Data General

Customer Documentation

Starting Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System

Starting Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System

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Notice

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ECLIPSE MV/2500™ DC Computer System
014-001467-00

Revision History:

Original Release - August 1988

Getting Started 1-1

Refer to this chapter

- To identify the materials, diskettes, tapes and so forth, that you will need to start up your system
- To learn how to handle diskettes and cartridge tapes
- To familiarize yourself with the front panel features of the computer

Powering Up the First Time 2-1

Follow the steps in this chapter

- If you are starting your system for the first time since installing it
- If you have not installed your power-up code on your system hard disk
- If you are starting your system for the first time after replacing the operating system's hard disk drive

Powering Up Routinely 3-1

Follow the steps in this chapter after your operating system is installed on the system hard disk

Changing Preset Values 4-1

Follow the steps in this chapter

- To change the system time or date
- To change the time-out delay
- To power up from a different disk or tape or change the default disk or tape
- To change the sequence of the power-up diagnostics
- To configure the parallel printer port

Solving Power-Up Problems 5-1

Follow the steps in this chapter if the system console screen stays blank or displays an error message during powerup

Preface

Read this manual if you are starting the system and you ordered the DG/RDOS, the AOS/RT32, or the DG/UX™ operating system or if you intend to use a non Data General operating system. If you ordered the AOS/VS operating system, you do not need to read this manual. Data General shipped your system with the AOS/VS operating system and the SCP System Media software already installed on the system hard disk. To power up a system with AOS/VS, refer to one of the following manuals:

Starting and Running AOS/VS on ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, and DS/7500-Series Systems
(DGC No. 069-000129)

Starting and Updating Preinstalled AOS/VS
(DGC No. 069-000293) or (DGC No. 069-000294)

This manual tells you how to start a new system from the SCP System Media software and how to change certain system attributes to suit your specific needs. If you encounter problems with your system during powerup, this manual tells you how to interpret the power-up error codes and suggests steps you can take to solve these problems.

Once the system passes the power-up diagnostic tests, the operating system documentation describes how to install your operating system software. With your operating system software installed on the system disk, this manual tells you how to power up the system routinely.

The next section contains related manuals. These manuals tell you how to connect your system together and how to manage and maintain your system's hardware and software on a day-to-day basis.

Related Manuals

Data General provides a comprehensive documentation set for the ECLIPSE MV/1400™ DC, ECLIPSE MV2000™ DC, and ECLIPSE MV/2500™ DC computer systems. If you install, operate, manage, or maintain one of these Data General systems, you will find the following books useful.

Hardware Manuals

Installing and Maintaining Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System (DGC No. 014-001466)

This manual is written for the person who is responsible for setting up and configuring the system. It describes how to unpack and install the system. It also provides sections that describe how to maintain the hardware. The step-by-step procedures and descriptive illustrations simplify and speed up both the installation and configuration of the hardware.

Operating System Manuals

Starting and Running AOS/VS on ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, and DS/7500-Series Systems (DGC No. 069-000129)

This manual describes how to start and run Data General's AOS/VS operating system on an ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or DS/7500-series system.

Starting and Updating Preinstalled AOS/VS (DGC No. 069-000293) or (DGC No. 069-000294)

These manuals describe how to start and update the AOS/VS operating system that is preinstalled on an ECLIPSE MV/1400 DC, ECLIPSE MV/2000 DC, ECLIPSE MV/2500 DC, or DS/7500 computer system. Manual 069-000293 contains procedures for AOS/VS, model 31133. Manual 069-000294 contains procedures for the AOS/VS operating system that has the New File system.

How to Generate and Run DG/RDOS (DGC No. 093-000470)

This manual describes how to load, start, and tailor Data General's DG/RDOS operating system. It is written for the person who manages, operates, and programs the system.

Installing and Managing the DG/UX™ System (DGC No. 069-701029)

This manual describes how to install, operate, and manage Data General's DG/UX operating system. It is written for the system manager or system administrator who may not be a programmer but is familiar with the UNIX® operating system.

How to Generate and Manage AOS/RT32 (DGC No. 069-400027)

This manual describes how to use the AOS/RT32 (Advanced Operating System/Real-Time 32-bit) utilities to generate a system tailored to specific real-time applications. Once you have generated a system, it tells you how to boot the system, manage its runtime environment, and modify it as required. This manual requires a general knowledge of operating system principles and concepts.

Other Manuals

ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, ECLIPSE MV/2500™ DC, and DS/7500 Systems Principles of Operation Supplement
(DGC No. 014-001203)

This manual is for assembly language programmers. It describes processor-dependent concepts and functions for the ECLIPSE MV/1400 DC, ECLIPSE MV/2000 DC, ECLIPSE MV/2500 DC, and DS/7500 computer systems. This manual must be used with manuals 014-001371 and 014-001372.

ECLIPSE MV/Family (32-Bit) Principles of Operation (DGC No. 014-001371)

This manual explains processor-independent concepts and functions for Data General's MV/Family systems. Also see manual 014-001203.

ECLIPSE MV/Family (32-Bit) Systems Instruction Dictionary
(DGC No. 014-001372)

This manual describes each instruction of the ECLIPSE MV/Family instruction set. Also see manual 014-001203.

ECLIPSE MV/2000™ DC and DS/7500 System Control Program Operator's Reference (DGC No. 014-001219)

This reference manual describes the SCP commands and explains how to use the system control program (SCP) features.

ECLIPSE MV/1400 DC, ECLIPSE MV/2000 DC_II (Models 91347 — 91349) and DS/7500_II Series Systems User Friendly Diagnostics (DGC No. 015-000323).

This manual describes how to install and operate Data General's user-friendly diagnostics on the ECLIPSE MV/1400 DC, the ECLIPSE MV/2000 DC, and the DS/7500 computer systems.

ECLIPSE MV/2500 DC User Friendly Diagnostics (DGC No. 015-000317).

This manual describes how to install and operate Data General's user-friendly diagnostics on an ECLIPSE MV/2500 DC computer system.

Using the Hardware Format Utility: ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, and DS/7500-Series Systems (DGC No. 014-001349)

This manual describes how to hardware format cartridge tapes and diskettes, using Data General's hardware format utility programs. You can run these format utility programs on the ECLIPSE MV/2500 computer system as well.

Reader, Please Note:

Some of the examples in the text use

This typeface to show your entry.
This typeface to show system queries and responses.

Contacting Data General

- If you have comments on this manual, please use the prepaid Comment Form that appears at the back. We want to know what you like and dislike about this manual.
- If you require additional manuals, contact your local Data General sales representative.

Telephone Assistance

If you cannot solve a system problem using information in either this manual or from a manual in the "Related Manuals" section, contact the Data General Service Center. The Center provides free telephone support during your system's warranty period and with most Data General Service contracts.

For toll-free assistance when you are within the continental United States, call 1-800-DG-HELPS, from 8:30 a.m. to 8:30 p.m. eastern time, Monday through Friday. The Data General Service Center will put you in touch with a member of Data General's telephone-assistance staff who can answer your questions.

For telephone assistance when you are outside the continental United States, ask your Data General sales representative for the appropriate telephone number.

Solving Order Problems

If you are missing materials or have received the wrong materials, contact Data General as follows:

If you are outside the United States, contact your Data General sales representative or the nearest Data General office.

If you are within the United States (or if you are outside the United States and want to reach Data General directly), contact:

Data General Customer Service
2400 Computer Drive
Westboro, MA 01581

End of Preface

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Appendix B - Identifying SCP System Media

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Chapter 1
Getting Started

Once your system is installed, the next step is to power it up and install the operating system software. To do this you will need to locate the tapes or diskettes (media) that Data General shipped to you with your system. Also you will need to know how to handle and care for the media so that you do not damage them. This chapter identifies the documentation and media you will need, tells you how to handle and care for the media, and familiarizes you with the front panel features and controls of your computer system.

NOTE: If you ordered the AOS/VS operating system, you do not need to read this manual. Data General shipped your system with the AOS/VS operating system and the SCP System Media software already installed on the system hard disk. To power up a system with AOS/VS, refer to the correct version of the manual *Starting and Updating Preinstalled AOS/VS*.

Gathering Required Documentation and Media

If you ordered a Data General operating system with your computer system, you should have received media labeled with the operating system name and media labeled SCP System Media. (The media will either be tape and/or diskettes, depending on whether your system has a tape drive or a diskette drive.) To power up your system, you will use the SCP System Media. Appendix B contains a list of Data General computers and the SCP System Media that Data General ships with them. Use this information to verify that you have the correct SCP System Media.

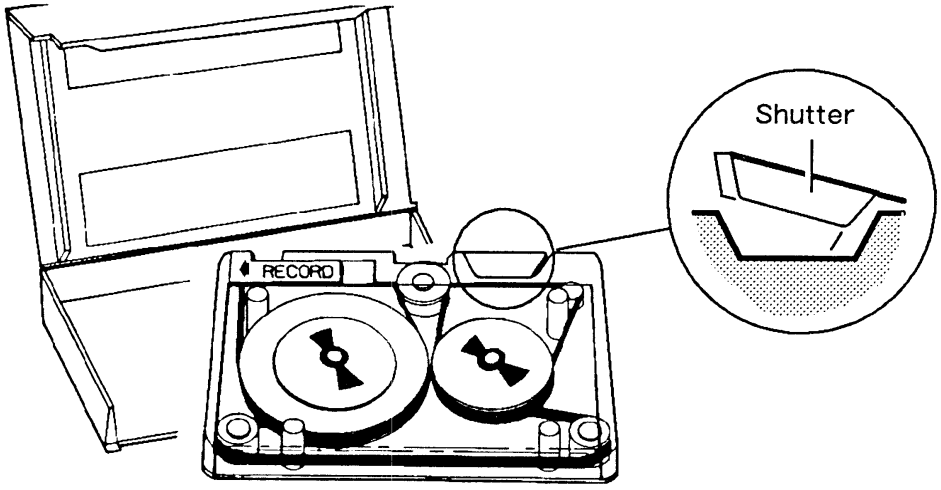
Also, you should have received documentation that describes how to manage or run the operating system(s) that you ordered. The "Related Manuals" section in the Preface lists the manuals that you will need to install your operating system software. If you received the wrong materials or are missing materials,

immediately contact Data General by referring to the section, "Solving Order Problems" in the Preface. With the wrong media or documentation, you may have difficulty powering up your system and installing your Data General operating system.

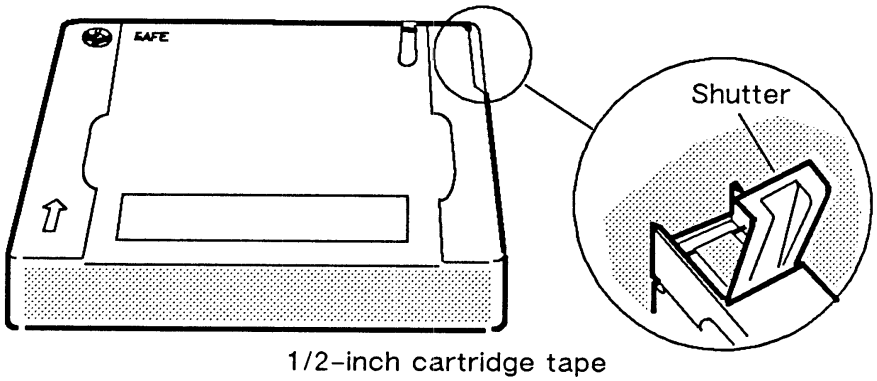
Depending on the type of drives in your system, the SCP System Media for your computer was shipped to you on either an 1/8-inch cartridge tape, a 1/2-inch cartridge tape, a reel-to reel tape, or a diskette. There are two types of cartridge tapes available for your computer system. One type contains magnetic tape that is approximately 1/8-inch wide (0.15 inches); the other contains magnetic tape that is 1/2-inch wide. The next sections describe how to care for 1/8- and 1/2-inch cartridge tapes, reel-to-reel tapes, and diskettes and how to protect the data that is stored on them.

Handling Cartridge and Reel-to-Reel Tapes

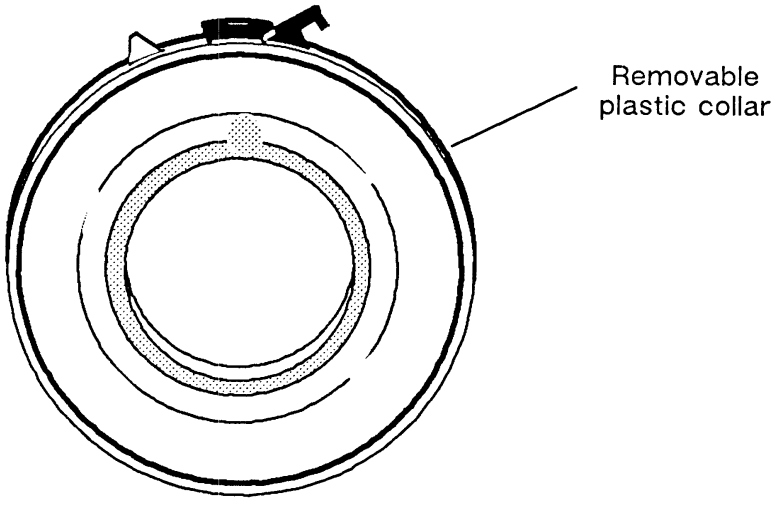
The 1/8-inch cartridge tape comes in its own plastic storage case. Because dust, dirt, and moisture can damage a cartridge tape, it is very important to keep the cartridge tape in the case when it is not in use. The 1/2-inch cartridge tape has a heavy plastic case. It does not require a storage case. Both the 1/8-inch and 1/2-inch cartridge tapes have a shutter on one end of the case, which closes to protect the magnetic tape when the cartridge tape is not in use. Avoid opening the shutter; otherwise, you may damage the magnetic tape or cause dirt or other foreign substances to enter the case. The reel-to-reel tape comes with a removable plastic collar that protects the tape when it is not in use and also provides a hook for storing the tape. Keep the collar on the tape until you are ready to use it. Dust and dirt can damage not only the tape but also the tape's drive.



1/8-inch cartridge tape



1/2-inch cartridge tape



Reel-to-reel tape

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Avoid placing tapes near magnets or equipment that produces magnetic fields, such as a telephone, power supply, printer, or terminal. For cartridge tapes, do not touch parts of the tape that are exposed at the openings of the cartridge. When you thread a reel-to-reel tape in the drive, handle only the portion of the tape that comes before the foil BOT (beginning of tape) marker. Never touch the portion of the tape after the BOT marker. The oil or dirt from your hands can make the data on cartridge tapes and reel-to-reel tapes inaccessible to the computer.

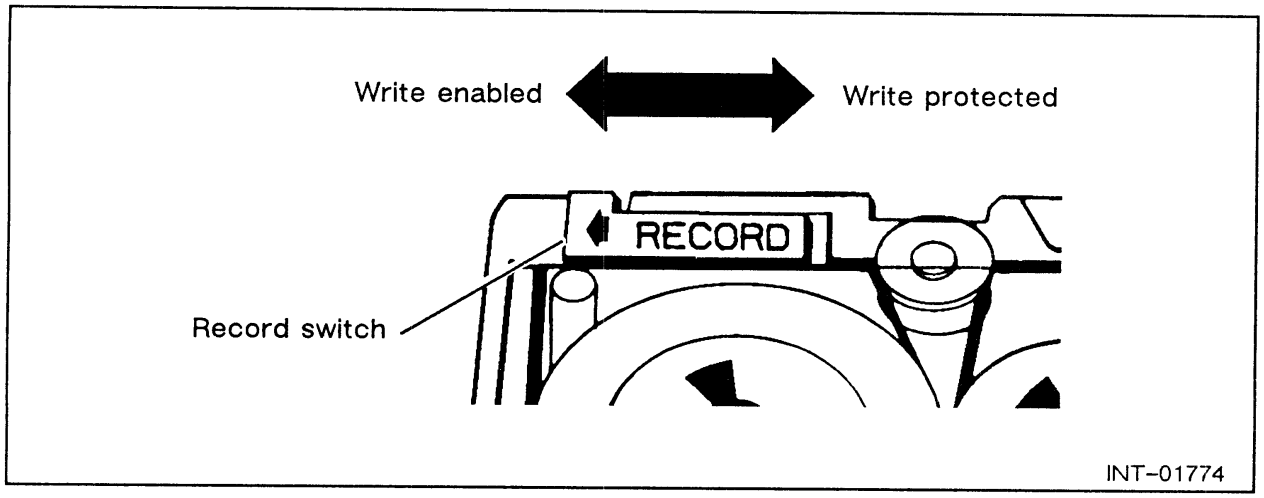
Protecting Data on Cartridge and Reel-to-Reel Tapes

The computer uses a cartridge and reel-to-reel tapes in two ways. It retrieves information from the tape in a process called *reading*, and it stores information on the tape in a process called *writing*. When the computer reads the information from an area of the tape, that information remains intact on the tape. On the other hand, when the computer writes new information to a cartridge tape, it may write over (erases) the old information already stored on the tape. Once the old information is lost, the system cannot recover it. Read the next sections to find out how you can protect data that is stored on your cartridge and reel-to-reel tapes.

1/8-Inch Cartridge Tape

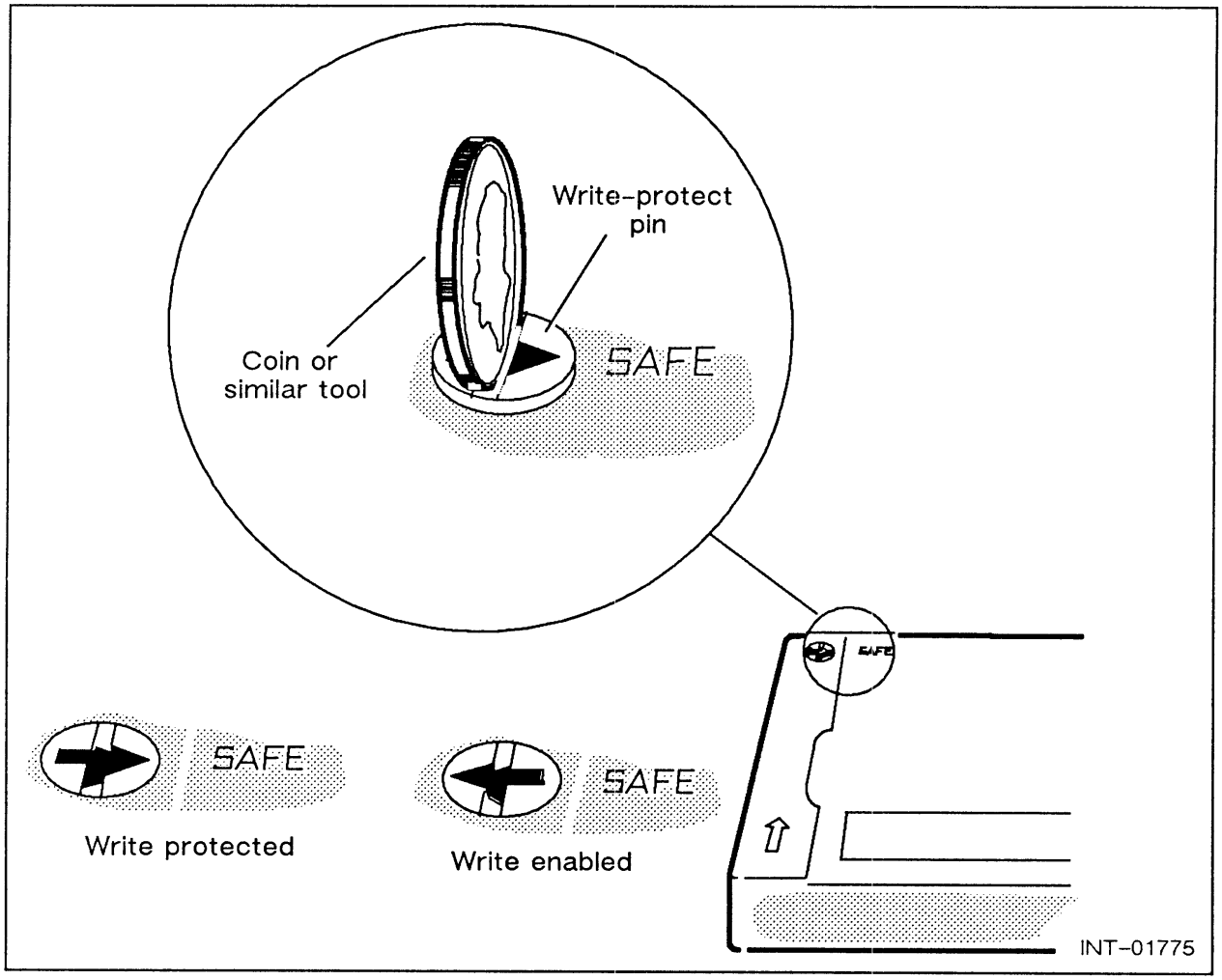
To prevent the accidental erasure of valuable information that is stored on the 1/8-inch cartridge tape, slide the record switch on the cartridge tape all the way to the right. With the record switch all the way to the *right*, the system cannot write any information on the cartridge tape. (The cartridge tape is write protected.)

To write information on the cartridge tape, move the record switch all the way to the *left*. Now the system can write new information and also write over any old information stored on the cartridge tape. (The cartridge tape is write enabled.)



1/2-Inch Cartridge Tape

To prevent the accidental erasure of valuable information that is stored on the 1/2-inch cartridge tapes, push the write-protect pin up from the bottom of the cartridge tape with your finger. While holding the pin up with your finger, place a coin, a small flat-blade screwdriver, or similar tool into the groove of the write-protect pin. Then turn the pin so that the arrow on the top of the pin points toward the word SAFE. With the arrow pointing toward the word SAFE, the system cannot write information on the cartridge tape. (The cartridge tape is write protected.)

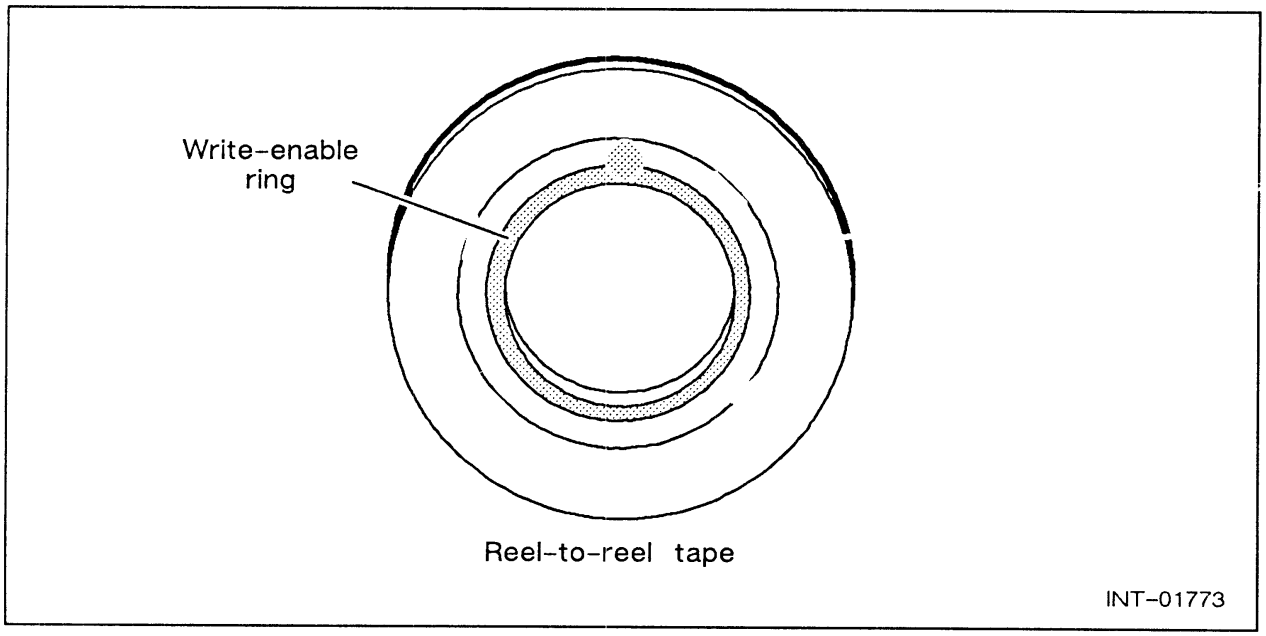


To write information on the cartridge tape, turn the pin so that the arrow points away from the word SAFE. Now the system can write new information, and also write over any old information stored on the cartridge tape. (The cartridge tape is write enabled.)

Reel-to-Reel Tape

To prevent the accidental erasure of valuable information that is stored on the reel-to-reel tape, remove the write-enable ring from the groove on the back side of the reel. With the write-enable ring removed from the groove, the system cannot write information on the tape. (The reel-to-reel tape is write protected.)

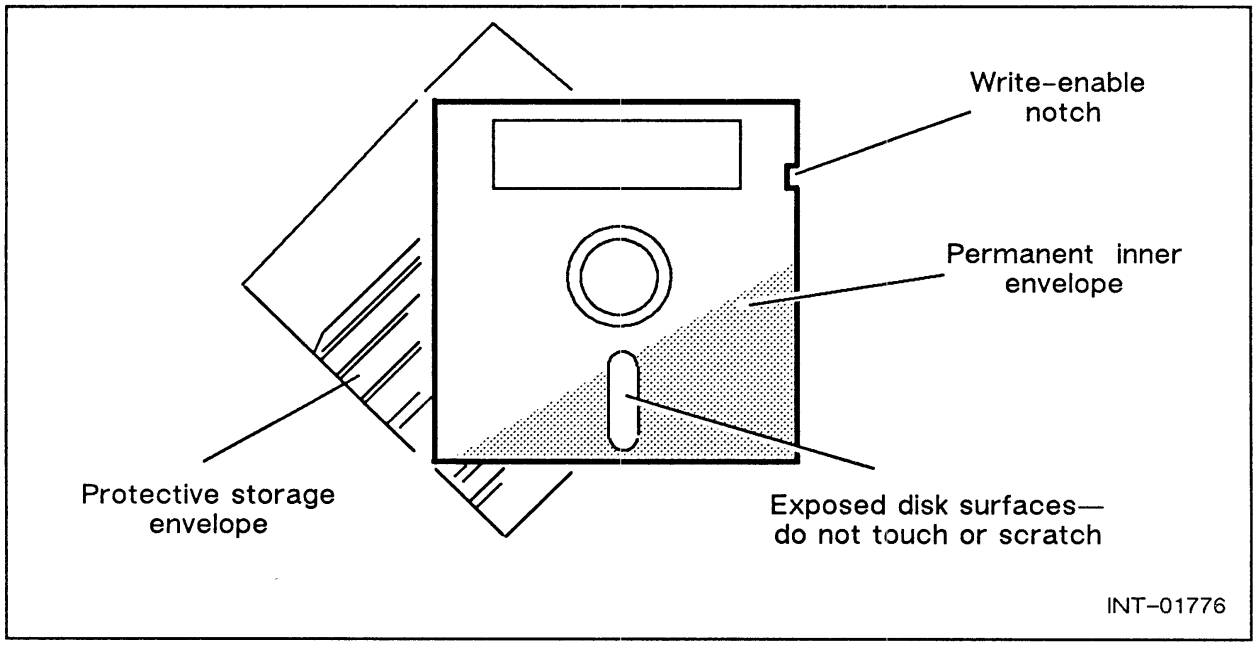
To write information on the reel-to-reel tape, press the ring into the groove on the back side of the reel. Now the system can write new information, and also write over any old information stored on the reel-to-reel tape. (The reel-to-reel tape is write enabled.)



Handling Diskettes

Diskettes are manufactured in several sizes and formats. Your system uses a 5-1/4 inch diskette that is specially hardware formatted for use in Data General computers. This diskette comes with an adhesive label, a special plastic tab (whose purpose is explained later) and a protective storage envelope. When you are not using a diskette, keep it in this envelope and store it in a safe, dry, dust-free place, like a diskette-storage case.

Both heat and magnetic fields can damage a diskette or the information that is stored on a diskette. Store diskettes away from excessive temperatures. Temperatures between 50°F - 125°F (10°C - 52°C) are acceptable. Keep diskettes away from magnets and electrical or electronic equipment that produces magnetic fields. For example, many paper-clip holders found in offices use magnets, and equipment such as computer terminals, telephones, printers, and office equipment that use electric motors can produce magnetic fields. Pay special attention to where you place or store your diskettes when they are not in the computer.



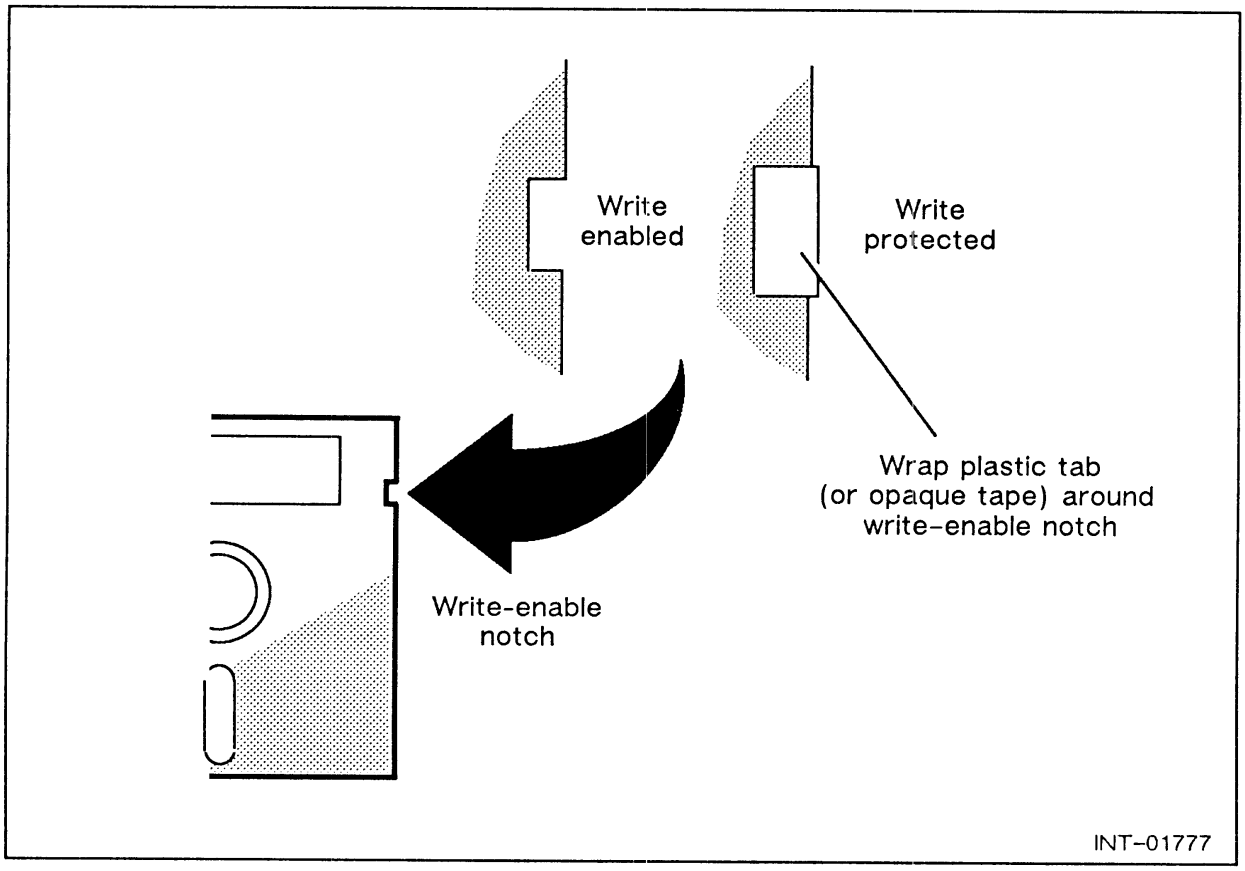
The diskette itself has a permanent inner envelope that you must never remove. In addition, you must never fold or bend a diskette or write directly on a diskette's permanent inner envelope.

The diskette has two openings (one on each side) that expose the magnetic disk that is inside the permanent envelope. Data is stored on or retrieved from the magnetic disk through these openings. Do not touch the exposed disk or allow it to become scratched—you may lose data that is stored on it. If you want to label on a diskette, write on a label, and then attach the label to the diskette. Make sure the label does not cover the write-enable notch on the edge of the diskette. (If you must write on the label after it is on the diskette, use a felt-tipped pen and do not bear down on the label.)

Protecting Diskette Data

Your computer system uses a diskette in two ways. It retrieves information from the diskette in a process called *reading*, and it stores information on the diskette in a process called *writing*. When the system reads the information from an area of the diskette, that information remains intact on the diskette. On the other hand, when the system writes new information to an area on a diskette, it may write over (erase) the old information already stored on that area. Once the old information is written over, the system cannot recover it from the diskette.

To prevent the accidental erasure of valuable information, cover the diskette's write-enable notch with the plastic tab that was supplied with the diskette (or you can use opaque tape). With the notch *covered*, the system does not write any information on the diskette (the diskette is write protected). With the notch *uncovered*, your system can write new information and also write over any old information stored on the diskette (the diskette is write enabled).



Hardware Formatting Tapes and Diskettes

The 1/8-inch cartridge tapes and 5-1/4 inch diskettes sold by Data General are specially hardware formatted for use in your computer system. If you obtain 5-1/4 inch diskettes or 1/8-inch cartridge tapes from a source other than Data General, you must hardware format them before using them in your system. To hardware format 1/8-inch cartridge tapes and 5-1/4 inch diskettes, refer to the manual *Using the Hardware Format Utility: ECLIPSE MV/1400™DC, ECLIPSE MV/2000™DC, and DS/7500-Series Systems.*

NOTE: Reel-to-reel tapes and 1/2-inch cartridge tapes do not require hardware formatting.

Identifying System Features and Controls

This section lists the tape, diskette, and hard disk drives that are available from Data General for each system. Those drives that come with the base computer system are listed under standard, and drives that you can add to a base system are listed under optional.

The optional internal drives mount in the computer. The optional external drives mount in separate external cabinets, or subsystems. For a full description of these external subsystems, including how to operate and maintain them, refer to the documentation that was shipped with them.

The illustrations show the location of the cartridge tape drive, the diskette drive, and the power switch on the ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, and ECLIPSE MV/2500™ DC computer systems. They also show the external mass storage subsystems that Data General currently offers.

NOTE: DG/RDOS currently does not support the Combined Storage Subsystem/DC (CSS/DC), and the Model 6444-A, 21 Mbyte (1/8-inch) Cartridge Tape Subsystem.

AOS/RT32 currently does not support the Combined Storage Subsystem/DC (CSS/DC), the Model 6444-A, 21 Mbyte (1/8-inch) Cartridge Tape Subsystem, and the Model 6341 Magnetic Tape Subsystem (reel-to-reel tape drive).

ECLIPSE MV/1400 DC Computer System

Standard:

- Winchester hard disk drive
- 1/8-inch cartridge tape drive or diskette drive

Optional:

Internal drives

- 1/8-inch cartridge tape drive or diskette drive

(Your system cannot have two internal diskette drives or two internal cartridge tape drives. If your system has one internal diskette and one internal cartridge tape, then only one internal optional expansion board is allowed.)

External drives

- 1 to 4 Winchester hard disk drives
- 1/2-inch cartridge tape drive
- Reel-to-reel tape drive

(Your system cannot have more than two 1/2-inch cartridge tape drives. If your system has a reel-to-reel tape, it can only have one 1/2-inch cartridge tape drive.)

ECLIPSE MV/2000 DC Computer System

Standard:

- Winchester hard disk drive
- 1/8-inch cartridge tape drive or diskette drive

Optional:

Internal drives

- Second Winchester hard disk drive
- 1/8-inch cartridge tape drive or diskette drive

(Your system cannot have two internal diskette drives or two internal cartridge tape drives. It can only have one of each.)

External drives

- 1 to 4 Winchester hard disk drives
- 1/2-inch cartridge tape drive
- Reel-to-reel tape drive

(Your system cannot have more than two 1/2-inch cartridge tape drives. If your system has a reel-to-reel tape, it can only have one other1/2-inch cartridge tape drive.)

ECLIPSE MV/2500 DC Computer System

Standard:

- Winchester hard disk drive
- One of the following:
  - 1/8-inch cartridge tape drive
  - 1/2-inch cartridge tape drive
  - Diskette drive

Optional:

Internal drives

- Second Winchester hard disk drive
- Diskette drive or 1/8-inch cartridge tape drive

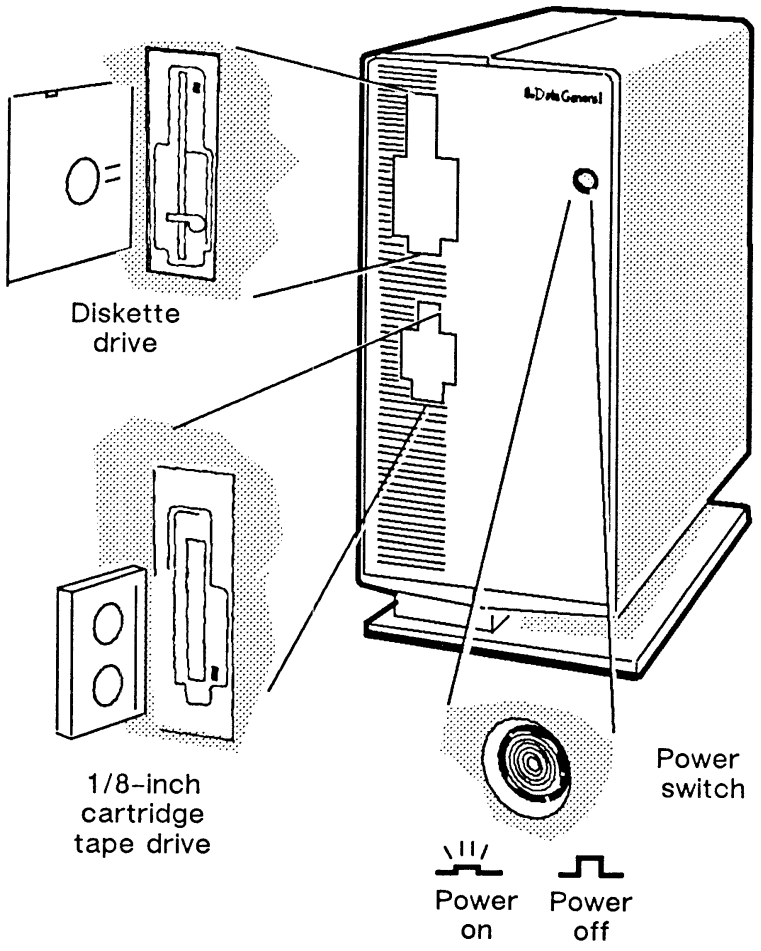
(If your system has an internal 1/2-inch cartridge tape drive, it cannot have an internal diskette drive or an internal 1/8-inch cartridge tape drive. Also, your system cannot have two internal diskette drives or two internal cartridge tape drives. It can only have one of each.)

External drives

- 1 to 4 Winchester hard disk drives
- 1/8-inch cartridge tape drive
- 1/2-inch cartridge tape drive
- Reel-to-reel tape drive

(Your system cannot have more than two 1/2-inch cartridge tape drives. If your system has a reel-to-reel tape, it can only have one 1/2-inch cartridge tape drive.)

Location of the Internal Diskette Drive, Internal 1/8-Inch Cartridge Tape Drive, and Power Switch on the ECLIPSE MV/1400 DC, MV/2000 DC, or MV/2500 DC Computer System



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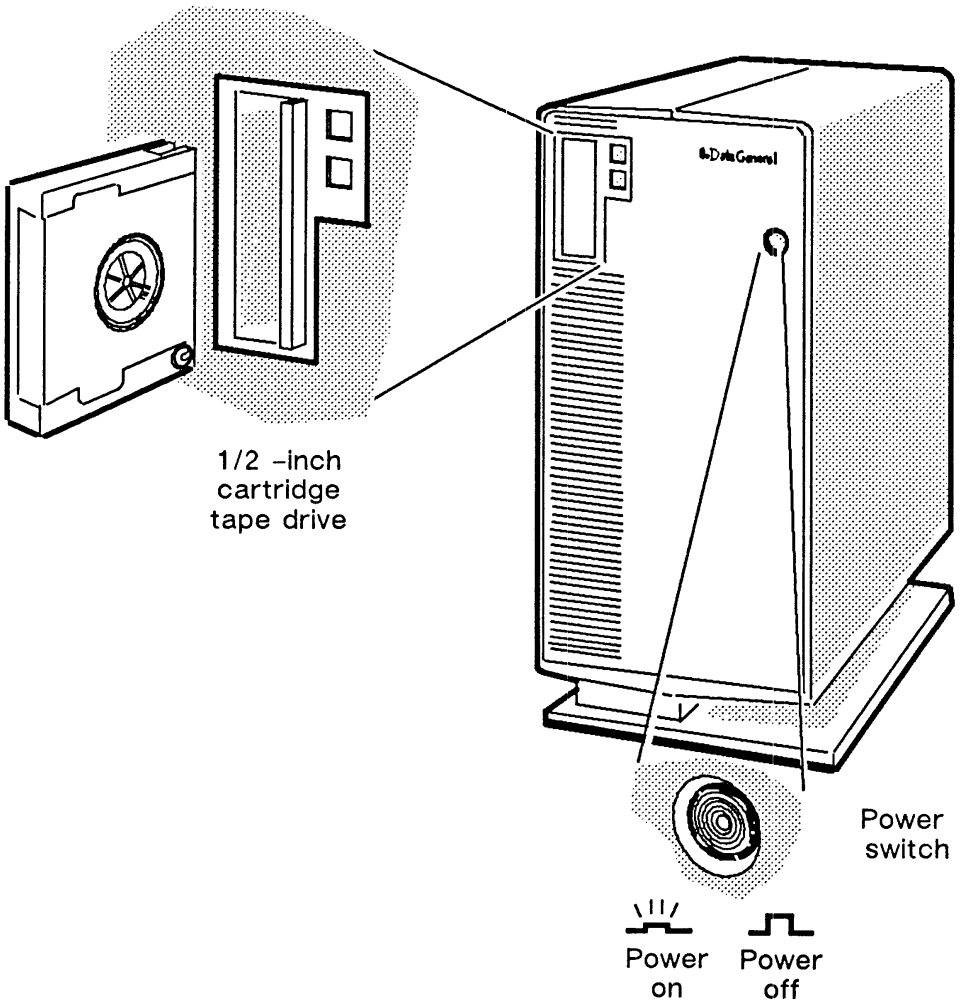
Location of the Internal 1/2-Inch Tape Drive and
Power Switch on the
ECLIPSE MV/2500 DC Computer System



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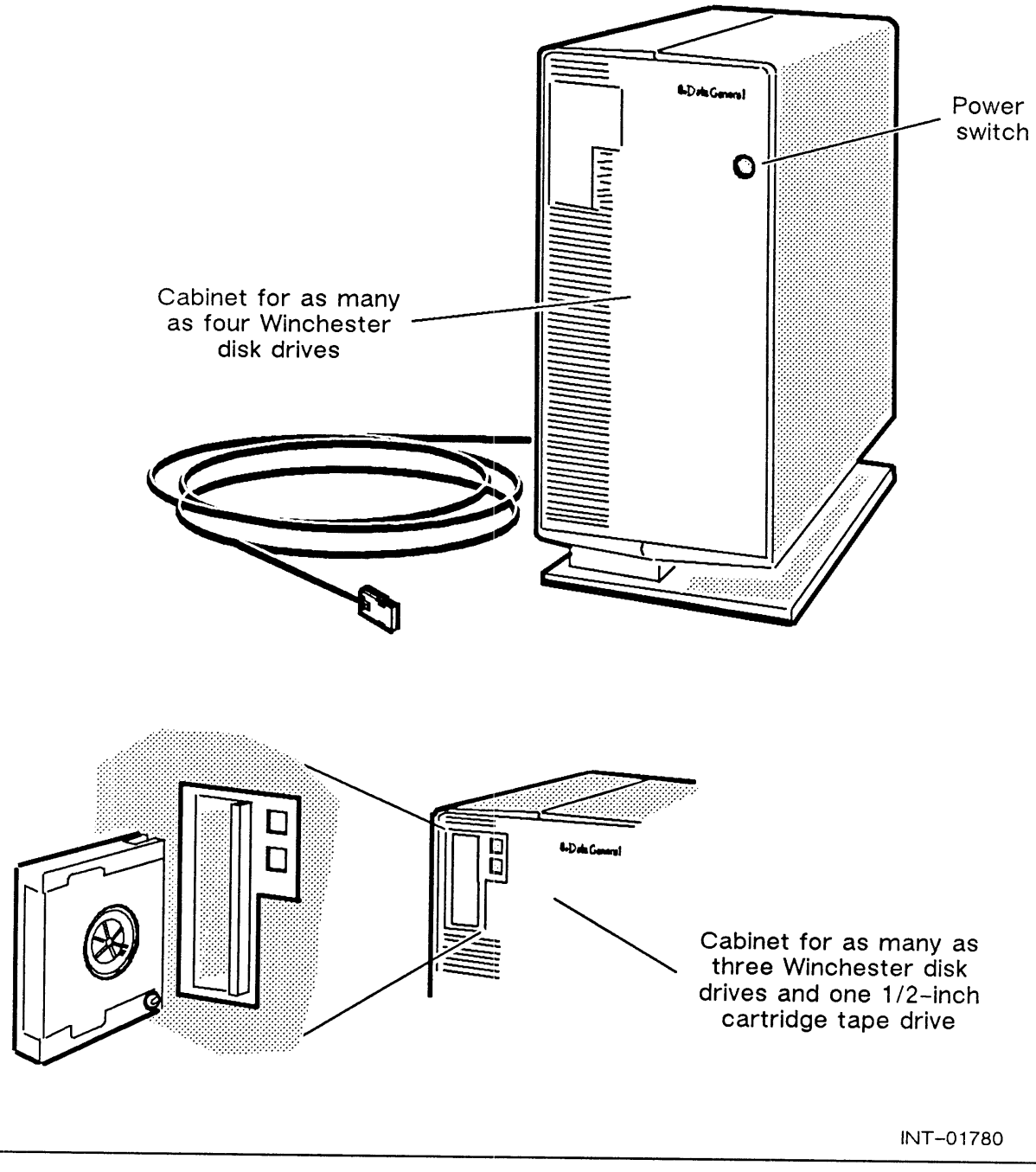
Combined Storage Subsystem/DC (CSS/DC)
(For All Systems)

(The CSS/DC can contain as many as four Winchester disk drives or as many as three Winchester disk drives and one 1/2-inch cartridge tape drive)



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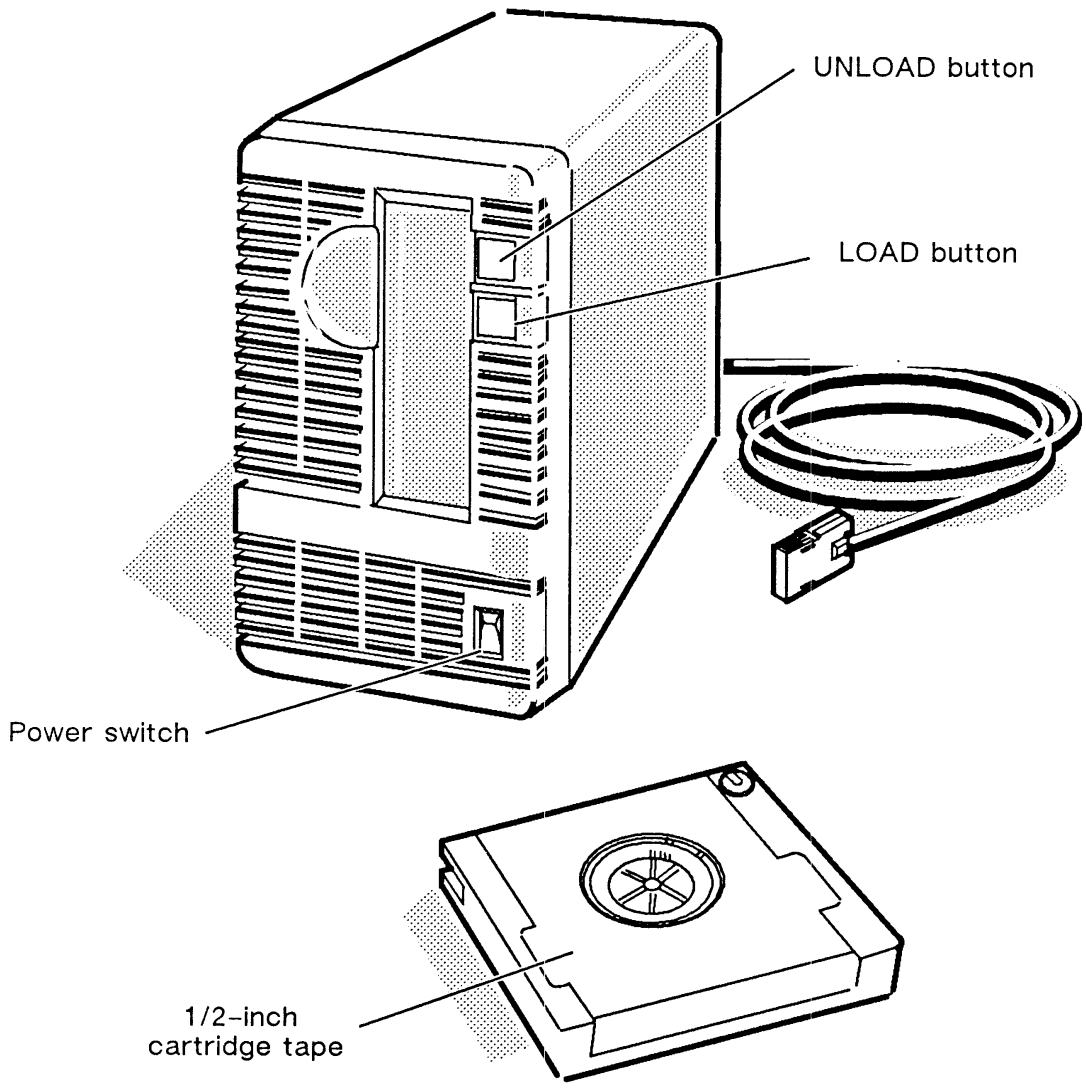
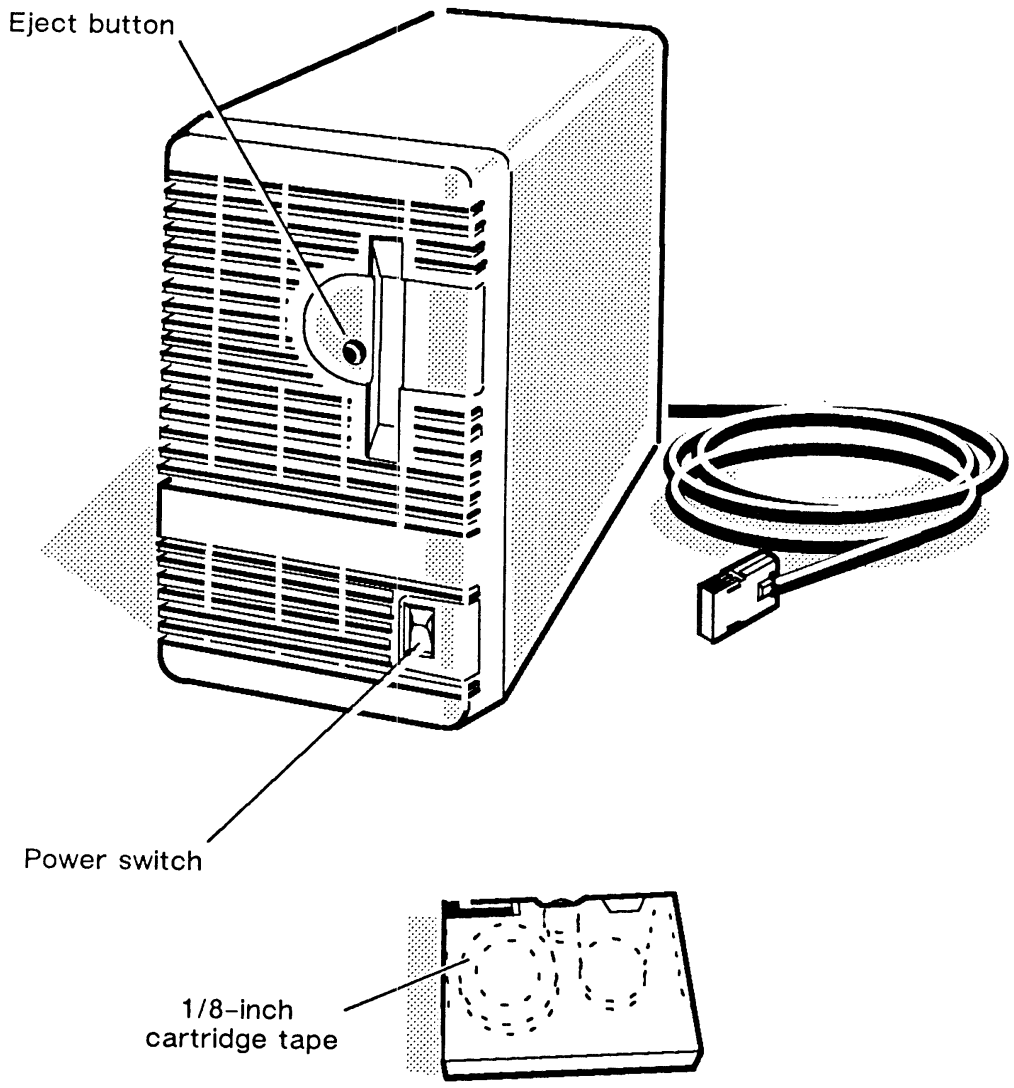
Model 6426-A Cartridge Tape Subsystem (130 Mbytes)
(For All Systems)

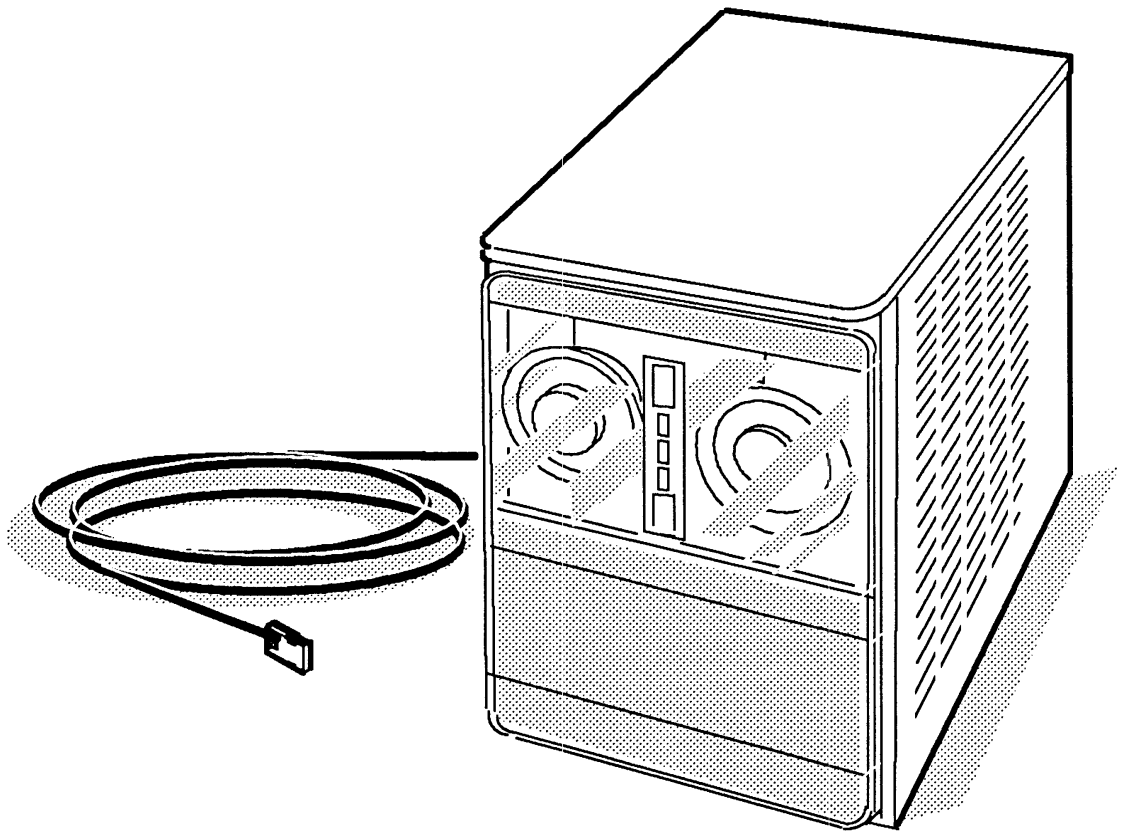


Model 6444-A Cartridge Tape Subsystem (21 Mbytes)
(For ECLIPSE MV/2500 DC Computer Systems Only)



INT-01781

Model 6341-A Magnetic Tape Subsystem
(External Reel-to-Reel Tape Drive
For All Systems)



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End of Chapter

Chapter 2
Powering Up the First Time

After your system hardware is installed, read this chapter to find out how to power up your system the first time. Before reading this chapter, however, make sure you have read the first chapter, "Getting Started." It tells you about the SCP System Media and shows you the location of the computer's cartridge tape and diskette drives and the computer system's power switch.

This chapter tells you how to

- Insert a cartridge tape or diskette into a drive or mount a reel-to-reel tape
- Turn on your computer and start your system from the SCP System Media
- Set the time and date and configure your parallel printer port

Once you have completed these tasks, you can install your operating system software by following the steps in the documentation that came with your operating system media.

The procedures in this chapter assume that your hard disk is blank because

- Your computer hardware was just installed and you intend to install the DG/UX, DG/RDOS, AOS/RT32, or a non Data General operating system on it
- You had the hard disk that contains your operating system software replaced

NOTE: If you ordered the AOS/VS operating system, you do not need to read this manual. Data General shipped your system with the AOS/VS operating system and the SCP System Media software already installed on the system hard disk. To power up a system with AOS/VS, refer to the correct version of the manual *Starting and Updating Preinstalled AOS/VS*.

If your SCP System Media is a cartridge tape or a reel-to-reel tape, follow the steps in the "Starting from a Tape" section. If your SCP System Media is a diskette, follow the steps in the "Starting from a Diskette" section. After you perform the steps in either section, finish powering up the system by following the steps in the "Completing the Power-Up Sequence" section.

Starting from a Tape

The steps in this section tell you how to insert a cartridge tape or mount a reel-to-reel tape, power up the computer, and load the SCP System Media software. The tape labeled SCP System Media contains the system microcode, power-up diagnostics, and a program to install power-up diagnostics on the disk.

If your SCP System Media is on 1/8-inch cartridge tape, follow the steps in the section, "Loading SCP System Media from a 1/8-inch Cartridge Tape." If your SCP System Media is on 1/2-inch cartridge tape, follow the steps in the section, "Loading SCP System Media from a 1/2-inch Cartridge Tape." If your SCP System Media is on a reel-to-reel tape, follow the steps in the section, "Loading SCP System Media from a Reel-to-Reel Tape."

Before getting started, make sure the computer and all peripherals are turned off. Peripherals include terminals, printers, and external drives, or subsystems.

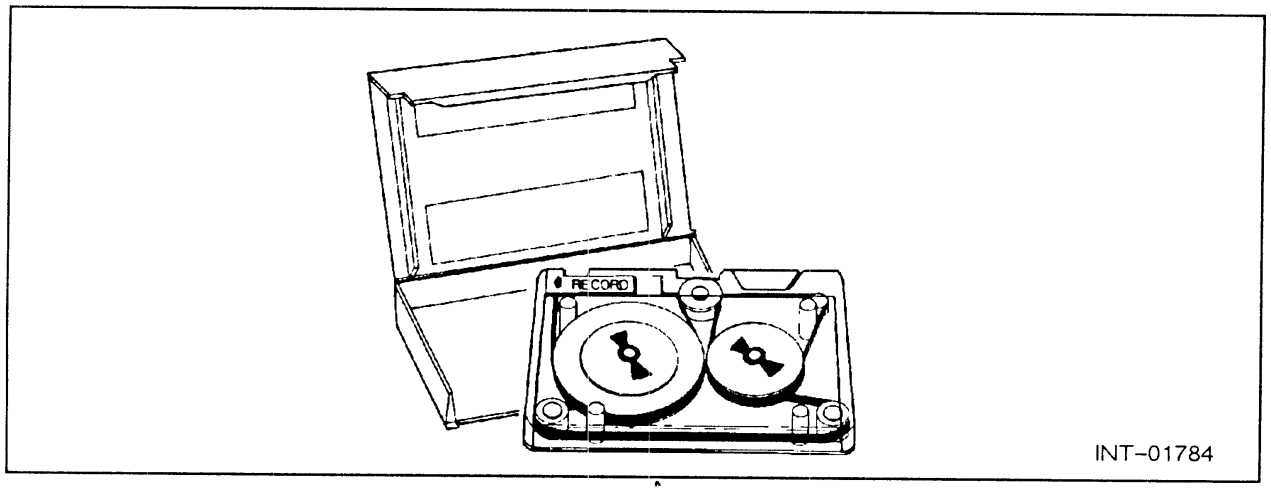
Follow the steps in the remaining sections in order; otherwise, the peripherals will not operate properly.

Loading SCP System Media from a 1/8-inch Cartridge Tape

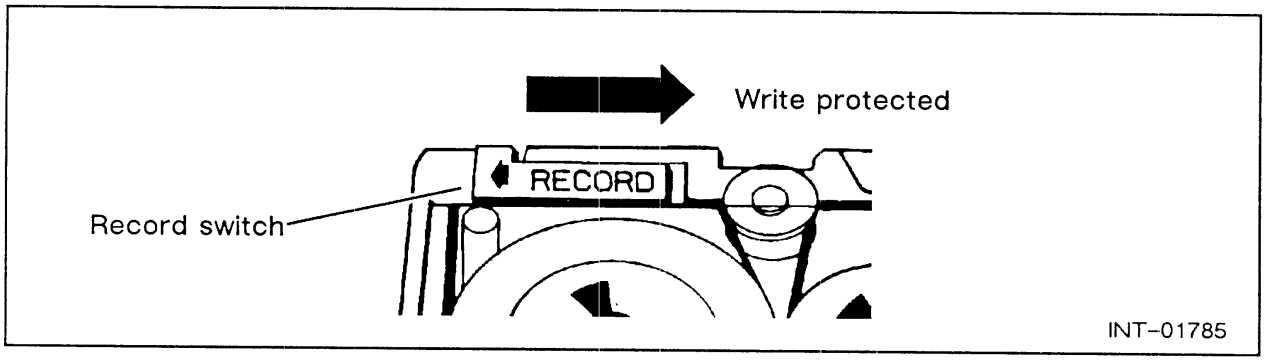
1. With the computer turned off, turn on all terminals, printers, plotters, and external tape and disk drives. Make sure that the terminals and printers are *on line*.

   Normally, when you turn on a terminal or printer, it runs an automatic self-test and finishes by coming on line. In general, this is indicated when the On Line light or Data light is on steady (when the computer is turned on) or blinking (when the computer is turned off). For specific information, see the documentation that came with your terminal or printer.

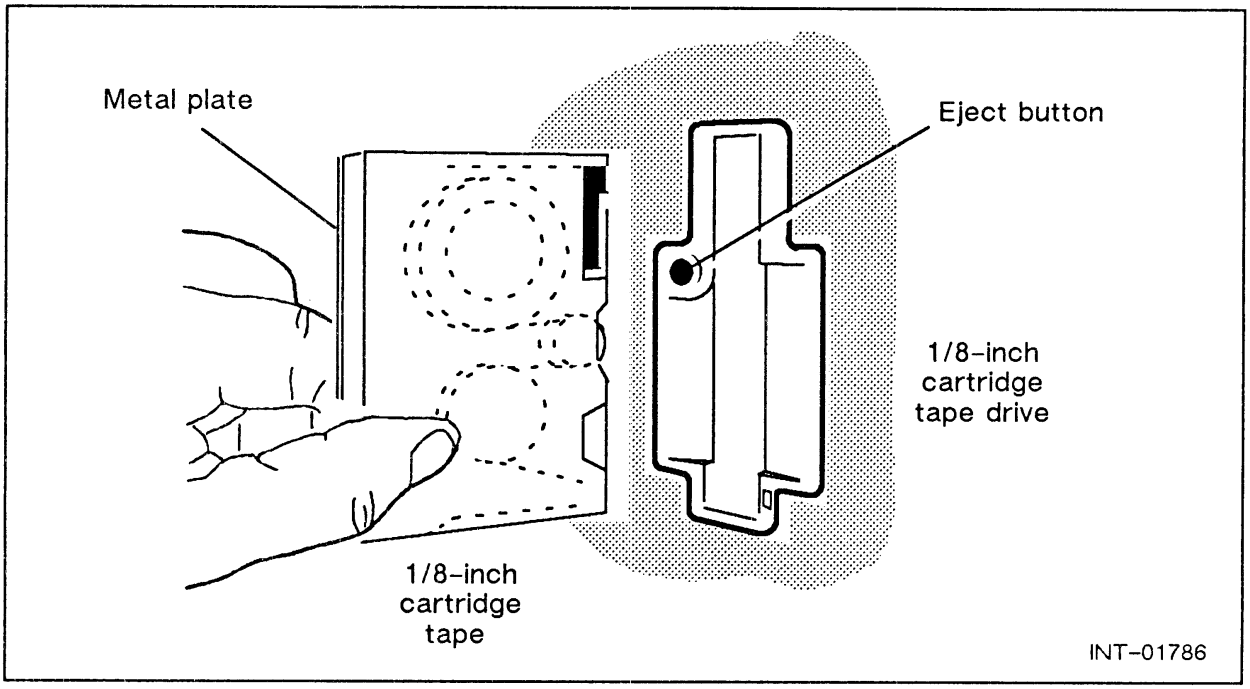
2. Remove the SCP System Media cartridge tape from its plastic protective case.



3. Slide the tape's record switch all the way to the right, so that you do not accidentally write (record) on the SCP System Media tape.



4. Hold the cartridge tape upright with the metal plate on the left. Then gently push the cartridge tape against the drive door and into the drive. You will hear a click, see the eject button on the left pop out, and feel the cartridge tape lock tightly in place. (If you need to remove the cartridge tape for any reason, press the eject button, and extract the cartridge tape from the drive.)



5. What you must do next depends on whether your system console is a DASHER® display terminal (except DASHER 6053), a hardcopy (printer) terminal (such as a TP2), or a DASHER 6053 display terminal. Follow the instructions in the sections below for your type of system console terminal.

   DASHER Display Terminal (except DASHER 6053)— Turn on the computer by pressing the computer's power button. Once the system begins displaying the power-up test message, go to step 6.

   DASHER 6053 Display Terminal— Press and hold the system console's New Line key, and then the REPT key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 6.

   Hardcopy Terminal— Press and hold the system console's REPT key, and then the New Line key. While holding down both keys, turn on the

computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 6.

NOTE: You can power up a system that uses the DG/RDOS operating system from a hardcopy system console; however, some utility programs, like CONFIG and FCOPY, will not run.

6. After about 90 seconds or so, make sure the tape drive makes a whirring noise, and its busy light begins to flash randomly. (If the system does not behave in this manner, it may need service. Remove the cartridge tape, and turn off the system's power. For assistance, refer to the "Telephone Assistance" section in the Preface.)

As the tape drive loads software (it may take up to 15 minutes), the system begins to display test messages like the following:

```
TESTING...

  Model # XXXX, System Processing Unit (SPU)
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED
  --Standard Hardware Tests Complete--
  --Optional Hardware Tests Beginning--
  Model # XXXX; Slot y; Local Area Network (LAN) Board
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED

  --Optional Hardware Tests Complete--
     --Memory size is n Megabytes--
```

Screen Display	Indicates
Model # xxxx	The model number of the board
Letters A-Z; digits 0-9	A test has passed
Slot y	The slot location of the board
n Megabytes	The amount of memory

7. Make sure the test messages are complete and the memory size displayed on the screen is correct.

   If the test messages are either incomplete or end with an error message, refer to Chapter 5, "Solving Power-Up Problems."

   If the memory size displayed is incorrect, stop here and contact Data General. For assistance, refer to the "Telephone Assistance" section in the Preface.

   Once the system displays the correct memory size, the power-up tests are complete, and the system displays the following message and prompt:

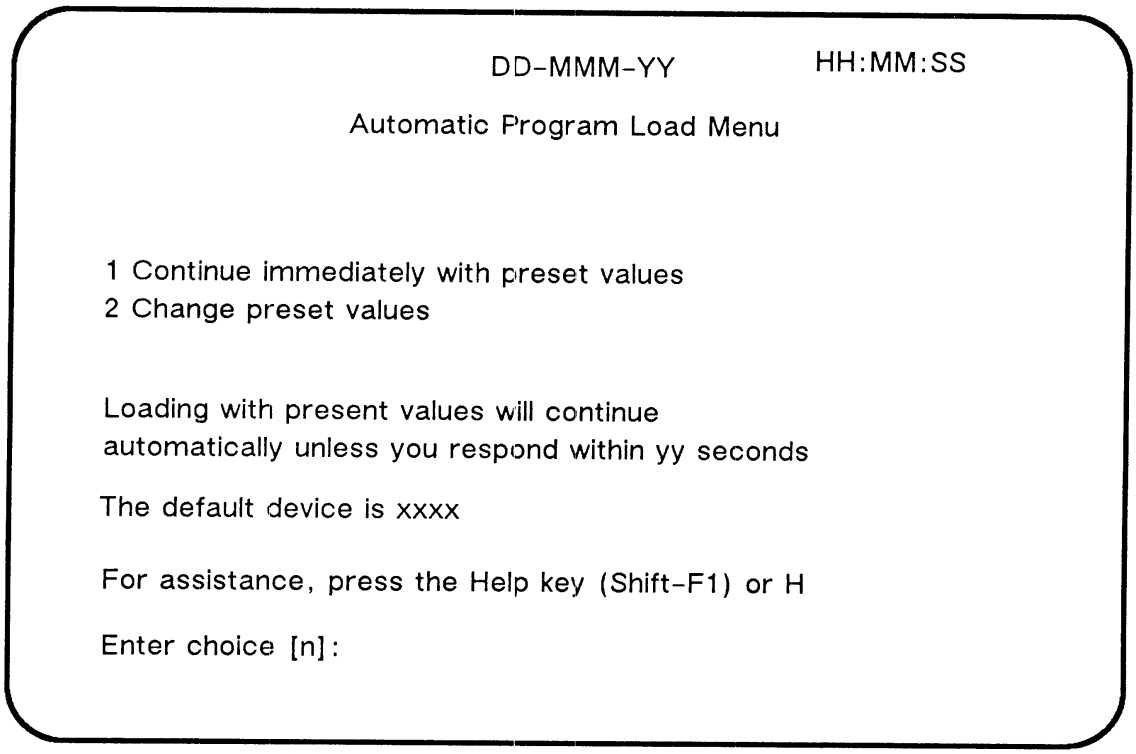
   Do you want to install power-up diagnostics on your hard disk?

   If these diagnostics are not installed on the hard disk, you will need to insert this media each time you power up. For the diagnostics to work, the disk on which they will be installed must have a diagnostic area reserved by the operating system's software formatter.

   Install power-up diagnostics (Y or N)?

8. Do not attempt to install power-up diagnostics at this time. Answer No to the question by pressing N and New Line.

9. When the system displays the Automatic Program Load (APL) menu shown below, you have 45 seconds before the system automatically continues to power up. Immediately press 2 and New Line.



Screen Display	Indicates
DD-MMM-YY	Date-month-year
HH:MM:SS	Hours:minutes:seconds
yy	Automatic program load time delay (seconds)
xxxx	Default load device: Hard disk, diskette, or tape
n	Default choice

NOTE: If the system interrupts the power-up sequence and goes into the System Control Program (SCP), the SCP-CLI prompt appears. Leave the SCP, and continue the power-up sequence by typing CONTINUE and pressing the New Line key. The CONTINUE command returns you to the Change Preset Values menu.

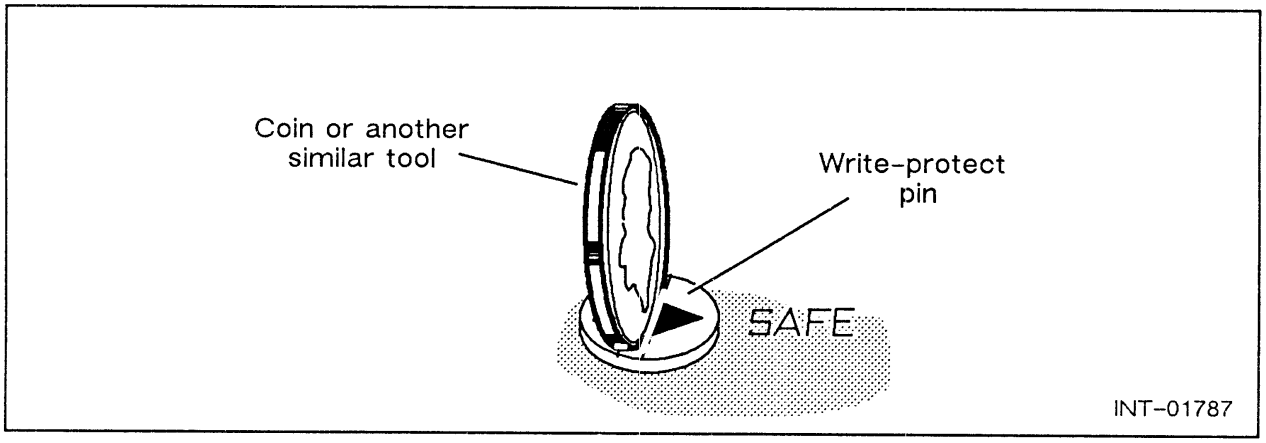
10. When the system displays the Change Preset Values menu, go to the "Completing the Power-Up Sequence" section.

Loading SCP System Media from a 1/2-inch Cartridge Tape

1. With the computer turned off, turn on all terminals, printers, plotters, and external tape and disk drives. Make sure that the terminals and printers are *on line*.

   Normally, when you turn on a terminal or printer, it runs an automatic self-test and finishes by coming on line. This is indicated when the On Line light or Data light is on. If a printer's or terminal's On Line light does not come on, hold down the Cmd key and press the On Line key. For more information, see the documentation that came with your terminal or printer.

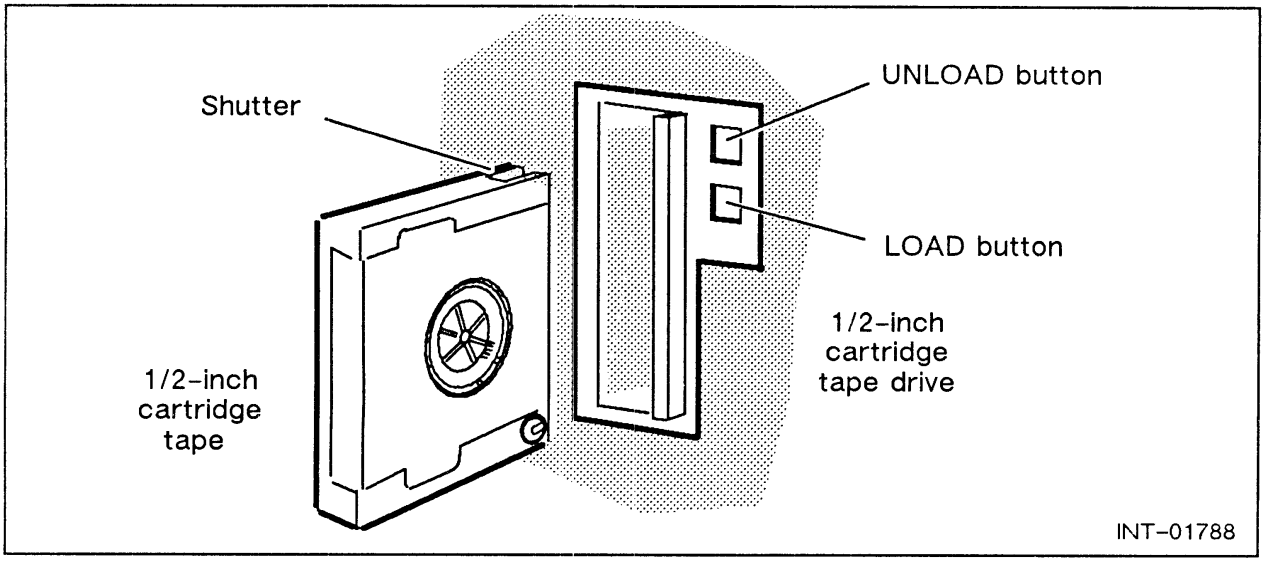
2. Before inserting the 1/2-inch SCP System Media cartridge tape into the drive, write protect it so that you do not accidentally record on it. To write protect the 1/2-inch cartridge tape, push the write-protect pin up from the bottom of the cartridge tape with your finger. While holding the pin up with your finger, place a coin, a small flat-blade screwdriver or another similar tool into the groove of the write-protect pin, and turn it so that the arrow on the top of the pin points toward the word SAFE.



3. If the door on the cartridge tape drive is open, go to step 4. If it is not open, do the following:

   Turn on the computer by pressing the computer's power button, then press and hold the drive's UNLOAD button until the door opens. Once the door opens, immediately turn off the computer by pressing the computer's power button, and then go to step 4.

4. Hold the tape cartridge upright with the shutter at the top, and gently slide the cartridge tape into the drive, and close the door. The door latches shut.



5. What you must do next depends on whether your system console is a DASHER display terminal (except DASHER 6053), a hardcopy (printer) terminal (such as a TP2), or a DASHER 6053 display terminal. Follow the instructions in the sections below for your type of system console terminal.

DASHER Display Terminal (except DASHER 6053)— Turn on the computer by pressing the computer's power button. Once the system begins displaying the power-up test message, go to step 6.

DASHER 6053 Display Terminal— Press and hold the system console's New Line key, and then the REPT key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 6.

Hardcopy Terminal— Press and hold the system console's REPT key, and then the New Line key. While holding down both keys, turn on the

computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 6.

NOTE: You can power up a system that uses the DG/RDOS operating system from a hardcopy system console; however, some utility programs, like CONFIG and FCOPY, will not run.

6. After about 90 seconds or so, make sure the tape drive makes a whirring noise, and its busy light begins to flash randomly. (If the system does not behave in this manner, it may need service. Remove the cartridge tape, and turn off the system's power. For assistance, refer to the "Telephone Assistance" section in the Preface.)

   As the tape drive loads software (it may take up to 15 minutes), the system begins to display test messages like the following:

```
TESTING...

  Model # XXXX, System Processing Unit (SPU)
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED
  --Standard Hardware Tests Complete--
  --Optional Hardware Tests Beginning--
  Model # XXXX; Slot y; Local Area Network (LAN) Board
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED

  --Optional Hardware Tests Complete--
     --Memory size is n Megabytes--
```

Screen Display	Indicates
Model # xxxx	The model number of the board
Letters A-Z; digits 0-9	A test has passed
Slot y	The slot location of the board
n Megabytes	The amount of memory

7. Make sure the test message is complete and the memory size displayed on the screen is correct.

   If the test messages are either incomplete or end with an error message, refer to Chapter 5, "Solving Power-Up Problems."

   If the memory size displayed is incorrect, stop here and contact Data General. For assistance, refer to the "Telephone Assistance" section in the Preface.

   Once the system displays the correct memory size, the power-up tests are complete, and the system displays the following message and prompt:

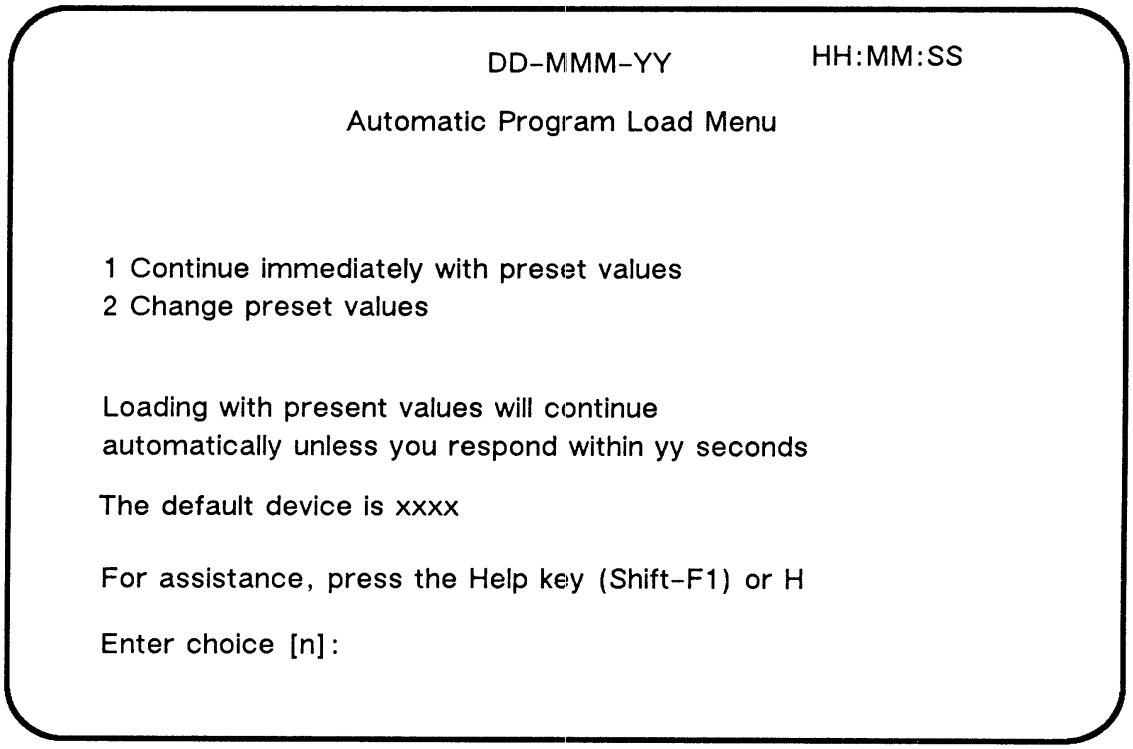
   Do you want to install power-up diagnostics on your hard disk?

   If these diagnostics are not installed on the hard disk, you will need to insert this media each time you power up. For the diagnostics to work, the disk on which they will be installed must have a diagnostic area reserved by the operating system's software formatter.

   Install power-up diagnostics (Y or N)?

8. Do not attempt to install power-up diagnostics at this time. Answer No to the question by pressing N and New Line.

9. When the system displays the Automatic Program Load (APL) menu shown below, you have 45 seconds before the system automatically continues to power up. Immediately press 2 and New Line.



Screen Display	Indicates
DD-MMM-YY	Date-month-year
HH:MM:SS	Hours:minutes:seconds
yy	Automatic program load time delay (seconds)
xxxx	Default load device: Hard disk, diskette, or tape
n	Default choice

NOTE: If the system interrupts the power-up sequence and goes into the System Control Program (SCP), the SCP-CLI prompt appears. Leave the SCP, and continue the power-up sequence by typing CONTINUE and pressing the New Line key. The CONTINUE command returns you to the Change Preset Values menu.

10. When the system displays the Change Preset Values menu, go to the "Completing the Power-Up Sequence" section.

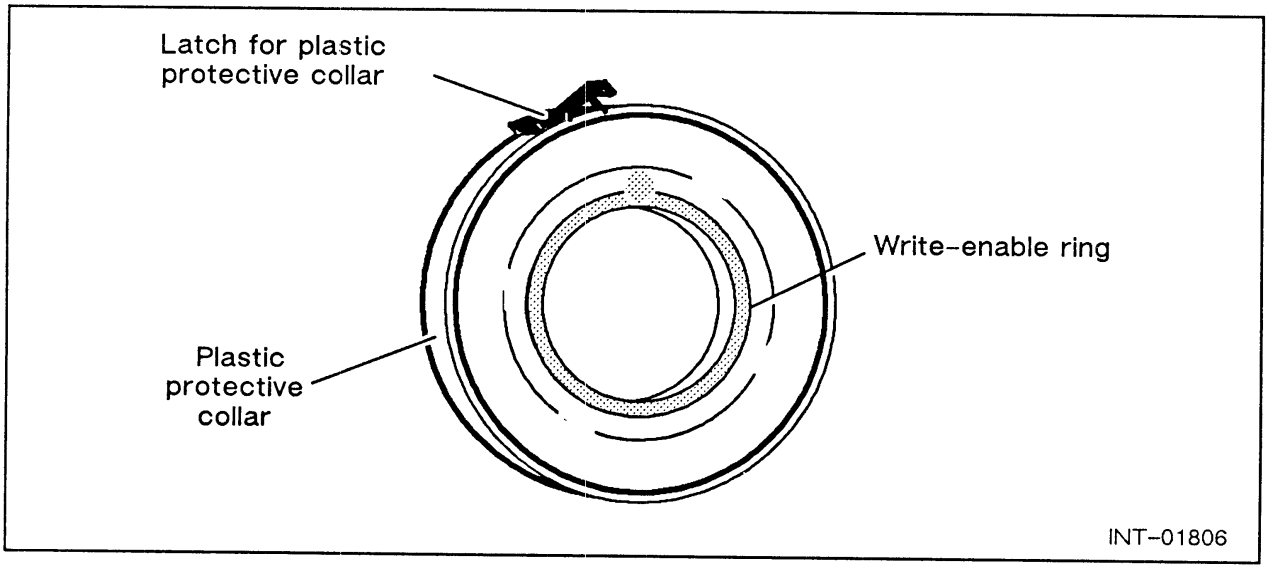
Loading SCP System Media from a Reel-to-Reel Tape

NOTE: If you experience problems loading SCP System Media from the reel-to-reel tape drive, contact Data General, your system may not be configured to do this. For assistance, refer to the "Telephone Assistance" section in the Preface.

1. With the computer turned off, turn on all terminals, printers, plotters and external tape and disk drives. Make sure that the terminals and printers are *on line*.

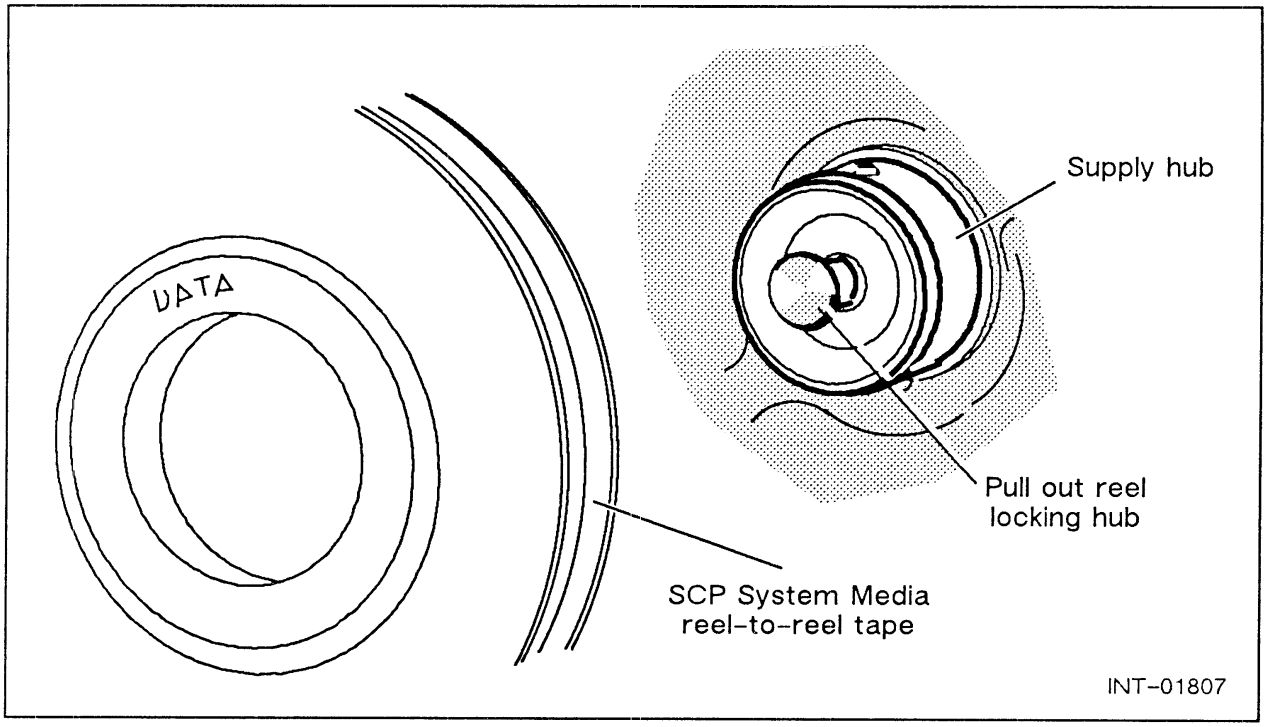
   Normally, when you turn on a terminal or printer, it runs an automatic self-test and finishes by coming on line. In general, this is indicated when the On Line light or Data light is on steady (when the computer is turned on) or is blinking (when the computer is turned off). For specific information, see the documentation that came with your terminal or printer.

2. Remove the plastic protective collar from the outside edge of the tape by lifting the latch.

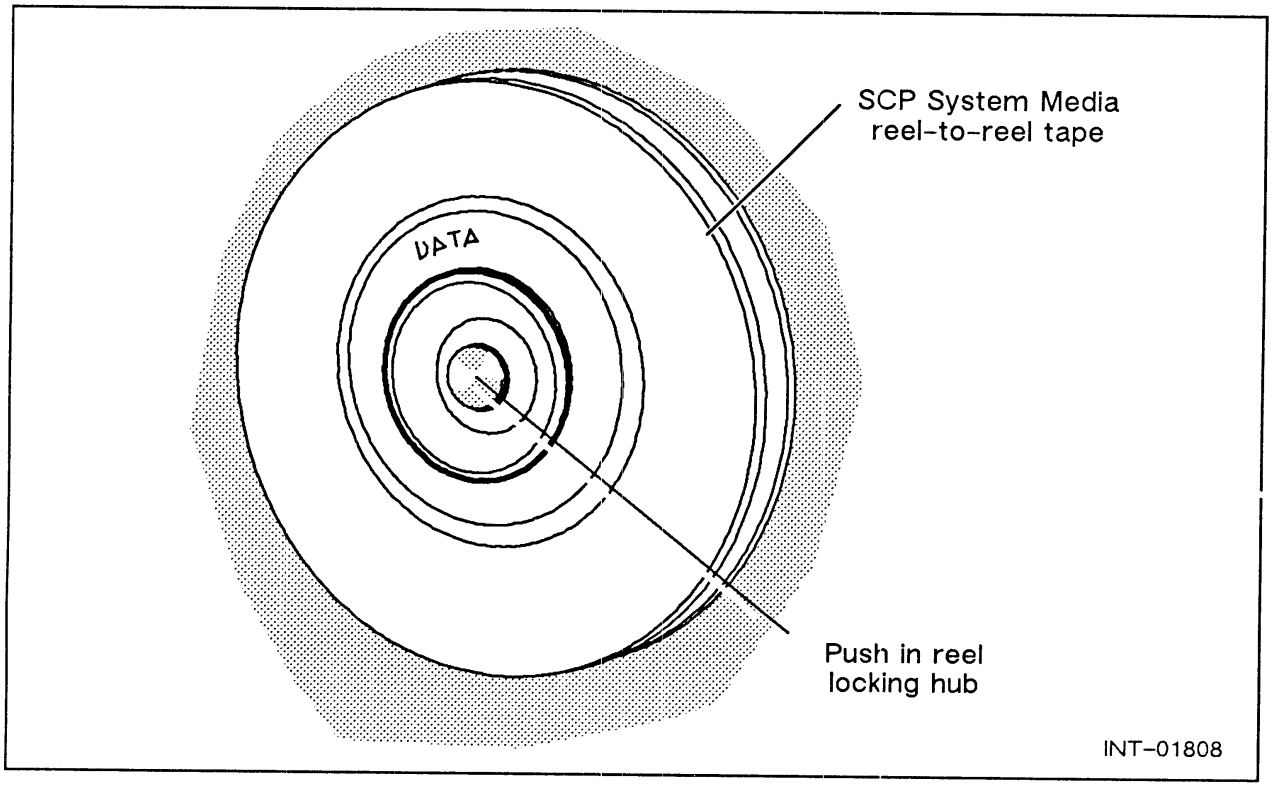


3. If the SCP System Media reel-to-reel tape has a write-enable ring installed, remove it so that the system does not accidently write (record) on the tape during the power-up procedure.

4. Open the tape drive's door by gently pulling on its right edge. Pull out the the reel locking hub in the center of the supply hub.

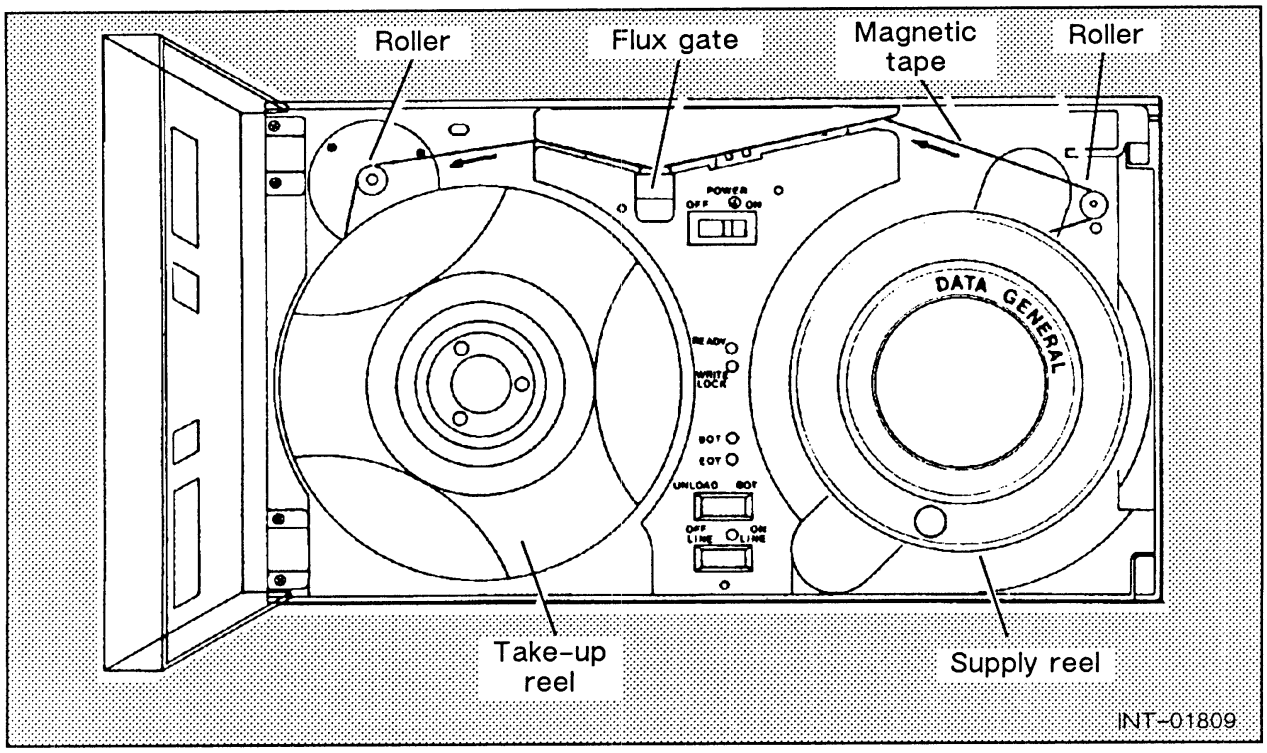


5. Hold the SCP System Media reel-to-reel tape upright with the groove for the write-enable ring toward the tape drive. Align the center of the tape with the center of the supply hub and gently push the tape (from center area of the tape reel) onto the supply hub until it seats firmly. As it seats you can feel the spring-loaded balls on the supply hub snap into place.



6. Push in the reel locking hub in the center of the supply hub.

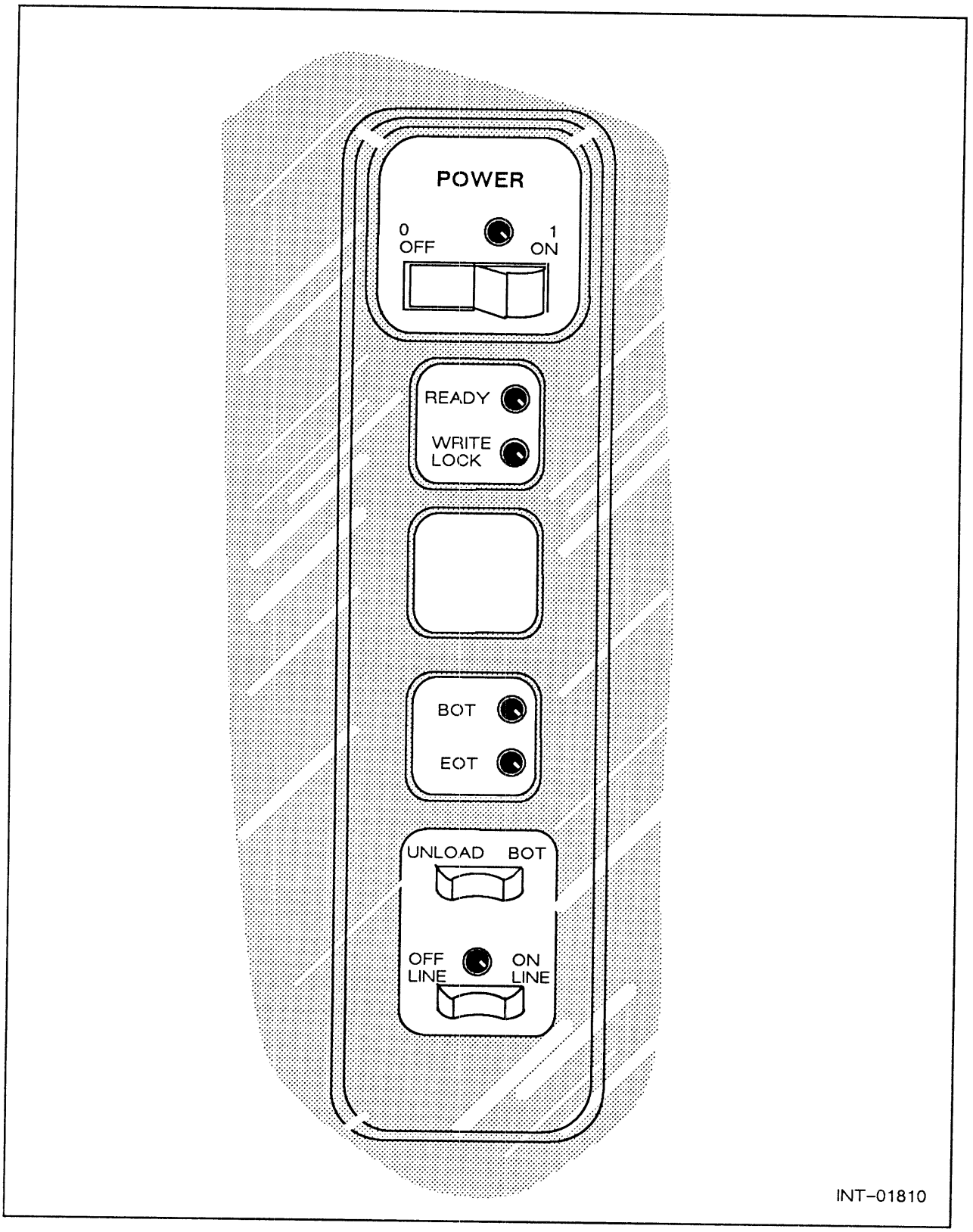
7. With the SCP System Media tape reel locked in place on the supply hub, grasp the loose end of the magnetic tape, and begin threading it through the drive as follows: Pull it over the roller above the tape reel. Then, while holding down the flux gate, pull the tape along the tape path opening and over to the roller above the permanent take-up reel. Make sure the tape is within the tape path; then release the flux gate. Pull the tape around the second roller, and wrap it part way around the permanent take-up reel.



8. Hold the tape in against the hub of the take-up reel with your finger and slowly rotate the take-up reel counterclockwise several turns. Remove your finger and wind the tape a few more turns to make sure the tape is snug around the permanent take-up reel. Eliminate any slack in the tape by gently rotating both reels at the same time. When finished close the drive's door.

9. With the power turned on. Place the drive off line by pressing the OFF LINE switch.

10. Press the BOT switch. The reels begin spinning as the drive locates the BOT (beginning of tape) marker. When the reels stop spinning, place the drive on line by pressing the ON LINE switch. When you do, the READY and WRITE LOCK indicators come on.


POWER
0
OFF
1
ON
READY
WRITE
LOCK
BOT
EOT
UNLOAD
BOT
OFF
LINE
ON
LINE
INT-01810

11. What you must do next depends on whether your system console is a DASHER display terminal (except DASHER 6053), a hardcopy (printer) terminal (such as a TP2), or a DASHER 6053 display terminal. Follow the instructions in the sections below for your type of system console terminal.

    DASHER Display Terminal (except DASHER 6053)— Turn on the computer by pressing the computer's power button. Once the system begins displaying the power-up test message, go to step 12.

    DASHER 6053 Display Terminal— Press and hold the system console's New Line key, and then the REPT key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 12.

    Hardcopy Terminal— Press and hold the system console's REPT key, and then the New Line key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 12.

    NOTE: You can power up a system that uses the DG/RDOS operating system from a hardcopy system console; however, some utility programs, like CONFIG and FCOPY, will not run.

12. After about 90 seconds or so, make sure the tape begins moving. (If the system does not behave in this manner, it may need service. Remove the reel-to-reel tape, and turn off the system's power. For assistance, refer to the "Telephone Assistance" section in the Preface.)

    As the reel-to-reel tape drive loads software (it may take up to 15 minutes), the system begins to display test messages like the following:

```
TESTING...

  Model # XXXX, System Processing Unit (SPU)
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED
  --Standard Hardware Tests Complete--
  --Optional Hardware Tests Beginning--
  Model # XXXX; Slot y; Local Area Network (LAN) Board
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED

  --Optional Hardware Tests Complete--
     --Memory size is n Megabytes--
```

Screen Display	Indicates
Model # xxxx	The model number of the board
Letters A–Z; digits 0–9	A test has passed
Slot y	The slot location of the board
n Megabytes	The amount of memory

13. Make sure the test messages are complete and the memory size displayed on the screen is correct.

    If the test messages are either incomplete or end with an error message, refer to Chapter 5, "Solving Power-Up Problems."

    If the memory size displayed is incorrect, stop here and contact Data General. For assistance, refer to the "Telephone Assistance" section in the Preface.

    Once the system displays the correct memory size, the power-up tests are complete, and the system displays the following message and prompt:

Do you want to install power-up diagnostics on your hard disk?

If these diagnostics are not installed on the hard disk, you will need to insert this media each time you power up. For the diagnostics to work, the disk on which they will be installed must have a diagnostic area reserved by the operating system's software formatter.

Install power-up diagnostics (Y or N)?

14. Do not attempt to install power-up diagnostics at this time. Answer No to the question by pressing N and New Line.

15. When the system displays the Automatic Program Load (APL) menu shown below, you have 45 seconds before the system automatically continues to power up. Immediately press 2 and New Line.

```
                                DD-MMM-YY          HH:MM:SS

                        Automatic Program Load Menu


1 Continue immediately with preset values
2 Change preset values


Loading with present values will continue
automatically unless you respond within yy seconds

The default device is xxxx

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

Enter choice [n]:
```

Screen Display	Indicates
DD-MMM-YY	Date-month-year
HH:MM:SS	Hours:minutes:seconds
yy	Automatic program load time delay (seconds)
xxxx	Default load device: Hard disk, diskette, or tape
n	Default choice

NOTE: If the system interrupts the power-up sequence and goes into the System Control Program (SCP), the SCP-CLI prompt appears. Leave the SCP, and continue the power-up sequence by typing CONTINUE and pressing the New Line key. The CONTINUE command returns you to the Change Preset Values menu.

16. When the system displays the Change Preset Values menu, go to the "Completing the Power-Up Sequence" section.

Starting from a Diskette

The steps in this section tell you how to insert a diskette in a drive, power up the computer, and load the SCP System Media software. The diskette labeled SCP System Media contains the system microcode, power-up diagnostics, and a program to install power-up diagnostics on the disk.

Before getting started, make sure the computer and all peripherals are turned off. Peripherals include terminals, printers, and external drives, or subsystems.

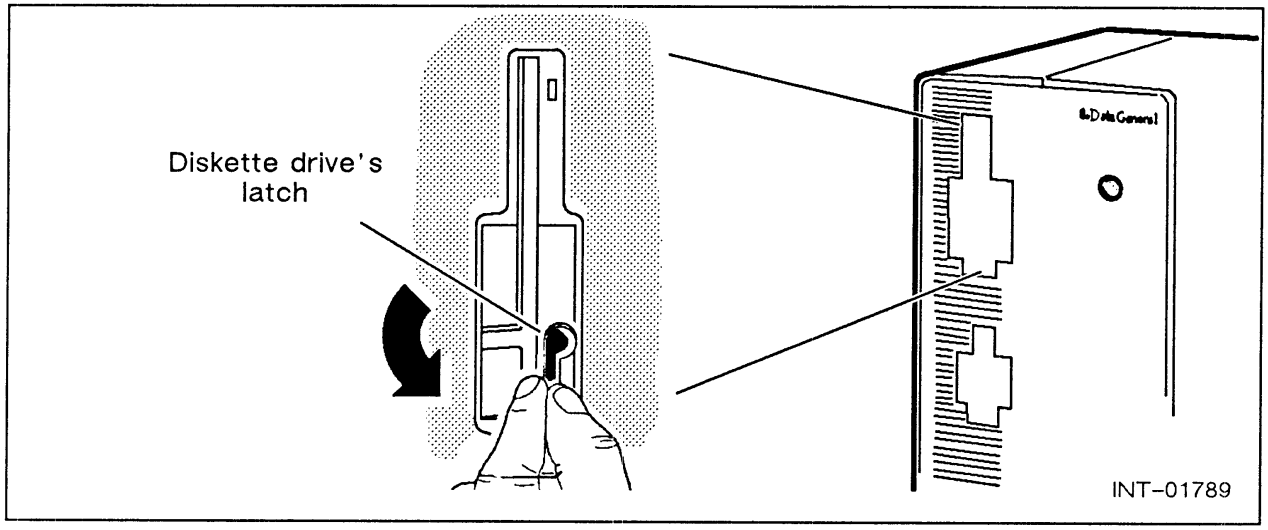
Follow the steps in the remaining sections in order; otherwise, the peripherals will not operate properly.

Loading the SCP System Media from Diskette

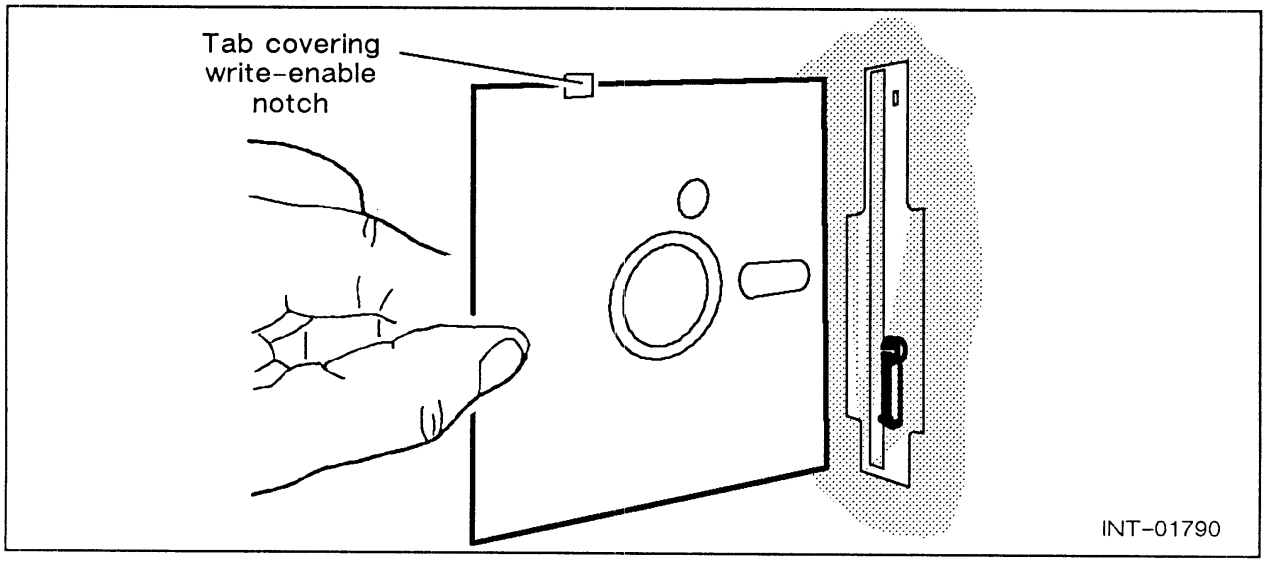
1. With the computer turned off, turn on all terminals, printers, plotters and external tape and disk drives. Make sure that the terminals and printers are *on line*.

   Normally, when you turn on a terminal or printer, it runs an automatic self-test and finishes by coming on line. In general, this is indicated when the On Line light or Data light is on steady (when the computer is turned on) or blinking (when the computer is turned off). For specific information, see the documentation that came with your terminal or printer.

2. If the diskette drive's latch is not pointing down, turn it down.



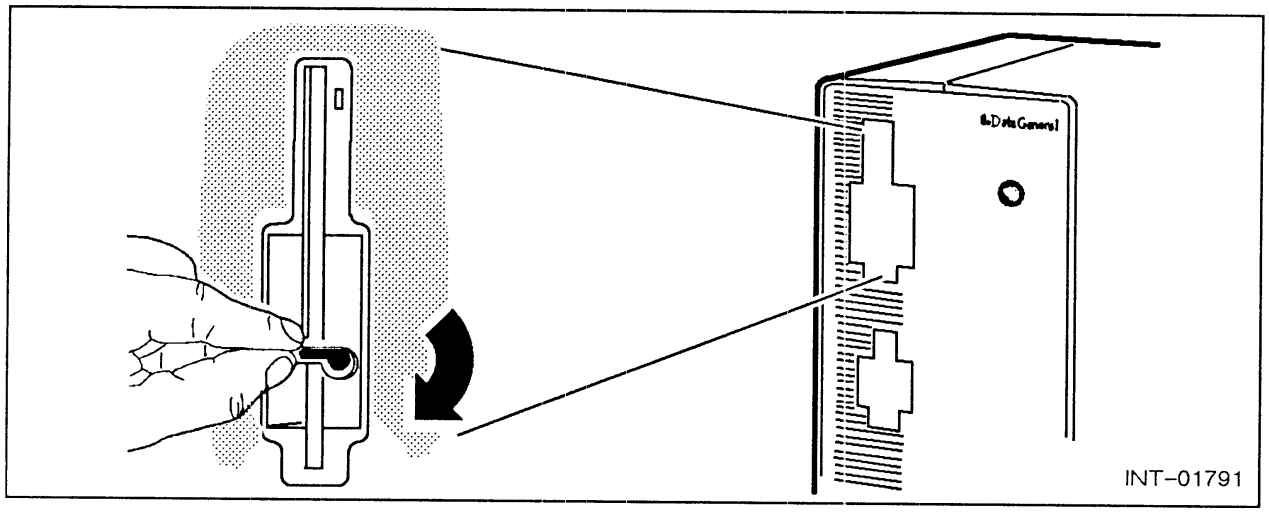
3. Remove the SCP System Media diskette from its storage envelope; be careful not to touch the exposed areas of the magnetic disk. Make sure the diskette has a tab covering its write-enable notch so that the system does not accidently write on the diskette during the power-up procedure.



4. Hold the diskette as shown, and carefully slide it all the way into the diskette drive. Do not force or bend the diskette.

5. With the diskette in the drive, gently turn the drive's latch so that it is pointing to the left. Turning the latch to the left engages the diskette drive.

(If the latch offers any resistance, do not force it. Turn the latch back so that it is pointing down again. Remove the diskette, reinsert it, and try engaging the diskette drive again.)



6. What you must do next depends on whether your system console is a DASHER display terminal (except DASHER 6053), a hardcopy (printer) terminal (such as a TP2), or a DASHER 6053 display terminal. Follow the instructions in the sections below for your type of system console terminal.

DASHER Display Terminal (except DASHER 6053)— Turn on the computer by pressing the computer's power button. After a moment, the system begins displaying the power-up test message. Go to step 7.

DASHER 6053 Display Terminal— Press and hold the system console's New Line key, and then the REPT key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 7.

Hardcopy Terminal— Press and hold the system console's REPT key, and then the New Line key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 7.

NOTE: You can power up a system that uses the DG/RDOS operating system from a hardcopy system console; however, some utility programs, like CONFIG and FCOPY, will not run.

7. After about 90 seconds or so, make sure the diskette drive makes a noise, and its busy light begins to flash randomly. (If the system does not behave in this manner, it may need service. Remove the diskette, and turn off the system's power. For assistance, refer to the "Telephone Assistance" section in the Preface.)

   As the diskette drive loads software (it may take up to 5 minutes), the system begins to display test messages like the following:

```
TESTING...

  Model # XXXX, System Processing Unit (SPU)
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED
  --Standard Hardware Tests Complete--
  --Optional Hardware Tests Beginning--
  Model # XXXX; Slot y; Local Area Network (LAN) Board
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED

  --Optional Hardware Tests Complete--
     --Memory size is n Megabytes--
```

Screen Display	Indicates
Model # xxxx	The model number of the board
Letters A-Z; digits 0-9	A test has passed
Slot y	The slot location of the board
n Megabytes	The amount of memory

8. Make sure the test messages are complete and the memory size displayed on the screen is correct.

   If the test messages are either incomplete or end with an error message, refer to Chapter 5, "Solving Power-Up Problems."

If the memory size displayed is incorrect, stop here and contact Data General. For assistance, refer to the "Telephone Assistance" section in the Preface.

Once the system displays the correct memory size, the power-up tests are complete.

9. When the system displays the Automatic Program Load (APL) menu shown below, you have 45 seconds before the system automatically continues to power up. Immediately press 2 and New Line.

```
                                DD-MMM-YY          HH:MM:SS

                        Automatic Program Load Menu


1 Continue immediately with preset values
2 Change preset values


Loading with present values will continue
automatically unless you respond within yy seconds

The default device is xxxx

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

Enter choice [n]:
```

Screen Display	Indicates
DD-MMM-YY	Date-month-year
HH:MM:SS	Hours:minutes:seconds
yy	Automatic program load time delay (seconds)
xxxx	Default load device: Hard disk, diskette, or tape
n	Default choice

NOTE: If the system interrupts the power-up sequence and goes into the System Control Program (SCP), the SCP–CLI prompt appears. Leave the SCP, and continue the power–up sequence by typing CONTINUE and pressing the New Line key. The CONTINUE command returns you to the Change Preset Values menu.

10. When the system displays the Change Preset Values menu, go to the next section "Completing the Power–Up Sequence."

Completing the Power-Up Sequence

At this point you have loaded the SCP System Media and are in the Change Preset Values menu shown below. This section tells you how to set the system date and time, and if you have a parallel printer, configure the parallel printer port on the system board. Once you complete the tasks in this section, refer to your operating system documentation. It describes how to install your operating system software.

```
                    Change Preset Values Menu

 1  Continue the powerup
 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 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 [n]:
```

Screen Display	Indicates
n	Default choice

Setting the System Date and Time

1. While in the Change Preset Values menu, press 2 and New Line to select option 2, "Change the system date or time." The system displays the following prompt:

   Date [DD-MMM-YY]:

2. You can type the date in any one of the following formats:

   30 SEP 88
   30/SEP/88
   30:SEP:88
   30-SEP-88

   Type the date after the prompt and press New Line. The system displays the following prompt:

   Time [HH:MM:SS]:

3. Enter the time using the 24-hour format. If you do not enter a value for seconds (:SS), the system automatically enters zeros.

   For example,

   15:04:32
   17:49
   9:0

   Type the time after the prompt and press New Line. The system displays the following prompt:

   Offset to GMT [+00:00]

Using the GMT Offset Feature

The GMT offset is a value (in hours and minutes) that the system uses to produce the Greenwich Mean Time (GMT). If your operating system supports the GMT offset feature and you intend to connect to a network with other computer systems that are in different time zones, you may want to use this feature. Go to step 5 to use the GMT offset feature.

4. If you do not want to use the GMT offset feature, press New Line. The system will return you to the Change Preset Values menu. Then go to step 8 to configure the parallel printer port or step 11 if the system does not have a parallel printer.

5. If you want to use the GMT offset feature, find the group of cities, countries, or areas in Table 2-1 that are within your local time zone. Or if you know your time zone number, locate it in the left column.

Table 2-1 GMT Time Zone and Offset Numbers

Time Zone Number	Cities, Countries, Areas	GMT Offset Number
2	Honolulu, Anchorage, Fairbanks	−10
4	Vancouver, Juneau, Whitehorse, Seattle, Los Angeles, San Francisco	−8
5	Boise, Salt Lake City, Denver, Phoenix, Calgary, Edmonton	−7
6	Chicago, St.Louis, Houston, New Orleans, Dallas, Mexico City, Fort Worth, Wichita, Rapid City, Bismark, Winnipeg, Managua	−6
7	Montreal, Toronto, Quebec, Ottawa, Boston, New York, Philadelphia, Baltimore, Washington D.C., Atlanta, Miami, Lima, Bogota, Quito, San Juan	−5
8	St. John's, Halifax, Caracas, Georgetown, La Paz, Santiago, Asuncion	−4
9	Greenland, Buenos Aires, Montevideo, Rio de Janeiro, Brasila	−3
12	(Greenwich Mean Time) London, Manchester, Dublin, Belfast, Glasgow, Lisbon	0
13	Madrid, Rome, Oslo, Stockholm, Paris, Berlin, Vienna, countries of West-Central Africa	+1
14	Helsinki, Bucharest, Cairo, Johannesburg, Ankara, countries of East-Central Africa	+2
15	Countries of Eastern Africa	+3
17	Karachi, Lahore Bombay, New Delhi, Madras	+5 +5:30
18	Calcutta	+6
19	Sumatra, Java, Thailand, Indonesia	+7
20	China, Taiwan, Perth, Hong Kong, Philippines	+8
21	Tokyo, Darwin, Korea	+9
22	Sidney, Melbourne, Brisbane, New Guinea	+10
24	Auckland, Wellington	+12

6. Find the GMT offset number in the right column opposite your time zone number. If your location is on daylight-savings time, add 1 to this number.

   For example, if your location uses -5 and daylight-savings time is in effect, your GMT offset Number is -4.

7. Type your GMT offset number, including the + or - sign, after the prompt, and press New Line. The system displays the Change Preset Values menu again. (If you want to verify the GMT offset number that you entered, select option 2 again. The system displays the default value in brackets.) Go to step 8 to configure your parallel printer port or step 11 if your system does not have a parallel printer.

Configuring the Parallel Printer Port

8. If you have a parallel printer connected to the system board, you must configure the parallel printer port for your particular Data General printer model and Data General operating system. To configure the parallel printer port, do the following:

9. While in the Change Preset Values menu, press 9 and New Line to select option 9, "Configure parallel printer port."

The system displays the following menu:

```
                Configure the Parallel Printer Port
1    Positive strobe, VFU option, tab memory
2    Positive strobe, no VFU option, tab memory
3    Positive strobe, no VFU option, no tab memory
4    Negative strobe, VFU option, tab memory
5    Negative strobe, no VFU option, tab memory
6    Negative strobe, no VFU option, no tab memory

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 [1]:
```

Strobe type - You must select either positive or negative polarity. If the strobe setting is incorrect, the parallel printer will not work.

Vertical forms unit (VFU) and (horizontal) tab memory - The VFU and (horizontal) tab memory options let you program the printer to handle a variety of form lengths and to move quickly between entries within a form. If the VFU option is available but not set, the printer will operate but without the VFU feature.

Table 2–2 specifies the correct strobe type for the Data General printers available for your system. It also indicates whether or not the printer has the VFU option or horizontal tab memory.

Table 2-2 Choosing Settings by Printer Model Number

Model Number	Strobe Type	VFU Option	Horizontal Tab Memory
4323	Positive	Yes	Yes
4324	Positive	Yes	Yes
4365	Positive	Yes	Yes
4366	Positive	Yes	Yes
4374	Positive	Yes	Yes
4595	Positive	Yes	Yes
4596	Positive	Yes	Yes
4597	Positive	Yes	Yes
4598	Positive	Yes	Yes
4599	Positive	Yes	Yes
6190	Negative	No	Yes
6216	Positive	No	Yes

If your printer's model number is not listed in Table 2-2, refer either to the on-line help file for the Change Preset Values menu or to the manual that came with your printer. If you still cannot find the information but you know your printer's interface type, choose the settings in Table 2-3.

Table 2-3 Choosing Settings by Printer Interface Type

Interface Type	Settings
Centronics	Select negative strobe, and VFU and tab options supported by your printer.
Data Products	From the Configure the Parallel Printer Port menu, select option 2 if you want to select printer-supported escape sequences that set tabs or fonts. Otherwise, select option 3.

10. Enter your selection and press New Line. The system displays the Change Preset Values menu.

11. At this point you have loaded your SCP System Media software, set the system time and date, and if you have a printer connected to the system board, configured your parallel printer port. Do not turn off the system's power. Refer to your operating system documentation to find out how to install, load, and run your operating system software. See the list of Data General manuals in the "Operating System Manuals" section of the Preface.

End of Chapter

Chapter 3
Powering Up Routinely

Read this chapter if you want to power up your system and

- Your operating system is installed on your system disk and
- You are using the DG/RDOS, DG/UX, AOS/RT32, or a non Data General operating system

NOTE: If you ordered the AOS/VS operating system, you do not need to read this manual. Data General shipped your system with the AOS/VS operating system and the SCP System Media software already installed on the system hard disk. To power up a system with AOS/VS, refer to the correct version of the manual *Starting and Updating Preinstalled AOS/VS*.

Before getting started, make sure the computer and all peripherals are turned off. Peripherals include terminals, printers, and external drives, or subsystems.

Follow the steps in the remaining sections in order; otherwise, the peripherals will not operate properly.

To start your system, follow these steps:

1. With the computer turned off, turn on all terminals, printers, plotters and external tape and disk drives. Make sure that the terminals and printers are *on line*.

   Normally, when you turn on a terminal or printer, it runs an automatic self-test and finishes by coming on line. In general, this is indicated when the On Line light or Data light is on steady (when the computer is turned on) or blinking (when the computer is turned off). For specific information, see the documentation that came with your terminal or printer.

2. If your system has the SCP System Media software installed on the system hard disk, go to step 3. If it is not installed on the hard disk, write protect

your SCP System Media, and insert it in or mount it on the proper drive. Then go to step 3. (Note that Chapter 2 describes how to insert an SCP System Media cartridge tape or diskette and how to mount the SCP Media reel-to-reel tape.)

3. What you must do next depends on whether your system console is a DASHER display terminal (except DASHER 6053), a hardcopy (printer) terminal (such as a TP2), or a DASHER 6053 display terminal. Follow the instructions in the sections below for your type of system console terminal.

   DASHER Display Terminal (except DASHER 6053)— Turn on the computer by pressing the computer's power button. After a moment, the system begins displaying the power-up test message. Go to step 4.

   DASHER 6053 Display Terminal— Press and hold the system console's New Line key, and then the REPT key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 4.

   Hardcopy Terminal— Press and hold the system console's REPT key, and then the New Line key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 4.

   NOTE: You can power up a system that uses the DG/RDOS operating system from a hardcopy system console; however, some utility programs, like CONFIG and FCOPY, will not run.

4. What happens next depends on whether your SCP System Media software is installed on the system hard disk or you are loading the SCP System Media software from tape or diskette.

   Loading from Tape or Diskette— If you inserted an SCP System Media diskette or tape into its drive or mounted an SCP System Media reel-to-reel tape, in about 90 seconds or so, the drive makes a noise or the tape begins to move. It may take as much as 15 minutes to load the SCP System Media software. (If the system does not behave in this manner, it may need service. Remove the tape or diskette, and turn off

the system's power. For assistance, refer to the "Telephone Assistance" section in the Preface.)

Loading from the System Hard Disk— If the SCP System Media is installed on the system hard disk, in about 90 seconds or so, the system hard disk begins to load the SCP System Media. (If the system does not behave in this manner, it may need service. For assistance, refer to the "Telephone Assistance" section in the Preface.)

As the SCP System Media software loads, the system begins to display test messages like the following:

```
TESTING...

  Model # XXXX, System Processing Unit (SPU)
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED
  --Standard Hardware Tests Complete--
  --Optional Hardware Tests Beginning--
  Model # XXXX; Slot y; Local Area Network (LAN) Board
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED

  --Optional Hardware Tests Complete--
     --Memory size is n Megabytes--
```

Screen Display	Indicates
Model # xxxx	The model number of the board
Letters A-Z; digits 0-9	A test has passed
Slot y	The slot location of the board
n Megabytes	The amount of memory

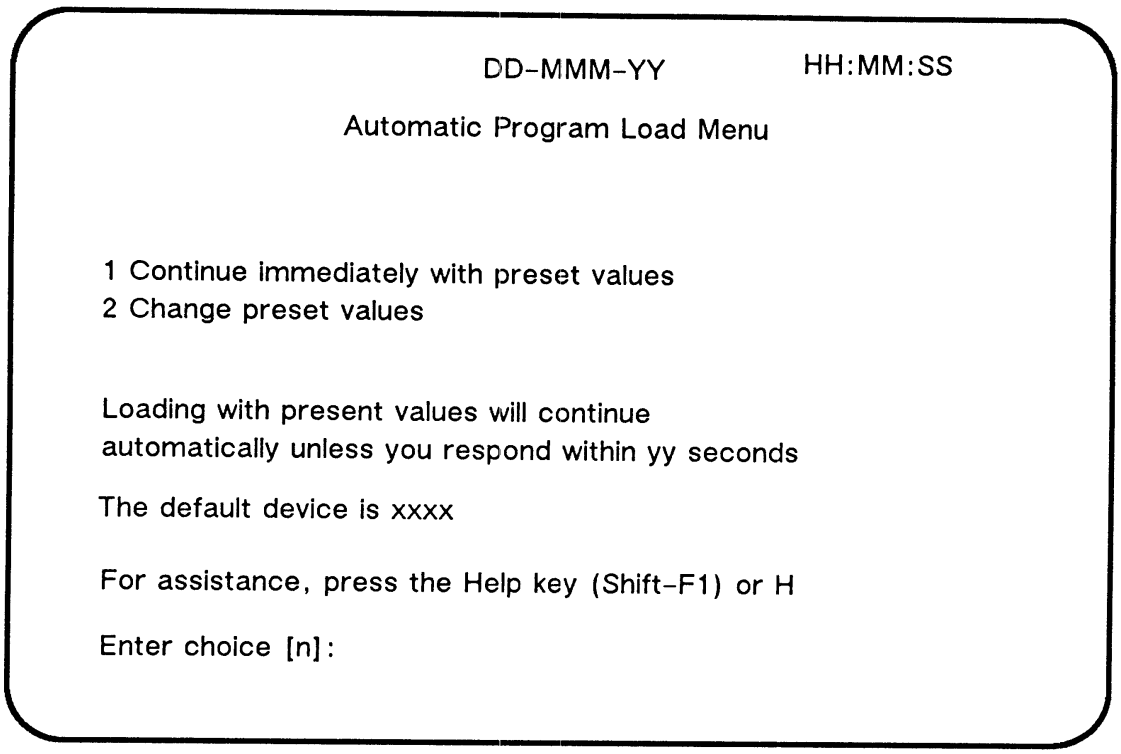
6. Make sure the test messages are complete and the memory size displayed on the screen is correct.

If the test messages are either incomplete or end with an error message, refer to Chapter 5, "Solving Power-Up Problems."

If the memory size is not correct, stop here and contact Data General. For assistance, refer to the "Telephone Assistance" section in the Preface.

Once the system displays the correct memory size, the power-up tests are complete, and the system displays the Automatic Program Load menu. If you powered up from an SCP System Media tape or diskette, remove the tape or diskette from its drive.

NOTE: You set the date and time when you powered up the system the first time. Thereafter, the system maintains and displays the time and date at the top of the Automatic Program Load (APL) menu. If the APL menu displays the letters DD-MMM-YY during a routine powerup instead of the current date and time, you may have to replace the time-of-day batteries. To replace the batteries, refer to the manual *Installing and Maintaining Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System.*



Screen Display	Indicates
DD-MMM-YY	Date-month-year
HH:MM:SS	Hours:minutes:seconds
yy	Automatic program load time delay (seconds)
xxxx	Default load device: Hard disk, diskette, or tape
n	Default choice

7. If you have the AOS/RT32 operating system installed on your system disk, immediately press 2 and New Line to select the Change Preset Values menu, then go to step 8. If you do not have the AOS/RT32 operating system, go to step 9.

8. To start AOS/RT32, refer to the manual *How to Generate and Manage AOS/RT32*.

9. What you should do next depends on whether the operating system installed on your system disk is DG/UX, DG/RDOS, or a non Data General operating system. Follow the instructions in the sections below to start your operating system.

   DG/UX— Press 1 or press New Line or wait and do nothing. In a moment the system displays the following prompt:

Do you want to load diagnostics?

Once the system prompts you with this question, you can start the DG/UX operating system by referring to the manual *Installing and Managing the DG/UX System.*

DG/RDOS— Press 1 or press New Line or wait and do nothing. In a moment the system displays the following prompt:

Filename ?

Once the system prompts you with this question, you can start the DG/RDOS operating system by referring to the manual *How to Generate and Run DG/RDOS.*

Non Data General Operating System— Refer to the manual that accompanied your operating system media. This manual should explain how to start your operating system. (Also, refer to Appendix A. It contains information that may let users of non Data General operating systems install power-up code on the operating system disk.)

End of Chapter

Chapter 4
Changing Preset Values

You can change certain system attributes. These attributes include values that you can set when you power up the system and features that the system chooses automatically during powerup. These values and features include the following:

- Changing the system date or time
- Starting from a different device
- Changing the default device
- Changing the time-out delay for the Automatic Program Load menu
- Entering the system-console program, command-line interpreter (SCP-CLI)
- Selecting the diagnostic sequence
- Configuring the parallel printer port
- Selecting the system clock type (MV/2500 computer system only)

This chapter tells you how to select options from the Change Preset Values menu that will allow you to change these attributes. The steps in this chapter assume that your operating system is installed on the system disk.

Displaying the Change Preset Values Menu

The Change Preset Values menu, through a list of options, lets you choose system features or values that you want to change. You can get to this menu only when you are powering up the system. If your computer system is on and your operating system is running, go to step 1. If your computer system is not on, go to step 2.

To display the Changing Preset Values menu, do the following:

1. Shut down your operating system and turn off the computer and peripherals.

   If you do not know how to shut down your operating system, see your operating system documentation for the correct shut-down procedure.

2. With the computer turned off, turn on all terminals, printers, plotters and external tape and disk drives. Make sure that the terminals and printers are *on line*.

   Normally, when you turn on a terminal or printer, it runs an automatic self-test and finishes by coming on line. In general, this is indicated when the On Line light or Data light is on steady (when the computer is turned on) or blinking (when the computer is turned off). For specific information, see the documentation that came with your terminal or printer.

3. If your system has the SCP System Media software installed on the system hard disk, go to step 4. If it is not installed on the hard disk, write protect your SCP System Media, and insert it in or mount it on the proper drive. Then go to step 4. (Note that Chapter 2 describes how to insert an SCP System Media cartridge tape or diskette or mount the SCP Media reel-to-reel tape.)

4. What you must do next depends on whether your system console is a DASHER display terminal (except DASHER 6053), a hardcopy (printer) terminal (such as a TP2), or a DASHER 6053 display terminal. Follow the instructions in the sections below for your type of system console terminal.

   DASHER Display Terminal (except DASHER 6053)— Turn on the computer by pressing the computer's power button. After a moment, the system begins displaying the power-up test message. Go to step 5.

   DASHER 6053 Display Terminal— Press and hold the system console's New Line key, and then the REPT key. While holding down both keys, turn on the computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 5.

   Hardcopy Terminal— Press and hold the system console's REPT key, and then the New Line key. While holding down both keys, turn on the

computer by pressing its power button. When the system begins displaying the power-up test message, release the keys, and go to step 5.

NOTE: You can power up a system that uses the DG/RDOS operating system from a hardcopy system console; however, some utility programs, like CONFIG and FCOPY, will not run.

5. What happens next depends on whether your SCP System Media software is installed on the system hard disk or you are loading the SCP System Media software from tape or diskette.

Loading from Tape or Diskette— If you inserted an SCP System Media diskette or tape into its drive or mounted an SCP System Media reel-to-reel tape, in about 90 seconds or so, the drive makes a noise or the tape begins to move. It may take as much as 15 minutes to load the SCP System Media software. (If the system does not behave in this manner, it may need service. Remove the tape or diskette, and turn off the system's power. For assistance, refer to the "Telephone Assistance" section in the Preface.)

Loading from the System Hard Disk— If the SCP System Media is installed on the system hard disk, in about 90 seconds or so, the system hard disk begins to load the SCP System Media. (If the system does not behave in this manner, it may need service. For assistance, refer to the "Telephone Assistance" section in the Preface.)

As the SCP System Media software loads, the system begins to display test messages like the following:

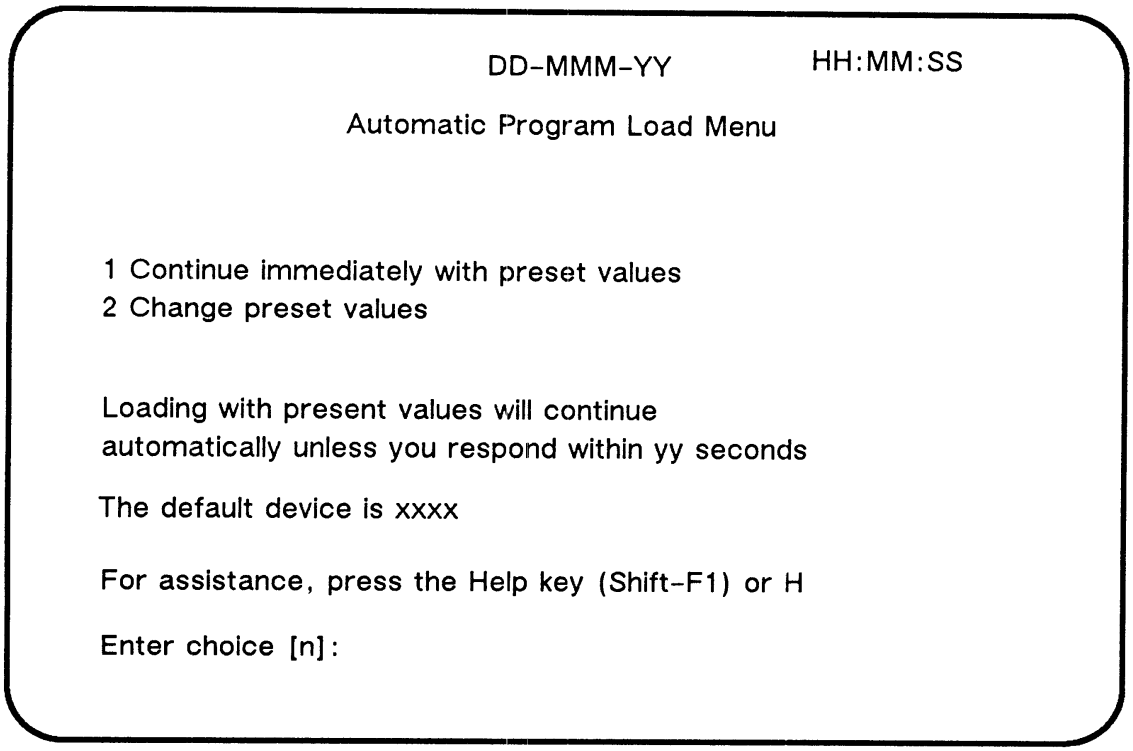
```
TESTING...

  Model # XXXX, System Processing Unit (SPU)
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED
  --Standard Hardware Tests Complete--
  --Optional Hardware Tests Beginning--
  Model # XXXX; Slot y; Local Area Network (LAN) Board
   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789,          PASSED

  --Optional Hardware Tests Complete--
     --Memory size is n Megabytes--
```

Screen Display	Indicates
Model # xxxx	The model number of the board
Letters A–Z; digits 0–9	A test has passed
Slot y	The slot location of the board
n Megabytes	The amount of memory

6. If the test messages are either incomplete or end with an error message, refer to Chapter 5, "Solving Power-Up Problems."



Screen Display	Indicates
DD-MMM-YY	Date-month-year
HH:MM:SS	Hours:minutes:seconds
yy	Automatic program load time delay (seconds)
xxxx	Default load device: Hard disk, diskette, or tape
n	Default choice

7. At the end of the power-up tests, the system displays the Automatic Program Load menu. Immediately press 2 and New Line to select option 2, "Change preset values."

Once the system displays the Change Preset Values menu, decide on the attribute (value or feature) that you would like to change. The rest of this chapter tells you how to change each of the attributes by using the options in the Changing Preset Values menu.

```
                    Change Preset Values Menu

 1  Continue the powerup
 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 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 [n]:
```

Screen Display	Indicates
n	Default choice

Option 1 - Continue the Powerup

If you select option 1, "Continue the powerup," or press New Line, the system returns you to the "Automatic Program Load menu where you can continue the power-up sequence. See Chapter 3, "Powering Up Routinely," for a description of the Automatic Program Load menu.

Option 2 - Change the System Date or Time

You can change the system date or time, or use the Greenwich Mean Time (GMT) offset feature by selecting option 2, "Change the system date or time," from the Change Preset Values menu. To change the system date or time, or to use the Greenwich Mean Time offset feature, first perform the steps in the "Displaying the Change Preset Values Menu" section. Once the system displays the Change Preset Values menu, do the following:

1. While in the Change Preset Values menu, press 2 and New Line to select option 2, "Change the system date or time." The system displays the following prompt:

   Date [DD-MMM-YY]:

2. You can type the date in any one of the following formats:

   30 SEP 88
   30/SEP/88
   30:SEP:88
   30-SEP-88

   Type the date after the prompt and press New Line. The system displays the following prompt:

   Time [HH:MM:SS]:

3. Enter the time using the 24-hour format. If you do not enter a value for seconds, the system automatically enters zeros.

   For example,

   15:04:32
   17:49
   9:0

   Type the time after the prompt and press New Line.

   The system displays the following prompt:

   Offset to GMT [+00:00]:

   The GMT offset is a number (in hours and minutes) that the system uses to produce the Greenwich Mean Time (GMT). Some Data General operating systems do not support the GMT offset feature, refer to your operating system documentation.

4. If your operating system supports the GMT offset feature, and you intend to connect to a network with other computer systems that are in different time zones, you may want to use this feature. Go to step 6 to use the GMT offset feature.

5. If you do not want to use the GMT offset feature, press New Line. The system returns you to the Change Preset Values menu where you can choose another option.

Using the GMT Offset Feature

6. In the Table 4–1, find the group of cities, countries, or areas that are within your local time zone. Or if you know your time zone number, locate it in the left column.

Table 4-1 GMT Time Zone and Offset Numbers

Time Zone Number	Cities, Countries, Areas	GMT Offset Number
2	Honolulu, Anchorage, Fairbanks	-10
4	Vancouver, Juneau, Whitehorse, Seattle, Los Angeles, San Francisco	-8
5	Boise, Salt Lake City, Denver, Phoenix, Calgary, Edmonton	-7
6	Chicago, St.Louis, Houston, New Orleans, Dallas, Mexico City, Fort Worth, Wichita, Rapid City, Bismark, Winnipeg, Managua	-6
7	Montreal, Toronto, Quebec, Ottawa, Boston, New York, Philadelphia, Baltimore, Washington D.C., Atlanta, Miami, Lima, Bogota, Quito, San Juan	-5
8	St. John's, Halifax, Caracas, Georgetown, La Paz, Santiago, Asuncion	-4
9	Greenland, Buenos Aires, Montevideo, Rio de Janeiro, Brasila	-3
12	(Greenwich Mean Time) London, Manchester, Dublin, Belfast, Glasgow, Lisbon	0
13	Madrid, Rome, Oslo, Stockholm, Paris, Berlin, Vienna, countries of West-Central Africa	+1
14	Helsinki, Bucharest, Cairo, Johannesburg, Ankara, countries of East-Central Africa	+2
15	Countries of Eastern Africa	+3
17	Karachi, Lahore Bombay, New Delhi, Madras	+5 +5:30
18	Calcutta	+6
19	Sumatra, Java, Thailand, Indonesia	+7
20	China, Taiwan, Perth, Hong Kong, Philippines	+8
21	Tokyo, Darwin, Korea	+9
22	Sidney, Melbourne, Brisbane, New Guinea	+10
24	Auckland, Wellington	+12

7. Find the GMT offset number in the right column opposite your time zone number. If your location is on daylight–savings time, add 1 to this number.

   For example, if your location uses –5 and daylight–savings time is in effect, your GMT offset Number is –4.

NOTE: If you added 1 to the GMT offset because daylight–savings time was in effect, do not forget to reset the GMT offset as well as the time when daylight–savings time ends. To reset the GMT offset, simply enter the exact value shown in Table 4–1 for your time zone.

8. Type your GMT offset number, including the + or – sign, after the prompt and press New Line. The system displays the Change Preset Values menu where you can choose another option.

   To check the GMT offset number that you entered, select option 2 again. The system displays the default values in brackets.

After you set the current date and time, the system maintains and displays them at the top of the Automatic Program Load (APL) menu. If the APL menu displays the letters DD–MMM–YY during a routine powerup instead of the current date and time, you may have to replace the Time–of–Day batteries. To replace the batteries, refer to the manual *Installing and Maintaining Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500 DC Computer System.*

Option 3 – Start from a Different Device

After your system finishes the power–up tests and enters the Automatic Program Load (APL) menu, the system assumes you want to load software from the default device shown on the APL menu. You can start from a device other than the default device shown on the APL menu by selecting option 3, "Start from a different device." The device you select, however, must be a *unit 0 device.* Unless your system was reconfigured after Data General shipped it, the following internal drives are unit 0 devices:

- First (upper) hard disk drive
- Diskette drive
- Cartridge tape drive

NOTE: This option does not change the default device; it simply overrides the existing default device. You can change the default device rather than override it. See the "Option 4 - Change the Default Device" section in this chapter.

To start from a different device, first perform the steps in the "Displaying the Change Preset Values Menu" section. Once the system displays the Change Preset Values menu, do the following:

1. While in the Change Preset Values menu, press 3 and New Line to select option 3, "Start from a different device." The system displays the following menu:

```
                Start from a Different Device

1 Hard disk
2 Diskette
3 Tape


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


Start from which device? [n]
```

Screen Display	Indicates
n	Default choice

2. Select the device that you want to start from by entering the option number for the device and pressing New Line. The system prompts you with a message or a menu. Go to the appropriate section below, and follow the instructions to start from the device that you selected.

NOTE: If you choose the wrong option or change your mind, you can leave this menu by pressing the Cancel/Exit key (F11) or the Escape key or Break/Esc key on your keyboard.

Starting from a Hard Disk

When you select option 1, the system immediately loads software from the internal hard disk (unit 0).

Starting from the Diskette

When you select option 2, the system prompts you with

Please insert diskette, then press New Line (or the Enter key) to continue, or press Esc to cancel selection.

Insert your diskette and press New Line. The system loads software from your diskette. If you make a mistake and want to cancel your selection, press the Escape key. The system returns you to the Change Preset Value menu.

NOTE: If you accidently press New Line before you insert your diskette, your system attempts to load software from the empty diskette drive. Then after about two or three minutes the system displays the following message:

Missing or Bad Media

To return to the menu, press the Cancel/Exit Key.

If this should happen, do as instructed—press the Cancel/Exit key. The system returns you to the Change Preset Values menu where you can choose another option.

Starting from a Tape

When you select option 3, the system prompts you with

1 1/8-inch Cartridge Tape
2 1/2-inch Cartridge or Reel Tape

Choose either option 1, the 1/8-inch cartridge tape drive, or option 2, the 1/2-inch cartridge tape drive or the reel tape drive. Once you choose either option, the system prompts you with

Please insert or mount tape, then press New Line key (or the Enter key) to continue, or press Esc to cancel selection.

Insert or mount your tape on the proper drive and press New Line. The system loads software from your tape.

NOTE: If you accidently press New Line before you insert or mount your tape, your system attempts to load from the empty tape drive. Then after about two or three minutes the system displays the following message:

Missing or Bad Media

To return to the menu, press the Cancel/Exit Key.

If this should happen, do as instructed—press the Cancel/Exit key. The system returns you to the Change Preset Values menu where you can choose another option.

Option 4 - Change the Default Device

If you are in the Automatic Program Load menu and you enter option 1 or press the New Line key, or simply do nothing, the system automatically loads software from the the default device displayed in the Automatic Program Load menu. You can change the default load device to another available device, either a diskette drive, a cartridge tape drive, or a hard disk drive. Doing so allows you to load software automatically from that device when you are in the Automatic Program Load menu. The device you select, however, must be a *unit 0 device*. Unless your system was reconfigured after Data General shipped it, the following internal drives are unit 0 devices:

- First (upper) hard disk drive
- Diskette drive
- Cartridge tape drive

For example, if you make the default device the cartridge tape drive, the next time you power up the system, the Automatic Program Load menu will display the cartridge tape as the default device. The cartridge tape drive will be the default device for every powerup until you change it again.

NOTE: You can temporarily override the default device. Doing so allows you to immediately load software, one time, from a different device. See the "Starting From a Different Device" section in this chapter.

To change the default device, first perform the steps in the section "Displaying the Change Preset Values Menu." Once the system displays the Change Preset Values menu, do the following:

1. While in the Change Preset Values menu, press 4 and New Line to select the option 4, "Change the default device option." The system displays the following menu:

```
                    Change the Default Device

1 Hard disk
2 Diskette
3 Tape


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


Start from which device? [n]
```

Screen Display	Indicates
n	Default choice

2. Select the new default device from the menu by entering the option number for the device and pressing New Line. The system prompts you with a message or a menu. Go to the appropriate section below, and follow the instructions to start change the default device.

NOTE: If you choose the wrong option or change your mind, you can leave this menu by pressing the Cancel/Exit key (F11) or the Escape key.

Changing to a Hard Disk

When you select option 1, the internal hard disk (unit 0) becomes the default device, and the system returns you to the Change Preset Value menu where you can choose another option.

NOTE: This device will not become the default device until the next time you power up the system.

Changing to the Diskette

When you select option 2, the internal diskette drive becomes the default device, and the system returns you to the Change Preset Value menu where you can choose another option.

NOTE: This device will not become the default device until the next time you power up the system.

Changing to a Tape

When you select option 3, the system prompts you with

1 1/8–inch Cartridge Tape
2 1/2–inch Cartridge or Reel Tape

Choose either option 1, the 1/8–inch cartridge tape drive, or option 2, the 1/2–inch cartridge tape drive or the reel tape drive. Once you choose either option, the system returns you to the Change Preset Value menu where you can choose another option.

NOTE: The device you select will not become the default device until the next time you power up the system.

Option 5 - Change the Time-Out Delay for Automatic Program Load Menu

The system provides a time-out delay after displaying the Automatic Program Load (APL) menu. If you do not respond to the APL menu, the system powers up automatically from the default (load) device at the end of the time-out delay. The default value for the time-out delay is 45 seconds, which gives you ample opportunity to interrupt the power-up sequence when you want to go to the Change Preset Values menu. If you want, you can speed the power-up sequence by reducing the length of the time-out delay from 45 seconds to as low as 10 seconds (in 5-second increments).

To change the time-out delay for the APL menu, first perform the steps in the section "Displaying the Change Preset Values Menu."

Once the system displays the Change Preset Values menu, do the following:

1. While in the Change Preset Values menu, press 5 and New Line to select option 5, "Change the time-out delay for Automatic Program Load Menu." The system displays the following prompt:

   Time-out delay (in seconds) for the Automatic Program Load Menu (45)

2. Enter the number of seconds from 10 to 45 (in 5-second increments) for the new time-out delay value. Then press New Line. The system displays the Change Preset Values menu where you can choose another option.

   NOTE: The new time-out delay takes effect immediately. The next time you see the Automatic Program Load menu, it will display the new time-out delay value.

Option 6 - Enter the SCP CLI

CAUTION: Select this option only if you know how to use the System Control Program (SCP) and you have the correct SCP documentation on hand. Refer to the ECLIPSE MV/2000™ DC and DS/7500 System Control Program Operator's Reference *manual for instructions on using the SCP.*

To enter the SCP CLI, first perform the steps in the "Displaying the Change Preset Values Menu" section. Once the system displays the Change Preset Values menu, press 6 and New Line to select option 6, "Enter the SCP CLI." The system displays the following prompt:

SCP-CLI>

NOTE: If you want to exit the System Control Program, type CONTINUE and press New Line. The system displays the Change Preset Values menu where you can choose another option.

Option 7 - Change the System Console

NOTE: Only the graphics computer systems use this option.

Option 8 - Select Diagnostics Sequence

If you have the user friendly diagnostics installed on your system hard disk, the system can run an additional set of diagnostic tests during powerup. You can then choose to run either full diagnostics or abbreviated diagnostics during each powerup.

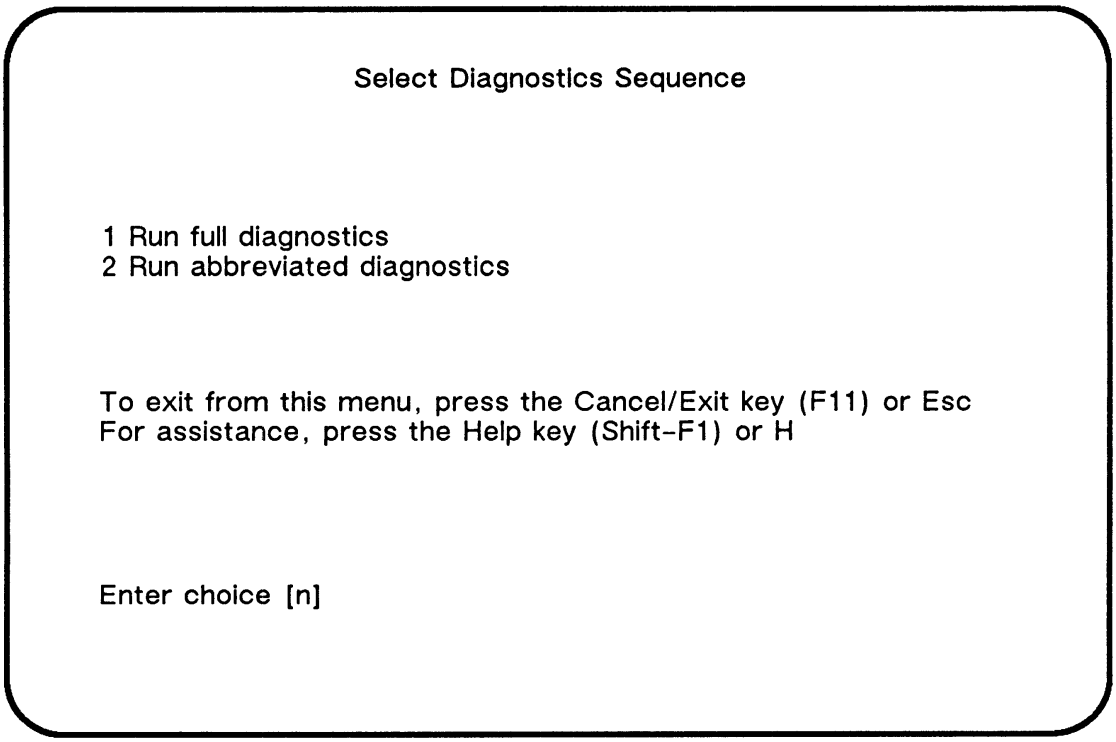
Full diagnostics includes both the standard diagnostics and the optional system diagnostics. Abbreviated diagnostics include only the standard diagnostics. Once you select either option, that selection does not take effect until the next time you power up the system.

Running the abbreviated diagnostics takes approximately one minute. Running the full diagnostics takes approximately two to three minutes. Whenever possible run the full diagnostics.

To select the diagnostic sequence, first perform the steps in the section "Displaying the Change Preset Values Menu."

Once the system displays the Change Preset Values menu, do the following:

1. While in the Change Preset Values menu, press 8 and New Line to select option 8, "Select diagnostics sequence." The system displays the following menu:



Screen Display	Indicates
n	Default choice

2. Enter your selection, and press New Line. The system displays the Change Preset Values menu where you can choose another option.

   NOTE: If the system prompts you with

   Option Not Available

   you must install the user-friendly diagnostics on your system disk before you can run full diagnostics (option 1). For information on installing, entering, and starting user friendly diagnostics, refer to one of the following manuals:

   ECLIPSE MV/1400 DC, ECLIPSE MV/2000 DC_II (Models 91347 — 91349) and DS/7500_II Series Systems User Friendly Diagnostics

   ECLIPSE MV/2500 DC User Friendly Diagnostics

Option 9 - Configure Parallel Printer Port

If you have a parallel printer connected to the system board, you must configure the parallel printer port for your particular printer.

To configure the parallel printer port, first perform the steps in the "Displaying the Change Preset Values Menu" section. Once the system displays the Change Preset Values menu do the following:

1. While in the Change Preset Values menu, press 9 and New Line to select option 9, "Configure parallel printer port."

   The system displays the following menu:

```
                Configure the Parallel Printer Port
1    Positive strobe, VFU option, tab memory
2    Positive strobe, no VFU option, tab memory
3    Positive strobe, no VFU option, no tab memory
4    Negative strobe, VFU option, tab memory
5    Negative strobe, no VFU option, tab memory
6    Negative strobe, no VFU option, no tab memory

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 [1]:
```

Strobe type - You must select either positive or negative polarity. If the strobe setting is incorrect, the parallel printer will not work.

Vertical forms unit (VFU) and (horizontal) tab memory - The VFU and (horizontal) tab memory options let you program the printer to handle a variety of form lengths and to move quickly between entries within a form. If the VFU option is available but not set, the printer will operate but without the VFU feature.

Table 4-2 specifies the correct strobe type for the Data General printers available for your system. It also indicates whether or not the printer has the VFU option or horizontal tab memory.

Table 4-2 Choosing Settings by Printer Model Number

Model Number	Strobe Type	VFU Option	Horizontal Tab Memory
4323	Positive	Yes	Yes
4324	Positive	Yes	Yes
4365	Positive	Yes	Yes
4366	Positive	Yes	Yes
4374	Positive	Yes	Yes
4595	Positive	Yes	Yes
4596	Positive	Yes	Yes
4597	Positive	Yes	Yes
4598	Positive	Yes	Yes
4599	Positive	Yes	Yes
6190	Negative	No	Yes
6216	Positive	No	Yes

If your printer's model number is not listed in Table 4-2, refer either to the on-line help file for the Change Preset Values menu or to the manual that came with your printer. If you still cannot find the information but you know your printer's interface type, choose the settings in Table 4-3.

Table 4-3 Choosing Settings by Printer Interface Type

Interface Type	Settings
Centronics	Select negative strobe, and VFU and tab options supported by your printer.
Data Products	From the Configure the Parallel Printer Port menu, select option 2 if you want to select printer-supported escape sequences that set tabs or fonts. Otherwise, select option 3.

2. Enter your selection and press New Line. The system displays the Change Preset Values menu where you can choose another option.

Option 10 - Select Positional Tracking Device Types for Tablets

NOTE: Only graphics computer systems use this option.

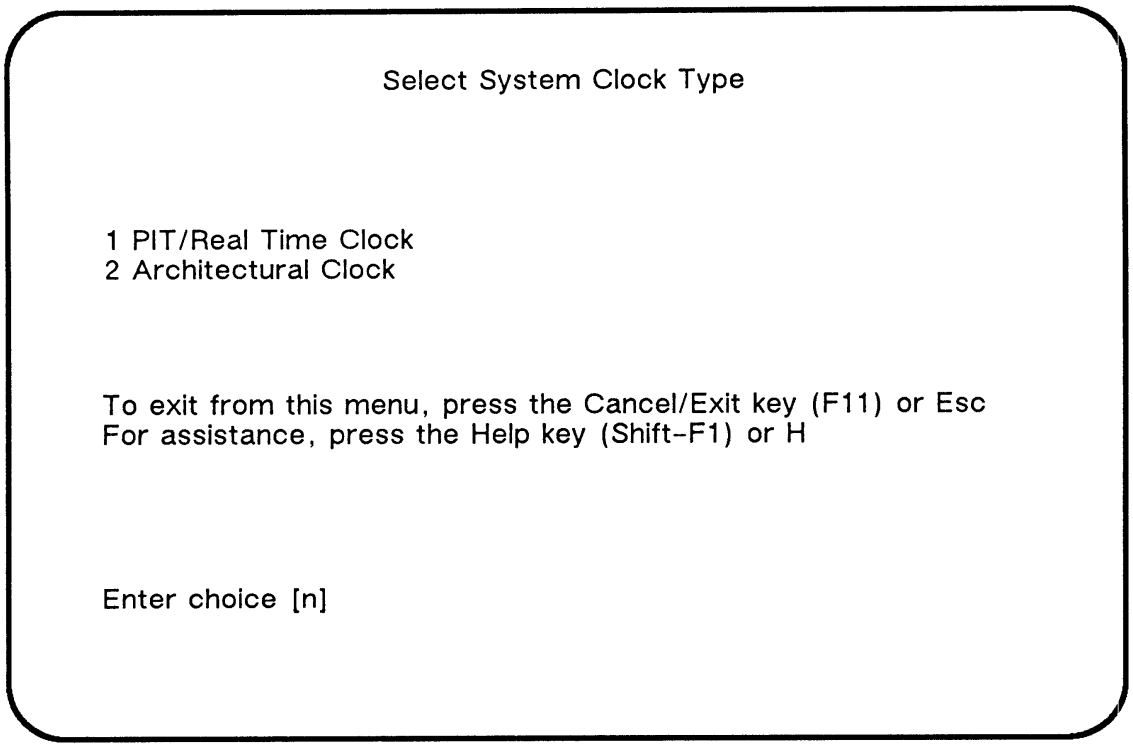
Option 11 - Select System Clock Type

NOTE: Only the ECLIPSE MV/2500 DC computer system uses this option. Also, some Data General operating systems do not support the architectural clock. If your operating system does not support the architectural clock and you attempt to use it, your computer system will not operate properly. To find out whether or not your operating system supports the architectural clock, refer to your operating system documentation.

This option lets you select either the PIT(Programmable Interrupt Timer)/Real Time clock or the architectural clock. To find out more about these clocks, refer to the manual *ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, and DS/7500 Systems Principles of Operation.*

To select either system clock, first perform the steps in the section "Displaying the Change Preset Values Menu." Once the system displays the Change Preset Values menu, do the following:

1. While in the Change Preset Values menu, press 11 and New Line to select option 11, "Select system clock type." The system displays the following menu:



Screen Display	Indicates
n	Default choice

NOTE: If you do not choose either option, your system defaults to option 1, the PIT/Real Time Clock.

2. Enter your selection number and press New Line. The system displays one of the following messages, depending on the option you select:

   If you select option 1, the system displays the message

PIT/Real Time Clock Selected

Turn Power Off and On to Implement New Choice

*****Press the Cancel/Exit key (F11) or Esc to continue*****

If you select option 2, the system displays the message

Architectural Clock Selected

Turn Power Off and On to Implement New Choice

*****Press the Cancel/Exit key (F11) or Esc to continue*****

3. If you want your selection to take effect immediately, turn off the system's power and power up the system again.

   If you want your selection to take effect the next time you power up, press the Cancel/Exit key (F11) or Esc key to continue. The system displays the Change Preset Values menu where you can choose another option. Your selection will take effect the next time you power up the system.

End of Chapter

Chapter 5
Solving Power–Up Problems

When you turn on your computer system, power-up diagnostic programs automatically test your system to make sure that it can perform certain rudimentary operations. This chapter tells you what you should do in case your system fails a power–up diagnostic test.

When your system passes the power–up diagnostic tests, it displays the Automatic Program Load menu on the system console screen. On the other hand, if your system fails a power-up diagnostic test, either the system console screen remains blank or an error message on the screen indicates a failure.

If your system console screen remains blank for more than two minutes, try to resolve the problem yourself by following the steps in the "Blank Screen on the System Console" section. If your system displays an error message, try to resolve the problem by following the steps in the "Error Messages on the Screen" section.

Blank Screen on the System Console

Follow the steps in this section if your system console screen remains blank for more than two minutes after powerup.

1. Make sure the SCP System Media that you are using (diskette or cartridge tape) is the correct media for your system. See Appendix B, "Identifying SCP System Media" to verify this.

2. Make sure the terminal you are watching is the system console terminal. (Refer to the manual *Installing and Maintaining Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System* if you are not sure which terminal is the system console.)

3. Make sure the system console terminal is turned on.

4. Make sure the screen intensity on your system console is adjusted brightly enough so you can see messages on the screen. (Try temporarily adjusting the screen intensity to the maximum setting.)

5. Make sure the keyboard's On Line light is on. If it is not on, hold down the Cmd key and press the On Line key. If it comes on, go to step 7.

6. If the keyboard's On Line light is still off, do the following:

   Make sure the system console's power cord is plugged tightly into the ac power outlet, and the ac outlet is supplying power.

   Make sure the cable that connects the keyboard to the display is plugged securely into the keyboard connector on the back of the display. If it is secure, and the On Line light is still off, go to step 8.

7. If the On Line light is on and your screen is still blank, do the following:

   Take the terminal off line by holding down the Cmd key and pressing the On Line key. With the terminal off line, use the keyboard to type something. If the characters appear on your console screen, put the terminal back on line by holding down the Cmd key and pressing the On Line key.

8. If you still do not receive the power-up messages on your system console screen, do the following:

   Make sure the cables that connect your system components together are undamaged and their connectors are secured tightly so that they make a good connection.

9. If the display is still blank, your system console terminal has a problem. Replace the system console terminal with another terminal. To set up a system console, follow the appropriate instructions in the manual *Installing and Maintaining Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System.*

If your terminal has switches for setting the baud rate, parity, data length, and so forth, make sure they are set correctly. Refer to the manual *Installing and Maintaining Your ECLIPSE MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System* for the correct switch settings.

10. If the cables are connected properly and the switch settings for the terminals are correct, try powering up your system again.

11. Listen for the whirring noise of the fans inside the unit. If you do not hear the fans, make sure the computer is getting power by checking the power cord and power source.

12. If your screen is still blank, contact Data General. For assistance, refer to the "Telephone Assistance" section in the Preface.

Error Messages on the Screen

Follow the steps in this section, if the power–up diagnostic tests do not display messages sequentially, display an error message, or the terminal "hangs" and does not display a complete message.

1. Write down the error code or, if no error code appears, write down the last letter or number displayed.

2. If the characters displayed on your system console make no sense, check the cables that connect your system components. If your system console has baud rate and parity switch settings, make sure they are correct. Refer to the manual *Installing and Maintaining Your MV/1400™ DC, ECLIPSE MV/2000™ DC, or ECLIPSE MV/2500™ DC Computer System,* if you do not know the settings of the switches.

3. Once you are sure the cables are connected properly and the switch settings for the terminals are correct, try powering up your system again.

   If your system powers up without an error and the cables were properly attached and the baud rate and parity switches were set properly, the system may be warning you that it will require service soon. If you have

the user-friendly diagnostics, test your system completely as soon as possible. On the other hand, if the same error code or a different error code appears, contact Data General. For assistance, refer to the "Telephone Assistance" section in the Preface.

Installing and Running User-Friendly Diagnostics

Data General has developed a set of user-friendly diagnostics that you can install and run on your system. This package of diagnostic tests lets you check out your system when it is malfunctioning or when you suspect it is performing poorly.

With the user-friendly diagnostics installed on your system disk, you can have your system automatically run enhanced CPU tests each time you power it up. Although these enhanced tests add a minute or so to the power-up time, running them often saves you time in the long run. They help isolate problems immediately during powerup rather than having problems occur later after you have loaded your programs.

For information on installing and running user-friendly diagnostics, refer to one of the following manuals:

*ECLIPSE MV/1400 DC, ECLIPSE MV/2000 DC_II (Models 91347 — 91349) and DS/7500_II Series Systems User Friendly Diagnostics.**

ECLIPSE MV/2500 DC User Friendly Diagnostics

*The symbol "_II" designates a system that has 4-megabytes of memory on its system board. You can recognize these systems because the model name on the front of the computer has yellow letters.

End of Chapter

Appendix A
Installing Power–Up Code for Non Data General Operating Systems

If you have a non Data General operating system, you may be able to reserve an area (coresident area) on your system disk where you can install power–up code. With the power–up code installed, you will not need to use the SCP System Media diskette or cartridge tape each time you power up your system. Firmware in the computer will load power–up code automatically from the system disk.

Your operating system formatter must reserve a coresident area of at least 5000 (decimal) contiguous disk blocks for power–up code. The starting disk address for this reserved area should be 20000_8 or above.

To install power–up code, you must also reserve several other locations on your system disk (unit 0, block 3). Table A–1 lists these locations and describes the data that the system stores at these locations.

Table A-1 System Disk Locations Required by Coresident Area

Address Location	Description of Data
000	Holds the operating system revision number, which is a value from 0 -- 7_8. (Non Data General operating systems do not use this number; however, you should still reserve the address.)
374_8–375_8	Holds the 32-bit disk address that begins the coresident area for the power-up code. The 32-bit address must be 20000_8 or higher. Your formatter must reserve the coresident area.
376_8	Holds the 16-bit install flag. (The SCP System Media installation program writes a value of 103101_8 at this location when you install the power-up code on the system disk. During subsequent powerups, the firmware will see this value and load the power-up code starting at the disk address stored at 374_8–375_8 above.

If you cannot reserve these locations, you cannot install the power-up code on your system hard disk. You will have to use your SCP System Media diskette or cartridge tape each time you power up your system.

End of Appendix

Appendix B
Identifying SCP System Media

Tables B–1 and B–2 contain the identification labels that Data General attaches to SCP System Media diskettes, cartridge tapes, and reel–to–reel tape. Beside each label is the Data General computer that uses that particular SCP System Media. If you get a system media error when powering up your system, check to see that you are using the correct SCP System Media.

Table B-1 Labels for SCP System Media Tapes

1/8-inch Cartridge Tape Labels	Computer
060000152-xx REV. x.xx MV1400DC SCP SYSTEM MEDIA 31478B MICROCODE REV. x.x (c) Data General Corporation	ECLIPSE MV/1400 DC
060000154-xx REV. x.xx MV2DC_II & DS7500_II SCP SYSTEM MEDIA 31462B MICROCODE REV. x.x (c) Data General Corporation	ECLIPSE MV/2000 DC (Yellow lettering)*
060000136-xx MV2000DC SCP REV. x.xx LEVEL A 31138B (c) Data General Corporation	ECLIPSE MV/2000 DC (Tan lettering)*
060000162-xx MV2500DC SCP REV. x.xx 31589B (c) Data General Corporation	ECLIPSE MV/2500 DC
1/2-inch Cartridge Tape Label	
070000387-xx MV2500DC SCP REV. x.xx 31589J (c) Data General Corporation	ECLIPSE MV/2500 DC
Reel-to-Reel Tape Label	
074000643-xx MV2500DC SCP REV. x.xx 31589H (c) Data General Corporation	ECLIPSE MV/2500 DC

*Tan lettering and yellow lettering refer to the color of the letters in the computer name on the front of your computer unit.

Table B-2 Labels for SCP System Media Diskettes

Diskette Labels	Computer
091000244- xx MV1400DC SCP SYSTEM MEDIA 31478G MICROCODE REV. x.x (c) Data General Corporation ADEX FORMAT	ECLIPSE MV/1400 DC
091000246-xx MV2DC_II & DS7500_II SCP SYSTEM MEDIA 31462G MICROCODE REV. x.x (c) Data General Corporation ADEX FORMAT	ECLIPSE MV/2000 DC (Yellow lettering)*
09100017 GF1 MV2000DC SCP REV. x.xx LEVEL A 31138G (c) Data General Corporation	ECLIPSE MV/2000 DC (Tan lettering)*
091000281-xx MV2500DC SCP REV. x.xx 31589G (c) Data General Corporation	ECLIPSE MV/2500 DC

*Tan lettering and yellow lettering refer to the color of the letters in the computer name on the front of your computer unit.

End of Appendix

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CUSTOMER DOCUMENTATION COMMENT FORM

Your Name _____ Your Title _____

Company _____ Phone _____

Street _____

City _____ State _____ Zip _____

134-752-02

We wrote this book for you, and we made certain assumptions about who you are and how you would use it. Your comments will help us correct our assumptions and improve the manual. Please take a few minutes to respond. Thank you.

Manual Title _____ Manual No. _____

Who are you?
- ☐ EDP/MIS Manager
- ☐ Analyst/Programmer
- ☐ Other _____
- ☐ Senior Systems Analyst
- ☐ Operator
- ☐ Engineer
- ☐ End User

How do you use this manual? *(List in order: 1 = Primary Use)*

- ___ Introduction to the product
- ___ Tutorial Text
- ___ Other _____
- ___ Reference
- ___ Operating Guide

About the manual:		Yes	No
	Is it easy to read?	☐	☐
	Is it easy to understand?	☐	☐
	Are the topics logically organized?	☐	☐
	Is the technical information accurate?	☐	☐
	Can you easily find what you want?	☐	☐
	Does it tell you everything you need to know?	☐	☐
	Do the illustrations help you?	☐	☐

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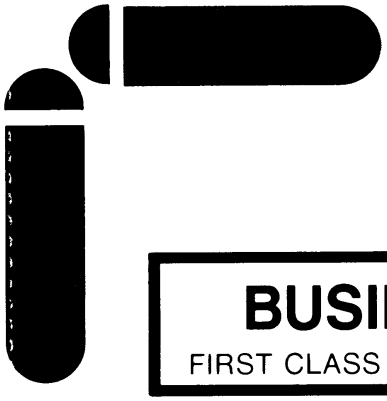
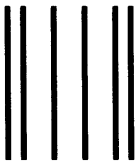
Comments:





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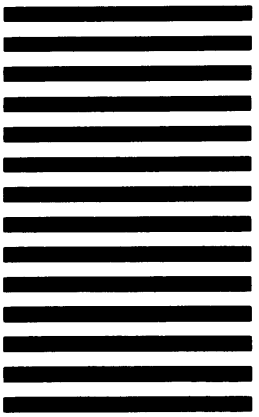

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Manual Title _____ Manual No. _____

Who are you?

- ☐ EDP/MIS Manager
- ☐ Analyst/Programmer
- ☐ Other _____
- ☐ Senior Systems Analyst
- ☐ Operator
- ☐ Engineer
- ☐ End User

How do you use this manual? *(List in order: 1 = Primary Use)*

- ___ Introduction to the product
- ___ Tutorial Text
- ___ Other
- ___ Reference
- ___ Operating Guide

		Yes	No
About the manual:	Is it easy to read?	☐	☐
	Is it easy to understand?	☐	☐
	Are the topics logically organized?	☐	☐
	Is the technical information accurate?	☐	☐
	Can you easily find what you want?	☐	☐
	Does it tell you everything you need to know?	☐	☐
	Do the illustrations help you?	☐	☐

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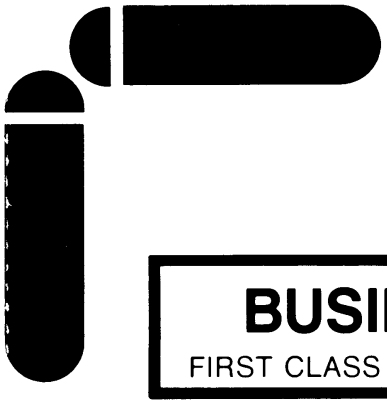

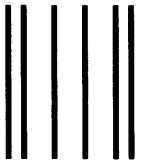

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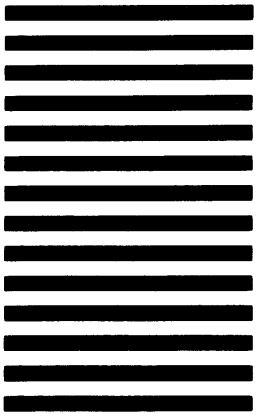

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