, proceed to the next section.

2.2.3 Option 3 – Install Diagnostics

Select Option 3 to install the Diagnostics on the fixed disk. Type 3 and press NEW LINE. The following message appears (Figure 2-3):

```
Beginning files transfer
```

Figure 2-3. Beginning Files Transfer

If you are installing the Diagnostics from the diskettes, read subsection 2.2.3.1. If you are installing the Diagnostics from the 21 MB cartridge tape, read section 2.2.3.2.

2.2.3.1 File Transfer from Diskette to System Hard Disk – When the transfer of files from the first diskette is complete, the Insert Second Diskette message (Figure 2-4) appears on the system console screen.

```
Please insert the second diskette of this set.

Press NEW LINE when ready.
```

Figure 2-4. Insert Second Diskette Message

Insert the second diagnostics diskette, diskette Part Number 091-000288 in the diskette drive.

When the second diskette is properly inserted in the diskette drive, the message "Beginning files transfer" appears on the system console screen, followed about four minutes later by the message shown in Figure 2-5.

```
Please insert the third diskette of this set.

Press NEW LINE when ready.
```

Figure 2-5. Third Diskette Message

Insert the third diskette, Part Number 091-000296, in the diskette drive. Again, the message "Beginning Files Transfer" appears on your system console screen, followed about four minutes later by the message shown in Figure 2-6:

```
Please insert the fourth diskette of this set.

Press NEW LINE when ready.
```

Figure 2-6. Fourth Diskette Message

Insert the fourth diskette, Part Number 091-000289 in the diskette drive. Again, the message "Beginning files transfer" appears on your system console screen, followed about four minutes later by the final screen in the installation process, which displays the following message (Figure 2-7):

```
Files transfer complete.

Please remove installation media.

Press NEW LINE to continue.
```

Figure 2-7. File Transfer Complete Message

Remove the diskette and press NEW LINE to continue. The User Friendly Diagnostics are now CORESIDENT. Go to Section 3.

2.2.3.2 File Transfer from 21 MB Cartridge Tape to System Fixed Disk – When the installation process is complete, the message in Figure 2-7 will appear on your system console screen. The User Friendly Diagnostics are now CORESIDENT on the fixed disk. Remove the cartridge tape. Go to Section 3.

SECTION 3
ENTERING AND STARTING THE USER FRIENDLY DIAGNOSTICS

Once you have completed the instructions in Section 2 to install the User Friendly Diagnostics on your ECLIPSE MV/1000 DC computer system's fixed disk, you can easily enter, start, and operate the diagnostics. This section contains all the information you need to enter and start CORESIDENT diagnostics.

NOTE

This manual discusses only the options that are directly used with CORESIDENT diagnostics. For information on other options, refer to the Related Documentation section in the Preface of this manual.

3.1 HOW TO ENTER THE USER FRIENDLY DIAGNOSTICS

This section contains instructions on how to enter the CORESIDENT User Friendly Diagnostics if:

- You have an AOS/VS or AOS/VS II system (subsection 3.1.1)
- You have a DG/UX system (subsection 3.1.2)
- You have a DG/RDOS system (subsection 3.1.3)

NOTE

Once the User Friendly Diagnostics are installed on your system's hard disk, do not use the diskette or cartridge tapes for powering up. Always power up from the hard disk.

3.1.1 Entering User Friendly Diagnostics from AOS/VS Systems

If you have an AOS/VS system, and you have just installed the Diagnostics on your system's fixed disk, the Operating System Load Menu shown in Figure 3–1 appears on your system console screen.

If you have an AOS/VS II system, and you have just installed the Diagnostics on your system's fixed disk, the Operating System Load Menu shown in Figure 3–2 appears on your system console screen.

If the Diagnostics have already been installed on your system's fixed disk, the Automatic Program Load Menu shown in Figure 3–3 appears on the system console screen. Select Option 1 (after 45 seconds the menu will default to Option 1) and the Operating System Load Menu (Figure 3–1 or 3–2) appears on your system console screen.

```
                OPERATING SYSTEM LOAD MENU

    1  Continue immediately with operating system load
    2  Enter the Technical Maintenance Menu

    Loading will continue automatically unless you re-
    spond within 45 seconds.

    The default system pathname is    :STARTER.SYS

    For assistance, press the Help key (Shift-F1) or H

    Enter choice:    [1]
```

Figure 3-1. AOS/VS Operating System Load Menu

```
                OPERATING SYSTEM LOAD MENU

1  Load and Start default Operating System

2  Enter Technical Maintenence Menu

3  Load and verify Microcode

4  Run Diagnostics

Loading will continue automatically unless you respond within
45 seconds.

For assistance, press the Help key (Shift-F1) or H.
```

Figure 3-2. AOS/VS II Operating System Load Menu

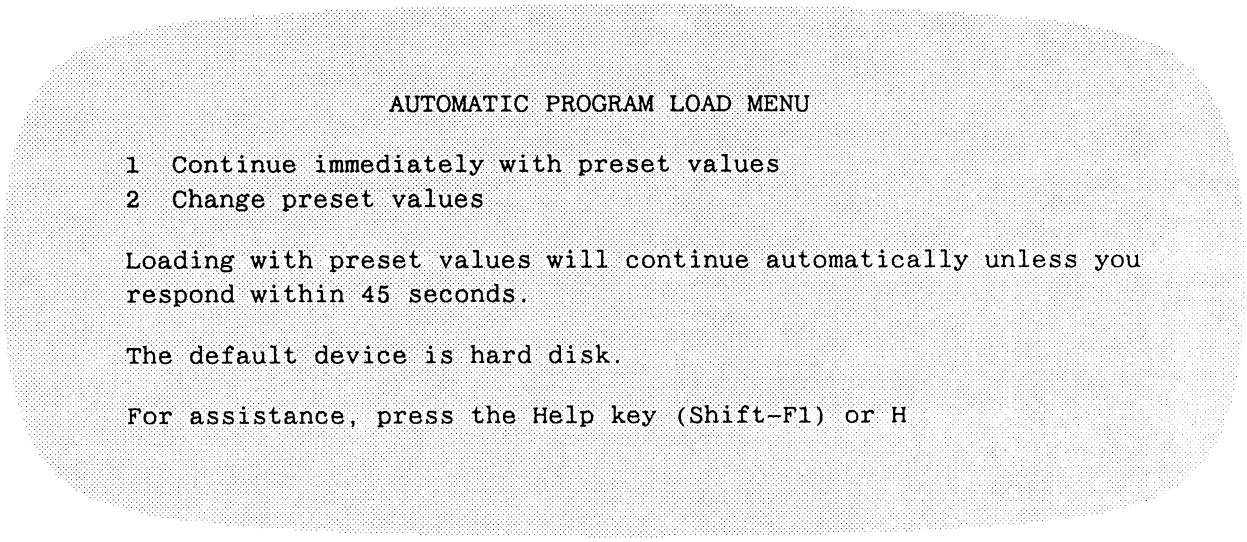

Figure 3-3. Automatic Program Load Menu

If you have an AOS/VS II system, you can select either Option 2 or Option 4 to operate the User Friendly Diagnostics. If you select Option 2 Enter the Technical Maintenance Menu (Figure 3-2), the Technical Maintenance Menu (Figure 3-4) appears on your system console screen. Proceed to Figure 3-4 and continue following instructions. If you select Option 4 Run Diagnostics (Figure 3-2), proceed directly to Section 3.2.1 and follow instructions.

If you have an AOS/VS system, you must Enter the Technical Maintenance Menu to operate the User Friendly Diagnostics. Select Option 2 on the Operating System Load Menu (Figure 3-1) and press NEW LINE.

NOTE

If you did not select Option 2 quickly enough and the system defaults to loading AOS/VS, you must start again from the beginning. You cannot enter the Technical Maintenance Menu once your system has started AOS/VS. To restart the procedure, do the following:

1. Exit AOS/VS, power down the system and then power up the system again.
2. When the Operating System Load Menu appears, select Option 2 (Enter the Technical Maintenance Menu).
3. Proceed according to the following instructions.

The Menu in Figure 3-4 appears on your system console screen.

```
TECHNICAL MAINTENANCE MENU

1  Load and start the default operating system
2  Load and verify microcode
3  Enter the SCP CLI
4  View or change default parameters
5  Run diagnostics

For assistance, press the Help key (Shift F1) or H

Enter choice:   [1]
```

Figure 3-4. Technical Maintenance Menu

Select Option 5 and press NEW LINE to Run Diagnostics.

The question, "Are you sure you want to boot diagnostics?" with [N] no as the default reply, appears on the system console screen under the Technical Maintenance Menu.

NOTE

The default is set to allow you to cancel the Diagnostics before they start running. Once the Diagnostics have started, you must perform some diagnostic operations before you can exit and return to the operating system.

If you are planning to test the system, now is the time to load scratch media. If you have loaded the scratch media, it will take about five minutes to size the system devices.

Type "Y" and press NEW LINE. Your system console will automatically enter the Diagnostics and display the system Inventory List. Go to section 3.2.

3.1.2 Entering the User Friendly Diagnostics from a DG/UX System

If you have just installed the Diagnostics on the system's fixed disk, a "File Transfer Complete" message appears on your screen. This screen is followed by the DG/UX Load Diagnostics Prompt shown in Figure 3-5.

If the Diagnostics have already been installed on your system's fixed disk, the DG/UX Load Diagnostics Prompt appears on your screen.

```
Do you want to load diagnostics?:   [N]
```

Figure 3-5. DG/UX Load Diagnostics Prompt

Type "Y" and press NEW LINE. The message in Figure 3-6 appears on your screen.

```
Diagnostics file [dpj@24(0,0)/ADESL]]
```

Figure 3-6. Diagnostics File Message

NOTE

If an error message appears rather than the Diagnostics File Message, refer to the Related Documentation section in the Preface of this manual for setting up your system.

When you see the Diagnostics File Message on the screen, press NEW LINE. Your system console will automatically enter the Diagnostics and display the system Inventory List. Go to section 3.2.

3.1.3 Entering the User Friendly Diagnostics from a DG/RDOS System

After the power up tests complete, the question "Filename?" appears. Type "ADESL" and press NEW LINE. The system Inventory List is displayed. Go to section 3.2.

3.2 STARTING THE USER FRIENDLY DIAGNOSTICS

Section 3.2 contains all the instructions you need to complete the system Inventory List. The first time you operate the Diagnostics, you create the Inventory List. On subsequent operations, you only have to verify the current list.

Subsection 3.2.1 describes how to Create a New Inventory List. Subsection 3.2.2 describes how to verify the Current Inventory List and how to change the current list in the event of a system change or upgrade.

3.2.1 Creating a New Inventory List

The first time you enter the Diagnostics, the Create a New Inventory List (Figure 3-7) appears on the screen. Figure 3-7 shows all possible features for all systems. The actual inventory list that appears on your screen is dependent upon your system configuration.

```
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Create a New Inventory List

Amount of memory found:   xxMB

Please describe your system. . .

Printer on Parallel Printer Port (yes or no):   [xxx]?
Diskette drive (yes or no):   [xxx]?
Number of internal disk drives (1 or 2):   [x]?
  Disk unit 0 capacity (40, 70, 160, 322) MB [xxx]?
Number of disk drives in Combined Storage Subsystem (0,1,2,3, or 4):  [x]?
  Disk Unit 0 capacity:   [xxx]?
Number of 21 MB Cartridge Tape drives in system (0 or 1): [x]?
Number of 130 MB Cartridge Tape drives in system (0,1, or 2):   [x]?
  130 MB Cartridge Tape unit number (0 or 1):   [x]?
Number of Reel Tape drives in system (0, 1, or 2):   [x]?
  Reel tape unit number (0 or 1):   [x]?
Number of 16 USER ASYNC boards (0, 1, or 2):   [x]?
  Slot for 16 USER ASYNC board 1:   [A]
  Slot for 16 USER ASYNC board 2:   [B]
Number of SYNC boards (0, 1, or 2):   [x]?
  Slot for SYNC board 1: [A]
  Slot for SYNC board 2: [B]
Number of LAN boards (0, 1, or 2):   [x]?
  Slot for LAN board 1: [A]
```

Figure 3–7. Create a New Inventory List Display

3.2.1.1 Amount of Memory Found – In Figure 3–7, "xxMB" (xx Megabytes) represents the amount of memory found in your system. The actual amount of memory in your system replaces the xx value shown. Check to make sure the correct amount of memory is displayed on your screen.

3.2.1.2 Printer on Parallel Port – If your system has a printer attached to it, check to make sure the Inventory lists whether or not you have a printer attached to your system. Change the answer if it is incorrect. Press NEW LINE and proceed to the next line.

3.2.1.3 Diskette Drive – Check to make sure the diskette drive entry lists whether or not you have a diskette drive in your system. Change the answer if it is incorrect. Press NEW LINE and proceed to the next entry.

3.2.1.4 Number of Internal Disk Drives – Check to make sure the disk drive lists the correct amount of internal disk drives (1 or 2) in your system. If the number listed is incorrect, type the correct number of drives and press NEW LINE.

The storage capacity of your disk drive(s) is listed next. Check to make sure the correct drive size is listed for the drive in your system. Disk Unit 0 refers to disk drive 1. Make any necessary corrections and press NEW LINE.

3.2.1.5 Number of Drives in Combined Storage Subsystem (CSS) – If you have a subsystem, check to make sure this entry lists the correct amount of drives (0, 1, 2, 3, or 4) in your subsystem.

The storage capacity of your CSS drive(s) is listed next. Check to make sure the correct drive size is listed for all CSS drives. Disk Unit 0 refers to disk drive 1, Disk Unit 1 refers to disk drive 2, Disk Unit 2 refers to disk drive 3, and Disk Unit 3 refers to disk drive 4. Disk drives must be configured consecutively. Make any necessary corrections and press NEW LINE.

3.2.1.6 21 MB Cartridge Tape Drive – Check to make sure this entry lists whether or not you have a 21 MB cartridge tape drive in your system. Change the answer if it is incorrect. Press NEW LINE and proceed to the next entry.

3.2.1.7 Number of 130 MB Cartridge Tape Drives in System – Check to make sure this entry lists the correct amount of 130 MB cartridge tape drives in your system. If the number is incorrect, type the correct number of drives and press NEW LINE.

The tape unit number of your cartridge tape drive(s) is listed next. Check to make sure the correct unit number is listed for your system. If you have a 130 MB cartridge tape drive and a reel tape drive in your system, designate one drive as tape unit 0 and one drive as tape unit 1. Do not identify both drives with the same unit number. Press NEW LINE and proceed to the next entry.

3.2.1.8 Number of Reel Tape Drives in System – Check to make sure this entry lists the correct amount of reel tape drives in your system. If the number is incorrect, type the correct number and press NEW LINE.

The tape unit number of your reel tape drive(s) is listed next. Check to make sure the correct unit number is listed for your system. If you have a 130 MB cartridge tape drive and reel tape drive in your system, designate one drive as tape unit 0 and one drive as tape unit 1. Do not identify both drives with the same tape unit number. Make any necessary corrections and press NEW LINE.

3.2.1.9 Number of ASYNC, SYNC, and LAN Boards – Check to make sure all the communications boards entries list the correct number of boards (0, 1, or 2) found in your system. Make the necessary corrections and proceed to the next line.

Check to make sure the correct slot (A or B) is listed for any communications boards in your system. The "slot" described in this entry is not the physical location of the board in the chassis. It identifies whether the board is jumpered with a primary or secondary device code. Boards jumpered with a primary device code are identified as slot A; boards jumpered with a secondary device code are identified as slot B. Table 3–1 lists the device codes for the ASYNC, SYNC, and LAN boards.

Table 3-1. ASYNC, SYNC, and LAN Board Device Codes

BOARD (MAXIMUM)	SLOT	DEVICE	DEVICE CODE
ASYNC (1)	A	Primary	40
SYNC (2)	A B	Primary Secondary	30 31
LAN (1)	A	Primary	60

The following lists configuration information for the communications boards.

- You can have a total of three optional boards in your system. Keep in mind that a drive controller board is an optional board.
- You can have a maximum of one ASYNC board in your system.
  You can have a maximum of two SYNC boards in your system.
  You can have a maximum of one LAN board in your system.
- If you have two SYNC boards in your system, you cannot have a LAN board.
- If you have one LAN board, you can have only one SYNC board in the system. The LAN board must be configured for slot A; the SYNC board must be configured for slot B.

Refer to Installing and Maintaining Your ECLIPSE MV/1000 DC Computer System (DG Part Number 014-001661) for configuration information. Make any necessary changes to the Inventory List.

The Inventory List is now correct. Press NEW LINE and the Current Inventory List described in section 3.2.2 appears on the screen.

3.2.2 Verifying and/or Changing the System Inventory List

Once you have created the system Inventory List (section 3.2.1), the Inventory List is stored in memory and on disk as the default Current Inventory List. The next time you start the Diagnostics, the system automatically displays this default Current Inventory List and prompts you with the question "Is this Inventory List correct? (yes or no)". This list will be correct unless you have added, subtracted, or moved a feature, board, or device.

CAUTION

When changing your system configuration, keep in mind that the change must comply with the system's hardware configuration rules. Refer to the Related Documentation section in the Preface of this manual for installation information.

3.2.2.1 Current Inventory List – Once the Create a New Inventory List is complete, the system feeds back the results of the new Inventory List in the form of a Current Inventory List. The exact Current Inventory List will vary depending on the options you have on your particular system. Figure 3-8 shows a typical Current Inventory List.

```
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Material, Property of Data General.

Amount of memory found:   xxMB

Current Inventory List

MV/1000 DC CPU with hardware floating point
xxMB of Memory
Parallel Printer:
Diskette Drive  (737 KB) Disk
Disk Drive Unit 0 Capacity (xxxMB)
1 21MB Cartridge Tape Drive(s)
4 Communications Interfaces

The system will not test properly unless inventory list
is correct and amount of memory found equals amount in list.

Is this inventory list correct (yes or no)?
```

Figure 3-8. Current Inventory List

If you answer "no" to the question "Is this invenory list correct?", the Create a New Inventory List (Figure 3-7) appears on your system console screen so that you can alter it.

If the list is correct, enter "y" and press NEW LINE. Proceed to the next section.

3.2.2.2 Communication Inventory List – Figure 3-9 shows a Communication Inventory List which contains all possible communications interfaces. The communications interfaces on your list will vary depending on which optional communications features you purchased.

```
                Communication Inventory List

        x Communications Interface(s)

        Interface x is the Intergral ASYNC Port
        Interface x is a 16 USER ASYNC board in slot x
        Interface x is a SYNC board in slot x
        Interface x is a LAN board in slot A

        Is this inventory correct (yes or no)?
```

Figure 3-9. Communication Invenory List

Check to make sure all communication boards and their slot locations are correct. If you reply "no" to the question "Is this inventory list correct (yes or no)?", the Create a New Inventory List (Figure 3-7) appears on your system console screen. At this point, you must re-enter and verify a new system Inventory List. When you have verified the new system Inventory List, the Communication Inventory List reappears on your system console screen for verification.

When you do verify that the Communication Inventory List is correct, the Diagnostic Main Menu appears on your system console screen. The Diagnostics Main Menu is the point from which you can operate any or all of the diagnostic tests or return to your regular operating system, AOS/VS, DG/UX, or DG/RDOS. Section 4 contains complete instructions for using the Diagnostics Main Menu and operating the diagnostic tests.

SECTION 4
OPERATING THE USER FRIENDLY DIAGNOSTIC TESTS

The User Friendly Diagnostics Main Menu (Figure 4-1) appears on the system console screen after you have verified the Current Inventory List and the Communication Inventory List as described in Section 3.

```
MAIN MENU

   1  Exit the diagnostic system
   2  Specify system configuration
   3  Run system tests
   4  Head cleaning utility
   5  Media formatting utilities
   6  Exit to change preset values

Enter choice:  [ ]
```

Figure 4-1. Main Menu

NOTE

This manual discusses only the options that are used with the CORESIDENT feature. For information on other options, refer to the Related Documentation section in the Preface.

The Main Menu (preceded by the copyright legend), is the entry point for operating all the diagnostic programs. The following describes the options on the Main Menu.

Option 1 on the Main Menu returns you to the Operating System Load Menu (Figure 3-1 or 3-2) from which you can either start your operating system or enter the Technical Maintenance Menu or Run Diagnostics.

Option 2 on the Main Menu returns you to the Current Inventory List (Figure 3-8).

Option 3 on the Main Menu takes you to the Run System Test Menu so you can run the diagnostic tests. This option is discussed in section 4.1.

Option 4 on the Main Menu takes you to the Head Cleaning Menu so you can clean your diskette drive. This option is discussed in section 4.3.

Option 5 on the Main Menu takes you to the Format Utility Main Menu. This option is not described in this manual. For information on the format utility, refer to Using the Hardware Format Utility (Part number 014-001349).

Option 6 on the Main Menu returns you to the Automatic Program Load Menu to gain access to the Change Preset Values Menu so you can change the power up test format that appears on your screen. This option is discussed in section 4.2.

4.1 THE RUN SYSTEM TEST MENU

Option 3 on the Main Menu invokes the Run System Test Menu. Figure 4-2 lists all the system tests available for the ECLIPSE MV/1000 DC computer system. The System Test Menu shown on your screen will list only those tests applicable to your system configuration.

```
                Run System Test Menu

1 - Return to the Main Menu
2 - Test full system
3 - System exerciser
4 - Test CPU and memory
5 - Test ASYNC devices
6 - Test 16 USER ASYNC communication
7 - Test SYNC communication
8 - Test LAN communication
9 - Test internal disks
10 - Test CSS disks
11 - Test diskette
12 - Test 21MB cartridge tape
13 - Test 130MB cartridge tape
14 - Test reel tape
15 - Test parallel printer

Enter choice:  [ ]
```

Figure 4-2. Run System Test Menu

When you select one of the tests, the system console screen displays a "Testing" message and/or a test pattern. If the test completes successfully, the system returns either to the individual test sub-menu or to the Run System Test Menu.

If the test fails, a numerical error code(s) as shown in Figure 4-3 appears on the screen:

```
System error
Fault code   xxx-yyy-zzz

Press NEW LINE to continue.
```

Figure 4-3. Error Code Format

Write down this error code(s) and telephone your area Data General Service Operations Center to report this information. In the United States, call 1-800-DGHELPS. Outside the United States, call your local Data General Service Center. Service Center personnel will use the error code data to make a preliminary determination about the type of service your system needs.

4.1.1 Run Full System Test

Run Full System Test automatically runs each of the individual device and function tests in order. It also runs a system exerciser program which simulates the workings of your operating system.

CAUTION

Before you select Run Full System Test, be sure to insert formatted, write-enabled SCRATCH media in your diskette and/or cartridge tape drive(s) and/or reel tape drive.

The Full System Test destroys any existing data on your diskette and/or cartridge tape and/or reel tape.

Figure 4-4 shows the sequence of messages that appear when you select Run Full System Test.

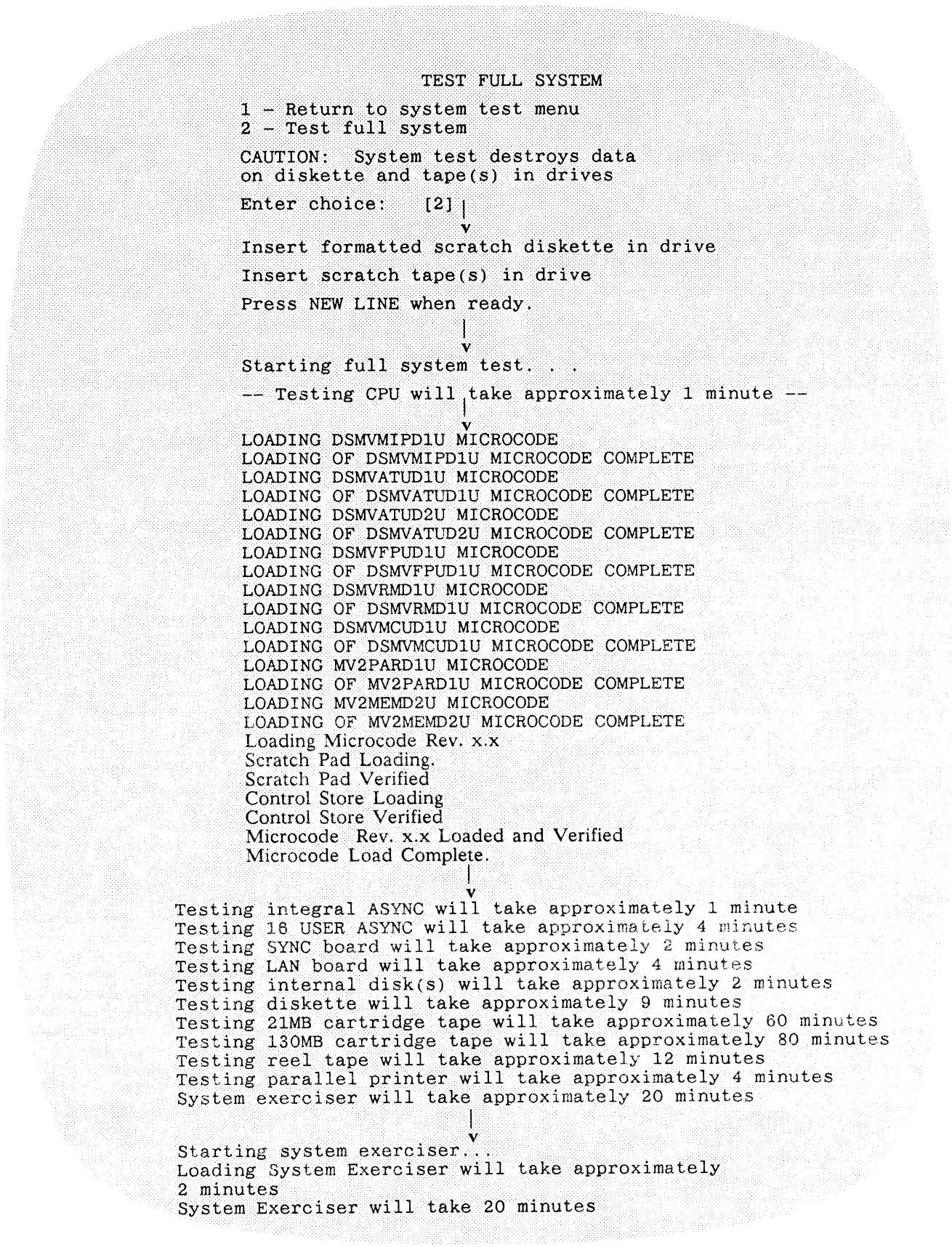

Figure 4-4. Test Full System Message Sequence

After the "Starting system exerciser..." message in Figure 4-4 appears on the system console screen, the System Equipment Table will appear. Figure 4-5 shows a sample System Equipment Table.

```
TTI             6012            8<10>
TTO             6012            9<11>
RTC             4008            0<14>
ULPT            6216            11<21>          0.
UTAPE           6351            13<13>          0.
DUART4----------                10<34>
PIT             4217            23<34>
SCP             ----            25<45>
DISK            6309            34<64>          0.
CPU             8879            3F<77>
```

Figure 4-5. Sample System Equipment Table

After the System Equipment Table appears on the screen, the remainder of the Full System Test executes automatically.

If the Full System Test completes without any errors, the message "All tests finished. Press NEW LINE to continue" appears on the system console screen. Press NEW LINE to return to Run System Test Menu.

If the Full System Test identifies a problem, an error message appears on your system console screen. Make a note of the error message and press NEW LINE to return to the System Test Menu.

4.1.2 Operating the System Exerciser

The System Exerciser simulates the activity of the operating system to detect intermittent system failures. If you suspect that your system is having intermittent problems, you should run the System Exerciser. The System Exerciser takes about 20 minutes to complete.

CAUTION

When you run the System Exerciser, be sure to insert formatted, write-enabled SCRATCH media in your diskette and/or cartridge tape drive. The System Exerciser destroys any existing data on diskettes and cartridge tapes.

Figure 4-6 shows the menu that appears when you select System Exerciser.

```
                    SYSTEM EXERCISER MENU

1 - Return to system test menu
2 - Run System Exerciser

CAUTION:  System test destroys data on diskette and/or cartridge
in drive(s)

Enter choice:   [ ]
```

Figure 4-6. System Exerciser Menu

Select Option 2 on the System Exerciser Menu and the following display (Figure 4-7) appears on the system console screen:

```
EXTENDED SYSTEM TEST

CAUTION:  System test destroys data on
diskette and/or tape in drive(s).
Insert formatted scratch diskette in drive

      (and/or)

Insert scratch tape in drive
Press NEW LINE
```

Figure 4-7. Extended System Test Message

Press NEW LINE and the following display (Figure 4-8) appears on your system console screen:

```
Starting system exerciser...
Loading system exerciser will take approximately
2 minutes
System exerciser will take 20 minutes.
```

Figure 4-8. Starting System Exerciser Message

A System Exerciser Equipment Table appears on the system console screen immediately after the message in Figure 4-8. Figure 4-9 shows a sample System Exercise Equipment Table.

```
TTI          6012          8<10>
TTO          6012          9<11>
RTC          4008          0<14>
ULPT         6216          11<21>        0.
UTAPE        6351          13<13>        0.
DUART4----------           10<34>
PIT          4217          23<34>
SCP          ----          25<45>
DISK         6309          34<64>        0.
CPU          8879          3F<77>
```

Figure 4-9. Sample System Exerciser Equipment Table

If the System Exerciser completes without identifying any problems, the message "All tests finished. No errors detected." appears on the screen. Press NEW LINE to return to the System Test Menu.

If the System Exerciser does not detect a failure but you still have a problem with your system, telephone the Service Operations Center for assistance.

If the System Exerciser identifies one or more failures, an error message appears on the screen. Make a note of the error message and press NEW LINE to return to the System Test Menu.

4.1.3 Individual System Tests

This subsection contains a complete list of the individual system device, board, and function tests you can select from the Run System Test Menu (Figure 4-2).

Select one or more system tests if you suspect a problem with any of your system's devices.

After you locate the problem and write down the error code, go to the beginning of Subsection 4.1 and follow the instructions for a test failure.

4.1.3.1 CPU and Memory Test – When you select the CPU and Memory Test, the menu in Figure 4-10 appears on the screen:

```
Test CPU and Memory Menu

1  Return to system test menu
2  Test CPU and Memory

Enter choice:   [ ]
```

Figure 4-10. CPU and Memory Test Menu

Select Option 2 to run the CPU and Memory tests. The message in Figure 4-11 appears on the screen:

```
-- Testing CPU will take approximately 1 minute --

    LOADING DSMVMIPD1U MICROCODE
    LOADING OF DSMVMIPD1U MICROCODE COMPLETE
    LOADING DSMVATUD1U MICROCODE
    LOADING OF DSMVATUD1U MICROCODE COMPLETE
    LOADING DSMVATUD2U MICROCODE
    LOADING OF DSMVATUD2U MICROCODE COMPLETE
    LOADING DSMVFPUD1U MICROCODE
    LOADING OF DSMVFPUD1U MICROCODE COMPLETE
    LOADING DSMVMCUD1U MICROCODE
    LOADING OF DSMVMCUD1U MICROCODE COMPLETE
    LOADING DSMVRMD1U MICROCODE
    LOADING OF DSMVRMD1U MICROCODE COMPLETE
    LOADING MV2PARD1U MICROCODE
    LOADING OF MV2PARD1U MICROCODE COMPLETE
    LOADING MV2MEMD2U MICROCODE
    LOADING OF MV2MEMD2U MICROCODE COMPLETE
```

Figure 4-11. CPU Extended Test Message

If your system has expansion memory installed, the system console screen displays the following additional message (Figure 4-12):

```
--Testing expansion memory --

LOADING OF MV2MEMD1U MICROCODE
LOADING OF MV2MEMD1U_II MICROCODE COMPLETE
```

Fiugre 4-12. Expansion Memory Test Message

If the CPU and Memory Test successfully completes, the message in Figure 4-13 appears on the screen:

```
All tests finished.  No errors detected.
Press NEW LINE to continue

Please wait while microcode is reloading

Loading Microcode Rev x.xx
Scratch Pad Loading
Scratch Pad Verified

Control Store Loading
Control Store Verified
Microcode Rev x.xx loaded and verified

Microcode Load Complete
```

Figure 4-13. Microcode Reloading Message

4.1.3.2 Test ASYNC Devices – When you select Test ASYNC Devices, the Test ASYNC Device Menu (Figure 4-14) appears on your system console screen:

```
   Test ASYNC Device Menu

 1  Return to the System Test Menu
 2  Test ASYNC ports on CPU, Internal Loopback
 3  Test ASYNC ports on CPU, External Loopback
    (Diagnostic Loopback Plugs Required)
 4  Test terminal on CPU
 5  Test printer on CPU
 6  Test plotter on CPU
 7  Test terminal on LAC or LMC
 8  Test printer on LAC or LMC
 9  Test terminal on LAC16 or LAC32
10  Test printer on LAC16 or LAC32

Enter choice:    [ ]
```

Figure 4-14. Test ASYNC Device Menu

The following describes the eight options on the Test ASYNC Device Menu.

Option 1 – Return to the System Test Menu – This returns you to the Run System Test Menu (Figure 4-2).

NOTE

The Option 2 test should not be run if the DG Communications Switch is enabled.

Option 2 – Test Async Ports on CPU, Internal Loopback – This tests the asynchronous ports on the CPU by using an internal loopback. The message "Starting Async Ports on CPU Test..." appears on your screen. If the test completes successfully, the message "All tests finished. Press NEW LINE to continue." is displayed on your screen. Press NEW LINE to return to the Test ASYNC Device Menu.

NOTE

The Option 3 test should not be run if the DG Communications Switch is enabled.

Option 3 – Test Async Ports on CPU, External Loopback – This requires the assistance of a Field Engineer to provide an external diagnostic loopback plug. If you want to run the test, contact Data General. In the United States, call 1–800–DGHELPS. In other countries, contact your local Data General Service Center.

NOTE

The Option 4 test should not be run if the DG Communications Switch is enabled.

Options 4, 5, and 6 – Test terminal, printer, plotter on CPU – These tests follow the same format. To run these tests, you must determine which asynchronous line your terminal, printer, or plotter uses on the CPU. Go to the configutation charts on your system backpanel for line assignments.

If you select Option 4, 5, or 6, the display in Figure 4–15 appears on the system console screen:

```
Enter ASYNC line (1 - 10):   [ ]
```

Figure 4–15. Enter ASYNC Line Display

Enter the asynchronous line number (1 - 2) on the CPU system board to which the device you are testing (terminal, printer, or plotter) is connected, and press NEW LINE. When you press NEW LINE, one of the following messages is displayed:

```
"Starting Terminal on CPU Test" or
"Starting Printer on CPU Test" or
"Starting Plotter on CPU Test"
```

depending on the test being performed.

If the test completes successfully, the message "All tests finished. Press NEW LINE to Continue." is displayed. Press NEW LINE to return to the Test ASYNC Device Menu.

Options 7, 8, 9, and 10 – Test Terminal, Printer on LAC or LMC and Test Terminal, Printer on LAC16 – These tests follow the same format. To run these tests, you must determine what slot the LAC (Local Asynchronous Controller), LMC (Local Bus Asynchronous Modem Controller), or LAC16 board uses in your system for slot locations.

If you select Option 7, 8, 9, or 10, the display in Figure 4-16 appears on the system console screen:

```
Enter LAC or LMC Board to test (1, 2, 3, or 4):  [ ]
Enter LAC or LMC Line (1-16):  [ ]
```

Figure 4-16. LAC, LMC, or LAC16 Board Test Display

Enter the LAC board you want to test (1, 2, 3, or 4) and press NEW LINE. Enter the LAC line number (1-16) on the asynch board to which the terminal or printer you want to test is connected. Press NEW LINE and one of the following messages is displayed:

```
"Starting Terminal on LAC test" or
"Starting Printer on LAC test"
```

depending on the test being performed.

If the test completes successfully, the message "All tests finished. Press NEW LINE to continue." is displayed. Press NEW LINE to return to the Test ASYNC Devices Menu.

4.1.3.3 Test 16 USER ASYNC Communication – Select Test 16 USER ASYNC Communication on the Run System Test Menu and the Test 16 USER ASYNC Menu (Figure 4-17) appears on your screen:

```
Test 16 USER ASYNC Communication Menu
1 - Return to system test menu
2 - Test all 16 USER ASYNC boards in system
3 - Test 16 USER ASYNC board 1 in slot A

Enter choice:   [ ]
```

Figure 4-17. Test 16 USER ASYNC Communication Menu

Enter the number of the test you want to run and press NEW LINE. The message "Starting 16 USER ASYNC Communication Test... Testing 16 USER ASYNC Boards will take approximately 20 minutes" appears on your screen.

If the 16 USER ASYNC Communication test completes successfully, "All tests finished. Press NEW LINE to continue." is displayed. Press NEW LINE to return to the Run System Test menu.

4.1.3.4 Test SYNC Communication – Select Test SYNC Communication on the Run System Test Menu and the Test SYNC Communication Menu (Figure 4–18) appears on your screen:

NOTE

Modems must not be in transmit mode when testing the synchronous controller.

```
Test SYNC Communication Menu

 1 - Return to system test menu
 2 - Test all SYNC boards in system
 3 - Test SYNC board 1 in slot x
 4 - Test SYNC board 2 in slot x

 Enter choice:   [ ]
```

Figure 4–18. Test SYNC Communication Menu

Enter 2, 3, or 4 and press NEW LINE. The message "Starting SYNC Communication Test...Testing SYNC Boards will take approximately 2 minutes" appears on your screen.

If the SYNC Communication test completes successfully, "All tests finished. Press NEW LINE to continue." is displayed. Press NEW LINE to return to the Run System Test Menu.

4.1.3.5 Test LAN Communication – Select Test LAN Communication on the Run System Test Menu and the Test LAN Communication Menu (Figure 4–19) appears on your screen:

```
Test LAN Communication Menu

 1 - Return to system test menu
 2 - Test all LAN boards in system
 3 - Test LAN board 1 in slot A

 Enter choice:   [ ]
```

Figure 4–19. Test LAN Communication Menu

Enter 2 or 3 and press NEW LINE. The message "Starting LAN Communication Test...Testing LAN Boards will take up to 2 minutes" appears on your screen.

If the LAN Communication test completes successfully, "All tests finished. Press NEW LINE to continue." is displayed. Press NEW LINE to return to the Run System Test Menu.

4.1.3.6 Test Internal Disk – Select Test Internal Disk on the Run System Test Menu and the Test Internal Disk Menu (Figure 4–20) appears on your screen:

```
Test Internal Disk Menu

1 - Return to System Test Menu
2 - Test all internal disk drives in the system
3 - Test internal disk drive unit 0

Enter choice:   [ ]
```

Figure 4–20. Test Internal Disk Menu

Enter 2 or 3 and press NEW LINE. The message "Starting Disk Test... Testing disk will take approximately 2 minutes" appears on your screen.

If the Disk test completes successfully, "All tests finished. No errors detected" is displayed. Press NEW LINE to return to the Run System Test Menu.

4.1.3.7 Test CSS Disk – Select Test CSS Disk on the Run System Test Menu and the Test CSS Disk Menu (Figure 4–21) appears on your screen:

```
Test CSS Disk Menu

1 - Return to System Test Menu
2 - Test all CSS disk drives in the system
3 - Test CSS disk drive unit 0
4 - Test CSS disk drive unit 1
5 - Test CSS disk drive unit 2
6 - Test CSS disk drive unit 3

Enter choice:   [ ]
```

Figure 4–21. Test CSS Disk Menu

Enter the number of the test you want to run and press NEW LINE. The message "Starting Disk Test... Testing disk(s) will take approximately 2 minutes" appears on your screen.

If the Disk test completes successfully, "All tests finished. No errors detected" is displayed. Press NEW LINE to return to the Run System Test Menu.

4.1.3.8 Test Diskette – Select Test Diskette on the Run System Test Menu and the Test Diskette Menu (Figure 4-22) appears on your screen:

```
TEST DISKETTE MENU

1 - Return to system test menu
2 - Test diskette

CAUTION:  System test destroys
data on diskette in drive.

Enter choice:    [ ]
```

Figure 4-22. Test Diskette Menu

CAUTION

Be sure to insert a write-enabled, formatted SCRATCH diskette in the diskette drive before running this test. The test destroys any existing information on the diskette.

Enter 2 and press NEW LINE. The following sequence of messages (Figure 4-23) appears on your screen:

```
Insert formatted scratch diskette in drive

Press NEW LINE when ready

                |
                v

Starting diskette test...

Testing diskette will take approximately
9 minutes.

                |
                v

All tests finished.

Press NEW LINE to continue.
```

Figure 4-23. Test Diskette Message Sequence

Once either the "All tests finished" message or an error message appears on the screen, the diskette test is complete. Press NEW LINE to return to the Run System Test Menu.

4.1.3.9 Test 21 MB Cartridge Tape – Select Test 21 MB Cartridge Tape on the Run System Test Menu, and the Test 21 MB Cartridge Tape Menu (Figure 4–24) appears on the screen:

```
Test Cartridge Tape Menu

1 - Return to system test menu
2 - Test cartridge tape

CAUTION:  System test destroys
data on tape in drive.

Enter choice:   [ ]
```

Figure 4–24. Test 21 MB Cartridge Tape

CAUTION

Be sure to insert a SCRATCH cartridge tape in the cartridge tape drive before running this test. The test destroys any existing information on the tape.

Enter 2 and press NEW LINE. The following sequence of messages (Figure 4–25) appears on your screen:

```
Insert scratch cartridge tape in drive

Press NEW LINE when ready

                |
                v

Starting cartridge tape test...

Testing cartridge tape will take approximately
60 minutes.

                |
                v

All tests finished.

Press NEW LINE to continue.
```

Figure 4–25. Test 21 MB Cartridge Tape Message Sequence

Once either the "All tests finished" message or an error message appears on the screen, the cartridge tape test is complete. Press NEW LINE to return to the Run System Test Menu.

4.1.3.10 Test 130 MB Cartridge Tape – Select Test 130 MB Cartridge Tape on the Run System Test Menu, and the Test 130 MB Cartridge Tape Menu (Figure 4–26) appears on the screen:

```
        Test 130MB Cartridge Tape Menu

1 - Return to system test menu
2 - Test 130MB cartridge tape

CAUTION:  System test destroys
data on tape in drive.

Enter choice:   [ ]
```

Figure 4–26. Test 130 MB Cartridge Tape

CAUTION

Be sure to insert a SCRATCH cartridge tape in the cartridge tape drive before running this test. The test destroys any existing information on the tape.

Enter 2 and press NEW LINE. The following sequence of messages (Figure 4–27) appears on your screen:

```
Insert scratch cartridge tape in drive

Press NEW LINE when ready
                        |
                        v
Starting cartridge tape test...

Testing cartridge tape will take approximately 80 minutes.

                        |
                        v
All tests finished.

Press NEW LINE to continue.
```

Figure 4–27. Test 130 MB Cartridge Tape Message Sequence

Once either the "All tests finished" message or an error message appears on the screen, the cartridge tape test is complete. Press NEW LINE to return to the Run System Test Menu.

4.1.3.11 Test Reel Tape – Select Test Reel Tape on the Run System Test Menu and the Test Reel Tape Menu (Figure 4–28) appears on the screen:

```
Test Reel Tape Menu

1 - Return to system test menu
2 - Test reel tape

CAUTION:  System test destroys
data on tape in drive.

Enter choice:   [ ]
```

Figure 4–28. Test Reel Tape

CAUTION

Be sure to insert a SCRATCH reel tape in the reel tape drive before running this test. The test destroys any existing information on the tape.

Enter 2 and press NEW LINE. The following sequence of messages (Figure 4–29) appears on your screen:

```
Insert scratch reel tape in drive

Press NEW LINE when ready
                  |
                  v
Starting reel tape test

Testing reel tape will take approximately 12 minutes.
                  |
                  v
All tests finished.

Press NEW LINE to continue.
```

Figure 4–29. Test Reel Tape Message Sequence

Once either the "All tests finished" message or an error message appears on the screen, the reel tape test is complete. Press NEW LINE to return to the Run System Test Menu.

4.1.3.12 Test Parallel Printer – Select Test Parallel Printer on the Run System Test Menu and the Test Parallel Printer Menu (Figure 4-30) appears on the screen:

```
Test Parallel Printer Menu

1 - Return to system test menu
2 - Test parallel printer

Enter choice:   [2]
```

Figure 4-30. Test Parallel Printer Menu

Make sure the printer is ON-LINE and paper is installed. Enter 2 and press NEW LINE. The following message (Figure 4-31) appears on your screen:

```
Testing parallel printer will take approximately
4 minutes.

All tests finished.

Press NEW LINE to continue.
```

Figure 4-31. Testing Parallel Printer Message

Once either the "All tests finished" message or an error message appears on the screen, the parallel printer test is complete. Press NEW LINE to return to the Run System Test Menu.

4.2 EXITING THE DIAGNOSTIC SYSTEM TESTS

Press NEW LINE after the completion of a System test to return to the Run System Test Menu.

Select Return to Main Menu on the Run System Test Menu. Press NEW LINE to return to the Main Menu.

There are two selections on the Main Menu that allow you to exit from the Diagnostics: Exit Diagnostic System and Exit to Preset Values. Subsection 4.2.1 and subsection 4.2.2 explain these selections.

4.2.1 Exit Diagnostic System

On an an AOS/VS operating system, selecting Exit the Diagnostic System on the Main Menu returns you to the Operating System Load Menu. Select Continue immediately with operating system load on the Operating System Load Menu. Resume regular operation.

On a DG/UX operating system, select Exit the Diagnostic System on the Main Menu and the question "Do you want to load diagnostics?" appears on the screen. Enter "no" and press NEW LINE. Resume regular operations.

On a DG/RDOS operating system, select Exit the Diagnostic System on the Main Menu and the question "Filename?" appears on the screen. Enter the default pathname and press NEW LINE. Resume regular operations.

4.2.2 Exit to Change Preset Values

If you select Exit to Change Preset Values on the Main Menu, the Automatic Program Load Menu appears on the screen. Select Change Preset Values on the Automatic Program Load Menu and the Change Preset Values Menu in Figure 4-32 appears on the screen. Options 7, 10, and 11 on the change Preset Values Menu are not available for the ECLIPSE MV/1000 DC computer.

```
                Change Preset Values Menu

1  Continue the power up
2  Change the system date or time
3  Start from a different device
4  Change the default device
5  Change the time out delay for the Automatic Program Load Menu
6  Enter the SCP CLI
7  Change the system console
8  Select diagnostics sequence
9  Configure parallel printer port
10 Select positional tracking device types for tablets
11 Select system clock type

For assistance, press the Help key (Shift-F1) or H
To exit from this menu, press the Cancel/Exit key (F11) or ESC

Enter choice:   [1]
```

Figure 4-32. Change Preset Values Menu

Choose 8, Select diagnostics sequence and the Select Diagnostics Sequence in Figure 4-33 is displayed.

```
                Select Diagnostics Sequence

                1  Run full diagnostics
                2  Run abbreviated diagnostics

                To exit from this menu, press the
                Cancel/Exit key (F11) or ESC

                For assistance, press the Help key
                (Shift-F1) or H

                Enter choice:   [ ]
```

Figure 4-33. Select Diagnostic Sequence

If you want to run the complete set of power up diagnostics the next time you power up the system, select Run Full Diagnostics and press NEW LINE.

If you do not want to run the complete set of power up diagnostics the next time you power up the system, select Run Abbreviated Diagnostics and press NEW LINE.

Figure 4-34 shows the complete set of power up diagnostics. Figure 4-35 shows the abbreviated version of the power up diagnostics.

```
Memory size is x Megabytes
LOADING DSMVMIPD1U MICROCODE
LOADING OF DSMVMIPD1U MICROCODE COMPLETE
LOADING DSMVATUD1U MICROCODE
LOADING OF DSMVATUD1U MICROCODE COMPLETE
LOADING DSMVATUD2U MICROCODE
LOADING OF DSMVATUD2U MICROCODE COMPLETE
LOADING DSMVFPUD1U MICROCODE
LOADING OF DSMVFPUD1U MICROCODE COMPLETE
LOADING DSMVMCUD1U MICROCODE
LOADING OF DSMVMCUD1U MICROCODE COMPLETE
LOADING DSMVRMD1U MICROCODE
LOADING OF DSMVRMD1U MICROCODE COMPLETE
LOADING MV2PARD1U MICROCODE
LOADING OF MV2PARD1U MICROCODE COMPLETE
LOADING MV2MEMD2U MICROCODE
LOADING OF MV2MEMD2U MICROCODE COMPLETE
```

Figure 4-34. Complete Power Up Tests

```
TESTING...
Model #8879; System Processing Unit (SPU)
ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789 PASSED
-- Standard Hardware Tests Complete --
-- Optional Hardware Tests Beginning --
** Option boards installed on your system
    (if any) are shown here **
```

Figure 4-35. Abbreviated Power Up Tests

Press Cancel/Exit to return to the Automatic Program Load Menu. Select Continue immediately with preset values on the Automatic Program Load Menu to return to the Main Menu. Follow the instructions in section 4.2.1.

4.3 HEAD CLEANING UTILITY FOR THE DISKETTE DRIVE

Option 4 on the Main Menu (Figure 4-36) invokes the Head Cleaning Utility. You should operate this utility to clean your system's diskette drive about once a month.

```
MAIN MENU

    1  Exit the diagnostic system
    2  Specify system configuration
    3  Run system tests
    4  Head Cleaning Utility
    5  Media Formatting Utilities
    6  Exit to the change preset values menu

Enter choice:   [ ]
```

Figure 4-36. Main Menu

You will need a cleaning diskette. Select the head cleaning utility and press NEW LINE. The Head Cleaning Menu in Figure 4-37 is displayed.

```
HEAD CLEANING MENU

1  Return to main menu
2  Clean diskette drive

CAUTION:  Cleaning diskette should be
removed from drive after cleaning is
completed.

Enter choice:   [ ]

Insert cleaning media in drive.
Press NEW LINE when ready.
```

Figure 4-37. Head Cleaning Menu

On this menu, select Clean Diskette Drive. Be ready to insert the diskette immediately after you select Clean Diskette Drive -- before the red light on the drive's front panel turns off. Cleaning will not occur if you insert the diskette after the red light turns off. To order cleaning diskettes, call your Data General Service Center and use Order No. 1277. In the United States, call 1-800-DGHELPS. In other countries, call your local Data General Service Center.

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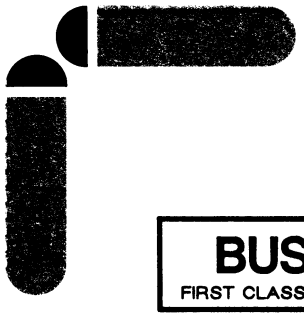

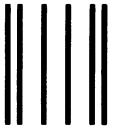

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