

## CHAPTER 1: GENERAL INTRODUCTION

### 1. Hardware Overview

The ADAM Family Computer System consists of three major components: the memory console, the keyboard, and the printer. The consumer provides his own TV or monitor. Other equipment provided with the system are two "joystick" game controllers, various cords and cables to connect the components, and an antenna switch box.

The memory console houses the main memory and CPU of the system, and one data pack drive. Space and connectors are provided for another drive. Two printed circuit boards contain 64K RAM, 16K video RAM, an expansion port, two AdamNet ports, three card connectors and a cartridge slot. Two additional printed circuit boards control the drives.

The system reads from and stores on digital data packs. Digital data packs are a reel to reel magnetic tape encased in a Lexan™ cassette. Each data pack can store up to 256K bytes.

The keyboard has 75 full travel keys, including ten command keys and six programmable function keys. A "power on" LED indicator on the right side of the keyboard shows when the system is on. The keyboard contains one printed circuit board.

The printer is a letter-quality, bi-directional, daisy wheel printer. Paper feeds into the printer through a friction-feed mechanism that accommodates single sheets of paper up to 9½ inches wide. With the addition of an optional tractor-feed mechanism, the printer also accommodates continuous, "fan-fold" paper. Pitch is 10 characters to the inch, and printing speed is 10 characters per second. The printer contains two printed circuit boards, one for the printer and one for the power supply.

The computer's power supply, which produces 4 regulated DC voltages, is housed in the printer.

ADAM is available in two models, the complete system and Expansion Module #3. When the memory console of Expansion Module #3 is connected to ColecoVision, the two models are essentially identical in function. Figures 1-1 and 1-2 show how the components for each models are connected.

The block diagram in Figure 2-1 represents a high-level view of the system's hardware design. The major elements in the

block diagram is discussed in greater detail in Chapter 2,  
Hardware.

FIGURE 1-1: ADAM HOME COMPUTER SYSTEM SET UP DIAGRAM

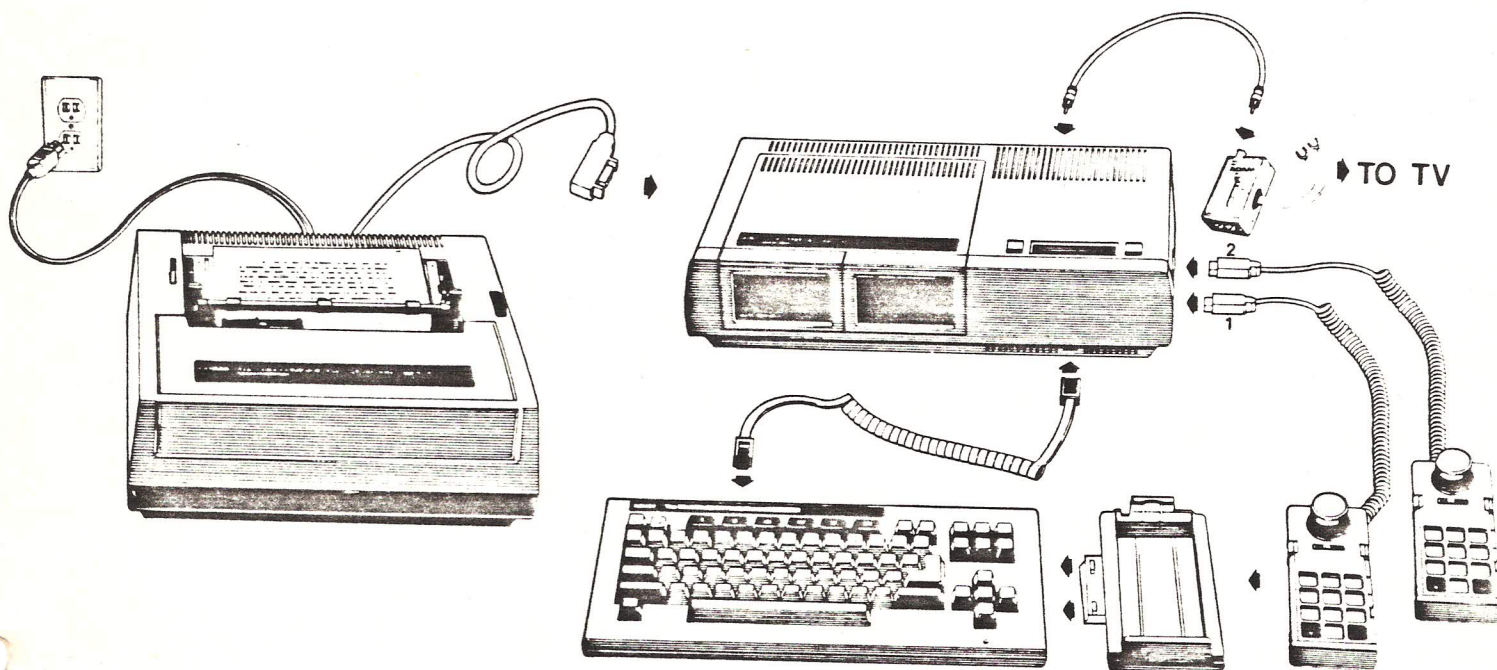
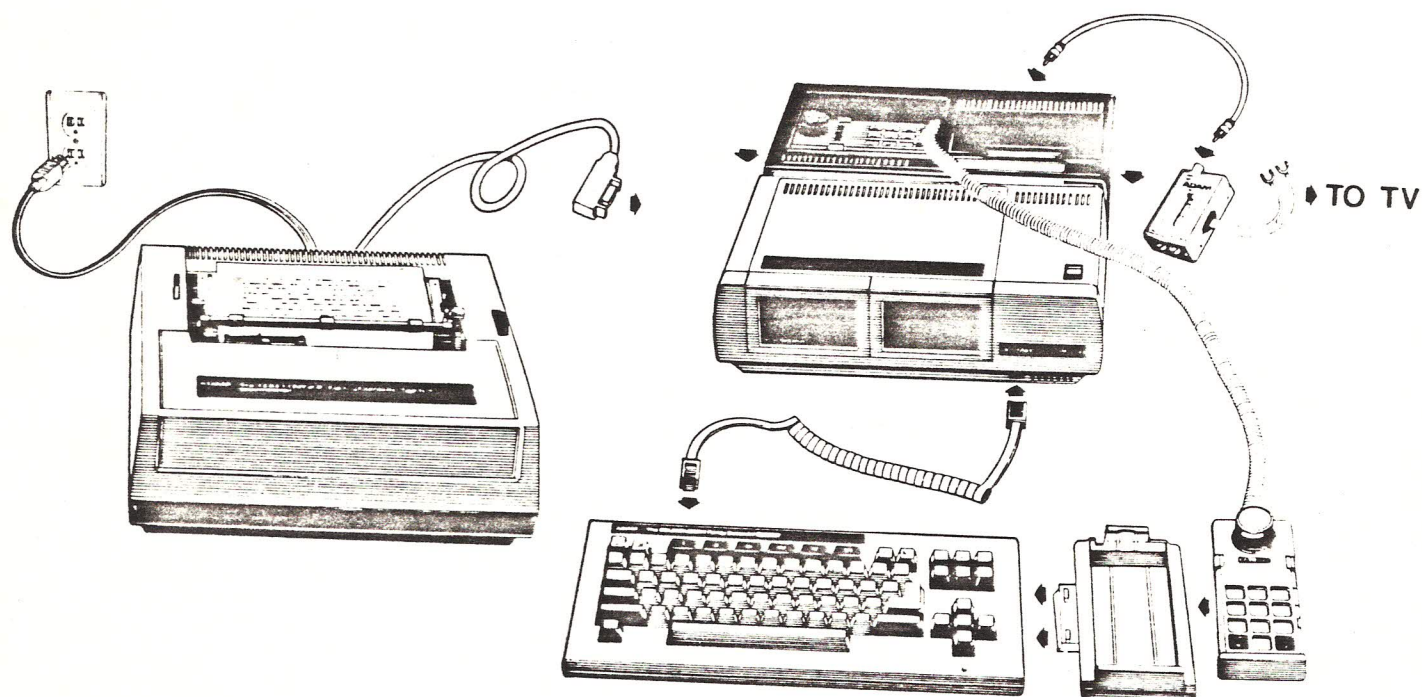


FIGURE 1-2: EXPANSION MODULE #3 SET UP DIAGRAM





## 1.2 Software Overview

ADAM's hardware components are linked together by a 62.5K bps, half-duplex, shared serial bus, known as AdamNet.

EOS (Elementary Operating System) is a collection of service routines that provides input and output facilities to peripheral devices, in such a way that application programs need not address the physical characteristics of the peripherals or the operation of AdamNet. EOS also provides file management for manipulating data on mass storage devices.

OS\_7 is a run-time user's library of software modules that controls graphics, sound, timing, etc. EOS contains many modules equivalent to OS\_7 modules, but some have different inputs and outputs.

ADAM contains a ROM-based electric typewriter/word processor/editor called SmartWRITER. SmartBASIC and the Buck Rogers Planet Of Zoom Super Game are included with Adam on data packs.

Each of ADAM's software components is discussed in greater detail in Chapter 3. Figure 1-3 depicts Adam's software architecture.

FIGURE 1-3: ADAM SOFTWARE ARCHITECTURE

