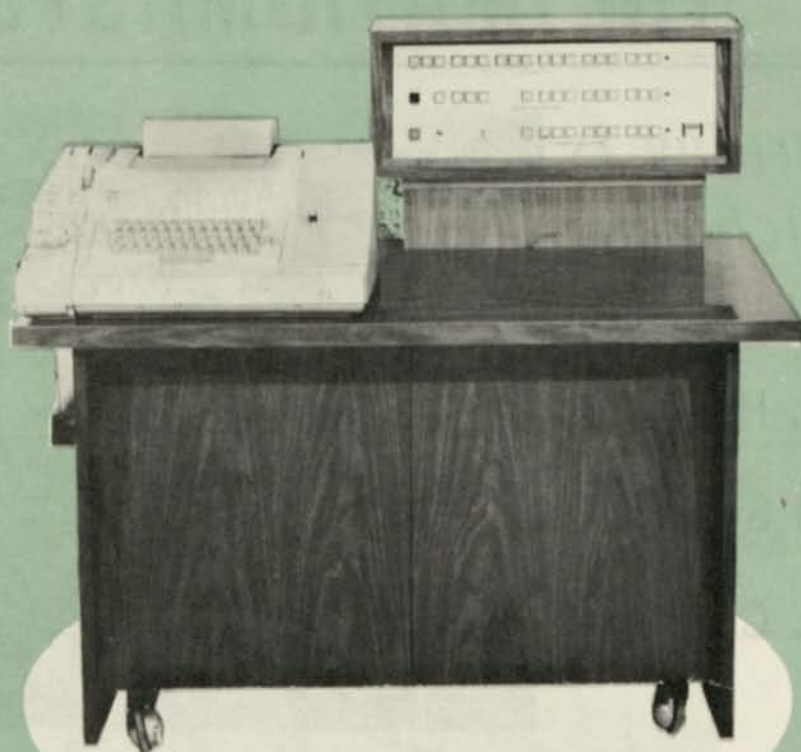


THE MATH - MASTER[®] ECP-18 CLASSROOM COMPUTER

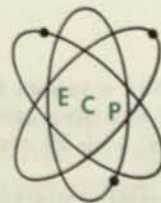


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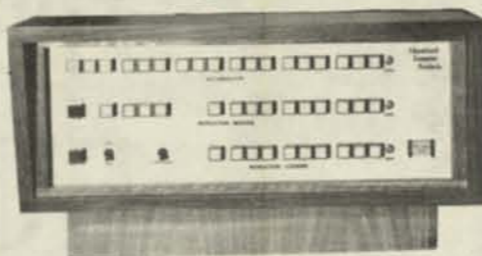
**Developed
under National
Science Foundation
Grant by Prof.
Allen Fulmer**

Designed for
"Hands On"



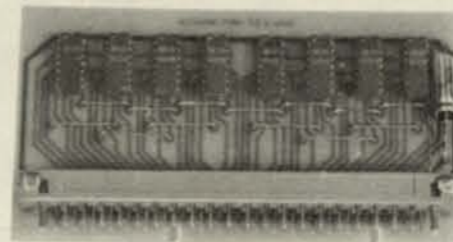
operation by the
student.

Elevated
registers



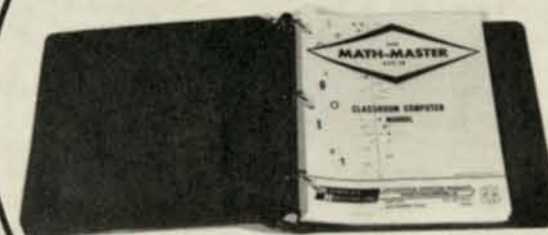
brightly
illuminated

Solid state



integrated
circuits

200 page
teaching manual



THE MATH-MASTER® ECP-18 COMPUTER



*Learning is
enriched at
every level*

- Jr. Hi
- Hi School
- Jr. College

Easy to Program and
Operate

Sophisticated enough to
Challenge

- Easy to Operate
- Easy to Program
(16 basic instructions, includes full set of logical instructions)
- Portable
Any 115 volt socket
- ~~Memory~~ ²⁰⁴⁸ Memory Sizes
~~word~~ word memory (18 bit word)
- All Words Addressable
- Variety of Input/Output
(Octal, decimal, alphameric)
- Console Input/Output
Single instruction stepping, direct entry of data, direct display of data, direct instruction entry, direct instruction or data modification.
- Teletype Input/Output
Perforated paper tape or manual keyboard entry. Perforated paper tape and/or printed output.
- Economical



The Math-Master® ECP-18

The Math-Master ECP-18 is a full scale, stored program, digital computer designed specifically for educational use. This computer is representative of digital computers used in industry, but its logic circuitry and operating speed prohibits its use for administrative functions. Construction is of highest quality, featuring integrated circuits—the utmost in reliability.

Complete systems priced from \$14,000 to \$18,000 including teletype, software, and teacher training program. Attractive lease-purchase plan available.

TEACHER TRAINING PROGRAM

When a school leases or purchases a Math-Master ECP-18 computer, we send a factory representative to the school for one week and give up to 20 lecture hours of training to the department or group that will be using the computer. Also we supply the school with 20 copies of our Teacher and Student Manual containing complete programs, partial programs, and suggested problems.

Summer training is available to selected applicants through the Conference on Computer Mathematics, supported by the National Science Foundation. Write for information.

These are some of the types of problems that can be studied with the ECP-18:

Quadratic equations	Methods of multiplication and division
Systems of equations	Finding prime factors of integers
Determinants and matrices	Greatest common divisor of integers
Study of functions	Verifying trigonometric identities
Solution of triangles	Finding areas by numerical calculations
Evaluation of limits	Applied problems in physics
Studying rates of change	Applied problems in biology (e.g., genetics)
Approximating pi	Generating interest tables
Approximating e	Social Security, income tax
Fibonacci numbers	Conversion of number bases
Mathematical games	Problems in logic and Boolean algebra
Sums of series	Computing square roots by approximation
Modular arithmetic	Sorting and ordering numbers
Linear programming	Generating pseudo-random numbers
Inequalities	Approximation of irregular areas
Sets	Permutations and combinations
Numeration systems	Sums of arithmetic and geometric progressions
Algorithms	Solutions of nth degree equations by Newton's Method of Approximation
Probability	

Units of study may be incorporated in other courses as well. For instance, a class in business could well profit by a short unit on the computer in the business world and an introduction to the capabilities of the computer. Physics, chemistry, biology, and the earth sciences have many applications well suited to computer methods. Even the social sciences may benefit from having a computer in the school—certainly the implications of automatic data processing on society can best be reinforced with a genuine computer in the classroom.

Instruction Repertoire

GROUP	OPERATION CODE	MNEMONIC SYMBOL	INSTRUCTION
Arithmetic Operations	16	ADD	Add
	17	SUB	Subtract
Logical Operations	04	XOR	Exclusive Or.
	05	LPR	Logical Product
	06	IOR	Inclusive Or.
Shift Operations	01	SFR 1	Shift Right One Binary Digit
		SRF 3	Shift Right Three Binary Digits
		RLF 1	Rotate Left One Binary Digit
		RLF 3	Rotate Left Three Binary Digits
Data Transfer	07	BRG	Bring
	15	STO	Store
Control Instructions	00	HLT	Halt
	01	NOP	No Operation
	10	JMP	Jump—Unconditional
	11	JON	Jump On Negative
	12	JOV	Jump On Overflow
	13	JOS	Jump On Switch
Input/Output	02	OAR A	Print/Punch Alphanumeric
		OAR D	Print/Punch Decimal
		OAR O	Print/Punch Octal
	03	RKN	Read Keyboard Non-Print
		RKP	Read Keyboard and Print
		RTN	Read Tape Non-Print
		RTP	Read Tape Print
		TBA	Transfer Buffer Alphanumeric
		TBD	Transfer Buffer Decimal
		TBO	Transfer Buffer Octal
TAK N		Transfer Buffer Alpha, Read KBD	
TAK P			
TAT N		Transfer Buffer Alpha, Read Tape	
TAT P			
TDK N	Transfer Buffer Decimal, Read KBD		
TDK P			
TDT N	Transfer Buffer Decimal, Read Tape		
TDT P			
TOK N	Transfer Buffer Octal, Read KBD		
TOK P			
TOT N	Transfer Buffer Octal, Read Tape		
TOT P			
14	OIR	Output Instr. Reg.	

OUR SERVICE INCLUDES:

● COMPLETE SOFTWARE PACKAGE

Course material including: Operation and Programming Manuals, Maintenance Manual, course outlines, lessons, demonstration programs, utility programs, and a Symbolic Assembly Language.

● ONE YEAR WARRANTY * BY GAMCO

Service contract available at nominal cost after warranty period. * Does not include teletype.



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RCA SERVICE COMPANY

A DIVISION OF RADIO CORPORATION OF AMERICA

● PERSONAL ORIENTATION AND GUIDANCE

Personal assistance is provided in your school when the computer is delivered. Twenty hours of free instruction by factory representative.

● TEACHER TRAINING PROGRAMS

Teacher training programs and computer conferences featuring the ECP-18 are available at various institutions throughout the country. For information regarding courses available in your area, write Educational Computer Division, Attention Teacher Training.

● TRIAL PLAN

Try the ECP-18 in your school for 6 weeks for a fee of \$500.00 (Refundable if purchased.)

● IN-SCHOOL DEMONSTRATIONS

Demonstrations are available in your area. For arrangements for an interesting classroom computer demonstration contact factory or your Local Representative.

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