

MS[™]-DOS Version 2.11 Getting Started

digital equipment corporation

First Printing, October 1984

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The postage-prepaid READER'S COMMENTS form on the last page of this document requests the user's critical evaluation to assist us in preparing future documentation.

Printed in U.S.A.

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Preface

Welcome to the Rainbow Computer

We congratulate you on the purchase of the Rainbow personal computing system. The Rainbow computer is today's most versatile system. It is the only industry-standard computer built to DIGITAL's quality specifications and backed by DIGITAL's commitment to service and support. The Rainbow computer is a sound investment in personal productivity that you'll enjoy using every day.

To get you started, we have prepared a set of easy-to-use documentation. We welcome your comments, which you can record on the card in the back of each manual. Please let us hear from you.

Remember that purchasing your first Rainbow computer is just the beginning of your relationship with Digital Equipment Corporation, the world's leading manufacturer of minicomputers. Our dedication to quality manufacturing, our extensive availability of spare parts and accessories, and our service organization of 16,000 representatives worldwide are your further assurance of total DIGITAL quality. With the Rainbow computer and the MS-DOS operating system, you have an investment that will grow in value as you use it now and in the future.

Starting and Stopping the Computer

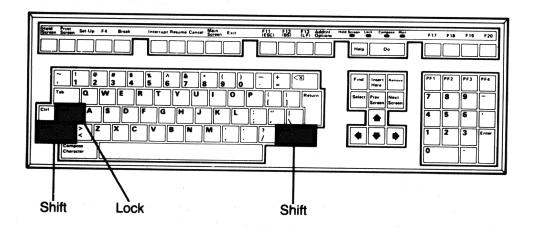
This guide assumes you are a first-time user of Digital Equipment Corporation's Rainbow computer. The guide presents each procedure in a step-by-step manner. Therefore, it is important for you to follow each step in the given sequence. If you attempt to follow steps out of sequence, some procedures may be confusing to you. Enjoy using the computer.

This guide is organized as follows:

- Chapter 1: Starting and stopping the Rainbow computer and the MS-DOS operating system
- Chapter 2: Copying a diskette

The following information is helpful for you to know in order to use the computer:

- In examples of dialog between you and the computer, characters the computer displays on the screen are printed in black. Characters you type from the keyboard are printed in color.
- You can type these characters in either lowercase or uppercase. Use the Shift or Lock key on the keyboard to produce uppercase characters. The illustration below shows these keys.



NOTE

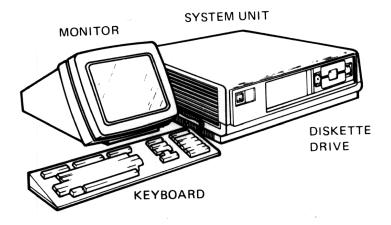
You cannot use the Lock key to type characters shown above numbers or other special characters on the keyboard. For example, if you want to type \$, %, *, (, :, ", ", ?, you must use the Shift key. The Lock key only affects the alphabetic characters. When the Lock key is pressed down, you can return to lowercase by pressing the Lock key again.

Be sure to type all spaces and punctuation marks exactly as they are
printed in this guide. In many cases, if you mistype a word or character, a message is displayed and you must retype the line.

- Return means to press the Return key.
- Ctri/C means to hold down the control key (labeled Ctrl on the keyboard). While you are still holding the Ctrl key, press the C key and then release both keys.

You cannot hurt the computer. Nothing that you type on the keyboard will do any damage to the Rainbow computer.

The illustration below shows a Rainbow computer including a monitor (video screen), keyboard, and system unit with two diskette drives.



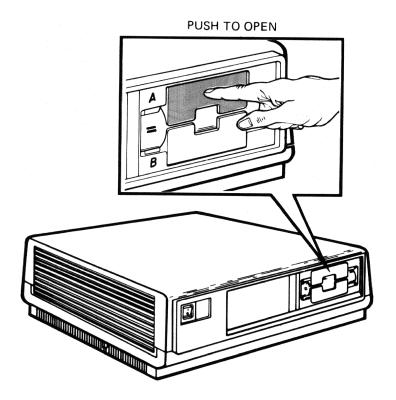
Setting up the Rainbow Computer

If you need help at any time, call the appropriate DIGITAL Customer Help Line number listed at the end of this guide.

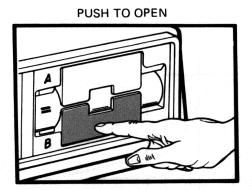
The instructions in this section assume that the computer has been installed according to the *Rainbow Installation Guide*.

Opening the drive doors on a horizontal unit

1. Open drive A by pushing on the top of the drive door.

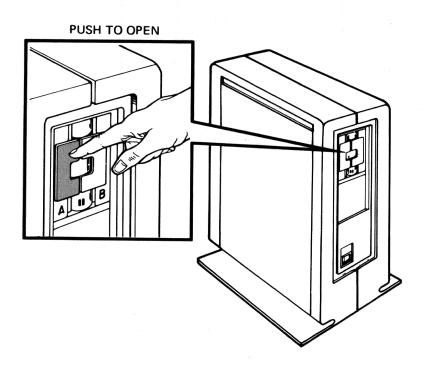


2. Open drive B by pushing on the bottom of the drive door.

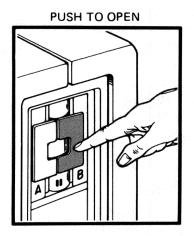


Opening the drive doors on a vertical unit

1. Open drive A by pushing on the left edge of the drive door.

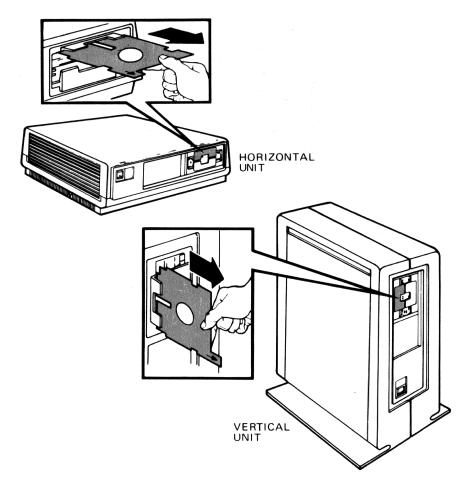


2. Open drive B by pushing on the right edge of the drive door.



Removing the protective card or diskette

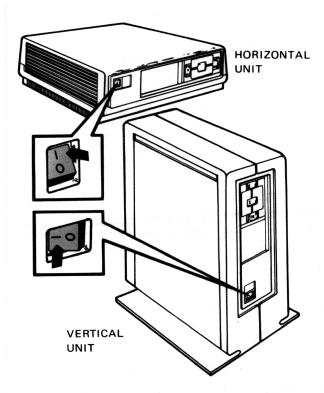
- 1. Be sure the diskette drives are empty.
- 2. If the protective card was not removed as part of the installation procedure, remove it now from drive A (and drive C if you have four drives.) Also remove any diskettes that you find in the drives. Remove these by grasping their outer edge and pulling *gently*.



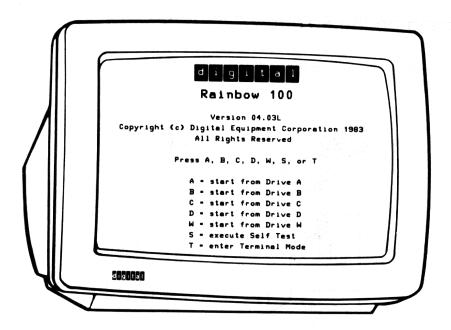
The protective card prevents the drive components from moving during shipment. Be sure to save it to use later if you move the computer.

Turning on the Rainbow Computer

Turn on the computer by pressing the power switch to the 1 (on) position.



After about 25 seconds, you will hear whirring sounds and a beep. Then the Main System Meau is displayed as shown on the next page.

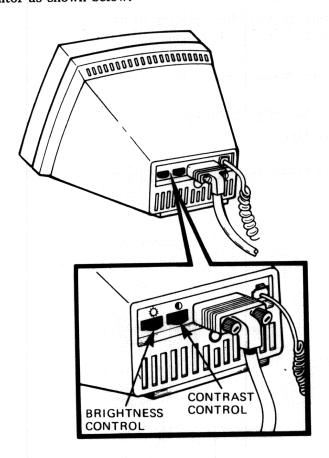


Helpful Information

When you turn the computer on:

- It automatically runs a short self-test to check its components.
- The drive doors can be opened or closed.
- The version number of the computer is displayed above the copyright notice in the Main System Menu. The number on your screen may be different from the number shown in the sample above. If you ever need to report a problem, your vendor may ask for your version number.

- If you find a list of countries displayed on your screen, you have not selected a language in which to communicate with the computer. To make this selection, refer to the *Rainbow Installation Guide*.
- If the Main System Menu is too dim or too bright, or is not displayed at all, adjust the brightness and contrast controls on the back of the monitor as shown below.



Contrary to the instructions in the Main System Menu, do not press any keys at this time. Wait until you have followed the instructions for inserting a diskette. If you accidentally press A, B, C, or D, the computer displays:

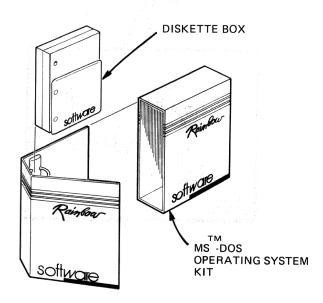
See Owner's Manual - MESSAGE 21 - Drive Not Ready

If you see this message, turn the computer off by pressing the power switch to position 0. Then turn it on again and start over.

If you see any other message, follow the instructions given in the message.

Finding the MS-DOS Master System Diskette

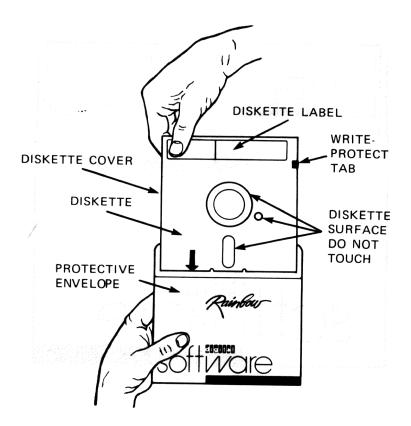
1. Open the MS-DOS Operating System Kit and remove the diskette box.



2. Remove the MS-DOS master system diskette from the diskette box.



3. Remove the MS-DOS master system diskette from its protective paper envelope.



Helpful Information

- Handle a diskette by its edges. Do not touch diskette surfaces that show through in the center of the diskette cover.
- If you want more information about diskettes, refer, at your leisure, to Appendix B in the Rainbow MS-DOS Version 2.11 User's Guide.

Starting the Operating System

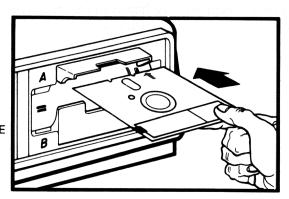
The Rainbow computer operates with a group of instructions called an operating system that controls the overall functioning of the computer. You are using an operating system known as MS-DOS.

When the Main System Menu, shown in the section called "Turning on the Rainbow Computer," is displayed on the screen, you can start the operating system. Proceed with the following instructions.

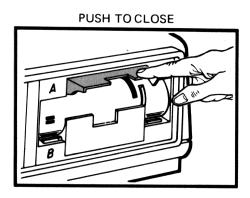
Inserting the master system diskette into a horizontal unit

- 1. If the drive A door is closed, open it.
- 2. With the diskette label facing **up** and the write-protect tab on the **left**, insert the diskette into drive A.

ALIGN ORANGE ARROW ON DISKETTE WITH THE ORANGE STRIPE ON THE DISKETTE DRIVE



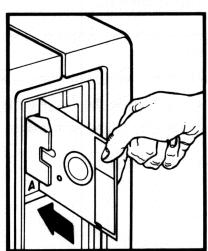
3. With the diskette securely in drive A, close the drive door by pushing on the outside of the open door. If the door does not close easily, make sure the diskette is fully inserted.



Inserting the master system diskette into a vertical unit

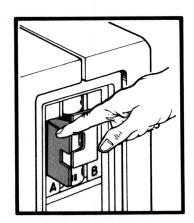
- 1. If the drive A door is closed, open it.
- 2. With the diskette label on the left and the write-protect tab facing down, insert a diskette into drive A.





3. With the diskette securely in the drive, close the door by pushing on the outside of the open door. If the door does not close easily, make sure the diskette is fully inserted.

PUSH TO CLOSE



On the keyboard, press:

Α

in response to the Main System Menu.

Helpful Information

- Pressing A tells the computer which drive contains the system diskette.
- You will hear clicking and whirring sounds from the drive.
- A small light beside the drives turns on briefly.
- You will see the following message:

Loading MS-DOS ...

 After the clicking and whirring sounds stop, the operating system displays the start-up message as shown below.

Copyright 1984 Digital Equipment Corporation

Microsoft MS-DOS version 2.11 Copyright 1981,82,83 Microsoft Corp.

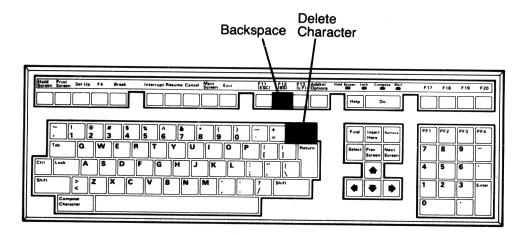
Command v. 2.11 Current date is Sat 9-01-1984 Enter new date:

- The version number of the operating system is displayed along with the copyright date. The numbers on your screen may be different from the numbers shown in the previous illustration.
- If the entire start-up message is not displayed as shown, follow the instructions in the message at the top of the screen.

Setting the Date and Time

Notice that the last symbol displayed on your screen is a blinking rectangle. This symbol is called a cursor. The cursor shows you where the next character you type will be displayed on the screen. The cursor is showing you where to enter today's date.

After you enter the date and the time, press the Return key to send those instructions to the computer. If you discover a typing error before you press the Return key, use the delete character key or the backspace key to erase one letter at a time. The delete character key is located above the Return key and is marked with an X. The backspace key is labeled BS on the keyboard label strip. These keys are shown in the illustration below.



1. Enter today's date using the following format:

mm-dd-yy

For example, you would enter November 24, 1983 as:

11-24-83

Type in the current date and press the Return key.

The MS-DOS operating system displays the current time and asks you:

Enter new time:

2. Enter the current time using the following format:

hh:mm

Note that the operating system uses a twenty-four hour clock. For example, 7:30 a.m. is typed as:

7:30

and 7:30 p.m. is typed as:

19:30

3. When you have entered the correct time, press the Return key. You will see:

A>

Congratulations! You have now successfully started the MS-DOS operating system.

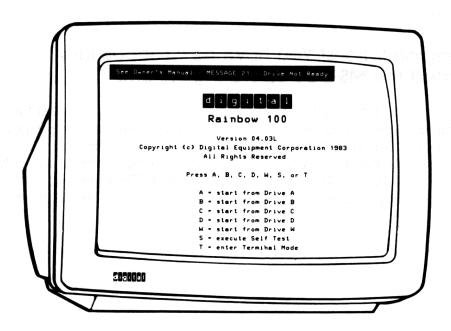
The last symbol displayed on the left side of the screen, A>, is called the operating system prompt or prompt. The computer displays this prompt to indicate that it is waiting (or prompting) for instructions from you. The prompt consists of the name of the drive the operating system is currently accessing (A, B, C, or D) and a right angle bracket. The drive that is currently being accessed is also known as the active or the default drive.

Messages

While you are using the computer, unexpected messages could display on the screen. There are many possible reasons for these messages. For example, the computer could find a problem while you are running a program. (A program is a collection of instructions to the computer.) If you see a message that begins with

See Owner's Manual -

refer to the messages section of the Rainbow Owner's Manual. For all other messages, refer to the Rainbow MS-DOS Version 2.11 User's Guide. The illustration below shows an example of a message. You see this message if you have inserted a diskette incorrectly.



The *Rainbow MS-DOS Version 2.11 User's Guide* lists all operating system messages in alphabetical order and explains how to solve the problem that causes each message.

Resetting the Rainbow Computer

Resetting the computer is like turning it off and then on again without pressing the power switch. It allows you to start over without having to remove the diskettes. When you reset the computer, it acts as though it were just turned on, and displays the Main System Menu.

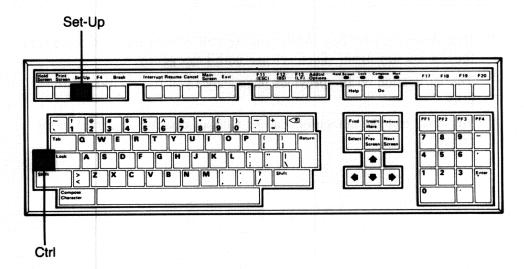
Helpful Information

- You may need to begin again if the computer does not respond as expected. For example, if the Main System Menu is not displayed after you turn the power on, simply reset the computer.
- Resetting works only when the computer is already turned on.

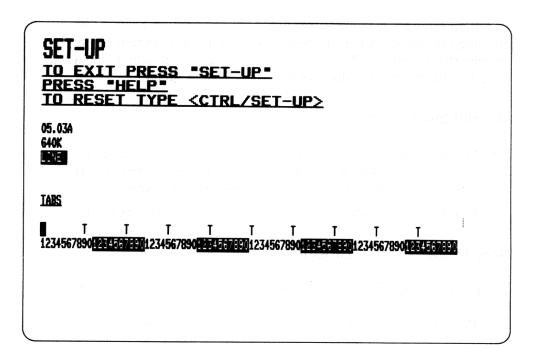
How to Reset the Computer

Practice resetting the computer now by following the instructions below:

1. Press the Set-Up key shown in the illustration below.



Then the text on your screen should look like the screen below.



2. Hold down the Ctrl key. While you are still holding the Ctrl key, press the Set-Up key again. Then release both keys gently.

The illustration on the previous page shows you the location of these keys.

You can reset the computer with or without diskettes inserted in the drives.

The computer displays:

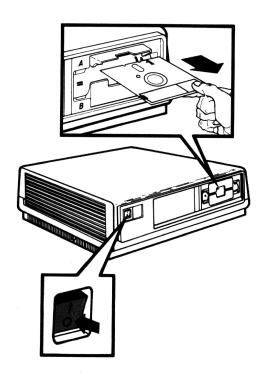
TESTING...

In about eight seconds, the computer again displays the Main System Menu.

Turning off the Computer

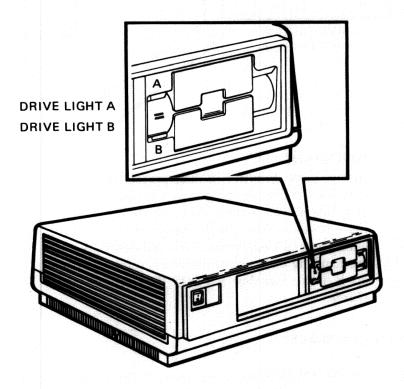
This section describes how to turn the computer off. However, if you are using the computer for the first time, leave it on with the master system diskette in drive A, and proceed to the section called "What To Do Next" on page 28.

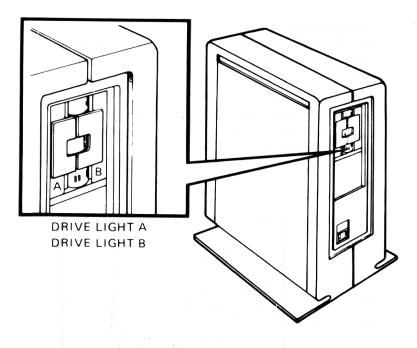
To end an operating session, remove all diskettes before turning the computer off. Then turn the computer off by pressing the power switch to 0.



IMPORTANT

Do not remove a diskette from its drive while the operating system is accessing information on it. This activity is easy to detect because the small lights beside each drive are lit when the operating system writes to or reads from a diskette. The illustrations below and on the following page show the location of these lights.





IMPORTANT

Always place diskettes in their protective paper envelopes and store them in a safe place. Keep diskettes in close-fitting, dust-tight boxes. Store these boxes in rooms with consistent temperature, humidity, and cleanliness. For a full description of the handling and care of diskettes, refer to Appendix B of the *Rainbow MS-DOS Version 2.11 User's Guide*.

What To Do Next

Press A to start the MS-DOS operating system. Then read Chapter 2 and follow the instructions to make a copy of the MS-DOS master system diskette that is currently inserted in drive A.

Copying a Diskette

This chapter explains how to format and copy a diskette. As an example, the chapter describes how to make a copy of the MS-DOS master system diskette that is currently inserted in drive A.

Why Copy a Diskette?

It is important to copy or back up all diskettes because a diskette can be accidentally damaged or lost. By making copies of your diskettes, you generate working copies and can store the original, master diskettes. The stored diskettes can then be used to make copies, if necessary.

You should back up all your diskettes regularly. To do this use the FORMAT and DISKCOPY programs. The FORMAT program gives a diskette a format or organization that the MS-DOS operating system understands. The DISKCOPY program copies the entire contents of one diskette onto another diskette.

Making a Working Copy of the Master System Diskette

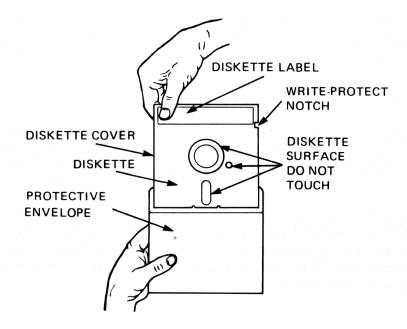
To copy the files from the MS-DOS master system diskette in drive A, you must first insert a blank diskette into drive B and format that diskette for MS-DOS. You copy the MS-DOS master system diskette onto this new diskette.

Preparing the Blank Diskette

sienia o privoc

Before you use a blank diskette, you must use the FORMAT program to prepare it. This ensures that the diskette is compatible with the MS-DOS operating system on the Rainbow computer. To format the blank diskette, follow the steps below:

1. Remove the diskette from its protective paper envelope.



2. Open drive B and insert the diskette. Be sure there is no tab protecting the write-protect notch. If there is, remove it. Otherwise, you will not be able to copy the diskette.

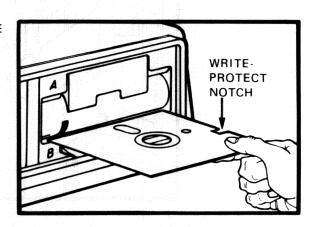
Horizontal unit

With the label facing down and the write-protect notch on the right, insert the diskette into drive B.

NOTE

Your blank diskette might not have a label.

INSERT DISKETTE
"UPSIDE DOWN"
IN DRIVE B

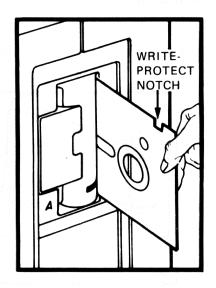


• Vertical unit

With the label on the **right** and the write-protect notch facing **up**, insert the diskette into drive B.

NOTE

Your blank diskette might not have a label.



- 3. Close drive B by pushing on the outside of the open door.
- 4. In response to the A> prompt, type:

A>FORMAT B:/I Return

Remember that (Return) means to press the Return key.

IMPORTANT

When using the FORMAT program, you must include the name of the drive that contains the blank diskette. If you do not include the name of the drive, the MS-DOS operating system displays a message. If this happens, see the messages section in the *Rainbow MS-DOS Version 2.11 User's Guide*.

The MS-DOS operating system displays a message similar to the following:

Rainbow Disk Formatter Version 2.7

WARNING!!! This program will destroy any data currently on your disk. Type <Ctrl/C> to stop.

Insert new diskette in drive B: and strike any key when ready

5. Since your blank diskette is already in drive B, press any key on the keyboard to tell the MS-DOS operating system you are ready.

After you press a key, the operating system displays:

Volume label (11 characters, <Return> for none)?

Volume labels are used to identify diskettes; they are like name tags for each diskette.

6. If you want to use a volume label to name the diskette, after the question mark, type:

```
Volume label (11 characters, (Return) for none)? MYDISKETTE (Return)
```

This gives your diskette the volume label, MYDISKETTE.

If you do not want to assign a label, press the Return key. You will see a message on your screen similar to:

```
393216 bytes total disk space
393216 bytes available on disk
```

Format another (Y/N)?

7. To end the FORMAT program, type:

```
Format another (Y/N)?N
```

The MS-DOS operating system then displays the system prompt:

A>

Copying the Master System Diskette

The DISKCOPY program copies the contents of one diskette to a different diskette. In the example below, you will copy the contents of the MS-DOS master system diskette in drive A to the new diskette in drive B.

The DISKCOPY program takes a few minutes to complete.

1. After the A>, type:

A>DISKCOPY A: B: Return

Remember that (Roturn means to press the Return key.

The screen displays the text shown below:

A>DISKCOPY A: B:

Insert source diskette in drive A: Insert formatted target diskette in drive B: Strike any key when ready | 2. Because you already have the correct diskettes in drive A and drive B, press any key as indicated on the screen. The MS-DOS operating system begins copying the master diskette and displays the message:

Copying....

After the operating system has copied the diskette, DISKCOPY asks you:

Copy another (Y/N)?

IMPORTANT

If you see any messages while you are copying, refer to the discussion of the DISKCOPY command in the *Rainbow MS-DOS Version 2.11 User's Guide*.

3. To end the DISKCOPY program, after the question mark type:

Copy another (Y/N)?N

The system prompt, A>, is then displayed.

Congratulations! You have now successfully created a copy of the MS-DOS master system diskette.

Removing and Storing the Master System Diskette

To end this copying session:

- Open the drive A door and remove the MS-DOS master system diskette.
- Return this diskette to its protective envelope and store it in a safe place. By storing this master diskette, you are preserving a reliable diskette from which to make future copies of the operating system if the diskette you use daily is damaged or lost.
- 3. Open the drive B door and remove the newly copied diskette.
- 4. On a spare label, write "MS-DOS Working" with a felt-tip pen.

IMPORTANT

If the label is attached to the diskette, do not use a ball-point pen or a pencil as these can damage the diskette.

5. Attach the label to the front of the diskette. Use this "working" copy for your everyday operations.

Looking at the Diskette Directory

Each diskette contains files, which are collections of information. Each diskette also contains a list of all files called a directory, which is similar to a book's table of contents. The directory lists the files stored on the diskette.

To display the names of files that are stored in the MS-DOS diskette:

1. Insert your diskette with the working copy of the MS-DOS operating system into drive A.

2. After the A>, type:

```
A>DIR (Return)
```

The operating system displays the following message:

```
Volume in drive A is MS-DOS V2.11
Directory of A:\
```

After this message, a list of file names similar to those on the screen below appears.

```
15973
                       8-10-84
CONFIG
         SYS
                  17
                       8-29-84 12:27a
         SYS
                  953
                       9-27-83
MDRIVE
         COM
                 873
CHKDSK
         COM
                 6468 10-19-83
FORMAT
         COM
                19414
DISKCOPY
         COM
                1409 10-19-83
PRINT
                3808
EDLIN
                8080 10-19-83
         EXE
EXE
FIND
                6331 10-19-83
                2585
                      10-19-83
                                 7:51p
SYS
         COM
                 922 10-19-83
RECOVER COM
                2295 10-19-83
         COM
                4364
                      10-19-83
LINK
         EXE
                42368
DEBUG
               12223 10-19-83
MEDIACHK EXE
                1396 10-10-83
RDCPM
                9194 10-14-83
BACKUP
        EXE
               71146
CREF
         EXE
               13824 10-19-83
        EXE
               81266
                       9-01-84
2-17-84
SETPORT EXE
               34804
EXE2BIN EXE
                1649 10-19-83
        EXE
                1632
1056
SORT
MODE
XATTACH COM
XDETACH COM
                1302
LDCOPY COM
                5888 10-01-84
      28 File(s)
                     11264 bytes free
AX
```

Helpful Information

- The names on your screen may not be the same, but they should be similar to the examples on this screen.
- Remember that nothing you type on the keyboard will damage the computer.
- You can type instructions to the operating system in lowercase or uppercase characters. To produce uppercase characters, use the Shift or Lock keys.
- If you make a typing mistake, but have not yet pressed the Return key, you can correct it by using the delete character or the backspace keys. The delete character key is located above the Return key, marked with an X. The backspace key is labeled BS on the labelstrip.

If you made a mistake but already pressed the Return key, the operating system displays the message:

Bad command or file name

followed by the system prompt, A>. For example, if you type:

A> DIRR (Return)

the operating system responds with:

Bad command or file name

A>

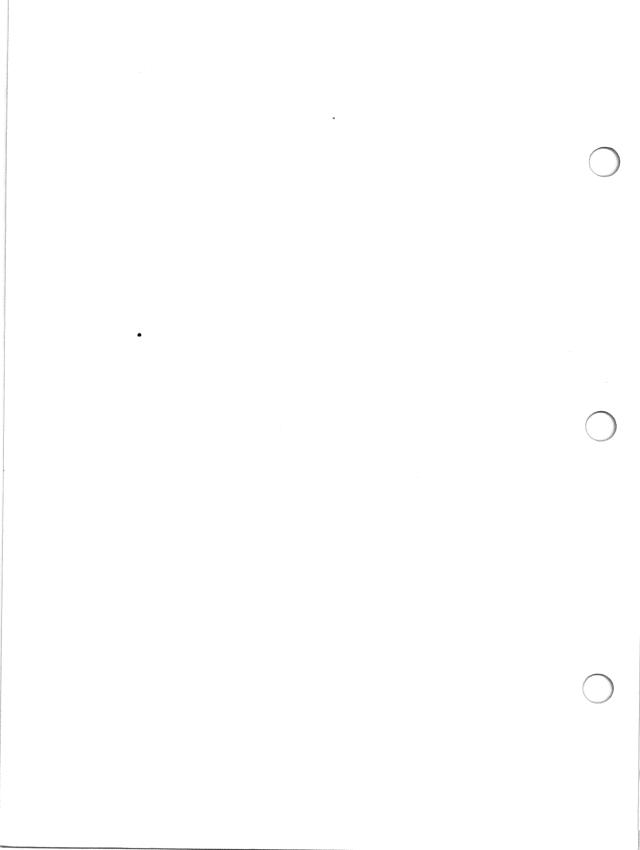
When the MS-DOS operating system displays the prompt, A>, you can type the correct instruction to the operating system.

What to Do Next

At this point, you are ready to begin working with the computer. You may wish to do any of the following:

- Make a copy of an application diskette.
- Create and edit a document using a word processing program.
- Run an application program.
- Make a single diskette with both the system programs and the application programs on it.
- Read the *Rainbow MS-DOS Version 2.11 User's Guide* for information about:
 - Using MS-DOS commands
 - Creating and editing a document using the MS-DOS text editor,
 EDLIN and the special editing keys
 - End the session by removing all diskettes and turning the power switch to position 0.
- Read the *Rainbow Using the Hard Disk* to install and use the hard disk with the MS-DOS operating system.

Appendix



A

Getting Help

Help Line Phone Numbers

Country	Phone Number
U.S.A.	(800) DEC-8000
Canada	(800) 267-5251
United Kingdom	(0256) 59 200
Belgium	(02)-24 26 790
West Germany	(089) 95 91 66 44
Italy	(02)-617 53 81 or 617 53 82
Japan	(0424) 64-3302
Denmark	(04)-30 10 05
Spain	(1)-73 34 307
Finland	(90)-42 33 32
Holland	(1820)-31 100
Switzerland	(01)-810 51 21
Sweden	(08)-98 88 35
Norway	(02)-25 64 22
France	(1)-687 31 52
Austria	(222)-67 76 41 extension 444
Australia	
Sydney	(02) 412-5555
All other areas	(008) 226377

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Rainbow™
MS™-DOS
Version 2.11
Getting Started
AA-EA05A-XV

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