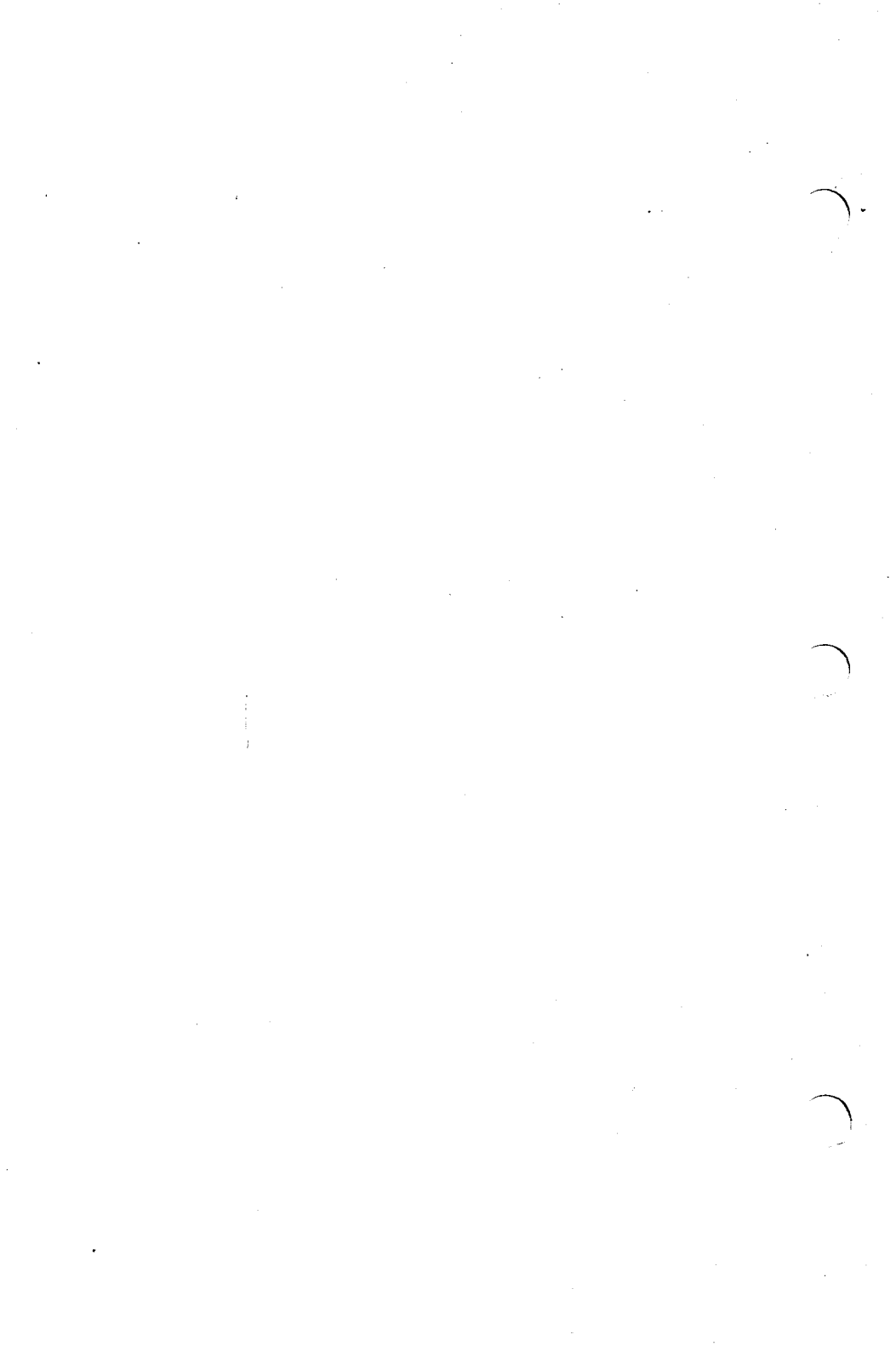


**AVL GENESIS
PORTABLE COMPUTER
INSTALLATION GUIDE**

Audio Visual Laboratories, Inc.



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CHAPTER 1

INTRODUCTION

1.1 GENERAL INFORMATION

The AVL Genesis Portable 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 Portable 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 Portable computer will fit right in.

1.3 GENERAL INDEX

This manual is divided into the following chapters:

CHAPTER 1: INTRODUCTION - gives you general information about the computer, and the documentation that comes with it.

CHAPTER 2: SYSTEM DESCRIPTION - introduces the basic components of the AVL Genesis Portable.

CHAPTER 3: SYSTEM REQUIREMENTS AND INSTALLATION - outlines unpacking and inspection guidelines. Also describes the system installation and setup procedures.

APPENDIX A: AVL GENESIS PORTABLE TECHNICAL SPECIFICATIONS

CHAPTER 2

SYSTEM DESCRIPTION

2.1 GENERAL

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

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 microprocessor, 256K bytes (expandable to 640K bytes) of RAM, and the circuits to control interfacing of all devices.

2.2.1 FRONT PANEL

The front panel (Figure 2-1) consists of the display screen, the brightness and contrast controls, the ON/OFF switch, and two disk drives. The display and drives are discussed in the subparagraphs that follow.

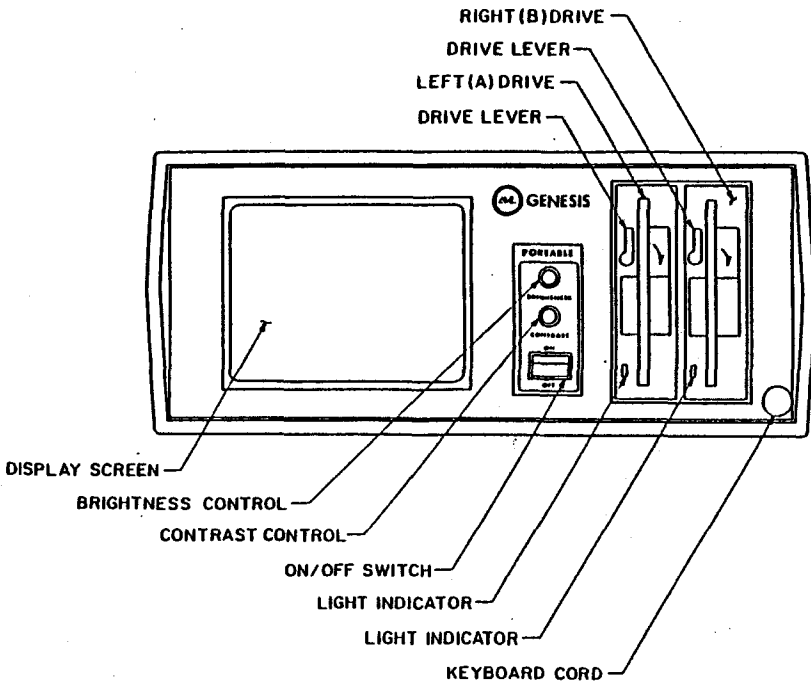


FIGURE 2-1 GENESIS PORTABLE FRONT PANEL

2.2.1.1 VIDEO DISPLAY MONITOR

The video display monitor is a high resolution (640 x 200 pixels) CRT with a green nonglare screen. It displays 80 characters by 25 lines.

The monitor is conveniently located to the left of the enclosure for best visibility.

2.2.1.2 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 Portable 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 AVL Genesis Portable. 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.

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 Using Genesis User's Guide 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 the AVL Genesis Portable from a remote location. The XLR type Out1 and Out2 jacks are for sending program

data to dissolve units. The XLR type Data In jack is used for loading all incoming data: load programming information stored on magnetic tape; verify saved tapes; play data through Genesis Portable 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 the main unit power cord, the fuse, and the additional keyboard connector.

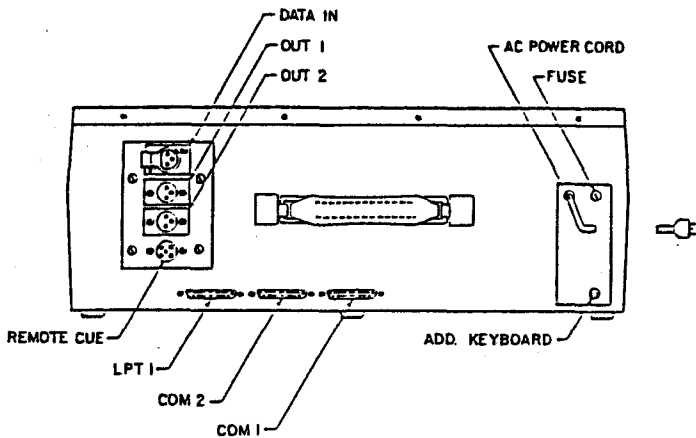


FIGURE 2-2 GENESIS PORTABLE REAR PANEL

2.2.3 ACCESS AREA

The Access Area (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 RCA and video display monitor. It contains the following:

- a. RCA JACKS The middle RCA jack (OUT1) and the bottom RCA jack (OUT2) are used to send programming data to the dissolve units or other interfacing equipment. The top RCA jack (Data In) is used to input all incoming data and sync pulses.

- b. VIDEO OUT JACKS The top Composite RS-170 Video Out jack is an NTSC jack used with monochrome or color monitors. The bottom RGB Video Out jack is used with higher resolution monitors. (See Appendix A for pin outs.)

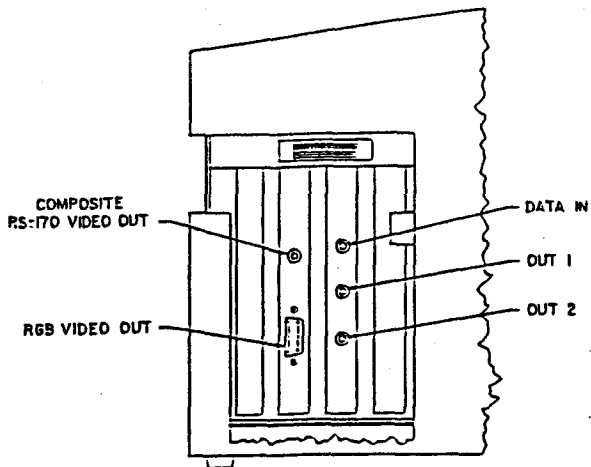


FIGURE 2-3 GENESIS ACCESS AREA

2.3 KEYBOARD

The keyboard (see Figure 2-4) is 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. For more information on all of the functions of the keyboard refer to Using Genesis User's Guide.

When closing up the system, set the keyboard into the front of the main unit and slide the fasteners towards the sides of the unit.

2.3.1 MAIN KEYBOARD

The main section of the keyboard on the Genesis Portable 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 keyboard, labeled F1-F10, are called FUNCTION KEYS. They perform special functions which will differ depending upon the software program used.

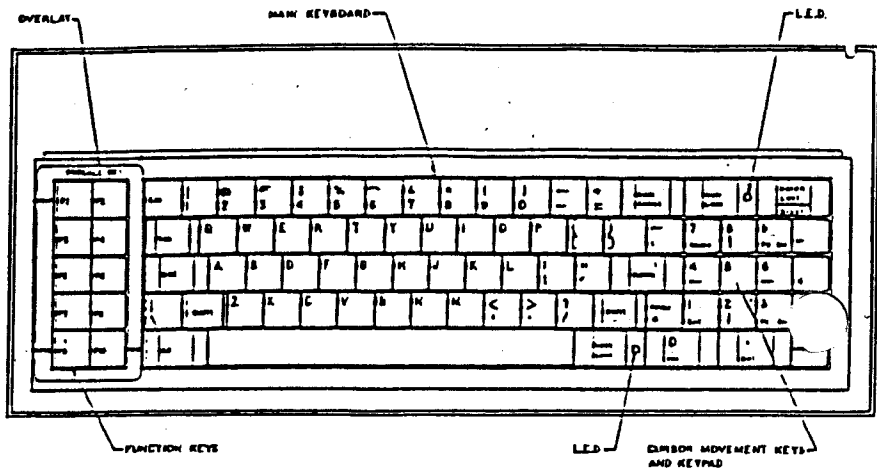


FIGURE 2-4 GENESIS PORTABLE KEYBOARD

2.4 KEYBOARD OVERLAY

The keyboard overlay fits over the function keys as shown in Figure 2-4. It names keys 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 2-5 for an illustration of the overlay.

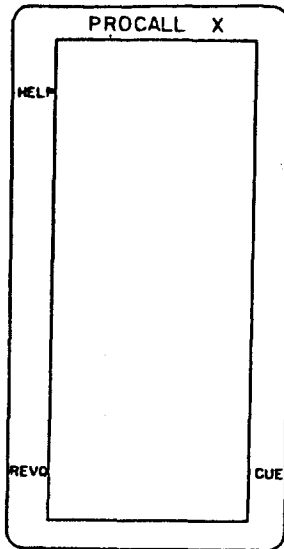


FIGURE 2-5 GENESIS KEYBOARD OVERLAY

NOTES:

CHAPTER 3

SYSTEM REQUIREMENTS AND INSTALLATION

3.1 GENERAL

The AVL Genesis Portable 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
- * Closing Up the System
- * Transporting Precautions

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 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 humidity and temperature 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 Portable 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 Portable:
- a. Computer with keyboard
 - b. AVL Genesis Portable Installation 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 To lower the keyboard and open up the Genesis Portable, slide the keyboard latches in the front to an open position (inwards). Lower the keyboard, rotating it along its lower edge, as the keyboard cable extends from the cable opening. Refer to Figure 3-1.

STEP 2 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 3 Make sure the power ON/OFF switch, located on the front panel of the main unit, is in the OFF position. (The red circle on the switch should be showing). Refer to Figure 2-1.

STEP 4 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 5 Plug the power cord into a grounded, 3-hole AC outlet.

You are now ready to use your computer.

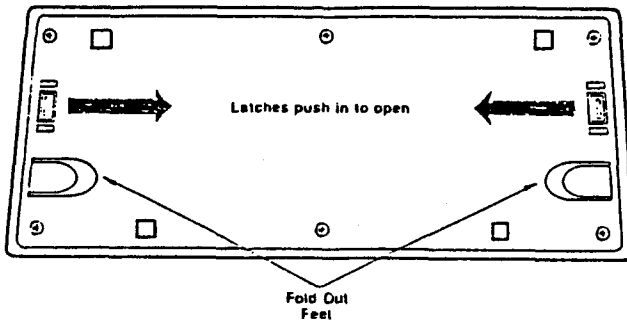


FIGURE 3-1 KEYBOARD BOTTOM

3.6 CLOSING UP THE SYSTEM

- STEP 1 Exit from the software program after saving your work, and return to the operating system prompt C>.
- STEP 2 Remove diskette from floppy drive.
- STEP 3 Type PD to run the power down program.

WARNING: Always run the "PD" program before turning off your system. This step will retract the hard disk drive read/write heads into a special shipping position. You can irreparably damage the hard disk by neglecting to perform this step.

- STEP 4 Turn the power switch to the OFF position (red circle showing).
- STEP 5 Disconnect the cables to the external devices and close the slot access panel door.
- STEP 6 Unplug the system and store the power cord in the rear

access area.

STEP 7 Place the cardboard insert in the floppy disk drive and close the drive level.

STEP 8 Raise the keyboard, rotating it along its lower edge, as you insert the keyboard cable into the front panel cable opening. Slide the keyboard latches outward to the lock position and fold the feet in (the reverse of Figure 3-1).

3.7 TRANSPORTING PRECAUTIONS

The Genesis Portable has been designed to fit under airline seats, and it is light enough to carry comfortably. The system is capable of enduring the usual bumps and jars, but it is not indestructible. We recommend that you personally handle the system when you travel to ensure its proper care and security.

Genesis offers a sturdy, attractive carrying case to transport your system. See your Genesis dealer for price and availability.

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 keyboard 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 sector 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.

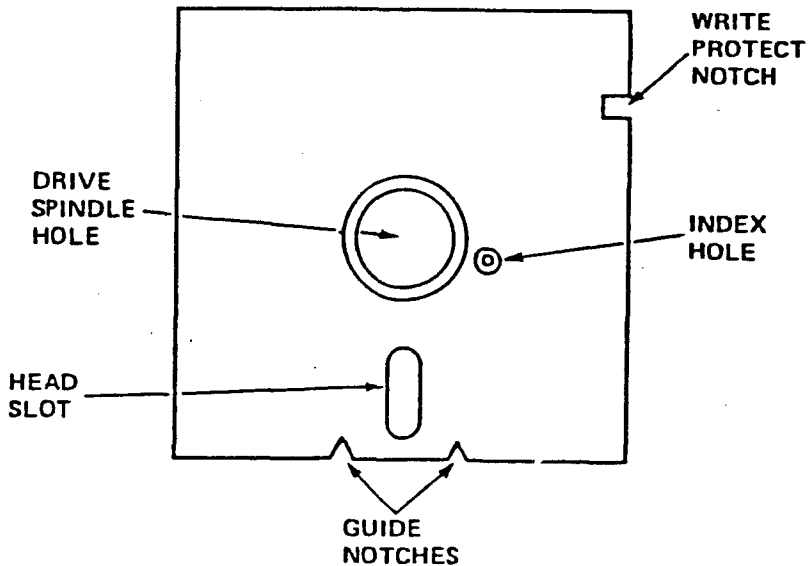


FIGURE 4-1 FLOPPY DISK

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.

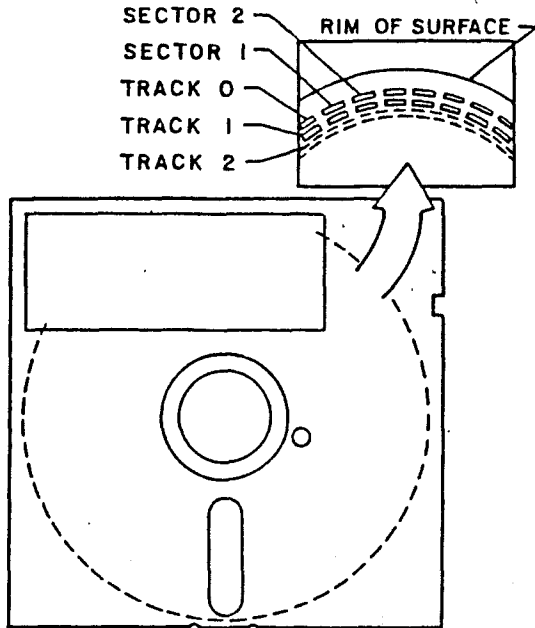


FIGURE 4-2 DISK SKELETON VIEW