AVL GENESIS

DESK TOP COMPUTER

INSTALLATION GUIDE

Audio Visual Laboratories, Inc.

CONTENTS

CHAPTER 1

INTRODUCTION

1.1 GENERAL INFORMATION

The AVL Genesis is a business and personal computer for the serious user who wants to run application programs quickly and efficiently.

Packed into a compact design, the AVL Genesis is a business computer system that combines the performance of a personal computer with an array of features and software which include professional audio visual capabilities.

To meet the future computing needs of today's business, AVL provides a family of computer systems. This family approach ensures compatibility, expandability, and the capability to solve business problems. The inherent economics in this approach yields profitability through increased efficiency. Your AVL Genesis desktop will fit right in.

1.2 GENERAL INDEX

This manual is divided into the following chapters:

CHAPTER 1: **INTRODUCTION** - describes the contents of the AVL Genesis Installation Manual.

CHAPTER 2: **SYSTEM DESCRIPTION** - describes each piece of hardware that goes in to making up the system.

CHAPTER 3: **INSTALLATION** - outlines unpacking and inspection guidelines and describes the system installation and setup procedures.

APPENDIX A: **AVL GENESIS TECHNICAL SPECIFICATIONS**

CHAPTER 2

SYSTEM DESCRIPTION

2.1 GENERAL

This chapter introduces you to the basic components of the AVL Genesis Computer.

> NOTE: If you are unfamiliar with a term or abbreviation used in this manual refer to the Glossary.

The remainder of this chapter describes each piece of hardware that makes up AVL Genesis.

2.2 CENTRAL PROCESSING UNIT (CPU)

The main unit of the computer, referred to as the CPU, contains the main power ON/OFF control and disk drives. Inside the main unit is the Intel 8088 micro-processor, 256K bytes (expandable to 640K bytes) of RAM, and the circuits to control interfacing of all devices.

2.2.1 DISK DRIVES

The computer RAM or internal memory is a temporary storage area for creating,

correcting, and viewing data. When the computer is turned off, any information in that temporary memory is lost. A disk drive provides you with a permanent recording of data on a floppy disk.

Your AVL Genesis has two floppy disk drives (see Figure 2-1). The floppy disk drives use 5-1/4 inch, 48 TPI (tracks per inch) disks. Either single sided or double sided formatted disks can be used. Purchased software application program disks must conform to these specifications to be read by your Genesis. The disk drive lever locks the disk into place after insertion. If a disk is not loaded properly or the lever is not closed, your system will not be able to access the disk, resulting in a disk read error message on your screen.

The A Drive is used to boot operating systems from system disks and store (save) program and data files onto floppy disks.

The B Drive is principally used to load files to temporary storage and save or copy data files onto disks.

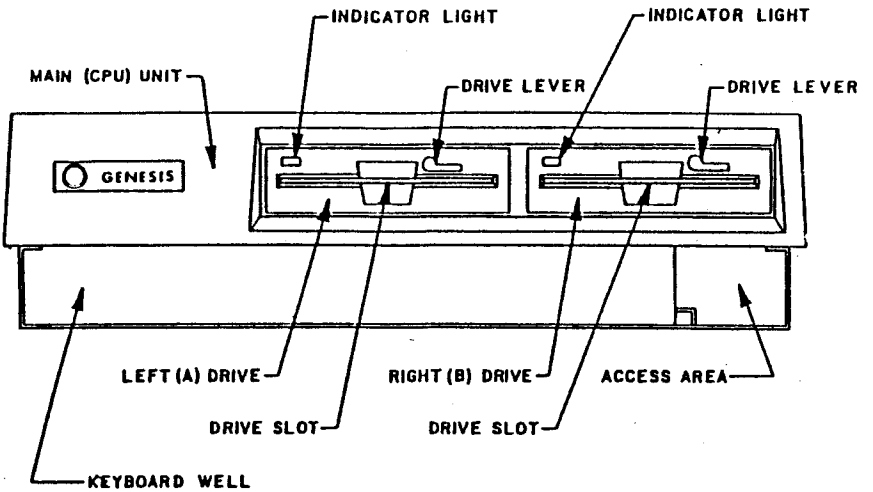

FIGURE 2-1 GENESIS FRONT PANEL

2.2.2 REAR PANEL

The rear panel (see Figure 2-2) has two male 25-pin RS-232 serial communication ports (COM1) and (COM2) and one 25-pin female parallel port (LPT1). The serial

port allows you to interface with a variety of serial devices like serial printers or modems. The parallel port is the communications connection for parallel printers. Refer to Chapter 6: Printers, for information about serial and parallel printers.

The panel also contains the multi-image input and output jacks. The Kodak type Remote Cue jack is used to advance or reverse AVL Genesis from a remote location. The XLR type Out1 and Out2 jacks are for sending program data to dissolve units. The XLR type Play In jack is used for loading all incoming data: load programming information stored on magnetic tape; verify saved tapes; play data through Genesis without entering it into memory, in the MT (magnetic Tape) BYPASS MODE; and input sync and timing pulses.

The main unit rear panel also contains the ON/OFF switch, the power outlet for the user supplied video monitor, and the main unit power cord connection. The ON/OFF switch supplies power to the system. When the red circle is showing, the power is off.

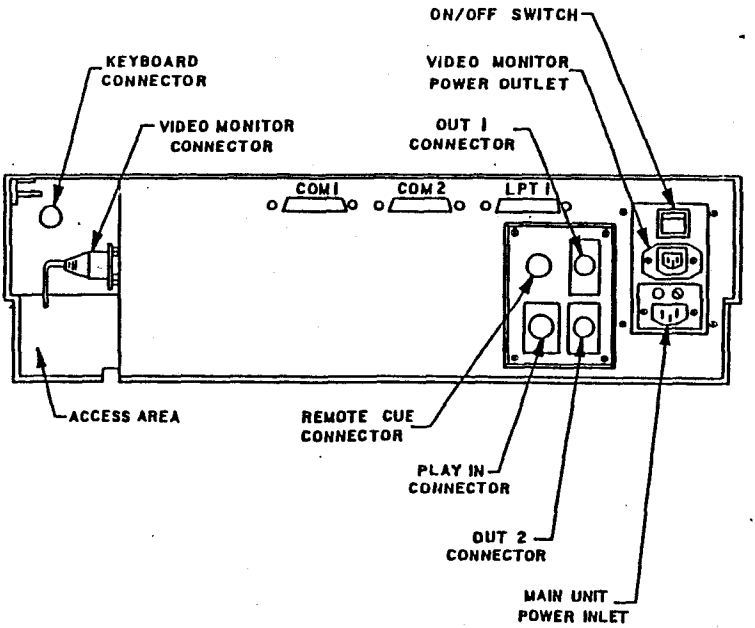

FIGURE 2-2 GENESIS REAR PANEL

2.2.3 ACCESS AREA

The Access Area (see Figure 2-3) has a side panel door with a magnetic catch. The door can be opened by inserting your fingers into the access area through the rear opening and pushing the door open.

The side panel provides access to the connectors for the keyboard and video display monitor. The Access Area also has three input/output RCA type jacks. The middle RCA jack (Out1) and the top RCA jack (Out2) are used to send programming data to the dissolve units or other interfacing equipments. The bottom RCA jack (Play In) is used to input all incoming data and sync pulses.

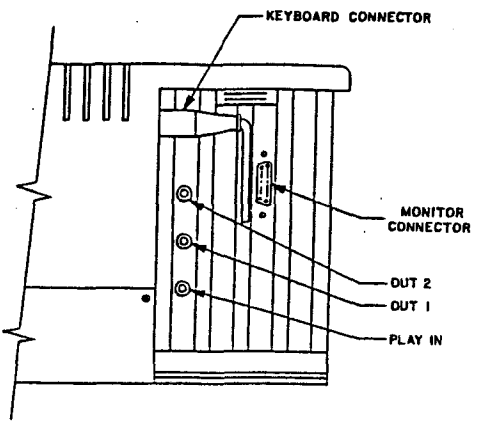

FIGURE 2-3 GENESIS ACCESS AREA

2.3 KEYBOARD

The keyboard (see Figure 2-4) is a separate unit attached to the main module by a lengthy cord to allow for individual placement. The keyboard contains 84 keys, including 10 function keys and a complete numeric keypad. Refer to the following pages for a brief description of the keyboard components. Refer to Using the Keyboard in Section 3 for more information on all the functions of the keys.

When closing up the system, slide the keyboard underneath the main unit.

2.3.1 MAIN KEYBOARD

The main section of the keyboard on the Genesis is similar to a standard typewriter. (Refer to Figure 2-1). You will find three shift keys, two are identical and act exactly as found on a standard typewriter. The third shift key, Caps Lock, shifts only the letters into uppercase. A convenient LED display on the Key will indicate whether or not the Caps Lock function is in use.

2.3.2 KEYPAD

The calculator keypad, like the keypad on an adding machine or calculator, is used for entering numbers and mathematical expressions. The keypad consists of 14 keys: numbers 0-9, decimal point (.), plus (+), minus (-), and asterisk (*) keys.

The keypad keys will also control cursor movement when used with certain software packages. In those instances, the [NUM LOCK] key is pressed (LED light on), the keypad keys are used as numeric keys.

2.3.3 FUNCTION KEYS

The gray keys to the left of the main keyboad, labeled F1-F10, are called FUNCTION KEYS. They perform special functions which will differ depending upon the software program used.

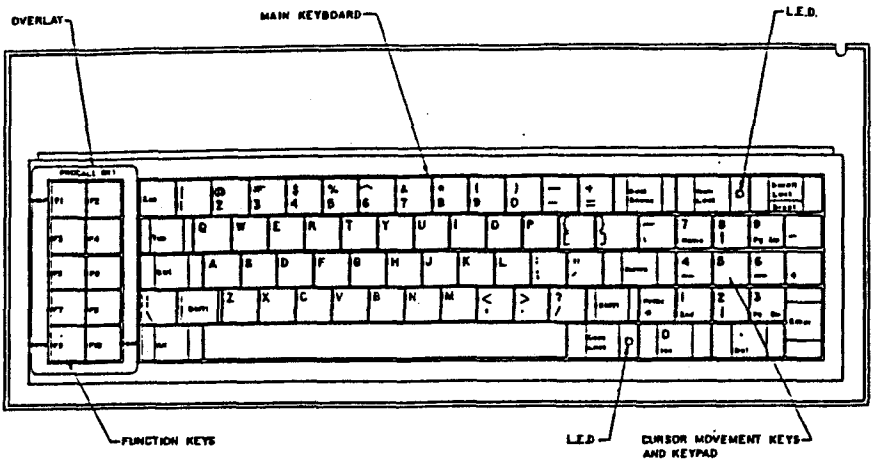

FIGURE 2-4 GENESIS KEYBOARD

2.4 VIDEO DISPLAY MONITOR

The video display monitor is a high resolution (720 x 350 pixels) CRT with a green nonglare screen.

The monitor can be conveniently placed on top of the main system enclosure for best visability.

Refer to Figure 2-5 for an illustration of the monitor.

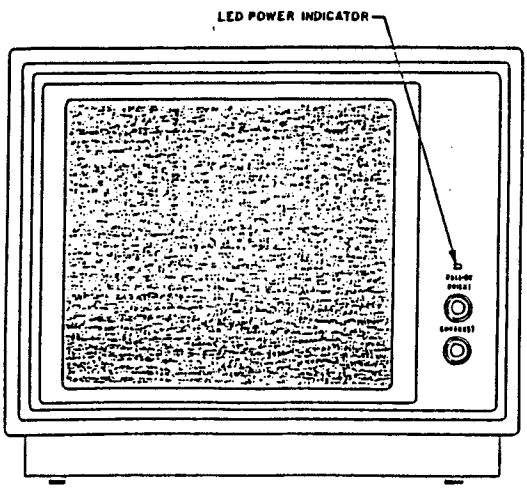

FIGURE 2-5: GENESIS DISPLAY MONITOR

2.5 KEYBOARD OVERLAY

The keyboard overlay fits over the function keys as shown in Figure 2-4. It names key F1 HELP, F9 REV Q, And F10 CUE. HELP, REV Q, and CUE are used when programming in PROCALL-X and PROCALL-5. Refer to Figure 2-6 for an illustration of the overlay.

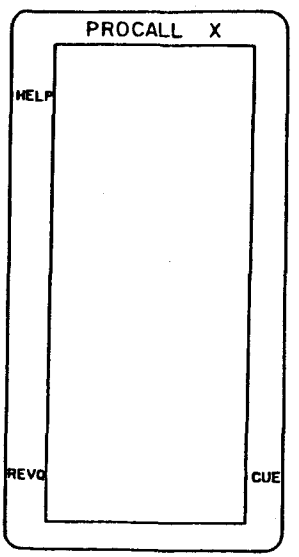

FIGURE 2-6 GENESIS KEYBOARD OVERLAY

NOTES:

CHAPTER 3

INSTALLATION

3.1 GENERAL

The AVL Genesis Computer is a well designed system which can be easily unpacked and installed for immediate use.

The following topics are covered in this chapter:

* Site Requirements
* Electrical Requirements
* Initial Unpacking and Inspection
* Installation and Set-up Procedure
* System Description
* Transporting Your System

Before removing the computer from its shipping box, save yourself some time and trouble by taking a few moments to read about site requirements and the unpacking precautions.

3.2 SITE REQUIREMENTS

The compact, portable design of your computer allows you considerable flexibility in choosing a suitable location. Most office and residential environments are fine; however, extremes of temperature and humidity should be avoided (Refer to Appendix A).

3.3 ELECTRICAL REQUIREMENTS

Before plugging in the computer's power cord, make certain the following listed requirements are met.

a. A properly Grounded 3-hole outlet.

b. Correct AC line voltage: 110 VAC, 60 Hz, or 220 VAC, 60 Hz.

c. Motor driven appliances such as refrigerators, copiers, etc., should be plugged into a separate circuit.

WARNING: The Genesis operates on either of the above voltages, but not both because of differences in fuses and power supplies. Use the correct voltage for your machine.

3.4 INITIAL UNPACKING AND INSPECTION

Keep the shipping container in an upright position until the unit is unpacked.

Save the shipping container and packing material. Should you need to repack the computer for moving, the original container provides the best protection for the system.

If the system is returned for repair, the computer must be in the original shipping container; otherwise AVL will not accept it for servicing.

When unpacking the system, inspect it for any evidence of shipping damage. If you find any evidence of damage, stop unpacking, replace the system in the container, and notify your dealer immediately.

STEP 1 Place the shipping container upright on a flat work surface. Clear another large flat work surface for the computer system once it is removed from the shipping container.

STEP 2 Cut the strapping and open the top of the container.

STEP 3 Place a hand under each side of the system and carefully lift it out. Place it on the cleared work surface.

STEP 4 Remove the foam shipping blocks, packing material, and manuals.

STEP 5 Check to see that the items listed below have been shipped with your Genesis:

a. Computer with keyboard

b. AVL Genesis Operator's Manual

c. MS-DOS Operating System Manual

d. PROCALL-X User's Guide

e. PROCALL-5 User's Guide

STEP 6 If the system is found to be damaged, or if one of the items listed is missing, contact your dealer.

3.5 INSTALLATION AND SET-UP PROCEDURE

STEP 1 Place the video monitor next to or on top of the main unit.

STEP 2 Connect the video monitor power cord into the power socket on the main unit rear panel. Refer to Figure 3-1.

STEP 3 Connect the video monitor interface cable to the 9-pin video monitor connector in the side panel access area. Refer to Figure 3-1.

STEP 4 Remove the cardboard insert from each floppy disk drive. Save this insert. You will need to reinsert it in the drive to protect the drives when you transport your system.

WARNING: Be sure to remove the cardboard inserts before turning on the power. If left in place, the insert could damage a floppy disk drive motor.

STEP 5 Make sure the power ON/OFF switch, located on the rear panel of the main unit, is in

the OFF position. (The red circle on the switch should be showing). See Figure 3-1.

STEP 6 Check that the power voltage listed on the product label on the system's rear panel matches the voltage of your power outlet. (Refer to ELECTRICAL REQUIREMENTS earlier in this section).

STEP 7 Plug the power cord into a grounded, 3-hole AC outlet.

You are now ready to use your computer.

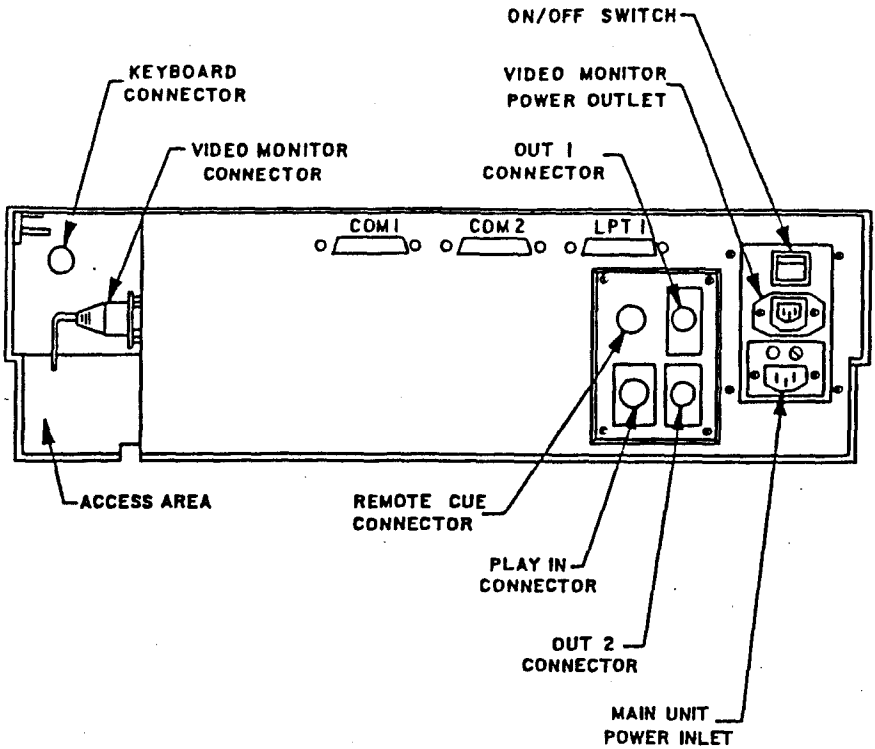

FIGURE 3-1 REAR PANEL CONNECTORS

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CHAPTER 4

USING YOUR GENESIS COMPUTER

4.1 GENERAL

Once you have unpacked and set up your computer, you are ready to begin operation. At this point, the exact procedures you perform will depend upon what system and software you have. The basics of running your system will be presented in this section.

Information regarding floppy disks is presented first in this section. Following that will be a discussion of operating systems and instructions for booting up (loading system software) from a floppy disk. A description on using the keyboad is presented, followed by a discussion of the proper way to turn off your system, and general preventive maintenance.

4.2 FLOPPY DISKS

When using your software for the first time, you should backup your initial master set of application software onto floppy disks. The master set should then be stored away, to restore your copies if problems occur. When you

purchase additional application software, you should also make duplicate copies before use.

> **NOTE:** When purchasing disks for your system, be sure to ask for 5-1/4 inch, double-sided, double density, soft sectored disks.

4.2.1 DISK CARE

A floppy disk is a circular piece of mylar plastic coated on one or both sides with a magnetic material. The disk is enclosed in a plastic or paper jacket to protect it from fingerprints, dust, and other contaminants. Refer to Figure 4-1 on the next page.

The oblong cut out in the protective jacket permits the read/write disk drive head to contact the exposed magnetic portion of the disk surface to record your information. Never touch this portion of the disk; oils from your fingers can contaminate the disk surface.

The square write-protect notch on the edge of the disk prevents unwanted or accidental erasure of information. When the notch is covered with a small adhesive tab accompanying the disks, the

disk can be read, but no information can be written onto or erased from the disk. You may write information on the disk only when the notch is left uncovered.

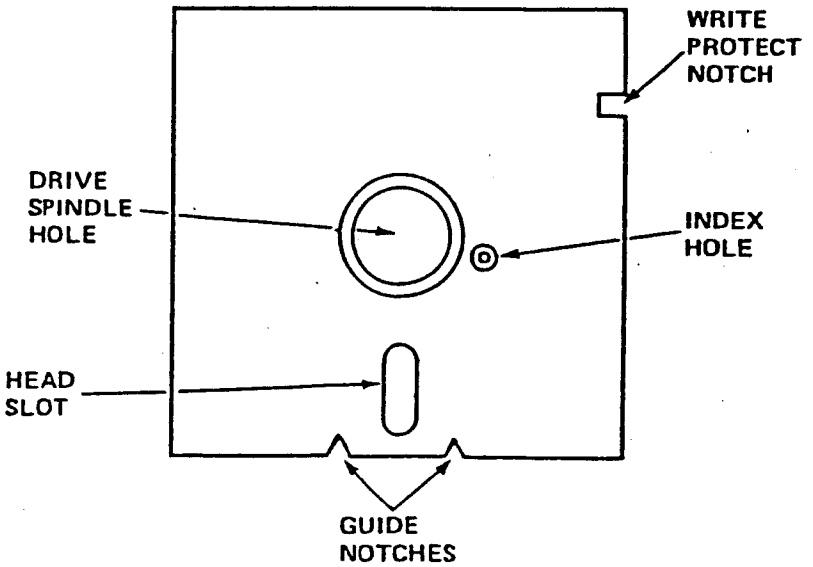

FIGURE 4-1 FLOPPY DISK

4.2.2 HANDLING PRECAUTIONS

Floppy disks are fragile and can be easily damaged if improperly handled. Your disks will soon be storing the results of hundreds of hours of valuable time and should be treated carefully. Heed the simple precautions outlined below to insure the continued good health of all your disks.

* Do not bend or fold the disk. The magnetic coating will crack and you will lose your stored information.

* Do not insert or remove a disk when the disk drive indicator light is on. Pulling the disk out with the indicator light on can damage the disk's stored information.

* Do not use paper clips, rubber bands, or tape on the disk.

* Do not touch or attempt to clean the exposed surfaces of the disk. Any scratches or oil deposits can cause loss of stored data.

* Keep the disk away from magnetic fields, which can destroy a disk's data. Many common devices such as

telephones and paper holder stands use magnets.

* Do not eat, drink, or smoke when handling disks.

* Replace the disk if it becomes physically damaged, or if the recording surface becomes contaminated. Discard damaged disks.

* Make duplicate copies of your disks on a regular basis.

4.2.3 FORMATTING A DISK

Before a new disk can store your programs and files, it has to be formatted. Formatting magnetically divides the disk into tracks and sectors (See Figure 4-2) which the AVL Genesis computer uses as reference points when storing and reading your files. For instructions on formatting disks, please refer to MS-DOS 2.0 Utility Procedures.

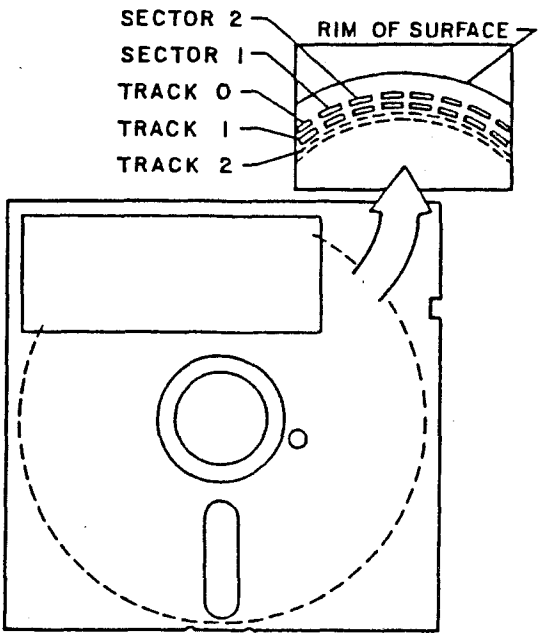

FIGURE 4-2 DISK SKELETON VIEW

4.2.4 LABELING DISKS

It is important to label your disks carefully. The label should state what is stored on the disk and whether it is a master, working, or backup disk. Other notations, such as which operating system is required, can also be valuable label information.

To label your disk, fill out one of the adhesive labels that accompany the disk package BEFORE you attach it to the disk.

> **CAUTION:** Writing on a label attached to a disk with a ball-point pen or pencil can gouge the recording surface, resulting in the loss of stored information. If you must write on a label which is already attached to a disk, then use a felt-tipped pen and press lightly.

4.2.5 STORING DISKS

Always replace the disk in its protective envelope after you remove it from the disk drive, even if you plan to reinsert it in a short time.

There are many ways to store your disks. We recommend that you store them upright in a hard plastic container (Refer to Figure 4-3 Disk Storage Case) or in plastic disk pockets like the one included with this manual. Label your containers or disk pockets for easy reference. Both storage items can be purchased from your local authorized AVL computer dealer.

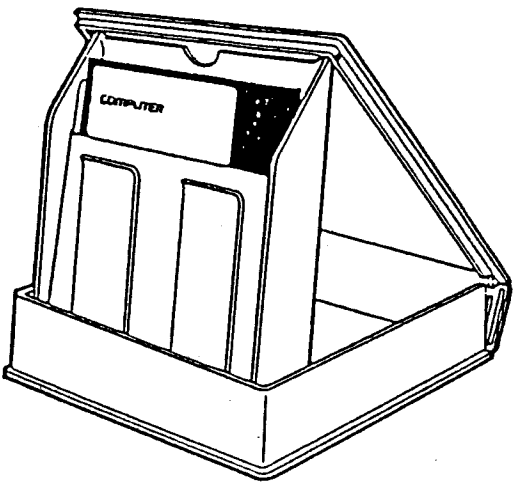

FIGURE 4-3 DISK STORAGE CASE