TAKE A GIANT STEP FORWARD IN PERSONAL COMPUTING

WITH

## OHIO SCIENTIFIC

YOUR NEXT COMPUTER

You know about computers. In fact, you probably own one now. One that you might be thinking of expanding. We have a better idea. Take a really giant step into the personal computing future with a C4P or C8P from Ohio Scientific. These two new premium computer systems offer the best specs in the personal computing industry with built-in performance levels that you could never achieve with your present system, even with all the add-ons available. We'll show you why.

THE FACTS
SPEED

Speed separates the computers from the toys. The faster the processor executes instructions the more elaborate and greater the I/O can be. The C4P and C8P have execution speed that is twice as fast as Apple II, or Commodore PET and over THREE times as fast as TRS-80. They are many times faster than the recently introduced flock of video game type computers.

GT OPTION As if that weren't fast enough, the C4P and C8P's speed is nearly doubled when equipped with the Ohio Scientific GT option. By utilizing a 6502C microprocessor in conjunction with ultra-fast static memories, a C4P or C8P equipped with the GT option, will yield the following performance:

*Apple II, Commodore PET, TRS-80 and Atari 800 are registered trade names of Apple Computer Inc., Commodore Business Machines Ltd., Radio Shack, Atari, respectively.

1.2 million instructions per second. Average. Memory to accumulator ADD time — 600NS. JUMP extended — 900NS.

C4P MF/GT & C8P DF/GT			
STANDARD C4P MF & C8P DF			
APPLE II, PET, C1P			
TRS-80			
Video Game Type Computers			
0	.5 MIPS	1.0 MIPS	1.5 MIPS
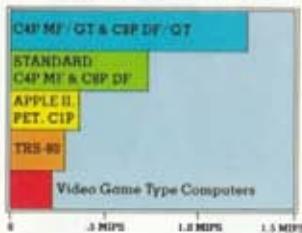
DISPLAY

The C4P and the C8P offer more display than other personal computers — 2048 characters — 32 rows of 64 columns with upper and lower case. Long display width makes user instruction easier to program and to read. The effective graphics resolution of 256 x 512 points allows these computers to match the display limit of even the best color television sets.

C4P & C8P Color		
ATARI 800 Color		
TRS-80 B/W		
APPLE II Color		
Video Game Type Computers		
0	1024	2048

CHARACTERS
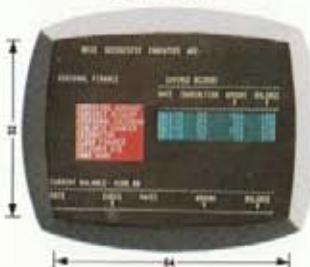
16 COLORS

The C4P and C8P offer a brilliant array of 16 colors including black available in both alphabetics and graphics.

CONSTRUCTION

The C4P incorporates a fully RF shielded aluminum case with 2-step baked on enamel finish. It is trimmed with solid oiled walnut and die-cast chromed dress panels. Compare its construction to the plastic cases that are standard on other personal computers.

The quality doesn't stop at the surface. The C4P and C8P are modular BUS orientated computers with 4 and 8 slots respectively. The internal electronics are built to rigorous industrial standards.

Modularity means expandability and obsolescence protection. In fact, the original 1977 vintage C2-4P can be upgraded to a C4P by changing PC cards at substantially less cost than purchasing a new computer.

The C4P MF is shown with optional accessories (clockwise). Home Color TV set (requires RF modulator), 2 joy sticks, AC-Remote console and 2 modules, wireless smoke detector and window detector, modem, printer and wireless remote security console (on top of TV.)

JUST LOOK AT ALL THE I/O AVAILABLE ON THE BACK OF THE C4P MF — BUILT IN AND READY TO RUN.

INTERFACES

I/O capabilities. The most important feature to look for when you purchase your next computer. Compare these standard features of the C4P and C8P disk systems to any other computer system. Regardless of price, you'll find none that even come close.

HOME SECURITY INTERFACES

1-home security interface with fire and intrusion detection

CONTROL INTERFACES

16 parallel I/O lines

ACCESSORY BUS

One accessory BUS connector for an external 48 line I/O board, PROM blaster, analog data module or education board.

SOUND

1-programmable tone generator 200 — 20KHz
1-8 bit companding digital to analog converter (DAC) for music and voice output

CLOCK

1-Real time clock and count down timer

OHIO SCIENTIFIC
Aurora, Ohio 44202

Model   Serial

POWER ON   FUSE (2A)   110 VAC 60 Hz

ON/OFF Switch   Fuse

Cassette IN
(Cassette Versions Only)

Color Adj.   Video Display

Cassette OUT
(Cassette Versions Only)

Only an Ohio Scientific C4P MF or C8P DF can offer you all this I/O.

RS — 232 PORTS

1-300 baud modem port
1-300/1200 baud printer port
Directly connect to an optional modem and printer

HUMAN INPUT EXPANSION

2-8 axis joystick interfaces
2-10 keypad interfaces

HOME INTERFACES

1—AC-12 AC remote control interface
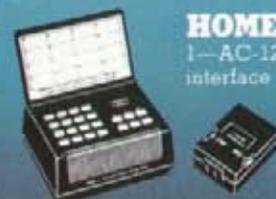
EXPANSION

As you can see, the C4P and C8P are truly exceptional premium computers with just their standard features alone. Above and beyond that they are easily expandable to add exciting advanced features like word processing, additional memory, voice I/O, and our new universal telephone interface (UTI).

C4P VS. C8P

The C4P is a 4-slot portable computer with one open slot for expansion. The C8P is an 8-slot mainframe class computer with five open slots. It features over 3 times the expansion capability of the C4P for advanced home, experimental and small business applications. The C8P's dual 8" floppies store about 8 times the information of a single mini-floppy and access it many times faster.

ADVANCED FEATURES FOR C8P DF EXPANSION

Voice I/O

The C8P DF can be optionally equipped with a voice I/O system that includes a Votrax module capable of generating English speech phonetically. It also has provisions for a user populated 5-channel feature extractor for voice input experimentation.

Universal Telephone Interface (UTI)

Optionally equipped with a Universal Telephone Interface system, the C8P DF has the ability to dial any telephone number, utilizing rotary dial or touch tone telephone lines. It can respond to touch tone or modem signals and can route voice to tape recorders.

It can answer by touch tone, modem, stored message or Votrax voice output (when equipped with Votrax module or used in conjunction with a CA-14 Voice I/O.)

A C8P DF with UTI, voice output, AC-Remote, home security and its clock yield the home computer of the future with uncannily human-like capabilities to communicate via phone lines and operate and monitor typical home functions.

FOREGROUND/ BACKGROUND OPERATION

This means that your computer can be engaging in home monitoring activities at the same time it is running other programs.

C4P

C4P MF

C8P

C8P DF

Computers come with keyboards and floppies where specified. Other equipment shown is optional.

Just starting out in personal computing? Check out these cost-effective computers.

Here's the way to get into personal computers, and stay in. You won't be discarding or trading away the C1P as you move on to more powerful systems. You can easily expand the C1P.

The C1P has 8K BASIC-in-ROM, an effective graphics display of 256 x 256 points, gaming elements, 53-key keyboard, upper and lower case, and 4K of RAM (expandable to 8K).

The C1P is backed by a large and imaginative library of instant loading personal applications software for home entertainment that ranges from simple to mind-teasing games and contests. There are applications covering basic finance and checkbook maintenance, self-teaching subjects, educational reviews, small business problem solving and the recently introduced home control.

Your C1P can be expanded to handle single or dual floppy disks and to support a line printer and modem. It is a cassette-based computer and costs only $349.

C1P

$349⁰⁰

*Monitor and cassette recorder not included.

THE C1P MF.

The first floppy-disk based personal computer to sell for less than $1000.

The C1P MF's mini-disk system features Ohio Scientific's renowned 8K ultra-fast BASIC-in-ROM and 12K of RAM.

The basic configuration is very powerful, but may be expanded to meet your needs. Memory can be enlarged by adding more RAM, and additional 4K RAM (4096 bytes)

costs only $69.00. A second mini-floppy can be added simply by plugging this option in. Once the system is expanded to 20K or more you can use our powerful OS-65D V3.0 operating system. It gives you named program and data files as well as random and sequential access capabilities. The C1P MF can also support a printer, modem, real time clock and AC remote interface.

The system features full graphics display capability that has resolutions equal to systems costing much more. The system includes 10K total ROM with (2K monitor) 12K of program memory and 1K display memory (23K total memory!)

"We can heartily recommend the Superboard II computer system for the beginner who wants to get into microcomputers with a minimum of cost. Moreover, this is a 'real' computer with full expandability."

Popular Electronics March, 1979

"(Their) new Challenger 1P weighs in at $349 and provides a remarkable amount of computing for this incredible price."

Kilobaud Microcomputing February, 1979

"The Superboard II is an excellent choice for the personal computer enthusiast on a budget."

Byte May, 1979

Completing Your System

All Ohio Scientific systems listed here come complete with manuals, connecting cables and demonstration softwear on cassettes or diskettes. On disk systems, all that's required to be up and running is a video display device such as our AC-3P; cassette systems also require a conventional audio cassette recorder. Additional software and accessories can be purchased as desired.
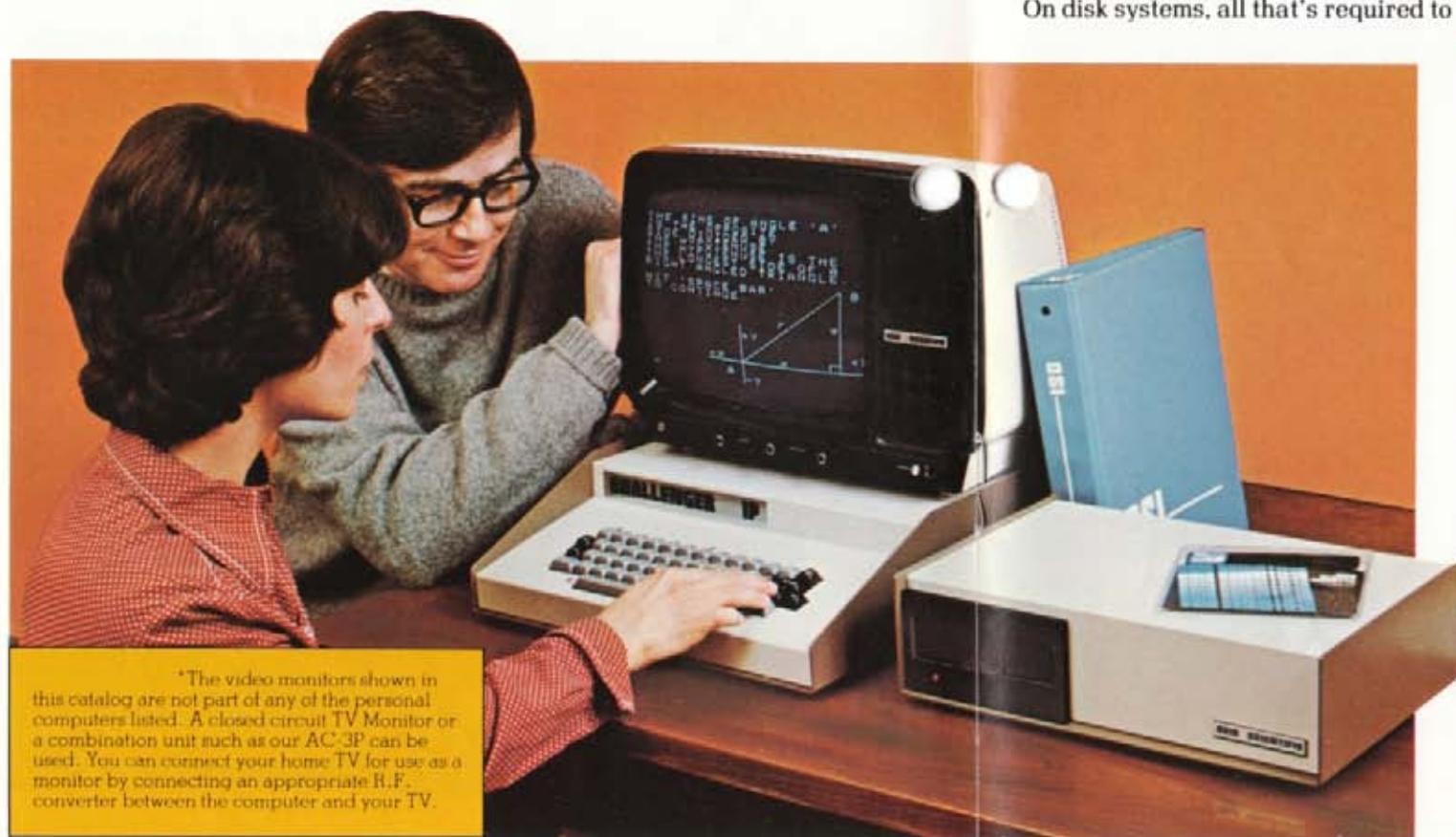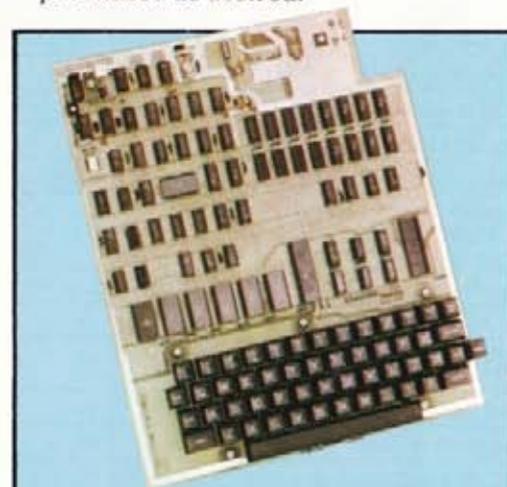
Superboard II. A great way to start computing for just $279!

Superboard II is the world's first complete computer system on a board including keyboard, video display, audio cassette interface, 8K BASIC-in-ROM and 4K RAM. Requires +5V at 3 Amp power supply. And your optional enclosure.

SPECIFICATION CHART

FEATURES	Super-Board II	C1P	C1P MF	C4P	C4P MF	C8P	C8P DF
Microprocessor type GT option 6502C	6502	6502	6502	6502	6502A	6502	6502A
Full 53-Key Keyboard	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BASIC in ROM	Yes	Yes	Yes	Yes	No	Yes	No
BASIC on Disk	No	No	Yes	No	Yes	No	Yes
Minimal Config. RAM	4K	4K	12K	8K	24K	8K	32K
Minimal Config. Total Memory RAM + Display + ROM	14K	14K	23K	19.5K	27.5K	19.5K	35.5K
Maximum RAM	8K	8K	32K	32K	48K	32K	48K
TV/Video Monitor	Acc'y	Acc'y	Acc'y	Acc'y	Acc'y	Acc'y	Acc'y
Cassette Recorder	Acc'y	Acc'y	Acc'y	Acc'y	No	Acc'y	No
Mini-Floppy Disk	Acc'y	Acc'y	Yes	Acc'y	Yes	No	No
Dual Mini-Floppy Disk	Acc'y	Acc'y	Acc'y	Acc'y	Acc'y	No	No
Dual 8" Floppy Disk	No	No	No	No	No	Acc'y	Yes
Video Display	30x30	30x30	30x30	32x64	32x64	32x64	32x6
Color Graphics (Up to 16 colors). Upper and Lower Case Graphics + Gaming Elements	No	No	No	Yes	Yes	Yes	Yes
Effective Screen Resolution	256x256	256x256	256x256	256x512	256x512	256x512	256x512
Audio Output (200 to 20 KHz)	No	No	No	Yes	Yes	Yes	Yes
DAC for Voice and Music Generation	No	No	No	Yes	Yes	Yes	Yes
Key Pad Interfaces	No	No	No	Yes	Yes	Yes	Yes
Joystick Interfaces	No	No	No	Yes	Yes	Yes	Yes
AC Remote Control Interface	No	No	Acc'y	Yes	Yes	Yes	Yes
Audio Cassette Interface	Yes	Yes	No	Yes	No	Yes	No
Real Time Clock	No	No	Yes	No	Yes	No	Yes
Home Security System Interface	No	No	No	No	Yes	No	Yes
Printer Interface	Acc'y	Acc'y	Acc'y	Yes*	Yes	Yes*	Yes
Modem Interface	Acc'y	Acc'y	Acc'y	No	Yes	No	Yes
16 Parallel Lines + Acc'y BUS	No	No	No	No	Yes	No	Yes
GT Option	No	No	No	No	Acc'y	No	Acc'y
Winchester Hard Disks Options	No	No	No	No	No	Acc'y	Acc'y
Voice I/O	No	No	No	No	No	Acc'y	Acc'y
Telephone Interface	No	No	No	No	No	Acc'y	Acc'y

*Not wired to connector.

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HARDWARE

COMPUTERS
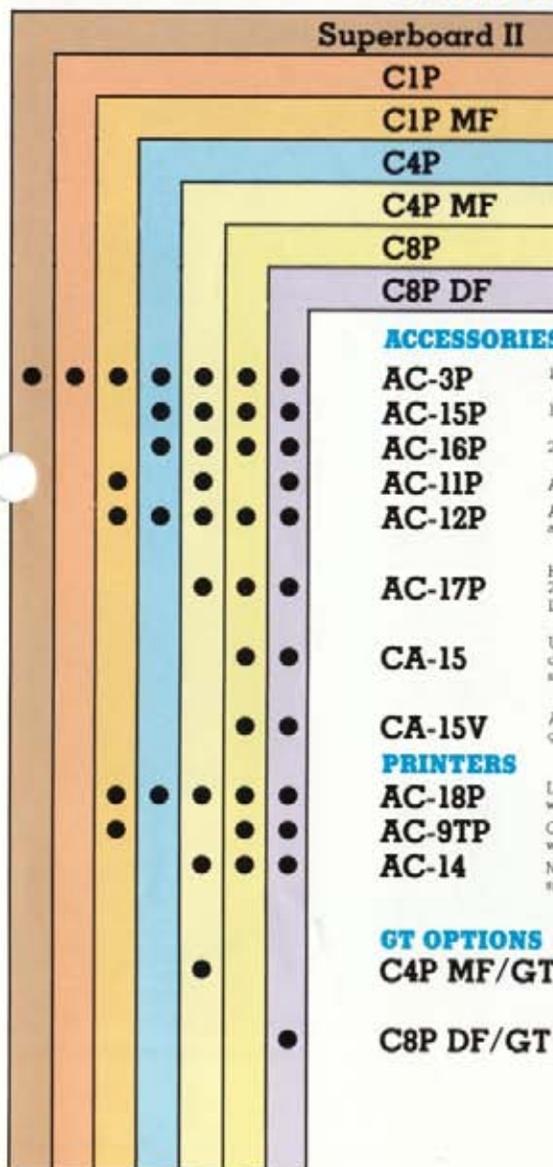
Superboard II — 8K BASIC in ROM, 4K RAM — $ 279

C1P — 8K BASIC in ROM, 4K RAM — 349

C1P MF — 8K BASIC in ROM, 12K RAM and 2 demo disks — 995

C4P — 8K BASIC in ROM, 8K RAM, Demo Cassette — 698

C4P MF — 24K RAM, Single Mini-Floppy, OS-65D 3.1 operating system and 2 demo disks — 1.695

C8P — 8K BASIC in ROM, 8K RAM, Demo Cassette — 895

C8P DF — 32K RAM Dual 8" floppies, OS-65D 3.1 and 2 demo disks — 2.597

ACCESSORIES

AC-3P — 12" B/W Combination Monitor/TV — $ 115

AC-15P — 12" Color Monitor — 399

AC-16P — 2—8 Axis Joy sticks with cables — 39

AC-11P — Answer/Originate 300 baud modem with cable — 199

AC-12P — AC-Remote starter set, console, 2 lamp modules, 2 appliance modules, OS-65D home control operating system. — 175

AC-17P — Home security starter set (wireless), console, 1 fire detector, 2 window units, one door unit and Demonstration software. — 249

CA-15 — Universal telephone interface with touch tone encoder / decoder, 300 baud orginate / answer modem, analog signal mux / demux. — 499

CA-15V — As above with Votrax voice module for computer generated voice response. — 799

PRINTERS

AC-18P — Low cost high speed 8½" aluminized paper printer with upper/lower case. — $ 695

AC-9TP — Centronics 779 110 cps tractor feed Business printer with interface. — 1.250

AC-14 — NEC Spinwriter—word processing printer with high speed parallel Interface. — 2.795

GT OPTIONS

C4P MF/GT — (must be purchased with computer) 24K, 120NS Memory, 6502C processor, 2 speed clock — add $950

C8P DF/GT — 48K, 120NS Memory, 6502C processor, 2 speed clock — add 1.825

For other expansion accessories such as add-on memory, additional floppy drives and other accessory boards consult the current full line price list.

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HERE'S THE OHIO SCIENTIFIC SOFTWARE STORY

The simple fact is nobody — nobody in the personal computer industry — offers more software than Ohio Scientific! Right now, as you read this, Ohio Scientific has just about 2 million bytes of software available for our C4P MF computer.

This software is also available for Ohio Scientific C8P DF. Most is available for the C1P MF and cassette-based Ohio Scientific computers. Consult full line price list for cassette software.

Software includes educational programs, personal programs, business programs, utility programs, game programs and operating systems. Each month Ohio Scientific is developing additional programs for your use and enjoyment.

Each diskette has 6 to 10 programs. Highlights of each are listed below.

Educational Programs

ED1	Math, spelling and geography tutors; Hangman, an addition game and more.	$ 29
ED2	Six "How To" lessons on beginning BASIC techniques.	$ 29
ED3	Trig tutor, presidents, continents and solar system quizzes, math drills and more.	$ 29
ED4	Comprehensive math disk covering trig functions, logarithmic functions, matrices and more.	$ 29
ED5	Covers the metric system (tutor, quiz and conversions) Roman numerals and time telling.	$ 29
ED6	Advanced sciences (2 disk set) including nuclear and organic chemistry, genetics, physics equations and function graphics.	$ 29
*ED7	Alphabet tutor and quiz, number tutor, memory match and recall game (color & B/W).	$ 29
ED8	Language disk, covering vocabulary and verbs for German, French and Spanish.	$ 29
ED9	Word search game and Hangman drawing, with large on line data bases, and more.	$ 29
MDMS	EDUCATION SYSTEM. Easily create your own quizzes and tutorials with built in grading.	$ 29

Business Programs

BD1	Ratio analysis, bonds, loan interest, bar graph and more.	$ 29
BD2	BASIC word processor, mailing list, address book, advertisement demo and more.	$ 29
*BD3	Comprehensive annual histogram plotting & editing (color and B&W).	$ 29
MDMS	Ohio Scientific's mini data base management systems. Master file create, edit, dump, report writer and much more.	$ 49
MDMS—AUX. 1	Repack, keyfile, sort, report writer, record access and more.	$ 29
MDMS—A/P	Update anytime, print journals, age analysis, vendor list and more.	$ 29
MDMS—A/R	Update anytime, print journals, age analysis, customer list and more.	$ 29
MDMS—INVENTORY	Updates, editing, item search, summary report and more.	$ 29
MDMS—PAYROLL	Complete employee records including earnings and all tax deductions.	$ 29
MDMS—MAILING LIST	Enter, delete and print out.	$ 29
MDMS—CHECKING, SAVINGS ACCOUNTS	Precise disk based account records for your finances.	$ 29
MDMS—PERSONAL CALENDAR/ADDRESS/PHONE BOOK.	Daily appointments, addresses and phone numbers at your fingertips.	$ 29
*OS-WP2	full word processing on a mini floppy.	$200
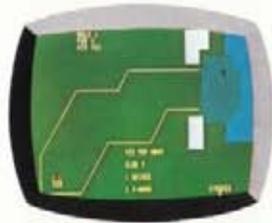
Game Programs

GD1	Starwars, Hectic, Bomber, Torpedo, Space War and Breakout.	$ 29
GD2	Sketch, Racer, Destroyer, Lander, Hide 'n Seek, Bomber, Tiger Tank.	$ 29
GD3	Star Trek, Cryptograms, Blackjack, Hangman, 23 Matches.	$ 29
GD4	Frustration, Battleship, Tic-Tac-Toe, Civil War, Mastermind.	$ 29
GD5	Baseball, Golf, Bowling, Hockey.	$ 29
GD6	Poker, Blackjack, Spades, Hearts, Slot Machine.	$ 29
*GD7	(Joystick systems only) Joystick Sketch, Tiger Tank, Roadrace, Space Attack, Blockade.	$ 29
*GD8	(Joystick systems only) Zulu 9, High Noon, Star Wars, Bomber, Surround.	$ 29
GD9	Othello, Concentration, Flip Flop, Illusion and more.	$ 29
*GD10	(2 disk set) Cartoons, Fairy Tales and animations, including Hero, Three Little Pigs, Humpty Dumpty and many more.	$ 29

Personal Programs

PD1	Annuities, rate of return, biorhythm, calorie counter, checking and savings.	$ 29
PD2	Trend line, base conversions, powers, integrals and more.	$ 29

Utility Programs

65D	Aux. 1 Resequence, BASIC disassembler, memory test, sort and more.	$ 29
*Graphics 1	Fast, high resolution (64 x 128) plotting of functions and parametric equations, plus easy keyboard set up and storage of graphics displays.	$ 29
*DAC 1	(2 disk set) State-of-the-Art DAC music generation, capable of producing up to 4 note chords, with disk storage option.	$ 39
*Home Control II	Advanced home control programs.	$ 39

*Not available for C1P MF

Operating Systems

(These programs come with your Ohio Scientific computer.)

OS 65D V3.1 The standard Ohio Scientific mini-floppy operating system. 9 digit floating decimal point, Microsoft BASIC, random, sequential files and graphics.

*Home Control I This new disk based operating system affords the user flexible, real-time based AC monitoring and control.

Standard

*Customer Demo. Self starting demo for the first-time user. Introduces the main categories of Ohio Scientific personal computer software.

*Dealer Demo. More advanced demo, highlighting many of the optional accessories.

*Not available for C1P MF

to be continued, continuously!

All of Ohio Scientific's family of personal computers offer the fastest BASIC-in-ROM — or on Disk in the microcomputer industry. When ordering, be sure to specify series. Many additional educational, business and personal programs and games are available. Consult your Ohio Scientific Dealer.

Close to 2 million bytes of software available!

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ALABAMA

ALASKA

ARIZONA

ARKANSAS

CALIFORNIA

COLORADO

CONNECTICUT

DISTRICT OF COLUMBIA

FLORIDA

GEORGIA

HAWAII

IDAHO

ILLINOIS

INDIANA

IOWA

GUAM

KANSAS

KENTUCKY

LOUISIANA

MAINE

MARYLAND

MASSACHUSETTS

MICHIGAN

MINNESOTA

MISSISSIPPI

MISSOURI

MONTANA

NEBRASKA

NEVADA

NEW JERSEY

NEW MEXICO

NEW YORK

NORTH CAROLINA

NORTH DAKOTA

OHIO

OKLAHOMA

OREGON

PENNSYLVANIA

RHODE ISLAND

SOUTH CAROLINA

TENNESSEE

TEXAS

UTAH

VIRGINIA

WASHINGTON

WEST VIRGINIA

WISCONSIN

WYOMING

CYPRUS

ECUADOR

ARGENTINA

AUSTRALIA

AUSTRIA

BELGIUM

ICELAND

BOLIVIA

IRELAND

CANADA

ITALY

MEXICO

COSTA RICA

NETHERLANDS

NEW ZEALAND

PERU

PHILIPPINES

ENGLAND

PUERTO RICO

SCOTLAND

SOUTH AFRICA

SOUTH AMERICA

SPAIN

FRANCE

FINLAND

SWEDEN

GREECE

SWITZERLAND

VENEZUELA

WEST GERMANY