

# HAVAC

THE VERY PERSONAL, VERY AFFORDABLE COMPUTER SYSTEM

HAVAC (Home/Academic Very Affordable Computer) is a **totally new**, low-cost APPLE II and APPLE II PLUS "work-alike" entry level computer system. It is designed around its own, built-in disk drive.

## THE MICROSCI CONCEPT—A FRESH APPROACH

HAVAC represents a fresh approach to high volume manufacturing of computers. This new concept saves space, reduces components, improves performance and lowers costs.

Enclosed in a small package about the size of a "bread box" lives an **entire** electro/mechanical population: the microprocessor, 64K RAM, 8K ROM, a 164K disk drive, a power supply, a disk controller and ports for the detached keyboard, printer, communications, second disk drive, joystick/game paddle and, of course, the video monitor.

## EXTENDING TECHNOLOGY...

Because of HAVAC's use of **updated technology** and repackaging techniques, the industry standard 6502 microprocessor is just about the only component in the system left unscathed.

For example, by **stretching** established technologies and replacing high cost aluminum mainframe components with accurately formed sheet metal and precision plastics, **enormous** manufacturing cost savings have been thriftily achieved.

Moreover, by pushing conventional manufacturing engineering to the state-of-the-art, HAVAC emerges as a **unique** forerunner in the race to be the best.

## TRANSPORTABLE

HAVAC is easily transported from home to office or points in between. With its detachable keyboard and pair of molded "hand grips" running the length of its light weight ABS plastic case, it is very **easy** to pick up, carry and set down virtually anywhere.

And with no slots or extra cables, HAVAC is always neatly self contained.

## APPLE SOFTWARE COMPATIBLE

Over 1000 of the most popular APPLE programs have been successfully run on HAVAC by MICROSCI's responsive customer support group. And, as part of our on-going effort to ensure customer satisfaction, a growing list of tested software, categorized and printed by function, accompanies **every** computer out the door.

## INCLUDES HAVAC TRAINING SOFTWARE

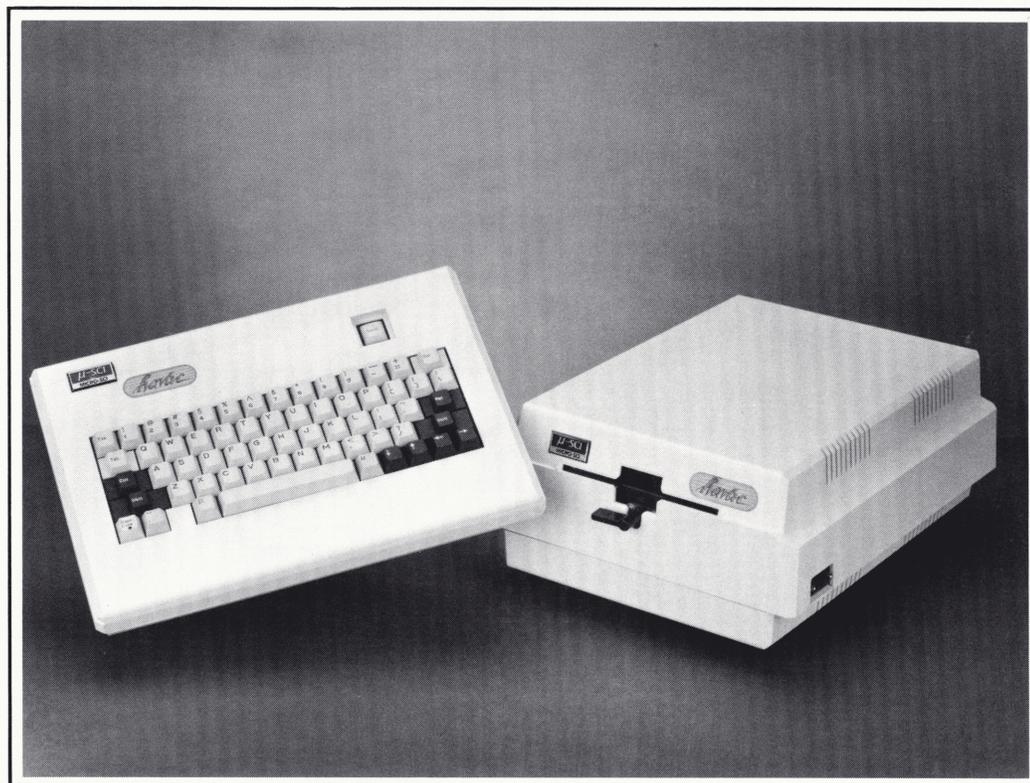
MICROSCI is taking an active role in **training** people with no computer familiarity by shipping each HAVAC with its own **fast** and **easy** Disk Operating System (HAVACDOS) which uses simple, straightforward MENU SELECTIONS for commands such as RUN, LOAD, SAVE, DELETE, RENAME and CATALOG.

Additionally, a growing series of "training software" packages like TYPEWRITER, CALCULATOR and HAVACOM (a communications program for use with a modem) will be provided **free** as they become available.

Matched with "friendly," educational training guides, these introductory programs help newcomers conceive how computers work while serving as basic primers for **understanding** popular software "tools" such as word processors, spreadsheet programs and data base products.

## HAVAC FEATURES AT A GLANCE

- \* 1 MHZ, 6502 microprocessor
- \* 64K RAM; 8K ROM
- \* Color Graphics (280X192 Dots)
- \* 40 column by 24 line screen
- \* Built-in 164K disk drive
- \* Built-in disk controller
- \* Built-in loudspeaker
- \* Detached 62 key keyboard
- \* 4 CURSOR keys; 2 function keys
- \* Upper/lower case, Caps lock key
- \* RS-232C serial port
- \* Parallel/Serial printer port
- \* Joystick/Paddle port
- \* Second disk drive port



## HAVAC TECHNICAL DATA

### Specifications

Microprocessor	1 MHz, 6502
Memory	48K RAM; 16K Language Card—64K total 8K ROM
Video Output	40 x 24 screen 5 x 7 Dot Matrix Upper/Lower Case, Black & White 2 Memory Mapped Text Pages
Graphics	LoRes 16 color, 40 x 48 Blocks HiRes 4 color, 280 x 192 Dots
Keyboard	Detached, 62 Keys Upper/Lower Case Escape, Delete, Tab, Control, 4 Cursor, 2 Function and Caps Lock Keys
Disk Drive	Single Sided
Recording Code	APPLE GCR
Bytes per Sector	256
Sectors per Track	16
Tracks per Diskette	40
Capacity (Bytes)	164K
Track to Track Access	18 msec
Disk Speed	300 rpm
Compatibility	100% Track to Track Apple Diskette Compatible
Peripherals/Accessories	
Printer Port	Parallel Centronics Interface Compatible Serial—Send only
RS232C Serial Port	Send only 110, 300, 1200, 2400, 4800, 9600 baud Bidirectional 300 baud with modem
Joystick Port	
Second Disk Drive Port	
Power Supply	110 Volt, 60 cycle, 40 watts
Environmental	
Operating Temperature	32 to 110 degrees F 0 to 40 degrees C
Humidity	10 to 95% RH, Non-Condensing

### Physical Dimensions:

CPU Unit		Keyboard Unit	
Height	5.50"	Height	2.50"
Width	10.75"	Width	13.40"
Length	13.75"	Length	9.00"
Weight	12 lbs	Weight	2.2 lbs

Warranty—Parts and Labor **120 days**

**LIFETIME** Extended Warranty Plan—Available at a moderate cost from your authorized MICROSCI dealer.

### THE VERY PERSONAL HAVAC

Engineered to fulfill specific needs, HAVAC's compact profile lends itself equally to aspiring programmers, game enthusiasts, those thirsting for knowledge and the blue and white collar futurist seeking a better way.

### THE VERY AFFORDABLE HAVAC

And to help you make the right buying decision, HAVAC has designed "in" the most popular features and designed "out" the extras that have typically made home computers so unaffordable.

Moreover, HAVAC's value becomes unparalleled when considering that most of the free world's supply of Apple software runs unmodified—right out of the box.

### WHEN'S A DISK DRIVE REALLY A COMPUTER?

With more than 75,000 Apple compatible disk drives shipped, a bustling customer support staff and a nation wide service system, what could make more sense than a disk drive company building a computer? And, it's just for you.

HAVAC. The VERY personal, VERY affordable disk drive that's really a computer.

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