

# COMPUTERS

*a n d*

A U T O M A T I O N

D A T A P R O C E S S I N G • C Y B E R N E T I C S • R O B O T S

## THE COMPUTER DIRECTORY AND BUYERS' GUIDE, 1958

the June, 1958 issue of  
"Computers and Automation"

- Part 1: Roster of Organizations in the Computer Field  
(cumulative)
- Part 2: Buyers' Guide for the Computer Field: Products  
and Services for Sale or Rent  
(cumulative)

JUNE

1958

•

VOL. 7 - NO. 6

# threshold...

## OF SPACE EXPLORATION

BURROUGHS, consistent with its record of technological break-throughs, now provides the complex computer for ICBM ATLAS. This supra-human brain of the modern weapons system, processing and interpreting MISSILE DATA, solves 10,000 problems per second—answers indispensable to our exploration and ultimate conquest of SPACE.

## ELECTRONICS ENGINEERS ...

Military Field Service Division, largest in the Burroughs Defense Contracts Organization invites creative electronics engineers to apply their talents to these stimulating long range programs offering professional advancement, recognition and reward.

**FIELD ENGINEERS  
ASSISTANT FIELD ENGINEERS  
INSTALLATION ENGINEERS  
DATA PROCESSING ENGINEERS  
TECHNICAL ASSISTANT ENGINEERS**

*Send resume to Mr. Robert Levinson,  
Manager of Personnel Administration*

**BURROUGHS CORPORATION**  
MILITARY FIELD SERVICE DIVISION  
511 North Broad Street  
Philadelphia 23, Penna.



# compare...



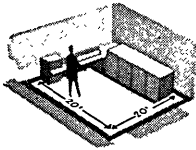
**make this  
point-by-  
point  
comparison  
of the new...**

## PHILCO *Transac*\*

### ALL-TRANSISTOR MANAGEMENT "BRAIN"

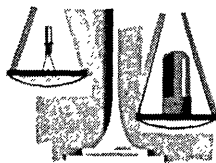
Here is the world's first and only large-scale, all-transistor data processing system . . . unsurpassed in capacity and performance. Transac is meeting the modern challenge for faster, smaller and more reliable large-scale data processing systems. Philco invites you to consider the many outstanding advantages of the new Transac S-2000 before you decide on *any* large scale data processing system.

#### Compare!



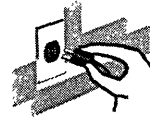
**1/10 THE FLOOR SPACE.** The complete Transac S-2000 system will fit into a 20' x 20' floor space. A tremendous economic advantage where space is at a premium.

#### Compare!



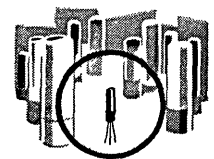
**LESS THAN 1/10 THE WEIGHT.** Transac actually weighs less than a comparable area of filing cabinets.

#### Compare!



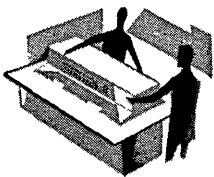
**1/10 THE POWER CONSUMPTION.** All transistor circuitry operates on 7-10 kilowatts as opposed to the 70-100 kilowatts required by vacuum tube systems. Transac S-2000 plugs into conventional 110V outlets.

#### Compare!



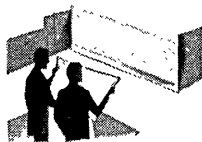
**MULTI-MILLION HOUR TRANSISTOR RELIABILITY.** Computer transistors have amassed more than 60 million transistor hours of service . . . with highest performance reliability.

#### Compare!



**MOVEABLE.** Transac S-2000 can be easily moved from place-to-place if you find it necessary to relocate.

#### Compare!



**NO EXPENSIVE SITE PREPARATION.** No special reinforcing or ducting of floors, installation of power lines, etc., are necessary for quick installation or relocation of Transac S-2000.

#### Compare!



**NO COSTLY AIR CONDITIONING.** Transistors generate practically no heat. Transac S-2000 needs little air conditioning as compared to the 40 tons or more required by vacuum tube systems.

#### Compare!



**GET ALL THE FACTS.** Please write for illustrated brochure describing the modern Philco Transac S-2000 system.

*At Philco, career opportunities are unlimited in computer, electronic and mechanical engineering, systems analysis, programming, sales representation.*

# PHILCO® Government & Industrial Division

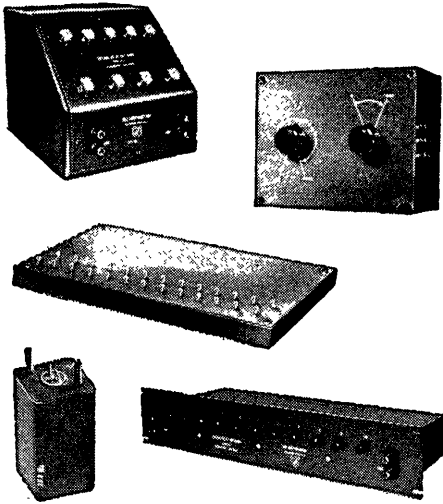
PHILADELPHIA 44, PENNSYLVANIA

\*"Transac"—Trademark of Philco Corporation for Transistor Automatic Computer.

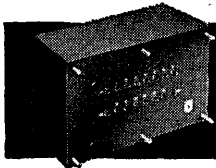




# ESC . . . WORLD LEADER IN CUSTOM-BUILT DELAY LINES!



- *1st in sales*
- *1st company devoted exclusively to the manufacture of custom-built delay lines*
- *1st in research, design, development of custom-built delay lines, variable delay lines, continuously variable delay lines*
- *1st to submit the most definitive laboratory reports with all prototypes*



ESC is the manufacturer of the remarkable Delay Line Model 51-43 – a totally new Delay Line with a 145 to 1 delay-to-rise-time ratio. Write for complete data.

## CUSTOM-BUILT and STOCK PULSE TRANSFORMERS

medium and low-power transformers  
filters of all types • pulse-forming networks  
miniature plug-in encapsulated circuit assemblies

Every prototype delay line and pulse transformer report you receive from ESC includes submitted electrical requirements, photo-oscillograms (which indicate input and output pulse shape and output rise-time), the test

equipment used, and an evaluation of the electrical characteristics of the unit. You can be sure that ESC specifications are at once realistic and economical, particularly aimed at eliminating costly, time-consuming overspecification.

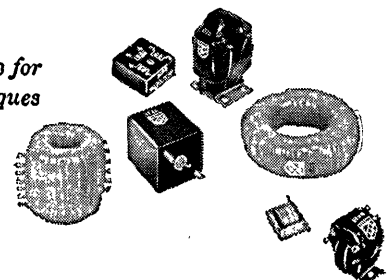
*Write today for literature and technical data.*



# ESC CORPORATION

534 Bergen Boulevard, Palisades Park, New Jersey

*exceptional employment opportunities for  
engineers experienced in pulse techniques*



# THE EDITOR'S NOTES

## The Computer Directory and Buyers' Guide, 1958

The fourth edition of "The Computer Directory and Buyers' Guide," the June issue of *Computers and Automation*, is here presented, 100 pages long, with the hope that it will prove essential to the work of people in the computer field. This is the first issue of the directory in letterpress form instead of photo offset.

"Part 1, Roster of Organizations in the Computer Field," contains about 740 entries on 37 pages. This compares with 795 entries on 30 pages last year. Many organizations are included for the first time this year. A number of organizations included last year are omitted this year, since they either are apparently not in the computer field, or did not return a completed questionnaire to us before May 10, or both.

The "Roster of Organizations," by the way, is the reason for our existence as a magazine, since our first issue, Vol. 1, No. 1, in September, 1951, consisted only of a seven page purple ditto list of organizations in the computer field.

In this issue, "Part 2, Buyers' Guide for the Computer Field: Products and Services for Sale or Rent," contains about 3220 entries on 32 pages. This compares with last year's which contained 1370 entries on 39 pages.

The main reason for the rather large increase in number of entries is that this year we have many more headings than last year, and that many organizations have checked off the headings under which they should be referenced. Also, this year for the first time, we have omitted expanded descriptions of products and services for organizations which have not paid the requested \$10 charge for an expanded descriptive listing. Considerations of cost have compelled this change.

As usual, we ask our readers please to tell us of additions, corrections, and revisions, so that we may continue to try to make the reference information that we publish useful and reliable.

## IS THE COMPUTER FIELD STAYING TOGETHER OR SEPARATING?

ONE OF THE questions that faces the computer field is whether it will stay together or come apart into pieces. It is the question whether computer people will continue to stay together in one association or will begin to separate into groups that are able to know each other and communicate with each other. The posing of this question could be clearly seen at the meeting of the Association for Computing Machinery at Urbana, Ill., June 11 to 13.

The question is reflected, for example, in the subjects of the papers, contributed and invited, given at the meeting. In the accompanying table is shown an analysis by subject of the 75 papers (the program, titles, and abstracts will be printed in the July issue of *Computers and Automation*).

If this analysis is correct, over 90 percent of the papers required specialized knowledge in order to be

## Classification of Papers at the Meeting of the Association for Computing Machinery, June, 1958

### A. Probably Requiring Specialized Knowledge for Understanding

Class	No.	Percent
1. Computer mathematics, including numerical methods and error analysis	28	38%
2. Computer applications, mathematical, nonmathematical; and simulation	15	20
3. Computer programming, including algebraic programming	14	19
4. Computer design, concrete and abstract	11	15

Subtotal 68 92%

### B. Probably Not Requiring Specialized Knowledge for Understanding

1. Education	3	4%
2. Description of computers	1	1
3. Computer history	1	1
4. Reporting computer performance to management	1	1
5. Computer research in the university	1	1

Subtotal 7 8%

Total 75 100%

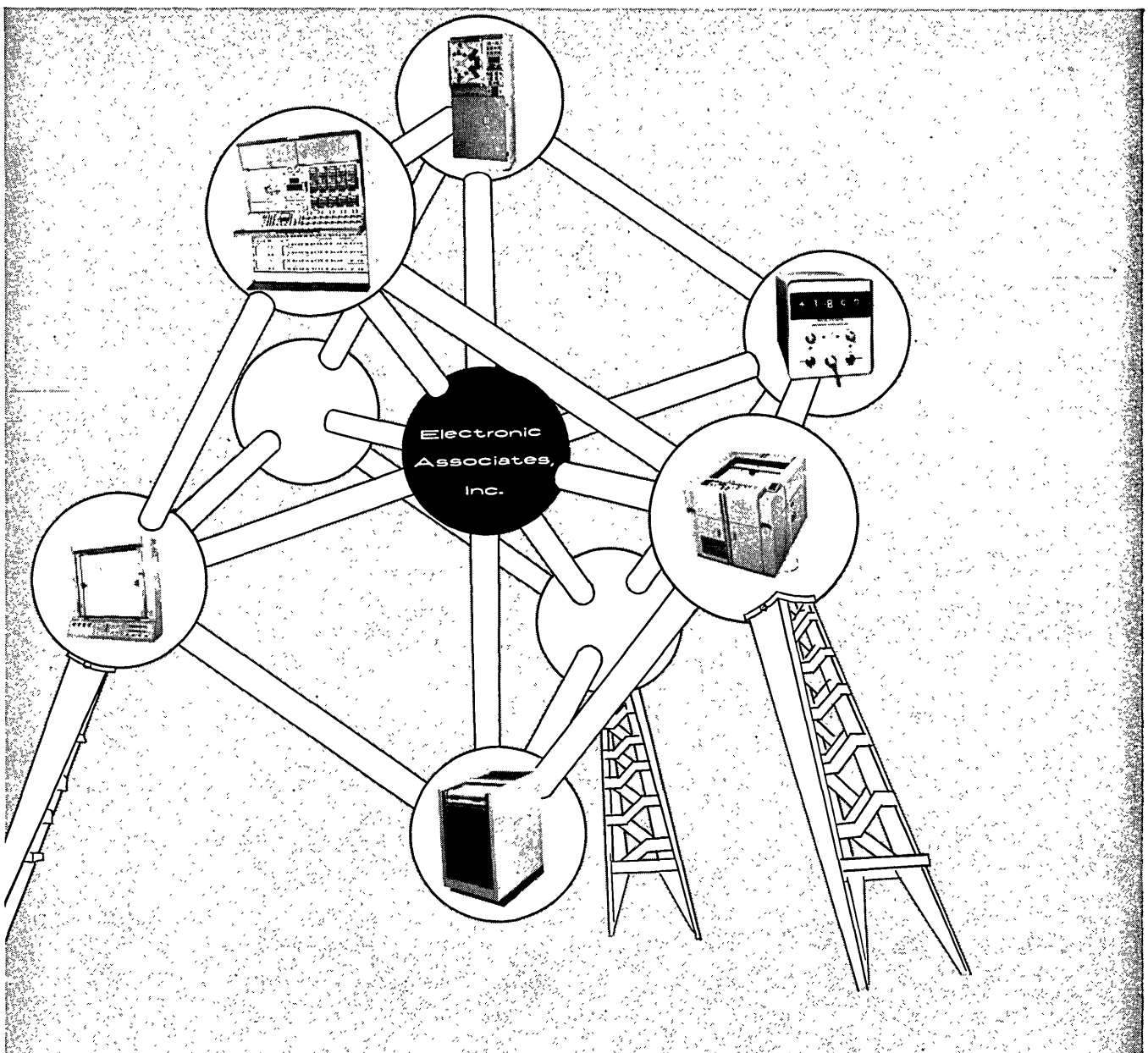
understood. For example, if a computer person was to profit from most of the mathematical papers he needed to know mathematics beyond calculus: sample title, "An Algorithm for the Determination of the Polynomial of the Best Minimax Approximation to a Function Defined on a Finite Point Set." But many computer people, especially those concerned with business applications, do not know even calculus.

Probably no one enjoys sitting in a lecture hall, and hearing a person present a paper which starts off beyond his comprehension, and then goes much further. Yet the person giving the paper has this dilemma: present new results and so be sure of making a contribution to the computer field even if the audience cannot understand them; or explain old results and run the risk of adverse comments from people who already know the subject. The usual choice naturally is the first one, since it is safer and may bring some glory. But communication between computer people is not aided thereby.

An even simpler failure of communication is that some speakers even nowadays do not talk loud enough to be heard in the back of a large hall, nor use the microphone with ease. In fact, the chairman of one of the sessions — when asked by calls from the audience to use the microphone — refused to go to the microphone and try to speak so as to be heard, certainly a discourteous gesture to an audience.

At least some of the people in the Association for Computing Machinery however are keenly aware of the

[Please turn to page 96]



Equipment pictured:  
 (Clockwise from bottom)  
 8 Channel Recorder,  
 Transistorized Variplotter,  
 Analog Computer 231 R,  
 Magnetic Tape Plotter,  
 Portable, all-Electronic Digital Voltmeter,  
 Dataplotter.

**BY INVITATION OF THE U. S. STATE DEPARTMENT,** Electronic Associates, Inc. is representing the Analog Computing and Plotting Industry in the United States at the Brussels World's Fair. A working exhibit of the PACE Analog Computer is being manned by personnel supplied by Electronic Associates, Inc., European Computation Center.

Electronic Associates is justly proud of this significant honor. No effort will be spared to continue the progress, quality, and reliability that has brought EAI such recognition.

We invite you to direct your inquiries for analog computing or plotting equipment, data-reduction or conversion equipment, and instrumentation engineering or computation center services to Electronic Associates, Inc.

**Electronic Associates, Inc.**

LONG BRANCH, NEW JERSEY Dept.

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# Electronic Sorting:

## *Sound Economics on the DATAmatic 1000*

One of the fundamental problems of business data handling is the function of sorting. In most business data processing applications it is quite common for sorting and re-sorting operations to take  $\frac{1}{3}$  to  $\frac{2}{3}$  of the total time required.

Until the arrival of DATAmatic 1000, sorting business data electronically could not be justified in terms of dollars and cents. The operating costs of electronic equipment far outweighed its advantages in speed. Cost per record sorted was prohibitive.

Honeywell engineers broke through this economic barrier by making the DATAmatic 1000 so fast, so efficient that electronic sorting is now not only justifiable, but actually less expensive than electro-mechanical sorting. Speeds such as these help explain why only DATAmatic 1000 makes electronic sorting economical:

### TYPICAL DIGITAL SORTING SPEEDS

Number of Records	Length of Record (in words)	Sort Key (Decimal Digits)	Number of Magnetic Tape Units	Time (in Minutes)
10,000	3	3	6	.75
50,000	15	5	7	28.65
100,000	10	5	4	55.56
200,000	6	4	11	29.17
250,000	5	6	20	30.38

### TYPICAL MERGE SORTING SPEEDS (based on 12 digit key)

Number of Records	Length of Record (in words)	Type of Merge Sort	Number of Magnetic Tape Units	Time (in Minutes)
20,000	30	2-way	4	23.35
50,000	15	2-way	4	30.04
100,000	10	3-way	6	30.5
500,000	5	3-way	6	126.12
750,000	4	4-way	8	180.16

DATAmatic 1000's marked superiority in this important sorting function can be attributed to four basic design advantages:

1. faster rate of reading and writing information on magnetic tape, plus the ability to read recorded information in either direction
2. four-section input-output buffer system
3. multiple-duty instructions
4. higher reliability and complete self-checking

The 3-inch-wide, 31-channel magnetic tape utilized in the DATAmatic 1000 permits instantaneous reading and

recording speeds of 120,000 decimal digits per second while retaining conservative values of linear tape speed and pulse density. The result is a sustained transfer rate of 60,000 digits per second. Furthermore, the ability to read recorded information in either direction saves valuable time by minimizing tape rewinding.

A unique buffer design allows simultaneous transfer of information into and out of the high-speed memory. Four distinct operations are carried out independently: transfer of information from tape to buffer, from buffer to high-speed memory, from memory to buffer, and from buffer to tape.

To achieve even greater efficiency with this advanced buffer system, Honeywell scientists incorporated special multiple-duty instructions. For example, a sorting instruction called Double Transfer and Select will perform these functions: transfer a record from specific memory locations to the output buffer, transfer a new record from the input buffer to the same memory locations, extract from the record the digit on which the sorting occurs, branch to a subroutine appropriate to this digit and return to continue the original program.

A comprehensive built-in checking system adds to the sorting superiority of the DATAmatic 1000 by insuring accuracy without the need for internal programmed checks. High circuit and component reliability plus built-in provision for convenient marginal checking virtually eliminate lost time due to reruns.

Sorting is but one of the many areas of business data processing in which the DATAmatic 1000 has been designed to excel. If you have a specific sorting problem which you would like to use as a basis for your introduction to the system, send your sorting example to DATAmatic's Applications Department including number of items, number of characters per item and number of digits in the sort key. You will receive a complete analysis including the time required, the basis on which it is calculated and the amount of tape necessary. Please address your request to: Dr. R. F. Clippinger, Dept. A6, DATAmatic Division, Newton Highlands 61, Massachusetts.

# Honeywell



**DATAmatic**

ELECTRONIC DATA PROCESSING





# COMPUTER PROGRESS

Digital and Analog Computers at Work

ARTICLE 1 VOLUME 1

## MAGNETIC INK CHARACTER READING COMPUTER SYSTEM TO SPEED BANK CHECK HANDLING WITH INCREASED ACCURACY



A new automated check handling computer system is being manufactured by the General Electric Company Computer Department for today's modern banks.

One of the unique features of the system is a magnetic ink character reader which actually "reads" the Arabic numerals illustrated above, and thereby eliminates the need for punched cards or tape as input to the system. The check itself is fed into the computer.

Basically, the technique is simple. Account numbers are preprinted on customers' checks in magnetic ink. When the check is turned over to the bank, the dollar amount is imprinted on it, also in magnetic ink. From there on, the data processor handles all the mathematics

involved in determining if there are sufficient funds, and if there are holds or stops against the check. Then it computes the new balance, and finally, it issues the monthly statement.

The General Electric system offers a high degree of speed and accuracy, easy verification, no radical check format changes, relative invulnerability of encoded data to obliteration, low costs. Customer acceptance is virtually assured.

Because the system agrees with an American Bankers Association committee recommendation, a high degree of system acceptance with leading banks and financial institutions is assured.

### COMPUTING SERVICES GROUP HANDLES COMPLEX ORIGIN-DESTINATION STUDY FOR WESTERN CITY

The Computing Services section of the G-E Computer Department recently completed an origin-destination tabulation for the Phoenix-Maricopa County Traffic Study Group in Phoenix, Arizona. The results of this tabulation, when analyzed, will enable the group to plan the street and highway development program of this desert metropolis for years to come.

The original survey information was obtained by the city-county personnel using the interviewing procedures set up by the U. S. Bureau of Public Roads. The data was put on punched cards and then turned over to G-E for processing and tabulation.

Using manual, or simple computing methods, such tabulations often take many months—sometimes years—to com-

plete. However, using General Electric's giant computer on a rental basis, the job was completed in just a few weeks. The Computer Department also performed the difficult programming job.

(Programming, simply stated, is the translation of the solution method into the language a computer can understand, and the issuance of instructions to the computer so that it will process the information as it is fed.)

The Computing Services section of G-E's Computer Department is staffed with 125 analysts, programmers, coders—all leaders in the computer field. Their services are available, along with time on the large and versatile IBM 704 computer, to handle the problems of industry, business, government and education.

### NEW TRANSISTORIZED CHARACTER READER ANNOUNCED

A fully transistorized magnetic ink character reader has been developed by the General Electric Company Computer Department at its research laboratory in Palo Alto, California. The reader will be used as part of G-E's data processing system for banks, but other applications are being studied.

The new character reader is about the size of a typewriter, and does the same job as a vacuum tube version that is four times larger. Solid state circuitry throughout requires less power, cooling and delicate handling than was required for the vacuum tube model.

For more information, please contact: Computer Department—Room 228, General Electric Company, 1103 North Central Avenue, Phoenix Arizona.

CPA-6

Progress Is Our Most Important Product

GENERAL  ELECTRIC

# ROSTER OF ORGANIZATIONS IN THE COMPUTER FIELD

(Cumulative, information as of May 15, 1958)

The purpose of this Roster is to report organizations (all that are known to us) in the computer field: organizations making or developing computing machinery or data-processing machinery; organizations supplying computing services or consulting services in the computer field; and organizations supplying components or services used in the computer field if related to the field (for example, magnetic drums would be such a component).

*Entries.* Each Roster entry if complete contains: name of the organization, its address / telephone number / description of its main activities, main products in the field, any comments / types of activities it engages in, size (expressed in number of employees), year established, nature of its interest in the computer field / names and titles of two officers. In cases where we do not have complete information, we put down what we have. Entries in this Roster are free. If the entry for the organization is to be printed in bold face type, there is a small nominal charge.

*Accuracy.* We have tried to make each entry accurate to the extent of information in our possession. We shall be grateful for any more information or additions or corrections that anyone is kind enough to send us. Although we have tried to be accurate and complete, we assume no liability for any statements expressed or implied.

### *Abbreviations*

The key to the abbreviations follows:

#### *Activities*

- Ma Manufacturing activity
- Sa Selling activity
- Ra Research and development
- Ca Consulting
- Ga Government activity
- Pa Problem-solving
- Ba Buying activity  
(Used also in combinations as in RMSa "research, manufacturing and selling activity")

#### *Size*

- Ls Large size, over 500 employees
- Ms Medium size, 50 to 500 employees
- Ss Small size, under 50 employees (no. in parentheses is approx. no. of employees)

#### *When Established*

- Le Long established organization (1925 or earlier)

- Me Organization established a "medium" time ago (1926 to 1945)
- Se Organization established a short time ago (1946 or later) (no. in parentheses is year of establishment)

#### *Interest in Computers and Automation*

- Dc Digital computing machinery
- Ac Analog computing machinery
- Ic Incidental interests in computing machinery
- Sc Servomechanisms
- Cc Automatic control machinery
- Mc Automatic materials handling machinery
- \*C This organization has kindly furnished us with information expressly for the purposes of the Roster and therefore our report is likely to be more complete and accurate than otherwise might be the case. (C for Checking) / 58: information furnished in 1958 / 57: information furnished in 1957 / etc.

#### *Organization Entry Form*

The form to be completed for an entry in the Roster of Organizations follows:

1. Your organization's correct name? .....
- .....
2. Street address? .....
3. City, Zone, State? .....
4. Telephone Number? .....
5. Brief Description of your Product Lines and Services  
.....  
.....
6. Types of Activity that you engage in:  
 ( ) Research  
 ( ) Manufacturing  
 ( ) Selling  
 ( ) Consulting  
 ( ) Other (please explain) .....
7. Approximate number of your employees? .....
8. Year when your organization was established? .....
9. Free Listings for two of your executives:  
 Name ..... Title .....
- Name ..... Title .....
- Filled in by ..... Title ..... Date .....

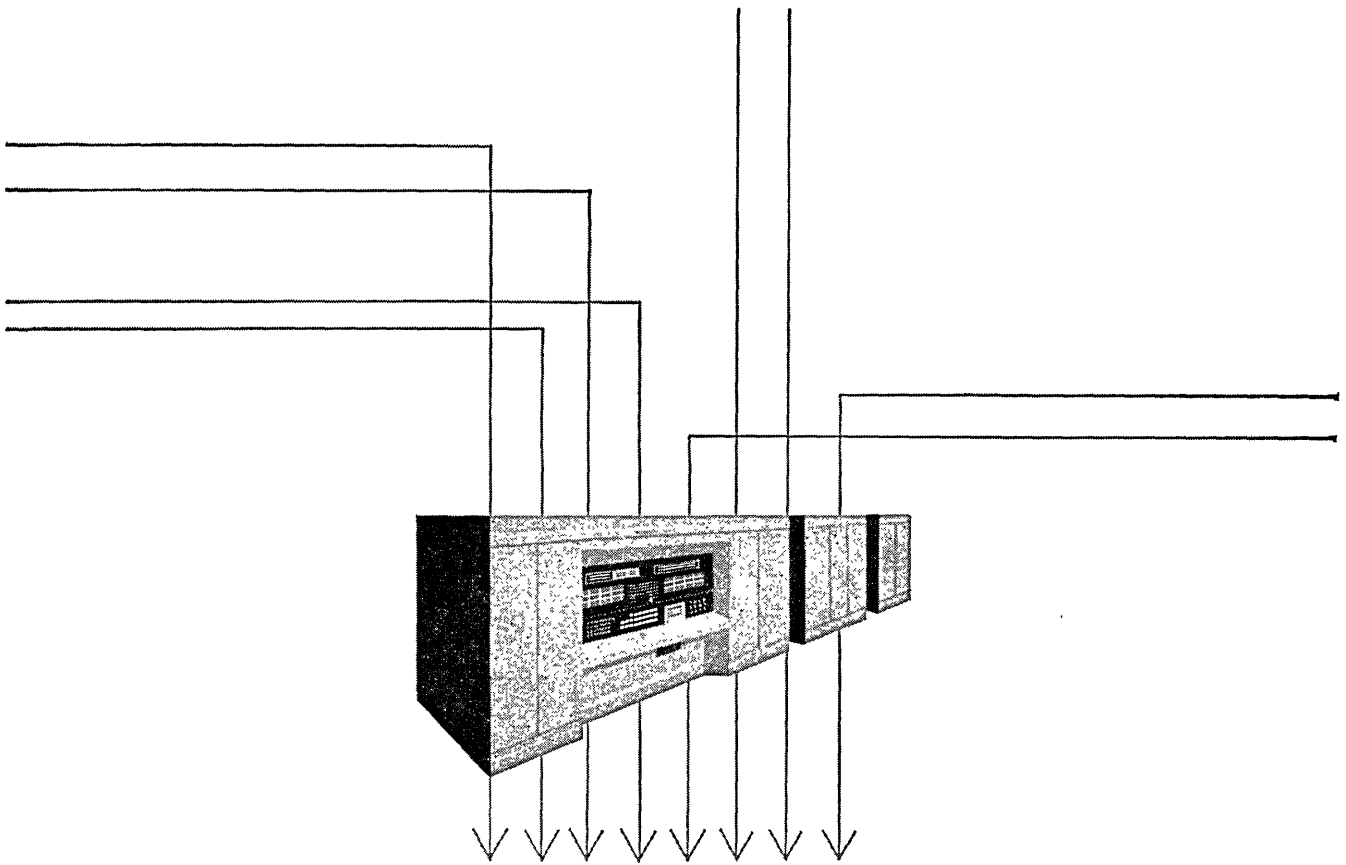
## ROSTER

### A

- Accurate Electronics Corp., 169 S. Abbe Rd., Dept. C., Elyria, Ohio / EMerson 6-7925 / \*C 58  
 Plug and strip type plotting boards, connectors, jacks, jack panels, and terminals / RMSa Ss(25) Se(1952) Ic
- Ace Electronics Associates, Inc., 99 Dover St., Somerville 44, Mass. / SOMerset 6-5130 / \*C 58  
 Potentiometers, linear, non-linear, precision, sub-miniature, micro-miniature. Hermetically sealed, sub-miniature relays / RMSa Ms(150) Se(1933) Ic
- Ace Relay Associates, Inc. — same as Ace Electronics Associates, Inc., which see.
- ACF Electronics, Inc. — name changed to Avion Division-Alexandria of ACF Industries, which see.
- Acheson Colloids Co., a div. of Acheson Industries, Inc., 1640 Washington, Port Huron, Mich. / YUkon 4-4171 / \*C 58  
 Dispersions of colloidal graphite, molybdenum disulfide, and other solids used for surface and conductive coatings / RMSCa Ms(100) Le(1908) Ic
- Ackerland Corp., Saratoga, Calif. — corporation now inactive
- Acroscope Engineering Co., 1001 E. Manchester Ave., Los Angeles 1, Calif. / LUDlow 3-2241 / \*C 58  
 Small precision plastic parts for the electronic and computer industry. Precision lapping and honing. Coil winding bobbins / RMSa Ss(15) Se(1948) Ic  
 Edward Zinkow, Sales Mgr. / Harold J. Zinkow, Prod. Mgr.
- Actuarial Computing Service, Inc., 684 W. Peachtree St., N.W., Atlanta 8, Ga. / — / \*C 57  
 Computing service / Ss Se Dc RCPa
- Adalia Computations, Ltd., 1410 Stanley St., Montreal 2, Que., Canada / VICTor 9-2281 / \*C 58  
 Computing and programming services / ACPa Ms(65) Se(1952) DAC
- Adalia, Ltd., 1410 Stanley St., Montreal 2, Que., Canada (also Toronto) / Marquette 2281 / \*C 57  
 Consulting services in digital and analog computer applications, data processing, automatic control, design and development of special input, output, storage and computing equipment; systems analysis and design; operations research / Ss(40) Se(1952) DAC RCPa
- ADB Institutet (Scandinavian Automatic Data Processing Institute), School of Technology, Gothenburg University, Gibraltargatan 5 P, Gothenburg, Sweden / 205209, 205248, 205258 / \*C 58  
 University training in automatic data processing. Consulting, programming, coding and running problems on Alwac III-E computer for industries in Scandinavia / RCPa Ms(60) Se(1957) Dc
- Addressograph-Multigraph Corp., 1200 Babbitt Rd., Cleveland 17, Ohio / Redwood 1-8000 / and elsewhere / \*C 57  
 Electronic facsimile printers, magnetic tape electronic printers, transfer printers, card-to-magnetic tape converter, output data converter, addressograph sensing plates, etc. / Ls(2500) Le(1903) Ic RMSa
- Advance Electronics Lab., Inc., 451 Highland Ave., Passaic, N.J.  
 Computers, counters, delay lines / Ic RMSa
- Advanced Electronics, Inc., 94 Silas Deane Hwy., Rocky Hill 9, Conn. / JACson 9-6881 / \*C 58  
 Fabrication and assembly of electronic and electro-mechanical equipment. Bobbin coil winding. Vibration detection equipment; automatic and signaling controls; cable assemblies; computer type coils; embedded assemblies and components / RMSa Ss(20) Se(1953) Ic
- AEC Computing Facility, Institute of Mathematical Sciences, 25 Waverly Place, New York 3, N.Y. / ALgonquin 4-9920 / \*C 57  
 Research and computer service for the Atomic Energy Commission. Univac 1 and IBM 704 with peripheral equipment / Ms(100) Se(1952) Dc RCPGa
- Aemco Inc., 10 State St., Mankato, Minn. / 5153 / \*C 58  
 Relays / RMSa Ms(350) Le(1918) Ic
- Aero Electronics Co., 1512 N. Wells St., Chicago 10, Ill. / WHitehall 3-0401 / \*C 58  
 Computing indicators and test equipment, synchro and servo type instruments and equipment, analog computers, plotting boards, and simulators, consulting services / RMSCa Ss(15) Se(1948) AIC
- Aeronca Mfg. Corp., Baltimore Facility, Hilltop and Frederick Rds., Baltimore 28, Md. / RI 7-0200 / \*C 58  
 Digital converters and comparators, digital data handling devices and systems, automatic control equipment, plug-in circuits, analog and digital computers, telemetering systems, multipliers / RMSa Ms(60) Se(1949) Dc
- Aeronutronic Systems Inc., 1234 Air Way, Glendale, Calif. (subsidiary of Ford Motor Company) / CHapman 5-6651 / \*C 57  
 Digital and analog computing machinery / Ms(200) Se(1956) DAIC Rsa
- Aerovox Corp., Belleville Ave., New Bedford, Mass. / WYman 4-9661 / \*C 58  
 Computer-type capacitors, resistors, ferrite cores, jacks, magnets, switches / RMSa Ls(3000) Le(1922) Ic
- Ahrendt Instrument Company, 4910 Calvert Rd., College Park, Md.  
 Analog-to-digital converters. Analog computers. Electronic components / AIC RMSa
- Airborne Instruments Lab., Inc., 160 Old Country Road, Mineola, L.I., N.Y.  
 Computers, analog-to-digital converters, data reduction equipment / AIC RMSa
- Airborne Instruments Laboratories, Modac Division, (formerly Mountain Systems, Inc.), 864 Franklin Avenue, Thornwood, N.Y. / PIONEER 2-0600 / \*C 57  
 Electronic data processing systems (Modac); special purpose digital computing systems for business and scientific applications, magnetic drums. Magnetic tape input-output unit which prepares tape for other computers / Ss Se Dc RMSa
- Aircraft Armaments, Inc., Industry Lane, Cockeysville, Md.  
 Computers, analog, digital. Data reduction equipment / DAIC RMSa
- Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.  
 Delay lines / Ic RMSa

- Airflyte Electronics Co., 535 Avenue A, Bayonne, N.J. / HEmlock 6-2230 / \*C 58  
Electronic components, analog-to-digital and digital-to-analog converters, rotary segmented switches, custom encapsulation services, plug-in and potted circuits, embedded assemblies and components, stepping switches / Ms(60) Se(1950) RMSa DAic
- AIRPAX PRODUCTS CO., CAMBRIDGE DIV.,** Jacktown Rd., Cambridge, Md.; Transformer Div., Middle River, Baltimore 20, Md.; Seminole Div., P.O. Box 8488, Ft. Lauderdale, Fla. / 2097 (Camb. Div.); MURdock 6-9100 (Trans. Div.); LU 3-6160 (Seminole Div.) / \*C 58  
Choppers, circuit breakers, magnetic amplifiers, magnetic tachometers, servo amplifiers, power frequency detectors / RMSa Ms(250) Me(1947) Ic  
H. A. Cook, Pres. / J. W. Sullivan, Gen. Sales Mgr.
- Airtronics, Inc.,** 5522 Dorsey Lane, Washington 16, D.C. / OLiver 4-1676 / \*C 58  
Memory units, specialized computer components, specialized instrumentation, and other similar engineering services. Computer-type, packaged, logical, plug-in, potted, printed circuits. Consulting services. Electronic and frequency counters; shift registers; magnetic storage systems / RMSCa Ms Me (1947) Ic
- ALADDIN ELECTRONICS, A DIVISION OF ALADDIN INDUSTRIES, INC.,** (formerly Aladdin Radio Industries) 703 Murfreesboro Rd., Nashville 10, Tenn. / CHapel 2-3411 / \*C 58  
Pulse transformers, magnetic shift registers, computer logical elements utilizing magnetic materials, other magnetic core computing machine components. Ferrite core inductors. IF transformers, transistor IF transformers, delay lines / RMSa Ls (600) Le(1908) Ic  
W. W. Stifter, VP and Gen. Mgr. / A. S. Daddario, Ch. Engr.
- Alden Electronic and Impulse Recording Equipment Co.,** Alden Research Center, Westboro, Mass. / FORest 6-4467 / \*C 58  
Facsimile transmitting and receiving equipment, facsimile communication systems, facsimile components, sensitized paper. Pulse recorders, automatic curve plotters. Data recording cameras. Scanners / RMSa Ms Se Ic
- Alden Products Co.,** Brockton, Mass. / JUNiper 3-0160 / \*C 58  
Cable assemblies, metal chassis, patch cords, counters, coil winding bobbins, breadboard kits, computer packaged circuits, connectors, magnetic cores, fastening devices, jacks, plotters, magnetic storage systems / RMSa Ms(300) Me(1930) Ic
- Alfax Paper & Engineering Co.,** Washington St., Westboro, Mass. / FOforest 6-4467 / \*C 58  
Electrosensitive recording paper for facsimile and graphic recording / RMSa Ms Me(1942) Ic
- Alleghany Instrument Co., Inc.,** 1091 Wills Mountain, Cumberland, Maryland / PArkview 4-1200 / \*C 57  
Data recording and computing systems for ballistic measurements / Ss(40) Se(1952) ADc RMSa
- Allen-Bradley Co.,** 136 W. Greenfield Ave., Milwaukee 4, Wis. / ORchard 1-2000 / \*C 58  
Electric motor control and electronic components, automatic controls and equipment, capacitors, ferrite cores, resistors, switches, potentiometers / RMSa ICc
- R. D. Allen Business Machines, Inc.,** Front St. N.W., Grand Rapids, Mich. / GLendale 6-8541 / \*C 57  
Adding machines, bookkeeping machines, cash registers, gyro instruments, etc. / Ls(1250) Me(1932) DIc RMSa
- Allgemeine Elektricitäts-Gesellschaft,** Frankfurt on Main, Germany  
Semi-conductors, germanium diodes / Ic RMSa
- Allied Control Co., Inc.,** 2 East End Ave., New York 21, N.Y. / BUtterfield 8-7403 / \*C 58  
Relays and coils for use in electronic control devices, subminiature toggle switches, solenoid valves / RMSa Ls(1000) Me(1938) Ic
- Allied Engineering Div.,** Conn. & Richards Ave., S. Norwalk, Conn.  
Computers, analog and digital / DAc RMSa
- Allies' Products Corp.,** P.O. Box 188, Kendall Branch, Miami 56, Fla. / CE 5-5424 / \*C 58  
Precision carbon deposited resistors / RMSa Ss(10) Se(1952) Ic
- Alwac Computer Div., El-Tronics, Inc.,** 13040 S. Cerise, Hawthorne, Calif. / OSborne 5-0311 / \*C 58  
General purpose digital computer (ALWAC III-E), computer component parts, card converters, universal tester, magnetic tape transport, magnetic tape buffer, magnetic heads, magnetic drums, paper tape console, data reduction and input-output equipment, automatic graph plotters / RMSa Ms(110) Se(1952) DIc
- American Automatic Typewriter Co.,** 2323 No. Pulaski Rd., Chicago 39, Ill. / Everglade 4-5151 / \*C  
Pneumatically controlled programming and testing devices. Automatic selective typing equipment (Autotypist). Testing machines for typewriters, adding machines, calculating machines / Ms(100) Le(1869) Ic RMSa
- American Electro Metal Corp.,** 320 Yonkers Ave., Yonkers 2, N.Y.  
Magnetic cores / Ic RMSa
- American Electronic Labs.,** 641 Arch St., Philadelphia 6, Pa.  
Computers. Data reduction equipment / Dc RMSa
- American Electronics Co.,** 1203 Bryant Ave., New York 59, N.Y.  
Analog computers. Analog-to-digital converters / AIc RMSa
- American Electronics, Inc.,** 655 West Washington Blvd., Los Angeles 15, Calif. / RIchmond 9-5361 / \*C 58  
Automatic data recording systems and accessories, automation systems; nuclear products, radiation standards, badges, and counters; data processors, computers, analysis equipment, line printers, sequential recorders; magnetic amplifiers; signaling controls; magnetic card and magnetic tape readers; resolvers, synchros; telemetering systems / RMSCa Ls(1500) Me(1946) DAic
- American Hydromath Corp.,** 25-20 43rd St., Long Island 1, N.Y.  
Analog computers / Ac RMSa
- American Lava Corp.,** Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn.





## The **ORGANIZATION** and **RETRIEVAL** of **INFORMATION**

The organization and retrieval of large volumes of diverse types of information is rapidly becoming one of today's more serious problems. Major areas where the problem exists include business and industry, the military, the government, and the scientific and engineering community itself.

In its simpler forms, the problem may involve, for example, the automatic handling and analysis of business data such as payrolls, sales and manufacturing figures, insurance premiums, and other essentially statistical data. At the other extreme are certain complex military situations which require the concurrent interpretation, analysis, and integration on a very short time scale of data from a wide variety of sources, including field reports, photographs, news reports, estimates of industrial activity, and the like. In many of these situations, there is the additional requirement to translate the information from a foreign language into English.

The development in recent years of electronic data handling equipment is now making possible the practical solution of many of these problems. Such equipment has the capability to perform arithmetic operations, make decisions among alternatives, store

and retrieve large quantities of information, and at high speed automatically perform long, complex sequences of operations.

At Ramo-Wooldridge, work is in progress on advanced information handling systems that are characterized by large volume and widely different forms of information, short time scales, and a variety of uses and users. The scope of the work includes the planning of systems and procedures, programming various types of data handling equipment, and formulation of requirements for new equipment. Research is also under way on the machine translation of foreign languages into English.

Engineers and scientists with experience in the following fields are invited to explore the wide range of openings now available:

- Systems Engineering
- EDP Systems
- Computer Programming
- Console Design
- Display Development
- High Acuity Optics
- Photo Interpretation

## The Ramo-Wooldridge Corporation

5730 ARBOR VITAE STREET • LOS ANGELES 45, CALIFORNIA

Magnetic tape, cores, ceramic / Ic RMSa  
American Machine and Foundry, Electronics Division,  
1085 Commonwealth Ave., Boston, Mass. / ALgon-  
quin 4-4234 / \*C

Magnetic shift registers, digital data-handling equip-  
ment; data readout and display, servo-mechanisms.  
Digital servo / Ls(800) Se(1948) Dc RMSa

American Machine & Foundry Co., Computing Center,  
Greenwich, Conn. / \*C 57

Computing service; consulting, problem analysis,  
programming, coding and running of problems on  
Datatron digital computer or analog computer /  
DAc RCPa

**AMERICAN MOLDED PRODUCTS CO.,** 2727 W.  
Chicago Ave., Chicago 22, Ill. / AR 6-3235 / \*C 58

Molded nylon and fluorocarbon bobbins and mag-  
netic tape reels / RMSa Ms(250) ?e Ic

C. E. Caestecker, President / A. P. Hultgren, Vice  
President

American Printed Circuits Co., Inc., 104 Forrest St.,  
Metuchen, N.J. / LIBerty 8-5777 / \*C 58

Printed circuits / RMSa Ss(8) Se(1953) Ic

American Research & Mfg. Corp., 920 Halpine Ave.,  
Rockville, Md. / HAzelwood 7-7116 / \*C 58

Magnetic and transistorized instruments and equip-  
ment; magnetic and semiconductor regulated power  
supplies; magnetic amplifiers; frequency multipliers;  
simulators / RMSa Ms(55) Se(1954) Ic

AMP Inc., Eisenhower Blvd., Harrisburg, Pa. / CEDar  
4-0101 / \*C 58

Solderless terminals, connectors and wiring devices,  
programming plugboards and systems, patchcords /  
Ma Ls(1000) Me(1941) Ic

**AMPEREX ELECTRONIC CORP.,** 230 Duffy Ave.,  
Hicksville, L.I., N.Y. / Wells 1-6200 / \*C 58

Electron tubes and indicator tubes / RMSa Ms(400)  
Le(1928) IC

Frank Randall, Pres. / Lyle Backer, Dir. of Eng.

Amperite Co., Inc., 561 Broadway, New York 12, N.Y.  
/ CAAnal 6-1446 / \*C 58

Delay relays, ballast tubes for regulation of current  
and voltage / RMSa Ms(75) Le(1924) Ic

**AMPEX CORP., INSTRUMENTATION DIV.,** 934  
Charter St., Redwood City, Calif. / EMerson 9-1481 /  
\*C 58

Magnetic tape recorder-reproducers and readers;  
magnetic tape for programming computers; mem-  
ory systems; input-output devices; digital and an-  
alog magnetic storage devices; data recording equip-  
ment; facsimile equipment; information retrieval  
devices / RMSa Ls(2000) Me(1947) Ic

**AMPHENOL ELECTRONICS CORP.,** 1830 S .54th St.,  
Chicago 50, Ill. / BIshop 2-1000 / \*C 57

Connectors for computer applications; all types /  
Ls(2000) Me(1932) Ic RMSa

Analog Controls, Inc., 39 Roselle St., Mineola, N.Y.  
/ PIioneer 2-8901 / \*C 58

Special analog computers; potentiometers; air bear-  
ing-high speed magnetic drum drives; magnetic  
clutches; analog to digital converters / RMSa Ms  
(52) Se(1953) AIC

**ANDERSEN LABORATORIES, INC.,** 501 New Park  
Ave., West Hartford 10, Conn. / ADams 3-4491 /  
\*C 58

Solid ultrasonic delay lines, variable delay lines /  
RMSa Ms(50) Se(1951) Ic

C. H. Alvord, Pres. / W. M. Andersen, VP

**ANELEX CORP.,** 150 Causeway St., Boston 14, Mass.  
/ RIchmond 2-1720 / \*C 58

High speed printers / RMSa Ms(100) Se(1948) Ic  
Gilchrist L. Hurst, VP sales / R. A. Merrill, Market-  
ing Mgr.

Applied Electronics Corp., 1117 Commonwealth Ave.,  
Boston 15, Mass. — name changed to Wayne-George  
Corp.

Applied Science Corp. of Princeton, P.O. Box 44, Prince-  
ton, N.J. / SWinburne 9-1000 / \*C 58

Pulse width telemetry, statistical data analysis, in-  
dustrial telemetry and supervisory control, data han-  
dling systems, analog computers, consulting serv-  
ices, automatic and signaling controls, computing  
converters, scanners, simulators / RMSCa Ms(400)  
Me(1946) Ic

Arenberg Ultrasonic Laboratory, Inc., 94 Green St., Ja-  
maica Plain 30, Mass. / JAmaica 2-8640 / \*C 58

Ultrasonic solid delay lines for radar and computer  
applications, ultrasonic test equipment, computer  
test equipment, memory systems, storage systems /  
RMSCa Ss(7) Se(1957) Ic

Argonne National Laboratory, Box 299, Lemont, Ill. /  
Lemont 800 / \*C

Maker of Avidac and Oracle automatic digital com-  
puters and other computers, for own use and other  
government agencies / Ls(2500) Me(1942) DAIC  
RGPa

**ARMA DIV., AMERICAN BOSCH ARMA CORP.,**  
Roosevelt Field, Garden City, Long Island, N.Y. /  
\*C 58

Electronic fire control systems for airborne, ship-  
borne and submarine vehicles; inertial guidance sys-  
tems for missiles and aircraft; transistorized air-  
borne digital computers; gyroscopic navigation  
equipment / RMSa Ls(6000) Le DASc

Armour Research Foundation, Illinois Inst. of Technol-  
ogy, 10 West 35th St., Chicago 16, Ill. / CALumet  
5-9600 / \*C 57

Design and construction of developmental com-  
puters, both analog and digital, for special applica-  
tions only. Digital-to-analog and analog-to-digital  
converters. Data reduction systems. Magnetic rec-  
ording. Automatic control machinery. Servomech-  
anisms. Instrumentation. Computing service: ana-  
log, digital; IBM 650 digital computer, Goodyear  
Electronic Digital Differential Analyzers / Ls(1250)  
Me(1937) DAISCc RCPa

Arnhold Ceramics, Inc., One E. 57th St., New York 22,  
N.Y. / PLaza 5-8213 / \*C 58

Two-ton presses for ferrite memory cores (Dorst  
Div.). Capless film resistors (Electronics Div.) /  
RMSa Ss(10) Se(1951) Ic

**THE ARNOLD ENGINEERING CO.,** Railroad Ave.  
and West St., Marengo, Ill. / (Chicago) ANdover  
6300 / \*C 58

Permanent magnets cast and sintered; magnetic  
cores; high permeability tape wound cores; tape  
wound bobbin cores; powder cores; special mag-  
netic materials / RMSa Ls(625) Me(1936) Ic

# These 3 New RCA Low-Cost Computer Transistors Can Open New Markets For You!

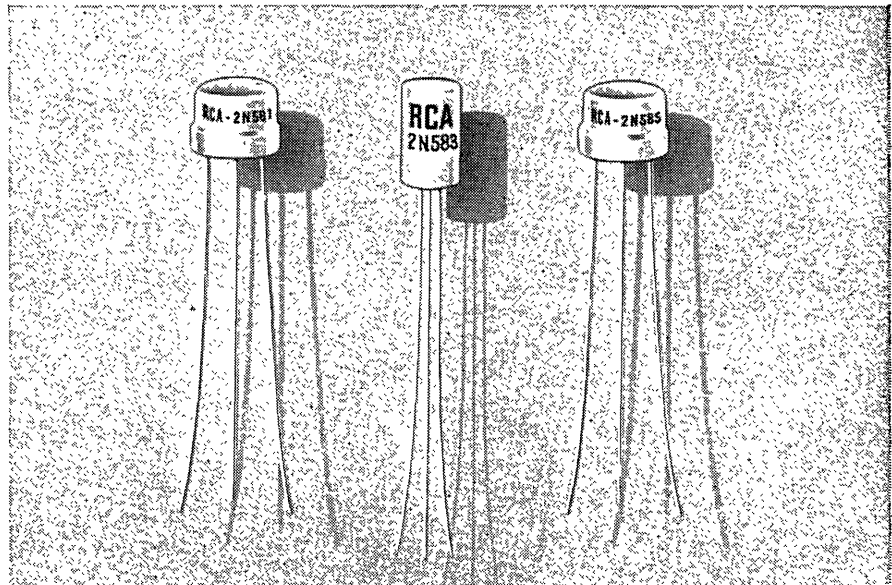
*RCA now makes available low-cost high-quality transistors for reliable performance in electronic computer applications!*

- Can low-priced, highly-reliable computer transistors help you expand into new markets?
- Can they enable you to profitably engage in the design of compact mass-produced computers?
- Are you looking for ways to revise your current designs to save costs?

If the highly desirable combination of *reliable performance* and *low cost* have been difficult for you to find, investigate these three new RCA units: RCA-2N581, RCA-2N583, and RCA-2N585. They are specifically designed, produced and controlled for computer applications; life-tested for dependable service; electrically uniform; available in commercial quantities; and are unusually low in price.

In addition to these three new types, RCA offers a comprehensive line of transistors for your most critical computer designs. For additional information on RCA Transistors, contact your local authorized RCA Distributor or your RCA Field Representative at the office nearest you.

For technical data on RCA Transistors, write RCA Commercial Engineering, Section F-90-NN, Somerville, New Jersey.



NEW GERMANIUM ALLOY-JUNCTION TRANSISTORS FOR  
MEDIUM-CURRENT SWITCHING SERVICE IN COMPUTER APPLICATIONS

RCA Type	Typical Alpha-Cutoff Frequency Mc	Typical DC-Current Transfer Ratio Value at Collector Ma.	Maximum Collector Ma.
2N581* (p-n-p)	8	30 at -20	-100
2N583** (p-n-p)	8	30 at -20	-100
2N585* (n-p-n)	5	40 at +20	+200

\*Jetc TO-9 Outline (formerly referred to as Jetc Size-Group 30 Case)  
\*\*Jetc TO-1 Outline

**EAST:** 744 Broad Street  
Newark, N. J.  
HUmboldt 5-3900

**MIDWEST:** Suite 1154  
Merchandise Mart Plaza  
Chicago, Ill.  
WHitehall 4-2900

**WEST:** 6355 E. Washington Blvd.  
Los Angeles, Calif.  
RAYmond 3-8361

**GOV'T:** 224 N. Wilkinson Street  
Dayton, Ohio  
BALdwin 6-2366  
1625 "K" Street, N.W.  
Washington, D.C.  
DIstrict 7-1260



**RADIO CORPORATION OF AMERICA**  
Semiconductor and Materials Division  
Somerville, New Jersey

- Robert M. Arnold, Pres. / Charles S. Brand, V.P. and Chief Engineer  
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill. / Whitehall 4-3700 / \*C  
 Hydraulic and electronic automatic control equipment. Servomechanisms. Computing service: analog; Philbrick analog computer / Ms(400) Me(1930) SCc RMSPa
- Assembly Products, Inc., 75 Wilson Mills Rd., Chesterland, Ohio / HA 3-4436 / \*C 58  
 Contact meter relays, panel meters, electrically actuated controls, automatic control equipment, analog to digital converters / RMSa Ms(210) Me(1945) DACc
- Atlas Precision Products Co., 3801 Castor Avenue, Philadelphia 24, Pa. / Jefferson 5-3700 / \*C 57  
 Mechanical analog computers for fire control, radar, etc.; geared mechanisms, servos, etc. / Ms(270) Me(1928) AIc MSa
- AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N.Y. / PLaza 1-6640 / \*C 58  
 Magnetic recording tape, guaranteed defect-free for use in computers; telemetry, seismography, automation; silicon rectifiers / RMSa Ms(150) Me(1937) Ic  
 W. C. Speed, Pres. / Bryce Haynes, VP
- AUDIO DEVICES, INC., Rectifier Div., 620 E. Dyer Rd., Santa Ana, Calif. / KIMberly 5-8241 / \*C 58  
 Silicon rectifiers / RMSa Ms(100) Se(1957) Ic  
 G. Eannarind, VP
- Audio Instrument Co., Inc., 133 West 14 St., New York 11, N.Y. / ORegon 5-7820 / \*C 58  
 Analog time delay devices, magnetic; logarithmic converters / RMSa Ss(9) Se(1949) Ic
- The Austin Co., Special Devices Division, 76 9th Ave., New York 11, N.Y. / Watkins 4-3630 / \*C 57  
 Special purpose automatic control systems for laboratory, industrial, and military purposes; analog, digital, data-handling, servo, electronic, electromechanical. Shaft position indicators and systems / Ms(division, 150, company 25,000) Me(division, 1943; company, 1878) DASCmc RMSa
- Automatic Control, 430 Park Ave., New York 22, N.Y. / MU 8-8600 / \*C 58  
 Monthly publication on automatic control and related subjects / Ss(20) Se(1954) Ic
- AUTOMATIC ELECTRIC CO., Northlake, Ill. / Fillmore 5-7111 / \*C 58  
 Rotary stepping switches and telephone-type relays for industrial control, telephone systems, etc. / RMSa Ls(8000) Le(1891) Ic  
 H. F. Lello, Pres. / V. E. James, Sales Mgr.
- Automatic Manufacturing Div., General Instrument Corp. — see General Instrument Corp., Automatic Manufacturing Div.
- AUTOMATIC OFFICE CONSULTANT, INC., 5057 Woodward Ave., Detroit 2, Mich. / TE 3-3454 / \*C 58  
 Publishing ("The Automatic Office — A Monthly Management Report") / Ss(8) Se(1958) Ic  
 E. F. Murphy, Editor
- Automatic Signal Division, Eastern Industries, Inc., Norwalk, Conn. / Temple 8-4791 / \*C  
 Automatic volume-density traffic controllers; digital and analog computers; servomechanisms / Ms(300) Me(1928) Ic MSa
- AUTOMATION CONSULTANTS, INC., 155 Fifth Ave., New York 10, N.Y. / OR 4-6660 / \*C 58  
 Consulting engineers (office automation field). Publishers of "Office Automation" and "Office Automation Applications" / Ca (Ss12) Se(1953) Dc  
 R. Hunt Brown, Pres. / H. Cash, Editor Office Automation
- Automation Controls Corp., 5737 West 98 St., Los Angeles 45, Calif. / ORegon 8-0911 / \*C 58  
 Automatic control equipment; relays / RMSa Ss(5) Se(1957) ICc
- Automation Engineering Laboratory, One E. Putnam Ave., Greenwich, Conn. / Greenwich 8-2300  
 Designs, engineers, and builds complete automated units or systems / Ic RMca
- AUTOMATION ENGINEERS COMPANY, Div. of Associated Industrial Consultants, 344 West State St., Trenton 8, N.J. / OWen 5-8509 / \*C 58  
 Consultants in automatic control machinery, automatic materials handling equipment, and information handling equipment. Analysis of automation opportunities and economics of application; supervision of design and installation of automation improvements / Ca Ss(20) Me(1942) ICMc  
 Frank Federici, Director / Lester G. Stine, Partner
- Automation Progress, 9 Eden St., London N.W. 1, England / Euston 5911 / \*C 58  
 Technical magazine on all aspects of automatic production and control
- Automation Research & Design Associates, 135 Main St., Belleville 9, N.J. / PLymouth 9-5812 / \*C 58  
 Consultants, designers, of servomechanisms, measuring and recording systems, telemetering systems, analog computers, digital computers / DAic
- AUTONETICS, DIV. OF NORTH AMERICAN AVIATION, INC., 9150 E. Imperial Highway, Downey, Calif. / LUDlow 3-6111 / \*C 58  
 Inertial navigation systems, armament and flight control systems. Automatic control equipment; printed circuits; analog and digital computers; data recording equipment; differential analyzers; magnetic disc memory; fire control equipment; magnetic tape recorders / RMSa Ls(6000) Se(1955) DAic  
 J. R. Moore, VP & Gen. Mgr. / S. W. Horrocks, Asst. Gen. Mgr.
- AVCO MFG. CORP., RESEARCH AND ADVANCED DEVELOPMENT DIV., 20 S. Union St., Lawrence, Mass. / MURdock 8-6011 / \*C 58  
 Digital computers; logical, plug-in, potted, printed circuits; computer input-output equipment; magnetic reading and recording heads; environmental test equipment; sorting and counting controls; data recording cameras and equipment; communications systems, fire control equipment; magnetic tape readers and recorders / RMSCa Ls(2200) Se(1955) DIc  
 Lloyd P. Smith, Pres. / R. D. Davis, Mgr.-Marketing
- Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N.J. / COLfax 1-4100 / \*C 58



For digital-computer input/output

## Ampex offers 45,000 to 90,000-character transfer rates

For high-speed computer input and output, magnetic tape is the answer—and Ampex offers the fastest equipment of all. Just for sport, this Ampex FR-300 could “read” or “write” the digitized equivalent of an average 500-page book in just 13 seconds. Or it could go through the equal of that whole man-sized stack in less than five minutes.

But the real point is that these fast input/output rates are needed. They set the pace that determines computer productivity. Incorporating Ampex Digital Tape Systems for these functions will speed up your whole digital-computer package. Spectacular? Impressive? Yes, but speed is also a tangible and conclusive advantage in the sale of *your* equipment.

### TO GIVE YOU THIS GREATER SPEED

The Ampex FR-300 Tape Handler operates at 150 inches per second, a two-to-one advantage over previous standards. It packs 300 bits per inch onto the tape. And FR-300 handlers are available for one-inch tape affording the very practical possibility of putting two 6-bit alpha-numeric characters side by side across the greater width. To get high performance, Ampex has taken a systems approach, designing the tape handler, magnetic heads, amplifiers and the magnetic tape as an integrated whole.

Ampex transfer rates in characters per second	
90,000	150 in./sec. tape speed; 300 bits/inch; two 6-bit characters side by side on 1-inch tape.
60,000	Same as above except 200 bits/inch.
45,000	150 in./sec. tape speed; 300 bits/inch; one 6-bit character across half-inch tape.
30,000	Same as above except 200 bits/inch.
Lower transfer rates are available from a wide range of slower tape speeds available on Ampex tape handlers.	

### DEPENDABILITY, TOO, PROVED IN 50-MILLION STARTS AND STOPS

Though the transfer rates accomplished by the Ampex Digital System are faster than any available before, our engineers have evolved mechanical and electrical design details that make this an easy pace. During development, the most critical of these parts were subjected to as many as 50-million start-stop cycles. This would be a normal year of heavy-duty operation. By drastically reducing downtime expectancy from tape-handler problems, Ampex has contributed still another factor toward increased computer work per day.

### A TECHNICAL HEADSTART YOU CAN PUT ON YOUR SIDE

This is magnetic-tape equipment—our specialty. In buying from Ampex, you are “hiring” the very best existing experience and manpower in this field. Behind the Ampex 90,000-bit transfer rate, there are engineering skills and manufacturing techniques accumulated in ten years of specialized effort. This equipment is in production—ready today to give you a competitive advantage—so why divert your own best brains from other critical aspects of computer design?

For full description and specifications, write Dept.

DIGITAL -  
TAPE - SYSTEM  
PERFORMANCE

14

AMPEX  
CORPORATION



Data processing equipment, encoders, decoders, printed circuits, magnetic components, power supplies, packaged computer circuits, plug-in circuits, analog and digital computers, digital to analog converters, automatic controls, sorting and counting controls, facsimile equipment, fire control equipment, input-output devices, electronic and mechanical integrators, regulated power supplies, character readers, and visual output devices / RMSa Ms(475) Me(1946) DAC

Avion Division-Alexandria (formerly ACF Electronics), Div. of ACF Industries, Inc., 800 No. Pitt St., Alexandria, Va. / King 8-4900 / \*C

Analog-to-digital encoders, and digital-to-analog decoders / Ms(177) Se(1954) DAc RMSa

Avion Division of ACF, Erco Div., P.O. Box 209, Hyattsville, Md.

Analog computers / Ac RMSa

## B

Babcock Radio Engineering, Inc., 1640 Monrovia Ave., P.O. Box 344, Costa Mesa, Calif. / Liberty 8-7705 / \*C 58

Guidance control systems, relays, signal generators, receivers, decoders, etc. / RMSCa Ms(151) Se(1948) Ic

Baird-Atomic Co., 33 University Rd., Cambridge 38, Mass. / UNiversity 4-0101 / \*C 58

Spectrochemical, electronic and radioisotope instrumentation for analysis and control; electronic tubes, proportional counters, electronic counters, sorting and counting controls, scientific instruments, analog devices, servo-mechanisms, transistors, analog-to-digital converters, printers, computer components / RMSa Ms(365) Me(1934) Ic

Ballastran Corp., 1701 N. Calhoun St., Fort Wayne 7, Ind. / E-2286 / \*C 58

Pulse transformers / RMSCa Ms(150) Me(1946) Ic

Bank of America National Trust and Savings Association, Controllers Dept., Systems and Equipment Research Section, 500 Howard St., San Francisco, Calif. / \*C 57

Digital computing service, with IBM 702 automatic digital computer / Ss Se Dc CPa

Barker & Williamson, Inc., 237 Fairfield Ave., Upper Darby, Pa.

Facsimile equipment; transmitting equipment; delay lines / Ic RMSa

Battelle Memorial Institute, 505 King Ave., Columbus 1, Ohio / AX 9-3191 / \*C 58

Research and development in all fields of the physical sciences; computer programming assistance; digital computing and consulting services / RCa Ls (2500) Me(1929) DAic

**BECKMAN INSTRUMENTS INC., BERKELEY DIV.,** 2200 Wright Ave., Richmond 3, Calif. / LAndscape 6-7730 / \*C 58

Analog computers ranging from standard models to special purpose units including completely automatic punched tape setup systems with automatic scanning and printed readout. Amplifiers, computer components, electronic generators, input-output de-

vices, electronic integrators and multipliers, plotters, potentiometers, resolvers, scanners, translating equipment / RMSCa Ls(500) Me(1946) Ac

R. M. Ward, Div. Mgr. / K. E. Sterne, Computer Sales Mgr.

Beckman Instruments Inc., Systems Div., 321 No. Muller Ave., Anaheim, Calif. / Prospect 4-5430 / \*C 58

Multi-channel digital data processing, computing, and recording systems, automatic process control systems, data reduction systems, DC amplifiers, digital-to-analog converters, analog-to-digital converters, amplifiers, plug-in circuits, electronic counters, counters / RMSa Ms(300) Se(1955) DAC

Bell Punch Co., Ltd., 39 St. James St., London, S.W. 1, England / Hyde Park 1532 / \*C 56

Small digital computers / Ls(2000) Le(1878) Dc RMSa

Bell Telephone Laboratories, Murray Hill, N.J. / SUMmit 6-6000 / and 463 West St., New York 14, N.Y. / CHelsea 3-1000 / \*C 58

Automatic switching. Bell general purpose computers (relay and electronic, digital and analog) for government use and company's own use / Ra Ls (10,000) Le(1925) DAC

**BENDIX AVIATION CORP.,** Bendix Computer Div., 5630 Arbor Vitae St., Los Angeles 45, Calif. / ORegon 8-6262 / \*C 58

G-15 general purpose digital computer and accessories, including small-size low-cost digital differential analyzers, punched card adapter, magnetic tape recorders and readers, plotters, missile flight simulator, analog computer, digital computing services, computing converter, data processing and recording equipment, input-output devices, memory systems, punch cards, office machines, photoelectric and punch card readers / RMSa Ms(400) Se(1952) DIc

M. W. Horrell, Gen'l Mgr. / O. P. Staderman, Dir. of Mktg.

Bendix Aviation Corp., Eclipse Pioneer Div., Teterboro, N.J. / ATlas 8-2000 / \*C 58

Synchros, servo motors and motor generators, gyros, and related components for servomechanisms; magnetic amplifiers, analog and digital computers, automatic controls, analog-to-digital converters, magnetic drums, mechanical and electronic integrators, resolvers / RMSa Ls(7000) Le(1919) DAic

Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, Hollywood, Calif. / — / \*C

Telemetry systems. Digital systems, controls, and components. Analog-to-digital converters / Ls (2500) Le(1915, company; 1937, this division) Ic RMSa

Bendix Aviation Corp., Research Laboratories Div., P.O. Box 5115, Detroit 35, Mich. / KEnwood 7-3300 / \*C 58

Analog and digital computers, numerically controlled machine tools, dynamic data plotting systems, servomechanisms, "Data Logging Systems," amplifiers, automatic control equipment, plug-in circuits, computer components, automatic controls, silicon diodes, electronic and mechanical integrators, electronic and servo multipliers, patch cords, semi-

- conductors, simulators, telemetering systems, transistors / Ra Ls(505) Me(1942) DASCc
- Benge Associates, McIntyre Bldg., Spruce and College Sts., Asheville, N.C. / Asheville 2-0852 / \*C  
Management engineers; applications of electronic data processing to office procedures; costs, analysis of clerical routines leading to programming / Ss Me(1939) Cc RCPa
- Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif. / BR 2-3484, GR 9-3723 / \*C 58  
Data processing and translating equipment, recording readers (oscillograph, film, etc.) data storage and retrieval machines, and data display devices including graph plotters and computer input-output display machines, plotting boards, data recording cameras; analog-to-digital, digital-to-analog converters, counters, inventory and memory systems, electric controlled typewriters / RMSCa Ms(200) Se(1950) DAc
- Bergen Laboratories, 11 Goodwin Ave., Fairlawn, N.J.  
Automatic control equipment, magnetic tape recording equipment / Se ICc RMSa
- Berkeley Div., Beckman Instruments, Inc. — see Beckman Instruments, Inc., Berkeley Div.
- EDMUND C. BERKELEY AND ASSOCIATES**, 815 Washington St., Newtonville 60, Mass. / DEcatur 2-5453 or 2-3928 / \*C 58  
Courses by mail in automatic computing machinery, mathematics, and other scientific subjects / Ss(3) Se(1948) Dc PCa (affiliated with Berkeley Enterprises, Inc.)
- BERKELEY ENTERPRISES, INC.**, 815 Washington St., Newtonville 60, Mass. / DEcatur 2-5453 or 2-3928 / \*C 58  
Small robots; robot show-stoppers; Relay Moe (tittat-toe machine). Electric brain construction kit for educational purposes, Brainiac, Geniac, Tyniac. Publisher of "Computers and Automation" and other publications / Ss(6) Se(1954) Dc RMSa (Affiliated with Edmund C. Berkeley & Associates) / Edmund C. Berkeley, Pres.
- Berkshire Laboratories, 732 Bank Village, Greenville, N.H. / Greenville 111 / \*C  
Special computer components / Ss Se(1949) IAc RMCa
- Bill Jack Scientific Instrument Co. — see Jack under J
- Birkbeck College, Dept. of Numerical Automation, University of London, Malet St., London W.C. 1, England / LANgham 7941 / \*C 58  
Digital and analog computers, machine translation of language, input-output numerical analysis / RCA Ss(20) Me(1946) DAIC
- BJ Electronics, Borg-Warner Corp., P.O. Box 1679, 3300 Newport, Santa Anna, Calif. / Ki 5-5581 / \*C 57  
Digital data systems, "vibrotron" transducers, memory drums, shaft position digitizers / Ms(450) Me (this division, 1944; company, 1910) DIC RMSCa
- Boeing Airplane Co., Industrial Products Division — their Electronic Analog Computer has been transferred to Western Electronic Supply Co., which see.
- Booz, Allen and Hamilton, 135 South LaSalle St., Chicago 3, Ill. and other cities / Financial 6-1900 (each city) / \*C 57
- Management consultants; complete service in applications of integrated and electronic data processing to management control systems in business, industry, and government / Ms(450) Le(1914) DAICc RCPa
- George W. Borg Corp., Borg Equipment Div., 120 S. Main St., Janesville, Wisc.  
Potentiometers / Ic RMSa
- Borg-Warner Corporation — SEE BJ Electronics
- BOURNS LABORATORIES, INC.**, P.O. Box 2112 (6135 Magnolia Ave.), Riverside, Calif. / Overland 4-1700 / \*C 58  
Adjustment potentiometers; potentiometer transducers for linear motion, pressure, acceleration; TRIMPOT, TRIMIT, and potentiometer instruments; resistors / RMSa Ms(500) Se(1946) Ic  
D. P. Vaughan, Sales Mgr., TRIMPOT Sales Div. / E. J. Goepfinger, Sales Mgr., Instrument Sales Div.
- BOWLES, ANDREWS & TOWNE, INC.**, 1389 Peachtree St., NE, Atlanta 9, Ga. / TR 5-7421 / \*C 58  
Consulting actuaries and insurance company management consultants; IBM 650 electronic data-processing and computing service / Ca Ms(60) Se (1948) Ic  
T. P. Bowles, Jr., Part. & Actuary / R. J. Towne, Part. & Actuary
- BOWMAR INSTRUMENT CORPORATION**, 8000 Bluffton Rd., Fort Wayne, Indiana / HARRison 2351 / \*C 58  
Precision speed reducers and gear heads, precision servo motor gear heads, precision electromechanical components, precision electrical and mechanical counters including navigational BuOrd Angle, internal pinion type counters; designing of foregoing and of electromechanical servomechanisms and electromechanical computer subsystems, aircraft indicators and electromechanical components / RMSa Ms(230) Se(1951) Ic  
Edward A. White, Pres. / George F. McCarthy, Gen. Sales Mgr.
- Bowser, Inc., 33 No. LaSalle St., Chicago, Ill. / Andover 3-4322 / and subsidiaries / \*C  
Electro-mechanical file card selectors. Computing liquid flow meters, mechanical, and electronic. Blenders and proportioners for automation of liquid process plants; liquid controls; money-meter machines; many other products / Ls(4000) Le(1885) Ic RCMSa
- Bradley Laboratories, Inc., 168 Columbus Ave., New Haven 11, Conn. / MAIn 4-3123 / \*C 58  
Selenium rectifiers, copper oxide meter rectifiers, silicon selenium and copper oxide diodes, modulators, limiters, arc suppressors, D.C. power supplies / RMSa Ms(75) Me(1939) Ic
- Brender & Brender, Inc., P.O. Box 712, 35449 Annapolis St., Wayne, Mich. / PARKway 2-0515 / \*C 58  
Digital computer service: data processing and programming for civil engineers using LGP-30
- Richard D. Brew and Company, Inc., 90 Airport Rd., Concord, N.H. / Capitol 5-6606 / \*C  
Distributed constant, lumped constant and ultrasonic delay lines / Ss(36) Me(1939) Ic RMSa
- Brick Electronic Equipment Co., Norwood, N.J.

- Facsimile equipment; receiving and transmitting; sensitized paper / Ss Se Ic RMSa
- THE BRISTOL COMPANY**, P.O. Box 1790 CAG, Waterbury 20, Conn. / PLaza 6-4451 / \*C 58  
Electronic and potentiometric recording, indicating, controlling, signalling; alarm and telemetering instruments for standard and special functions; components including choppers, high speed relays, capsular elements, remote positioners, pressure switches and transducers; miniature standard and special socket screws; recording papers / RMSa Ls(over 1000) Le(1889) Ic  
W. H. Faith, Pres. / G. P. Lonergan, Mgr. Sales Promotion
- The British Tabulating Machine Co., Ltd., 17 Park Lane, London, W. 1, England / \*C 58  
Punched card equipment and electronic digital computers, card to paper tape converters, paper tape to card converters, data processing and recording equipment, magnetic drums, input-output devices, memory systems, office machines, line-a-time and high speed printers, magnetic card paper tape and punch card readers, magnetic tape filing systems, readers, and recorders, paper tape / RMSa Ls(8000) Le(1908) DSic
- Brown University, Div. of Applied Mathematics, Providence 12, R.I. / UN 1-2900 / \*C 58  
Computing service, instruction, research / RCa Ss Se(1956) Ic
- Brush Instruments, Div. of Clevite Corp., 3405 Perkins Ave., Cleveland 14, Ohio — no longer in field of computers or computer components
- Bryant Chucking Grinder Co. — see Bryant Gage and Spindle Division
- BRYANT GAGE AND SPINDLE DIVISION**, a division of Bryant Chucking Grinder Co., Box 620, Springfield, Vermont / TUrner 5-2141 / \*C 58  
Magnetic memory systems, with speeds to 200,000 RPM, capacities to 120 million bits; magnetic drum, disc and storage systems; precision electromechanical devices, high speed motors, delay lines, tape transports, magnetic reading and recording heads; internal grinders; computer components / RMSa Ms(250) Le(1909) Ic  
J. E. Smith, Gen. Mgr. / P. L. Smith, Sales Mgr.
- Bull S. A. Compagnie des Machines, 94 Avenue Gambetta, Paris 20e, France / MEN 8158 / \*C  
Punch card machines. Commercial electronic computers and card-programmed scientific computers / Ls(2500) Me(1931) Dc RMSa
- J. H. BUNNELL & CO., 81 Prospect St., Brooklyn 1, N.Y. / ULster 8-0100 / \*C 58  
Tape winders, for teletype operations and high speed operation; communication devices and accessories for the communications field; custom fabrication and assembly of electro-mechanical and electronic assemblies; data recording equipment; mechanical, magnetic tape, and paper tape readers / RMSa Ms(70) Le(1878) Ic  
J. S. Finnigan, Vice Pres. & Gen'l Mgr. / C. N. Shlenker, Cont. Admin.
- Bureau of the Census, Washington 25, D.C. / \*C  
Statistical data processing by electronic computing system (Univacs), by commercial punch-card equipment, and by special machines designed and built for own use / Ms(400 in electronic and mechanical processing primary organization units) Le(1890 in punch card field) Dc RCPGa
- Burlingame Associates, Ltd., 510 South Fulton Ave., Mt. Vernon, N.Y. / Mt. Vernon 4-7530 / \*C 58  
Analog computers, computing accessories, X-Y plotters, multichannel recorders, digital voltmeters, card-to-tape converters, magnetic shift registers, magnetic storage systems, high speed digital display / Sa Ss(30) Me(1928) DAic
- Burndy Corp., Omaton Div., Norwalk, Conn. / TEmple 8-4711 / \*C 58  
Electronic and electrical connectors and components for the fields: computers, electronics, aircraft, missiles, government. Also related compression-type installation tooling for solderless connectors, terminals / RMSa Ls(1800) Le(1924) Ic
- Burroughs Corp., 6071 Second Ave., Detroit, Mich. / Triangle 5-2260 / and elsewhere / \*C  
Automatic electronic digital computers, UDEC, E101. Adding machines, bookkeeping machines, etc. Electronic digital test computers. Fast access magnetic core memory. Pulse control components, servomechanisms, etc. / Ls(19,000) Le(1896) DSc RMSPa
- BURROUGHS CORP., ELECTRO DATA DIVISION**, 460 Sierra Madre Villa, Pasadena, Calif. / RYan 1-0471 / \*C 58  
Burroughs Datatron 205 and 220 electronic data processing systems and digital computer components; Burroughs E101 desk-size electronic digital computer; Cardatron punched card input-output system; card to paper tape conversion equipment; Datafile magnetic tape storage system; digital computing service; tape handlers, keyboards, magnetic tape filing systems and tape recorders, paper tape punches. Twenty-three regional, district, and sub-district offices in U.S. and Canada / RMSCa Ls(1600) Se(1954) Dc  
J. R. Bradburn, VP and Gen. Mgr. / E. S. McCollister, Dir. of Mktg.
- Burroughs Corp., Electronic Instruments Division, 1209 Vine St., Philadelphia, Pa. — department closed; SEE other Burroughs Corp. entries
- Burroughs Corp., Electronic Tube Div., P.O. Box 1226, Plainfield, N.J. / PLainfield 6-0876 / \*C 58  
High speed electronic switching tubes and indicating devices, pulse control instruments, digital-to-analog converters, electronic counters, visual output devices / RMSa Ms(150) Se(1954) Ic
- BURROUGHS CORP. RESEARCH CENTER**, Route 202 and Central Ave., Paoli, Pa. / Paoli 4700 / \*C 58  
Business machines and data processing equipment research and development, relating to the corporation's basic interest in computation and data processing, and seeking new and improved methods of storing, manipulating, recording, and reading data. Assignments in product development / Ra Ls(1800) Se(1949) Dc  
Dr. Irven Travis, Vice Pres., Res. and Engineering / R. V. D. Campbell, Deputy Director, Res. Ctr.





**Speed routine calculations—increase creative time  
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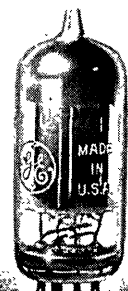
WORLD'S LARGEST MANUFACTURER OF TYPEWRITERS  
AND MAKERS OF DATA PROCESSING EQUIPMENT

BUSINESS ELECTRONICS, INC., 420 Market St., San Francisco 11, Calif. / DOuglas 2-0894 / \*C 58  
Home study courses in programming for computers, and applications of business problems to computers / Ss Se(1955) DIc RCPa  
Byron Jackson Division — SEE BJ Electronics, Borg-Warner Corp.

## C

California Computer Products, 3927 W. Jefferson Blvd., Los Angeles 16, Calif. / REpublic 5-8355 / \*C 58  
Digital X-Y recorder, plotting boards, regulated power supply / RMSa Ss Se(1951) ICc  
California Technical Industries, Div. of Textron, Inc., 1421 Old County Rd., Belmont, Calif. / LYtell 3-8466 / \*C 58  
Automatic production test equipment, cable assemblies, computer test equipment, paper tape and magnetic tape readers, paper tape punches / RMSa Ms(115) Se(1946) Ic  
CALVERT ELECTRONICS, INC., 536 Broadway, New York 12, N.Y. / CANal 6-7400 / \*C 58  
Radio and electronic tubes and components; germanium and silicon transistors; resistors. Wholesale distributors / Sa Ss(18) Se(1948) Ic  
CAMBRIDGE THERMIONIC CORPORATION, 445 Concord Ave., Cambridge 38, Mass. / TRowbridge 6-2800 / \*C 58  
Miniature and sub-miniature plugs and strip type plotting boards, jacks; gold, silver and other finish terminals; terminal boards; connectors, press mount and spring loaded diode clips; jacks, panels, and chassis hardware; insulated terminals; coil forms and coils; capacitors / RMSCa Ms(200) Me(1940) Ic  
Lowell Wilkes, Sales Mgr. / W. A. Melanson, Chief Engr.  
Cambridge University, Mathematical Laboratory — see University of Cambridge, University Mathematical Laboratory.  
Canadian Applied Research Ltd., 1500 O'Connor Dr., Toronto 16, Can. / PLYmouth 9-2241 / \*C 58  
Instrumentation equipment using electronics, mechanics, optics for application in fields of aviation, photography, aerial survey; magnetic amplifiers, cable assemblies, data recording cameras, analog computers, computer test equipment, automatic controls, fire control equipment, geophysical apparatus, mechanical integrators, synchros, tachometers / RMSCa Ms(420) Se(1951) ACIc  
Canadian Westinghouse Co., Ltd., Electronics Div., P.O. Box 510, Hamilton, Canada / JA 8-3461 / \*C 58  
Computation center for company use and outside customers; analog memory devices; electronic transformers; rectifiers; transistors; magnetic amplifiers; semiconductors / RMSCa Ms(200) Me(1940) Ic  
Canning, Sisson & Assoc., 1140 S. Robertson Blvd., Los Angeles 35, Calif. / BRadshaw 2-8425 / \*C 58  
Consultants in design and installation of electronic data processing business systems. Publishers of "Data Processing Digest" / Ca Ss(5) Se(1954) Ic  
Carbide and Carbon Chemicals Company-AEC, Numerical Analysis Department, P.O. Box P, Oak Ridge, Tenn. / LD-220, X8671 / \*C

Numerical analysis using digital computers / Ss(35) Se(1948) Dc RGa  
Carnegie Institute of Technology, Schenley Park, Pittsburgh 13, Pa. / MAyflower 1-2600 / \*C 58  
Computing service using IBM 650 and 405 / RCa Ls(1300) Le(1905) Dc  
Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif. / ME-05821 / \*C 58  
Magnetic cores / RMSa Ms(115) Se(1951) Ic  
CBS-HYTRON, a Div. of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass. / SPring 4-2360 / \*C 58  
Electron tubes, semiconductor products. Germanium and silicon transistors, diodes / RMSa Ls(5000) Le(1921) Ic  
Arthur L. Chapman, Pres. / John Q. Adams, Vice-Pres., Sales  
Celco (Constantine Engineering Laboratories Co.), 70 Island Ave., Mahwah, N.J. / DAVis 7-1123 / \*C 58  
Precision deflection yokes, magnetic amplifiers, pulse transformers, computer type coils, toroidal windings / RMSa Ms(125) Se(1950) Ic  
Centralab (Div. of Globe Union), 900 E. Keefe Ave., Milwaukee, Wis. / WO 2-9200 / \*C 58  
Electronic components: switches, capacitors, packaged electronic circuits, computer circuits (plug-in, potted, printed), transistor amplifiers, variable resistors, switches / Sa Ls(5000) Me(1936) Ic  
Centronix Inc., 34 Oleander St., Cocoa, Fla. / 2040 / \*C 58  
Electronic and electromechanical instrumentation; magnetic amplifiers, data recording cameras and equipment, plug-in, potted and printed circuits, analog and digital computers, analog-to-digital converters, telemetering systems / RMSCa Ms(85) Se(1953) Ic  
Century Electronics & Instruments, Inc., 1333 N. Utica, Tulsa 10, Okla. / LU 4-7111 / \*C 58  
Multi-channel recording oscillographs of direct writing, electrophotographic, and conventional photographic types; vibration and stress analysis systems; data recording equipment and cameras; input-output devices; galvanometers / RMSa Ms(125) Me(1945) Ic  
Century Engineers, Inc., 2741 N. Naomi St., Burbank, Calif.  
Analog-to-digital converters; analog & digital computers; data processing / DAIC RMSa  
Century Geophysical Corp., 1333 N. Utica, Tulsa, Okla.  
Data processing. See Century Electronics and Instruments, Inc.  
C G Electronics Corp., 15000 Central, E., Albuquerque, New Mexico / ALpine 6-9858 / \*C 58  
Digital data acquisition and reduction systems, data reduction services, digital telemetry systems. Plug-in, potted, printed circuits, analog and digital computers; digital computing services; consulting services; geophysical apparatus, information retrieval devices, input-output devices, electronic integrators, inventory systems, memory systems, translating equipment, visual output devices / RMSCa Ms(95) Se(1954) DAIC  
Chadwick-Helmuth Co., 472 E. Duarte Rd., Monrovia, Calif. / ELIott 8-4567 / \*C 58



# 50,000 hours

**...A record six-year period of continuous computer-tube operation... by General Electric 5844's, the industry's first computer tube!**

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Look to tubes for proved dependability! Reliable long-life performance is a feature of all nine General Electric specially-designed computer types. For your military or commercial needs, specify from the list that follows! Additional facts are available from any office of the G-E Receiving Tube Department listed below.

COMPUTER TUBE TYPE	CLASSIFICATION	HEATER CURRENT IN ma, AT Ef=6.3 v	DESIGN-MAXIMUM DC CATHODE CURRENT PER SECTION, IN ma	DESIGN-MAXIMUM PLATE DISSIPATION PER PLATE, IN WATTS	TYPICAL APPLICATION
5844	Twin triode	300	10	1.0	Medium-speed counter
5965	Twin triode	450	15	2.2 4.0 (a)	High-speed counter or amplifier
6211	Twin triode	300	14	1.4	Medium-speed counter
6414****	Twin triode	450	17	2.0 3.6 (a)	High-speed counter or amplifier
6463	Twin triode	600	30	4.0 7.0 (a)	High-speed counter, amplifier, or core-driver
6525	Thyratron	150	Peak 60, Avg 20	...	Gate or relay-driver
6829****	Twin triode	450	20	2.2 4.0 (a)	High-speed counter or amplifier
6919	Twin diode	200	3.0 (b)	...	Gate or clamp
7036	Heptode	300	16	0.75	High-speed gate

\*\*\*\* 5-Star high-reliability tube. (6829 is built to a MIL spec.)

(a) Total both plates.  
(b) Maximum DC output current per plate.

**EASTERN REGION**  
200 Main Avenue, Clifton, New Jersey  
Phones: (Clifton) GRegory 3-6387  
(N.Y.C.) Wlconsin 7-4065, 6, 7, 8

**CENTRAL REGION**  
3800 North Milwaukee Avenue  
Chicago 41, Illinois  
Phone: SPring 7-1600

**WESTERN REGION**  
11840 West Olympic Boulevard  
Los Angeles 64, California  
Phones: GRanite 9-7765; BRadshaw 2-8566



- Electronic multiplier for use with analog computers / RMSa Ss(5) Se(1954) Ac
- Chrono-log Corp., P.O. Box 4587, Philadelphia 31, Pa. / LOCust 7-5178 / \*C 58  
Electro-mechanical devices in the digital field; digital clocks, calendars, displays; programming devices, mechanical counters, input-output devices, visual output devices / RMSa Ss(5) Se(1956) Dc
- Cinch Manufacturing Corp., 1026 S. Homan Avenue, Chicago 24, Ill. / — / \*C  
Components for computers; tube sockets, connectors, printed wiring boards, terminal boards, etc. / Ls(1400) Le(1924) Ic RMSCa
- CIRCUIT ENGINEERING**, 66 Westland, Weston 93, Mass. / TWinbrook 4-6071 / \*C 58  
Consultants. Transistor, magnetic, electronic, conductive, and other information handling circuits / Ca Ss Se(1954) Ic  
Norman B. Saunders
- C. P. CLARE & CO., 3101 Pratt Blvd., Chicago 45, Ill. AMBassador 2-7700 / \*C 58  
Relays, stepping switches, lever keys, push keys, turn keys, wired assemblies / RMSa Ls(965) Me(1937) Ic  
C. P. Clare, Pres. / D. R. Dooley, VP in charge of sales
- Clarkson Press, Inc., 189 Van Rensselaer St., Buffalo 10, N.Y. / MADison 5101 / \*C 58  
Continuous tabulating forms, computer read-out paper, high speed printer forms / RMSa Ms(90) Me(1947) Ic
- Clarostat Mfg. Co., Inc., Dover, N.H. / SHerwood 2-1120 / \*C 58  
Electronic components; potentiometers, resistors, switches / RMSa Ls(1000) Le(1921) Ic
- Clary Corp., 408 Junipero St., San Gabriel, Calif. / CU 3-2724 / \*C 58  
Electronic computing and data-processing equipment; adding machines and desk calculators, digital computers, keyboard printers, scanners, paper-tape punches / RMSa Ls(1200) Me(1939) DIc
- Clevite Transistor Products, 241 Crescent St., Waltham, Mass. / TWinbrook 4-9330 / \*C 58  
Power germanium transistors, cartridge diodes (plastic), subminiature glass diodes (germanium, silicon, germanium silicon alloy) / RMSa Ls(700) Se(1952) Ic
- Coilcraft, Inc., Cary, Ill. / MErcury 9-2361 / \*C 58  
Inductance coils, delay lines, pulse transformers, molded chokes, computer components / RMSCa Ms(400) Me(1944) Ic
- Coleman Engineering Co., 3500 Torrance Blvd., Torrance, Calif. / TE 0-6931 / \*C 58  
Data recording, reduction, and processing systems. Data recording cameras, automatic control equipment, telemetering systems; digital-to-analog and analog-to-digital converters / RMSCa Ms(300) Se(1950) DAic
- Collins Radio Co., 315 2nd Ave. S.E., Cedar Rapids, Iowa  
Digital computers; Kineplex high-speed digital transmission system / DIc RMSa
- Columbia Broadcasting System, Inc. — SEE CBS-Hytron Division
- Columbia Technical Corp., 61-02 31st Ave., Woodside 77, N.Y. / AStoria 8-7401 / \*C 58  
Delay lines / RMSCa Ss(30) Se(1950) Ic
- Columbian Carbon Co., Mopico Color Div., 601 Cass St., Trenton 10, N.J.  
Magnetic cores / Ic RMSa
- Comar Electric Co., 3349 Addison St., Chicago 18, Ill. / JUNiper 8-2410 / \*C 58  
Relays, including hermetically sealed and sub-miniature, solenoids, coils and switches / RMSa Ms(450) Me(1942) Ic
- Commercial Controls Corp. — merged with Friden, Inc., which see.
- Commonwealth Scientific and Industrial Organization, Radiophysics Division, Sydney, New South Wales, Australia  
Maker of CSIRO Mark I electronic digital computer of Inst. for Advanced Study type / DAC RCGPa
- COMPTOMETER CORP.**, 1735 No. Paulina St., Chicago 22, Ill. / BRunswick 8-5000 / \*C 58  
Comptometer adding-calculating key driven machines; electric calculating-adding machines; Comptometer dictating and transcribing machines; input-output devices; "ComptoTape" programmed data-preparing and verifying machines with automatic tape punching units / RMSa Ls(1200) Le(1886) Ic  
J. D. Seick, Sales Mgr. / L. T. Carr, Gen. Sales Mgr.
- COMPTON CORP.**, 778 Pleasant St., Belmont 79, Mass. / IV 4-8954 / \*C 58  
Transistorized computer components; amplifiers, logical, plug-in, printed circuits; consulting services; controls, electronic counters, power supplies, shift registers / RMCSa Ss(6) Se(1956) DIc  
W. S. Macdonald, Pres. & Treas. / D. B. Macdonald, Clerk
- Computer Company of America — apparently no longer in business
- Computer Control Co., 92 Broad St., Wellesley 57, Mass. / CEdar 5-6220 / also 2251 Barry Ave., Los Angeles 64, Calif. / \*C 58  
Special purpose data processing systems; packaged logical computing circuits (plug-in digital modules), control and instrumentation systems, inventory systems, magnetic storage devices / RMSCa Ms(110) Se(1953) DIc
- Computer Engineering Associates, Inc., 350 N. Halstead Ave., Pasadena, Calif. / RYan 1-9323 / \*C 58  
Direct analog computer design; computer service center and consulting services; communications systems, computer test equipment, delay lines, electronic generators, integrators and multipliers; amplifiers, capacitors, simulators, input-output devices / RMSCa Ms(75) Se(1952) AIc
- Computer Instruments Corp., 92 Madison Ave., Hempstead, L.I., N.Y.  
Precision potentiometers / Ic RMSa
- Computer-Measurements Corp., 5528 Vineland Ave., N. Hollywood, Calif. / STanley 7-0401 / \*C 58  
Electronic counting, timing, controlling; high-speed printing; in-line remote read-out instruments; com-

- puter test equipment; digital-to-analog converters / RMSa Ms(75) Se(1949) DAIC
- COMPUTERS AND AUTOMATION, 815 Washington St., Newtonville 60, Mass. / DEcatur 2-5453 or 2-3928 / \*C 58**
- Monthly computer and data processing magazine published by Berkeley Enterprises, Inc. / MSa Ss (6) Se(1951) Ic  
Edmund C. Berkeley, Editor
- Computing Consultants, Inc., 7 Austell Way, Atlanta 5, Ga. / Exchange 0134 / \*C 56  
Consultants in the utilization of computers for business. Solution of problems for business / Ss Se (1954) Ic CPa
- Computing Devices of Canada Ltd., P.O. Box 508, Ottawa 4, Ontario, Canada / PArkway 8-1761 / \*C 58  
Digital and analog computers; simulators; computer components. Special purpose analog and digital computers and components. Research and development in instrumentation and automatic control. Digital and analog computing and data-processing service. Consulting services on business applications. Field maintenance service / RMSCa Ls(600) Se(1948) DAICc
- Concord Control Inc., 1282 Soldiers Field Road, Boston 35, Mass.  
Numerical control: development and manufacturing / DICc RMSa
- Condenser Products Co., 140 Hamilton St., New Haven, Conn. / SP 7-5411 / \*C 58  
Capacitors, power supplies, pulse forming networks / RMSa Ms(60) ?e Ic
- Con-Elco, 1711 Mountain Ave., Monrovia, Calif.  
Potentiometers; resistors / Ic RMSa
- Consolidated Avionics Corp., 800 Shames Drive, Westbury, L.I., N.Y., Sub. of Consolidated Diesel Electric Corp. / EDgewood 4-8400 / \*C 58  
Data reduction systems; instrumentation for aircraft and missile flight tests; automatic test and control systems; arithmetical circuits, computer test equipment, information converters of all types; data processing and translating equipment / RMSa Ms(60) Se(1956) DAIC
- Consolidated Controls Corp., Durant Ave., Bethel, Conn. / PIONEER 3-6721 / \*C 58  
Magnetic amplifiers, analog to digital converters, magnetic storage and memory systems / RMSa Ms (124) Se(1958) Ic
- Consolidated Diesel Electric Corp., 880 Canal St., Stamford, Conn.  
Analog-to-digital converters; analog computers; digital computers; data processing; magnetic drums; punch card machines / DAIC RMSa
- Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena, Calif. / RYan 1-8421 or SY 6-9381 / \*C 58  
Electronic instruments for measurement, analysis, and control; instrumentation systems for dynamic testing; magnetic amplifiers; automatic control equipment, printed circuits, automatic controls, analog to digital converters, digital and analog data-handling and conversion systems, (Sadic, Millisadic, etc.), data processing and data recording equip-
- ment, reading and recording magnetic heads, information retrieval devices, input-output devices, regulated power supplies, magnetic tape readers, magnetic storage systems, tape handlers, magnetic tape filing systems and recorders, converter magnetic tape to punch card, telemetering systems, transducers, systems engineering / RMSa Ls(2500) Me(1937) DAc
- Control Data Corp., 501 Park Ave., Minneapolis 15, Minn. / FEderal 9-0947 / \*C 58  
Digital computers, systems, and devices; special purpose input-output equipment, gyros, accelerometers, magnetic amplifiers, guidance and communications systems; converters—all types; magnetic storage systems; automatic controls and equipment; logical, plug-in circuits; digital computing and consulting services; data processing and recording equipment; magnetic discs drums, reading and recording heads; inventory and memory systems; plotters, resolvers, synchros, translating equipment; visual output devices / RMSCa Ms(225) Se(1957) DIC
- CONTROL ELECTRONICS CO., INCORPORATED, 1925 New York Ave., Huntington Sta., L.I., N.Y. / HA 8-7961 / \*C 58**  
Computer components; electromagnetic delay lines, lumped constant and distributed constant, fixed and variable. VHF-UHF frequency calibrator, direct reading phase angle meter. Electronic instruments, special power supplies / RMSa Ss(40) Se(1951) Ic  
A. C. Walker, President / E. S. Wendolkowski, Vice President
- Control Instrument Co., 67 35th St., Brooklyn 32, New York / Sterling 8-0658 / \*C 57  
Fire-control equipment. 900 line-a-minute tabulator. Digital and analog machines and components. Character recognition equipment. Subsidiary of Burroughs Corp. / Ls(1200) Me(1934) DAIC RMSa
- Convair, a Division of General Dynamics Corp., General Offices, San Diego 12, Calif.  
The charactron shaped-beam output device / Ls Me Ic RMSa
- Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill. / DIVERSEY 8-6700 / \*C 58  
Automatic controls and equipment, data recording cameras and equipment; computing and consulting services, electrical and information converters; geophysical apparatus; magnetic tape readers and recording heads; relays, stepping switches, magnetic tape recorders; telemetering systems / RMSCa Ls (1600) Le(1897) DAIC
- Corbin Corp., 5419 56th Place, Riverdale, Md. / AP 7-7676 / \*C 58  
Digital and analog consulting services; arithmetical and logical packaged computer circuits; communications systems; digital and analog computers, facsimile equipment; fire control equipment, input-output devices, integrators, multipliers, generators; telemetering systems; visual output devices / RMSCa Ms(500) Me(1945) DAc
- Cornell Computing Center, Cornell University, Phillips Hall, Ithaca, N.Y. / 43211, X 3325 / \*C 58

Computing service for university / RA Ss(7) Se (1953) DAC

Cornell-Dubilier Electric Corp., 333 Hamilton Blvd., S. Plainfield, N.J. / Plainfield 6-9000 / \*C  
Test equipment. Components, including capacitors, converters, printed circuits, etc. / Ls Le(1910) Ic RMSa

Corning Glass Works, Electronic Component Dept., Bradford, Pa. / 2-4571 / \*C 58  
Electronic components, capacitors, printed circuits, delay lines, resistors / RMSa Ls(13000 in company) Le(1851) Ic

**CORPORATION FOR ECONOMIC AND INDUSTRIAL RESEARCH**, 734 15th St., N.W., Washington, D.C. / OTis 4-6377 / \*C 58  
Consulting and computing services. Economic research, operations research, programming services RCPa ?s ?e DAC  
Dr. Herbert W. Robinson, Pres. / William Orchard-Hays, Dir.-Computer Services Division

Creed & Co., Ltd., Telegraph House, Croydon, England / Croydon 2121  
Teletypewriter equipment for telecommunication. Also input and output equipment specifically intended for association with electronic computers, machine tool, and process control systems / DIc RMSa

**CUBIC CORPORATION**, 5575 Kearny Villa Rd., San Diego 11, Calif. / \*C 58  
Transistorized playback system; transistorized digital recording system; digital computers, analog to digital converters, data processing and translating equipment / RMSa ?s Se DIc

Cudahy Publishing Company, 6141 North Cicero Ave., Chicago 30, Ill. / Pensacola 6-8834 / \*C 57  
Publication of automatic data processing service, weekly, for users of automatic data processing equipment / Ss Se(1956) Ic RMSa

Curtiss-Wright Corp., Electronics Div., 631 Central Ave., Carlstadt, N.J. / GE 8-4000 / \*C 58  
Electronic voltage regulators, stripchart recorders; signaling controls, simulators, for design and personnel training; automatic controls and equipment; geophysical apparatus / RMSa Ls(1400) Me(1946) ICc

Curtiss-Wright Corp., Research Div., Quehanna, Pa. / \*C 58  
Nuclear reactors and products; computing services — analog & digital; research in aviation, electronics, ultrasonics, chemistry, plastics, metallurgy / RCa ?s ?e Ic

## D

**DALE PRODUCTS, INC.**, P.O. Box 136, Columbus, Neb. / Locust 4-3131 / \*C 58  
Precision electronic components; electro-mechanical assemblies; resistors; potentiometers; aircraft antenna systems; environmental testing of electronic components; electronic subcontracting / RMSa Ms (465) Se(1951) Ic

**DASOL CORP.**, 14 Charlton St., New York 14, N.Y. / CHelsea 3-1800 / \*C 58  
Consulting services and systems engineering, specializing in integrated data processing and materials handling systems associated with physical distribution of product lines, including materials allocation, inventory controls, customer order processing and warehousing / Ca Ss(15) Se(1954) Ic  
Allan Harvey, V.P. / Sol Tanne, Pres.

**DATA-FLO COMPUTING SERVICE**, 1200 E. Colonial Drive, Orlando, Florida / GA 4-2225 / \*C 58  
Office system and management services, including service bureau for converting paper tape to cards and processing IBM cards / Ca Ss(20) Se(1957) Ic  
J. A. Hunt, Sales Mgr., Methods Analyst / J. J. Urban, Operations Mgr.

Data Instruments Div. of Telecomputing Corp., 12838 Saticoy St., N. Hollywood, Calif. / STAnley 7-8181 / \*C 58  
Scientific data reduction instruments for film and oscillogram records; analog-to-digital and paper-tape-to-card converters; electronic counters, magnetic reading heads, inventory systems, plotters, paper tape readers and punches, telemetering systems / RMSa Ms(150) Se(1947) DAC

**DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO.**, 151 Needham St., Newton Highlands 61, Mass. / DEcatur 2-6960 / \*C 58  
Electronic data processing systems. Training, sales, service, and service bureau / RMS (training)a Ls (750) Se(1955) DIc  
W. W. Finke, Pres. / J. E. Johnson, VP—Marketing

Data Processing Digest (Canning, Sisson & Assoc.), 1140 S. Robertson Blvd., Los Angeles 35, Calif. / BRadshaw 2-8425 / \*C 58  
Monthly bibliographic service in electronic data processing and related fields / RMSa Ss(5) Se (1954) DAC

Data Systems Div., Norden-Ketay Corp., 13210 Crenshaw Blvd., Gardena, Calif. / FA 1-1775 / \*C 58  
Special purpose digital data systems and numeric position control systems / RMSa Ms(50) Se(1955) Dc

Datex Corp. (a subsidiary of G. M. Giannini & Co., Inc.), 1307 So. Myrtle Ave., Monrovia, Calif. / ELiot 9-5381 / \*C 58  
Analog-to-digital shaft position encoders; automatic controls; data recording and positioning systems; input-output devices / RMSa Ms(100) Se (1958) DAIC

The Datics Corp., 6000 Camp Bowie Blvd., Fort Worth 16, Texas / PERshing 8-6505 / \*C 58  
Electronic computing, data processing, data reduction, consulting, research and development services, analog to digital converters / RCa Ss(30) Se(1956) DAC

The Daven Co., Route 10, Livingston, N.J. / LIVINGston 6-4300 / \*C 58  
AC summing amplifier networks (RC); AC and DC resistance networks; integrating networks; differentiating networks; phase shifters; voltage ratio standards; plug-in, potted circuits; computer components; embedded assemblies and components; power supplies; resistors; stepping switches. Consulting services / RMSCa Ms(450) Me(1929) AIC

Davies Laboratories, Inc., a division of Minneapolis-Honeywell Regulator Co., Beltsville, Md. / Appleton 7-1133 / \*C



Automatic data-reduction and conversion equipment. Magnetic tape data recorders. Magnetic reading and recording heads / Ms(110) Se(1946) Ac RMSCa

Daystrom Instrument Co., Archbald, Pa. / Jermyn 1100 / \*C

Digital and analog computers. Magnetic core and magnetic drum storage systems. Servomechanisms / Ls(1000) Se(1950) DAISc RMSCa

Daystrom Systems, Div. of Daystrom, Inc., 5640 La Jolla Blvd., La Jolla, Calif. / GLencourt 4-0421 / \*C 58

Complete solid state digital process control systems; transistorized random access magnetic core memory systems; low-level analog-to-digital converters, etc. / RMSa Ms(60) Se(1956) DAICc

Daystrom Transicoil Corp., Worcester, Montgomery County, Pa. / JUnO 4-2421 / \*C 58

Servo and synchro components and assemblies / RMSCa Ms(200) Se(1950) Ic

THE de FLOREZ CO., INC., 200 Sylvan Ave., Englewood Cliffs, N.J. / LOwell 7-3990 / \*C 58

Register controls, servomechanisms, control systems, mechanical design. Research and development. Synthetic training devices / RMCa Ms(50) Se(1948) DAICc

Peter de Florez, Pres. / Edwin K. Smith, VP

DeJur-Amsco Corp., 45-01 Northern Blvd., Long Island City 1, N.Y. / AStoria 8-1040 / \*C 58

Panel instruments, precision potentiometers, precision connectors / RMSa Ms(500) Le(1922) Ic

Delco Radio Div., General Motors Corp., 700 East Firmin St., Kokomo, Ind. / Gladstone 2-8211 / \*C 58

High power germanium transistors; semiconductors / RMSa Ls(4000) Me(1936) Ic

Deltime, Inc., 608 Fayette Ave., Mamaroneck, N.Y. / Mamaroneck 9-5800 / \*C 57

Magnetostrictive delay lines and registers / Ms(75) Se(1953) Ic RMSa

Dennison Manufacturing Co., Machine Systems Division, Framingham, Mass. / TR 3-3511 / \*C 58

"Print-punch" marking machines for automatic data processing / RMSa Ls(2700) Le(1844) Ic

DIALIGHT CORP., 60 Stewart Ave., Brooklyn 37, N.Y. / HYacinth 7-7600 / \*C 58

Indicator lights, pilot lights, ultra-miniature indicator lights ("Datalites") for computer and automation fields. Oil-tight indicator lights for heavy-duty industrial applications / RMSa ?s Me(1937) Ic

R. E. Green, Vice Pres. and Gen. Mgr.

Diamonite Products Mfg. Co., 1232 Cleveland Ave., N.W., Canton 3, Ohio / GLendale 6-8195 / \*C 58

High alumina ceramics / RMSa Ms(150) Me(1940) Ic

DIAN LABORATORIES, INC., 611 Broadway, New York 12, N.Y. / AL 4-6555 / \*C 58

Analog computing services; general purpose analog computers. Design and construction of special purpose computers, simulators, and trainers / RMSCa Ss(6) Se(1955) Ac

Dr. Stanley Fifer, Pres. / U. Manfredi, Sec.

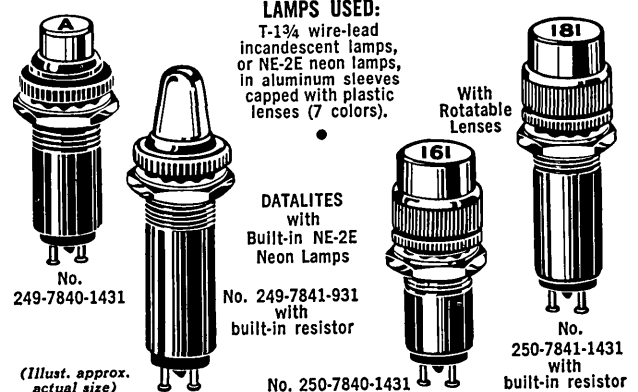


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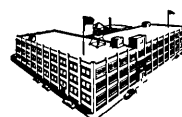
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60 STEWART AVE., BROOKLYN 37, N. Y. • HYacinth 7-7600

John Diebold & Assoc., Inc., 40 Wall St., New York 5, N.Y. / WH 3-9115 / \*C 58

Management consultants specializing in management science and automatic data processing. Counsel; training; courses; published subscription information service / C(training)a Ss(30) Se(1954) Ic

Diehl Mfg. Co., 1225 Finderne Ave., Somerville, N.J. / RA 5-2200 / \*C 58

Servomotors: tachometers; resolvers; etc. / RMSa Ls(2000) Le(1888) Ic

Digital Equipment Corp., Maynard, Mass. / TWinOaks 7-8821 / \*C 58

Digital building blocks for use in computer testing. Special purpose data processing equipment / RMSa Ss(10) Se(1957) Ic

Digitronics Corp., Albertson Ave., Albertson, L.I., N.Y. / PIioneer 7-5090 / \*C 58

Digital computing and data processing systems; components including delay lines, pulse transformers, high speed clutches and brakes; high speed paper tape handlers, magnetic tape handlers; automatic pay TV billing system; electronic tub file / RMSCa Ms(60) Se(1957) DICc

Dilectron Div. of the Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Cal. / RYan 1-8631 / \*C 58

Miniature pulse transformers, delay lines, ceramic disc capacitors / RMSa Ms(200) Se(1953) Ic

DIT-MCO, Inc., 911 Broadway, Kansas City 5, Mo. / HA 1-8484 / \*C 58

Universal automatic electrical circuit analyzers; functional testers for testing complex relay circuitry / RMSCa Ms(114) Se(1953) Ic

DocuMation, Inc., Woodbury, N.J. / TI 5-7876 / \*C 58

Consulting services—automation applied to information retrieval and documentation in general; and publishing / RCa Ss(5) Se(1956) Ic

Doelcam Corp., a division of Minneapolis-Honeywell Regulator Co., 1400 Soldiers Field Road, Boston 35, Mass.—name changed to Minneapolis Honeywell Regulator Co., Boston Div., which see

Donner Scientific Co., 888 Galindo St., Concord, Calif. / MULberry 2-6161 / \*C 58

Analog computers; industrial operational amplifiers, nonlinear and auxiliary equipment; servo transducers and control systems; automatic control equipment; printed, plug-in circuits; differential analyzers; capacitors, plug boards, electronic multipliers, generators, and integrators; indicators; simulators; resolvers, resistors; regulated power supplies; potentiometers / RMSCa Ms(120) Se(1953) ACc

Dorsett Laboratories, Inc., 401 East Boyd, Norman, Okla. / JEFFerson 4-3750 / \*C 58

Specially engineered equipment; analog computers, particularly for telemetering / RMSCa Ss(42) Se(1950) AIC

J. H. Drillick Research Lab., Inc., 433 Central Ave., Orange, N.J. / ORange 2-2440 / \*C 58

Components for computers / Ra Ss Se Dc

Arnold I. Dumey, 29 Barberry Lane, Roslyn Heights, N.Y. / \*C 58

Consultant, data handling problems / Ca Ss Se Ic

DX Radio Products Co., 2300 W. Armitage Ave., Chicago 47, Ill.

Delay lines, magnetic cores / Ic RMSa

## E

Eagle Signal Corp., 202 20th St., Moline, Illinois / MOline 2-5571 / \*C 58

Timers and counters for automatic control of machines and processes; hermetically sealed timers; automatic controls and equipment; sorting and counting controls; stepping switches / RMSa Ls(500) Me(1928) Ic

Eastern Industries, Inc.—SEE Automatic Signal Division Eastman Kodak Co., 343 State St., Rochester 4, N.Y. / LOcust 2-6000 / \*C 58

Primarily manufacturers of photographic equipment. Also manufactures cellulose yarns and staple synthetic and organic chemicals and dyestuffs, fire control equipment, facsimile equipment (photocopy), recording paper / RMSa Ls(74,000, worldwide) Le Ic

Ebasco Services Incorporated, 2 Rector St., New York 6, N.Y. / Digby 4-4400 / and elsewhere / \*C 57

Management advisory services. Applications of data processing equipment in business; etc. / Ls(1600) Le(1905) DIC CPa

Eckert-Mauchly Division—part of Remington Rand Univac Division, Philadelphia, which see.

Eclipse-Pioneer Division—SEE Bendix Aviation Corporation

Edgar, Wesley B., 206 Palmetto State Life Bldg., 1310 Lady St., Columbia 1, S.C. / Columbia 3-7563 / \*C

Consulting service on application of automated procedures to small business operations / Ss(4) Me(1930) Ic Ca

EDIN CO., INC., a Division of EPSCO, Inc., 207 Main St., Worcester, Mass. / PL 7-8394 / \*C 58

Industrial and medical electronic instruments, oscillograph recorders and amplifiers, frequency analyzers, weld analyzers, recording papers / RMSa Ms(50) Me(1935) Ic

M. W. Edinburg, General Manager / Robert Wadman, Purchasing

THOMAS A. EDISON INDUSTRIES, INSTRUMENT DIVISION OF McGRAW-EDISON CO., 36 Lakeside Ave., West Orange, N.J. / ORange 3-6800 / \*C 58

Rotary servo-synchro components and complete subsystems. Time delay relays, thermostats, sensitive D.C. relays, and other thermal devices. Magnetic amplifiers; computer packaged circuits, magnetic heads, servo multipliers / RMSa Ms(360 div.) Me 1940 div.) ISc

George J. Bindewald, Gen. Sales Mgr. / Victor W. Rose, Advtg. & Sales Prom. Mgr.

Edo Corp., 13-10 111th St., College Point 56, N.Y. / HIckory 5-6000 / \*C 58

Delay lines / RMSa Ls(500) Le(1925) Ic

Educational Research Corp., 10 Craigie St., Cambridge 38, Mass.

Digital computers; punch card machines / Ic RMSa EECO Production Co., 506 E. First St., Santa Ana, Calif. Electronic components for computers and other

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100 First Avenue—Waltham 54, Massachusetts

equipment. Squaring circuits. Subsidiary of Electronic Engineering Co. of Calif. / Ic RMSa  
 Elco Corp., "M" Street below Erie Ave., Philadelphia 24, Pa. / CU 9-5500 / \*C 58  
 Connectors, standard and printed circuits, etc., tube shields, tube sockets / RMSa Ms(250) Se(1948) Ic  
 Electralab Inc., Industrial Center, Needham Heights 94, Mass. / HILLcrest 4-5000 / \*C 58  
 Printed circuits / RMSa Ms(50) Se(1951) Ic  
 Electrical and Physical Instrument Corp., 42-19 27th St., Long Island City, N.Y. / Stillwell 4-6389 / \*C  
 Flip-flop and other counters in decade and binary; digitizers (high speed); automatic control machinery / Ss Se DCc RMCa  
 ElectroData Div. of Burroughs Corp.—see Burroughs Corp., ElectroData Div.  
 Electro Instruments, Inc., 3794 Rosecrans St., San Diego 10, Calif. / Cypress 8-6144 / \*C  
 Digital voltmeters; digital ohmmeters, analog-to-digital converters, card converters, frequency counters, X-Y Recorders, go no-go systems, automation systems, digital testers, and other digital instruments / Ms(80) Se(1954) Ic RMSa  
 Electrol, Inc., 9000 W. Pico Blvd., Los Angeles 35, Calif. / CRestview 6-4425 / \*C 58  
 Diode function generators, DC amplifiers and counters / RMSa Ss(20) Se(1957) ACc  
 Electrologica N.V., 9 Paleisstraat, The Hague, Netherlands / 184260 / \*C 58  
 Digital computers / RMSCa Se(1956) Ms(104) Dc  
 Electro-Machine Corp., Box 565, Umatilla, Florida / Magnetic drums; punch card machines / Ic RMSa

Electro-Measurements, Inc., 7524 S.W. Macadam, Portland 1, Oregon / Cherry 6-3331 / \*C 57  
 Computer test procedures and instruments, computer readout devices. Computer components / Ms(60) Se(1947) Ic RMSCa  
 Electro-Mec Laboratory, Inc., 47-51 33rd St., Long Island City 1, N.Y. / Stillwell 6-3402 / \*C 58  
 Potentiometers, precision, variable, wire wound; digitometers (analog to digital converters); goniometer, precision shaft positioner, to evaluate, test and calibrate potentiometers / RMSa Ms(125) Se(1950) DAic  
 Electro-Mechanical Research, Inc., 64 Main St., P.O. Box N, Ridgefield, Conn.  
 Analog-to-digital converters, data processing / Ic RMSa  
**ELECTROMETRIC DIVISION OF WHITEWATER ELECTRONICS, INC.**, 136 W. Main St., Whitewater, Wis. / 986 / \*C 58  
 Delay lines for computers and radar systems; inductors of any type / RMSa Ms(150) Se(1955) Ic  
 A. P. Falduto, Pres.  
 Electro-Miniatures Corp., 1060 Elm Ave., Ridgefield, N.J.  
 Analog-to-digital converters / Ic RMSa  
**THE ELECTRO MOTIVE MANUFACTURING CO., INC.**, South Park and John Sts., Willimantic, Conn. / HA 3-4551 / \*C 58  
 Mica capacitors, silver mica capacitors, paper capacitors, variable trimmer capacitors, ceramic disc capacitors, ceramic capacitors, for computer and

- other uses / RMSa Ls(850) Me(1945) Ic  
 J. A. Flanzer, VP / L. H. Healy, Sales Mgr.  
**ELECTRONIC ASSOCIATES, INC., Long Branch, N.J.**  
 / Capital 9-1100 / and elsewhere / \*C 57  
 General purpose precision analog computers, special purpose analog computers, analog computer components, digital-to-analog converter, digital plotting system (Dataplotter). Automatic control of all machine tools. Computation centers at Princeton, Los Angeles / Ls(900) Se(1945) DACc RMSCa
- ELECTRONIC ASSOCIATES INC. COMPUTATION CENTERS** at Los Angeles, Princeton — SEE Electronic Associates Inc.
- Electronic Computer Company, 6191 Ridge Ave., Philadelphia 28, Pa.  
 Analog-to-digital converter for data reduction systems and general voltage measurement applications / Ic RMSa
- Electronic Computer Division of Underwood Corp. — has been discontinued
- ELECTRONIC COMPUTER PROGRAMMING INSTITUTE**, 1234 Broadway, New York 1, N.Y. / WIsconsin 7-4191 / \*C 58  
 Consultants in office automation, punched card systems, integrated data processing and electronic data processing. Courses in computer programming at training center in New York or through home-study / C(education)a Ss(8) Se(1956) DIc  
 Sidney David, Part. / Seymour Weinberg, Part.
- Electronic Contractors, Inc., 2101 SE 6th St., Portland 14, Ore. / BE 4-3515 / \*C 58  
 AC network computers and analyzers, Enns power network computer / RCMSa Ss(20) Se(1953) Ac
- Electronic Control Systems, Inc., 2136 Westwood Blvd., Los Angeles 25, Calif. / Granite 8-4266 and Bradshaw 2-0845 / \*C  
 Special purpose data-handling systems for military and industrial use; automatic continuity tester, statistical analyzer, machine tool control systems / Ms(85) Se(1953) DACc RMSa
- ELECTRONIC ENGINEERING COMPANY OF CALIFORNIA**, 1601 East Chestnut Ave., Santa Ana, Calif. / KI 7-5501 / \*C 58  
 Electronic research and development in the fields of precision timing equipment, data processing and translating equipment and guided missile test range equipment; card-to-magnetic-tape converters, magnetic-tape-to-card converters / RMa Ms(250) Me(1947) Ic  
 Burgess Dempster, Pres. / R. B. Bonney, Vice-Pres.
- Electronic Fabricators, Inc., 682 Broadway, New York 12, N.Y. / SPring 7-4900 / \*C 58  
 Precision capacitors / RMSa Ss(30) Se(1952) Ic
- Electronic Noise Generator Co., P.O. Box 45344, Airport Station, Los Angeles 45, Calif. / FRontier 5-4685 / \*C 56  
 Low frequency Gaussian noise generator (distributed solely by Electronic Associates, Inc., N.J.) Ic RMa
- ELECTRONIC RESEARCH ASSOCIATES, INC., 67 Factory Place, Cedar Grove, N.J. / CENter 9-3000 / \*C 58**
- Semiconductor and transistorized designs, power packs, packaged circuits, packaged computers / RMSa Ms(75) Se(1953)  
 D. D. Grieg, Sales Manager / Sidney Moskowitz, Chief Engineer
- Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif. / CH 5-3771 / \*C 58  
 Electronic components for aircraft and missiles, RF systems and subsystems, automatic and signaling controls, regulated power supplies / RMSa Ms(210) Me(1947) ICA
- Electronic Transformer Co., Inc., 70 Washington St., Brooklyn 1, N.Y. / MAin 5-6123 / \*C 58  
 Coils, pulse transformers, all types of magnetic components for computer and other uses / RMSCa Ms(165) Me(1937) Ic
- Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass. / TRowbridge 6-9100 / \*C  
 Electronic and phototelectronic controls, "Photo-switches," etc. Automatic control and data processing machinery / Ls(1500) Me(1937) DACc RMSa
- Electronics Development Co., Inc., 3743 Cahuenga, No. Hollywood, Calif. / STAnley 7-3223 / \*C 58  
 Wide-band data transmitters and receivers, ground & airborne; telemetering systems / RMSCa Ss(11) Se(1954) Ic
- Electro Products Laboratories, Inc., 4501 N. Ravenswood Ave., Chicago 40, Ill. / LONgbeach 1-1707 / \*C 58  
 Transducers and control units for detecting presence of metal, providing analog or digital output; automatic assembly equipment; automatic and sorting and counting controls / RMSa Ss(32) Me(1936) DAic
- Electro-Snap Switch & Manufacturing Co., 4218 West Lake St., Chicago 24, Illinois / VA 6-3100 / \*C 58  
 Snap action, multipole, subminiature and miniature switches; stepping switches / RMSCa Ms(255) Se(1946)
- Elgenco, Inc., P.O. Box 45344, Airport Station, Los Angeles 45, Calif. / FRontier 5-4685 / \*C 58.  
 Low frequency Gaussian noise generators for analog computers / RMSa Ss(3) Se(1955) Ic
- Elliott Addressing Machine Co., 143 Albany St., Cambridge 39, Mass. / TRowbridge 6-2020 / \*C 57  
 Addressing stencils, with selection controlled by punched holes in cardboard margin / Ls(1000) Se(1900) Ic RMSa
- Elliott Bros. (London) Ltd., Century-Works, Lewisham, London, S.E. 13, England and Computing Machine Division, Elstree Way, Borehamwood, Herts., England / Tideway 2323, Elstree 2040 / \*C  
 Servomechanisms; Elliott 402, 403 electronic digital computers. GPAC (General purpose analog computer). Computing services; components, instrumentation and control for process industries / Ls(3500) Le(1800) DASCc RMSCPc
- El-Rad Mfg. Co., 2800 W. Cullom Ave., Chicago 18, Ill. / IRving 8-7300 / \* 58  
 Delay lines, pulse transformers, coils / RMSa Ms(150) Me(1944) Ic
- Engineered Electronics Company (subsidiary of Electronic Engineering Co.), 506 E. First St., Santa Ana, Calif. / Kimberley 3-9384 / \*C 57

Plug-in computer circuitry (vacuum tube and transistorized, types), diode logic, decade counters, hermetically sealed stepping switches, chopper-stabilized DC amplifiers, and compatible accessory items / Ms(100) Se(1954) DACc Ma

Engineers Northwest, 2835 Nicollet Ave., Minneapolis 8, Minn. / Re-5541 / \*C

Test-scoring machines and equipment / Ss(20) Se (1945) DAc RCMA

The English Electric Company, Ltd., Queens House, Kingsway, London, WC2, England / Holborn 6966 / \*C 57

Deuce, universal digital computer; also special purpose electronic digital computers for use with kinetic heat simulators / Ls Dc RMSa

Epsco Components, 588 Commonwealth Ave., Boston 15, Mass. / Copley 7-1524 / \*C 58

Components for automatic data processing; miniature shift registers, magnetic logic elements, precision delay lines, pulse transformers, counters, plug-in logic modules, magnetic amplifiers, packaged computer circuits, coils / RMSa Ms(60) Se (1954) Ic

D. W. Comins, Jr., Mgr., Components Div.

Epsco, Inc., 588 Commonwealth Ave., Boston 15, Mass. / Copley 7-8100 / \*C 58

Magnetic core buffer storage; translating equipment, digital to analog and analog to digital converters, automatic control systems, DA-102 differential DC amplifier, digital recorder, Addaverter computer linkage systems, visual displays, input-output devices, memory systems, magnetic tape recorders; analog computers / RMSCa Ms Se(1954) DAICMc

Erco Plant—Nuclear Products, Division of ACF Industries, Inc., Riverdale, Maryland / WARfield 7-4444 / \*C 58

Special purpose analog computers, magnetic clutches, simulators / RMSa Ls(1000) Me(1930) Ac

ESC CORPORATION, 534 Bergen Boulevard, Palisades Park, N.J. / Windsor 7-0400 / \*C 58

Delay lines, pulse forming networks, pulse transformers, filters, embedded assemblies and components, shift registers, miniature pulse transformers, etc. / RMSa Ms(125) Se(1953) Ic

Morton Fassberg, Pres. / Stanley S. Packer, Vice-Pres.

E-Z Sort Systems, Ltd., 45 Second St., San Francisco 5, Calif. / Garfield 1-8005 / \*C

Edge-punched cards for filing and sorting data. Special cards for correlation of facts. Control systems for a number of electronic computers / Ms(260) Me(1935) Ic RMSa

## F

Fabrica Addizionatrice Italiana S.S., Viale Umbria 36, Milan, Italy

Desk calculators to add, subtract, multiply, divide, print / Dc RMSa

FACIT, INC., 404 4th Ave., New York 36, N.Y. (subsidiary), Stockholm, Sweden (headquarters), and elsewhere / \*C 58

Desk calculators, adding machines, Odhner adding

machine with multiplying features; typewriters, etc. (In 1390 A.D., copper mining) / RMSa Ls (4000) Le(1390 A.D.) Dc

Fairbanks Associates, 248 Greenwich Ave., Greenwich, Conn. / Greenwich 8-8155 / \*C

Consultants in application and installation of electronic systems in clerical methods and procedures; evaluation of proposed savings; operations research / Ss(7) Se(1952) DIc RCPa

Fairchild Controls Corp., Components Div., 225 Park Ave., Hicksville, L.I., N.Y. / WELLS 8-5600 / \*C 58

Precision potentiometers, pressure transducers, rate gyros, accelerometers, computing converters, electronic generators. Subsidiary of Fairchild Camera and Instrument Corp. / RMSa Ms(500) Le(1920) Ic

Fairchild Engine & Airplane Corp., 118 East 16th St., Costa Mesa, Calif.

Analog-to-digital converters; potentiometers / Ic RMSa

Fairchild Graphic Equipment, Inc., Fairchild Drive, Plainview, Long Island, N.Y. / WELLS 1-4500 / \*C 58 / successor to Teletypesetter Corp., Chicago

Tape perforators and operating units for local or distant automatic control of Linotypes and Inter-types / RMSa Ic

Fansteel Metallurgical Corp., North Chicago, Ill. / DEXter 6-4900 / \*C 58

Tantalum capacitors, silicon rectifiers and selenium rectifiers / Ma Ls(2000) Le(1907) Ic

Farrand Controls, Inc., 4401 Bronx Blvd., New York 70, N.Y. / Fairbanks 4-2210

"Inductosyn" automatic control equipment. Subsidiary of Farrand Optical Co., which see

Farrand Optical Co., Bronx Blvd. and 238 St., New York 70, N.Y. / Fairbanks 4-2200 / \*C

Gunfire control apparatus, rangefinders, optical and electronic sighting equipment, automatic trackers, infrared search and scanning systems, analog-digital converters, analog computers, etc. / Ls(800) Le (1918) DASCc RMSCa

Federal Telephone and Radio Co., Division of International Tel. and Tel., 100 Kingsland Rd., Clifton, N.J. / Nutley 2-3600 / \*C

Vacuum tubes, selenium rectifiers, germanium diodes, contact protectors, coaxial cables, magnetic amplifiers; radio and telephone systems, microwave systems, and associated components / Ls(6500) Me (1941) ISCc RMSPa

Feedback Controls, Inc., 899 Main St., Waltham 54, Mass. / TWInbrook 4-1020 / \*C 58

Magnetic amplifiers, quadrature rejectors, data repeaters, servo multipliers, servo-motor gearheads, analog computers, computer test equipment, servo multipliers / RMSa Ms(50) Se(1954) AIC

Felt and Tarrant Mfg. Co.—name changed to Comp-tometer Corp., which see.

Fenwal, Inc., 362 Pleasant St., Ashland, Mass. / TRInity 5-6111 / \*C 58

Semiconductors, temperature indicators and controls, fire and overheat detectors / RMSa Ls(600) Me(1935) Cc

FERRANTI ELECTRIC, LTD., Industry St., Mt. Den-

nis, Toronto 15, Ontario, Canada / ROger 2-3611 / \*C 58

Computers, automatic control equipment, communications systems, data processing machinery, inventory systems, special purpose digital computers, simulators, and associated components. Data processing systems for special applications — inventory control of flight data, flight reservations; mail sorting; JANET meteor trail communication. Consultation and research facilities involving these and allied fields. See also Ferranti Electric, Inc. / RMSCa Ms(200) Le(1909) DAICc

FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N.Y. / Circle 7-0911 / agent for Ferranti Electric Ltd., Moston, England, and Mount Dennis, Toronto, Canada / \*C 58

General purpose digital computers (Pegasus, Mercury), special purpose data processing systems, high speed paper tape readers, magnetic drums, magnetostriction delay lines, digital position measuring equipment, Ferranti Business transactor, paper tape to magnetic tape converter, automatic control equipment, translating equipment, storage systems, memory systems / RMSa Ls(14000) Le(1896) DIC

FERRANTI, LTD., West Groton, Manchester, England, and London Computer Centre, 21 Portland Place, London W.1., England / Langham 9211 / \*C 58

Digital computers (Pegasus, Mercury); packaged computer circuits; computing services; plug-in and printed circuits, card-to-magnetic-tape and magnetic-tape-to-card converters; data processing machinery, delay lines, input-output devices; paper tape and photoelectric readers, tape handlers / RMSa Ls Le Dc

FERROXCUBE CORP. OF AMERICA, 2900 E. Bridge St., Saugerties, N.Y. / CHerry 6-2811 / \*C 58

Ferrite cores, including pot cores, cup cores, recording heads, and microminiature toroids with square hysteresis loop; memory arrays, thermistors, varistors, ceramic permanent magnets, resistors, pulse transformers / RMSa Ms(200) Se(1949) Ic J. D. Moynihan, Chief Engr. / W. J. Crosby, Sales Administrator

Financial Publishing Co., Mathematical Tables Division, 82 Brookline Ave., Boston 15, Mass. / \*C

Computing service: digital; card programmed calculators, punch card / Ms(100) ?e Dc RCPa

Fischer & Porter Co., 330 Warminster Rd., Hatboro, Pa. / OSborne 5-6000 / \*C 58

Automatic instrumentation, including: measurement of a variable at the point of process; transmission of data, central collection, and display; data reduction systems using a mechanical digital converter (Digi-Coder), tabulated digital data output, etc.; automatic multiple readout systems, converters, computers, automatic control equipment, analog to digital converter, electronic counters, data processing and data recording equipment, controlled electric typewriters / RMSCa Ls(1200) Me(1937) Ic

Flight Research, Inc., P.O. Box 1-F, Richmond 1, Va. / REpublic 7-4163 / \*C 58

Photographic data recording equipment; data recording cameras and equipment, clutches, semiconductors / RMSa Ss(40) Me(1946) Ic

Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N.Y. / STillwell 4-9000 / \*C 58

Fire control systems, analog and digital computers, missile guidance systems, servo motors, differential and integrator elements, instruments for shipborne and airborne armament and navigational control, nuclear reactors, computers, systems, drives, and precision components; magnetic amplifiers; automatic control systems / RMSa Ls(4000) Le(1915) DAICc

THE FOXBORO CO., Neponset Ave., Foxboro, Mass. / Kingswood 3-5311 / \*C 58

Industrial instrumentation and analog computers for measuring and controlling process variables. Automatic systems, controls, and signaling, special purpose industrial computing systems, automatic assembly equipment, computing services, data recording equipment; tachometers, telemetering systems, electronic and mechanical integrators, scanners / RMSa Ls(2400) Le(1908) Ic

Franklin Electronics, Inc., E. 4th St., Bridgeport, Pa. / BR 2-4800 / \*C 58

Digital voltmeters, nuclear instrumentation, analog-to-digital converters, data processing machinery / RMSa Ms(80) Se(1952) DAC

The Franklin Institute Laboratories, Benj. Franklin Pkwy. at 20th St., Philadelphia 3, Pa. / LOcust 4-3600 / \*C 58

Basic and applied research and development in: chemistry, physics, solid state physics, electrical, mechanical and nuclear engineering, digital and analog computers. Automatic control machinery. Digital (Univac) computing service. Magnetic amplifiers; packaged computer circuits; converters, analog to digital, and digital to analog; electronic integrators; electronic and servo multipliers; simulators / RCPa Ms(350) Me(1946) DAIC

FRIDEN INC., San Leandro, Calif. / SWEetwood 8-0700 / \*C 58

Automatic desk calculators; Computyper — tape-to-card conversion; Add-Punch, adding and listing machine; Flexowriter automatic writing machine. Complete line of equipment for reading, punching, verifying, converting, and transmitting common language tape or edge-punched cards. Complete line of integrated data processing equipment / RMSa Ls(3000) Me(1934) DIC

## G

The Gamewell Co., 1238 Chestnut St., Newton Upper Falls 64, Mass. / BI 4-1240 / \*C 58

Precision wire wound potentiometers, linear and non-linear, and other products / RMSa Ms(400) Le(1857) Ic

H. S. GELLMAN & CO., LTD., 110 Bloor St. West, Toronto, Ont., Canada / Walnut 3-4484 / \*C 57

Consultants on automatic data processing systems; applications of systems and equipment to business data processing, system analysis, and design; training of clients' personnel; programming and computing service for business, scientific and engineering calculations / RCa Ss Se(1955) Dc H. S. Gellman, Pres.



## MATHEMATICIANS

# Mathematical Analysis Cuts Lead Time in Aircraft Reactor Development at General Electric

Mathematical methods are some of the strongest supports for General Electric's Aircraft Nuclear Propulsion Program. Management estimates that the mathematician's insight can cut as much as 2 years off the time required to bring a power plant from preliminary design to the product stage.

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(PhD up to 5 years experience or MS up to 10 years), to evaluate advanced computer techniques; originate creative concepts necessary to increase speed and utility of scientific programming efforts.

### PRINCIPAL MATHEMATICIAN:

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Mr. P. W. Christos, Div. 21-MR  
Aircraft Nuclear Propulsion  
Dept., General Electric Company  
P.O. Box 132, Cincinnati 15, Ohio

AIRCRAFT NUCLEAR PROPULSION DEPT.

GENERAL  ELECTRIC

General Automatic Corp., 12 Carlton Ave., Mountain View, N.J. / CLifford 6-2756 / \*C 58

Electro-mechanical relays / RMSa Ss(1953) Ic

General Automatics, Inc., 972 Elsinore Ct., Palo Alto, Calif. / DA 4-0360 / \*C 58

Special purpose analog and digital computers, automatic control equipment, automatic charge systems / RMSCa Ss(10) Se(1954) DACc

GENERAL CERAMICS CORPORATION, Crows Mill Rd., Keasbey, N.J. (near Perth Amboy) / VALley 6-5100 / \*C 58

Ferrites, technical ceramics, magnetic memory cores and storage planes, memories, ceramic to metal seals; insulators; terminals / RMSa Ls(500) Le (1906) Ic

General Controls Co., 801 Allen Ave., Glendale 1, Calif. / VICTORIA 9-2181 / \*C 58

Automatic controls for pressure, temperature, level and flow for home, industry and the military; counters; switches / RMSa Ls(2500) Me(1930) Cc

General Cybernetics Corp., affiliate of The Angle Computer Co., Inc., 1751 No. Coronado St., Los Angeles 26, Calif. / Normandy 3-1300 / \*C

Linear motion transducer reporting 1/10,000 of an inch position change; high-speed converter of punched cards to tape; industrial automation, electronic gages for automation processes, etc. Successor of General Cybernetics Associates / Ss(18) Se(1953) DAICc RCMSa

GENERAL ELECTRIC CO., Schenectady, N.Y.

Computing service: analog; network analyzer AC and DC, differential analyzer; not restricted as to users / AIC RCPa

GENERAL ELECTRIC CO., CAPACITOR DIV., John Street, Hudson Falls, N.Y. / 4-3341 / \*C 58

Capacitors: oil-paper, molded composition, electrolytic, plastic, film, etc., for computer circuits and other uses / RMSa Ic

F. R. Flood, Mgr. — Sales, Electrolytic Capacitors / D. F. Warner, Mgr. — Sales, Specialty Capacitors

GENERAL ELECTRIC CO., COMPUTER DEPT., 1103 N. Central Ave., Phoenix, Ariz. / ALpine 4-3171 / \*C 58

Computing systems (analog and digital) and computing and consulting services for industry, business, and military; amplifiers, automatic controls and equipment; arithmetical and logical packaged circuits; information converters of all types; electronic counters, generators, integrators, and multipliers; inventory and magnetic storage systems; regulated power supplies; character readers; shift registers / RMSCa Ls(700) Se(1956) DAC  
C. C. Lasher, Mgr. Mktg. / G. C. Trotter, Mgr. Sales

GENERAL ELECTRIC CO., ELECTRONIC COMPONENTS DEPT., 1811 Lemoyne Ave., Syracuse, N.Y.

Delay lines; magnetic cores / Ic RMSa

GENERAL ELECTRIC CO., LIGHT MILITARY ELECTRONIC EQUIPMENT DEPT., French Rd.,

- Utica, N.Y. / 5-3311 / \*C 58  
Airborne computers for military use, both analog and digital; magnetic cores, germanium and silicon diodes, analog to digital and digital to analog converters / RMSa Ls(3,000) Se(1952) DAc  
C. D. Brown, Mgr. Mktg. / G. R. Harris, Mgr., Sales
- GENERAL ELECTRIC CO., RECTIFIER DEPT.,  
Mountain View Rd., Lynchburg, Va. / 3-6571 / \*C 58  
DC power supplies for computers or computer systems; airborne transformer-rectifiers for DC power; military, industrial, and special purpose, complete DC power systems or components / RMSCa Ls (800) Le(1916) DAic  
W. F. Greenwood, Mgr., Marketing — Rectifier Dept. / J. R. Topper, Mgr. Computer Power Supplies Sales
- GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., 1224 W. Genesee St., Syracuse, N.Y. / GRanite 6-4411 / \*C 58  
Germanium and silicon transistors (signal and power); rectifiers (cells and stacks); germanium and silicon diodes; silicon unijunction transistors and silicon controlled rectifiers; delay lines, magnetic cores / RMSa Ic  
J. H. Sweeney, Mgr., Mktg. / W. O. Hoverman, Mgr. of Sales
- GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., West Genesee St., Auburn, N.Y. / 3-7321 / \*C 58  
Computer elements: shift registers, decade counters, computer packaged and potted circuits, delay lines, embedded assemblies and components, square loop ferrite memory cores; computer services / RMSa Ls(500) Se(1951) Ic  
C. G. Lloyd, Dept. Gen. Mgr. / E. A. Malling, Dept. Mgr. of Mktg.
- GENERAL ELECTRIC CO., RECEIVING TUBE DEPT., 316 E. 9th St., Owensboro, Ky. / — / \*C 58  
Industrial and computer electronic tubes; commercial glass, metal, and miniature tubes; military miniature, subminiature and ceramic tubes; computer tubes especially designed and manufactured to meet the requirements of all types of computers / RMSa ?s ?e DAic
- GENERAL ELECTRIC CO., RECEIVING TUBE DEPT., 200 Main Ave., Clifton, N.J. / GRegory 3-6387 / \*C 58  
Industrial and computer electronic tubes; commercial glass, metal, and miniature tubes; military miniature, subminiature, and ceramic tubes. Computer tubes specially designed and manufactured to meet the requirements of all types of computers / RMSa ?s ?e DAic
- GENERAL ELECTRIC CO., RECEIVING TUBE DEPT., 3800 N. Milwaukee Ave., Chicago 41, Ill. / SPring 7-1600 / \*C 58  
Industrial and computer electronic tubes; commercial glass, metal, and miniature tubes; military miniature, subminiature, and ceramic tubes; computer tubes specially designed and manufactured to meet the requirements of all types of computers / RMSa ?s ?e DAic
- GENERAL ELECTRIC CO., RECEIVING TUBE DEPT., 11840 W. Olympic Blvd., Los Angeles 64, Calif. / GRanite 9-7765 / \*C 58  
Industrial and computer electronic tubes; commercial glass, metal, and miniature tubes; military miniature, subminiature, and ceramic tubes; computer tubes specially designed and manufactured to meet the requirements of all types of computers / RMSa ?s ?e DAic
- GENERAL INSTRUMENT CORP., AUTOMATIC MANUFACTURING DIV., 65 Gouverneur St., Newark 4, N.J. / HU 5-2100 / \*C 58  
Silicon rectifiers, silicon diodes, silicon power diodes, I. F. transformers / RMSa ?s Le(1923) Ic  
M. Cohen, Pres. / M. Shapiro, Exec. V.P.
- GENERAL KINETICS INCORPORATED, 555 23rd St. South, Arlington 2, Va. / OTis 4-7555 / \*C 58  
Services to digital computer users and manufacturers: mathematical studies; numerical analysis; programming services for major general purpose computers; data reduction services; system studies and evaluation including operations research; construction, modification, and repair of peripheral equipment and special components; estimates prepared for each job / RMCa Ss(20) Se(1954) DIc  
A. E. Roberts, Jr., Vice-Pres. / W. L. Anderson, Vice-Pres.
- General Precision Laboratory, 63 Bedford Road, Pleasantville, N.Y. / ROgers 9-5000 / \*C  
Rapid electronic analysis of punch card data, etc. / Ls(1200) Se(1945) DIc RMSa
- General Research Co., 603 Jackson St., Falls Church, Va. / Je 4-7622  
Consulting services: applications of data processing equipment; operation of computer installations / Ss Se Dc RCPa
- General Transistor Corp., 91-27 138th Pl., Jamaica 35, N.Y. / HIckory 1-1000 / \*C 58  
Transistors — germanium and silicon types; rectifiers, precision resistors; germanium and silicon diodes, semiconductors, magnetic reading and recording heads / RMSa Ls(525) Se(1954) Ic
- GENISCO, INC., 2233 Federal Ave., Los Angeles 64, Calif. / BR 2-2706, GR 8-1276 / \*C 58  
Computer components of electro-mechanical type; transducers, analog-to-digital converters, accelerometers, pressure transducers, x-y digital output film reader, components for automation and automatic control; missile and aircraft auto pilot control transducers; simulation devices, gravity force centrifuges; oscillating, rate of return, vibration, and single axis simulators; noise and band pass filters; computer and control panel signal lights / RMSCa Ms(135) Se(1947) Ic  
E. C. Burkhart, Pres. / R. E. Brown, VP-Engrg.
- Georgia Institute of Technology, Rich Electronic Computer Center, Engineering Experiment Station, Atlanta 13, Ga. / TR 4-6331 / \*C 58  
Computing service: Univac Scientific (ERA 1101), IBM 650, analog / RCPa Ss(21) Se(1955) DAc
- THE GEOTECHNICAL CORP., 3712 Haggard Dr., Dallas 9, Tex. / FL 7-1721 / \*C 58  
Analog long distance data telemetering systems for remote computing, recording, and simulating; data processing machinery; geophysical apparatus; in-

Avco's rapidly expanding Research and Development Programs  
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## NUMERICAL ANALYSTS

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formation retrieval devices; scanners; terminals; translating equipment; custom analog and digital computers; multichannel low-frequency data recorders; fully automatic chart reader (curve follower) with optional output conversion units and computing units; amplifiers; data recording cameras; information converters / RMSa Ms(175) Me(1936) DAic

W. B. Heroy, Pres. / J. H. Hamilton, Ch. Engr.

The Gerber Scientific Instrument Co., 162 State St., Hartford, Conn. / Chapel 6-8539

Graphical-numerical computers. Relays, motors / Ss Se(1948) Ic RMSa

G. M. Giannini & Co., Datex Division — see Datex Division of G. M. Giannini & Co.

GILLE ASSOCIATES, Inc., 956 Maccabees Bldg., Detroit 2, Mich. / Te 3-3454 / \*C 58

Publishers of "The Punched Card Machine Accounting and Data Processing Semi-Annual" / Ss (8) Se(1951) Ic MSA

Frank H. Gille, Publisher / D. A. Talucci, Editor

Gilmore Industries, Inc., 13015 Woodland Ave., Cleveland 20, Ohio / RA 1-6400 / \*C 58

Electronic control and data handling equipment; scanners, analog to digital converters, card to magnetic tape and paper tape converters, automatic controls and equipment / RMSCa Ss(30) ?e DICc

Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio / REpublic 3-6361 / \*C 58

Large scale digitally controlled analog computers. Special purpose computers. Control and data proc-

essing devices using AC or DC analog or digital computing techniques. Goodyear electronic differential analyzers (GEDA) / RMSa Ls(10,000) Le(1925) DACc

Gordon Enterprises, 5362 North Cahuenga Blvd., North Hollywood, Calif. / ST 7-5267 / \*C 58

Photographic data recording cameras, photographic instrumentation, and accessories / RMSC(service and repair) a Ms(100) Me(1946) Ic

GPS Instrument Co., 180 Needham St., Newton, Mass. / \*C 58

Computing services / RCa Ss(20) Ac

Guardian Electric Manufacturing Company, 1621 W. Walnut St., Chicago 12, Ill. / CHesapeake 3-1100 / \*C 58

Electro-magnetic controls, complete control systems, components for computers; relays, solenoids, switches, stepping relays, hermetically sealed elements, etc. / RMSa Ls(1000) Se(1957) Ic

Gudeman Co. of Calif., 9200 Exposition Blvd., Los Angeles 34, Calif. / Texas 0-7317

Delay lines, pulse transformers, filter networks / Ic RMSa

Gudeman Co., Dilectron Div. — see Dilectron Div., Gudeman Co.

Gulton Industries, Inc., 212 Durham Ave., Metuchen, N.J. / LIBerty 8-2800 / \*C 58

Electronic and electro-mechanical components, instruments, and systems. Magnetic amplifiers, capacitors, printed circuits, resistant coatings, coils, connectors, consulting services, automatic controls, delay lines, memory systems, regulated power sup-

plies, magnetic tape recorders, telemetering systems, transformers / RMSCa Ls(800) Me(1942) ICc

## H

Hallamore Electronics Co., Div. of The Siegler Corp., 8352 Brookhurst Ave., Anaheim, Calif. / PRospect 4-1010 / \*C 58

Instrumentation and telemetering systems / RMSa ?s ?e Ic

Haller, Raymond, and Brown, Inc., Division of Singer Mfg. Co., Circleville Road, State College, Pa. / ADam 7-7611 / also 149 Broadway, New York 6, N.Y. / \*C 58

Special purpose electronic digital computers; weapons systems; systems engineering; electronic systems; industrial psychology; tape recording devices; data handling systems / RMSCa Ms(200) Se (1947) DAC

Hall-Scott, Inc., 2950 Ontario St., Burbank, Calif. / VI 9-2341 / \*C 57

Analog computers and components / Ms(250) Le Ac RMSa

HAMMARLUND MFG. COMPANY, INC., 460 West 34th St., New York 1, N.Y. / LOnacre 5-1300 / \*C 58

Centralized operations control equipment. Audio tone signalling, pulse counting, pulse width selection, alarm systems, telemetering systems. Capacitors. Complete systems installation / RMSa Ms (350) Le(1910) ICc

Lloyd Hammarlund, Pres. / L. C. Menkes, Sales Mgr.

HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N.J. / CRestview 3-9123 / \*C 58

Transistor and vacuum tube regulators / RMSa Ss (20) Se(1954) Ic

C. W. Harrison, Pres. / A. M. Darbie, Eng.

Harvard University, Harvard Computation Laboratory, Cambridge 38, Mass. / \*C 57

Builder of Harvard Mark I, II, III, IV calculators for Navy, Air Force, and own use. Computing service: digital; Harvard Mark I and IV, and Univac I machines / Ms Me(1941) Dc RCPMa

HARVEY WELLS ELECTRONICS, INC., Research and Development Div., 5168 Washington St., W. Roxbury 32, Mass. / FA 3-4255 / \*C 58

Computer packaged circuits; five megacycle circuits (Data Bloc and Data Pac); custom digital systems / RMSCa Ms(35) ?e DCc

R. A. Mahler, Pres. / A. C. Westborn, R & D Director

Cecil Hastings, Jr., 136 Kuuala St., Kailua, Hawaii / Kai 251528 / \*C 58

Approximations for digital computers / Ss Se (1954) Dc RCPa

Hathaway Instrument Co. (subsidiary of Hamilton Watch Co.), 1315 So. Clarkson St., Denver 10, Colo. / Spruce 7-2696 / \*C

Transducers, analog and digital recorders, oscillographs, circuit analysis, etc. / Ms(80) Me(1939) Ic RCMSa

The A. W. Haydon Co., 232 N. Elm St., Waterbury, Conn. / PL 6-4481 / \*C 58

AC and DC timing motors, custom designed timing devices, elapsed time indicators, electronic timers, time delay relays, intervalometers, repeat cycle timers, stop clocks, subminiature timers. Automatic controls, Tachometers / RMSa Ls(500) Me(1946) ICc

Heath Co., Benton Harbor, Mich.

Assemblable electronic analog computer kit / DAIC RMSa

Helipot Corp., Newport Beach, Calif. / LIBerty 8-0611 / \*C 58

Precision potentiometers, single-and-multiturn, linear and non-linear; rotating components, monitoring and control components, standard electromechanical breadboard parts; turns-counting dials; magnetic clutches; delay lines; silicon diodes; synchros / RMSa Ls(800) Me(1943) Ic

HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N.Y. / STagg 2-3875 / \*C 58  
Relays, solenoids, counters, for computer and other uses / RMSa Ms Me(1945) Ic

B. S. Gilman, Gen. Mgr.

Hillyer Instrument Co., 54 Lafayette St., New York 13, N.Y. / Digby 9-4485 / \*C

Simulators, servomechanisms, sensing, computing, and actuating systems. Automatic machine controls / Ms(100) Se(1945) DAISCc RMSa

HOFFMAN ELECTRONICS CORP., SEMICONDUCTOR DIV., 930 Pitner Ave., Evanston, Ill. / University 9-9850 / \*C 58

"Fast recovery" diodes, "Zener glass" switching diodes, "Zener" power regulators, general purpose diodes, medium power rectifiers, high power rectifiers, "Zener Reference" units, silicon photovoltaic readout cells / RMSa Ls(500) Se(1953) Ic  
R. N. Golbach, VP — Marketing / H. Schoemehl, Ch. Sales Eng.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N.Y.—Have discontinued manufacture of computers.

N. V. Hollandse Signaalapparaten, Hengelo (0), Netherlands / \*C 57

Radar fire control systems and their computers for different types of armament. Directors, computers, trackers and radar systems for finding targets, then automatically sighting the guns under their control / Ls(1800) Le(1922) DAICc RMSa

HOOVER ELECTRONICS CO., 110 W. Timonium Rd., Timonium, Md. / VALley 5-5200 / \*C 58

Data processing systems, reversible analog-to-digital converters. Digital computers subassemblies. Sequential test sets. Telemetering systems. Logical and arithmetical, packaged circuits. Power supplies / RMSa Ms(150) Se(1952) DAIC

J. M. Pearce, VP — Gen. Mgr. / P. A. Hoffman, VP — Operations

Huck Co., 37 Wall St., New York 5, N.Y. / Digby 4-4750 / \*C 56

Card sensing and punching units for computer input-output / Ms(125) Me(1945) Dc RMSCa

Hughes Products, Semiconductor Div., Hughes Aircraft Co., International Airport Station, Los Angeles 45, Calif. / OR 2-5011 / \*C 58

Semiconductor diodes — germanium and silicon

types; rectifiers, silicon capacitors, germanium and silicon transistors / RMSa Ls(2000) ?e Ic  
**HUGHES RESEARCH AND DEVELOPMENT LABORATORIES, HUGHES AIRCRAFT CO., Culver City, Calif. / EXmont 8-2711 / \*C 58**

Automatic data-handling systems for commercial and military applications. Industrial control systems. Small, automatic, electronic digital and analog computers for airborne use. Fire-control equipment. Aircraft control. Guided missiles. Digital controls; semiconductor devices; magnetic cards; automatic control equipment; diodes; data processing machinery; rectifiers; transistors / Ls(15,000 company; 5,000 Res. and Devt. Labs.; 400 computers) Me(1937) DACc RMSa

Hycon Eastern Inc., 75 Cambridge Parkway, Cambridge 42, Mass.

Analog data reduction systems, magnetic tape handlers, etc. / Ic RMSa

**HYDRO MOLDING CO., INC., 100 Sharron Ave., Plattsburgh, N.Y. / 2598 / \*C 58**

Precision molded bobbins, screws and custom molded components; complete engineering and tool room facilities / RMSa / Ms(60) Se(1949) Ic S. Levites, Sales / William E. Hoffmann, Engineering

I

Imtra Corp., 11 University Rd., Cambridge 38, Mass. / UN 4-4350 / \*C 58

Magnetic storage drums, etc. / Ba Ic

Imperial College, Mathematics Dept., Computer Section, Huxley Bldg., Exhibition Road, So. Kensington, London, England

Automatic digital relay computer constructed and in operation; constructing a second computer with neon tube storage / Ss Le(1922) Dc RMa

The Indiana Steel Products Co., 405 Elm St., Valparaiso, Ind. / 2-5601 / \*C 58

Permanent magnets and magnetic cores (wound type) / RMSCa Ls(800) Le(1908) Ic

Industrial Control Co., 805 Albin Ave., Lindenhurst, L.I., N.Y. / MOhawk 1-6060 / \*C 58

Servo amplifiers, servo multipliers, automatic controls and instrumentation / RMSa Ss(15) ?e IC

**INDUSTRIAL NUCLEONICS CORP., 1205 Chesapeake Ave., Columbus 12, Ohio / Hudson 8-0671 / \*C 58**

"AccuRay" industrial process control systems, non-contacting, continuous measurement. Choppers, operational amplifiers, analog to digital converters / RMSa Ms(375) Se(1951) Cc

W. E. Van Horne, Gen. Sales Mgr. / D. A. Bossen, Process Industry Mgr.

Institut Blaise Pascal, Laboratoire du Calcul, Mécanique, 25, Avenue de la Division Le Clerc, Chatillon-sous-Bagneux (Seine), France / \*C 56

Constructing a digital calculator / Ss(9) Me(1939) Dc RPa

Institute for Advanced Study, Electronic Computer Project, Princeton, N.J. / PR 1-4400 / \*C

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1200 Jefferson Davis Highway, Arlington 2, Virginia

High speed general purpose (scientific) digital computers for own use / Ss(35) Se(1946) Dc RPa

The Institute of Management Sciences, 250 North Street, White Plains, N.Y. / \*C 58

Non-profit membership organization, publishers of quarterly journal "Management Science" / PCa ?s Se(1954) Ic

Instrument Components, Inc., College Point, N.Y.— company no longer in business

Instrument Development Labs., Inc., 67 Mechanic St., Attleboro, Mass.

Analog-to-digital converters, analog (color difference) computers / A1c RMSa

Instrument Society of America, 313 Sixth Ave., Pittsburgh 22, Pa. / ATLantic 1-3171 / \*C 58

Professional and technical society serving the field of instrumentation systems and automatic control. Publishes "ISA Journal" / PCa Ss(27) Me(1945) Ic

Intelligent Machines Research Corp., 719 Edsall Rd., Alexandria, Va. / FL 4-5000 / \*C 58

Automatic character sensing (reading) equipment, pattern interpretation equipment, sensing mechanisms, digital computer elements / RMSa Ms(50) Se(1950) DIc

Intercontinental Dynamics Corp., 170 Coolidge Ave., Englewood, N.J. / LOwell 7-3600 / \*C 58

Sigmatron\*, electronic generators of statistical functions: Gaussian, Rayleigh, Poisson, uniform distribution. With and without regulated power supplies. Input-output devices / RMSa Ss(35) Se(1956) Ic

\*Registered

**INTERNATIONAL BUSINESS MACHINES CORP.,** 590 Madison Ave., New York 22, N.Y. / Plaza 3-1900 / \*C 58

Punch card machines. IBM 650, magnetic drum computer. IBM 704 and 705, automatic electronic computers with magnetic tape and magnetic core storage. IBM 632, electronic typing calculator. IBM 610, automatic decimal point computer. Electronic calculating punches 604 and 607. Accounting machines and data processing equipment, etc. / RMSa Ls(84,000) Le(1911) Ic

**INTERNATIONAL BUSINESS MACHINES CORP.,** DATA PROCESSING DIV., 112 East Post Road, White Plains, N.Y. / White Plains 9-1900 / \*C 58

Automatic data processing machines; punch card machines, and accounting machines. IBM 650, magnetic drum computer. IBM 704 and 705, automatic electronic computers with magnetic tape and magnetic core storage. IBM 632, electronic typing calculator. IBM 610, automatic decimal point computer. Electronic calculating punches, 604 and 607 / RMSa Ls(84,000) Le(1911) Ic

International Rectifier Corp., 1521 East Grand Ave., El Segundo, Calif. / Oregon 8-6281 / \*C

Germanium diodes, selenium diodes, selenium photocells, selenium rectifiers / Ms(390) Se(1947) Ic RMSa

International Resistance Co., 401 N. Broad St., Philadelphia 8, Pa. / WALnut 2-2166 / \*C 57

Resistors, selenium rectifiers, diodes, related electronic components for computer and other uses / Ls(2300) Me(1926) Ic RMSa

International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif. / GRanite 8-7751 / \*C 57

Systems and devices for clerical and control applications. Automatic document-handling machinery. High-density photographic information storage. Community TV system equipment; pay-as-you-see TV. SEE also Telemeter Magnetics Inc. / Ms(100) Se(1950) DCc RMSCa

International Telephone and Telegraph Corp., 67 Broad St., New York 4, N.Y. / Bowling Green 9-3800 / \*C  
Equipment for automatic control of repetitive processes, clerical or industrial work, such as inventories. Fully automatic pneumatic tube system, by dialing / Ls(96,000) Le DASCmc RMSCPa

## J

Bill Jack Scientific Instrument Co., 143 Cedros Ave., Solana Beach, Calif. / Skyline 5-1551 / \*C

Airborne analog computers for "Recon" systems, aerial cameras; recording cameras; etc. / Ms(450) Se(1949) DIc RMSa

Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda 14, Md. / \*C

High-speed small, compact digital computers. Pulse transformers, delay lines, magnetic storage systems. Pulse generators, test equipment. Input and output devices. Complete instrument systems / Ss(30?) Se(1948) DASCc RMSa

Jefferson Electric Co., 910 S. 25th Ave., Bellwood, Ill. / MANSfield 6-7161 / \*C 58

Constant voltage and low voltage control transformers / Ma Ls(1600) Le(1915) Ic

Jefferson Electronic Products Corp., 322 State St., Santa Barbara, Calif. / WOODland 5-8505 / \*C 58

Molded cables and braided wiring harness assemblies; electronic, electrical, electromechanical, precision assemblies and specialized test equipment; plug-in circuits, regulated power supplies, telemetering systems / RMSa Ms(200) Se(1953) Ic

Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Drive, Pasadena 3, Calif. / \*C

Analog, digital, and data-handling systems. Research and development in jet propulsion and missile guidance / Ls(1,200; about 50 on computers) Me(1942) DAc RCPa

Johnson Electronics Inc., P.O. Box 1675, Casselberry, Fla. / MIDway 4-3311 / \*C 58

Precision electronic components in the coil field; development, design, prototypes; magnetic amplifiers, delay lines, embedded assemblies and components, pulse transformers / RMSCa Ms(80) Se(1951) Ic

## K

Kaiser Metal Products, Inc., Briston, Pa. / Stillwell 8-3361 / \*C

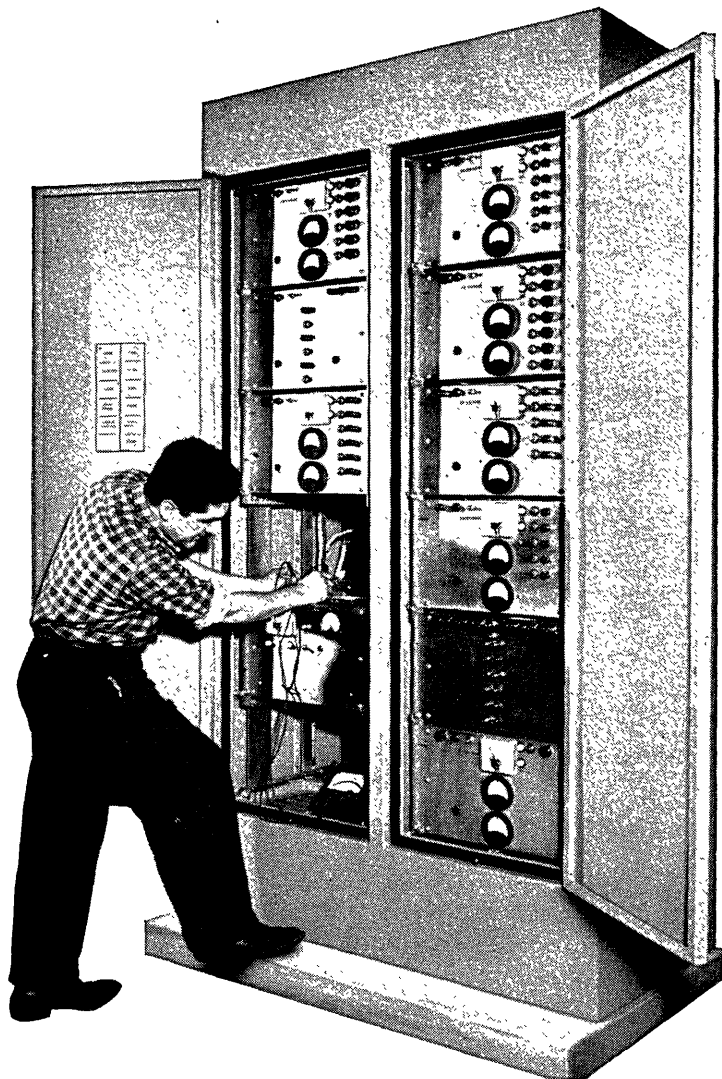
Digital delay generators for accurate measurement and generation of time intervals, etc. Automatic



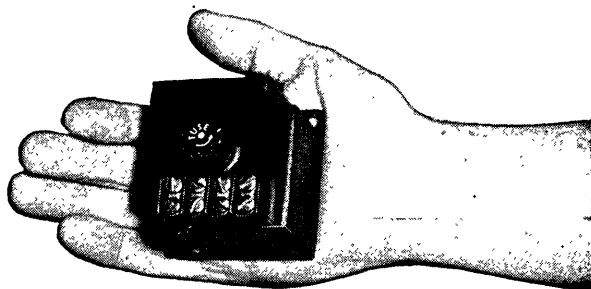
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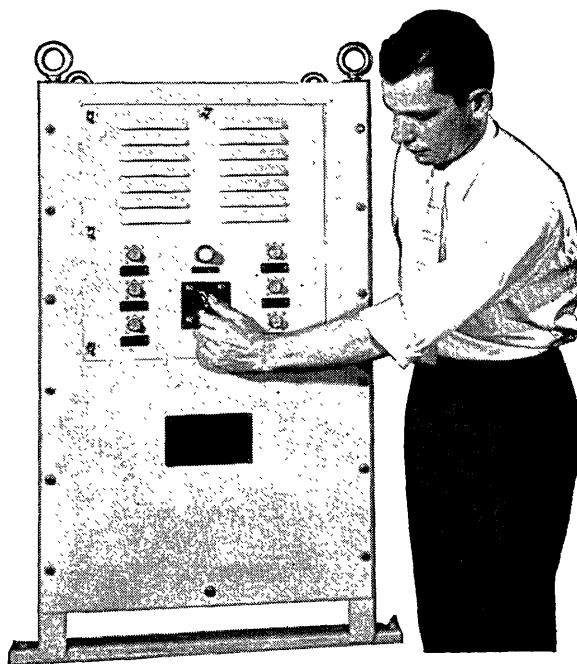
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Kay Electric Co., Maple Ave., Pine Brook, N.J. / CA 6-4000 / \*C 58  
Spectrum analyzers, sound spectographs, sweeping oscillators, plug-in circuits, test equipment, converters, generators, translating equipment, noise generators / RMSCa Ms(100) Me(1942) Ic

Kaye Development Co., Connecticut Ave., S. Norwalk, Conn.  
Data processing; punch card machines / Ic RMSa

KCS DATA CONTROL, LTD., 20 Spadina Rd., Toronto, Ontario, Canada / WAlnut 4-3381 / \*C 58  
Consultants: electronic computing, data processing, operations research, economic surveys, statistical analyses, feasibility studies. Services: high speed computing, data processing, tabulating / RCa Ss(45) Se(1954) Dc  
Dr. Josef Kates, Pres. / Prof. B. A. Griffith, VP-Research Div.

Kearfott Co., Inc., Clifton, N.J. / Gregory 2-1000 / \*C  
Analog-digital converter; digital-analog converter; servo motors, synchros, resolvers, integrating tachometer generators; analog and digital computers / Ls(3000) Le(1916) DAISc RMSa

GEORGE F. KELK, LTD., 130 Willowdale Ave., Willowdale, Ontario, Canada / BA 5-7724 / \*C 58  
Custom design of analog or digital data handling systems. Custom test and process control equipment / MCa Ss(12) Se(1953) DAc  
G. F. Kelk, Pres. / F. M. Hanna, Asst. Mgr.

Kellogg Switchboard & Supply Co., 6650 So. Cicero Ave., Chicago 38, Ill. / PO 7-6900 / \*C 58  
Wire transmission equipment, telephone switching equipment, digital computing equipment, radio multiplexing equipment / RMSa Ls(4000) Le (1897) DIc

Kelt Corporation, 4526 Chickering Ave., Cincinnati 35, Ohio  
Analog computers, data processing / DAIC RMSa

Kelvin Electric Co., 5907 Noble Ave., Van Nuys, Calif. / State 2-6662 / \*C 58  
Precision wire-wound resistors / RMSa Ss(31) Se (1957) Ic

Kemtron Electron Products Inc., 14 Prince Pl., Newburyport, Mass. / HOMestead 2-4464 / \*C 58  
Semi-conductors, silicon and germanium diodes, including microwave, power, and computer types / RMSa Ms Se(1948) Ic

Kepeco Laboratories, Inc., 131-38 Sanford Ave., Flushing 55, N.Y. / IN 1-700 / \*C 58  
Power supplies, voltage or current regulated; magnetic transistorized, and vacuum tube types; relays; transistors / RMSa Ms(100) Me(1946) Ic

Ketay Mfg. Co. — see Norden-Ketay Corp.

Key Electric Corp., 287 Post Ave., Westbury, N.Y.  
Photoelectric tape readers, magnetic tape handlers, magnetic tape recorders / Ic RMSa

Walter Kidde & Co., Inc., 441 Main Street, Belleville 9, N.J. / PLymouth 9-5000 / \*C 58  
Fire detecting and extinguishing equipment, photoelectric and ultrasonic burglar alarm systems. Analog computers / RMSa Ls(1460) Le(1917) Ic

A. KIMBALL CO., subsidiary of United Shoe Machinery Corp., Rewe St., Brooklyn 11, N.Y. / STagg 2-2701 / \*C 58  
Machine for printing and punching garment tags, and other print-punch machines, reading devices, and input mechanisms / RMSCa Ms(439) Le (1876) Ic  
L. J. Waters, Pres. / J. C. Quinn, Jr., VP — Sales

Kleinschmidt, Inc., Deerfield, Ill. / Deerfield 1000 / \*C  
Page printing read-out devices, tape reading and tape punching equipment / Ls(650) Se(1946) Ic RMSCa

The Walter S. Kraus Co., 48-02 43 St., Woodside 77, N.Y. / STillwell 4-5922 / \*C 58  
Electronic controls for addressing machines, exact spacing controls / RMSa Ss(12) Se(1956, this div.) Ic

The Kybernetes Corp., Division of Self-Winding Clock Co., 75 Varick St., New York 13, N.Y. / CAnal 6-6800 / \*C 58  
Automatic industrial data processing, digital print-out and digital indicator systems. Temperature (thermocouple) indicator monitors with annunciation / Ms(200) Le(1885, parent company) DICc RMSa

## L

LABORATORY FOR ELECTRONICS, INC., COMPUTER PRODUCTS DIV., 141 Malden St., Boston 18, Mass. / HANcock 6-8875 / \*C 58  
HD (high density) file, magnetic drums and heads, magnetic bulk storage device for use with data processing or computer systems. SM symbol generator and viewer. Special digital systems designed to customer requirements. Advanced research in special devices and applied physics for the computer field. Computer components. Data processing and recording equipment. Digital computers. Information retrieval devices; photoelectric readers, printers, visual output devices / RMSa Ls(890) Me (1946) MAIc  
R. C. Kelner, Gen. Mgr. / S. P. Blumenthal, Sales Eng.

LANDIS & GYR, INC., 45 W. 45th St., New York 36, N.Y. / JUdson 6-4644 / \*C 58  
Impulse counters, predetermining impulse counters, single decade impulse counters with auxiliary contacts / RMSa Ss(12 this div.; Switzerland, 4000) Le(1927) Ic  
M. Wiesendanger, Exec. VP

Lansdale Tube Co., Div. of Philco Corp., Lansdale, Pa. / ULYssee 5-4681 / \*C 58  
Transistors, diodes, tubes for computers / Ls(3000) Me(1942) Ic RMSCa

Lanston Industries, Inc., 24th at Locust, Philadelphia 3, Pa. / LO 7-4614 / \*C 58  
Barrett adding machines: 10 key adding machines with direct subtraction, visible dials, printed tape / RMSa Ms(400) Le(1892) Lc

Lapp Insulator Co. Inc., Radio Specialties Div., 130 Sumner St., LeRoy, N.Y.  
Magnetic cores, resistors / Ic RMSa

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa. / Davenport 9-4900 / \*C 58

Null-balance electronic instruments for indicating, recording, controlling and telemetering; potentiometers, plotters, automatic control systems. Analog computers for closed-loop control of power company networks / RMSa Ls(3000) Le(1899) AICc

Lehigh University, Computing Laboratory, Packard Laboratory, Bethlehem, Pa. / UN 7-5071 ext. 355 / \*C 58

Computing service using LGP-30 / RCP (training) a Ss Se(1957) Dc

Leonard Electric Products Co., Inc., 67-34 St., Brooklyn 32, N.Y.

Delay lines, magnetic cores / Ic RMSa

Harry Levinson Co., 1117 2nd Ave., Seattle, Wash. / Main 2-5433 / \*C 58

Analog computers / Sa Ss(2) Se(1954) Ac

Lewyt Mfg. Corp., Long Island City 1, N.Y. / EX 2-5050 / \*C

Data processing equipment. CDT (Coordinate Data Transmitter System) which screens, interprets, and codes radar information for transmission over telephone lines / Dc RMSa

**LIBRASCOPE, INC.**, 808 Western Ave., Glendale 1, Calif. / CHapman 5-7511 / \*C 58

Computers (analog, digital, special purpose for commercial and military operations); LGP-30: low-price, large capacity, general purpose digital computer. All phases of data-handling and mechanical, electrical, and electronic computer components. See also Royal McBee Corp. / RMSa Ls(1500) Me(1937) DAICc

C. W. Imm, Pres. / W. E. Bratton, VP — Operations

Librascope, Inc., Burbank Div., 133 E. Santa Anita Ave., Burbank, Calif. / Th 5-1785 or Vi 9-1351 / \*C

Magnetic "decision" elements; general purpose computer; reading-recording magnetic heads; converters; magnetic tape demagnetizers, etc. Formerly Minnesota Electronics Corp. / Ms(55) Se(1946) Dlc RMSa

**ARTHUR D. LITTLE, INC.**, 15 Acorn Park, Cambridge 40, Mass. / UNiversity 4-5770 / \*C 58

Industrial research consultants in all fields of physical sciences, engineering, technical economics, management services. Complete computing and data processing services, mathematical analysis and programming for digital computers, operations research, systems engineering / RCPa Ls(1000) Le(1886) Dlc

R. S. Stevens, Pres. / Dr. G. Kimball, Science Advisor

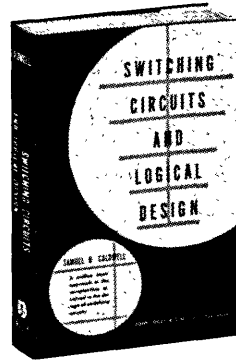
Littlefuse, Inc., 1865 Miner St., Des Plaines, Ill. / VA 4-1188 / \*C 58

Fuses and fuse holders for computers and other uses / RMSa Ms(400) Me(1930) Ic

**LINK AVIATION, INC.**, Binghamton, N.Y. / 3-6311 \*C 58

Flight simulators, analog computers, servo-mechanisms, gear boxes, test equipment / RMSCa Ls(2400) Me(1934) AICc

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Calif. / EXbrook 3-0449 / \*C 58  
Micro-magnetic instruments; magnetic tape record-  
ing and reading heads; consulting services; mem-  
ory systems; magnetic tape readers / RMSCa Ss  
(15) Se(1948) Ic  
Litton Industries, Inc., 336 N. Foothill Rd., Beverly  
Hills, Calif. / CR 4-7411 / \*C 58  
Radar systems with monopulse techniques; counter-  
measures, inertial navigation, automatic flight con-  
trol, telemetering devices, communication equip-  
ment, instrumentation and test equipment, servo-  
mechanisms. Portable, electronic scientific compu-  
ters (digital differential analyzer). Accessories:  
graph plotters, followers, tape input and output de-  
vices, digital-analog converters, and magnetic drums  
and heads. Advanced system design and develop-  
ment. Adding machines / RMSa Ls(8500) Se  
(1953) DAICc  
Litton Industries, Components Div., 5873 Rodeo Rd.,  
Los Angeles 16, Calif. / VE 7-1228 / \*C 58  
Precision components, potentiometers, delay lines.  
Electronic hardware, terminals and boards, hard-  
ware, printed circuits / Ma Ms(150) Se(1955) Ic  
Log Abax S. A., 146, Champs Elysees, Paris 8, France  
/ Elysees 61-24 / \*C  
Collaborating with Institut Blaise Pascal on com-  
puting devices. 198-register automatic accounting  
machine. Connection with punch card or comput-  
ing machines / Ms(700) Se(1949) Dc RMSa  
Loyola Laboratories, Box 45074, Airport Station, Los  
Angeles 45, Calif. / OReGon 8-1686 / \*C  
Computers, computing services / Ic RMSa

## M

W. S. Macdonald & Co. — see Comptron, Inc.  
Machine Statistics Co., 180 Varick St., New York 16, N.Y.  
/ WAtkins 4-2750 / \*C 58  
Computing service: IBM 604, punch card machines  
/ CPa Ss(35) Se(1951) Dc  
Mack Electronics, a Div. of Mack Trucks, Inc., 40 Leon  
St., Boston 15, Mass. / HIGhlands 5-5640 / \*C 58  
Special purpose analog and digital computers, digi-  
tal computer elements, voltage and data converters,  
machine tool control systems, magnetic core shift  
registers and logical elements, transistor circuit  
packages, plug-in circuits, amplifiers, special in-  
strumentation equipment / RMSa Ss Se(1956)  
DAIC  
MacLeod and Hanopol Inc., 10 Roland St., Charlestown  
29, Mass.  
Delay lines, analog-to-digital converters / Ic RMSa  
The Magnavox Co., 2131 Bueter Rd., Fort Wayne 4,  
Indiana  
Analog-to-digital converters; analog and digital  
computers; data processing equipment; magnetic  
drums / Ls DAIC RMSa  
Magne-Pulse Corp., 140 Nassau St., New York 38, N.Y.  
Delay lines; magnetic tape recorders; magnetic  
drums / Ic RMSa

MAGNETIC METALS CO., Hayes Ave. at 21st St.,  
Camden 1, N.J. / WOODlawn 4-7842 / \*C 58  
Electro magnetic core parts and shields / RMSa  
Ms(400) Me(1942) Ic  
H. F. Porter, VP — Exec. Eng. / W. J. Miller, VP  
— Sales Mgr.  
Magnetics, Inc., Box 230, Butler, Pa. / Butler 7-1745  
/ \*C  
Tape wound cores of ultra-thin high-permeability  
materials, for computers, etc. / Ms(275) Se(1949)  
Ic RMSa  
Magnetic Research Corp., 3160 W. El Segundo Blvd.,  
Hawthorne, Calif. / OSBorne 5-1171 / \*C 57  
Power supplies, magnetic servo amplifiers for auto-  
matic control / Ms(110) Se(1952) ICc RMSa  
MAGNETICS RESEARCH CO., INC., 255 Grove St.,  
White Plains, N.Y. / WH 9-9588 / \*C 58  
Magnetic components for analog and digital sys-  
tems and computers. Transistor driven magnetic  
cally controlled counters, matrix plane switch cores,  
custom manufactured magnetic digital devices,  
toroidal windings, computer sub-assemblies and  
sub-systems, magnetically operated high speed  
scalars, magnetic amplifiers / RMCa Ss(30) Se  
(1951) DAIC  
Eugene Sands, Pres. / Daniel Golden, Ch. Eng.  
P. R. Mallory & Co., Inc., 40 S. Gray St., Indianapolis  
6, Ind. / MELrose 6-5353 / \*C 58  
Silicon diodes, rectifiers, resistors, rheostats, ca-  
pacitors, switches, semiconductors, potentiometers,  
for computer and other uses / RMSCa Ls(4000)  
Le(1916) Ic  
ALAN O. MANN AND ASSOCIATES, 530 Westview  
St., Philadelphia 19, Pa. / GERMantown 8-2614 /  
Also: Washington, D.C. / NOrth 7-0343 / \*C 58  
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financial planning; operations research; installation  
programs for electronic computers and other data-  
handling equipment. Serving business, industry,  
military services, government agencies / RCPa Ss  
Se(1956) DAIC  
MARCHANT CALCULATORS, INC., 6701 San Pablo  
Ave., Oakland 8, Calif. / \*C 58  
Automatic electric calculators (desk type) / Ls  
(2500) Le(1910) Ic RMSa  
Marchant Research, Inc. — this subsidiary of Marchant  
Calculators has been discontinued  
Markite Corporation, 155 Waverly Place, New York 14,  
New York / OReGon 5-1384 / \*C 58  
Precision potentiometers for computer and other  
uses / RMSa Ms(140) Se(1948) Ic  
Massachusetts Institute of Technology, Digital Compu-  
ter Laboratory, 211 Mass. Ave., Cambridge 39, Mass.  
/ UNiversity 4-6900 / \*C 57  
"Whirlwind" electronic digital computer / Ms  
(300+) Me(1945) DAc RCPa  
Massachusetts Institute of Technology, Office of Statisti-  
cal Services, Cambridge 39, Mass. / UNiversity 4-6900

- Computing service: digital; IBM 604, card programmed calculator, punch card machines / Ss Se Dlc RCPa
- Mathematisch Centrum, 2e Boerhaavesstraat 49, Amsterdam, Netherlands / \*C  
Relay computer; electronic computers; for own use / Ms(60) Se(1946) Dc RCPa
- MAUREY INSTRUMENT CORP.**, 7924 S. Exchange Ave., Chicago 17, Ill. / REgent 1-1717 / \*C 58  
Precision, single-turn, wirewound potentiometers of standard and special capacities for use under severe environmental conditions. Special resistance elements and coiled assemblies in addition to toroidal potentiometer windings / RMSa Ss(30) Se(1953) Ic  
E. Maurey, Jr., Pres. / R. Marlowe, VP  
The W. L. Maxson Corp., 475 Tenth Ave., New York, N.Y. / Longacre 5-1900 / and elsewhere  
Servomechanisms, analog computers, and digital computers for fire control, navigation, etc. Automatic control machinery / Ls(3000) Me(1935) DASCc RMSa
- McGraw-Edison Co. — see Thomas A. Edison Instrument Division
- Measurement Engineering Ltd., 232 John St., Arnprior, Ontario, Can. / 400 / \*C 58  
Consultants, development engineers, and equipment specialists in communications, nucleonics, and industrial measurement and control. Automatic sorting and counting controls and equipment, metal chassis, printed circuits, analog-to-digital converters, counters, mechanical integrators, potentiometers, power supplies, simulators, tachometers / RMSCa Ms(120) ?e Ic
- Mellon Institute of Industrial Research, Multiple Fellowship on Computer Components, University of Pittsburgh, Pittsburgh 13, Pa. / Ma 1-1100 X378 / \*C 57  
High temperature modular printed circuitry / Ss(5) Se(1950) Dc RCA
- Melpar, Inc., 3000 Arlington Blvd., Falls Church, Va.  
Delay lines; magnetic cores / Ic RMSa
- Metron Corp., 8 Coryell St., Lambertville, N.J. / EXPORT 7-1570 / \*C 57  
Punched card sensing device used in analog and digital computers, other computer components / Ss(6) Se(1956) DAc RMSa
- Mico Instrument Company, 80 Trowbridge St., Cambridge 38, Mass. / KIRkland 7-8660  
Toroid transformers, toroid inductors; ferrite core units for computers, etc. / Ss(20) Me(1934) Ic RMSa
- Micro Switch, a Division of Minneapolis-Honeywell Regulator Co., 11 West Spring St., Freeport, Ill. / ADams 2-1122 / \*C 58  
Precision snap-action and mercury switches. Lighted and unlighted pushbutton switches for control panels. Special switches for electronic circuits / RMSa Ls(2500) Me(1937) Ic
- Microtran Co., Inc., 145 E. Mineola Ave., Valley Stream, N.Y. / LO 1-6050 / \*C 58  
Miniature audio and transistor transformers. Transformers designed to customer specifications / RMSa Ms(60) Se(1951) Ic
- Mid-Century Instrumatic Corp., 611 Broadway, New York 12, N.Y. / SPring 7-4016 / \*C 58  
Electronic analog computers for industry and government. Precision analog computers, simulators, and components and accessories thereof: test equipment, analog to digital converters, function and electronic generators, electronic integrators, servos, electronic and diode multipliers, and regulated power supplies / RMSa Ms(55) Se(1950) Ac
- Midwest Research Institute, 425 Volker Blvd., Kansas City 10, Missouri / LOgan 1-0202 / \*C 58  
Studies in application of digital and analog computers to business and scientific problems; Mathematical analysis and computation, using NCR 102A and GEDA equipment in computing laboratory; computing service; consulting service; contract research / RCPa Ms(300) Me(1944) Ic
- MILES REPRODUCER CO., INC.**, 812 Broadway, New York 3, N.Y. / SPring 7-7670 / \*C 58  
Self-powered miniature sound recorder-reproducer. Conference recorders, briefcase recorders-reproducers, telephone recorders-reproducers, permanent recorders (non-magnetic). Controls, automatic and signaling; magnetic drums; magnetic reading and recording heads; memory systems; mechanical readers; magnetic tape recorders; paper tape readers / RMSa Ms(60) Le(1924) Ic  
J. M. Kuhlik, Dir. of Research / I. W. Kay, Chief Engr.
- William Miller Instruments, Inc. — out of business
- H. JEFFERSON MILLS, JR., MANAGEMENT CONSULTANT**, 2725 29th St., N.W., Washington 8, D.C. / NOrth 7-0343 / \*C 58  
Management counsel in systems analysis, equipment evaluation, organization and facilities planning; personnel recruitment, selection and training; and installation programs for electronic computer and other automatic data processing applications in business, industry and government / RCPa Ss Se(1954) Dlc  
H. Jefferson Mills, Jr., Principal
- Minneapolis-Honeywell Regulator Co.—SEE also Davies Laboratories Division and Datamatic Corp. Division
- MINNEAPOLIS-HONEYWELL REGULATOR CO.**, 13350 U.S. Highway 19, St. Petersburg, Fla. / HEMlock 5-1151 / \*C 58  
Inertial guidance systems, inertial platforms, digital computers, analog computers, gyros and accelerometers. Packaged computer logic circuits; computer test equipment; analog to digital converters. Data recording equipment. Input-output devices / RMSa Ms(300) Se(1957) DAic  
W. M. Adkisson, Section Head, Computer Sections
- Minneapolis-Honeywell Regulator Co., Boston Division, 40 Life St., Boston 35, Mass. / AL 4-5200 / \*C 58  
Rate, free, and integrating gyroscopes, d-c data handling amplifiers and preamplifiers, d-c null indicators, precision temperature control units, synchros, and servo motors / RMSa Ls(1000) Le(1886) SIc
- Minneapolis-Honeywell Reg. Co., Davies Labs. Division, 10721 Hanna St., Beltsville, Md. / WEBster 5-2700 / \*C 58

- Magnetic tape products; systems and techniques for data acquisition, reduction and analysis; recorders and transcribers of digital data; analog to digital converters; magnetic reading and recording heads; magnetic tape readers and recorders; telemetering systems / RMSa Ms(250) Se(1946) DIc
- Minneapolis-Honeywell Regulator Co., Industrial Division, 4580 Wayne Ave., Philadelphia 44, Pa. / Michigan 4-8300 / \*C
- Automatic controllers. Brown Instruments. Servo components used in computers. Recording and indicating instruments and control equipment, etc. Amplifiers, converters, balancing motors, potentiometers, recording papers / Ls(3200) Le(1859) ACc RMSa
- Minnesota Electronics Corp.—SEE Librascope, Inc., Burbank Div.
- Minnesota Mining and Manufacturing Co., 900 Bush Ave., St. Paul 6, Minn. / PR 6-8511 / \*C 58
- Magnetic instrumentation tape / RMSa ?s Le (1902) Ic
- Mohawk Business Machines Corp., 944 Halsey St., Brooklyn 33, N.Y. / GL 5-9570 / \*C 58
- Battery operated pocket tape recorder; repeating tape recorder / RMSa Ms(125) Se(1949) Ic
- Monrobot Corp.—SEE Monroe Calculating Machine Co., Electronics Div.
- MONROE CALCULATING MACHINE CO., 555 Mitchell Street, Orange, N.J. / OR 3-6600 / \*C 58**
- Adding machines, desk calculators, data processing machinery / RMSa Ls(4000) Le(1911) Ic
- F. R. Sullivan, Pres. / W. E. McKenna, VP
- MONROE CALCULATING MACHINE CO., ELECTRONICS DIVISION, Hanover Ave., Morris Plains, N.J. / JE 8-7200 / \*C 58**
- Automatic electronic digital computers, data processing machines and components, magnetic drum storage systems, tape punch equipment, magnetic read/record heads, modular drums / RMSa Ms (100) Se(1949) DIc
- W. H. Burkhart, Director of Research / W. S. Oliwa, Operations Mgr.
- Moore School of Electrical Engineering, Univ. of Pennsylvania, 200 South 33 St., Phila. 4, Pa. / \*C 57
- Computing service: analog, digital; differential analyzer, automatic digital computer, punch card machines / Ms(80) Le(1923) DAc RCPa
- Moran Instrument Corp., 170 E. Orange Grove Ave., Pasadena, Calif. / SY 6-7158 / \*C 58
- Shaft digitizers, analog digitizers, radiation measurement equipment, radar navigation equipment / RMSCa Ss(25) Se(1949) Ic
- F. L. Moseley Co., 409 North Fair Oaks, Pasadena, Calif. / Ryan 1-0208 / \*C 57
- Two-coordinate X-Y recorder, point plotter, digital voltmeters, curve follower, etc. / Ms(60) Se (1950) Ic RMSa
- Motorola Semiconductor Products Div., 5005 E. McDowell Rd., Phoenix, Ariz. / BRidge 5-4411 / \*C 58
- Silicon rectifiers; germanium high voltage high current power transistors / RMSa Ls Se(1954) Ic
- National Aircraft Corp., Marvelco Div., 3411 Fulare Ave., Burbank, Calif.
- Delay lines; magnetic cores / Ic RMSa
- National Analysts, Inc., 1015 Chestnut St., Philadelphia 7, Pa. / Market 7-8109 / \*C 57
- Data processing and computing services, including consulting and programming; operations research; marketing research. Facilities include full line of punch card equipment, large and medium sized electronic data processing machines (IBM 705 and 650) / Ms(60) Se Dc RCPa
- National Bureau of Standards, Applied Mathematics Division, Washington 25, D.C. / EMerson 2-4040 / \*C 58
- Computing service, using SEAC, IBM 704, and punch card machines; for government and government contractors only / RPCa Ms(70) Se(1947) DIc
- National Bureau of Standards, Data Processing Systems Division, Washington 25, D.C. / Emerson 2-4040 / \*C
- Digital and analog computers, data processing and control systems, input-output devices, storage elements, transistors, diodes, delay lines, etc. (for government only). Designed, assembled, and maintain Seac; designed and assembled Dyseac; designed several special purpose machines. Ms(80) Se(1946) DAc RMBGa
- THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / Baldwin 6-1411 / \*C 58**
- NCR 304 electronic data processing systems; electronic bank posting machines; punched paper tape and punch card converters linking NCR original entry machines with automatic data processing systems, electronic or electro-mechanical; input-output devices; digital computers / RMSa Ls(25,000) Le (1884) DIc
- O. B. Gardner, Asst. Vice Pres. / Dr. E. C. Yowell, Mgr., Electronic Machine Sales
- The National Cash Register Co., Electronics Division, 1401 East El Segundo Blvd., Hawthorne, California / PLymouth 7-1811 / \*C 58
- Electronic research and development in the field of business data processing systems / RCa Ms(225) Se(1951) Dc
- NATIONAL CO., INC., 61 Sherman St., Malden 48, Mass. / DA 2-7940 / \*C 58**
- Communications receivers, components, and systems; atomic frequency standards, electronic and frequency multipliers / RMSa Ms(500) Le(1914) Ic
- J. H. Quick, Pres. / E. F. Grant, VP — Engrg.
- National Data Processing Corp., Fidelity Union Life Bldg., Dallas 1, Tex. / Riverside 7-4736 / \*C 58
- Portable and stationary digital recording equipment. Photoelectric tape and card readers, recording papers, information retrieval devices, punch cards, paper tape to punch card converters, paper tape punches / RMSa Ss(28) Se(1957) DIc
- National Fabricated Products, Inc., 2650 W. Belden Ave., Chicago 47, Ill.
- Diodes, silicon type / Ic RMSa



- National Moldite Co., 250 South St., Newark 5, N.J. / MITchell 2-6060 / \*C 58  
Powdered iron cores, ferrite cores, iron and ferrite coil forms, toroids, other parts. Phenolic and iron molded coil forms. High frequency ferrites / RMSa Ms(70) Me(1943) Ic
- National Physical Laboratory, Control Mechanisms and Electronics Division, Teddington, Middlesex, England / \*C  
Digital computers, electronic simulators, data recording. Designer and builder of the Pilot Model of ACE (Automatic Computing Engine). Collaborates with English Electric Co. / Ls(1000; this division, 40) Le(1900) DIc RCPMa
- National Physical Laboratory, Mathematics Div., Teddington, Middlesex, England / Molesey 1380 / \*C 58  
Computing service using Deuce and Ace. Digital and punched card. Unrestricted as to clients / RCPa Ms(60) Me(1945) Dc
- National Semiconductor Products, 930 Pitner Ave., Evanston, Ill.  
Silicon junction diodes / Ic RMSa
- National Union Electric Corp., 350 Scotland Rd., Orange, N.J. / Orange 2-6600 / \*C  
Electron tubes, semi-conductor diodes, and transistors for computers, etc. / Ms(150) Me(1929) Ic RMSa
- Navigation Computer Corp. — discontinued
- New London Instrument Co., 82 Union St., New London, Conn. / \*C 58  
Special purpose analog and digital instruments, digital computers / DAC
- The Newton Co., 55 Elm St., Manchester, Conn. / Mitchell 3-5104 / \*C  
Data processing equipment. Analog to digital converters; simulators; automatic typewriters / Ms(150) Se(1947) DIc RMSa
- NON-LINEAR SYSTEMS, INC., Del Mar Airport, Del Mar, Calif. / SKyline 5-1134 / \*C 58**  
Digital voltmeters, ohmmeters, ratiometers; oscillogram trace readers, precision wire-wound resistors, electronic measurement instruments for missile, nuclear, scientific and manufacturing fields; digital readouts, data processing and recording equipment, scanners, visual output devices, analog to digital converters; digital computers / RMSa Ms(150) Se(1952) DIc / A. F. Kay, Pres. / F. C. Strauss, VP — Sales
- Norden-Ketay Corporation, Commerce Rd., Stamford, Conn. / \*C  
Automatic control systems, analog computers, fire control systems, bomb sights, navigational systems, potentiometers, analog-digital converters, synchros, servo motors, resolvers, servo amplifiers, resolver amplifiers, airborne instruments / Ls(2400) Se(1955) DASCc RMSa
- Norden-Ketay Corp., Precision Components Div., Jericho Turnpike, Commack, Long Island, N.Y. / FOrest 8-5500 / \*C 58  
Servo-mechanism components and gyromechanisms / RMSa Ls(1800) Se(1948) Ic
- North American Aviation, Inc., Computer Division — name changed to:  
Autonetics, a Div. of No. American Aviation, Inc., which see
- North American Research & Control Instruments Div. — SEE  
Phillips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N.Y.
- North Electric Manufacturing Co., 526 S. Market St., Galion, Ohio  
Data processing; relays, multi-contact type, telephone type; rotary stepping switches / Ic RMSa
- Northam Electronics, Inc., 2420 N. Lake Ave., Altadena, Calif. / SYcamore 8-1145 / \*C 58  
Pressure transducers, accelerometers, miniature magnetic tape recorders; data reduction, processing and recording equipment; demodulators, power frequency converters; regulated power supplies / RMSa Ms(64) Se(1951) Ic
- Northrop Aircraft, Inc., Dept. 3330, Hawthorne, Calif. / OR 8-9111, Ext. 424 / \*C 57  
Digital and analog computers, conversion equipment, data reading and reduction components and systems, reconnaissance data handling; develops, maintains, operates own computing and data handling equipment / Ms(95 this project) Se(1950 this project) DAC RMCPa
- NORTON ASSOCIATES, INC., P.O. Box 96, Garden City, N.Y. / IVanhoe 3-2968 / \*C 58**  
Magnetic reading and recording heads, memory systems, magnetic drums, digital computing services, design services in instrumentation and applications. Design and manufacture of standard and special magnetic record, playback, and erase heads in single and multi-track arrangements for magnetic tape, film, wire, drum and magnetic ink character recognition / RMSa Ic / R. S. Norton, Ch Eng.
- Notifier Corp., 239 S. 11th St., Lincoln 8, Neb. / 5-2946 / \*C 58  
Manual and automatic fire detection systems, sprinkler supervisory systems, municipal fire alarms, plant security systems, automatic and signaling controls and equipment; data recording cameras and equipment, logical circuits / RMSa Ss(40) Se(1949) ICc
- Nuclear Development Corporation of America, 5 New St., White Plains, N.Y. / White Plains 8-5800 / \*C 57  
Selection, design and building of special purpose data-handling systems. Programming. Operate own "Datatron" providing computing services. Also work with machine builders on automatic control machinery and automatic materials handling machinery / Ms(350) Se(1948) DCMc RMSCa

O

- Oerlikon Tool & Arms Corp. of America, P.O. Box 3049, Asheville, N.C.  
Analog-to-digital converters; digital computers; data processing / DIc RMSa
- Ohmite Manufacturing Co., 3692 Howard St., Skokie, Ill. / ORchard 5-2600  
Capacitors, computer types; miniature wire-wound resistors; etc. / Ic RMSa

Olivetti Corp. of America, 580 Fifth Ave., New York 36, N.Y. / JUDson 2-4600 / and Ing. C. Olivetti & Co., S.P.A., Ivrea, Italy / \*C 57

Single and duplex register adding machines. Single and dual register printing calculators / Ls(18,000) Le(1908) Dc RMSCa

Opad Electric Co., 69 Murray St., New York 7, N.Y. / BEckman 3-7548 / \*C 58

AC & DC power supplies, voltage and current regulators, specialized test equipment, automatic controls; sorting and counting controls; power frequency electrical converters; rectifiers / RMSa Ss Me(1947) ICc

Orradio Industries, Shamrock Circle, Opelika, Alabama / Sherwood 5-4621 / \*C 57

Instrumentation tape; computers; telemetering recorders / Ms(100) Se(1949) Ic RMSa

Ortho Filter Corp., 196 Albion Ave., Paterson 2, N.J. / Mulberry 4-5858 / \*C

Pluggable units for computers, cathode ray amplifiers, power supplies, wiring of complete racks, toroids, etc. / Ss(43) Se(1946) Ic RMSa

ORYX CO., 9015 Wilshire Blvd., Beverly Hills, Calif. / BRadshaw 2-6635 / \*C 58

Miniature, low voltage soldering irons for computer and other uses / RMSa Ss(4) Se(1955) Ic / C. H. Mitchell, Owner / Bill West, Adv. Mgr.

John Oster Mfg. Co., Avionic Div., One Main St., Racine, Wis. / MELrose 3-6331 / \*C 58

Magnetic amplifiers, servo motors, synchros, resolvers, motor-gear trains, AC drive motors, DC motors, servomechanism assemblies, servo torque units, motor-tachometers, reference and tachometer generators, actuators, motor-driven blower and fan assemblies / RMSa Ls(950) Le(1924) Ic

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn 5, N.Y.

Analog computers; data processing; punch card machines / AIc RMSa

Owen Laboratories, Inc., 55 Beacon Place, Pasadena, Calif. / RYan 1-6901 / \*C 58

Ultra high precision and stability DC voltage and power sources. Transducer power supplies / RMSa Ss(20) Se(1947) Ic

## P

Pacific Semiconductors, Inc., 10451 W. Jefferson Blvd., Culver City, Calif. / TExas 0-4881 / \*C 58

Silicon and germanium diodes, silicon rectifiers, silicon transistors, varicaps (voltage-variable capacitors), diode test equipment / RMSa Ms(500) Se(1954) Ic

Packard Bell Computer Corp., a subsidiary of Packard-Bell Electronics Corp., 11766 W. Pico Blvd., Los Angeles 64, Calif. / GRanite 3-8667 / \*C 58

Voltage to digital and digital to voltage converters and associated power supplies; multiplexers, sampling, holding, etc.; high speed digital computer; hybrid digital-analog computing devices; differential analyzers; communications systems; combinatorial techniques for digital computers; real time incremental computers; electronic integrators; non-

linear function generators for analog computers / RMSa Ss Se(1957) DAC

Panellit, Inc., 7401 N. Hamlin Ave., Skokie, Illinois / ORchard 5-2500 / \*C 57

Information systems; coordinated control centers; alarm systems; scanning and monitoring systems / Ls(550) Me(1945) ISCMc RMSCPa

The Ralph M. Parsons Co., Electronics Div., 151 S. De Lacey Ave., Pasadena, Calif. / (Los Angeles), RYan 1-0461 / \*C 58

Systems engineering, and manufacturing in electronic instrumentation, telemetry, timing systems, miss-distance indicators, and precision transponders / RMSa Ms(225) Se(1952) Ic

PCA Electronics Inc., 16799 Schoenborn St., Sepulveda, Calif. / EMpire 2-0761 / \*C 58

Pulse transformers and delay lines / RMSa Ms(100) Se(1950) Ic

Pennsylvania State University, X-ray and Crystal Structure Lab., Dept. of Physics, University Park, Pa. / Adams 8-8441 X2125 / \*C

X-RAC computer for crystal electron density functions. S-FAC for structure factor calculations / Ms(55) Se(1946) DAC RPa

The Perkin Elmer Corp., Engineering & Optical Division & Vernistat Div., Main Ave., Norwalk, Conn.

Analog computers; potentiometers / AIc RMSa

Phaostron Instrument and Electronic Co., 151 Pasadena Ave., South Pasadena, Calif. / CLinton 5-1471 / \*C 58

Electric panel meters, test instruments, portable laboratory standards, relays / RMSa Ms(450) Me(1937) Ic

GEORGE A. PHILBRICK RESEARCHES, INC., 230 Congress St., Boston 10, Mass. / HUBbard 2-3225 / \*C 58

Electronic analog computers; computer components; computer packaged circuits; magnetic amplifiers; regulated power supplies; consulting services; electronic function generators; electronic integrators; electronic multipliers / RMSCa Ms(70) Se(1947) AIc / George A. Philbrick, Pres. & Dir. of Res. / Frederick N. Philbrick, VP & Treas.

PHILCO CORP., GOVERNMENT AND INDUSTRIAL DIVISION, 4700 Wissahickon Ave., Phila. 44, Pa. / TENnessee 9-4000 / \*C 58

Transistorized large scale data processing systems, electronics systems in communications, scientific systems, industrial TV, microwave and military products; digital computers; digital computing services; card to magnetic tape, card to paper tape, magnetic tape to paper tape, magnetic tape to card, paper tape to card, converters; data processing machinery; fire control equipment / RMSCa Ls(3000) Se(1951) DIc / Henry F. Argento, V.P. & Gen'l Mgr. / Herbert E. Taylor, Jr., Mktg. Mgr., Ind'l Products

Philco Corp., Lansdale Tube Co. Div. — see Lansdale Tube Co.

Philips Electronics, Inc., Instruments Div., 750 S. Fulton Ave., Mount Vernon, N.Y. / Mount Vernon 4-4500 / \*C 58

Analog computers; x-ray diffractometer, x-ray spectograph instruments, x-ray cameras, x-ray plat-

ing thickness gauges; Geiger, proportional, scintillation detectors; industrial radiography equipment, electron microscopes, x-ray microscopes, x-ray microradiograph equipment, x-ray process control instruments / RMSCa Ms(300) Me(1942) Ic Phillips Control Corp., Joliet, Ill. / Joliet 3-3431 / \*C Relays for computers, etc. / Ms(350) Se(1946) Ic RMSa

Photon, Inc., 58 Charles St., Cambridge 38, Mass. / TRowbridge 6-1177 / \*C Machinery for composing type by photographs / Ms(100) Me(1940) DIc RCMSa

Pi-Square Engineering Co., Inc., 230 Congress St., Boston 10, Mass. / HUbbard 2-3225 / \*C Analysis and solution of engineering problems. Computing services. Analog computing equipment available / Ss Se(1954) ASCc RCPa

Plastic Capacitors, Inc., 2620 No. Clybourn Ave., Chicago 14, Ill. / DIversey 8-3735 / \*C 58 Capacitors, power supplies, pulse forming networks for computers and other uses / RMSa Ms(100) Se(1952) Ic

Polyphase Instrument Co., East 4th St., Bridgeport, Montgomery County, Pa. / BRoadway 9-4660 / \*C 58 Pulse and specialty transformers; magnetic components; delay lines; magnetic amplifiers; breadboard kits; potted circuits; computer type coils / RMSa Ms(75) Se(1948) Ic

Potter and Brumfield Mfg. Co., Inc., Princeton, Indiana / Princeton 1596 / \*C Electric relays and stepping switches for computers, etc. / Ls(1000) Le(1932) Ic RMSa

POTTER INSTRUMENT COMPANY, INC., Sunnyside Blvd., Plainview, L.I., N.Y. / OVerbrook 1-3200 / \*C 58 Digital data processing equipment including: transistorized high speed digital magnetic tape handlers, transistorized high speed printers, transistorized electronic and frequency, counters, memory systems, and shift registers. Amplifiers; automatic control equipment; plug-in, printed, circuits; sorting and counting controls; paper tape to magnetic tape converter; magnetic reading and recording heads; information retrieval devices; input and output devices; line-a-time printers; magnetic and paper tape readers; magnetic tape recorders / RMSa Ms(200) Me(1942) DIc / John T. Potter, Pres. / Edward D. Gray, Vice-Pres.

Powers-Samas Accounting Machines, Ltd., Powers-Samas House, Holborn Bars, London E.C. 1, England Punch card tabulating equipment using small, medium, and standard cards / Ls(6000) Le(1916) DIc RMSa

Purdue University, Statistical and Computing Lab., Engineering Administration Bldg., Lafayette, Ind. / 92-2703 / \*C 58 Statistical and computing services / RCPa Ms(75) Se(1948) De

## Q

Qutronic Semiconductor Corp., 525 Broadway, New York 12, N.Y. / WAlker 5-3424 / \*C 58

Super-speed computer diodes / RMSa Ms(60) Se(1950) Ic

## R

Radiation Counter Laboratories, Inc., 5121 W. Grove St., Skokie, Ill. / ORchard 3-8700 / \*C 58 Nuclear instrumentation; amplifiers; data recording cameras; analog-to-digital converters; ferrite cores; mechanical and proportional counters; differential analyzers; regulated power supplies / RMSa Ms(80) Me(1947) Ic

Radiation, Inc., P.O. Box 37, Melbourne, Florida / 1800 / \*C 58 Telemetry systems and equipment; computer input systems and equipment (data processing, programming, translating, converting); computer output systems and equipment (recorders and printers) / RMSa Ls(700) Se(1950) Ic

Radiation Instrument Development Laboratory, 5737 South Halsted St., Chicago 21, Ill. Analog-to-digital converters / Ic RMSa

RADIO CORP. OF AMERICA, COMPONENTS DIV., 19th & Federal Sts., Camden, N.J. / WOODLAWN 3-8000 / \*C 57 Ferrite memory cores, custom built memory planes, apertured ferrite memory plates; relays / Ls Le Ic RMSCa

RADIO CORP. OF AMERICA, ELECTRON TUBE DIV., 415 South 5th St., Harrison, N.J. / HUmboldt 3-3900 / \*C 58 Electron tubes and photosensitive devices; computer tubes, receiving tubes, thyratrons, storage tubes, cathode ray tubes, camera tubes, photocells and other components / RMSCa Ls(78,000) Le(1919) Ic / D. Y. Smith, VP & Gen. Mgr. / L. S. Thees, Gen. Commercial Mgr.

RADIO CORP. OF AMERICA, ELECTRONIC DATA PROCESSING DIV., Camden, N.J. / WOODLAWN 3-3800 / \*C 58 Electronic data processing systems including Bizmac / RMSCa Ls(78,000) Le(1919) Ic / E. D. Foster, VP—EDP / A. R. Hopkins, Market Mgr.—EDP

RADIO CORP. OF AMERICA, PRECISION ELECTRONIC INSTRUMENTS DIV., Building 15-1, Camden, N.J. Magnetic tape recorders / Ic RMSa

RADIO CORP. OF AMERICA, SEMICONDUCTOR AND MATERIALS DIV., Somerville, N.J. / RAndolph 5-4500 / \*C 58 Transistors for computer, military, industrial and entertainment applications. Semiconductors, diodes, rectifiers, ferrite cores, and other products for computer and other uses / RMSa Ls(78,000) Le(1919) Ic / A. M. Glover, Gen. Mgr. / F. F. Neuner, Mgr., Marketing Dept.

Radio Development & Research Corp. (Germanium Products, a subsidiary), 26 Cornelison Avenue, Jersey City, N.J. / Rector 2-2337 (New York City) / \*C Transistors, diodes, rectifiers for computers / Ms(100) Me(1938) Ic RMSCa

- Radio Receptor Co., Inc., 240 Wythe Ave., Brooklyn 11, N.Y. / EVergreen 8-6000 / \*C 58  
Selenium rectifiers, germanium and silicon diodes, semiconductors / RMSa Ls(650) Le(1922) Ic
- THE RAMO-WOOLDRIDGE CORP.**, 5500 W. El Segundo Blvd., Los Angeles 45, Calif. / ORegon 8-0511 / \*C 58  
R-W 300 digital process control computer. Airborne digital computers and systems; digital instrumentation and data handling systems. Computation and data reduction center. See also Thompson-Ramo-Wooldridge Products Co. / RMSCa Ls(3400) Se(1953) Dc  
D. E. Wooldridge, Pres. / R. P. Johnson, VP — Research & Dev.
- The Rand Corporation, 1700 Main St., Santa Monica, Calif. / EXbrook 4-0251 / \*C 57  
Large digital computers for scientific and business uses; analog computers for scientific computations. (For government use only). / Ls(1000) Se(1946) DAic RPBa
- Ransom Research, P.O. Box 269, 323 W. 7th St., San Pedro, Calif. / TErminAl 2-6848 / \*C 58  
Consulting and computing services; manufacture of digital systems, computing and logical control systems to customer specifications; converters; counters. Joint research and development programs with customers / RMSCa Se(1955) ?s DACc
- RAYTHEON MFG. CO., DIVISION: RECEIVING AND CATHODE RAY TUBE OPERATIONS**, 55 Chapel St., Newton 58, Mass. / BIdelow 4-7500 / \*C 58  
Computer components; computer, miniature and subminiature tubes; germanium and silicon transistors; germanium, and silicon semi-conductor diodes (computer and other types); silicon power rectifiers / RMSa ?s ?e Ic
- RAYTHEON MANUFACTURING CO.**, 100 River St., Waltham, Mass. / TWinbrook 3-5860 / \*C  
Radar, sonar, communications, fire control, microwave and telemetering equipment, power tubes, electro-hydraulic servo controls, automatic machine-tool duplicators. Computer work transferred to Datamatic Corporation, which see / Ls(20,000) Le(1925) DAc RMSa
- J. B. Rea Co., Inc., 1723 Cloverfield Blvd., Santa Monica, Calif. / EX 3-7201 / \*C 58  
Readix digital computer; analog to digital converter, magnetic drums; magnetic reading and recording heads; automatic control systems; miniature motors and gyroscopes; automatic data handling systems; data recording cameras; aerodynamic systems analysis and nonlinear servo systems, analog computers, telemetering systems, tape handlers; research and development; computing services; memory systems / RMSCa Ss(50) Se(1951) DAICc
- Recording and Statistical Corporation, 100 Sixth Ave., New York 13, N.Y. / WOrth 6-2700 / and elsewhere.  
Computing and data processing services using electronic digital computers and punched card equipment of latest types / DIc RCPa
- Reeves Instrument Corp., Roosevelt Field, Garden City, N.Y. / PioneEr 6-8100 / \*C 58  
Analog computers and systems, automatic assembly equipment, automatic control equipment, analog-to-digital and digital-to-analog converters, gyros, resolvers, servomechanism systems, radar & guidance systems, computing services, data recording equipment, computers for simulation, automation and control, differential analyzers, electronic integrators / RMSa Ls(2000) Me(1946) AIc
- Reeves Soundcraft Corp., 10 E. 52nd St., New York 22, N.Y. / PL 9-2644 / \*C 58  
Magnetic recording tapes for all instrumentation and industrial applications / RMSa Ms(200) Me(1946) Ic
- The Reflectone Corp., 639 W. Main St., Stamford, Conn. / FIeldstone 8-4201 / \*C 57  
Analog computing equipment for simulating radar, sonar, navigation, etc. / Ms(200) Me(1940) AIc RMSa
- REMINGTON RAND UNIVAC DIVISION, SPERRY RAND CORP.**, 315 Fourth Ave., New York 10, N.Y. / SPring 7-8000 / \*C 58  
Punched card machines. Electronic computer service center, analog computers; special purpose computers; 90-column tabulating card to tape converter, type 318; electric adding machines. The Univac System, Univac II, Univac scientific computer model 1103A, Univac file-computer systems. Electric typewriters for 5, 6, 7, or 8 hole tape codes. Tape-to-card converters; model 99 calculator that prints; magnetic storage drums, input-output devices, paper tape readers, magnetic discs / RMSCPa Ls(8000) Le(1876) DAIC
- Rensselaer Polytechnic Institute, Computer Laboratory, Troy, N.Y. / ASHley 2-3000, X 240 / \*C 58 / Computation, digital and analog; training in the use of digital and analog computers. Computers used: IBM 650, REAC / RCa Ss(7) Se(1952) DAC
- Reon Resistor Corp., 117 Stanley Ave., Yonkers, N.Y. / YOnkers 5-9850 / \*C 58  
Precision wirewound resistors, composition variable resistors / RMSa Ms(60) Se(1952) Ic
- Rese Engineering, Inc., 731 Arch St., Philadelphia 6, Pa. / WA 2-5841 / \*C 58  
Magnetic core and drum memories, packaged computer circuits, digital systems engineering, buffers, magnetic core test equipment / RMSCa Ss(20) Se(1953) DIc
- Resistance Products Co., 914 S. 13th Street, Harrisburg, Pa. / CEdar 6-9006 / \*C 58  
Resistors: precision wire wound, high voltage, high megohm, high frequency, resistance networks / RMSa
- RICHARDSON CAMERA CO.**, 2526 N. Ontario St., Burbank, Calif. / THornwall 2-0234 / \*C 58  
Photogrammetric data reduction and projection equipment; theodolite cameras, pulse-data cameras, film readers, film assessors, electronic counters / Ss(18) Me(1934) Ic RMSCa
- Robotyper Corporation, 125 Allen St., Hendersonville, N.C. / Hendersonville 4246

Automatic typing equipment that can be associated with any electric typewriter, using a record roll pneumatically operated / Ic RMSa

Raymond Rosen Engineering Products, Inc. — name changed to Tele-Dynamics, Inc. which see

Rome Air Development Center — see U.S.A.F., Rome Air Development Center

Rotron Manufacturing Co., 7-9 Schoonmaker Lane, Woodstock, N.Y. / ORiole 9-2401 / \*C 58

Air moving devices for incorporation in computing machine consoles: flushing fans, centrifugal blowers, multistage blowers / RMSa Ms(260) Me(1947)

Royal Electric Corp., 95 Grand Ave., Pawtucket, R.I. / PAwtucket 2-8600 / \*C 58

Coaxial cable, insulated wire, power supply cords, fuses, wiring devices / RMSa Ls(1000) Le(1920) Ic

ROYAL-McBEE CORP., Westchester Ave., Port Chester, N.Y. / WEstmore 7-3000 / \*C 58

Royal Precision (and Librascope) electronic computer LGP-30. Data processing machinery / RMSa Ls(12,000) Se(1954) Dc

A. T. Craft, VP — Sales / C. F. Flannell, Mgr. — Computer Dept.

Rutherford Electronics Co., 8944 Lindblade St., Culver City, Calif. / TEExas 0-4362 / \*C 58

Pulse generators, time delay generators, time measuring systems / RMSa Ss(30) Se(1950) Ic

## S

Sage Electronics Corp., 302 No. Goodman St., Rochester 7, N.Y. / GReenfield 3-5770 / \*C 58

Power resistors / RMSa Ss(40) Se(1949) Ic

Sanborn Co., 175 Wyman St., Waltham 54, Mass. / TWInbrook 4-6300 / \*C 58

Direct-writing oscillographic recording systems, recording papers, analog computer systems; visual output devices / RMSa Ls(800) Le(1917) Ic

SANGAMO ELECTRIC CO., Springfield, Ill. / 4-6411 / \*C 58

Magnetic amplifiers; capacitors; connectors and other components; electrical power and frequency converters; switches; mechanical generators; power supplies; pulse transformers / RMSa Ls(4,500) Le(1899) Ic

C. H. Lamphier, Pres. / R. R. Wylie, Mktg. Mgr.

Saunders & Co., 375 Moody St., Waltham 54, Mass. / TWInbrook 4-6071 / \*C 58

Manufacturers' representative for components and sub-assemblies for computer manufacturers and users: amplifiers; automatic control equipment; plotting boards; capacitors; plug-in and printed circuits; sorting and counting controls; electronic counters; indicators; input/output devices; potentiometers; regulated power supplies; shift registers; resistors; magnetic storage systems; visual output devices / Sa Ss(4) Se(1954) Ic

SCHWEBER ELECTRONICS, 60 Herricks Rd., Mineola, N.Y. / Pioneer 6-6520 / \*C 58

Specialized distributors serving the computer and missile industries with tantalum capacitors, connectors, precision potentiometers, resistors, and micro-miniature relays / Sa ?s Se(1952) Ic  
Jack Laskin, Sales Mgr. / Sam Kass, Component Specialist

Scientific Computing Service, 23 Bedford Square, London W C 1, England / Museum 0808 / \*C

Problem solving, consulting. Computing service: digital / Ss(15) Me(1937) DIC RCPa

SEISMOGRAPH SERVICE CORP., 6200 E. 41st St., P.O. Box 1590, Tulsa, Okla. / RIverside 3-1381 / \*C 58

Electronic and mechanical equipment used in seismic and other types of geophysical explorations; computing services; data processing machinery; radio location system LORAC (both manufacture and service); analog computers; special purpose computers / RMSCa Ls(1200) Me(1931) AIC  
G. H. Westby, Pres. / J. E. Hawkins, VP

The Service Bureau Corp., Subsidiary of International Business Machines Corp., 425 Park Ave., New York 22, N.Y. / \*C 58

Computing and data processing service using all models and types of International Business Machines Corp. machines, including IBM Magnetic Drum Calculators 650 and IBM Electronic Data Processing Machines 704. Comprehensive facilities (including programming) for all applications, such as methods, engineering, control, plant operations, etc. Data processing centers with 650's in Baltimore, Boston, Chicago, Cleveland, Detroit, Houston, Los Angeles, Minneapolis, New York (704 & 650), Philadelphia, Pittsburg, St. Louis, Seattle, San Francisco, and Washington, D.C. / RPCa Ls(500) Se(1957, separate corp.; over 30 years, div. IBM) DAC

Servo Corp. of America, 2020 Jericho Turnpike, New Hyde Park, N.Y. / Fieldstone 3-4100 / \*C 58

Servomechanisms, signaling controls, automatic controls and equipment, analysis and synthesis for control manufacturers; temperature controls by infrared radiation. Industrial controls, servo multipliers and components; computer test equipment, analog and digital computers, magnetic amplifiers, plotting boards, breadboard kits, computer packaged circuits, magnetic clutches, communications systems, indicators, differential analyzers, fire control and data recording equipment, power supplies / RMa Ms(300) Me(1946) DAISCa

Servomechanisms, Inc., Post and Stewart Sts., Westbury, L.I., N.Y. / Edgewood 4-2700 / also 12500 Aviation Blvd., Hawthorne, Calif. / Osborne 5-7111 / \*C

Automatic electronic and electro-mechanical control systems and components, analog computers, instrumentation. Airborne digital computers, digital transducers / Ls(800) Se(1946) ASICc RMSa

Servonics, Inc., 834 N. Henry St., Alexandria, Va. / TEmple 6-6800

Precision potentiometers incorporating digital techniques, with high linearity, and extended frequency limits without phase shift, multi-turn but continuous rotation.

- Shallcross Manufacturing Co., Jackson & Pusey Avenues, Collingdale, Pa. / LUdlow 3-5100 / \*C58  
Automatic assembly equipment, coil winding bobbins, resistors, stepping switches, attenuators, delay lines, and other components / RMSCa Ms(130) Me(1929) Ic
- Shand and Jurs Co., 2600 Eighth St., Berkeley 10, Calif. / ASHbury 3-2345 / \*C58  
Pulse type telemetering and function control systems for liquid storage, transport and handling; direct wire remote control and supervision systems for industrial devices; data recording equipment and signaling controls / RMSa Ms(200) Le(1922) Ic
- Shepard Laboratories, Summit, N.J.  
High-speed typer (up to 1800 characters per second) / Ss Se(1950) DIc RMSa
- Short Brothers & Harland Ltd., Montgomery Rd., Castle-reagh, Belfast, N.I. / BELfast 5-9271 / \*C58  
Analog computers, low frequency oscillators, vectorscopes, squarers, sine and cosine generators; amplifiers; time delay units; desk analog computers; consulting services; analog-to-digital converters; electro-hydraulic equipment; multiplier units; function generators; servo-controlled rocking tables; packaged computer circuits / RMSCa Ls(10,000) Le(1910) AIC
- F. W. Sickles Division, General Instrument Corp., 165 Front St., Chicopee, Mass. / LYceum 4-4781 / \*C57  
Computer components, magnetic amplifiers, etc. / Ls(2520) Le(1921) Ic RMSa
- Sigma Instruments, Inc., 170 Pearl St., S. Braintree, Mass. / VICTor 3-5000 / \*C58  
Sensitive, polarized, keying, latching, photoelectric relays; synchronous stepping motors; relay test sets / RMSa Ms(495) Me(1935) Ic
- Smith-Corona, Inc., 701 E. Washington St., Syracuse 1, N.Y. / GRanite 8-4171 / \*C58  
Data processing and recording systems for special applications; communications systems for data processing systems. Adding machines, electric controlled typewriters; magnetic to paper tape converters; paper to magnetic tape converters; input/output devices; office machines; high-speed and keyboard printers; magnetic tape, mechanical, paper tape and photo-electric readers, magnetic tape recorders and storage systems; paper tape punches; translating equipment / RMSa Ms(192) Ic
- Société d'Electronique et d'Automatisme, 138 Boulevard de Verdun, Courbevoie, Seine, France / Defense 41-20 / \*C58  
Analog and digital computers, servomechanisms, magnetic amplifiers; automatic controls and equipment; printed, arithmetical circuits; computer test equipment. Converters: analog-to-digital, card to magnetic tape, digital-to-analog. Electronic counters; desk calculators; differential analyzers; magnetic drums; electronic generators; magnetic reading and recording heads; electronic integrators; memory systems; diode multipliers; plotters; simulators; magnetic storage systems; magnetic tape readers and recorders; paper tape punches; visual output devices / RMSa Ls(500) Se(1948) DASC
- Sola Electric Co., 4633 W. 16th St., Chicago 50, Ill. / Bishop 2-1414 / \*C57  
Constant voltage transformers, regulated DC power supplies, etc., for computer and other uses / Ms(250) Me(1930) Ic RMSa
- SORENSEN & CO., INC., Richards Ave., South Norwalk, Conn. / TE 8-6571 / \*C58  
Power supplies, voltage regulators, frequency changers / RMSa Ms(350) Me(1943) Ic  
L. L. Helterline, Exec. VP / H. T. Lowell, Sales Mgr.
- SOROBAN ENGINEERING, INC., Box 1717, Melbourne, Fla. / 2525 / \*C58  
Data input-output systems; data preparation devices; output tabulating devices; coding keyboards; paper tape readers and perforators; specialized data computing systems and consulting services on all of above; computer components; relays; storage systems; paper tape punches and readers; translating equipment; electric controlled typewriters / RMSCa Ms(110) Se(1954) Ic  
C. F. West, Pres. / H. F. Manweiler, Sec.
- Southern Electronics Corp., 239 W. Orange Grove Ave., Burbank, Calif. / Victoria 9-3193 / \*C  
Precision capacitors, adjustable capacitors / Ms(60) Se(1951) Ic RMSa
- SOUTHWESTERN COMPUTING SERVICE, 910 S. Boston, Tulsa 3, Okla. / GI 7-8146 / also, 1345 Stout St., Denver 2, Colo. / TA 5-8159 / \*C58  
Computing service, solving data reduction, engineering and business problems / RCPa Ss(18) Se(1953) DAC
- Southwestern Industrial Electronics Co., 2831 Post Oak Rd., P.O. Box 13058, Houston 19, Tex. / MO 7-6611 / \*C58  
Geophysical instruments, magnetic tape systems, electronic test instruments, control and automation systems, government contracting, heavy manufacturing; amplifiers, all types of circuits, analog and digital computers, consulting services, counters, data processing machinery, data recording machinery, magnetic heads, integrators, regulated power supplies, storage systems, and telemetering systems / RMSCa Ls(1050) Me(1945) DAIC
- Specialties, Inc., Syosset, N.Y. / Walnut 1-2345 / Charlottesville, Va. / Charlottesville 3-5131 / \*C  
Precision potentiometers, servos, magnetic amplifiers, transformers, sensing elements, etc., for computer and other uses / Ms(300) Se(1941) Ic RMSa
- Spectrol Electronics, Div. of Carrier Corp., 1704 South Del Mar Ave., San Gabriel, Calif. / ATLantic 7-9761 / \*C58  
Precision potentiometers; in-line mechanisms; switches; resistors, variable, linear and non-linear / RMSa Ls(over 500) Se(1955) Ic
- Sperry Rand Corporation, Sperry Gyroscope Division, Great Neck, N.Y. / Fieldstone 7-3600 / \*C  
Ordnance; fire-control equipment. Automatic controls. Navigation equipment, sea and air. Radar, Loran, gyrocompasses, precision instruments. See

- also Remington Rand Univac Division / Ls(18,000)  
Le(1910) Ac RMSa
- SPERRY SEMICONDUCTOR DIV. OF SPERRY RAND CORP.,** Wilson Ave., S. Norwalk, Conn. /  
VOLunteer 6-1641 / \*C 58  
Silicon diodes, transistors, semiconductor products / RMSa Ms(150) Se(1956) Ic  
S. M. Grafton, Works Mgr. / B. J. Rothlein, Tech. Dir.
- Sprague Electric Co., 377 Marshall Street, North Adams, Mass. / Mohawk 3-5311 / \*C 57  
Capacitors: miniature, and low dielectric hysteresis loss, for computer applications. Standard capacitors; precision and power type resistors; pulse transformers; radio interference filters; shift registers; printed circuits / Ls(6000) Le(1926) Ic RMSa
- Stackpole Carbon Co., Stackpole St., St. Marys, Pa. / TE 4-1521 / \*C 58  
Fixed and variable composition resistors, permanent magnets, ferrite and magnetic cores, carbon brushes, mechanical carbon products, electrical contacts, switches / RMSa Ls(3000) Le(1906) Ic
- The Standard Electric Time Co., 89 Logan St., Springfield 2, Mass. / REpublic 6-7237 / \*C 58  
Analog computers, electric time systems, timing instruments and devices, signaling and communication systems, laboratory power distribution systems, McIlroy fluid network analyzer / RMSa Ms(450) Le(1884) AIc
- Standard Instrument Corp., Div. of Heat-Timer Corp., 657 Broadway, New York 12, N.Y.  
Combined recorder and totalizer, for accurately accumulating data on the operation of a machine, process, or system in plant or office / Ic RMSa
- THE STANDARD REGISTER CO.,** Dayton 1, Ohio / BALdwin 3-6181 / \*C 58  
Electronic equipment (called "Stanomatic") capable of sensing or reading printed codes on business documents and translating them into digital pulses which will actuate office machines such as card punches, tape perforators, computers, etc. Devices for encoding documents at original writing. Data processing and recording equipment, input-output devices, office machines, readers, and information converters / RMSa Ls(3300) Le(1912) Dc  
K. P. Mores, Exec. VP & Gen. Mgr. / John T. Davidson, VP, Eng., & Res.
- Stanford Computation Center, Stanford University, Stanford, Calif. / DA 3-4123 / \*C 58  
Computing service. Education involving uses of computers. IBM 650 / RCPa Ss(5) Se(1953) Dc
- Stanford Research Institute, Menlo Park, Calif. / DAVenport 3-9051 / \*C 58  
Design of digital and analog computers, input and output devices and other peripheral equipment. Applications and system studies for commercial, industrial and scientific projects. Computation laboratory. Numerical analysis / RCPa Ls(1400) Me(1947) DAc
- Statistic Instrument Co., 330 Haven Ave., New York 33, N.Y. / LO 8-1223 / \*C 58  
Statistical processing equipment; computer test equipment, analog to digital and digital to analog information converters, low frequency noise generators, amplitude probability distribution analyzers, random number generators / RCa Ss(4) Se(1953) DAc
- Stereotronics, 66 Westland, Weston 93, Mass. / TWINbrook 4-6071 / \*C 58  
Solid-state information-handling devices: transistor, magnetic, ferroelectric applications / RMSa Ss(2) Se(1954) Ic
- Sterling Precision Corp., Instrument Division, 34-17 Lawrence St., Flushing 54, N.Y.  
Analog computers. Computer components. Data processing / AIc RMSa
- STEWART MANUFACTURING CO.,** P.O. Box 510, Chattanooga, Tenn. / TAYlor 1-1561 / \*C 58  
Ferrite magnetic cores, recording heads, pulse transformer cores / RMSa Ms(150) Le(1904) Ic / C. S. Mills, VP / Ephraim Gelbard, Dir. of Res.
- Strand Engineering Co., 1354 N. Main St., Ann Arbor, Mich. / NORmandy 2-3127 / \*C 58  
Research, design, development of equipment and systems; production engineering; building of pilot models; amplifiers; automatic assembly equipment; automatic control equipment; cameras; data recording cameras; computer packaged circuits, analog and digital computers; computers, test equipment; controls, automatic, sorting and counting; high frequency electrical converters; converters, information analog to digital; electronic counters; data processing machinery; magnetic drums / RMSa Ss(25) Se(1955) Ic
- Strandberg Engineering Lab., Inc., 416 W. Market St., Greensboro, N.C. / BR 5-1326 / \*C 58  
Electronic textile counters and memory systems for production and inventory control, patch cords, recording papers, scanners, visual output devices / RMSa Sc(19) Se(1950) Ic
- Stromberg-Carlson, a Division of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N.Y. / HUBbard 2-2200 / \*C 58  
Special purpose digital computers, computer modules, ancillary devices, high-speed computer output printers. Automatic control equipment, cable and cable assemblies, computer packaged circuits, communications systems, analog computers, computer components, automatic sorting and counting controls, cords, paper to magnetic tape information converters, electronic counters, data processing and recording equipment, information retrieval devices, memory systems, magnetic tape readers and recorders, shift registers, relays, stepping switches, telemetering systems, transformers, visual output devices / RMa Ls(8500) Le(1884) DAIC
- Stromberg-Carlson (West Coast), 1895 Hancock St., Box 2449, San Diego 12, Calif. / CY 8-8331 / \*C 58  
High speed electronic printers, microfilm recorders, plug-in and potted circuits, small scale special purpose computers, specialized data-processing editing machine, digital devices for display of computer information, indicators, input and visual output devices, (the charactron), analog to digital converters / RMSa Ms(360) Se(1955, San Diego) DIc



Sturupp, Inc., 50 Silver St., Middleton, Conn. / Diamond 6-9681 / \*C 57

Ultrasonic delay lines, transducers, etc., for computer and other uses / Ms(60) Se(1951) Ic RMSa

Sunshine Scientific Instrument Co., 1810 Grant Ave., Philadelphia 15, Pa. / OR 3-5600 / \*C 57

Analog field plotting equipment / Ms(65) Se(1947) Ic RMSa

Superex Electronics Corp., 4 Radford Pl., Yonkers, N.Y. / YOnkers 5-6906 / \*C 58

Cable assemblies, plug in and printed circuits, coils, ferrite cores, jacks, transformers, and other components / RMSa Ms(5) Se(1950) Ic

SUTHERLAND CO., 1112 First National Bank Co., Peoria, Illinois / 3-5431 / \*C 58

Digital computers for business applications / RMSCa Ss(20) Se(1950) Dc

J. E. Sutherland, Pres.

Swedish Board for Computing Machinery, Drottninggatan 95A, (P.O. Box 6131), Stockholm 6, Sweden / Stockholm 23 55 90 / \*C

State central institution for research, development, and computation service on large-scale machines. Operates two automatic digital computers, BARK and BESK, designed and built by the Board. Research on numerical analysis; development of new computers. Computing service (digital) using BARK and BESK / Ss(30) Se(1949) Dc RMCPa

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N.Y. / — / \*C 57

Computers. Computer products: transistors, diodes, electronic tubes / Ls(27,000) Le(1901) DAIC RMSa

SYLVANIA ELECTRIC PRODUCTS, INC., 100 First Ave., Waltham, Mass. / TW 3-9200 / \*C 58

General purpose military computers; special purpose computers; data handling devices; data conversion devices, plug in and printed circuits, coils, communications systems, analog computers, computer components / RMSa Ls(3000) Se(1955) DIc  
F. J. Anderson, Mgr., Data Processing Lab. / G. M. Sokol, Mgr. Development Dept.

SYLVANIA ELECTRIC PRODUCTS, INC., WOBURN DIVISION, 100 Sylvan Rd., Woburn, Mass. / Woburn 2-3500

Semiconductor components, crystal diodes, transistors, and tubes for computer and other uses / Ls Le Ic RMSa

Systems Laboratories Corp., 14852 Ventura Blvd., Sherman Oaks, Calif. / STate 9-0501 / \*C 58

Consulting, research, and development of electronic systems (communication, data handling, etc.) / RCa Ss(20) Se(1956) Ic

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Taller and Cooper, 75 Front St., Brooklyn, N.Y. / Ulster 8-0500 / \*C56

Data recording and conversion systems, printers, perforators, analog-to-digital converters. Function generators, special purpose computers. Supervisory and control systems; remote control telemetering systems; card-to-tape converters; special punching

and sensing equipment. Mechanical function generator control of machine tools and allied mechanisms. Toll equipment for bridges, highways, turnpikes / Ms(250) Me(1930) DIc RMSa

Tally Register Corp., 5300 14th Ave., N.W., Seattle 7, Wash. / SUNset 4-5500 / \*C 58

Digital plotters, visual recorders, data processing equipment, special digital data handling devices, electro-magnetic pulse counters and pulsed relays; high-speed data reduction systems for telemetering applications / RMSa Ss(33) Se(1950) DIc

TAMMEN AND DENISON, INC., 4751 N. Olcott Ave., Chicago 31, Ill. / UNderhill 7-8844 / \*C 58

Analog computing center. Special purpose analog or analog-digital computing systems, design and development / RCPa Ms(75) Me(1944) Ac

D. W. Sparks, Dir. of Computing Center

Taylor Instrument Co., Rochester, N.Y.

Automatic controllers / Ls Le Cc RMSa

Technical Operations, Inc., Burlington, Mass. / BR 2-2000 / \*C 58

Industrial, commercial and military operations research; computer systems and applications, data processing systems; transistorized power supplies (manufactured by subsidiary) / RMSCa Ms(210) Se(1951) Ic

Techniques, Inc., 52 Jackson Ave., Hackensack, N.J. / HUBbard 9-5333 / \*C 58

Printed circuits, printed circuit kits, matrix boards, diode boards, logic boards, thin flat sheet metal stampings / RMSa Ss(20) Se(1955) Ic

TECHNITROL ENGINEERING CO., 1952 E. Allegheny Ave., Philadelphia 34, Pa. / GARfield 6-9105 / \*C 58

Custom designed computers and data processing systems. Electronic test equipment. Pulse transformers. Computer components. Delay lines. High speed memories, digital systems / RMSa Ms(200) Me(1947) DIc

E. Stuart Eichert, Pres. / T. Kite Sharpless, VP, Sales

Technology Instrument Corporation, 531 Main St., Acton, Mass. / Colonial 3-7711 / \*C 57

Precision potentiometers, linear and non-linear, single and multiturn; potentiometers for special applications / Ms(under 500) Se(1946) Ic RMSa

Telecomputing Corp., Data Instruments Div. — see Data Instruments Div. of Telecomputing Corp.

Telectro Industries Corp., 35-16 37th St., Long Island City, N.Y. / YELlowstone 2-8600 / \*C 58

Magnetic tape recording and data handling equipment: circuits, controls, electrical converters, magnetic heads, integrators, memory systems, plotters, readers, simulators, storage systems, tape handlers / RMSa Ms(200) Se(1948) Ic

Tele-Dynamics, Inc., 32 Walnut St., Philadelphia 4, Pa. / Evergreen 2-5015 / \*C 56

Computers used as end item in information transmittal systems, telemetering systems / Ms(365) Me(1943) Ic RMa

TELEMETER MAGNETICS, INC., 2245 Pontius Ave., Los Angeles 64, Calif. / GR 7-4211, BR 2-0991 \*C 58

High-capacity rapid-access ferrite core memories,

- core matrices, core storage buffers, data translators, data handling systems, magnetic storage systems. Systems design and development / RMSCa Ms (200) Se(1956) DIc(200)
- Erwin Tomash, Pres. / Trude C. Taylor, VP  
Teleregister Corporation, 445 Fairfield Avenue, Stamford, Conn. / Fireside 8-4291 (New York City, Ludlow 5-8900) / \*C 57
- Digital special purpose computers. Data processing systems for special applications: inventory control, invoicing, travel reservations, flight data, stock market quotations, maintaining and servicing equipment, etc. Electro-mechanical digital display systems. Magnetron Reservoir, in use at American Airlines reservations center. Magnetron stock quotation system in use in Toronto Stock Exchange / Ls(600) Me(1928) DIc RMSCa
- Teletype Corp., 4100 Fullerton Ave., Chicago 39, Ill. / SPauling 2-1040 / \*C 58
- Teletype printers, tape punches and readers / RMSa Ls(5000) Le(1907) Ic
- Teletypesetter Corp., Chicago—bought by Fairchild Graphic Equipment, Inc., which see
- The Teller Company, 357 No. Main St., Butler, Pa. / Butler 75-739
- Automatic controls / Ms(65) Se(1951) Cc RMSCa
- Texas Instruments Inc., Semiconductor-Components Div., 6000 Lemmon Ave., P.O. Box 312, Dallas, Tex. / FLietwood 7-1851 / \*C 58
- Semiconductor products and components, silicon and germanium transistors, silicon diodes and rectifiers, resistors, tantalum capacitors / RMSa Ls (2400) Se(1954) Ic
- Thermosen, Inc., 375 Fairfield Ave., Stamford, Conn. / DAvis 5-1324 / \*C 58
- Temperature limited diodes, silicon power rectifiers, electronic tubes, semiconductors / RMSa Ms(under 500) Se(1951) Ic
- THE THOMPSON-RAMO-WOOLDRIDGE PRODUCTS CO.**, P.O. Box 45607, Airport Station, Los Angeles 45, Calif. / OSborne 5-4601 / \*C 58
- RW-300 digital control computer for automatic control and data reduction; general-purpose digital computer incorporating analog-digital conversion equipment, and handling more than 1000 analog input and output channels. Digital control and data handling systems (with or without the RW-300) for process industries (oil refineries, chemical plants, pilot plants, etc.) and for test facilities. See also Ramo-Wooldridge Corp. / RMSCa Ms(60) Se(1958) DAC
- Dr. Dean W. Wooldridge, Pres. / Dr. Joseph F. Manildi, Gen. Mgr.
- TRANS ELECTRONICS, INC.**, 7349 Canoga Ave., Canoga Park, Calif. / Diamond 0-3334 / \*C 58
- Power supplies, power frequency converters, semiconductor test equipment / RMSa Ss(25) Se(1954) Ic
- Harvey Stump, Pres. / William J. Miller, VP
- Transistor Products, Inc., 241 Crescent St., Waltham 54, Mass. / WAltham 5-9330 / \*C
- Transistors, diodes / Ms(150) Se(1952) Ic RMSa
- Transitron Electronic Corp., 168 Albion St., Wakefield, Mass. / CRystal 9-4500 / \*C 58
- Silicon and germanium diodes and transistors; silicon rectifiers, voltage regulators and references / MSa Le(2000) Se(1952) Ic
- Trio Laboratories, Inc., 4025 Merrick Rd., Seaford, L.I., N.Y.
- Analog computers, test equipment / AIc RMSa
- Tung-Sol Electric, Inc., 95 8th Ave., Newark 4, N.J. / HUmboldt 2-4200 / \*C 58
- Electron tubes, semi-conductors, miniature lamps, diodes, germanium transistors / RMSa Ls(7000) Le(1904) Ic
- TYPATAPE equipment—now sold and manufactured exclusively by National Data Processing Corp., which see

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- Underwood Corp., One Park Ave., New York 16, N.Y. / LEXington 2-7000 / \*C 58
- Accounting machines, adding machines, typewriters. Elliott-Fisher and Sundstrand Machines. Electric typewriters. ELECOM electronic computers have been transferred to Digitronics, which see / Ls (company 13,000; laboratory, 100) Le(1894) DIc RMSa
- Underwood Corp.: Electronic Computer Division—has been discontinued
- Union Switch & Signal, Div. of Westinghouse Air Brake Co., Braddock Ave., Pittsburgh 18, Pa. / CHurhill 2-5000 / \*C 58
- Railroad signaling and control systems. Aircraft flight simulators; mobile test rack for testing analog computers including simulators. Data display indicators (digital and alpha-numerical). Relays (hermetically sealed) / RMSa Ls(3000) Le(1881) DAic
- United Mineral and Chemical Corp., 16 Hudson St., New York 13, N.Y. / BEekman 3-8870 / \*C 58
- Resistors: deposited carbon, wire-wound, vitreous enameled, precision types. Ceramic components, mica and mical insulation materials, aluminum foils for capacitors, semi-conductor materials, metals. Laboratory testing equipment, military packaging materials, pressure-sensitive tapes, coated abrasives / RMSa Ms(60) Me(1942) Ic
- University of Sydney, Electrical Engineering Dept., Sydney, N.S.W., Australia / MWO 522, 242 / \*C 58
- Research and design of analog computers, digital differential analyzers, digital computers, servomechanisms, automatic control machinery / RCa ?s ?e
- U.S. Air Force, Aeronautical Research Laboratory, Directorate of Research, Wright Air Development Center, Wright-Patterson Air Force Base, Ohio / Ke 7111, X28235 / \*C 57
- Computing service (for Air Force use) has General Electric Oarac; Univac 1103; Bendix DDA; Reacs, Gedas / Ms(62) Se(1948) DAc RCGPa
- U.S. Air Force, Cambridge Research Center, 230 Albany St., Cambridge 39, Mass. / UNiversity 4-4720
- Developed the ABC (Automatic Binary Computer). Has a Computer Research Corp-102 / Ms Me IDc Ga
- U.S. Air Force, Digital Computation Branch (WCLJU), Wright Air Development Center, Wright-Patterson

- Air Force Base, Dayton, Ohio / CL 3-7111 (Dayton), X 29235 / \*C 58  
 Computation services and associated research on three large-scale digital computers, including two Univac Scientifics (1103 and 1103A). Card programmed calculators, Reacs, punch card machines; for government use only / RCa Ms(50) Se(1950) Dc
- U.S. Air Force, Inst. of Technology, Wright-Patterson Air Force Base, Dayton, Ohio / \*C  
 Electronic strategy machine, conceived by L. I. Davis. Philbrick Reac and GEDA equipment on hand / Ms(300) Se(1946) DAic Ga
- U.S. Air Force, Rome Air Development Center, Statistical Services Div., Griffiss Air Force Base, Rome, N.Y. / ROme 3200, X 7-1219 / \*C 58  
 Computing service, analog, digital; for government only. Have Datatron 205, Elecom 120, Bendix digital differential analyzer D-12, Reeves electronic analog computer, Benson-Lehner data reduction equipment, considerable IBM data processing equipment / RCPa Ss(45) Se(1951) DAic
- U.S. Air Force, Structures Branch, Computation Div., Directorate of Management Analysis, Headquarters USAF, Pentagon Bldg., Washington 25, D.C. / LIberty 5-6700, X 75136, 77712 / \*C 58  
 Systems analysis reports; non-engineering types of computer applications; programming systems / CGPa Ss(35) Se(1948) Dc
- U.S. Army, Ballistic Research Laboratories, Aberdeen Proving Ground, Aberdeen, Md. / \*C  
 Computing service (digital); for government and government contractors only / Ms Le DAc CPGa
- U.S. Ceramic Tile Co., Diamonite Div. — see Diamonite Products Mfg. Co.
- United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass. / Hlghland 5-3850 / \*C 57  
 Silicon diodes and power rectifiers, transistors, germanium diodes, and rectifiers, for computer and other uses / Ms(100) Se(1955) Ic RMSa
- U.S. Electronics Development Corp., 3540 W. Osborn Rd., Phoenix, Ariz. / APplegate 8-5591 / \*C 58  
 Capacitors / RMSa Ms(80) Se(1956) Ic
- U.S. Naval Proving Ground, Dahlgren, Va. / NOrth 3-2511 / \*C 58  
 Mathematical analysis and research, programming, engineering, computing, and data processing services for government and government contractors only; operates NORC computer and a variety of auxiliary equipment / RCa Ms(160) Me(1942) Dc
- U.S. Navy, Aviation Supply Office, Data Processing Division, Philadelphia, Pa. / \*C 57  
 Operates IBM 650 and IBM 702 for inventory control. Government use only / Ls Me Dc Ga
- U.S. Navy, Naval Research Laboratory, Washington 25, D.C. / JO 3-6600 / \*C 57  
 NAREC digital computer. Analog computers, servo mechanisms and data reduction / Ls(3400) Le (1923) DASc RCGPa
- Univ. of California, Berkeley, Calif. / \*C 56  
 Computing service. Has CALDIC, California Digital Computer; also IBM 701 / Ss(10) Se(1947) DAc RPCa
- University of California, Department of Mathematics, Numerical Analysis Research, Los Angeles 24, Calif. / Granite 3-0971 and Bradshaw 2-6161 / \*C 57  
 Research and teaching in use of digital computers for scientific computation. Operates SWAC. Maintains for the Office of Naval Research a definitive research book collection in numerical analysis and related areas, especially mathematics. Successor to National Bureau of Standards Institute for Numerical Analysis / Ss(25) Se(1945) Dc RPCa
- University of Cambridge, University Mathematical Laboratory, Corn Exchange St., Cambridge England / \*C  
 Built Edsac. Computing service (digital) for University / Ss(30) Me(1939) Dc RCPa
- University of Durham Computing Laboratory, One Kensington Terrace, Newcastle upon Tyne, 2, England / Newcastle 2-2457 / \*C 58  
 Computing service. Has Ferranti Pegasus computer / RCPa Ss(10) Se(1956) Dc
- University of Illinois, Digital Computer Laboratory, Urbana, Ill. / EM 7-6611, ext. 2817 / \*C 58  
 Computing service. Education including research and teaching / RCPa Ms(51) Se(1949) Dc
- University of Manchester, Mathematical Laboratory, Manchester, England / \*C  
 Has automatic electronic digital computer built by Ferranti Electric Ltd. This laboratory developed much of the design / Ss(8) Se(1947) Dc RPa
- UNIVERSITY OF MICHIGAN WILLOW RUN LABORATORIES**, Willow Run Airport, Ypsilanti, Mich. / NOrmandy 3-1511 / \*C 58  
 Has general purpose digital and analog computers, electronic and electromechanical computers, and simulators, including Librascope LGP 30, IBM 604, desk calculators, and a modern large scale analog computer. Computing services, including analysis and computation using these types of computers / RCPa Ls(600) Sc(1946) DAc
- University of Rochester, Computing Center, Rochester 20, N.Y. / Gr 3000  
 Computing services; Burroughs E101 computer, IBM 650, available / Se(1956) Dc RMSCPa
- University of Toronto, Computation Centre, Toronto Ontario, Canada / Walnut 3-1327 / \*C 57  
 Computing services. Programming and consulting services. Time available on University of Toronto automatic computer Ferut / Ss Me Dlc RCPa

## V

- Valor Electronics Inc., 13214 Crenshaw Blvd., Gardena, Calif. / DAVis 3-6160 / \*C 58  
 Delay lines, pulse transformers, transistor checkers, transistorized power supplies, computer core storage units / RMSCa Ms(50) Se(1953) Ic
- Vari-Ohm Corp., Sunrise Highway, Amityville, N.Y.  
 Potentiometers / Ic RMSa
- Vari-Typer Corp., subsidiary of Addressograph-Multi-graph Corp., 720 Frelinghuysen Ave., Newark 12, N.J. / BIgelow 2-2600 / \*C 58

Vari-typer that composes type for reproduction by any duplicating method / RMSa Ls(900) Me(1933)

Vaucanson, 11 Rue du Surmelin, Paris 20e, France / MENilmontant 83-40 / \*C 57  
Calculating machines / Ms(400) Le(1896) Dc RMSa

Vectron, Inc., 1635 Trapelo Rd., Waltham 54, Mass. / TWinbrook 3-8700 / \*C 58  
Commercial microwave spectrum analyzers; custom design, manufacturing, of precision electrical and electro-mechanical equipments; special computers / RMSCa Ms(200) Se(1949) Ic

Veeder-Root Inc., 70 Sargeant St., Hartford 2, Conn. / JAcKson 7-7201 / \*C 58  
Analog-to-digital converters; electronic counters; mechanical and electro-mechanical counting devices for all counting requirements / RMSa Ls(1200) Me(1928) Ic

Vernistat Div. of the Perkin-Elmer Corp., Main Ave., Norwalk, Conn. / VICTor 7-2441 / \*C 58  
Precision AC linear and nonlinear potentiometers; function generators / RMSa Ss(25) Se(1955) Ic

Vickers Inc., Electric Products Div., 1889 Locust St., St. Louis 3, Mo. / CENtral 1-5830 / \*C 58  
Fire control equipment, magnetic clutches, magnetic amplifiers, automatic controls, rectifiers and semiconductors, nuclear instrumentation components and systems; electrical converters, diodes, frequency and servo multipliers, power supplies / RMSa Ss Me(1948) Ic

Victor Adding Machine Co., 3900 No. Rockwell St., Chicago 18, Ill. / KEystone 9-8210 / \*C 57  
Digital computers and related integrated data processing systems. Digit-matic plain or calculating printers. Adding machines, etc. / Ls(2200) Le(1918) Dc RMSa

Visirecord, Inc., 54 Railroad Ave., Copiague, L.I., N.Y. / Amityville 4-4900 / \*C  
Filing systems for all types of common language tapes in computers. Control on edge-punched cards in conjunction with mechanical and electronic business machines / Ss Ms(300) Ic RMSa

## W

Waldorf Instrument Corp., Park Ave., Huntington, N.Y.  
Analog computers, digital computers / DAc RMSa

THE WALKIRT CO., 141 West Hazel St., Inglewood 3, Calif. / OR 8-4814 / \*C 58  
Plug-in pulse circuit packages; complete counters, multivibrators, amplifiers, gates, triggers, pulse generators, etc. / RMSa Ss(35) Se(1948) Ic  
Wes Kirchoff, Pres. / Jim Robinson, Chief Engr.

Wallind-Pierce Corp. — out of business

Wang Laboratories, 37 Hurley St., Cambridge 39, Mass. / TRowbridge 6-1925  
Magnetic delay-line memory units. Digital signal generators. Multiple scalars. Static magnetic memory systems and other devices. Shaft digitizing coders / Ss(8) Se(1951) Dc RCMSa

Ward Leonard Electric Co., 90 South St., Mt. Vernon, N.Y. / \*C 58

Electric control devices: resistors, relays, rheostats, contactors, etc. / RMSa Ls(1000) Le(1892) Ic

The George Washington University, Logistics Research Project, 707 22nd St., N.W., Washington 7, D.C. / STerling 3-4539 / \*C 58  
Research in logistics data processing under contract with the Office of Naval Research; ONR relay computer, ONR digital computer / RCPa Ss(40) Se(1949) Dc

Waters Mfg. Inc., Boston Post Rd., Wayland, Mass. / ELMwood 8-2777 / \*C 58  
Potentiometers, pothook panel mounts, panel meter, chokes, coils, torque watch gauges, instruments, potentiometer test equipment / RMSa Ms(150) Se(1951) Ic

Watson Scientific Computing Laboratory, 612 West 116 St., New York, N.Y. / MONument 6-9600 / \*C 58  
The pure science department of International Business Machines Corp. Computing and consulting service using: simultaneous linear equation solver; astronomical plate measuring machine; IBM punch card machines, and computers. Research and instruction / RCPa Ms(100) Me(1945) DAc

Wayne-George Corp., 1117 Commonwealth Ave., Boston 15, Mass. / STadium 2-3737 / \*C 58  
Analog to digital converters and associated data handling equipment; special purpose digital computers; packaged computer circuits; amplifiers / RMSCa Ss(40) Se(1956) DAc

Wayne State University, Computation Laboratory, Cass Ave., Detroit 2, Mich. / TEmple 1-1450 / \*C 57  
Computing service: digital. Instruction and training. Have computer with 5300-word magnetic drum memory plus 100-word magnetic core memory built of Burroughs pulse control equipment. Also IBM 650 / Ss(40) Se(1950) DAc RCPa

Jervis B. Webb Co., 8951 Alpine Ave., Detroit 4, Mich. / WE 3-8010 / \*C 58  
Conveyor engineering and manufacturing. Servo-mechanisms, automatic control machinery, automatic materials handling machinery, pneumatic, hydraulic and electrical testing equipment / RMSCa Ms(400) Le(1919) SCMc

Weems System of Navigation, 227 Prince George St., Annapolis, Md.  
Automatic navigation systems / Me Ic RCPMSa

West Coast Electronics Co., 5873 W. Jefferson Blvd., Los Angeles 16, Calif.  
Analog computers, data processing machinery / AIC RMSa

Western Lithograph Co. — see Westline Products Div. of Western Lithograph Co.

Westgate Laboratory, Inc., 506 So. High St., Yellow Springs, Ohio / ROckwell 7-7375 / \*C 58  
Research, development, prototype, and small lot production in electronics, physics, optics and photography; simulators and missile guidance equipment, digital computing and consulting services, controls, coordinate transform, sine-cosine resolvers / RMSCa Ss(15) Se(1956) DCIc

WESTINGHOUSE ELECTRIC CORP., AIR ARM DIVISION, P.O. Box 746, Baltimore 3, Md. / Southfield 1-1000 / \*C 58

Design, development, and production of airborne electronics equipment and components for the Armed Forces and aircraft industry including: attack armament systems, missile systems, reconnaissance systems, defensive armament systems, space systems, and devices and components, i.e., airborne and special purpose analog computers (WETAC-WESTAC) and digital (WEDAC) / RMSa Ls (3800) Se(1951) DAic

Dr. S. W. Herwald, Div. Mgr. / N. V. Petrou, Eng. Mgr.

Westinghouse Electric Corp., Analytical Department, East Pittsburgh, Pa. / Express 1-2800 / \*C 57

Computing service (digital and analog) using: Electronic and passive element analog computers; analog-to-digital conversion equipment; automatic control devices. DC and AC calculating boards (network analyzers); ANACOM computer. IBM Type 704. Dynamic analyses of physical systems, including transient phenomena in mechanical and electrical systems; servomechanisms, and regulating systems; nuclear reactor calculations; field mapping; operations research / Ls (corporation, 100,000; dept., 50) Se(dept., 1952) DAsc RMSCP

Westinghouse Electric Corp., Semiconductor Dept., Youngwood, Pa. / WA 5-7272 / \*C 58

Semiconductor products, silicon rectifiers, silicon and germanium transistors and diodes / RMSa Ls (600) Se(1955) Ic

WESTLINE PRODUCTS DIV. OF WESTERN LITHOGRAPH CO., 600 E. 2nd St., Los Angeles, Calif. / TRinity 2641 / \*C 58

Self-adhering markers, labels, tapes, terminal strips, dynamic balancer identification tapes, and other markers made to required specifications, for computer and other uses / RMSCa Ms(350) Me(1941) Ic

Maury Engle, VP / Laird Swan, Ch. Eng.

Weston Instruments, Div. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N.J. / BIgelow 3-4700 / \*C 58

Indicating, recording, and controlling instruments; product resolvers, input-output devices, multipliers, relays, resistors / RMSa ?s Le(1888) Ic

Westrex Corp., 111 Eighth Ave., New York 11, N.Y. / CH 3-2300 / \*C 58

Magnetic recording equipment and associated items. Magnetic heads / RMSCa Ls(1400) Me(1926) Ic

Westronics, Inc., 3605 McCart, Ft. Worth, Texas / WA 3-2986 / \*C 58

Research and manufacturing in electronic instrumentation; recording potentiometers, null-balance, strip charts; analog and digital computers; analog to digital converters / RMSa Ss(30) Me(1945) Ic

Wharf Engineering Lab., Fenny Compton, Warwickshire, England / 230 / \*C 58

Magnetic drums, magnetic heads, tape readers, tape punches / RMSCa Ss(10) Se(1948) Ic

Wheeler Electronic Corp., Subsidiary of Sperry Rand Corp., 150 E. Aurora St., Waterbury 20, Conn. / PLaza 4-5191 / \*C 58

Transformers, reactors, amplifier assemblies, delay lines, magnetic amplifiers, cable assemblies / RMSa Ms(400) Me(1935) Ic

Wheelock Signals, Inc., 273 Branchport Ave., Long Branch, N.J. / CApiital 2-6880 / \*C 58

Industrial and military electro-magnetic relays / RMSa Ms(200) Le(1922) Ic

Wiancko Engineering Co., 255 North Halstead Ave., Pasadena, Calif.

Digital ballistics analyzer computer, computer components, etc. / DAic RMSa

Winchester Electronics, Inc., Willard Rd., Norwalk, Conn. / TEmple 8-8433 / \*C 58

Electronic connectors, terminals, hoods / RMSa Ls (600) Me(1942) Ic

Wright Aeronautical, Wood Ridge, N.J. / PRescott 7-2900 / \*C 56

Data processing machines, components / DIc RMSa

Wright Engineering Co., 180 E. California St., Pasadena, Calif.

Analog-to-digital converters, magnetic drums / Ic RMSa

## Y

The Yale & Towne Manufacturing Co., Powdered Metal Products Div., 9335 W. Belmont Ave., Franklin Park, Ill. / NAtional 5-8585 / \*C 58

Magnetic and ferrite cores; magnets / RMSa Ms (300) ?e Ic

## Z

Zator Co., 79 Milk St., Boston 9, Mass. / LIBerty 2-4624 / \*C

Digital equipment and systems for coding, filing, and finding information (Zato coding systems). High-speed selectors for notched cards. Methods for use of digital computing machines to recover information / Ss Se(1947) Ic RCSa

Zeuthen & Aagaard Ltd., 6 Esplanaden, Copenhagen, Denmark / Central 3795 / \*C

Portable adding machine (Contex); directing machine (Rex-Recorder) with magnetic recording on plastic disc using impregnated particles and permitting more than 10,000 reuses; duplicating machines, etc. / Ls Le Ic RMSa

Zuse Kommandit-Gesellschaft, Kreis Hunfeld, Neukirchen, West Germany / — / \*C 57

Relay and electronic digital computers / Ms(180) Se(1949) Dc RMSa

# BUYERS' GUIDE FOR THE COMPUTER FIELD: PRODUCTS AND SERVICES FOR SALE OR RENT

(Cumulative, information as of May 15, 1958)

The purpose of this roster "The Buyers' Guide for the Computer Field: Products and Services for Sale or Rent" is to give information about the existence and in many cases the properties of every product or service in the computer field that is offered for sale or rent and that we have been able to learn something about. This is the fourth cumulative edition of this roster, containing approximately 3220 entries.

*Kinds of Entries.* There are three kinds of entries in this list: expanded bold face entries; cross reference entries and ordinary entries. An expanded bold face entry contains or should contain the following information:

Name of supplier and address / name or identification of product or service / DESCR: a brief description of the product in about 20 to 50 words, or more / USE: how it is used / price range, and whether for sale or rent

Every entry is subject to editing. These entries are set in bold face type, and a nominal charge of \$10 is requested for printing them, except that a display advertiser receives a number of such entries free depending on the amount of display advertising.

Ordinary entries consist of just the name of the organization, listed under the product class.

Cross-reference entries show that a product listed under one product heading is described more fully under another product heading.

*Abbreviations.* The abbreviations used include: DESCR—description; \*a—address above (where several products made by one supplier are listed in succession).

*Corrections.* We have tried to make each entry correct to the extent of information in our possession. But it is inevitable that at least some errors have occurred, and we shall be glad to publish corrections.

*Questionnaire.* Nearly all the entries in this roster have been derived from answers to questionnaires which we sent out in February and March to over 700 suppliers in the computer field. The expanded entries have been derived mainly from answers given on the "Product Entry Form," which follows:

**Product Entry Form**  
for  
**THE COMPUTER DIRECTORY and**  
**BUYERS' GUIDE, 1958**  
**THIS IS THE INFORMATION WE WANT**  
**FROM YOU:**

1. Name or identification of product (or service)?  
.....
2. Brief description (20 to 50 words):  
.....
3. How is it used?  
.....
4. What is the price range?  
.....
5. Under what headings should it be listed?  
.....

(See the 1958 list of 172 headings on a separate sheet, or the 1957 list of 69 headings on the back of this sheet)

**HERE IS THE INFORMATION WE PUBLISHED**  
**LAST YEAR (or have in our file):**

Entry:

(*Note:* The number at the end of the entry is the 1957 heading number — see the 1957 list on the reverse side.)

Additions,  
changes,  
remarks?  
Organization \_\_\_\_\_  
Address \_\_\_\_\_  
Filled in by \_\_\_\_\_ Title \_\_\_\_\_  
Date \_\_\_\_\_

When filled in, please send this form to **Computers and Automation** (address above), with \$10.00 requested charge for an expanded bold-face entry, on or before **APRIL 25, 1958.**

( ) \$10.00 enclosed

# LIST OF HEADINGS

As a guide to the products and services offered in the computer field, please refer to the following list of 188 headings under which products and services are classified. There is overlapping among these headings; it may be necessary or desirable to look under more than one heading.

<p><b>A:</b> Adding Machines — A1            Addressing Machines — A2            Amplifiers ..... — A3                — Magnetic — A4            Analog Computers (SEE Computers, Analog)            Automatic Assembly Equipment — A5            Automatic Control Equipment — A6</p> <p><b>B:</b> Boards — Plotting — B1                — Plug — B2                — Strip Type — B3            Bobbins, Coil Winding — B4            Breadboard Kits — B6</p> <p><b>C:</b> Cable — C1            Cable Assemblies — C2            Cameras ..... — C3                Data Recording — C3A            Capacitors (Computer Types) — C4            Cards (SEE ALSO Punch Cards) — C5                — Punch — C6                — Magnetic — C7            Chassis — Metal — C8            Circuits .....                — Arithmetical (for Digital Computers) — C9                — Computer, Packaged — C10                — Logical (for Digital Computers) — C11                — Plug-in — C12                — Potted — C13                — Printed — C14            Clutches ..... — C15                — Magnetic — C16            Coatings ..... — C17                — Conductive — C18                — Protective — C19                Salt Spray Resistant — C20            Coils (Computer Types) — C21            Communications Systems (Computer Types) — C22            Computers (SEE ALSO specific types) — C22A            Computers, Analog — C23            Computers, Digital — C24            Computers, Special Purpose — C24A            Computers, Test Equipment — C25            Computer Components (SEE ALSO specific types) — C26            Computing Services ..... — C27                — Digital — C28            Connectors — C29            Consulting Services — C30            Controls ..... — C31                — Automatic — C32                — Signaling — C33                — Sorting and Counting — C34</p>	<p>Converters, Electrical ..... — C35                — High Frequency — C36                — Low Frequency — C37                — Power Frequency — C38            Converters, Information ..... — C39                — Analog to Digital — C40                — Card to Magnetic Tape — C41                — Card to Paper Tape — C42                — Analog to Digital — C40                — Card to Magnetic Tape — C41                — Card to Paper Tape — C42                — Computing — C43                — Digital to Analog — C44                Magnetic Tape to Card — C45                — Magnetic Tape to Paper Tape — C46                — Paper Tape to Card — C47                — Paper Tape to Magnetic Tape — C48</p> <p>Cords — C49            Cores ..... — C50                — Ferrite — C51                — Magnetic — C52            Counters ..... — C53                — Electronic — C54                — Frequency — C55                — Mechanical — C56                — Proportional — C57            Courses by Mail (Computer Field) — C58</p> <p><b>D:</b> Data Processing Machinery (SEE ALSO specific types) — D1            Data Recording Equipment (SEE ALSO Input/Output devices) — D2            Data Reduction Equipment — D2A            Delay Lines (Computer Types) — D3            Desk Calculators — D4            Dials — D5            Differential Analyzers — D6            Diodes (Computer Types) ..... — D7                — Germanium — D8                — Power — D9                — Silicon — D10            Discs, Magnetic — D11            Drums, Magnetic — D12</p> <p><b>E:</b> Economic Research — E0            Education (see also courses) — E1            Embedded Assemblies and Components — E2</p> <p><b>F:</b> Facsimile Equipment — F1            Fans and Blowers — F1A            Fasteners and Fastening Devices — F2            Fire Control Equipment — F3</p> <p><b>G:</b> Generators, Function — G1                — Electronic — G2                — Mechanical — G3            Geophysical Apparatus — G4</p> <p><b>H:</b> Heads, Magnetic ..... — H1                — Reading — H2                — Recording — H3</p> <p><b>I:</b> Indicators (Computer Types) — I1            Information Retrieval Devices — I2            Input/Output Devices — I3</p>
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Integrators .....	— I4	Recording Papers	— R9
— Electronic	— I5	Rectifiers	— R10
— Mechanical	— I6	Registers, Shift	— R11
Inventory Systems	— I7	Relays (Computer Types)	— R12
J: Jacks	— J1	Resistors	— R13
K: Keyboards	— K1	Resolvers .....	— R14
L: Lights, Indicator	— L1	— Coordinate Transform	— R15
M: Magnets	— M1	— Product	— R16
Markers	— M1A	— Sine-Cosine	— R17
Memory Systems	— M2	Robots	— R18
Molded Plastics	— M2A	S: Scanners	— S1
Multipliers .....	— M3	Semiconductors	— S2
— Diode	— M4	Simulators	— S3
— Electronic	— M5	Soldering Irons	— S3A
— Frequency	— M6	Storage Systems .....	— S4
— Servo	— M7	— Magnetic	— S5
O: Office Machines	— O1	Switches .....	— S6
Operations Research	— O2	— Stepping	— S7
P: Panels .....	— P1	Synchros	— S8
— Jack	— P2	Systems Engineering	— S9
— Relay Rack	— P3	T: Tachometers	— T1
Paper Tape	— P4	Tape Handlers	— T2
Patch Cords	— P5	Tape, Magnetic .....	— T3
Plotters (SEE ALSO Boards — Plotting)	— P6	— Filing Systems	— T3A
Plugboards	— P6A	— Readers	— T4
Potentiometers (Computer Types)	— P7	— Recorders	— T5
Power Supplies — Regulated	— P8	Reels	— T5A
Printers .....	— P9	Tape, Paper .....	— T6
— High Speed	— P10	— Filing Systems	— T7
— Keyboard	— P11	— Punches	— T8
— Line-a-time	— P12	— Readers	— T9
Programming Services	— P12A	Telemetry Systems	— T10
Publications .....	— P13	Terminals	— T11
— Magazines	— P15	Transducers	— T11A
Punch Card Machines	— P16	Transformers .....	— T12
R: Readers .....	— R1	— Pulse	— T13
— Character	— R2	Transistors .....	— T14
— Magnetic Card	— R3	— Germanium	— T15
— Magnetic Tape	— R4	— Silicon	— T16
— Mechanical	— R5	Translating Equipment	— T17
— Paper Tape	— R6	Typewriters, Electric, Controlled	— T18
— Photoelectric	— R7	Tubes, Electronic	— T19
— Punch Card	— R8	V: Visual Output Devices	— V1

## ORGANIZATIONS WITH EXPANDED BOLD FACE ENTRIES

The following 125 organizations have one or more expanded bold face entries and/or advertising in the Computer Directory.

Airpax Products Co.  
Aladdin Electronics  
Amperex Electronic Corp.  
Ampex Corp., Instrumentation Div.  
American Molded Products Co.  
Amphenol Electronics Corp.  
ANelex Corp.  
Andersen Lab. Inc.  
Arma Div. of American Bosch Arma Corp.  
Arnold Engineering  
Audio Devices, Inc.  
Automatic Electric Co.  
Automatic Office Consultants

Automation Engineers Co.  
Autonetics, Div. of North American Aviation  
Avco Mfg. Corp.  
Beckman Instruments, Berkeley Div.  
Bendix Aviation Corp., Bendix Computer Div.  
Berkeley Enterprises, Inc.  
Bourns Lab.  
Bowles, Andrews & Towne, Inc.  
Bowmar Instrument Corp.  
Bristol Co.  
Bryant Gage & Spindle Div.  
Burroughs Corp.  
Burroughs Corp., ElectroData Div.  
Business Electronics, Inc.

Calvert Electronics  
Cambridge Thermionic Corp.  
Circuit Engineering  
C. P. Clare & Co.  
CBS-Hytron  
Comptometer Corp.  
Control Electronics Co.  
Cubic Corp.  
Corp. for Economic and Industrial Research  
Dale Products, Inc.  
Dasol Corp.  
Datamatic Corp.  
The de Florez Co.  
Dialight Corp.  
Dian Labs.  
Edin Co., Inc.

Thomas A. Edison, Inc.  
 Electro-Mechanical Research  
 Electrometric Inc.  
 Electro Motive Mfg. Co.  
 Electronic Associates  
 Electronic Computer Programming Inst.  
 Electronic Engineering Co.  
 ESC Corp.  
 Facit, Inc.  
 Ferranti Electric, Inc.  
 Ferroxcube Corp.  
 The Foxboro Co.  
 Friden Calculating Machine Co.  
 H. S. Gellman & Co.  
 General Electric Co.  
 General Instrument Corp.  
 General Kinetics, Inc.  
 Genisco, Inc.  
 The Geotechnical Corp.  
 Gille Associates, Inc.  
 Hammarlund Mfg. Co.  
 Harrison Labs.  
 Harvey-Wells Electronics  
 Hillburn Electronic Product Co.  
 Hoover Electronics Co.  
 Hydro Molding Co.  
 Industrial Nucleonics Corp.  
 International Business Machines Corp.  
 KCS Data Control Ltd.

George F. Kelk, Ltd.  
 A. Kimball Co.  
 Laboratory for Electronics, Computer Products Div.  
 Landis & Gyr  
 Librascope, Inc.  
 Link Aviation  
 Arthur D. Little  
 Magnetic Metals Co.  
 Magnetics Research Co.  
 Alan O. Mann & Assoc.  
 Marchant Calculators  
 Maurey Instrument Corp.  
 Miles Reproducer Co.  
 H. Jefferson Mills, Jr.  
 Minneapolis-Honeywell, Florida  
 Monroe Calculating Machine Co.  
 National Cash Register Co.  
 National Co.  
 Non-Linear Systems, Inc.  
 Norton Assoc.  
 Oryx Co.  
 Owen Labs, Inc.  
 George A. Philbrick Researches, Inc.  
 Philco Corp., Govt. & Industrial Div.  
 Potter Instrument Co.  
 Radio Corp. of America  
 The Ramo-Woolridge Corp.  
 Raytheon Mfg. Co.

Remington Rand Univac Div. of Sperry  
 Rand  
 Richardson Camera Co.  
 Royal McBee Corp.  
 Sangamo Electric Co.  
 Schweber Electronics  
 Seismograph Service Corp.  
 Sorenson & Co.  
 Soroban Engineering Inc.  
 Southwestern Computing Service  
 Sperry Semiconductor Div. of Sperry Rand  
 Corp.  
 The Standard Register Co.  
 Steward Mfg. Co.  
 Sutherland Co.  
 Sylvania Electric Products  
 Sylvania Electronics Div.  
 Tammen & Denison  
 Technitrol Engineering  
 Telemeter Magnetics  
 Trans Electronics Inc.  
 Univ. of Michigan, Willow Run Labs.  
 The Walkirt Co.  
 Western Lithograph Co.  
 Westinghouse Electric Corp., Air Arm Div.  
 Westline Products, Div. of Western Litho-  
 graph Co.  
 John Wiley & Sons, Inc.

## ROSTER OF PRODUCTS AND SERVICES

### A1. Adding Machines

R. D. Allen Business Machines, Inc. / A1  
 Burroughs Corp. / A1  
 Clary Corp. / A1  
 Comptometer Corp. / A1  
 Facit, Inc. / A1  
 The Franklin Institute Lab. / A1  
 Lanston Industries, Inc. / A1  
 Litton Industries, Inc. / A1  
 Marchant Calculators, Inc. / A1  
**MONROE CALCULATING MACHINE**  
 CO., Orange, N. J. / Adding Machines  
 / DESCR: Monroe adding machines include 80 models in the following groups: simplex, duplex, grand total, wide carriage, shuttle carriage, 10-key or full keyboard, 8 to 14 columns of keys, both manual and electric. Certain models are equipped to punch tape as a by-product of the regular printed record. Other models are solenoid operated / \$149.50 to \$1850 / A1

Olivetti Corp. of America / A1

**REMINGTON RAND, DIV. OF SPERRY RAND CORP.**, 315 4th Ave., New York 10, N. Y. / Electric Adding Machine / DESCR: 10-key operated by touch method / USE: business figurework / \$301 to \$625 / A1

**REMINGTON RAND, DIV. OF RAND CORP.**, 315 4th Ave., New York 10, N. Y. / Model 99 Calculator that prints / DESCR: automatic multiplication and division; 10-key touch addition and subtraction; automatic credit balance / USE: for figurework where printed proof of computations is desired / \$685 to \$785 / A1

Smith-Corona, Inc. / A1

Underwood Corp. / A1

Victor Adding Machine Co. / A1

Zeuthen & Aagaard Ltd. / A1

### A2. Addressing Machines

Elliott Addressing Machine Co. / A2  
 The Walter S. Kraus Co. / A2

### A3. Amplifiers

Beckman Instr. Inc., Systems Div. / A3  
 Beckman Instruments, Berkeley Div. / A3

Bendix Aviation Corp., Eclipse-Pioneer Div. / A3

Bendix Aviation Corp., Research Laboratory Div. / A3

Centronix Inc. / A3

**COMPTON CORPORATION**, 778 Pleasant St., Belmont 79, Mass. / transistorized digital data-handling amplifiers / DESCR: transistorized low-level printed circuit amplifier / USE: in digital computing and control circuits to amplify signals received from magnetic tape, magnetic drum, magnetic core memory systems, and amplify them to logic voltage / \$25 to \$75 / A3

Computer Engineering Associates, Inc. / A3

Consolidated Electrodynamics Corp. / A3

Donner Scientific Co. / A3

Edin Co., a Div. of Epsco, Inc. / A3

Electrol, Inc. / A3

Engineered Electronics Company / A3

Epsco, Inc. / A3

**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto 15, Ontario / amplifiers / DESCR: / special purpose transistorized (and/or tubes where required) amplifiers; read and write amplifiers / USE: magnetic recording; operational amplifiers; logarithmic amplifiers. (Note: standard package and card file

for transistorized read amplifiers for magnetic drums) / A3

The Franklin Institute Lab. / A3

General Electric Co., Computer Dept. / A3

The Geotechnical Corp. / A3

Industrial Control Co. / A3

Industrial Nucleonics Corp. / A3

Mack Electronics / A3

Minneapolis-Honeywell Regulator Co., Boston Division / A3

Minneapolis-Honeywell Regulator Co., Industrial Div. / A3

Norden-Ketay Corp. / A3

Ortho Filter Corp. / A3

John Oster Mfg. Co., Avionic Div. / A3

Potter Instrument Co. / A3

Radiation Counter Laboratories, Inc. / A3

Sangamo Electric Co. / A3

Saunders & Co. / A3

Servo Corp. of America / A3

Short Bros. & Harland Ltd. / A3

F. W. Sickles Division, General Instrument Corp. / A3

Societe d'Electronique et d'Automatisme / A3

Specialities, Inc. / A3

Strand Engineering Co. / A3

Wayne-George Corp. / A3

Wheeler Electronic Corp., Sub. of Sperry Rand Corp. / A3

### A4. Magnetic Amplifiers

Airpax Products Co. / A4

American Electronics, Inc. / A4

American Research & Mfg. Corp. / A4

Belock Instrument Corp. / A4

Bendix Aviation Corp., Eclipse-Pioneer Div. / A4

Canadian Applied Research Ltd. / A4

Canadian Westinghouse Co., Ltd., Electronics Div. / A4  
 Celco / A4  
 Centralab / A4  
 Centronix Inc. / A4  
 Consolidated Controls Corp. / A4  
 Consolidated Electrodynamics Corp. / A4  
 Control Data Corp. / A4  
 Thomas A. Edison Industries / A4  
 Epsco Components / A4  
 Federal Telephone and Radio Co. / A4  
 Feedback Controls, Inc. / A4  
 Ford Instrument Co., Div. of Sperry Rand Corp. / A4  
 The Franklin Institute Lab. / A4  
 Gulton Industries, Inc. / A4  
 Johnson Electronics Inc. / A4  
 Kepco Laboratories, Inc. / A4  
 Magnetics Research Co. / A4  
 George A. Philbrick Researches, Inc. / A4  
 Polyphase Instrument Co. / A4  
 Sangamo Electric Co. / A4  
 Servo Corp. of America / A4  
 F. W. Sickles Division, General Instrument Corp. / A4  
 Societe d'Electronique et d'Automatisme / A4  
 Southwestern Industrial Electronics Co. / A4  
 Specialities, Inc. / A4  
 Vickers Inc., Electric Products Div. / A4  
 Wheeler Electronic Corp., Sub. of Sperry Rand Corp. / A4

#### A5. Automatic Assembly Equipment

Automation Management, Inc. / A5  
 Bowmar Instrument Corp. / A5  
 Electro Products Laboratories, Inc. / A5  
 The Foxboro Co. / A5  
**GEORGE A. PHILBRICK RESEARCHES, INC.**, 230 Congress St., Boston 10, Mass. / Electronic analog computers / DESCR: research, design, and manufacture of analog computers, ranging from operational amplifiers and power supplies to complete computing facilities, modular construction / USE: measurement and synthesis through voltages / components from \$24 to \$1750; complete installations \$1015 to \$60,000 / A5  
 Reeves Instrument Corp. / A5  
 Shallcross Mfg. Co. / A5  
 Strand Engineering Co. / A5  
 Jarvis B. Webb Co. / A5

#### A6. Automatic Control Equipment

Advanced electronics, Inc. / A6  
 Aeronca Mfg. Corp. / A6  
 Allen-Bradley Co. / A6  
 American Electronics, Inc. / A6  
 Armour Research Foundation / A6  
 Askania Regulator Co. / A6  
 Assembly Products, Inc. / A6  
 The Austin Co. / A6  
 Automatic Electric Co. / A6  
 Automation Controls Corp. / A6  
 Autonetics, Div. of North American Aviation, Inc. / A6  
 Babcock Radio Engineering, Inc. / A6  
 Beckman Instrument Inc., Systems Div. / A6  
 Belock Instrument Corp. / A6  
 Bendix Aviation Corp., Research Laboratories Div. / A6

Bergen Laboratories / A6  
 Bowser, Inc. / A6

**THE BRISTOL COMPANY, P. O. BOX 1790 CAG, Waterbury 20, Conn.** / measuring and automatic control instruments and components for computing and automation / DESCR: automatic recording, indicating, signalling, alarm and telemetering instruments for all basic measurable functions, including electronic components, choppers, socket screws, recording papers, remote positioners / USE: all industrial, laboratory and other functional purposes / A6

Coleman Engineering Co. / A6  
 Computing Devices of Canada, Ltd. / A6  
 Consolidated Avionics Corp. / A6  
 Consolidated Electrodynamics Corp. / A6  
 Control Data Corp. / A6  
 Cook Electric Co. / A6  
 Curtiss-Wright Corp., Electronics Div. / A6  
 Data Systems Div., Norden-Ketay Corp. / A6  
 Daystrom Inc., Daystrom Systems Div. / A6  
 Daystrom Transicoil Corp. / A6  
 Donner Scientific Co. / A6  
 Eagle Signal Corp. / A6  
 Electrical and Physical Instrument Corp. / A6  
 Electronics Corp. of America / A6  
 Epsco, Inc. / A6  
 Farrand Controls, Inc. / A6

**FERRANTI ELECTRIC, INC.**, 95 Madison Ave., Hempstead, N. Y. / precision measuring equipment / DESCR: Produces digital measurement of position using diffraction grating reference. Accuracies to 0.0001". Equipment includes gratings, optical unit, and counters / USE: metrology; analyses of photographic records / \$6,000 to \$7,000 for two axes system / A6

**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto 15, Ontario / Automatic control equipment / DESCR: completely engineered systems for automatic control of machine tools; automatic control for atomic reactors; customer-engineered automatic control systems for industrial applications / A6  
 Fischer & Porter Co. / A6  
 Ford Instrument Co., Div. of Sperry Rand Corp. / A6

The Foxboro Co. / A6  
 General Automatics, Inc. / A6  
 General Controls Co. / A6  
 General Electric Co., Computer Dept. / A6  
 Gilmore Industries / A6  
 The A. W. Haydon, Co. / A6  
 Hughes Research and Development Lab. / A6

Industrial Nucleonics Corp. / A6  
 International Telemeter Corp. / A6  
 International Telephone and Telegraph Corp. / A6  
 A. KIMBALL CO. — see D1 / A6  
 Leeds & Northrup Co. / A6  
 Librascope, Inc. / A6  
 Link Aviation, Inc. / A6  
 Mack Electronics / A6  
 The W. L. Maxson Corp. / A6

Measurement Engineering Limited / A6  
 Minneapolis-Honeywell Regulator Co., Industrial Division / A6  
 National Bureau of Standards, Data Processing Systems Div. / A6  
 Norden-Ketay Corp. / A6  
 Notifier Corp. / A6  
 Opad Electric Co. / A6  
 Panellit, Inc. / A6  
 Philips Electronics, Inc., Instruments Div. / A6  
 Potter Instrument Co., Inc. / A6  
 The Ramo-Wooldridge Corp. / A6  
 Ransom Research / A6  
 J. B. Rea Co., Inc. / A6  
 Reeves Instrument Corp. / A6  
 Saunders & Co. / A6  
 Servo Corp. of America / A6  
 Servomechanisms Inc. / A6  
 Societe d'Electronique et d'Automatisme / A6  
 Southwestern Industrial Electronics Co. / A6  
 Strand Engineering Co. / A6  
 Stromberg-Carlson, A Div. of General Dynamics Corp. / A6  
 Taller and Cooper / A6  
 Taylor Instrument Co. / A6  
 Telectro Industries Corp. / A6  
 The Thompson-Ramo-Wooldridge Products Co. / A6  
 Univ. of Sydney, Australia / A6  
 Vickers Inc., Electric Products Div. / A6  
 Jervis B. Webb Co. / A6

#### B1. Boards, Plotting

Accurate Electronics Corp. / B1  
 Aero Electronics Co. / B1  
 Belock Instrument Corp. / B1  
 Benson-Lehner Corp. / B1  
 California Computer Products / B1  
**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto 15, Ontario / plotting boards / suitable for weather and similar charts / B1  
 Ford Instrument Co., Div. of Sperry Rand Corp. / B1  
 Servo Corp. of America / B1

#### B2. Boards, Plotting, Plug

Accurate Electronics Corp. / B2  
**CAMBRIDGE THERMONIC CORP.**, 445 Concord Ave., Cambridge 38, Mass. / electronic and electrical components / DESCR: miniature and sub-miniature plugs and jacks; gold, silver and other finish terminals; terminal boards; press mount and spring loaded diode clips; panel and chassis hardware; insulated terminals; coils and coil forms; capacitors / USE: individual piece part component / under \$5 / B2  
 Donner Scientific Co. / B2  
 Link Aviation, Inc. / B2  
 Reeves Instrument Corp. / B2  
 Saunders & Co. / B2

#### B3. Boards, Plotting, Strip Type

Accurate Electronics Corp. / B3  
**CAMBRIDGE THERMIONIC CORP.**, 445 Concord Ave., Cambridge 38, Mass. / Electronic and electrical components / DESCR: miniature and sub-miniature plugs and jacks; gold, silver and other finish terminals; terminal boards; press mount and spring loaded diode clips;

panel and chassis hardware; insulated terminals; coils and coil forms; capacitors / USE: individual piece part component / under \$5 / B3

Techniques, Inc. / B3

#### B4. Bobbins, Coil Winding

Acroscope Engineering Co. / B4

Advanced Electronics, Inc. / B4

Alden Products Co. / B4

**AMERICAN MOLDED PROD. CO.**, 2727 W. Chicago Ave., Chicago 22, Ill. / Bobbins / DESCR: Molded nylon and fluoro-carbon / USE: transformers, relays, vibrators, etc. / — / B4

**HYDRO MOLDING CO., INC.**, 100 Sharron Ave., Plattsburgh, N. Y. / precision molded bobbins / DESCR: bobbins for coil winding. / — / — / B4

Shallcross Mfg. Co. / B4

#### B6. Breadboard Kits

Alden Products Co. / B6

Bowmar Instrument Corp. / B6

**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto 15, Ontario / breadboard kits / DESCR: standard card files and plug-in packaged logic transistor circuits for experimental work on computer systems / B6

Helipot Corp. / B6

Polyphase Instrument Co. / B6

Servo Corp. of America / B6

Techniques, Inc. / B6

#### C1. Cable

Federal Telephone and Radio Co. / C1

Gulton Industries, Inc. / C1

Royal Electric Co. / C1

Stromberg-Carlson, a Div. of General Dynamics Corp. / C1

#### C2. Cable Assemblies

Advanced electronics, Inc. / C2

Alden Products Co. / C2

American Electronics, Inc. / C2

California Technical Industries / C2

Canadian Applied Research, Ltd. / C2

Centronix, Inc. / C2

Eagle Signal Corp. / C2

Jefferson Electronic Products Corp. / C2

Link Aviation, Inc. / C2

Reeves Instrument Corp. / C2

Royal Electric Co. / C2

Stromberg-Carlson, a Div. of General Dynamics Corp. / C2

Superex Electronics Corp. / C2

Vernistat Div. of the Perkin Elmer Corp. / C2

Wheeler Electronic Corp., Sub. of Sperry Rand Corp. / C2

#### C3. Cameras

American Electronics, Inc. / C3

Benson-Lehner Corp. / C3

Coleman Engineering Co. / C3

Eastman Kodak Co. / C3

Philips Electronics, Inc., Instruments Div. / C3

Strand Engineering Co. / C3

#### C3A. Cameras, Data Recording

Alden Electronic & Impulse Recording Equipment Co. / C3A

Avco Mfg Co. / C3A

Belock Instrument Corp. / C3A

Benson-Lehner Corp. / C3A

Canadian Applied Research Ltd. / C3A

Centronix, Inc. / C3A

Century Electronics & Instruments, Inc. / C3A

Coleman Engineering Co. / C3A

Cook Electric Co. / C3A

Flight Research, Inc. / C3A

The Geotechnical Corp. / C3A

Gordon Enterprises / C3A

Bill Jack Scientific Instrument Co. / C3A

Laboratory for Electronics, Inc., Computer Products Div. — See V1 / C3A

Notifier Corp. / C3A

Radiation Counter Laboratories, Inc. / C3A

J. B. Rea Co., Inc. / C3A

Richardson Camera Co. — See D2A / C3A

Strand Engineering Co. / C3A

#### C4. Capacitors (Computer Types)

Aerovox Corp. / C4

Allen-Bradley Co. / C4

Cambridge Thermionic Corp. / C4

Centralab / C4

Computer Engineering Associates, Inc. / C4

Condenser Products Co. / C4

Cornell-Dubilier Electric Corp. / C4

Corning Glass Works, Electronic Component Dept. / C4

Dilectron, Div. of the Gudeman Co. / C4

Donner Scientific Co. / C4

Electro Motive Mfg. Co., Inc. / C4

Electronic Fabricators, Inc. / C4

Fanstel Metallurgical Corp. / C4

**GENERAL ELECTRIC CO., CAPACITOR DEPT.**, John St., Hudson Falls, N. Y. / capacitors / DESCR: oil paper, molded composition, electrolytic, plastic film / USE: computer circuitry / C4

Gulton Industries, Inc.

Hammarlund Mfg. Co., Inc. / C4

Hughes Products, Semiconductor Div., Hughes Aircraft Co. / C4

P. R. Mallory & Co., Inc. / C4

Ohmite Manufacturing Co. / C4

Pacific Semiconductors, Inc. / C4

Plastic Capacitors, Inc. / C4

Sangamo Electric Co. / C4

Saunders & Co. / C4

Schweber Electronics / C4

Servo Corp. of America / C4

Southern Electronics Corp. / C4

Sprague Electric Co. / C4

Texas Instruments Inc., Semiconductor-Components Div. / C4

U. S. Electronics Development Corp. / C4

#### C5. Cards

Bendix Computer Division, Bendix Aviation Corp. / C5

E\*Z Sort Systems, Ltd. / C5

#### C6. Cards, Punch

**BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP.**, 5630 Arbor Vitae St., Los Angeles 45, Calif. / CA-1 punched card adapter / DESCR: adapts IBM 026 reader-punch for use with Bendix G-15 general purpose digital computer (see C24) / USE: punched card input-output / \$2530 sale, \$100 per month lease / C6

The British Tabulating Machine Co., Ltd. / C6

National Data Processing Corp. / C6

#### C7. Cards, Magnetic

Control Data Corp. / C7

Hughes Aircraft Co. / C7

#### C8. Chassis, Metal

Alden Products Co. / C8

Measurement Engineering, Limited / C8

Qutronic Semiconductor Corp. / D8

#### C.9 Circuits, Arithmetical (for Digital Computers)

Aeronca Mfg. Corp. / C9

Computing Devices of Canada, Ltd. / C9

Consolidated Avionics Corp. / C9

Control Data Corp. / C9

Corbin Corp. / C9

**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto, Ontario / arithmetical circuits / DESCR: standard or custom-engineered circuits for all arithmetic operations / C9

The Franklin Institute Lab. / C9

General Electric Co., Computer Dept. /

**HOOVER ELECTRONICS CO.**, Timonium, Md. / assembly of digital building cards / DESCR: printed circuit cards with four variations of component arrangement easily interwired by plugging into rack mounted connectors can be readily assembled to perform any digital computer function / USE: data processing systems and computers / price varies depending upon complexity of system / C9

Librascope, Inc. / C9

Societe d'Electronique et d'Automatisme / C9

Southwestern Industrial Electronics Co. / C9

Strand Engineering Co. / C9

Stromberg-Carlson, a Div. of General Dynamics Corp. / C9

Telectro Industries Corp. / C9

**THE WALKIRT CO.**, 141 W. Hazel St., Inglewood 3, Calif. / Plug-in pulse circuit packages / DESCR: generally single-tube and/or transistor circuit stages, encapsulated in resin, plug-in form; complete counters, multivibrators, amplifiers, gates, triggers, pulse generators, etc. / USE: as a complete circuit stage in digital computing equipment / \$8 to \$20 per stage / C9

Wayne-George Corp. / C9

#### C10. Circuits, Computer, Packaged

Alden Products Co. / C10

Airtronics, Inc. / C10

Avion Div., ACF Industries, Inc. / C10

Centralab / C10

Computer Control Co., Inc. / C10

Control Data Corp. / C10

Corbin Corp. / C10

Daystrom Inc., Daystrom Systems Div. / C10

Donner Scientific Co. / C10

Thomas A. Edison Industries / C10

Electronic Research Associates / C10

Epsco Components / C10

**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto, Ontario / packaged computer circuits / DESCR: standard mag-

- netic or transistorized circuit modules for all basic computer requirements. Special circuits are designed to fill particular needs / C10
- Ferranti, Ltd. / C10
- The Franklin Institute Lab. / C10
- General Electric Co., Computer Dept. / C10
- General Electric Co., Specialty Electronic Component Dept. / C10
- Harvey Wells Electronics, Inc., Research and Development Div. / C10
- Hoover Electronics Co. — see C9 / C 10
- Librascope, Inc. / C10
- Mack Electronics / C10
- Minneapolis-Honeywell Regulator Co. / C10
- George A. Philbrick Researches, Inc. / C10
- Ransom Research / C10
- Reeves Instrument Corp. / C10
- Rese Engineering Inc. / C10
- Servo Corp. of America / C10
- Short Bros. & Harland Ltd. / C10
- Southwestern Industrial Electronics Co. / C10
- Strand Engineering Co. / C10
- Stromberg-Carlson, a Div. of General Dynamics Corp. / C10
- Telectro Industries Corp. / C10
- The Walkirt Co. / C10
- Wayne-George Corp. / C10
- C11. Circuits, Logical (for Digital Computers)**
- Aeronca Mfg. Corp. / C11
- Airtronics, Inc. / C11
- AVCO MANUFACTURING CORP., RESEARCH AND ADVANCED DEVELOPMENT DIV., 20 So. Union St., Lawrence, Mass. / Logical building blocks / DESCR: Types available: bistable trigger, flip-flop—gates (various) monostable unit, complementor unit, emitter-follower, magnetic drum head read-write amplifiers, neon lamp drivers, write switch active gate / USE: for dynamic design of general and special purpose computing devices, automatic control devices. / \$25 to \$50 / C11**
- COMPTRON CORPORATION, 778 Pleasant St., Belmont 79, Mass. / diode logic circuits / DESCR: various groupings of diode circuit resistors on printed circuit boards / USE: in computer and control circuitry to perform logical functions / \$10 to \$20 / C11**
- Computer Control Co., Inc. / C11
- Control Data Corp. / C11
- Corbin Corp. / C11
- Daystrom Inc., Daystrom Systems Div. / C11
- Digitronics Corp. / C11
- Epsco Components / C11
- Ferranti Electric Ltd. — see C10 / C11
- The Franklin Institute Lab. / C11
- General Electric Co., Computer Dept. / C11
- Hoover Electronics Co. — see C9 / C11
- Librascope, Inc. / C11
- Mack Electronics / C11
- Minneapolis-Honeywell Regulator Co. / C11
- Rese Engineering, Inc. / C11
- Societe d'Electronique et d'Automatisme / C11
- Southwestern Industrial Electronics Co. / C11
- Strand Engineering Co. / C11
- Stromberg-Carlson, a Div. of General Dynamics Corp. / C11
- Techniques, Inc. / C11
- Telectro Industries Corp. / C11
- The Walkirt Co. / C11
- Wang Laboratories / C11
- Wayne-George Corp. / C11
- C12. Circuits, Plug-in**
- Aeronca Mfg. Corp. / C12
- Airflyte Electronics Co. / C12
- Airtronics, Inc. / C12
- AVCO MANUFACTURING CORP., RESEARCH AND ADVANCED DEVELOPMENT DIV., 20 So. Union St., Lawrence, Mass. / Logical building blocks / DESCR: Types available: bistable trigger, flip-flop—Gates (various) monostable unit, complementor unit, emitter-follower, magnetic drum head read-write amplifiers, neon lamp drivers, write switch active gate / USE: for dynamic design of general and special purpose computing devices, automatic control devices. / \$25 to \$50 / C12**
- Avion Div., ACF Industries, Inc. / C12
- Beckman Instr. Inc., Systems Div. / C12
- Bendix Aviation Corp., Research Laboratories Div. / C12
- Centralab / C12
- Centronix Inc. / C12
- C G Electronics Corp. / C12
- COMPTRON CORPORATION, 778 Pleasant St., Belmont 79, Mass. / diode logic circuits / DESCR: various groupings of diode circuit resistors on printed circuit boards / USE: in computer and control circuitry to perform logical functions / \$10 to \$20 / C12**
- Computer Control Co., Inc. / C12
- Control Data Corp. / C12
- The Daven Co. / C12
- Donner Scientific Co. / C12
- Engineered Electronics Company / C12
- Ferranti Electric, Ltd. — see C10 / C12
- Ferranti, Ltd. / C12
- The Franklin Institute Lab. / C12
- General Electric Co., Computer Dept. / C12
- Hoover Electronics Co. — see C9 / C12
- Jefferson Electronic Products Corp. / C12
- Kay Electric Co. / C12
- Librascope, Inc. / C12
- Notifier Corp. / C12
- Ortho Filter Corp. / C12
- George A. Philbrick Researches, Inc. / C12
- Potter Instrument Co. / C12
- Rese Engineering, Inc. / C12
- Saunders & Co. / C12
- Southwestern Industrial Electronics Co. / C12
- Strand Engineering Co. / C12
- Stromberg-Carlson (West Coast) / C12
- Superex Electronics Corp. / C12
- Sylvania Electric Products, Inc., Sylvania Electronic Systems / C12
- Telectro Industries Corp. / C12
- The Walkirt Co. / C12
- Wayne-George Corp. / C12
- C13. Circuits, Potted**
- Aeronca Mfg. Co. / C13
- Airflyte Electronics Co. / C13
- Airtronics, Inc. / C13
- Avco Mfg. Corp.
- Centralab / C13
- Centronix Inc. / C13
- C G Electronics Corp. / C13
- Computer Control Co., Inc. / C13
- The Daven Co. / C13
- Digitronics Corp. / C13
- Epsco Components / C13
- FERRANTI ELECTRIC LTD., Industry St., Toronto, Ontario / potted circuits / DESCR: special potted assemblies of semiconductor circuits and subminiature magnetics / C13**
- The Franklin Institute Lab. / C13
- General Electric Co., Specialty Electronic Components Dept. / C13
- Gulton Industries, Inc. / C13
- Librascope, Inc. / C13
- Polyphase Instrument Co. / C13
- Southwestern Industrial Electronics Co. / C13
- Strand Engineering Co. / C13
- Stromberg-Carlson (West Coast) / C13
- Telectro Industries Corp. / C13
- The Walkirt Co. / C13
- Wayne-George Corp. / C13
- C14. Circuits, Printed**
- Airtronics, Inc. / C14
- American Printed Circuits Co. / C14
- Autonetics, Div. of North American Aviation, Inc. / C14
- Avco Mfg. Corp.
- Centralab / C14
- Centronix Inc. / C14
- C G Electronics Corp. / C14
- COMPTRON CORPORATION, 778 Pleasant St., Belmont 79, Mass. / transistorized digital computer component circuits / DESCR: a series of 7 different circuits consisting of flip-flops, amplifiers and recording circuitry made up on printed circuit plug-in cards / USE: cards may be assembled in various groupings to perform any computer or control functions desired / \$25 to \$75 / C14**
- Computer Control Co., Inc. / C14
- Consolidated Electrodynamics Corp. / C14
- Cornell-Dubilier Electric Corp. / C14
- Corning Glass Works, Electronic Component Dept. / C14
- Daystrom Inc., Daystrom Systems Div. / C14
- Donner Scientific Co. / C14
- Electralab Inc. / C14
- FERRANTI ELECTRIC LTD., Industry St., Toronto, Ontario / printed circuits / see C10. Standard blank boards are available for customer wiring / C14**
- Ferranti, Ltd. / C14
- General Electric Co., Computer Dept. / C14
- Gulton Industries, Inc. / C14
- HOOVER ELECTRONICS CO., Timonium, Md. / printed circuits / DESCR: printed conductors produced by silk screen or photo sensitive transfer of master design to copper clad laminate followed by ferric chloride etch and resist removal on single or double sided boards / USE: circuit connections / price varies with complexity of board / C14**

Librascope, Inc. / C14  
 Litton Industries, Components Div. / C14  
 Measurement Engineering Limited / C14  
 Mellon Institute of Industrial Research / C14  
 George A. Philbrick Researches, Inc. / C14  
 Potter Instrument Co. / C14  
 Saunders & Co. / C14  
 Societe d'Electronique et d'Automatisme / C14  
 Southwestern Industrial Electronics Co. / C14  
 Sprague Electric Co. / C14  
 Strand Engineering Co. / C14  
 Stromberg-Carlson, A Div. of General Dynamics Corp. / C14  
 Superex Electronics Corp. / C14  
 Sylvania Electric Products, Inc.  
   Sylvania Electronic Systems / C14  
 Techniques, Inc. / C14  
**C15. Clutches**  
 American Electronics, Inc. / C15  
 Computer Control Co., Inc. / C15  
 Digitronics Corp. / C15  
 Flight Research, Inc. / 15  
 Vickers Inc., Electric Products Div. / C15  
**C16. Clutches, Magnetic**  
 American Electronics, Inc. / C16  
 Analogue Controls, Inc. / C16  
 Erco Plant—Nuclear Products, Div. of ACF Industries / C16  
**FERRANTI ELECTRIC LTD., Industry St., Toronto, Ontario / magnetic clutches / DESCR: incorporated in high speed magnetic and paper tape handling equipments / C16**  
 Helipot Corp. / C16  
 Reeves Instrument Corp. / C16  
 Servo Corp. of America / C16  
 Vickers Inc., Electric Products Div. / C16  
**C17. Coatings**  
**FERRANTI ELECTRIC LTD., Industry St., Toronto 15, Ontario / coatings / DESCR: magnetic drums recoated and machined to specification / C17**  
**C18. Coatings, Conductive**  
 Acheson Colloids Co. / C18  
**C19. Coatings, Protective**  
 Gulton Industries, Inc. / C19  
**C20. Coatings, Salt Spray Resistant**  
 Gulton Industries, Inc. / C20  
**C21. Coils, Computer Types**  
 Advanced Electronics, Inc. / C21  
 Allied Control Co. / C21  
 Cambridge Thermionic Corp. / C21  
 Celco / C21  
 Coilcraft, Inc. / C21  
 Comar Electric Co. / C21  
 Control Data Corp. / C21  
 Electronic Transformer Co., Inc. / C21  
 El-Rad Mfg. Co. / C21  
 Epsco Components / C21  
 Gulton Industries, Inc. / C21  
 Johnson Electronics Inc. / C21  
 National Moldite Co. / C21  
 Polyphase Instrument Co. / C21  
 Superex Electronics Corp. / C21  
 Sylvania Electric Products, Inc.,  
   Sylvania Electronic Systems / C21  
 Technitrol Engineering Co. / C21

Valor Electronics Inc. / C21  
 Waters Mfg. Inc. / C21  
 Wheeler Electronic Corp., Sub. of Sperry Rand Corp. / C21  
**C22. Communications System (Computer Types)**  
 Avco Mfg. Corp. / C22  
 Bowmar Instrument Corp. / C22  
 Computer Engineering Associates, Inc. / C22  
 Control Data Corp. / C22  
 Corbin Corp. / C22  
**FERRANTI ELECTRIC LTD., Industry St., Toronto 15, Ontario / communication Systems / DESCR: JANET Meteor trail communication systems. Terminal equipment for data handling on telephone and telegraph communication links. Special purpose communication systems developed for particular applications, including error detecting and error correcting equipment / C22**  
**THE GEOTECHNICAL CORP., 3712 Haggard Dr., Dallas 9, Tex. / communications systems / DESCR: accurate and dependable multiplexing and demodulating equipment for long distance FM telemetering of multichannel analog data over leased wire and microwave circuits for remote measuring, recording, computing, and simulating / USE: multiplexing many channels of analog data over one transmission circuit for long distance recording and computing / price depends on number of channels desired / C22**  
 Kellogg Switchboard & Supply Co. / C22  
 National Co., Inc. / C22  
 Packard Bell Computer Corp. / C22  
 Raytheon Manufacturing Co. / C22  
 Servo Corp. of America / C22  
 Smith-Corona, Inc. / C22  
 Southwestern Industrial Electronics Co. / C22  
 The Standard Electric Time Co. / C22  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / C22  
 Sylvania Electric Products, Inc.,  
   Sylvania Electronic Systems / C22  
 Tele-Dynamics / C22  
 The Thompson-Ramo-Wooldridge Products Co. / C22  
**C22A. Computers**  
 American Electronic Labs. / C22A  
 Automation Management, Inc. / C22A  
**AUTONETICS, a Div. of No. American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / General purpose computers; fire control systems / C22A**  
 Electronic Contractors, Inc. / C22A  
 Electronic Research Associates / C22A  
 Fischer & Porter Co. / C22A  
 The Reflectone Corp. / C2A  
**REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP., 315 4th Ave., New York 10, N. Y. / Analog computers; special purpose computers / C22A**  
 Seismograph Service Corp.—see C23 / C22A  
**C23. Computers, Analog**  
 Aero Electronics Co. / C23  
 Aeronca Mfg. Corp. / C23

Aeronutronic Systems Inc. / C23  
 Ahrendt Instrument Co. / C23  
 Aircraft Armaments, Inc. / C23  
 Allied Engineering Div. / C23  
 American Electronics Co. / C23  
 American Hydromath Corp. / C23  
 Analogue Controls, Inc. / C23  
 Applied Science Corp. of Princeton / C23  
 Arma Div., American Bosch Arma Corp. / C23  
 Armour Research Foundation / C23  
 Atlas Precision Products Co. / C23  
 Automation Research & Design Associates / C23  
 Autonetics, Div. of North American Aviation, Inc. / C23  
 Avion Division of ACF, Erco Div. / C23  
**BECKMAN INSTRUMENTS, INC., BERKELEY DIV., 2200 Wright Ave., Richmond 3, Calif. / EASE Analog Computer Electronic Analog Simulating Equipment) / DESCR: Analog computers ranging from standard models to special purpose units including completely automatic punched tape setup systems with automatic and printed readout / USE: Simulation of: actual physical systems; process control; test problems; solution of mathematical expressions; special applications / — / C23**  
 Bendix Aviation Corp., Bendix Computer Division / C23  
 Bendix Aviation Corp., Eclipse-Pioneer Div. / C23  
 Bendix Aviation Corp., Research Laboratories Div. / C23  
 Bowmar Instrument Corp. / C23  
 Burlingame Associates, Ltd. / C23  
 Canadian Applied Research Ltd. / C23  
 Centronix Inc. / C23  
 Century Engineers, Inc. / C23  
 C G Electronics Corp. / C23  
 Computer Engineering Associates, Inc. / C23  
 Computing Devices of Canada, Ltd. / C23  
 Consolidated Diesel Electric Corp. / C23  
 Control Instrument Co. / C23  
 Corbin Corp. / C23  
 Daystrom Instrument Co. / C23  
**DIAN LABORATORIES, INC., 611 Broadway, New York 12, N. Y. / Computers, Analog / High precision general purpose analog computing systems — simulators — trainers / USE: computing, simulating, training, testing / C23**  
 Donner Scientific Co. / C23  
 Dorsett Laboratories, Inc. / C23  
 Electronic Associates, Inc. / C23  
 Elliott Bros. / C23  
 Epsco, Inc. / C23  
 Erco Plant—Nuclear Products, Div. of ACF Industries / C23  
 Farrand Optical Co. / C23  
 Feedback Controls, Inc. / C23  
**FERRANTI ELECTRIC LTD., Industry St., Toronto, Ontario / analog computers / DESCR: atomic reactor control and simulation. Custom-engineered analog computers / C23**  
 Ford Instrument Co., Div. of Sperry Rand Corp. / C23  
 The Foxboro Co. / C23  
 The Franklin Institute Lab. / C23  
 General Automatics, Inc. / C23

- General Electric Co., Computer Dept. / C23
- General Electric, Light Military Electronic Equip. Dept. / C23
- THE GEOTECHNICAL CORP.**, 3712 Haggard Drive, Dallas 9, Tex. / analog and digital computers / DESCR: special and custom analog and digital computers produced to customer's requirements, which may also be remotely operated with Geotech Analog Data FM Telemetry Systems for remote computing, simulating, and return of reduced control or output data / USE: special and custom analog and digital computers produced to customer's requirements with additional remotoring capabilities for computer or simulating services / price depends on customer's requirements / C23
- Goodyear Aircraft Corp. / C23
- Hall-Scott, Inc. / C23
- Heath Co. / C23
- Hughes Aircraft Co. / C23
- Instrument Development Labs., Inc. / C23
- Bill Jack Scientific Instrument Co. / C23
- Jet Propulsion Lab. / C23
- Kearfott Co., Inc. / C23
- George F. Kelk, Ltd. / C23
- Kelt Corporation / C23
- Laboratory for Electronics, Inc. / C23
- Leeds & Northrup Co. / C23
- Harry Levinson Co. / C23
- Librascope, Inc. / C23
- Link Aviation, Inc. / C23
- Litton Industries, Inc. / C23
- Mack Electronics / C23
- The Magnavox Co. / C23
- The W. L. Maxson Corp. / C23
- Mid-Century Instrumatic Corp. / C23
- Minneapolis-Honeywell Regulator Co. / C23
- Otis Elevator Co., Electronic Div. / C23
- National Bureau of Standards, Data Processing Systems Div. / C23
- Norden-Ketay Corp. / C23
- Northrop Aircraft Inc. / C23
- The Perkin-Elmer Corp. / C23
- GEORGE A. PHILBRICK RESEARCHES, INC.**, 230 Congress St., Boston 10, Mass. / Philbrick electronic analog computing equipment and components / C23
- Philips Electronics, Inc., Instruments Div. / C23
- The Rand Corp. / C23
- J. B. Rea Co., Inc. / C23
- Reeves Instrument Corp. / C23
- The Reflectone Corp. / C23
- Sanborn Co. / C23
- SEISMOGRAPH SERVICE CORPORATION**, P. O. Box 1590, Tulsa, Okla. / Optical analog gravity computers\*. Dip Plotters\*\*. Central office seismic playback systems\*\*\*. Reflection simulators and automatic oscillograph trace-curve followers. Geophysical consulting services / USE: in geophysical operations / \*\*\$2,000; \*\*\*\$7,000; \*\*\*\*\$100,000 / C23
- Seismograph Service Corp.—see C27 / C23
- Servo Corp. of America / C23
- Servomechanisms Inc. / C23
- Short Bros. & Harland Ltd. / C23
- Societe d'Electronique et d'Automatisme / C23
- Southwestern Industrial Electronics Co. / C23
- The Standard Electric Time Co. / C23
- Stanford Research Institute / C23
- Sterling Precision Corp. / C23
- Strand Engineering Co. / C23
- Stromberg-Carlson, a Div. of General Dynamics Corp. / C23
- Tammen / Denison, Inc. — see C27 / C23
- Trio Laboratories, Inc. / C23
- Univ. of Sydney, Australia / C23
- Waldorf Instrument Corp. / C23
- West Coast Electronics Co. / C23
- Westinghouse Electric Corp., Air Arm Division / C23
- Westronics, Inc. / C23
- C24. Computers, Digital**
- Aeronca Mfg. Corp. / C24
- Aeronutronic Systems Inc. / C24
- Aircraft Armaments, Inc. / C24
- Allied Engineering Div. / C24
- Alwac Computer Div., El-Tronics Inc. / C24
- American Electronics, Inc. / C24
- Argonne National Laboratory / C24
- Armour Research Foundation / C24
- Automation Research & Design Associates / C24
- AUTONETICS**, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / RECOMP II, portable, general purpose, transistorized digital computer / DESCR: serial, single address, internally stored program computer with 4096 word (40 bit) magnetic disk memory. Has built-in floating point, and 50 instruction command list. Alpha-numeric input-output through paper tape and typewriter. / USE: general computational work for industrial, engineering, scientific and business type applications. / \$80,500 / C24
- Avco Mfg. Corp. / C24
- Avion Div., ACF Industries / C24
- Bell Punch Co., Ltd. / C24
- BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP.**, 5630 Arbor Vitae St., Los Angeles 45, Calif. / G-15 general purpose digital computer / DESCR: low-cost, internally programmed. Complete line of input-output equipment as well as digital differential analyzer accessory. Variety of programming systems for users with any amount of experience. / USE: scientific, engineering and business computing and data processing / Domestic sale price \$49,500, lease \$1485/Mo. / C24
- Bendix Computer Division, Bendix Aviation Corp. — see D6 / C24
- Bendix Aviation Corp., Eclipse-Pioneer Div. / C24
- Bendix Aviation Corp., Research Laboratories Div. / C24
- Bowmar Instrument Corp. / C24
- The British Tabulating Machine Co., Ltd. / C24
- BURROUGHS CORP., ELECTRODATA DIVISION**, 460 Sierra Madre Villa, Pasadena, Calif. / Burroughs E101 desk size electronic digital computer / DESCR: 220-word magnetic drum memory; 11-column full keyboard; optional paper tape input unit; output on roll-documents, ledger forms, paper tape / USE: commercial applications, scientific, engineering computation / \$38,500 approx. or lease with option to buy / C24
- BURROUGHS CORP., ELECTRODATA DIVISION**, 460 Sierra Madre Villa, Pasadena, Calif. / Burroughs 205 automatic digital computer and auxiliary electronic data processing machines / DESCR: 4,000 words magnetic drum storage, 80 additional words quick-access drum storage; 10 decimal digits and sign; paper tape, CARDATRON complete alpha-numeric punch card operation, Single or DATAFILE multiple magnetic tape units; range 400,000 to 2,000,000 words auxiliary storage per unit / USE: business applications, mathematical, scientific, engineering computation / \$140,000 to \$250,000 approx. or lease with option to buy / C24
- BURROUGHS CORP., ELECTRODATA DIVISION**, 460 Sierra Madre Villa, Pasadena, Calif. / Burroughs 220 automatic digital computer and auxiliary electronic data processing machines / DESCR: Expandable magnetic core storage of 2,000 to 10,000 computer words (10 decimal digits and sign); Paper Tape subsystem; CARDATRON full alphabetic, alphanumeric and special-character punched card subsystem; single and multiple DATAFILE magnetic tape subsystem (50,000,000 words auxiliary storage); 93-command programming structure / USE: commercial applications, mathematical, scientific, engineering computation / \$375,000 to \$600,000 approx. or lease with option to buy / C24
- Centronix Inc. / C24
- Century Engineers, Inc. / C24
- C G Electronics Corp. / C24
- Clary Corp. / C24
- Collins Radio Co. / C24
- Computer Control Co., Inc. / C24
- Computing Devices of Canada Ltd. / C24
- Consolidated Diesel Electric Corp. / C24
- Control Data Corp. / C24
- Control Instrument Co. / C24
- Corbin Corp. / C24
- Cubic Corporation / C24
- DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO.**, 151 Needham St., Newton Highlands 61, Mass. / DATAmatic 1000 Electronic Data Processing System / DESCR: general purpose electronic data processing system consisting of high-speed, off-line input and output conversion sections, high-capacity magnetic filing section utilizing 3-inch-wide magnetic tape and a central processing section consisting of input-output buffers, a high-speed magnetic core memory, arithmetic and control units and a central console / USE: all types of general accounting and business data processing operations, and general scientific applications / Monthly rental \$21,500 and up. Selling price \$985,000 and up / C24



Daystrom Inc., Daystrom Systems Div. / C24

Daystrom Instrument Co. / C24

Digitronics Corp. / C24

Educational Research Corp. / C24

Electrologica N.V. / C24

Elliott Bros. / C24

The English Electric Company Ltd. / C24

**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / digital computers / DESCR: PEGASUS Computer: high-speed, medium-size, digital computer (5 x 10<sup>4</sup> decimal digit storage); primarily intended for industrial and commercial applications. MERCURY Computer: very high-speed, large-size (up to 6 x 10<sup>7</sup> decimal digit magnetic core and magnetic drum storage); suitable for most industrial and scientific applications. PERSEUS Computer: high-speed digital computer specifically designed for commercial work; includes nickel delay line (27,648 bits) and magnetic tape (1.7 x 10<sup>7</sup> bits per reel) storage. Custom-engineered general purpose digital computers. Route reference and table readings systems for postal or general uses. Games playing computers for solution of logical problems and for instructional purposes / C24

Ford Instrument Co., Div. of Sperry Rand Corp. / C24

The Franklin Institute Lab. / C24

General Automatics, Inc. / C24

General Electric Co., Computer Dept. / C24

General Electric, Light Military Electronic Equip. Dept. / C24

The Geotechnical Corp. — see C23 / C24

Haller Raymond & Brown, Inc. / C24

**HARVEY WELLS ELECTRONICS, INC.**, Research and Development Div., 5168 Washington St., W. Roxbury, Mass. / Digital products, instrumentation activity and custom contract development / DESCR: Data bloc and data pac system (5 Mc pluggable logic modules for for large or small scale digital systems) Data bloc has front panel connectors on block diagrams for rapidly setting up special test equipment and logic arrangements. Data pac is permanent equipment equivalents. / \$68 to \$200 per module / C24

Hoover Electronics Co. / C24

Hughes Aircraft Co. / C24

Imperial College / C24

Institut Blaise Pascal / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, 590 Madison Ave., New York 22, N. Y. / IBM 610 Automatic Decimal Point Computer / DESCR: completely contained, mobile computer, consisting of keyboard, typewriter and main console. Input is from paper tape or keyboard. Output onto typewriter, tape, or cathode ray tube. May be programmed manually from the keyboard, and/or from two tape units, and/or from control panel. Major design consideration is programming ease / USE: designed to be used by engineers and scientists on problems in which programming time and effort

is a critical factor / Purchase option available. Sales Price, \$55,000. Rental, \$1,150 per month / C24

International Business Machines Corp. — see D1 / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, DATA PROCESSING DIV., 112 E. Post Rd., White Plains, N. Y. / IBM 705-III Electronic Data Processing System / DESCR: Includes ultra high-speed tape unit, IBM 729 Model 3, which can write at rate of 60,000 characters per second, automatically checking validity and readability. Includes IBM 767 Data Synchronizer which controls magnetic tape input and output so that computer can read problem data, compute, and write answers simultaneously. Includes 40,000 position magnetic core memory, which can be enlarged to 80,000 positions by use of additional core storage. / USE: primarily business problems / monthly rental, \$35,000 a month and up; selling price, \$1,925,000 and up. All prices exclusive of tax / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, DATA PROCESSING DIV., \*a / IBM 705 Electronic Data Processing System / DESCR: large scale data processing system made up of inter-connected units. 20,000 positions of magnetic core "memory." Magnetic drums and magnetic tapes for additional storage. 8,400 additions or 1,250 multiplications per second. Optionally available: 40,000 positions of magnetic core storage also. / USE: Primarily business problems. / Monthly rental for an average system, \$38,500 and up. Selling price for an average system, \$1,713,000 and up. All prices exclusive of Federal excise tax / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, DATA PROCESSING DIV., \*a / IBM 604 Electronic Calculating Punch / DESCR: general purpose computer consisting of the 1400 tube 604 electronic calculating unit and a 521 punching unit. Reads problem data from IBM punched cards at a constant speed of 6,000 cards per hour and can go through as many as 60 separate steps to obtain the solution of a single problem / USE: science, engineering, business / Monthly rental, \$550; selling price, \$27,454. All prices exclusive of Federal excise tax / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, DATA PROCESSING DIV., \*a / IBM 709 Electronic Data Processing System / DESCR: large scale data processing system made up of inter-connected units. It can perform up to 42,000 additions or subtractions, or 5,000 multiplications or divisions, each second. The 709's magnetic core storage has a capacity of over 327,000 decimal digits. A Data Synchronizer which permits the system to read, write, and calculate simultaneously also is incorporated. The 709's tape units permit information being

written on magnetic tape to be automatically checked for accuracy during the writing process / USE: commercial, scientific, engineering problems / Monthly rental for an average system, \$55,200 and up. Selling price for an average system, \$2,630,000 and up. All prices exclusive of Federal excise tax / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, DATA PROCESSING DIV., \*a IBM 305 RAMAC (Random Access Method of Accounting and Control) / DESCR: principal components are: disk memory unit, printer, card punch, power unit, processing unit, and console. Heart of the system is the disk memory unit which consists of 50 magnetic metal disks. Data is entered onto or extracted from the disks by a rapidly-moving access arm. The disk memory has a storage capacity of 5-million digits. The 305 has arithmetical and logical processing ability, punched card input, and both punched card and printed output. / USE: continuous, or "in-line" accounting, for all types of business accounting. / Monthly rental, \$3,200. Selling price, \$189,950. All prices exclusive of tax. / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, DATA PROCESSING DIV., \*a / IBM 608 Transistor Calculator. / DESCR: uses transistors in place of vacuum tubes which makes possible a 50% reduction in computer-unit size and a 90% reduction in power requirements over a comparable IBM vacuum tube model calculator. The 608 can perform 4,500 additions a second. Its internal storage is made up of magnetic cores / USE: for commercial and scientific problems / monthly rental, \$2,250. Selling price, \$118,900. All prices exclusive of tax / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, DATA PROCESSING DIV., \*a / IBM 607 Electronic Calculator / DESCR: a larger version of the IBM 604 which is able to perform and check 14,000 computing operations a minute. The 607's memory capacity makes it possible to use intermediate calculated results as well as original data in solving a problem / USE: the 607 is used to handle in one operation the majority of commercial or scientific calculations ordinarily requiring multiple machine operations / Monthly rental, \$800-950. Selling price, \$37,500-\$42,000. All prices exclusive of tax. / C24

**INTERNATIONAL BUSINESS MACHINES CORP.**, DATA PROCESSING DIV., \*a / IBM 650 Data Processing System / DESCR: the units of the basic 650 are: a Console Unit which contains the magnetic drum, a Calculating Unit and Control Console, a Card Read Punch with which information is entered or extracted in punched card form, and a Power Unit. Up to 20,000 alphanumeric characters of storage for data and operating instructions are

- available with the basic 650. Additional units can be incorporated into a 650 system to provide magnetic tape input and output, printer output, magnetic core storage, and disk storage with random access and direct interrogation (IBM 650 RAMAC) / USE: the 650 is a general purpose data processing system which is used for commercial and scientific computing problems / Rental price, \$3,750 a month and up. Selling price, \$182,400 and up. All prices exclusive of tax / C24
- INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIV., \*a / IBM 704 Electronic Data Processing System / DESCR: large scale data processing system made up of inter-connected units. The heart of the 704 system is its high-speed magnetic core storage. Any word in core storage can be located and put into use in a few millionths of a second. Core storage is supplemented by magnetic drums and magnetic tapes. The 704 can perform 40,000 additions or subtractions or 5,000 multiplications or divisions of ten-digit numbers in one second / USE: primarily for solving complex scientific and engineering problems / Monthly rental for an average system, \$44,000 and up. Selling price for an average system, \$1,994,000 and up. All prices exclusive of Federal excise tax / C24
- Jacobs Instrument Co. / C24  
 Jet Propulsion Lab. / C24  
 Kearfott Co., Inc. / C24  
 Kellogg Switchboard & Supply Co. / C24  
 Laboratory for Electronics, Computer Products Div. — see I2 / C24  
 Laboratory for Electronics, Inc., Computer Products Div. — see D12 / C24  
 LIBRASCOPE INC., 808 Western Ave., Glendale, Calif. / LGP-30 and other digital and analog computers / DESCR: the LGP-30 is a general purpose computer with a magnetic drum memory of 4096 words, and is sold by Royal-McBee Corp. / USE: scientific computing / — / C24  
 Litton Industries, Inc. / C24  
 Mack Electronics / C24  
 The Magnavox Co. / C24  
 Minneapolis-Honeywell Regulator Co. / C24  
 MONROE CALCULATING MACHINE CO., Electronics Div., Morris Plains, N. J. / Monrobot IX (Invoice Machine) / DESCR: an economic, high-speed electronic computer designed for invoice processing / USE: for handling simple and complex accounting applications encountered in both small and large companies / approx. \$7500 / C24  
 National Bureau of Standards, Data Processing Systems Div. / C24  
 THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / NCR 304 electronic data processing system / DESCR: transistorized magnetic tape data processor with 20,000 to 40,000 characters of magnetic core storage / USE: general-purpose business use / rental, \$17,000 and up per month; purchase, \$750,000 and up / C24  
 Non-Linear Systems Inc. / C24  
 Northrop Aircraft Inc. / C24  
 Oerlikon Tool & Arms Corp. of America / C24  
 Packard Bell Computer Corp. / C24  
 PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV., 4700 Wissahickon Ave., Philadelphia 44, Pa. / Transac C-series / DESCR: airborne, high-speed general purpose digital computer for system control (completely transistorized drum; core memory) / USE: fire control, cruise control, navigation, flight control / \$100,000 up / C24  
 Philco Corp., Govt. & Ind'l. Div. — see D1 / C24  
 RADIO CORP. OF AMERICA, ELECTRONIC DATA PROCESSING DIV., Camden, N. J. / electronic data processing systems / DESCR: a completely new development — transistor design, compact, reliable, easily and economically expandable, extremely low installation and operating costs / USE: general purpose business data processing / \$600,000 up / C24  
 THE RAMO-WOOLDRIDGE CORP., 5500 West El Segundo Blvd., Los Angeles 45, Calif. / R-W 300 digital process control computer / DESCR: digital computer designed specifically for automatic on-line process control and data logging in petroleum refining, chemical manufacturing, and other process industries, also for automatic test control and data reduction in aircraft, missile, and electronic industries / USE: industrial process control, automatic test control, data logging, and data reduction / — / C24  
 The Rand Corp. / C24  
 Ransom Research / C24  
 J. B. Rea Co., Inc. / C24  
 REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP., 315 4th Ave., New York 10, N. Y. / The Univac System and Univac II / DESCR: large scale general purpose digital electronic computing system: built-in self-checking features; employs a single address system and 1000 words of mercury delay line storage in Univac I; 2,000 up to 10,000 words of magnetic-core storage in univac II; magnetic tape units provide supplementary storage and fast input-output facilities; operate on stored programs employing 63 instructions and 45 different arithmetic and logical operations; auxiliary equipment for data conversion; processed data put out in printed form, punched cards, or punched tape / USE: scientific, commercial, business, industrial, government, etc. / — / C24  
 REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP., \*a / Univac Scientific Computer Model 1103A / DESCR: general purpose digital computer, two address logic, large storage capacity, high operating speed, versatile programming; 16,384 magnetic-drum registers, 4096 magnetic-core registers; all registers individually addressed, directly accessible; internally stored programs capable of self-modification; 41 different arithmetic and logical operations; parallel computation on words of 36 binary digits; optional features and equipment are; floating-point, additional magnetic-core storage for 12,288 words, ten magnetic-tape units with variable format feature for supplementary storage and input-output, 600 line a minute printer, off-line and on-line operation / USE: scientific, engineering, computing / \$895,000; available on rental basis approximately \$21,000 a month / C24  
 REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP., \*a / Univac File-Computer Systems / DESCR: capacity of 1,800,000 digits or characters of internal storage file information; up to 31 input-output devices may be connected to the system for simultaneous "on-line" service; programming may be done externally by a changeable control panel; internally by stored program or a combination; external program is non-sequential; magnetic drum general storage unit for data, program step instructions, or both; random access type, 2 size drums available / USE: commercial accounting purposes with large amounts of data but relatively short computations / \$2085 to \$17,000 monthly rental; \$125,000 to \$1,020,000 sale; prices subject to tax / C24  
 ROYAL McBEE CORP., Westchester Ave., Port Chester, N. Y. / Royal Precision Electronic Computer LGP-30 / DESCR: A serial, single address, fixed point, stored program, digital computer / USE: Data processing problems in business, industry and government. / \$49,500. Rental \$1100 monthly / C24  
 Servo Corp. of America / C24  
 Servomechanisms Inc. / C24  
 Societe d'Electronique et d'Automatisme / C24  
 Southwestern Industrial Electronics Co. / C24  
 Stanford Research Institute / C24  
 Strand Engineering Co. / C24  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / C24  
 Sutherland Co. / C24  
 SYLVANIA ELECTRONIC SYSTEMS, a Div. of Sylvania Electric Products Inc. 100 First Ave., Waltham 54, Mass. / large electronic digital computers on contract / C24  
 Taller and Cooper / C24  
 Technitrol Engineering Co. / C24  
 The Thompson-Ramo-Wooldridge Products Co. / C24  
 Victor Adding Machine Co. / C24  
 Waldorf Instrument Corp. / C24  
 Wayne-George Corp. / C24  
 Westinghouse Electric Corp., Air Arm Division / C24  
 Westronics, Inc. / C24  
 Zuse Kommandit-Gesellschaft / C24  
 C24A. Computers, Special Purpose  
 Automatic Signal Division, Eastern Industries, Inc. / C24A

- Burroughs Corp., Electrodata Division / C24A  
 Computing Devices of Canada Ltd. / C24A  
 Data Systems Div., Norden-Ketay Corp. / 24A  
 Dian Laboratories / C24A  
 Electronic Contractors, Inc. / C24A  
 Electronic Control Systems, Inc. / C24A  
 Electronic Noise Generator Co. / C24A  
 Engineers Northwest / C24A  
 The English Electric Company Ltd. / C24A  
 General Automatics, Inc. / C24A  
 General Electric, Light Military Electronic Equip. Dept. / C24A  
 The Gerber Scientific Instrument Co. / C24A  
 Goodyear Aircraft Corp. / C24A  
 Haller Raymond & Brown, Inc. / C24A  
 Instrument Development Labs., Inc. / C24A  
 New London Instrument Co., Inc. / C24A  
 Pennsylvania State University, X-Ray and Crystal Structure Lab. / C24A  
 Remington Rand Univac Division, Sperry Rand Corp. / C24A  
 Seismograph Service Corp. / C24A  
 Short Brothers & Harland Ltd. / C24A  
 The Standard Electric Time Co. / C24A  
 Strandberg Engineering Lab., Inc. / C24A  
 Tammen and Denison, Inc. / C24A  
 Teleregister Corp. / C24A  
 U.S. Navy, Office of Naval Research, Special Devices Center / C24A  
 Vectron, Inc. / C24A  
 The George Washington University / C24A  
 The George Washington Univ., Logistics Research Project / C24A  
 Weems System of Navigation / C24A
- C25. Computers, Test Equipment**  
 Aero Electronics Co. / C25  
 Aeronca Mfg. Corp. / C25  
 Arenberg Ultrasonic Laboratory, Inc. / C25  
 Betz Electric Corp., Div. of Sorensen & Co. — see P8 / C25  
 Bowmar Instrument Corp. / C25  
 California Technical Industries / C25  
 Canadian Applied Research Ltd. / C25  
 C G Electronics Corp. / C25  
 Computer Control Co., Inc. / C25  
 Computer Engineering Associates, Inc. / C25  
 Computer-Measurements Corp. / C25  
 Consolidated Avionics Corp. / C25  
 Control Data Corp. / C25  
 Cornell-Dubilier Electric Corp. / C25  
 Daystrom Inc., Daystrom Systems Div. / C25  
 Digital Equipment Corp. / C25  
 Digitronics Corp. / C25  
 DIT-MCO Inc. / C25  
 Electro-Measurements, Inc. / C25  
 Epsco, Inc. / C25  
 Feedback Controls, Inc. / C25  
**FERRANTI ELECTRIC LTD.,** Industry St., Toronto, Ontario / computer test equipment / DESCR: two-phase oscillators for checking operational amplifiers and servo systems (0.1 cps or lower). Magnetic drum test equipment for signal generation and reading. Message simulators. Special test jigs for packaged circuits. Delay line test equipment / C25  
 Ford Instrument Co., Div. of Sperry Rand Corp. / C25  
**HARVEY WELLS ELECTRONICS, INC.,** Research and Development Div., 5168 Washington St., W. Roxbury, Mass. / Digital products, instrumentation activity and custom contract development / DESCR: Data bloc and data pac system (5 Mc pluggable logic modules for large or small scale digital systems) / USE: Data bloc has front panel connectors on block diagrams for rapidly setting up special test equipment and logic arrangements. Data pac is permanent equipment equivalents. / \$68 to \$200 per module / C25  
 Kay Electric Co. / C25  
 Librascope, Inc. / C25  
 Link Aviation, Inc. / C25  
 Mid-Century Instrumatic Corp. / C25  
 Minneapolis-Honeywell Regulator Co. / C25  
 The Ramo-Wooldridge Corp. — see C24  
 Reeves Instrument Corp. / C25  
 Rese Engineering, Inc. / C25  
 Servo Corp. of America / C25  
 Societe d'Electronique et d'Automatisme / C25  
 Southwestern Industrial Electronics Co. / C25  
 Statistics Instrument Co. / C25  
 Strand Engineering Co. / C25  
 Trio Laboratories, Inc. / C25  
 Westinghouse Electric Corp., Air Arm Division / C25
- C26. Computer Components**  
 Aeronca Mfg. Co. / C26  
 Ahrendt Instrument Co. / C26  
 Airtronics, Inc. / C26  
 Alwac Computer Div., El-Tronics, Inc. / C26  
 Baird-Atomic Co. / C26  
 Beckman Instruments, Berkeley Div. / C26  
 Bendix Aviation Corp., Eclipse-Pioneer Div. / C26  
 Bendix Aviation Corp., Pacific Div. / C26  
 Bendix Aviation Corp., Research Laboratories Div. / C26  
 Berkshire Laboratories, / C26  
 Bowmar Instrument Corp. / C26  
 The Bristol Company / C26  
**BRYANT GAGE & SPINDLE DIVI, SION, A DIVISION OF BRYANT CHUCKING GRINDER CO.,** 360 Clinton Ave., Springfield, Vt. / memory drums / C26  
 Burlingame Associates, Ltd. / C26  
 Burroughs Corporation / C26  
 Burroughs Corporation, ElectroData Div. / C26  
 C G Electronics Corp. / C26  
 Cinch Manufacturing Corp. / C26  
 Coilcraft, Inc. / C26  
**COMPTRON CORPORATION,** 778 Pleasant St., Belmont 79, Mass. / transistorized digital computer component circuits / DESCR: a series of 7 different circuits consisting of flip-flops, amplifiers and recording circuitry made up on printed circuit plug-in cards / USE: cards may be assembled in various groupings to perform any computer or control functions desired / \$25 to \$75 / C26  
 Computer Control Co., Inc. / C26  
 Computer Engineering Associates, Inc. / C26  
 Computing Devices of Canada, Ltd. / C26  
 Control Electronics Co., Inc. — see D3 / C26  
 Control Instrument Co. / C26  
 Cornell-Dubilier Electric Corp. / C26  
 Corning Glass Works, Electronic Components Dept. / C26  
 Dale Products, Inc. / C26  
 The Daven Co. / C26  
 Digitronics Corp. / C26  
 Donner Scientific Co. / C26  
**THOMAS A. EDISON INDUSTRIES, INSTRUMENT DIVISION** MCGRAW-EDISON CO., 36 Lakeside Ave., West Orange, N. J. / rotary components and relays / DESCR: rotary servo-synchro components, gear heads, magnetic heads, sensitive D.C. relays, time delay relays, thermostats and other components for computers. Separately or as complete packaged miniaturized computers of Edison manufactured components. Complete laboratory, engineering and manufacturing facilities available to design and manufacture complete systems / USE: in missile and aircraft guidance and computer systems / \$400 to \$1200 depending on system required / C26  
 EECO Production Co. / C26  
 Electro-Measurements, Inc. / C26  
 Electronic Associates, Inc. / C26  
 Epsco, Inc. / C26  
 Federal Telephone and Radio Co. / C26  
**FERRANTI ELECTRIC, LTD.,** Industry St., Toronto, Ontario / computer components / DESCR: card files. Plug-in standard circuit modules (tube and semiconductor). Magnetic drums. Transistor regulated power supplies, temperature compensated / C26  
 Ford Instrument Co., Div. of Sperry Rand Corp. / C26  
 General Electric Co., Computer Dept. / C26  
 General Electric Co., Rectifier Dept. — see P8 / C26  
 General Transistor Corp. / C26  
 Genisco, Inc. / C26  
**THE GEOTECHNICAL CORP.,** 3712 Haggard Drive, Dallas 9, Tex. / special designs of digital and analog computers; automatic chart readers / — / C26  
 Guardian Electric Mfg. Co. / C26  
 Gulton Industries, Inc. / C26  
 Hall-Scott, Inc. / C26  
**HARVEY WELLS ELECTRONICS, INC.,** Research and Development Div., 5168 Washington St., W. Roxbury, Mass. / Digital products, instrumentation activity and custom contract development / DESCR: Data bloc and data pac system (5 Mc pluggable logic modules for large or small scale digital systems) / USE: Data bloc has front panel connectors on block diagrams for rapidly setting up special test equipment and logic arrangements. Data pac is permanent equipment equivalents. / \$68 to \$200 per module / C26  
 Intelligent Machines Research Corp. / C26  
 International Resistance Co. / C26  
 Johnson Electronics Inc. / C26  
 Laboratory for Electronics, Inc., Computer Products Div. — see D12 / C26

- Laboratory for Electronics, Computer Products Div. — see 12 / C26  
 Laboratory for Electronics, Computer Products Div. — see VI / C26  
 Librascope, Inc. / C26  
 Littlefuse, Inc. / C26  
 Magnetics Research Co. / C26  
 Metron Corp. / C26  
 Mid-Century Instrumatic Corp. / C26  
 Minneapolis-Honeywell Regulator Co., Industrial Division / C26  
 National Bureau of Standards, Data Processing Systems Div. / C26  
 Non-Linear Systems, Inc. / C26  
 Norden-Ketay Corp. / C26  
 Norton Associates, Inc. — see H1 / C26  
 Ortho Filter Corp. / C26  
 GEORGE A. PHILBRICK RESEARCHES, INC., 230 Congress St., Boston 10, Mass. / Philbrick electronic analog computing equipment and components / C26  
 Plastic Capacitors, Inc. / C26  
 Potter Instrument Co., Inc. — see P10  
 Radio Corp. of America, Electron Tube Div. / C26  
 RADIO CORP. OF AMERICA, SEMI-CONDUCTOR & MATERIALS DIV., Somerville, N. J. / Computer components / ferrite memory cores, transfluxors, custom-built memory planes, aperatured ferrite memory plates, relays / C26  
 Raytheon Mfg. Co. / C26  
 Reeves Instrument Corp. / C26  
 Sangamo Electric Co. / C26  
 Saunders & Co. / C26  
 Shallcross Mfg. Co. / C26  
 F. W. Sickles Division, General Instrument Corp. / C26  
 Soroban Engineering, Inc. / C26  
 Sterling Precision Corp. / C26  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / C26  
 Superex Electronics Corp. / C26  
 Sylvania Electric Products, Inc. / C26  
 SYLVANIA' ELECTRONIC SYSTEMS, A DIV. OF SYLVANIA ELECTRIC PRODUCTS INC., 100 First Ave., Waltham, Mass. / Computer Components / C26  
 Technitrol Engineering Co. / C26  
 Transiron Electronic Corp. / C26  
 United Mineral & Chemical Corp. / C26  
 The Walkirt Co. / C26  
 Westinghouse Electric Corp., Air Arm Division / C26  
 Wiancko Engineering Co. / C26
- C27. Computing Services**  
 Actuarial Computing Service, Inc. / C27  
 AEC Computing Facility, Institute of Mathematical Sciences / C27  
 American Machine & Foundry Co., Computation Center / C27  
 Armour Research Foundation / C27  
 Askania Regulator Co. / C27  
 Bendix Computer Division, Bendix Aviation Corp. — see C28 / C27  
 Berkeley Division, Beckman Instruments, Inc. / C27  
 Birkbeck College, University of London / C27  
 The British Tabulating Machine Co., Ltd. / C27  
 Brown University, Div. of Applied Mathematics / C27  
 Bureau of the Census / C27  
 BURROUGHS CORP., ELECTRODATA DIVISION, 460 Sierra Madre Villa, Pasadena, Calif. / computing service, contract computing / DESCR: problem analysis, programming, coding and running of problems on Burroughs electronic data processing machines / USE: customer may do own programming, coding, or turn over problem and data to company for solution / machines, \$90 per hour; service and time of personnel priced at fixed rates / C27  
 Canadian Westinghouse Co., Ltd., Electronics Div. / C27  
 C G Electronics Corp. / C27  
 Computer Engineering Associates, Inc. / C27  
 Control Data Corp. / C27  
 Cook Electric Co. / C27  
 CORPORATION FOR ECONOMIC AND INDUSTRIAL RESEARCH, Main Office: 734 15th St. N.W., Wash., D. C., Research Center: 1200 Jefferson Davis Hwy., Arlington 2, Va. / Specialists in the application of modern analytical techniques to government, business, and financial problems. Offer a full range of services in operations research, computing, programming, data processing, sample design, market research, problem formulation, mathematical structuring / C27  
 Curtiss-Wright Corp., Research Div. / C27  
 Data-Flo Computing Service / C27  
 DATAmatic DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 151 Needham St., Newton Highlands 61, Mass. / DATAmatic Service Bureau / DATAmatic Service Bureau offers use of DATAmatic 1000 electronic data processing equipment and/or consultation, analysis and programming for commercial, industrial or governmental recordkeeping, or for scientific or engineering applications. All services available on a contract basis / Hourly rates for use of equipment and/or services / C27  
 The Datics Corp. / C27  
 DIAN LABORATORIES, INC., 611 Broadway, New York 12, N. Y. / Computing services — analog / Complete computing facilities and services available to government and industry on rental basis / C27  
 Electronic Associates, Inc. / C27  
 Elliott Bros. / C27  
 Financial Publishing Co. / C27  
 The Foxboro Co. / C27  
 The Franklin Institute Lab. / C27  
 H. S. Gellman & Co., Ltd. / C27  
 General Electric Co. / C27  
 General Electric Co., Computer Dept. / C27  
 General Electric Co., Specialty Electronic Components Dept. / C27  
 General Electric, Incorporated / C27  
 General Precision Laboratory / C27  
 Georgia Institute of Technology / C27  
 The Geotechnical Corp. — see C23 / C27  
 GPS Instrument Co. / C27  
 Harvard University, Harvard Computation Laboratory / C27  
 KCS Data Control, Ltd. / C27  
 Lehigh University, Computing Lab. / C27  
 Arthur D. Little, Inc. / C27  
 Loyola Laboratories / C27  
 Machine Statistics Co. / C27  
 Massachusetts Institute of Technology / C27  
 Midwest Research Institute / C27  
 Moore School of Electrical Engineering / C27  
 National Analysts, Inc. / C27  
 National Bureau of Standards / C27  
 Nuclear Development Corporation of America / C27  
 Philco Corp., Govt. & Ind'l. Div. — see D1 / C27  
 Pi-Square Engineering Co. / C27  
 Purdue Univ., Statistical and Computing Lab. / C27  
 The Ramo-Wooldridge Corp. / C27  
 Ransom Research / C27  
 J. B. Rea Co., Inc. / C27  
 Recording and Statistical Corp. / C27  
 Reeves Instrument Corp. / C27  
 Rensselaer Polytechnic Institute, Computer Lab. / C27  
 Scientific Computing Service / C27  
 Seismograph Service Corp. / C27  
 The Service Bureau Corp. / C27  
 Southwestern Computing Service / C27  
 Stanford Computation Center, Stanford University / C27  
 Swedish Board for Computing Machinery / C27  
 TAMMEN AND DENISON, INC., 4751 N. Olcott Ave., Chicago 31, Ill. / Analog Computing Service. / Electronic Associates Computer, 68 amplifiers present, 150 planned. Immediate expansion possible if required by problem. Problem analysis, computer programming and/or operation. Staff experienced in aircraft, missile dynamics, control systems, human operated control systems. heat transfer, nuclear reactor dynamics, linear programming. Available to industry and government. Facility cleared Secret Computer consulting services and design of special purpose computers available. Hourly rates: Computer \$20 — \$45; Computer Analyst \$10 and \$12.50. / C27  
 Univ. of Calif., Berkeley / C27  
 Univ. of Calif., Los Angeles / C27  
 Univ. of Cambridge, England / C27  
 Univ. of Durham, England / C27  
 Univ. of Illinois / C27  
 Univ. of Manchester, England / C27  
 UNIVERSITY OF MICHIGAN, WILLOW RUN LABORATORIES, Willow Run Airport, Ypsilanti, Mich. / Computing Services / DESCR: consultation, problem formulation, analysis, programming, coding; data reduction; simulation and feasibility studies for large problems; IBM 604, and desk calculators; analog computer containing 270 drift-stabilized amplifiers, 17 resolvers, 16 multipliers, 17 plotting tables, and 22 function generators / USE: both government and industrial contracts / — / C27  
 Univ. of Rochester, Computing Center / C27  
 Univ. of Toronto, Computation Centre / C27

- U.S. Air Force, Aeronautical Research Lab. / C27
- U.S. Air Force, Computation Research Sec. / C27
- U.S. Air Force, Rome Air Development Center / C27
- U.S. Naval Proving Ground / C27
- U.S. Navy, Aviation Supply Office, Data Processing Div. / C27
- U.S. Navy, Naval Research Lab. / C27
- The George Washington University / C27
- The George Washington University, Logistics Research Project / C27
- Watson Scientific Computing Laboratory / C27
- Wayne State Univ., Computation Lab. / C27
- Westgate Laboratory, Inc. / C27
- Westinghouse Electric Corp., Analytical Dept. / C27
- C28. Computing Services Digital**
- ADB Institutet / C28
- Alden Products Co. / C28
- Bank of America National Trust and Savings Association / C28
- Battelle Memorial Institute / C28
- BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP.**, 5630 Arbor Vitae St., Los Angeles 45, Calif. / machine time and programming / DESCR: machine time and programming assistance on Bendix G-15 digital computer (see C24) available at factory and in Washington, D. C., Chicago, and Dallas offices / USE: scientific, engineering and data processing problems / Machine time, \$25-hr.; programming, analysis, operation, \$10-hr. / C28
- Bowles, Andrews, & Towne, Inc. / C28
- Breder & Breder, Inc. / C28
- The British Tabulating Machine Co., Ltd. / C28
- Burroughs Corp., ElectroData Div. / C28
- Carbide and Carbon Chemicals Company-AEC / C28
- Carnegie Institute of Technology / C28
- C G Electronics Corp. / C28
- Computer Control Co., Inc. / C28
- Computing Devices of Canada, Ltd. / C28
- Control Data Corp. / C28
- Cornell Computing Center / C28
- DATAmatic DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO.**, 151 Needham St., Newton Highlands 61, Mass. / DATAmatic Service Bureau / DATAmatic Service Bureau offers use of DATAmatic 1000 electronic data processing equipment and/or consultation, analysis and programming for commercial, industrial or governmental recordkeeping, or for scientific or engineering applications. All services available on a contract basis / Hourly rates for use of equipment and/or services / C28
- Digitronics Corp. / C28
- Ferranti Electric, Inc. / C28
- Ferranti, Ltd. / C28
- The Franklin Institute Lab. / C28
- General Electric Co., Computer Dept. / C28
- GENERAL KINETICS, INC.**, 555 23rd St., South, Arlington 2, Va. / services to digital computer users and manufacturers / DESCR: mathematical studies; numerical analysis; programming services for major general purpose computers; data reduction services; system studies and evaluation including operations research; construction, modification, and repair of peripheral equipment and special components / — / estimates prepared for each job / C28
- ARTHUR D. LITTLE, INC.**, 35 Acorn Park, Cambridge 40, Mass. / DESCR: complete computing and data processing services, including digital computer facilities. Consultants in technical economics / — / C28
- National Physical Laboratory, Mathematics Div. / C28
- Norton Associates, Inc. — see H1 / C28
- Philco Corp., Govt. & Ind'l. Div. — see D1 / C28
- Remington Rand Univac Division, Sperry Rand Corp. / C28
- REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP.**, Frankfurt, Germany / Electronic Computer Service Center / DESCR: programming and computing services on Univac systems and other equipment / USE: special problems, routine services / — / C28
- REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP.**, Univac Park, St. Paul, Minn. / Electronic Computer Service Center / DESCR: programming and computing service on Univac Scientific system, and other equipment / USE: special problems, routine services / — / C28
- REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP.**, 2601 Wilshire Blvd., Los Angeles, Calif. / Electronic Computer Service Center / DESCR: programming and computing services on Univac systems and other equipment / USE: special problems; routine services / — / C28
- REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP.**, 315 4th Ave., New York 10, N. Y. / Electronic Computer Service Center / DESCR: programming and computer services on Univac and Univac Scientific Computer Systems and other equipment / USE: special problems and routine services / — / C28
- Soroban Engineering, Inc. / C28
- U.S. Air Force, Computation Research Sec. / C28
- U.S. Army, Ballistic Research Laboratories / C28
- Westgate Laboratory, Inc. / C28
- C29. Connectors**
- Accurate Electronics Corp. / C29
- Alden Products Co. / C29
- AMP / C29
- AMPHENOL ELECTRONICS CORP.**, 1830 S. 54th St., Chicago 50, Ill. / Connectors / DESCR: all types of connectors for computer applications, including AN, RF and Rack & Panel connectors in standard, miniature and sub-miniature sizes / USE: sub-unit plug ins; radio frequency and electrical power / — / C29
- Burdny Corporation, Omaton Div. / C29
- Cambridge Thermionic Corporation / C29
- Cinch Manufacturing Corp. / C29
- DeJur-Amsco Corp. / C29
- Elco Corp. / C29
- Gulton Industries, Inc. / C29
- Sangamo Electric Co. / C29
- Schweber Electronics / C29
- Winchester Electronics, Inc. / C29
- C30. Consulting Services**
- Adalia Computations, Ltd. / C30
- Adalia, Ltd. / C30
- ADB Institutet / C30
- Aero Electronics Co. / C30
- Airtronics, Inc. / C30
- American Machine & Foundry Co., Computation Center / C30
- Applied Science Corp. of Princeton / C30
- Automation Consultants, Inc. / C30
- AUTOMATION ENGINEERS CO.**, 344 W. State St., Trenton, N. J. / Management consultants / Analysis of automation opportunities and the economics of application; supervision in design and installation of automation improvements: Registered Professional Engineers / \$150 per day / C30
- Automation Management, Inc. / C30
- Automation Research & Design Associates / C30
- Battelle Memorial Institute / C30
- Benge Associates / C30
- Birkbeck College, Dept. of Numerical Automation / C30
- Booz, Allen and Hamilton / C30
- BOWLES, ANDREWS & TOWNE, INC.**, 1389 Peachtree St. N.E., Atlanta 9, Ga. / consulting actuaries / DESCR: life and casualty insurance management consultants; analysis and design of business systems, actuarial computations / — / C30
- Burroughs Corporation, Research Center / C30
- Canadian Westinghouse Co., Ltd., Electronics Div. / C30
- Canning, Sisson & Assoc. / C30
- C G Electronics Corp. / C30
- Circuit Engineering / C30
- COMPTRON CORPORATION**, 778 Pleasant St., Belmont 79, Mass. / consulting services for electronic computers and their components / DESCR: consulting on transistorized circuitry for medium-speed computers and control applications — complete machine tool controls designed and prototyped / C30
- Computer Control Co., Inc. / C30
- Computer Engineering Associates, Inc. / C30
- Computing Consultants, Inc. / C30
- Computing Devices of Canada, Ltd. / C30
- Control Data Corp. / C30
- Cook Electric Co. / C30
- Corbin Corp. / C30
- Corporation for Economic and Industrial Research / C30
- DASOL CORPORATION**, 14 Charlton St., New York 14, N. Y. / Consulting systems engineers specializing in integrated data processing and materials handling systems associated with physical distribution of product lines, including materials allocation, inventory

- controls, customer order processing and warehousing / C30  
 Data-Flo Computing Service / C30  
 The Datics Corp. / C30  
 The Daven Co. / C30  
 Daystrom Inc., Daystrom Systems Div. / C30  
 John Diebold and Associates, Inc. / C30  
 DocuMation, Inc. / C30  
 Arnold I. Dumey / C30  
 Ebasco Services Incorporated / C30  
 Edgar, Wesley B. / C30  
**ELECTRONIC COMPUTER PROGRAMMING INSTITUTE**, 1234 Broadway, New York 1, N. Y. / consulting services / DESCR: consulting services in the field of office automation; punched card systems; I. D. P. and E. D. P. systems installation; computer programming on a contractual basis / C30  
 Fairbanks Associates / C30  
**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto, Ontario / consulting services / DESCR: consultation and system analysis in the data handling field, including digital and analog computer installations, control and inventory systems, special purpose radio and line communications equipment, machine tool and process control / C30  
**H. S. GELLMAN & CO., LTD.**, 110 Bloor St. West, Toronto, Ont. (WAINUT 3-4484) / consulting services / consulting on automatic data processing systems; application of systems and equipment to business data processing; system analysis and design; training of clients' personnel; programming and computing service for business, scientific and engineering calculations / C30  
 General Electric Co., Computer Dept. / C30  
 General Electric Co., Rectifier Dept. — see P8 / C30  
 General Kinetics Incorporated / C30  
 General Research Co. / C30  
 Gulton Industries, Inc. / C30  
 Cecil Hastings, Jr. / C30  
 KCS Data Control, Ltd. / C30  
 Lipps Engineering / C30  
 Arthur D. Little, Inc. — see C28 / C30  
**ALAN O. MANN AND ASSOCIATES**, 530 Westview St., Philadelphia 19, Pa., also Washington, D. C. / Consulting Services / DESCR: Management consultants specializing in systems for integrated and electronic data processing, communications, planning and control. Services include: systems analysis and design; feasibility studies; equipment evaluation; personnel recruitment, selection and training; organization, facilities and financial planning; operations research; installation programs for electronic computers and other data-handling equipment. Serving business, industry, military services, government agencies / C30  
 Measurement Engineering Limited / C30  
 Midwest Research Institute / C30  
**H. JEFFERSON MILLS, JR.**, Management Consultant, 2725 29th St., N. W., Washington 8, D. C. / Consulting Services / DESCR: management counsel in systems analysis, equipment evaluation, organization and facilities planning; personnel recruitment, selection and training; and installation programs for electronic computers and other automatic data processing applications in business, industry and government / — / C30  
**National Cash Register Co., Electronics Div.** / C30  
 Nuclear Development Corporation of America / C30  
 George A. Philbrick Researches, Inc. / C30  
 Pi-Square Engineering Co. / C30  
 The Ramo-Wooldridge Corp. / C30  
 Ransom Research / C30  
 Scientific Computing Service / C30  
 Short Bros. & Harland, Ltd. / C30  
 Soroban Engineering, Inc. / C30  
 Southwestern Industrial Electronics Co. / C30  
**SUTHERLAND CO.**, 1112 First National Bank Bldg., Peoria, Ill. / consulting services / DESCR: specialists in the economic evaluation, system analysis, equipment selection, problem organization and documentation, programming, and utilized of digital computers and related devices for integrated data processing to provide optimum management decision-making criteria and exception type management reports. Practical application of applied mathematics, linear programming, and operations research techniques / USE: clients in industry, commerce and government / monthly billing based on work assignment / C30  
 Systems Laboratories Corp. / C30  
 Tammen & Denison, Inc. — see C27 / C30  
 Technical Operations / C30  
 The Thompson-Ramo-Wooldridge Products Co. / C30  
 Univ. of Toronto, Computation Centre / C30  
 U.S. Air Force, Structures Branch, Computation Div., Directorate of Management Analysis, Hq. USAF / C30  
 U.S. Naval Proving Ground / C30  
 The George Washington University / C30  
 The George Washington University, Logistics Research Project / C30  
 Watson Scientific Computing Laboratory / C30  
**C31. Controls**  
 Bendix Aviation Corp., Pacific Div. / C31  
**COMPTON CORPORATION**, 778 Pleasant St., Belmont 79, Mass. / consulting services for electronic computers and their components / DESCR: consulting on transistorized circuitry for medium-speed computers and control applications — complete machine tool controls designed and prototyped / C31  
 Consolidated Electrodynamics Corp. / C31  
 Electronics Corp. of America / C31  
 Fenwal Inc. / C31  
 The Franklin Institute Lab. / C31  
 Guardian Electric Mfg. Co. / C31  
 Hammarlund Mfg. Co., Inc. — see T10 / C31  
 The Ramo-Wooldridge Corp. — see C24 / C31  
 Servomechanisms Inc. / C31  
 Southwestern Industrial Electronics Co. / C31  
 Sperry Rand Corp. / C31  
 Stromberg Carlson, a Div. of General Dynamics Corp. / C31  
 Telectro Industries Corp. / C31  
 The Thompson-Ramo-Wooldridge Products Co. / C31  
 Vickers Inc., Electric Products Div. / C31  
 Ward Leonard Electric Co. / C31  
 Westgate Laboratory, Inc. / C31  
 Weston Instruments / C31  
**C32. Controls, Automatic**  
 Advanced Electronics, Inc. / C32  
 Allen-Bradley Co. / C32  
 Applied Science Corp. of Princeton / C32  
 Autonetics, Div. of North American Aviation, Inc. / C32  
 Bendix Aviation Corp., Eclipse-Pioneer Div. / C32  
 Bendix Aviation Corp., Research Laboratories Div. / C32  
 Canadian Applied Research, Ltd. / C32  
 Consolidated Avionics Corp. / C32  
 Consolidated Electrodynamics Corp. / C32  
 Control Data Corp. / C32  
 Cook Electric Co. / C32  
 Curtiss-Wright Corp., Electronics Div. / C32  
 Datex Corp. (a subsidiary of G. M. Gianini & Co., Inc.) / C32  
 Daystrom Transicoil Corp. / C32  
 Digitronics Corp. / C32  
 Donner Scientific Co. / C32  
 Eagle Signal Corp. / C32  
 Electronic Associates, Inc. / C32  
 Electro Products Laboratories, Inc. / C32  
 Electronic Specialty Co. / C32  
 Fairchild Graphic Equipment, Inc. / C32  
 Fenwal, Inc. / C32  
 Fischer & Porter Co. / C32  
**THE FOXBORO CO.**, Foxboro, Mass. / industrial instrumentation / industrial instrumentation and computing systems for measuring, recording, and controlling process variables / C32  
 Franklin Institute Lab. / C32  
 General Electric Co., Computer Dept. / C32  
 Gilmore Industries / C32  
 Gulton Industries, Inc. / C32  
 Hammarlund Mfg. Co., Inc. — see T10 / C32  
 The A. W. Haydon Co. / C32  
 Hillyer Instrument Co. / C32  
 Industrial Control Co. / C32  
**INDUSTRIAL NUCLEONICS CORPORATION**, 205 Chesapeake Ave., Columbus, Ohio / AccuRay Measurement and Control Systems / DESCR: using a radioisotope, these systems give a non-contacting, accurate, continuous measurement of flowing processing. Industrial computers are used to automatically control and provide data readout / USE: to measure and control production in tobacco, metals, paper, plastics chemicals, food, petroleum, and mining industries / \$1350 and up / C32  
 Kaiser Metal Products, Inc. / C32  
 Measurement Engineering Limited / C32  
 Miles Reproducer Co., Inc. / C32  
 Minneapolis-Honeywell Regulator Co., Industrial Division / C32  
 Notifier Corp. / C32

Opad Electric Co. / C32  
 Potter Instrument Co., Inc. / C32  
 Reeves Instrument Corp. / C32  
 Servo Corp. of America / C32  
 Servomechanisms, Inc. / C32  
 Societe d'Electronique et d'Automatisme / C32  
 Sperry Rand Corp. / C32  
 Strand Engineering Co. / C32  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / C32  
 The Teller Corp. / C32  
 The Thompson-Ramo-Wooldridge Products Co. / C32  
 Vickers Inc., Electric Products Div. / C32  
 Westgate Laboratory, Inc. / C32

**C33. Controls, Signaling**  
 Advanced Electronics, Inc. / C33  
 American Electronics, Inc. / C33  
 Applied Science Corp. of Princeton / C33  
 The Bristol Company / C33  
 Consolidated Avionics Corp. / C33  
 Curtiss-Wright Corp., Electronics Div. / C33  
 Electronic Specialty Co. / C33  
 Fenwal, Inc. / C33  
 The Foxboro Co. / C33  
 General Electric Co., Computer Dept. / C33  
 Hammarlund Mfg. Co., Inc. — see T10 / C33  
 Miles Reproducer Co., Inc. / C33  
 Notifier Corp. / C33  
 Servo Corp. of America / C33  
 Shand & Jurs Co. / C33  
 The Standard Electric Time Co. / C33  
 The Thompson-Ramo-Wooldridge Products Co. / C33

**C34. Controls, Sorting and Counting**  
 Avco Mfg. Corp. / C34  
 Baird-Atomic, Inc. / C34  
 Consolidated Avionics Corp. / C34  
 Control Data Corp. / C34  
 Eagle Signal Corp. / C34  
 Electro Products Laboratories, Inc. / C34  
 Epsco, Inc. / C34  
**FERRANTI ELECTRIC, LTD.,** Industry St., Toronto, Ontario / sorting and counting controls / DESCR: electronic mail sortation equipment. Optical digital measuring and gauging equipment / C34  
 General Electric Co., Computer Dept. / C34  
 Measurement Engineering Limited / C34  
 Opad Electric Co. / C34  
 Potter Instrument Co., Inc. / C34  
 Saunders & Co. / C34  
 Strand Engineering Co. / C34  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / C34

**C35. Converters, Electrical**  
 Cook Electric Co. / C35  
 Cornell-Dubilier Electric Corp. / C35  
**FERRANTI ELECTRIC, LTD.,** Industry St., Toronto 15, Ontario / electrical convertors / DESCR: AC-AC, AC-DC, DC-AC, DC-DC, custom designed, transistorized / C35  
 General Electric Co., Rectifier Dept. / C35  
 Librascope, Inc. / C35  
 Minneapolis-Honeywell Regulator Co., Industrial Div. / C35

The National Cash Register Co. / C35  
 Packard Bell Computer Corp. / C35  
 Sangamo Electric Co. / C35  
 Strand Engineering Co. / C35  
 Telectro Industries Corp. / C35  
 Vickers Inc., Electric Products Div. / C35

**C36. Converters, Electrical, High Frequency**  
 Aeronca Mfg. Corp. / C36  
 Sangamo Electric Co. / C36  
 Strand Engineering Co. / C36  
 Vickers Inc., Electric Products Div. / C36

**C37. Converters, Electrical, Low Frequency**  
 Aeronca Mfg. Corp. / C37  
 General Electric Co., Rectifier Dept. / C37  
 Sangamo Electric Co. / C37

**C38. Converters, Electrical Power Frequency**  
**COMPTRON CORPORATION,** 778 Pleasant St., Belmont 79, Mass. / Transcycle / DESCR: variable-frequency power supply for use in driving multiphase motors of wide speed range / USE: this unit is useful where it is desired to control the speed of a multiphase motor. It may also be used to synchronize this motor with another device / \$1000 to \$1500 / C38  
 General Electric Co., Rectifier Dept. / C38  
 Gulton Industries, Inc. / C38  
 Northam Electronics, Inc. / C38  
 Opad Electric Co. / C38  
 Sangamo Electric Co. / C38  
**TRANS ELECTRONICS, INC.,** 7349 Canoga Ave., Canoga Park, Calif. / Semiconductor Test Equipment / DESCR: transistor testers and diode testers / USE: Computers, radar equipment, telemetering, component testing / \$49.50 to \$8,000 / C38  
 Vickers Inc., Electric Products Div. / C38

**C39. Converters, Information**  
 Alwac Computer Div., El-Tronics, Inc. / C39  
 American Electronics, Inc. / C39  
 Audio Instrument Co., Inc. / C39  
 Benson Lehner Corp. / C39  
 Coleman Engineering Co. / C39  
 Consolidated Electrodynamics Corp. / C39  
 Control Data Corp. / C39  
 Cook Electric Co. / C39  
 Davies Laboratories, Inc. / C39  
**ELECTRONIC ENGINEERING COMPANY OF CALIF.,** 1601 E. Chestnut St., Santa Ana, Calif. / Computer Language Translator / DESCR: rapid data translation from one computer format to another / USE: combining one computer or data processing system with another / \$50,000 to \$150,000 / C39  
**FERRANTI ELECTRIC, LTD.,** Industry St., Toronto, Ontario / information convertors / DESCR: custom-engineered convertors covering all fields listed under C40 to C48 / C39  
 The Franklin Institute Lab. / C39  
 Friden Calculating Machine Co. / C39  
 General Electric Co., Rectifier Dept. / C39  
 The Geotechnical Corp. / C39  
 A. Kimball Co. — see D1 / C39  
 Librascope Inc., Burbank Div. / C39

Mack Electronics / C39  
 The Standard Register Co. / C39  
 Statistic Instrument Co. / C39  
 Stromberg Carlson, a Div. of General Dynamics Corp. / C39  
 Sylvania Electric Products, Inc. / C39  
**TELEMETER MAGNETICS, INC.,** 2245 Pontius Ave., Los Angeles 64, Calif. / Data Translators / DESCR: two-conversion between digital media or format. Any combination of punched card, paper tape, and magnetic tape / USE: convert from card to tape, tape to tape, etc. / — / C39  
 The Thompson-Ramo-Wooldridge Products Co. / C39  
 Westinghouse Electric Corp., Air Arm Div. / C39

**C40. Converters, Information, Analog to Digital**  
 Ahrendt Instrument Co. / C40  
 Airborne Instruments Lab., Inc. / C40  
 Airflyte Electronics Co. / C40  
 American Electronics Co. / C40  
 American Electronics, Inc. / C40  
 Analogue Controls, Inc. / C40  
 Armour Research Foundation / C40  
 Assembly Products, Inc. / C40  
 Baird-Atomic Co. / C40  
 Beckman Instr. Inc., Systems Div. / C40  
 Bendix Aviation Corp., Eclipse-Pioneer Div. / C40  
 Bendix Aviation Corp., Pacific Div. / C40  
 Benson-Lehner Corp. / C40  
 Centronix Inc. / C40  
 Century Engineers, Inc. / C40  
 C G Electronics Corp. / C40  
 Coleman Engineering Co. / C40  
 Consolidated Avionics Corp. / C40  
 Consolidated Controls Corp. / C40  
 Consolidated Diesel Electric Corp. / C40  
 Consolidated Electrodynamics Corp. / C40  
 Control Data Corp. / C40  
 Cubic Corporation / C40  
 Data Instruments, a Div. of Telecomputing Corp. / C40  
 Datex Corp., a subsidiary of G. M. Gianini & Co., Inc. / C40  
 Daystrom Inc., Daystrom Systems Div. / C40  
 Electro Instruments Inc. / C40  
**Electro-Mechanical Research, Inc.** / C40  
 Electro-Mec Laboratory, Inc. / C40  
 Electro-Miniatures Corp. / C40  
 Electronic Associates, Inc. / C40  
 Electronic Computer Company / C40  
 Electronic Engineering Co. of Calif. — see C39 / C40  
 Epsco, Inc. / C40  
 Fairchild Engine & Airplane Corp. / C40  
 Farrand Optical Co. / C40  
 Fischer & Porter Co. / C40  
 Ford Instrument Co., Div. of Sperry Rand Corp. / C40  
 Franklin Electronics, Inc. / C40  
 The Franklin Institute Lab. / C40  
 General Electric Co., Computer Dept. / C40  
 General Electric, Light Military Electronic Equip. Dept. / C40  
 Genisco, Inc. / C40  
 Gilmore Industries / C40  
**HOOVER ELECTRONICS CO.,** Timonium, Md. / reversible analog-to-digital converter / DESCR: 10-bit plus sign



reversible airborne converter with associated precisely regulated power supply, both largely transistorized, providing conversion at any rate up to 20 kc with external synchronization and serial, parallel or visual readout. Simpler 8-bit plus sign units also available / USE: analog-to-digital conversion / price varies depending upon system requirements / C40

Industrial Nucleonics Corp. / C40  
Instrument Development Labs., Inc. / C40  
Kearfott Co., Inc. / C40  
Librascope, Inc. / C40

MacLeod and Hanopol Inc. / C40  
The Magnavox Co. / C40  
Measurement Engineering Limited / C40  
Mid-Century Instrumentic Corp. / C40  
Minneapolis-Honeywell Regulator Co. / C40

Minneapolis-Honeywell Reg. Co., Davies Labs. Div. / C40

Moran Instrument Corp. / C40

The Newton Co. / C40

**NON-LINEAR SYSTEMS INC., Del Mar, Calif. / Analog to Digital Converters and Data Logging Systems / DESCR: convert electrical parameters into digital visual and electrical form. Complete systems permit automatic recording of up to 1000 input channels / USE: computer set-up and solution recording / converters, \$995 to \$8500; systems, \$2000 to \$80,000 / C40**

Norden-Ketay Corp. / C40

Oerlikon Tool & Arms Corp. of America / C40

Packard Bell Computer Corp. / C40  
Radiation Counter Laboratories, Inc. / C40  
Radiation, Inc. / C40

Radiation Instrument Development Laboratory / C40

Ransom Research / C40

J. B. Rea Co., Inc. / C40

Reeves Instrument Corp. / C40

Short Bros. & Harland Ltd. / C40

Societe d'Electronique et d'Automatisme / C40

Statistic Instrument Co. / C40

Strand Engineering Co. / C40

Stromberg-Carlson (West Coast) / C40

Taller and Cooper / C40

The Thompson-Ramo-Wooldridge Products Co. / C40

Veeder-Root, Inc. / C40

Wayne-George Corp. / C40

Westinghouse Electric Corp., Air Arm Div. / C40

Wright Engineering Co. / C40

#### C41. Converters, Information, Card to Magnetic Tape

Addressograph-Multigraph Corp. / C41

Aeronca Mfg. Corp. / C41

Burlingame Associates, Ltd. / C41

C G Electronics Corp. / C41

Consolidated Avionics Corp. / C41

Control Data Corp. / C41

Digitronics Corp. / C41

**ELECTRONIC ENGINEERING CO. OF CALIFORNIA, 1601 E. Chestnut, Santa Ana, Calif. / computer language translator — ZA-100 / DESCR: provides rapid, efficient translation of data between different types of electronic computers and related data pro-**

cessing equipment; performs necessary translation independently from the computer / USE: solves computer to computer and computer to data processing system common language problems / \$50,000 and up — depends on input-output equipment requirement / C41

Ferranti, Ltd / C41

General Electric Co., Computer Dept. / C41

Gilmore Industries / C41

Philco Corp., Govt. & Ind'l. Div. — see D1 / C41

Societe d'Electronique et d'Automatisme / C41

#### C42. Converters, Information, Card to Paper Tape

Aeronca Mfg. Corp. / C42

The British Tabulating Machine Co., Ltd. / C42

Burlingame Associates, Ltd. / C42

Burroughs Corp., ElectroData Div. / C42

Consolidated Avionics Corp. / C42

Control Data Corp. / C42

Electronic Engineering Co. of Calif. — see C39 / C42

General Cybernetics Corp. / C42

General Electric Co., Computer Dept. / C42

Gilmore Industries / C42

**INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIV., 112 E. Post Rd., White Plains, N. Y. / IBM 63 Card-Controlled Tape Punch / DESCR: reads alphabetical and numerical information in IBM punched cards and perforates 5-channel telegraphic tape with that data. The machine consists of a card reading unit and a tape punching unit / USE: to transmit data automatically by commercial wire service / monthly rental, \$75. Selling Price, \$3,600. All prices exclusive of Federal excise tax / C42**

Philco Corp. Govt. & Ind'l. Div. — see D1 / C42

**REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP., 315 4th Ave., New York 10, N. Y. / 90-column tabulating card-to-tape converter Type 318 / DESCR: converts information from 90-column punched cards to 5 channel paper tapes, tapes perforated at 900 cards per minute / USE: card to tape conversion / rental, \$110 per month; sale, \$8500; prices subject to tax / C42**

#### C43. Converters, Information, Computing

Aeronca Mfg. Corp. / C43

Applied Science Corp. of Princeton / C43

**BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP., 5630 Arbor Vitae St., Los Angeles 45, Calif. / AN-1 alphanumeric adapter / DESCR: enables Bendix G-15 general purpose digital computer to accept codes via paper tape or other media, of other data handling, computing and communication devices. (see C24) / with high speed tape reader-punch, \$16,525 sale, \$670 per month lease / C43**

C G Electronics Corp. / C43

Computer Control Co., Inc. / C43

Consolidated Avionics Corp. / C43

Control Data Corp. / C43

Electronic Engineering Co. of Calif. — see C39 / C43

Epsco, Inc. / C43

Fairchild Controls Corp., Components Div. / C43

General Electric Co., Computer Dept. / C43

The Geotechnical Corp. / C43

Librascope, Inc. / C43

Packard Bell Computer Corp. / C43

Stromberg-Carlson, a Div. of General Dynamics Corp. / C43

The Thompson-Ramo-Wooldridge Products Co. / C43

#### C44. Converters, Information, Digital to Analog

Aeronca Mfg. Corp. / C44

Airflyte Electronics Co. / C44

American Electronics, Inc. / C44

Armour Research Foundation / C44

Avion Div., ACF Industries / C44

Beckman Instr. Inc., Systems Div. / C44

Benson-Lehner Corp. / C44

Burroughs Corp., Electronic Tube Div. / C44

Coleman Engineering Co. / C44

Computer-Measurements Corp. / C44

Consolidated Avionics Corp. / C44

Control Data Corp. / C44

Daystrom Inc., Daystrom Systems Div. / C44

Electronic Engineering Co. of Calif. — see C39 / C44

Epsco, Inc. / C44

Ford Instrument Co., Div. of Sperry Rand Corp. / C44

The Franklin Institute Lab. / C44

Hoover Electronics Co. — see C40 / C44

General Electric Co., Computer Dept. / C44

General Electric, Light Military Electronic Equip. Dept. / C44

Kearfott Co., Inc. / C44

Librascope, Inc. / C44

Litton Industries, Inc. / C44

Minneapolis-Honeywell Regulator Co. / C44

Packard Bell Computer Corp. / C44

Radiation, Inc. / C44

Ransom Research / C44

Reeves Instrument Corp. / C44

Societe d'Electronique et d'Automatisme / C44

Statistic Instrument Co. / C44

Strand Engineering Co. / C44

The Thompson-Ramo-Wooldridge Products Co. / C44

Westinghouse Electric Corp., Air Arm Div. / C44

#### C45. Converters, Information, Magnetic Tape to Card

Aeronca Mfg. Corp. / C45

Computer Control Co., Inc. / C45

Consolidated Avionics Corp. / C45

Consolidated Electrodynamics Corp. / C45

Control Data Corp. / C45

**ELECTRONIC ENGINEERING CO. OF CALIFORNIA, 1601 E. Chestnut, Santa Ana, Calif. / computer language translator — ZA-100 / DESCR: provides rapid, efficient translation of data between different types of electronic com-**

- puters and related data processing equipment; performs necessary translation independently from the computer / USE: solves computer to computer and computer to data processing system common language problems / \$50,000 and up — depends on input-output equipment requirement / C45
- Ferranti, Ltd. / C45
- General Electric Co., Computer Dept. / C45
- Philco Corp., Govt. & Ind'l. Div. — see D1 / C45
- C46. Converters, Information, Magnetic Tape to Paper Tape**
- Aeronca Mfg. Corp. / C46
- C G Electronics Corp. / C46
- Computer Control Co., Inc. / C46
- Consolidated Avionics Corp. / C46
- Control Data Corp. / C46
- Electronic Engineering Co. of Calif. — see C39 / C46
- General Electric Co., Computer Dept. / C46
- Kay Electric Co. / C46
- Philco Corp., Govt. & Ind'l. Div. — see D1 / C46
- Smith-Corona, Inc. / C46
- C47. Converters, Information, Paper Tape to Card**
- Aeronca Mfg. Corp. / C47
- The British Tabulating Machine Co., Ltd. / C47
- Computer Control Co., Inc. / C47
- Consolidated Avionics Corp. / C47
- Control Data Corp. / C47
- Data Instruments, a Div. of Telecomputing Corp. / C47
- Electronic Engineering Co. of Calif. — see C39 / C47
- General Electric Co., Computer Dept. / C47
- INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIV.**, 112 E. Post Rd., White Plains, N. Y. / The IBM 46 Tape-to-Card Punch / DESCR: reads alphabetic or numerical information from a punched paper tape and converts it to IBM punched cards / USE: Model 1 is for use with 5-channel telegraphic tape produced by the IBM Card-Controlled Tape Punch or by telegraphic equipment. Model 2 is for use with 8-channel tape produced by the IBM Typewriter Tape Punch. 5-channel tapes can be transmitted by commercial wire services / monthly rental, \$135-\$140. Selling price, \$6,050-\$6,300. All prices exclusive of Federal excise tax / C47
- National Data Processing Corp. / C47
- Philco Corp., Govt. & Ind'l. Div. — see D1 / C47
- REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP.**, 315 4th Ave., New York 10, N. Y. / Tape-to-Card Converter, Type 308-5 / DESCR: key punch electrically connected to 5 channel code paper tape reader so information is read, decoded and punched into 90-column tabulating card; 420 characters per minute; may be used as standard punched card accounting machine key punch / USE: convert paper tape information to punched cards / rental, \$75 per month; sale, \$5065; prices subject to tax / C47
- C48. Converters, Information, Paper Tape to Magnetic Tape**
- Computer Control Co., Inc. / C48
- Control Data Corp. / C48
- Electronic Engineering Co. of Calif. — see C39 / C48
- FERRANTI ELECTRIC, INC.**, 95 Madison Ave., Hempstead, N. Y. / paper to magnetic tape converter / DESCR: converts 5,6,7, or 8 hole paper tape to magnetic at rates up to 400 characters / sec. Simplest form converts paper tape code directly without buffer storage. Code changing and buffer storage available as extra modular units / USE: various — useful for converting data received via teletype to magnetic tape for computer input / \$25,000 to \$30,000 / C48
- General Electric Co., Computer Dept. / C48
- Philco Corp., Govt. & Ind'l. Div. — see D1 / C48
- Potter Instrument Co., Inc. / C48
- Smith-Corona, Inc. / C48
- Stromberg-Carlson, a Div. of General Dynamics Corp. / C48
- C49. Cords**
- Donner Scientific Co. / C49
- Royal Electric Co. / C49
- Stromberg-Carlson, a Div. of General Dynamics Corp. / C49
- C50. Cores**
- American Lava Corp. / C50
- The Arnold Engineering Co. / C50
- General Ceramics Corp. / C50
- Magnetics, Inc. / C50
- Magnetics Research Co. / C50
- Stackpole Carbon Co. / C50
- D. M. STEWARD MFG. CO.**, P. O. Box 510, Chattanooga, Tenn. / Ferrite magnetic cores. Recording heads. Pulse transformer cores / — / C50
- TELEMETER MAGNETICS, INC.**, 2245 Pontius Ave., Los Angeles 64, Calif. / Magnetic Cores / DESCR: a line of ferrite cores with square hysteresis loop; recording heads, storage and switching cores, core matrices, shift registers, magnetic amplifiers / USE: for coincident-current memory, switching, logic, counters and digital subsystems / C50
- C51. Cores, Ferrite**
- Aerovox Corp. / C51
- Allen-Bradley Co. / C51
- Arnhold Ceramics, Inc. / C51
- Ferrocube Corp. of America / C51
- General Ceramics Corp. / C51
- General Electric Co., Specialty Electronic Components Dept. / C51
- Mico Instrument Co. / C51
- National Moldite Co. / C51
- Radiation Counter Laboratories, Inc. / C51
- Radio Corp. of America, Components Div. / C51
- RADIO CORP. OF AMERICA, SEMI-CONDUCTOR & MATERIALS DIV.**, Somerville, N. J. / magnetic cores / ferrite memory cores, transfluxors, custom-built memory planes, aperatured ferrite memory plates, relays / C51
- Stackpole Carbon Co. / C51
- Superex Electronics Corp. / C51
- Telemeter Magnetics, Inc. / C51
- Yale & Towne Mfg. Co., Powdered Metal Products Div. / C51
- C52. Cores, Magnetic**
- Alden Products Co. / C52
- American Electro Metal Corp. / C52
- The Arnold Engineering Co. / C52
- Carstedt Research, Inc. / C52
- Columbian Carbon Co. / C52
- DX Radio Products Co. / C52
- General Ceramics Corp. / C52
- General Electric Co., Electronic Components Dept. / C52
- General Electric, Light Military Electronic Equip. Dept. / C52
- The Indiana Steel Products Co. / C52
- Lapp Insulator Co. Inc. / C52
- Leonard Electric Products Co., Inc. / C52
- Mack Electronics / C52
- Magnetic Metals Co. / C52
- Melpar, Inc. / C52
- National Aircraft Corp. / C52
- National Moldite Co. / C52
- Stackpole Carbon Co. / C52
- Stereatronics / C52
- Steward Mfg. Co. / C52
- Telemeter Magnetics, Inc. / C52
- Yale & Towne Mfg. Co., Powdered Metal Products Div. / C52
- C53. Counters**
- Advance Electronics Lab., Inc. / C53
- Alden Products Co. / C53
- American Electronics, Inc. / C53
- Beckman Instr. Inc., Systems Div. / C53
- Benson-Lehner Corp. / C53
- Bowmar Instrument Corp. / C53
- Burroughs Corp., Electronic Tube Div. / C53
- Eagle Signal Corp. / C53
- Electrical and Physical Instrument Corp. / C53
- Electrol, Inc. / C53
- Engineered Electronics Company / C53
- FERRANTI ELECTRIC, LTD.**, Industry St., Toronto, Ontario / counters / custom-engineered counters covering all field listed under C54 and C55 / C53
- General Controls Co. / C53
- HILLBURN ELECTRONIC PRODUCTS CO.**, 55 Nassau Ave., Brooklyn 22, N. Y. / counters / DESCR: high speed electro-mechanical plug-in impulse counter with digital readout and two printed circuit contact card assemblies. Up to 5 pole 20 position for both printed circuit cards. Operating characteristics to specifications. / USE: in various coding and translation functions such as binary to digital display converters and signal initiation. / — / C53
- Landis & Gyr, Inc. / C53
- Magnetics Research Co. / C53
- Potter Instrument Co., Inc. — see C55 / C53
- Ransom Research / C53
- Southwestern Industrial Electronics Co. / C53
- Strand Engineering Co. / C53

Strandberg Engineering Lab., Inc. / C53  
 Stromberg Carlson, a Div. of General Dynamics Corp. / C53  
 Tally Register Corp. / C53  
 Veeder-Root, Inc. / C53  
 The Walkirt Co. / C53

#### C54. Counters, Electronic

Airtronics, Inc. / C54  
 Baird-Atomic, Inc. / C54  
 Beckman Instr. Inc., Systems Div. / C54  
 Bowmar Instrument Corp. / C54  
 Burroughs Corp., Electronic Tube Div. / C54

**COMPTRON CORPORATION**, 778 Pleasant St., Belmont 79, Mass. / electronic counters / DESCR: transistorized counters made on plug-in, printed circuit cards. Available in binary or decimal forms / USE: useful for any counting applications up to 1 megacycle counting rate / \$250 up depending upon sizes / C54

Computer-Measurements Corp. / C54  
 Data Instruments Div. of Telecomputing Corp. / C54

Daystrom Inc., Daystrom Systems Div. / C54

Fischer & Porter Co. / C54

General Electric Co., Computer Dept. / C54

General Electric Co., Specialty Electronic Components Dept. / C54

Measurement Engineering, Limited / C54  
 Potter Instrument Co., Inc. — see C55 / C54

Richardson Camera Co., Inc. / C54

Saunders & Co. / C54

Societe d'Electronique et d'Automatisme / C54

Strand Engineering Co. / C54

Strandberg Engineering Lab., Inc. / C54

Stromberg-Carlson, a Div. of General Dynamics Corp. / C54

Seismograph Service Corp. / D1

Veeder-Root, Incorporated / C54

The Walkirt Co. / C54

#### C55. Counters, Frequency

Airtronics, Inc. / C55

Bowmar Instrument Corp. / C55

Computer-Measurements Corp. / C55

Electro Instruments, Inc. / C55

Epsco Components / C55

Measurement Engineering, Limited / C55

**POTTER INSTRUMENT CO., INC.**, Sunnyside Blvd., Plainview, N. Y. / Model 860, transistorized frequency-time counter / DESCR: a 150 KC transistorized frequency time counter that may also be used as a preset interval generator. Features direct in-line readout without use of matrix / USE: for preset counting, frequency measurement, frequency comparison and preset interval or delay generating / \$1500 / C55

The Walkirt Co. / C55

#### C56. Counters, Mechanical

Bendix Aviation Corp., Eclipse-Pioneer Div. / C56

Bowmar Instrument Corp. / C56

Chrono-log Corp. / C56

Librascope, Inc. / C56

Radiation Counter Laboratories, Inc. / C56  
 Veeder-Root, Incorporated / C56

#### C57. Counters, Proportional

Baird-Atomic, Inc. / C57

Radiation Counter Laboratories, Inc. / C57

#### C58. Courses by Mail (Computer Field)

**EDMUND C. BERKELEY & ASSOCIATES**, 815 Washington St., Newtonville 60, Mass. / Courses by Mail / DESCR: over 30 courses by mail in automatic computers, mathematics, construction of small electric brain machines, construction of small robots, symbolic logic, and other scientific subjects / USE: instruction / \$9 to \$50 / C58

**BUSINESS ELECTRONICS, INC.**, 420 Market St., San Francisco 11, Calif. / A Correspondence Course—"Programming for Business Computers" / DESCR: Instruction includes: principles of electronic data processing, programming business problems for electronic computers, evaluation of computer hardware, etc. / USE: to train men and women in the application of business problems to electronic computers / \$135 cash, \$150 terms / C58

**ELECTRONIC COMPUTER PROGRAMMING INSTITUTE**, 79 Prospect St., Stamford, Conn. / training and education — computer programming / DESCR: home study training courses in computer programming for digital computers: IBM types 305 RAMAC, 650, 650 Tape. Individual registration; special contractual arrangements for company-sponsored training programs. / C58

#### D1. Processing Machinery

Advance Electronics Lab., Inc. / D1

Airborne Instrument Laboratories, Modac Div. / D1

Allegany Instrument Co., Inc. / D1

American Machine and Foundry, Electronics Div. / D1

Applied Science Corp. of Princeton / D1

Autonetics, a Div. of North American Aviation, Inc. — see C24 / D1

Beckman Instr. Inc., Systems Div. / D1

Bendix Aviation Corp., Research Laboratories Div. / D1

Bendix Computer Div., Bendix Aviation Corp. — see C24 / D1

Benson-Lehner Corp. / D1

Bowser, Inc. / D1

The British Tabulating Machine Co., Ltd. / D1

Bull S. A. Compagnie des Machines / D1

Burroughs Corp., ElectroData Div. / D1

Burroughs Corp., Research Center / D1

Century Engineers, Inc. / D1

Century Geophysical Corp. / D1

C G Electronics Corp. / D1

Clary Corp. / D1

Coleman Engineering Co. / D1

**COMPTOMETER CORP.**, 1735 N. Paulina St., Chicago 22, Ill. / Comptometer Comptotape / DESCR: a data preparation unit producing programmed media for computer input, transmission or conversion to cards, as a by-product of base level computations. Removable

program panels give versatility to application and enable Comptometer ComptoTape to fit into existing systems where calculations are a requisite before processing data / USE: sales analysis, inventory control, integrated order-billing, back order control, expense and cost distribution, material accounting / approx. \$5,000 / D1

Consolidated Avionics Corp. / D1

Consolidated Diesel Electric Corp. / D1

Consolidated Electrodynamics Corp. / D1

Control Data Corp. / D1

Cubic Corporation / D1

Data Instruments Div. of Telecomputing Corp. / D1

**DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO.**, 151 Needham St., Newon Highlands 61, Mass. / DATAmatic 1000 Electronic Data Processing System / DESCR: general purpose electronic data processing system consisting of high-speed, off-line input and output conversion sections, high-capacity magnetic filing section utilizing 3-inch-wide magnetic tape and a central processing section consisting of input-output buffers, a high-speed magnetic core memory, arithmetic and control units and a central console / USE: all types of general accounting and business data processing operations, and general scientific applications / monthly rental \$21,500 and up. Selling price \$985,000 and up / D1

Davies Laboratories, Inc. / D1

Daystrom Inc., Daystrom Systems Div. / D1

Digital Equipment Corp. / D1

Digitronics Corp. / D1

Electro-Mechanical Research, Inc. / D1

**ELECTRONIC ENGINEERING CO. OF CALIFORNIA**, 1601 E. Chestnut, Santa Ana, Calif. / computer language translator — ZA-100 / DESCR: provides rapid, efficient translation of data between different types of electronic computers and related data processing equipment; performs necessary translation independently from the computer / USE: solves computer to computer and computer to data processing system common language problems / \$50,000 and up — depends on input-output equipment requirement / D1

Electronics Corp. of America / D1

Epsco Inc. / D1

**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto, Ontario / data processing machinery / DESCR: custom-engineered data processing equipment for any application, including: airline reservation system, electronic mail sortation system, military applications, systems especially for co-ordination of data from pencil marked cards, e. g. census needs / D1

Fischer & Porter Co. / D1

Franklin Electronics, Inc. / D1

The Franklin Institute Lab. / D1

**FRIDEN, INC.**, San Leandro, Calif. / Friden Add-Punch / DESCR: ten-key electrically operated adding and listing machine that produces a standard adding machine tape as an original source

- document and, as a by-product, punches selected data on a "common language" tape for subsequent data processing / USE: adding-listing machine which may be used to record data for integrated data processing by card-punch or other common language machine / D1
- FRIDEN, INC., San Leandro, Calif. / Friden Computyper / DESCR: electro-mechanical writing-calculating machine. Input from standard typewriter keyboard or automatically from punched paper tape or cards; all calculations performed and printed automatically. Reads and produces punched tape or cards resulting in almost fully automatic production of original document and integrated records / USE: billing or invoicing with punched 5-8 channel tape for automatic tape-to-card conversion or wire transmission, computer input, purchase order writing, payroll computing / D1
- General Electric Co., Computer Dept. / D1
- General Electric Co., Light Military Electronic Equip. Dept. / D1
- The Geotechnical Corp. — see C23 / D1
- HARVEY WELLS ELECTRONICS, INC., Research and Development Div., 5168 Washington St., W. Roxbury, Mass. / Digital products, instrumentation activity and custom contract development / DESCR: Data bloc and data pac system (5 Mc pluggable logic modules for large or small scale digital systems) / USE: Data bloc has front panel connectors on block diagrams for rapidly setting up special test equipment and logic arrangements. Data pac is permanent equipment equivalents. / \$68 to \$200 per module / D1
- Hoover Electronics Co. — see C9 / D1
- Hughes Aircraft Co. / D1
- Industrial Nucleonics Corp. — see C32 / D1
- INTERNATIONAL BUSINESS MACHINES CORP., 590 Madison Ave., New York 22, N. Y. / IBM 632 Electronic Typing Calculator / DESCR: a low cost electronic calculating and control unit which is cable connected to a conventionally operated electric typewriter and ten key entry keyboard. A plastic program tape permanently "remembers" the decisions and instructions necessary for each application. Program command keys and the decisions necessary to operate them are thereby eliminated / USE: functions normally associated with a separate desk calculator and a typewriter are automatically combined into a single, accurate operation for a regular typist with no formal training / sale price, \$5600. Rental plan not announced / D1
- Jet Propulsion Lab. / D1
- Kaye Development Co. / D1
- Kelt Corp. / D1
- A. KIMBALL CO., Rewe St., Brooklyn 11, N. Y. / punch-print machines and reading devices, Kimball "75" Punch Marking System / DESCR: machines inventory tags, production control tickets, etc. Machines for centrally reading tickets and tags into punched cards, punched tape, and direct to memories; "Machines-language" processing equipment / USE: unit control and inventory control in department and chain stores; models of punching and printing equipment for creating of production control and piecework ticket media for automatic processing to payroll and cost distributions; models of machines for creation of punched and printed identification media for inventory by reading the identification at specific control points; models for punching and printing of commutation tickets / \$3000 to \$10,000 / D1
- The Kybernetes Corp. / D1
- Laboratory for Electronics, Inc., Computer Products Div. — see D12 / D1
- Laboratory for Electronics, Computer Products Div. — see 12 / D1
- Lewyt Mfg. Corp. / D1
- LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. / LGP-30 and other digital and analog computers / DESCR: the LGP-30 is a general purpose computer with a magnetic drum memory of 4096 words, and is sold by Royal-McBee Corp. / USE: scientific computing / — / D1
- Litton Industries, Inc. / D1
- Log Abax S. A. / D1
- The Magnavox Co. / D1
- Minneapolis-Honeywell Reg. Co., Davies Labs Div. / D1
- MONROE CALCULATING MACHINE CO., Orange, N. J. / Data Processing Machinery / Simplex, duplex and multi-register accounting machines creating both visible printed records and punched tape or directly connected to IBM machines for card punching. 5, 6, 7, or 8 channel tape can be used and encoder panel is instantly removable. Machines can be programmed via plug board by salespeople, operator, or anyone desiring to change the routine. All soldering and rewiring eliminated. Automatic parity check of any 5 to 8 channel binary code. Operator control of the tape punch or keypunch from the accounting machine; utilized tape punch with rewind reel; automatic motion check to insure tape is passing over the punching head; program switch to allow operator selection of two completely different punching routines; up to 14 digits and three function codes, or any lesser number of digits punches; twelve entirely different punching sequences, capacities and orders available for each posting routine; and a second operating bar may be programmed to punch entirely different capacity, function codes and order of punching in the same carriage position / \$2150 to \$5000 / D1
- THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / NCR 304 electronic data processing system / DESCR: transistorized magnetic tape data processor with 20,000 to 40,000 characters of magnetic core storage / USE: general-purpose business use / rental, \$17,000 and up per month; purchase, \$750,000 and up / D1
- Nuclear Development Corporation of America / D1
- Northam Electronics, Inc. / D1
- North Electric Manufacturing Co. / D1
- NON-LINEAR SYSTEMS INC., Del Mar, Calif. / Oscillogram trace readers / DESCR: converts trace deflections into digital form, applies linear or non-linear calibrations and records time and data in column form on electric typewriter / USE: simplifies and speeds reduction of oscillographic data / \$10,000 to \$30,000 / D1
- The Newton Co. / D1
- National Bureau of Standards, Data Processing Systems Div. / D1
- Oerlikon Tool & Arms Corp. of America / D1
- Orradio Industries / D1
- Otis Elevator Co., Electronics Div. / D1
- PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV., 4700 Wissahickon Ave., Philadelphia 44, Pa. / Transac S-2000 / DESCR: large-scale general purpose data processing system; extremely high-speed; all transistorized / USE: scientific, engineering, business, military and simulation computation and data processing / selling price, \$1200 up; monthly rental, \$30,000 / D1
- Potter Instrument Co., Inc. — see C55 / D1
- Radiation, Inc. / D1
- The Ramo-Wooldridge Corp. — see C24 / D1
- ROYAL McBEE CORP., Westchester Ave., Port Chester, N. Y. / Royal Precision Electronic Computer LGP-30 / DESCR: A serial, single address, fixed point, stored program, digital computer / USE: Data processing problems in business, industry and government. / \$49,500. Rental \$1100 monthly / D1
- Seismograph Service Corp. — see C23 / D1
- Smith-Corona, Inc. / D1
- Soroban Engineering, Inc. / D1
- Southwestern Industrial Electronics Co. / D1
- The Standard Register Co. / D1
- Sterling Precision Corp. / D1
- Strand Engineering Co. / D1
- Stromberg-Carlson, a Div. of General Dynamics Corp. / D1
- Stromberg-Carlson, West Coast / D1
- Sylvania Electric Products, Inc. / D1
- SYLVANIA ELECTRONIC SYSTEMS, A DIV. OF SYLVANIA ELECTRIC PRODUCTS INC., 100 First Ave., Waltham 54, Mass. / large electronic digital computers on contract / D1
- Tally Register Corp. / D1
- Technitrol Engineering Co. / D1
- Telemeter Magnetics, Inc. / D1
- Teleregister Corp. / D1
- The Thompson-Ramo-Wooldridge Products Co. / D1
- Victor Adding Machine Co. / D1
- Wayne-Georgic Corp. / D1
- West Coast Electronics Co. / D1
- Wright Aeronautical / D1

- D2. Data Recording Equipment  
 Allegany Instrument Co., Inc. / D2  
 American Electronics, Inc. / D2  
**AMPEX CORP., INSTRUMENTATION**  
 DIV., 934 Charter St., Redwood City,  
 Calif. / FR-300, FR-400, FR-200A /  
 DESCR: magnetic tape recorders and re-  
 producers for programming; memory  
 units; computer input, output and stor-  
 age devices for automatic data-reduc-  
 tion systems, machine-tool control sys-  
 tems, etc. / USE: magnetic tape re-  
 corder/reproducer for digital data pri-  
 marily designed for use with computer  
 systems / \$2750 up / D2  
 Alden Electronic & Impulse Recording  
 Equip. Co. / D2  
 Applied Science Corp. of Princeton / D2  
 Armour Research Foundation / D 2  
 Autonetics, Div. of North American Avia-  
 tion, Inc. / D2  
 Avco Mfg. Corp. / D2  
 Beckman Instr. Inc., Systems Div. / D2  
 Bendix Computer Div., Bendix Aviation  
 Corp. — see T5 / D2  
 Bendix Computer Div., Bendix Aviation  
 Corp. — see P6 / D2  
 Benson-Lehner Corp. / D2  
 The Bristol Company / D2  
 The British Tabulating Machine Co., Ltd.  
 / D2  
 J. H. Bunnell & Co. / D2  
 Burlingame Associates, Ltd. / D2  
 Centronix Inc. / D2  
 Century Electronics & Instruments, Inc. /  
 D2  
 C G Electronics Corp. / D2  
 Coleman Engineering Co. / D2  
 Comptometer Corp. — see D1 / D2  
 Consolidated Electrodynamics Corp. / D2  
 Control Data Corp. / D2  
 Cook Electric Co. / D2  
**CUBIC CORPORATION, 5575 Kearny**  
**Villa Rd., San Diego 11, Calif. / trans-**  
**istorized digital recording system /**  
**DESCR: the recording system provides**  
**incremental or whole number conver-**  
**sion from analog (sense shaft position)**  
**to digital form recorded on magnetic**  
**or paper tape in any format / USE:**  
**A/D conversion, tape to tape conver-**  
**sion / — / D2**  
 Curtiss Wright Corp., Electronics Div. /  
 D2  
 Datex Corp. (a subsidiary of G. M. Gian-  
 nini & Co., Inc.)  
 Digitronics Corp. / D2  
 Donner Scientific Co. / D2  
 Epsco, Inc. / D2  
 Ferranti Electric Ltd. — see I3 / D2  
 Fischer & Porter Co. / D2  
 Flight Research, Inc. / D2  
 The Foxboro Co. / D2  
 Friden, Inc. / D2  
**THE GEOTECHNICAL CORP., 3712**  
**Haggar Drive, Dallas 9, Tex. / paper**  
**and film recorders / DESCR: four dif-**  
**ferent models of precision, high reso-**  
**lution, heat-sensitive and light-sensitive**  
**paper and 16 or 35 mm film recorders**  
**for multichannel low-frequency data;**  
**one with a 24-channel capacity, auto-**  
**matic processing and viewing / USE:**  
**to record multichannel analog data with**  
**high resolution and accuracy / \$1,575**  
**to \$7,000, depending on model / D2**
- Gilmore Industries / D2  
 Hathaway Instrument Co. / D2  
 Laboratory for Electronics, Inc. / D2  
 Leeds & Northrup Co. / D2  
 Librascope, Inc. / D2  
 Minneapolis-Honeywell Regulator Co. /  
 D2  
 Minneapolis-Honeywell Regulator Co., Da-  
 vies Labs. Div. / D2  
 F. L. Moseley Co. / D2  
 Non-Linear Systems, Inc. / D2  
**THE NATIONAL CASH REGISTER**  
**CO., So. Main and K Sts., Dayton 9,**  
**Ohio / Various input and other busi-**  
**ness machines / DESCR: adding ma-**  
**chines, bookkeeping machines, account-**  
**ing machines and cash registers linked**  
**with paper tape punches or card**  
**punches / USE: for generating com-**  
**puter input simultaneously with the**  
**posting and creation of necessary origi-**  
**nal records / paper tape records, \$1050**  
**and up; card punch couplers, \$590 and**  
**up; parent machines extra / D2**  
 Non-Linear Systems, Inc. — see C40 /  
 D2  
 Notifier Corp. / D2  
 National Data Processing Corp. / D2  
 Northam Electronics, Inc. / D2  
 Potter Instrument Co., Inc. — see P10 /  
 D2  
 Radiation, Inc. / D2  
 Reeves Instrument Corp. / D2  
 Richardson Camera Co. — see D2A / D2  
 Sanborn Co. / D2  
 Servo Corp. of America / D2  
 Shand & Jurs Co. / D2  
 Smith-Corona, Inc. / D2  
 Soroban Engineering, Inc. / D2  
 Southwestern Industrial Electronics Co. /  
 D2  
 Standard Instrument Corp. / D2  
 The Standard Register Co. / D2  
 Stromberg-Carlson, a Div. of General Dy-  
 namics Corp. / D2  
 Stromberg-Carlson (West Coast) / D2  
 Taller and Cooper / D2  
 Tally Register Corp. / D2  
 Telectro Industries Corp. / D2  
 The Thompson-Ramo-Wooldridge Prod-  
 ucts Co. / D2  
 Weston Instruments / D2
- D2A. Data Reduction Equipment  
 Airborne Instruments Lab., Inc. / D2A  
 Aircraft Armaments, Inc. / D2A  
 Alwac Computer Div., El-Tronics, Inc. /  
 D2A  
 American Electronic Labs. / D2A  
 Armour Research Foundation / D2A  
 Beckman Instrument Inc., Systems Div. /  
 D2A  
 C G Electronics Corp. / D2A  
 Coleman Engineering Co. / D2A  
 Consolidated Avionics Corp. / D2A  
 Data Instruments Div. of Telecomputing  
 Corp. / D2A  
 Davies Laboratories, Inc. / D2A  
 Fischer & Porter Co. / D2A  
 Hycon Eastern, Inc. / D2A  
 Minneapolis-Honeywell Reg. Co., Davies  
 Labs. Div. / D2A  
 Non-Linear Systems, Inc. — see D1 /  
 D2A  
 Northrop Aircraft, Inc. / D2A  
 Northam Electronics, Inc. / D2A
- RICHARDSON CAMERA CO., 2526 N.  
 Ontario St., Burbank, Calif. / Photo-  
 grammetric Data Reduction and Projec-  
 tion Equip. / DESCR: semi-automatic  
 reduction and recording of filmed data;  
 16mm, 35mm, and 70mm interchange-  
 able precision film transport; 5½",  
 9½", and glass plate capabilities, vari-  
 able speed cine-motion, stop motion,  
 fwd-reverse; viewers and portable pro-  
 jectors for study, evaluation, and edit-  
 ing all sizes of film, special cameras /  
 USE: to assess reduce filmed data such  
 as missile test, aircraft test, photo  
 panels, instrumentation recording, os-  
 cillograph and monometer recording  
 etc. / \$3,000 to \$20,000, depending on  
 requirements / D2A  
 Tally Register Corp. / D2A
- D3. Delay Lines (Computer Types)  
 Advance Electronics Lab., Inc. / D3  
 Airdesign, Inc. / D3  
 Aladdin Electronics, Div. of Aladdin In-  
 dustries / D3  
**ANDERSEN LABORATORIES, INC.,**  
**501 New Park Ave., West Hartford,**  
**Conn. / Solid Ultrasonic Delay Lines /**  
**DESCR: Fused quartz electronic delay**  
**devices; suitable for use in storing**  
**modulated r-f signals 6 to 4500 micro-**  
**seconds / USE: in digital computers as**  
**a data storage device; a recirculation**  
**system / \$200 to \$1000 for most com-**  
**puter applications / D3**  
 Arenberg Ultrasonic Laboratory, Inc. / D3  
 Barker & Williamson, Inc. / D3  
 Richard D. Brew and Company, Inc. / D3  
 Bryant Gage & Spindle Division, a Divi-  
 sion of Bryant Chucking Grinder / D3  
 Coilcraft, Inc. / D3  
 Columbia Technical Corp. / D3  
 Computer Control Co., Inc. / D3  
 Computer Engineering Associates, Inc. /  
 D3  
**CONTROL ELECTRONICS CO., INC.,**  
**1925 New York Ave., Huntington Sta.,**  
**N. Y. / delay lines / DESCR: electro**  
**magnetic delay lines, lumped constant**  
**and distributed constant, fixed and vari-**  
**able. A complete line for every com-**  
**puter use; delays up to 20,000 micro-**  
**seconds; frequency response up to 10,-**  
**000 megacycles / USE: pulse delay cir-**  
**cuits, coding, storage, pulse forming,**  
**etc. / \$3 to \$1000 / D3**  
 Corning Glass Works / D3  
 Deltime, Inc. / D3  
 Digitronics Corp. / D3  
 Dilectron Div. of the Gudeman Co. / D3  
 DX Radio Products Co. / D3  
 Edo Corp. / D3  
 Electrometric Division of Whitewater  
 Electronics, Inc. / D3  
 El-Rad Mfg. Co. / D3  
 Epsco Components / D3  
**ESC CORPORATION, 534 Bergen Blvd.,**  
**Palisades Park, N. J. / Continuously**  
**Variable Delay Line / DESCR: maxi-**  
**imum flexibility in application; delay**  
**range covered by single control shaft**  
**in ten turns / USE: as a component in**  
**equipment with a fixed delay or as a**  
**continuously variable test unit / D3**  
**ESC CORPORATION, 534 Bergen Blvd.,**  
**Palisades Park, N. J. / pulse compon-**

ents / DESCR: embedded assemblies and components, shift registers and miniature pulse transformers / USE: radar, computers, pulse applications / \$3 up, dependent on specifications / D3  
**FERRANTI ELECTRIC, INC.**, 95 Madison Ave., Hempstead, N. Y. / magnet-  
 ostriction delay lines, L20, L30, L35,  
 L40 and amplifiers AL100 and AL200  
 and specials / DESCR: delays up to 5  
 milliseconds with taps, bit rates up to  
 1 Mc/s, bandwidth (3 db points) up  
 to 1 Mc/s about 1 Mc/s carrier. Tem-  
 perature coefficient less than 10  
 ppm/°C / USE: digital storage, stable  
 delays, signal integration / \$100 to  
 \$300 / D3

General Electric Co., Electronic Compon-  
 ents Dept. / D3

Gudeman Co. of Calif. / D3

Gulton Mfg. Corp. D3

Helipot Corp. / D3

Jacobs Instrument Co. / D3

Johnson Electronics, Inc. / D3

Leonard Electric Products Co., Inc. / D3

Litton Industries, Components Div. / D3

MacLeod and Hanopol, Inc. / D3

Magne-Pulse Corp. / D3

Melpar, Inc. / D3

National Aircraft Corp. / D3

PCA Electronics, Inc. / D3

Polyphase Instrument Co. / D3

Shallcross Mfg. Co. / D3

Short Bros. & Harland Ltd. / D3

Sturup, Inc. / D3

**TECHNITROL ENGINEERING CO.**,  
 1952 E. Allegheny Ave., Philadelphia  
 34, Pa. / delay lines, electrical /  
 DESCR: electrical delay lines — con-  
 tinuous wound — stock and to specifi-  
 cations, encapsulated and hermetically  
 seated. / USE: computers — short stor-  
 age loops, dynamic circuit flip-flops  
 time correction, distributors / \$1.75 to  
 \$25 / D3

Telectro Industries Corp. / D3

Valor Electronics, Inc. / D3

Wheeler Electronic Corp., Sub. of Sperry  
 Rand Corp. / D3

**WHITWATER ELECTRONICS, INC.**,  
 Electrometric Div., 136 W. Main St.,  
 Whitewater, Wis. / delay lines /  
 DESCR: lumped constant or distributed  
 constant type / USE: pulse delay / \$2  
 to \$150. / D3

#### D4. Desk Calculators

Clary Corp. / D4

Comptometer Corp. / D4

Fabric a Addizionatrice Italiana S.S. / D4  
 Facit, Inc. / D4

**FRIDEN, INC.**, San Leandro, Calif. /  
 automatic desk calculator / DESCR:  
 add, subtract, multiply, divide auto-  
 matically; wide variety of styles in-  
 cluding Model SRW for automatic ex-  
 traction of square root / USE: desk  
 calculation / \$440 to \$1300 (taxes not  
 included) / D4

International Business Machines Corp. —  
 see D1 / D4

Litton Industries, Inc. / D4

**MARCHANT CALCULATORS, INC.**,  
 6701 San Pablo Ave., Oakland 8,  
 Calif / Automatic electric calcula-

tors (desk type) / DESCR: fully auto-  
 matic models, with multiplication, di-  
 vision, decimals, carriage control, dial  
 clearance, accumulation, round-off,  
 squaring / From \$475 to \$985 / D4

**MARCHANT CALCULATORS, INC.**,  
 \*a / Marchant Binary-Octal calculator /  
 DESCR: fully automatic multiplica-  
 tion and division directly performed in  
 both binary and octal number systems;  
 conversions between decimal number  
 system and octal or binary number  
 systems readily made with complete  
 display of result / USE: adjunct to  
 binary electronic digital computers /  
 \$2950 / D4

**MONROE CALCULATING MACHINE**  
**CO.**, Orange, N. J. / Desk Calculators  
 / DESCR: nine fully automatic models,  
 two of which are duplex models which  
 add while they multiply and divide,  
 store intermediate answers; one of  
 which is a statistical model with vee-  
 der counter to record number of multi-  
 plications. Ten semi-automatic or hand  
 models. One especially made for travel  
 use with fold up legs and carrying case.  
 Both electric and manually operated /  
 \$275 to \$1290 / D4

Societe d'Electronique et d'Automatisme /  
 D4

Vaucanson / D4

#### D5. Dials

Helipot Corp. / D5

Reeves Instrument Corp. / D5

Stromberg-Carlson, a Div. of General Dy-  
 namics Corp. / D5

Techniques, Inc. / D5

#### D6. Differential Analyzers

**AUTONETICS**, a Div. of North American  
 Aviation, Inc., 9150 E. Imperial High-  
 way, Downey, Calif. / **NATDAN** Dig-  
 ital Differential Analyzer / DESCR:  
 serial, rectangular integration, 93 in-  
 tegrator computer. 34.4 separate com-  
 plete solutions per second. Memory-  
 rotating magnetic disc, 32 bits / inte-  
 grator; 28 bits number length / — /  
 D6

**BENDIX COMPUTER DIVISION, BEN-  
 DIX AVIATION CORP.**, 5630 Arbor  
 Vitae St., Los Angeles 45, Calif. /  
**DA-1** digital differential analyzer /  
 DESCR: 104 integrators, 104 constant  
 multipliers. Operates as accessory to  
 Bendix G-15 general purpose digital  
 computer. Uses all G-15 input-output  
 devices (see C24) as well as point  
 plotter. Can be used as DDA alone or  
 as combination general purpose com-  
 puter and DDA / USE: easy solution  
 to differential equations / \$13,700,  
 sale; \$550 a mo., lease (G-15 gen-  
 eral purpose computer also required)  
 / D6

Donner Scientific Co. / D6

**FERRANTI ELECTRIC, LTD.**, Industry  
 St., Toronto, Ontario / differential  
 analyzers / DESCR: digital custom  
 built differential analyzers for use with  
 simulators and for continuous path  
 machine tool and like controls / D6

General Electric Co., Computer Dept. /  
 D6

Goodyear Aircraft Corp. / D6

Librascope, Inc. / D6

Litton Industries, Inc. / D6

Packard Bell Computer Corp. / D6

Radiation Counter Laboratories, Inc. / D6

Reeves Instrument Corp. / D6

Servo Corp. of America / D6

Societe d'Electronique et d'Automatisme /  
 D6

Univ. of Sydney, Australia / D6

#### D7. Diodes (Computer Types)

**AMPEREX ELECTRONIC COMPANY**,  
 a Div. of No. Amer. Philips Co., Inc.,  
 230 Duffy Ave., Hicksville, L. I. /  
 Computer components: premium quali-  
 ty, "Reliable" electron tubes, indicator  
 tubes, transistors, and crystal diodes.  
 Ferrites ("Ferroxcube"). Semiconduc-  
 tors. Also application engineering  
 service for these products / \$1 to \$3000  
 depending on type / D7

Bendix Aviation Corp., Research Labora-  
 tories Div. / D7

**CBS-HYTRON**, Lowell, Mass. / Diodes  
 / D7

**Hoffman Electronics Corp.**, Semiconduc-  
 tor Div. / D7

Hughes Aircraft Co. / D7

International Resistance Co. / D7

Kemtron Electron Products, Inc. / D7

Lansdale Tube Co. / D7

National Union Electric Corp. / D7

Pacific Semiconductors, Inc. / D7

**RADIO CORP. OF AMERICA, SEMI-  
 CONDUCTOR & MATERIALS DIV.**,  
 Somerville, N. J. / diodes / D7

Radio Development & Research Corp. / D7

**RAYTHEON MFG. CO., SEMICON-  
 DUCTOR DIV.**, 55 Chapel St., Newton  
 58, Mass. / semiconductor diodes and  
 rectifiers / DESCR: silicon and german-  
 ium diodes, silicon rectifiers / USE:  
 computer and related uses / — / D7

**SYLVANIA ELECTRIC PRODUCTS,  
 INC.**, 1740 Broadway, New York 19,  
 N. Y. / Electronic Tubes, Diodes,  
 Transistors / DESCR: semiconductor  
 diodes and transistors, vacuum tube  
 type diodes, amplifying electronic tubes  
 / USE: in clipping, clamping, gating,  
 and pulse amplifier circuits / \$1 to  
 \$5 / D7

Sylvania Electric Products, Inc., Woburn  
 Div. / D7

Transistor Products, Inc. / D7

Transitron Electronic Corp. / D7

#### D8. Diodes (Computer Types), Ger- manium

Allgemeine Elektricitaets-Gesellschaft / D8  
**CBS-Hytron**, a Div. of Columbia Broad-  
 casting System / D8

Clevite Transistor Products / D8

Federal Telephone and Radio Co. / D8

General Electric, Light Military Electronic  
 Equip. Dept. / D8

General Electric Co., Semiconductor Prod-  
 ucts Dept. / D8

General Transistor Corp. / D8

Hughes Products, Semiconductor Div.,  
 Hughes Aircraft Co. / D8

International Rectifier Corp. / D8

Kemtron Electron Products, Inc. / D8

Pacific Semiconductors, Inc. / D8

Radio Receptor Co., Inc. / D8

- Raytheon Mfg. Co. / D8  
 Transitron Electronic Corp. / D8  
 Tung-Sol Electric, Inc. / D8  
 U.S. Dynamics Corp. / D8  
 Westinghouse Electric Corp., Semiconductor Dept. / D8
- D9. Diodes (Computer Types), Power Automatic Manufacturing Div. / D9  
 CBS-Hytron, a Div. of Columbia Broadcasting System / D9  
 FERRANTI ELECTRIC, LTD., Industry St., Toronto, Ontario / power diodes / DESCR: silicon / D9  
 Kemtron Electron Products, Inc. / D9  
 Qutronic Semiconductor Corp. / D9  
 Raytheon Mfg. Co. / D9  
 Texas Instruments Inc., Semiconductor-Components Div. / D9  
 Vickers Inc., Electric Products Div. / D9  
 Westinghouse Electric Corp., Semiconductor Dept. / D9
- D10. Diodes (Computer Types), Silicon Automatic Manufacturing Div. / D10  
 Bendix Aviation Corp., Research Laboratories Div. / D10  
 Bradley Laboratories, Inc. / D10  
 CBS-Hytron, a Div. of Columbia Broadcasting System / D10  
 Cevite Transistor Products / D10  
 FERRANTI ELECTRIC, LTD., Industry St., Toronto, Ontario / silicon diodes / DESCR: high conductance computer / D10  
 General Electric Co., Semiconductor Products Dept. / D10  
 General Transistor Corp. / D10  
 Helipot Corp. / D10  
 Hughes Products, Semiconductor Div., Hughes Aircraft Co. / D10  
 International Rectifier Corp. / D10  
 Kemtron Electron Products, Inc. / D10  
 P. R. Mallory & Co., Inc. / D10  
 National Fabricated Products, Inc. / D10  
 National Semiconductor Products / D10  
 Pacific Semiconductors, Inc. / D10  
 Qutronic Semiconductor Corp. / D10  
 Radio Receptor Co., Inc. / D10  
 Raytheon Mfg. Co. / D10  
 SPERRY SEMICONDUCTOR DIVISION OF SPERRY RAND CORP., Wilson Ave., S. Norwalk, Conn. / Semiconductor Products / Research and development, as well as manufacturing of a line silicon diodes / USE: for all general purposes and computer applications for semiconductor devices / \$2 to \$8 / D10  
 Texas Instruments Inc., Semiconductor-Components Div. / D10  
 Thermosen, Inc. / D10  
 Transitron Electronic Corp. / D10  
 U.S. Dynamics Corp. / D10  
 Westinghouse Electric Corp., Semiconductor Dept. / D10
- D11. Discs, Magnetic  
 Autonetics, Div. of North American Aviation, Inc. / D11  
 BRYANT GAGE & SPINDLE DIVISION, Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, tape transports, magnetic heads. Magnetic memory systems and components, standard units or designed to customer specifications. Air bearings, super precision ball bearings. Belt drive, integral motor drive, speeds to 200,000 RPM, capacities to 120,000,000 bits / \$1,000 to \$50,000 / D11  
 Control Data Corp. / D11  
 REMINGTON RAND UNIVAC DIV. OF SPERRY RAND CORP., 1902 W. Minnehaha Ave., St. Paul, Minn. / Magnetic Storage Drums / DESCR: Digital drums: motor-driven, rapid-access, high-speed storage, record information in binary form. Analog drums: utilize boundary-displacement recording techniques / USE: the digital drums are used as memory units for electronic computers and data reductions systems. The analog drums have been used for recording of power-line transients, phase-shifting of signals, signal-to-noise enhancement, and voice recording / \$3780 to \$21,700 (prices without heads) / D11
- D12. Drums, Magnetic  
 Alwac Computer Div., El-Tronics, Inc. / D12  
 Bendix Aviation Corp., Eclipse-Pioneer Div. / D12  
 The British Tabulating Machine Co., Ltd. / D12  
 BRYANT GAGE & SPINDLE DIVISION, Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, tape transports, magnetic heads. Magnetic memory systems and components, standard units or designed to customer specifications. Air bearings, super precision ball bearings. Belt drive, integral motor drive, speeds to 200,000 RPM, capacities to 120,000,000 bits / \$1,000 to \$50,000 / D12  
 Consolidated Diesel Electric Corp. / D12  
 Control Data Corp. / D12  
 Digitronics Corp. / D12  
 Electro-Machine Corp. / D12  
 FERRANTI ELECTRIC, INC., 95 Madison Ave., Hempstead, N. Y. / magnetic storage drums 200B and 1009 / DESCR: 200B: 20,000 bits 2.5 millisecc access, small size, 20 tracks. 1009: 400,000 bits, 144 tracks, up to 6000 RPM, can be synchronized to external clock / USE: 200B, buffer storage or small volume main storage; 1009, main storage — can be used in multiple, also available as storage unit with complete electronics / 200B, \$3000 to \$1,500 with heads; 1009, \$14,000 with heads / D12  
 FERRANTI ELECTRIC, LTD., Industry St., Toronto, Ontario / magnetic drums / DESCR: ball bearing drums 2" and 10" standard. Air bearing (industrial type) 6" and 12" standard. Other drums designed to exact requirements / D12  
 Intra Corp. / D12  
 LABORATORY FOR ELECTRONICS, COMPUTER PRODUCTS DIV., 141 Malden St., Boston, Mass. / special magnetic drums / DESCR: airborne type magnetic drums of minimum size and maximum capacity. Drum available for recording of up to 500 bits per inch. Special drum designed and manufactured to customer's specification / USE: in air and space technology / \$5,000 and up / D12  
 LABORATORY FOR ELECTRONICS, INC., COMPUTER PRODUCTS DIV., 141 Malden St., Boston, Mass. / HD file drum / DESCR: for rapid random access to enormous volume of stored data. One drum stores 15 million bits, 1040 bits per inch on 15 inch by 14 inch drum. Average random access is 180 milliseconds. Self-clocked reading / USE: bulk storage of data / \$35,000 and up / D12  
 The Magnavox Co. / D12  
 Magne-Pulse Corp. / D12  
 Miles Reproducer Co., Inc. / D12  
 MONROE CALCULATING MACHINE CO., ELECTRONICS DIV., Morris Plains, N. J. / Magnetic drums / DESCR: Monroe modular magnetic storage drums offer a wide variety of sizes, diameters 5 to 10 inches, lengths 1-1/4 to 2-1/4 inches, speeds to 4000 RPM. Model 320 in 6 or 8 inch diameters, 20 inches long. Used in business and military computers for at least 5 years / USE: for storage, transfer and synchronous circulation of digital data / \$1000 up / D12  
 Norton Associates, Inc. — see H1 / D12  
 J. B. Rea Co., Inc. / D12  
 Remington Rand Univac Division, Sperry Rand Corp. / D12  
 Societe d'Electronique et d'Automatisme / D12  
 Strand Engineering Co. / D12  
 Wharf Engineering Lab. / D12  
 Wright Engineering Co. / D12
- E0. Economic Research  
 CORPORATION FOR ECONOMIC AND INDUSTRIAL RESEARCH, Main Office: 734 15th St. N.W., Wash., D. C., Research Center: 1200 Jefferson Davis Hwy., Arlington 2, Va. / Specialists in the application of modern analytical techniques to government, business, and financial problems. Offer a full range of services in operations research, computing, programming, data processing, sample design, market research, problem formulation, mathematical structuring / E0  
 KCS Data Control, Ltd. / E0
- E1. Education  
 ADB Institutet / E1  
 Brown University, Div. of Applied Mathematics / E1  
 Business Electronics, Inc. / E1  
 DATAmatic DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 151 Needham St., Newton Highlands 61, Mass. / classes in data processing / DATAmatic Division, Minneapolis-Honeywell conducts classes in data processing including 2 and 3-day executive survey sessions, one and two-week introductory courses and a 6-week operating and programming course. Classes are conducted regularly



E1

at DATAmatic's main offices in Newton, Mass. and periodically in leading cities throughout the country. Attendance by invitation / No charge / E1

The de Florez Co., Inc. / E1

Dian Laboratories, Inc. / E1

John Diebold and Associates, Inc. / E1

**ELECTRONIC COMPUTER PROGRAMMING INSTITUTE**, 1234 Broadway, New York 1, N. Y. / training and education — computer programming / DESCR: training courses in computer programming for all types of digital computers, IBM 650, 705, 704, 305 RAMAC etc; individual registration, contract for entire class at our training center or on company premises / E1

Imperial College / E1

Instrument Society of America / E1

Moore School of Electrical Engineering / E1

Stanford Computation Center, Stanford University / E1

Univ. of Illinois / E1

Massachusetts Institute of Technology / E1

**E2. Embedded Assemblies and Components**

Advanced Electronics, Inc. / E2

Airflyte Electronics Co. / E2

Airtronics, Inc. / E2

C G Electronics Corp. / E2

Control Data Corp. / E2

The Daven Co. / E2

Epsco Components / E2

**ESC CORPORATION**, 534 Bergen Blvd., Palisades Park, N. J. / pulse components / DESCR: embedded assemblies and components, shift registers and miniature pulse transformers / USE: radar, computers, pulse applications / \$3 up, dependent on specifications / E2

Ferranti Electric Ltd. — see C13 / E2

General Electric Co., Rectifier Dept. — see P8 / E2

General Electric Co., Specialty Electronic Components Dept. / E2

Johnson Electronics, Inc. / E2

Librascope, Inc. / E2

Plastic Capacitors, Inc. / E2

Technitrol Engineering Co. / E2

Telectro Industries Corp. / E2

The Walkirt Co. / E2

**F1. Facsimile Equipment**

Addressograph-Multigraph Corp. / F1

Alden Electronic & Impulse Recording Equip. Co. / F1

**AMPEX CORP., INSTRUMENTATION DIV.**, 934 Charter St., Redwood City, Calif. / Ampex Faxtape Recorder / DESCR: a magnetic tape recorder / reproducer for receiving, storing, and retransmitting facsimile data / USE: records and reproduces in direct conjunction with commercial transceivers / \$12,000 / F1

Automation Management, Inc. / F1

Avion Div., ACF Industries / F1

Barker & Williamson, Inc. / F1

Brick Electronic Equipment Co. / F1

Corbin Corp. / F1

Eastman Kodak Co. / F1

**SYLVANIA ELECTRIC PRODUCTS, INC.**, 1740 Broadway, New York 19, N. Y. / Computer Products: Twin-

Triode tubes, Multigrid tubes, Decade Counter tubes / \$1 to \$14 / F1

**F1A. Fans & Blowers**

John Oster Mfg. Co., Avionic Div. / F1A

Rotron Manufacturing Co. / F1A

**F2. Fasteners & Fastening Devices**

Alden Products Co. / F2

**HYDRO MOLDING CO., INC.**, 100 Sharron Ave., Plattsburg, N. Y. / screws / DESCR: screws for self-insulating fastening. / — / F2

**F3. Fire Control Equipment**

Autonetics, Div. of North American Aviation, Inc. / F3

Avco Mfg. Corp. / F3

Avion Div., ACF Industries

Belock Instrument Corp. / F3

Canadian Applied Research, Ltd. / F3

Control Instrument Co. / F3

Corbin Corp. / F3

Eastman Kodak Co. / F3

**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto, Ontario / fire control equipment / DESCR: complete systems and components / F3

N. V. Hollandse Signaalapparaten / F3

Hughes Research and Development Lab. / F3

The W. L. Maxson Corp. / F3

Norden-Ketay Corp. / F3

Notifier Corp. / F3

**PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV.**, 4700 Wissahickon Ave., Philadelphia 44, Pa. / Transac C-series / DESCR: airborne, high-speed general purpose digital computer for system control (completely transistorized drum; core memory) / USE: fire control, cruise control, navigation, flight control / \$100,000 up / F3

Raytheon Manufacturing Co. / F3

Servo Corp. of America / F3

Sperry Rand Corp. / F3

Vickers Inc., Electric Products Div. / F3

**G1. Generators, Function**

Beckman Instruments, Berkeley Div. / G1

Bendix Aviation Corp., Research Laboratories Div. / G1

Diehl Mfg. Co. / G1

Electrol, Inc. / G1

Elgenco, Inc. / G1

**FERRANTI ELECTRIC, LTD.**, Industry St., Toronto, Ontario / function generators / DESCR: amplifiers with particular amplitude response characteristics tailored to suit equations to customer's needs / G1

Intercontinental Dynamics Corp. / G1

Kaiser Metal Products / G1

Librascope, Inc. / G1

Mid-Century Instrumatic Corp. / G1

Packard Bell Computer Corp. / G1

Reeves Instrument Corp. / G1

Short Brothers & Harland, Ltd. / G1

Statistic Instrument Co. / G1

Wang Laboratories / G1

**G2. Generators, Function, Electronic**

Beckman Instruments, Berkeley Div. / G2

Bendix Aviation Corp., Research Laboratories Div. / G2

C G Electronics Corp. / G2

Computer Engineering Associates, Inc. / G2

Corbin Corp. / G2

Donner Scientific Co. / G2

Fairchild Controls Corp., Components Div. / G2

General Electric Co., Computer Dept. / G2

Kay Electric Co. / G2

Librascope, Inc. / G2

Mid-Century Instrumatic Corp. / G2

Packard Bell Computer Corp. / G2

George A. Philbrick Researches, Inc. / G2

Reeves Instrument Corp. / G2

Rese Engineering, Inc. / G2

Rutherford Electronics Co. / G2

Societe d'Electronique et d'Automatisme / G2

Statistic Instrument Co. / G2

**G3. Generators, Function, Mechanical**

American Electronics, Inc. / G3

Bendix Aviation Corp., Eclipse-Pioneer Div. / G3

Bendix Aviation Corp., Research Laboratories Div. / G3

Corbin Corp. / G3

Sangamo Electric Co. / G3

**G4. Geophysical Apparatus**

Canadian Applied Research, Ltd. / G4

C G Electronics Corp. / G4

Cook Electric Co. / G4

Curtiss-Wright Corp., Electronics Div. / G4

Epsco Components / G4

The Geotechnical Corp. / G4

Seismograph Service Corp. / G4

Southwestern Industrial Electronics Co. / G4

**H1. Heads, Magnetic**

Avco Mfg. Corp. / H1

Alwac Computer Div., El-Tronics, Inc. / H1

**BRYANT GAGE & SPINDLE DIVISION**, Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, tape transports, magnetic heads. Magnetic memory systems and components, standard units or designed to customer specifications. Air bearings, super precision ball bearings. Belt drive, integral motor drive, speeds to 200,000 RPM, capacities to 120,000,000 bits / \$1,000 to \$50,000 / H1

Consolidated Electrodynamics Corp. / H1

Control Data Corp. / H1

Thomas A. Edison Industries / H1

**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / magnetic heads / DESCR: standard and special magnetic heads for drum writing and reading / H1

**LABORATORY FOR ELECTRONICS, COMPUTER PRODUCTS DIV.**, 141 Malden St., Boston, Mass. / magnetic heads / DESCR: head design, testing, and production facilities. Constant high quality magnetic read/record heads can be supplied either to our design or to customer standards. Specializing in heads for use in high density recording / USE: magnetic drum, magnetic tape / \$10 and up / H1

- Laboratory for Electronics, Inc., Computer Products Div. — see D12 / H1
- Librascope, Inc. / H1
- Lipps Engineering / H1
- Minneapolis-Honeywell Reg. Co., Davies Labs. Div. / H1
- MONROE CALCULATING MACHINE CO., ELECTRONICS DIV.,** Morris Plains, N. J. / Magnetic Read / Record Heads DESCR: primarily two types, multiple read/record assemblies for general storage requirements and single unit heads for clock delay or precession. Unique design permits accurate head calibration; angular adjustment of head has negligible effect on drum-head distance; completely shielded and encapsulated; possesses unusual dimensional stability / USE: storage and playback of information on drums / \$23 each / H1
- NORTON ASSOCIATES, INC.,** P. O. Box 96, Garden City, N. Y. / Magnetic heads / DESCR: design and manufacture of standard and special magnetic record, playback, and erase heads in single and multi-track arrangements for magnetic tape, film, wire, drum and magnetic ink character recognition. Design services in digital computing instrumentation and applications / USE: in instrumentation for long and short memory / wide price range / H1
- Potter Instrument Co., Inc. / H1
- J. B. Rea Co., Inc. / H1
- Southwestern Industrial Electronics Co. / H1
- Telectro Industries Corp. / H1
- Westrex Corp. / H1
- Wharf Engineering Lab. / H1
- H2. Heads, Magnetic, Reading**
- American Electronics, Inc. / H2
- Avco Mfg. Corp. / H2
- Bryant Gage & Spindle Div. / H2
- Consolidated Electrodynamics Corp. / H2
- Control Data Corp. / H2
- Data Instruments Div. of Telecomputing Corp. / H2
- General Transistor Corp. / H2
- Librascope, Inc. / H2
- Lipps Engineering / H2
- Miles Reproducer Co., Inc. / H2
- Minneapolis-Honeywell Regulator Co., Davies Labs. Div. / H2
- Monroe Calculating Machine Co., Electronics Div., Morris Plains, N. J. — see H1 / H2
- Norton Associates, Inc. — see H1 / H2
- Potter Instrument Co., Inc. / H2
- J. B. Rea Co., Inc. / H2
- Societe d'Electronique et d'Automatisme / H2
- H3. Heads, Magnetic, Recording**
- American Electronics, Inc. / H3
- Avco Mfg. Corp. / H3
- Bryant Gage & Spindle Division, a division of Bryant Chucking Grinder Co. / H3
- Consolidated Electrodynamics Corp. / H3
- Control Data Corp. / H3
- Cook Electric Co. / H3
- Davies Laboratories, Inc. / H3
- Ferranti Electric Ltd. — see H1 / H3
- Ferroxcube Corp. of America / H3
- General Transistor Corp. / H3
- Librascope, Inc. / H3
- Lipps Engineering / H3
- Miles Reproducer Co., Inc. / H3
- Minneapolis-Honeywell Regulator Co., Davies Labs. Div. / H3
- Monroe Calculating Machine Co., Electronics Div., Morris Plains, N. J. — see H1 / H3
- Norton Associates, Inc. — see H1 / H3
- Potter Instrument Co., Inc. / H3
- J. B. Rea Co., Inc. / H3
- Societe d'Electronique et d'Automatisme / H3
- I1. Indicators (Computer Types)**
- Aero Electronics Co. / I1
- The Austin Co. / I1
- Bowmar Instrument Corp. / I1
- The Bristol Company / I1
- Burroughs Corp., Electronic Tube Div. / I1
- Donner Scientific Co. / I1
- The Kybernetes Corp. / I1
- Leeds & Northrup Co. / I1
- Librascope, Inc. / I1
- Mico Instrument Co. / I1
- Minneapolis-Honeywell Regulator Co., Boston Division / I1
- Minneapolis-Honeywell Regulator Co., Industrial Division / I1
- Saunders & Co. / I1
- Servo Corp. of America / I1
- Stromberg-Carlson (West Coast) / I1
- Technitrol Engineering Co. / I1
- Union Switch & Signal Div. of Westinghouse Air Brake Co. / I1
- The Walkirt Co. / I1
- Weston Instruments / I1
- I2. Information Retrieval Devices**
- AMPEX CORP.,** Instrumentation Div., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder/reproducer for digital data primarily designed for use with computer systems / \$2750 up / I2
- Benson-Lehner Corp. / I2
- C G Electronics Corp. / I2
- Computer Control Co., Inc. / I2
- Consolidated Electrodynamics Corp. / I2
- Control Data Corp. / I2
- General Electric Co., Computer Dept. / I2
- The Geotechnical Corp. / I2
- International Telemeter Corp. / I2
- LABORATORY FOR ELECTRONICS,** Computer Products Div., 141 Malden St., Boston, Mass. / Rastac and Rastad Systems / DESCR: Rastac system facilitates the use of the HD File Drum, which stores 15,000,000 bits of data, in conjunction with most general purpose digital computers. Rastad offers all the features of the Rastac system plus the ability to query the drum storage and display data on the SM Viewer independent of the general purpose computer / USE: storage and inquiry system / \$85,000 and up / I2
- Laboratory for Electronics, Computer Products Div. — see V1 / I2
- Librascope, Inc. / I2
- National Data Processing Corp. / I2
- Panellit, Inc. / I2
- Potter Instrument Co., Inc. / I2
- Stromberg-Carlson, Div. of General Dynamics Corp. / I2
- Zator Co. / I2
- I3. Input/Output Devices**
- Aeronca Mfg. Corp. / I3
- Airborne Instrument Laboratories, Modac Div. / I3
- Alwac Computer Div., El-Tronics, Inc. / I3
- American Electronics, Inc. / I3
- AMPEX CORP.,** Instrumentation Div., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder/reproducer for digital data primarily designed for use with computer systems / \$2750 up / I3
- Automation Management, Inc. / I3
- AVCO MANUFACTURING CORP.,** RESEARCH AND ADVANCED DEVELOPMENT DIV., 20 So. Union St., Lawrence, Mass. / AVCOM Compressor-Expander / DESCR: accommodates high-speed input-output requirements, data storage requirements and coding for telephone line transmission. Used as data input device from remote location / USE: computer input-output device / price governed by application / I3
- Avion Div., ACF Industries / I3
- Beckman Instruments, Berkeley Div. / I3
- Bendix Computer Division, Bendix Aviation Corp. — see R7 / I3
- Bendix Computer Division, Bendix Aviation Corp. — see C43 / I3
- Bendix Computer Division, Bendix Aviation Corp. — see T5 / I3
- Bendix Computer Division, Bendix Aviation Corp. — see C6 / I3
- Benson-Lehner Corp. / I3
- Bowmar Instrument Corp. / I3
- The British Tabulating Machine Co., Ltd. / I3
- Burroughs Corp., ElectroData Division / I3
- Century Electronics & Instruments, Inc. / I3
- C G Electronics Corp. / I3
- Chrono-log Corp. / I3
- Comptometer Corp. / I3
- Computer Engineering Associates, Inc. / I3
- Consolidated Electrodynamics Corp. / I3
- Control Data Corp. / I3
- Corbin Corp. / I3
- Creed & Co., Ltd. / I3
- Datex Corp. (a subsidiary of G. M. Gianini & Co., Inc.) / I3
- Daystrom Inc., Daystrom Systems Div. / I3
- Dennison Manufacturing Co. / I3
- Epsco, Inc. / I3
- FERRANTI ELECTRIC LTD.,** Industry St., Toronto, Ontario / input/output devices / DESCR: transactor. Static

mark-sense card reader incorporating scanning mechanism for transmission of digits in preset order. Reply is by edge-punched notches for stock control and like applications. Tape readers (See R6 and T9). Spherical tracking resolver, digital for environment equipment. Linear and radial digital transducers employing diffraction grating techniques. Digital projection displays for plain language messages. (see also D2, O1, R1) / I3

General Electric Co., Computer Dept. / I3

Huck Co. / I3

Intercontinental Dynamics Corp. / I3

Jacobs Instrument Co. / I3

A. Kimball Co. — see D1 / I3

Librascope, Inc. / I3

Mack Electronics / I3

Minneapolis-Honeywell Regulator Co. / I3

National Bureau of Standards, Data Processing Systems Div. / I3

The National Cash Register Co. / I3

Potter Instrument Co., Inc. — see P10 / I3

Potter Instrument Co., Inc. — see T2 / I3

Radiation, Inc. / I3

Ransom Research / I3

Reeves Instrument Corp. / I3

**REMIINGTON RAND UNIVAC DIV., SPERRY RAND CORP.**, 315 4th Ave., New York 10, N. Y. / Synchro-Tape Typewriter / DESCR: Specially equipped electric typewriter with separate electronic reading and punching units (available with either or both). System automatically produces punched paper tape as original documents are typed, and automatically types from punched tape at approximately 120 words per minute. Can be designed for 5, 6, 7, or 8 hole tape codes / — / I3

Saunders & Co. / I3

Smith-Corona, Inc. / I3

Soroban Engineering, Inc. / I3

The Standard Register Co. / I3

Stromberg-Carlson (West Coast) / I3

Weston Instruments / I3

#### I4. Integrators

Beckman Instruments, Berkeley Div. / I4

Bendix Aviation Corp., Research Laboratories Div. / I4

C G Electronics Corp. / I4

Computer Engineering Associates, Inc. / I4

Daystrom, Inc., Daystrom Systems Div. / I4

Donner Scientific Co. / I4

Librascope, Inc. / I4

Mid-Century Instrument Corp. / I4

Reeves Instrument Corp. / I4

Southwestern Industrial Electronics Co. / I4

Telectro Industries Corp. / I4

#### I5. Integrators, Electronic

Avion Div., ACF Industries / I5

Beckman Instruments, Berkeley Div. / I5

Bendix Aviation Corp., Eclipse-Pioneer Div. / I5

Bendix Aviation Corp., Research Laboratories Div. / I5

Computer Engineering Associates, Inc. / I5

Corbin Corp. / I5

Daystrom Inc., Daystrom Systems Div. / I5

Donner Scientific Co. / I5

Ferranti Electric Ltd. — see A3 / I5

The Foxboro Co. / I5

The Franklin Institute Lab. / I5

General Electric Co., Computer Dept. / I5

Mid-Century Instrument Corp. / I5

Packard Bell Computer Corp. / I5

George A. Philbrick Researches, Inc. / I5

Reeves Instrument Corp. / I5

Societe d'Electronique et d'Automatisme / I5

#### I6. Integrators, Mechanical

Avion Div., ACF Industries / I6

Bendix Aviation Corp., Eclipse-Pioneer Div. / I6

Bendix Aviation Corp., Research Laboratories Div. / I6

Canadian Applied Research, Ltd. / I6

Corbin Corp. / I6

The Foxboro Co. / I6

Measurement Engineering Limited / I6

#### I7. Inventory Systems

American Electronics, Inc. / I7

Benson-Lehner Corp. / I7

C G Electronics Corp. / I7

Computer Control Co., Inc. / I7

Control Data Corp. / I7

Data Instruments Div. of Telecomputing Corp. / I7

**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / inventory systems / DESCR: airline reservations system — readily adaptable to freight or passenger service by any carrier, e. g. railroad freight car control. Uses the Ferranti Transactor and large multirum computer / I7

General Electric Co., Computer Dept. / I7

A. Kimball Co. — see D1 / I7

Librascope, Inc. / I7

Strandberg Engineering Lab., Inc. / I7

#### J1. Jacks

Accurate Electronics Corp. / J1

Aerovox Corp. / J1

Alden Products Co. / J1

**CAMBRIDGE THERMIONIC CORP.**, 445 Concord Ave., Cambridge 38, Mass. / Electronic and electrical components / DESCR: miniature and sub-miniature plugs and jacks; gold, silver and other finish terminals; terminal boards; press mount and spring loaded diode clips; panel and chassis hardware; insulated terminals; coils and coil forms; capacitors / USE: individual piece part component / under \$5 / J1

Centronix, Inc. / J1

Litton Industries, Components Div. / J1

P. R. Mallory & Co., Inc. / J1

Stromberg-Carlson, Div. of General Dynamics Corp. / J1

Superex Electronics Corp. / J1

#### K1. Keyboards

American Electronics, Inc. / K1

Data Instruments Div. of Telecomputing Corp. / K1

Burroughs Corp., ElectroData Div. / K1

Control Data Corp. / K1

**SOROBAN ENGINEERING, INC.**, Box 1717, Melbourne, Fla. / Coding Keyboards / DESCR: specialized and custom-made keyboard units for use in automatic control applications / — / \$390 to \$850 / K1

#### L1. Lights, indicator

**DIALIGHT CORP.**, 60 Stewart Ave., Brooklyn 37, N. Y. / Indicator Lights (Dialco) / DESCR: complete line of indicator lights and pilot lights for every application. For the computer-automation fields: ultra-miniature (3/8" mounting) indicator lights, trade-named "Datalites," and made in 2 basic styles: lamp holders with Dialco replaceable lamp cartridges; also integrated with "Datalites" with built-in neon lamps that are not replaceable / L1

#### M1. Magnets

Aerovox Corp. / M1

The Arnold Engineering Co. / M1

Ferroxcube Corp. of America / M1

The Indiana Steel Products Co. / M1

Stackpole Carbon Co. / M1

Yale & Towne Mfg. Co., Powdered Metal Products Div. / M1

#### M1A. Markers

**WESTLINE PRODUCTS DIVISION** of Western Lithograph Co., 600-CA East 2nd St., Los Angeles 54, Calif. / MARKERS, wire, E-Z Code / DESCR: Self-adhering stocked cloth or aluminum-foil wire markers for positive identification of wire, cables, harnesses, miniature wires and wires of any size. Available in numbers, letters, sequence and combinations. Conforms to MIL-D 10369B fungus resistance, plus & minus 300 deg. F. Conforms to NEMA color code. Also available in vinyl, acetate, glass-cloth, etc. USE: wire markers, terminal strips, sub-miniature wires, toroidal coils, instruction, specification, inspection, write-on, calibration, certification, directional labels, etc. / M1A

#### M2. Memory Systems

Airtronic, Inc. / M2

**AMPEX CORP.**, Instrumentation Div., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder/reproducer for digital data primarily designed for use with computer systems / \$2750 up / M2

Analogue Controls, Inc. / M2

Arenberg Ultrasonic Laboratory, Inc. / M2

Bendix Aviation Corp., Bendix Computer Division / M2

Benson-Lehner Corp. / M2

The British Tabulating Machine Co., Ltd. / M2

**BRYANT GAGE & SPINDLE DIVISION**, Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems,

precision electromechanical devices, high-speed motors, drums, discs, tape transports, magnetic heads. Magnetic memory systems and components, standard units or designed to customer specifications. Air bearings, super precision ball bearings. Belt drive, integral motor drive, speeds to 200,000 RPM, capacities to 120,000,000 bits / \$1,000 to \$50,000 / M2

Burrhoughs Corporation / M2

Canadian Westinghouse Co., Ltd., Electronics Div. / M2

C G Electronics Corp. / M2

Computer Control Co., Inc. / M2

Consolidated Controls Corp. / M2

Control Data Corp. / M2

Daystrom Inc., Daystrom Systems Div. / M2

Daystrom Instrument Co. / M2

Epsco, Inc. / M2

FERRANTI ELECTRIC LTD., Industry St., Toronto, Ontario / memory systems / DESCR: Williams CRT memories. Magnetic drum memories. Magnetic tape memories. Magnetic core memories / M2

Ferrenti Electric, Inc. — see D3 / M2

Ferroxcube Corp. of America / M2

General Ceramics Corp. / M2

Gulton Industries, Inc. / M2

Lipps Engineering / M2

Magnetics Research Co. / M2

Miles Reproducer Co., Inc. — see O1 / M2

Monroe Calculating Machine Co., Electronics Div. / M2

Norton Associates, Inc. — see H1 / M2

POTTER INSTRUMENT CO., Sunnyside Blvd., Plainview, N. Y. / — / DESCR: registers / USE: re-arranging data for serial or parallel entry / \$600 to \$10,000 / M2

Radio Corp. of America, Components Div. / M2

Ransom Research / M2

J. B. Rea. Co., Inc. / M2

Rese Engineering, Inc. / M2

Societe d'Electronique et d'Automatisme / M2

Strandberg Engineerin<sup>g</sup> Lab., Inc. / M2

Stromberg-Carlson, Div. of General Dynamics Corp. / M2

Telectro Industries Corp. / M2

TELEMETER MAGNETICS, INC., 2245 Pontius Ave., Los Angeles 64, Calif. / Magnetic Core Memories / DESCR: Random access coincident-current small and large scale core memories. Capacities from 100 to 1 million bits. Cycle times from 4 to 30 microseconds / USE: Rapid access random storage in digital computing, automatic control, and data processing / \$50,000 — \$500,000 / M2

Wang Laboratories / M2

#### M2A. Molded Plastics

HYDRO MOLDING CO., INC., 100 Sharron Ave., Plattsburgh, N. Y. / custom molded components / DESCR: custom molded components for assemblies / — / M2A

#### M3. Multipliers

Beckman Instruments, Berkeley Div. / M3

Bendix Aviation Corp., Research Laboratories Div. / M3

C G Electronics Corp. / M3

Computer Control Co., Inc. / M3

Corbin Corp. / M3

Mid-Century Instrumatic Corp. / M3

Reeves Instrument Corp. / M3

Short Brothers & Harland, Ltd. / M3

Weston Instruments / M3

#### M4. Multipliers, Diode

Aeronca Mfg. Corp. / M4

Mid-Century Instrumatic Corp. / M4

Reeves Instrument Corp. / M4

Societe d'Electronique et d'Automatisme / M4

#### M5. Multipliers, Electronic

Aeronca Mfg. Corp. / M5

American Electronics, Inc. / M5

Beckman Instruments, Berkeley Div. / M5

Bendix Aviation Corp., Research Laboratories Div. / M5

Chadwick — Helmuth Co. / M5

Computer Engineering Associates, Inc. / M5

Donner Scientific Co. / M5

The Franklin Institute Lab. / M5

General Electric Co., Computer Dept. / M5

Mid-Century Instrumatic Corp. / M5

National Co., Inc. / M5

George A. Philbrick Researches, Inc. / M5

Reeves Instrument Corp. / M5

#### M6. Multipliers, Frequency

Aeronca Mfg. Corp. / M6

American Research & Mfg. Corp. / M6

National Co., Inc. / M6

Vickers Inc., Electric Products Div. / M6

#### M7. Multipliers, Servo

Aero Electronics Co. / M7

Aeronca Mfg. Corp. / M7

Bendix Aviation Corp., Research Laboratories Div. / M7

Control Data Corp. / M7

Thomas A. Edison Industries / M7

Feedback Controls, Inc. / M7

The Franklin Institute Lab. / M7

Industrial Control Co. / M7

Mid-Century Instrumatic Corp. / M7

Vickers Inc., Electric Products Div. / M7

#### O1. Office Machines

R. D. Allen Business Machines, Inc. / O1

American Electronics, Inc. / O1

Bendix Aviation Corp., Bendix Computer Division / O1

The British Tabulating Machine Co., Ltd. / O1

Burrhoughs Corporation / O1

Clary Corp. / O1

Comptometer Corp. — see D1 / O1

FERRANTI ELECTRIC LTD., Industry St., Toronto, Ontario / office machines / DESCR: transistor (see I3) / O1

Friden, Inc. / O1

International Business Machines Corp. — see D1 / O1

Litton Industries, Inc. / O1

MILES REPRODUCER CO., INC., 812 Broadway, New York 3, N. Y. / Walkie-Recordall / DESCR: self-powered miniature non-magnetic voice-signal recorders-reproducers; can record 1" up

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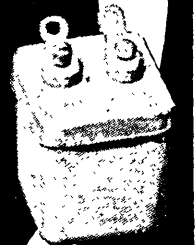
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PIONEER 6-6520

to 60 feet from mike (without wires); background interferences filtered out. Recording capacity on a single belt up to 3 and 8 hours respectively. Recording continuity up to 8 hours. Start-stop by voice actuation. Record-play back / USE: office, car, train, plane, anywhere indoors-outdoors. Records at any angle stationary or mobile / \$350, \$450 and \$750 / O1

**THE NATIONAL CASH REGISTER CO.**, So. Main and K Sts., Dayton 9, Ohio / Various input and other business machines / DESCR: adding machines, bookkeeping machines, accounting machines and cash registers linked with paper tape punches or card punches / USE: for generating computer input simultaneously with the posting and creation of necessary original records / paper tape records, \$1050 and up; card punch couplers, \$590 and up; parent machines extra / O1

Simth-Corona, Inc. / O1  
The Standard Register Co. / O1  
Underwood Corp. / O1  
Zeuthen & Aagaard, Ltd. / O1

## O2. Operations Research

Adalia, Ltd. / O2

**CORPORATION FOR ECONOMIC AND INDUSTRIAL RESEARCH**, Main office: 734 15th St. N.W., Wash., D. C., Research Center: 1200 Jefferson Davis Hwy., Arlington 2, Va. / Specialists in the application of modern analytical techniques to government, business, and financial problems. Offer a full range of services in operations research, computing, programming, data processing, sample design, market research, problem formulation, mathematical structuring / O2

Fairbanks Associates / O2  
General Kinetics Incorporated / O2  
KCS Data Control, Ltd. / O2  
Arthur D. Little, Inc. / O2  
National Analysts, Inc. / O2  
Technical Operations / O2

## P1. Panels

Donner Scientific Co. / P1  
Strandberg Engineering Lab., Inc. / P1  
Stromberg-Carlson, Div. of General Dynamics Corp. / P1

## P2. Panels, Jack

Accurate Electronics Corp. / P2  
**CAMBRIDGE THERMIONIC CORP.**, 445 Concord Ave., Cambridge 38, Mass. / Electronic and electrical components / DESCR: miniature and sub-miniature plugs and jacks; gold, silver and other finish terminals; terminal boards; press mount and spring loaded diode clips; panel and chassis hardware; insulated terminals; coils and coil forms; capacitors / USE: individual piece part component / under \$5 / P2

Centronix, Inc. / P2  
Donner Scientific Co. / P2  
Measurement Engineering Limited / P2  
Strandberg Engineering Lab., Inc. / P2  
Stromberg-Carlson, a Div. of General Dynamics Corp. / P2

## P3. Panels, Relay Rack

Centronix, Inc. / P3

Measurement Engineering Limited / P3  
Strandberg Engineering Lab., Inc. / P3

## P4. Paper Tape

Bendix Aviation Corp., Research Laboratories Div. / P4

## P5. Patch Cords

Alden Products Co. / P5  
AMP, Inc. / P5  
Centronix, Inc. / P5  
Donner Scientific Co. / P5  
Strandberg Engineering Lab., Inc. / P5  
Stromberg-Carlson, Div. of General Dynamics Corp. / P5

## P6. Plotters

Alden Products Co. / P6  
Alwac Computer Div., El-Tronics, Inc. / P6  
American Electronics, Inc. / P6  
Beckman Instruments, Berkeley Div. / P6  
**BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP.**, 5630 Arbor Vitae St., Los Angeles 45, Calif. / digital point plotter / DESCR: plots 20 increments of .01 inch/second. For use only with combination of Bendix G-15 general purpose digital computer and Bendix DA-1 digital differential analyzer accessory (see C-24) / USE: plotted digital computer output for scientific user, etc. / \$1800 sale, \$75/mo. lease / P6

Benson-Lehner Corp. / P6  
Burlingame Associates, Ltd. / P6  
Control Data Corp. / P6  
Data Instruments Div. of Telecomputing Corp. / P6  
George F. Kelk, Ltd. / P6  
Leeds & Northrup Co. / P6  
Librascope, Inc. / P6  
Litton Industries, Inc. / P6  
F. L. Moseley Co. / P6  
Societe d'Electronique et d'Automatisme / P6  
Sunshine Scientific Instrument Co. / P6  
Tally Register Corp. / P6  
Telectro Industries Corp. / P6

## P6A. Plugboards

AMP, Inc. / P6A

## P7. Potentiometers (Computer Types)

Ace Electronics Associates, Inc. / P7  
Allen-Bradley Co. / P7  
American Electronics, Inc. / P7  
Analogue Controls, Inc. / P7  
Beckman Instruments, Berkeley Div. / P7  
George W. Borg Corp. / P7  
**BOURNS LABORATORIES, INC.**, P. O. Box 2112, Riverside, Calif. / **TRIMIT\*** Potentiometer / DESCR: a low cost, high reliability screw actuated potentiometer designed for computer and other instrument applications. Features: 25-turn screwdriver adjustment, Size 1/4" x 5/16" x 1 1/4" self-locking shaft (no lock nuts), available terminations — solder lugs, printed circuit pins, insulated stranded leads / USE: to adjust electrical circuits / List: \$1.94 / P7

\*Registered

Clarostat Mfg. Co. / P7  
Computer Instruments Corp. / P7  
Con-Elco / P7  
Dale Products, Inc. — see R13 / P7

Daystrom Transicoil Corp. / P7  
DeJur-Amsco Corp. / P7  
Donner Scientific Co. / P7  
Electro-Mec Laboratory, Inc. / P7  
Fairchild Controls Corp., Components Div. / P7  
Fairchild Engine & Airplane Corp. / P7  
The Gamewell Co. / P7  
Helipot Corp. / P7  
Leeds & Northrup Co. / P7  
Litton Industries, Inc. / P7  
P. R. Mallory & Co., Inc. / P7  
Markite Corporation / P7  
Maurey Instrument Corp. / P7  
Measurement Engineering, Limited / P7  
Minneapolis-Honeywell Regulator Co., Industrial Div. / P7  
The Perkin-Elmer Corp. / P7  
Reeves Instrument Corp. / P7  
Saunders & Co. / P7  
Schweber Electronics / P7  
Servo Corp. of America / P7  
Servonics, Inc. / P7  
Societe d'Electronique et d'Automatisme / P7  
Specialties, Inc. / P7  
Spectrol Electronics Div. of Carrier Corp. / P7  
Technology Instrument Corp. / P7  
Vari-Ohm Corp. / P7  
Vernistat Div. of the Perkin Elmer Corp. / P7  
Waters Mfg., Inc. / P7  
Westronics, Inc. / P7

## P8. Power Supplies — Regulated

American Research & Mfg. Corp. / P8  
Avion Div., ACF Industries / P8  
Beckman Instruments, Berkeley Div. / P8  
**BETZ ELECTRIC CORP., DIV. OF SORENSEN & CO.**, Richards Ave., S. Norwalk, Conn. / High Voltage Power Supplies / DESCR: Development and production of high voltage power supplies and overpotential testers in voltage ranges from 1000 to 1,000,000 volts / USE: On the operation of electronic equipment and testing of insulation materials / From \$100 to more than \$100,000 / P8

Bradley Laboratories, Inc. / P8  
California Computer Products / P8  
Centronix, Inc. / P8

## COMPTRON CORPORATION, 778

Pleasant St., Belmont 79, Mass. / power supply / DESCR: low-voltage power supply for use with transistor circuits. Compact, regulated power supplies providing the necessary voltages / USE: for gating bias and collector currents grouped in a single unit / \$300 to \$500 / P8

Condenser Products Co. / P8  
Consolidated Electrodynamics Corp. / P8  
Control Electronics Co., Inc. / P8  
The Daven Co. / P8  
Daystrom Inc., Daystrom Systems Div. / P8  
Donner Scientific Co. / P8  
Electronic Specialty Co. / P8

**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / power supplies / DESCR: transistor regulated — covering a wide range of voltages and currents — chassis or printed circuit construction. Temperature compensa-

tion; milliohm dynamic impedance / P8

General Electric Co., Computer Dept. / P8

**GENERAL ELECTRIC CO.**, Rectifier Dept., Mountain View Rd., Lynchburg, Va. / computer d-c power supplies / DESCR: complete d-c power supplies for computer system or computer components featuring regulated or unregulated power supplies with silicon rectifiers, magnetic amplifiers, transistors, and controlled rectifiers / USE: to furnish d-c power to any requirement of a computer component or computer system / \$100 to \$250,000 / P8

Gulton Industries, Inc. / P8

**HARRISON LABORATORIES, INC.**, 45 Industrial Rd., Berkeley Heights, N. J. / regulated power supplies — transistor / DESCR: specializing in low voltage and medium voltage high current transistorized power supplies with emphasis on good regulation for sudden changes in load / USE: for computer applications — both digital and analogue / from 16c to 50c per milli-ampere / P8

Hoover Electronics Co. — see C40 / P8

#### P9. Printers

Jefferson Electronic Products Corp. / P8

Kepco Laboratories, Inc. / P8

Magnetic Research Corp. / P8

Measurement Engineering, Limited / P8

Mid-Century Instrumatic Corp. / P8

Northam Electronics, Inc. / P8

Opad Electric Co. / P8

Ortho Filter Corp. / P8

**OWENS LABORATORIES, INC.**, 55 Beacon Pl., Pasadena, Calif. / power supplies, regulated / DESCR: ultra high precision and stability DC voltage and power sources. Voltages less than 100 v, currents up to 10 amperes, millisecond transient response. Transducer power supplies / USE: secondary voltage standards; power and voltage sources for analog and digital computers and instrumentation, vacuum tube or transistorized / — / P8

Packard Bell Computer Corp. / P8

George A. Philbrick Researches, Inc. / P8

Plastic Capacitors, Inc. / P8

Radiation Counter Laboratories, Inc. / P8

Sangamo Electric Co. / P8

Servo Corp. of America / P8

Sola Electric Co. / P8

Sorensen & Co., Inc. / P8

Southwestern Industrial Electronics Co. / P8

The Standard Electric Time Co. / P8

Technical Operations / P8

**TRANS ELECTRONICS, INC.**, 7349 Canoga Ave., Canoga Park, Calif. / Power Supplies / DESCR: transistor or hard tube, AC or DC; variable or fixed; voltage regulated or current regulated; regulated or unregulated. / Computers radar equipment, telemetering, component testing / \$49.50 — \$8000.00 / P8

Valor Electronics, Inc. / P8

Vickers Inc., Electric Products Div. / P8

#### P9. Printers

Addressograph-Multigraph Corp. / P9

Baird-Atomic Co. / P9

Creed & Co., Ltd. / P9

A. Kimball Co. / P9

Kleinschmidt, Inc. / P9

Laboratory for Electronics, Inc., Computer Products Div. — see V1 / P9

Olivetti Corp. of America / P9

Photon, Inc. / P9

Smith-Corona, Inc. / P9

Stromberg Carlson, a Div. of General Dynamics Corp. / P9

Taller and Cooper / P9

Teletype Corp. / P9

Vari-Typer Corp. / P9

Victor Adding Machine Co. / P9

#### P10. Printers, High Speed

American Electronics, Inc. / P10

**ANelex CORP.**, 150 Causeway St., Boston 14, Mass. / High-Speed Printers / DESCR: High-speed printer, numeric and alphanumeric up to 64 characters per line and line-lengths up to 160, characters / USE: in data processing systems of many kinds / — / P10

The British Tabulating Machine Co., Ltd. / P10

Computer-Measurements Corp. / P10

Digitronics Corp. / P10

**POTTER INSTRUMENT CO., INC.** \*a / Magnityper / DESCR: a very high-speed electronic printer capable of printing 120 lines of 63 alphanumeric characters per second / USE: as a computer output device or for printing directly from any digital data source / \$40,000 to \$60,000 / P10

**POTTER INSTRUMENT CO., INC.**, Sunnyside Blvd., Plainview, N. Y. / Model 3260 alphanumeric printer / DESCR: 20-line per second transistorized alphanumeric printer, capable of printing up to 63 characters per column in up to 40 columns / USE: in printing the output of digital computers or other digital devices. Also used for data logging / \$5000 to \$13,000 depending on number of columns and character configuration / P10

Radiation, Inc. / P10

Smith-Corona, Inc. / P10

Stromberg-Carlson, a Div. of General Dynamics Corp. / P10

Stromberg-Carlson (West Coast) / P10

#### P11. Printers, Keyboard

American Electronics, Inc. / P11

Clary Corp. / P11

Smith-Corona, Inc. / P11

#### P12. Printers, Line-a-time

American Electronics, Inc. / P12

The British Tabulating Machine Co., Ltd. / P12

Potter Instrument Co., Inc. — see P10 / P12

#### P12A. Programming Services

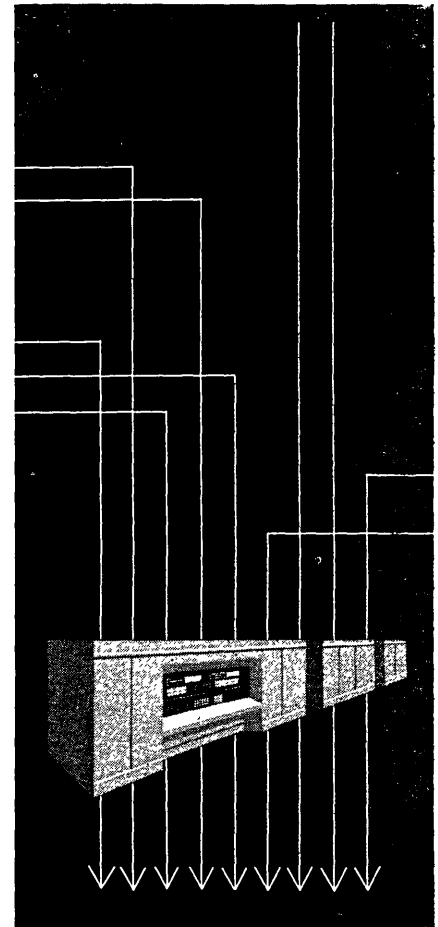
Adalia Computations, Ltd. / P12A

ADB Institutet / P12A

American Machine & Foundry Co., Computation Center / P12A

Battelle Memorial Institute / P12A

Brender & Brender, Inc. / P12A



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*Inquiries should be addressed to Mr. Wm. M. Harrison.*

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**CORPORATION FOR ECONOMIC AND INDUSTRIAL RESEARCH,** Main Office: 734 15th St. N.W., Wash., D. C., Research Center: 1200 Jefferson Davis Hwy., Arlington 2, Va. / Specialists in the application of modern analytical techniques to government, business, and financial problems. Offer a full range of services in operations research, computing, programming, data processing, sample design, market research, problem formulation, mathematical structuring / P12A

General Kinetics, Incorporated / P12A  
National Analysts, Inc. / P12A  
Nuclear Development Corporation of America / P12A

The Service Bureau Corp. / P12A  
Univ. of Toronto, Computation Centre / P12A

U. S. Air Force, Structures Branch, Computation Div., Directorate of Management Analysis, Hq. USAF / P12A

U. S. Naval Proving Ground / P12A

### P13. Publications

Cudahy Publishing Company / P13  
John Diebold and Associates, Inc. / P13  
Librascope, Inc. / P13

### P15. Publications, Magazines

Automatic Control (magazine) / P15  
**AUTOMATIC OFFICE CONSULTANTS, INC.,** 9th Floor, 5057 Woodward Ave., Detroit 2, Mich. / "The Automatic Office — A Monthly Management Report" / DESCR: monthly reporting service for management on automatic office operations / USE: reference, inform management of new developments, etc. / Subscr. price: \$24 per year, U. S. and Canada; \$26.50 for other countries / P15

Automation Consultants, Inc. / P15  
Automation Progress / P15

Canning, Sisson, & Assoc. / P15

**COMPUTERS AND AUTOMATION,** 815 Washington St., Newtonville 60, Mass. / Computers and Automation / DESCR: Monthly magazine, articles, reference information (14 kinds), papers, forum, etc., dealing with automatic computing machinery and its applications and implications. / USE: for keeping up to date with the computer field; finding out reference information quickly / U. S. \$5.50 a year; foreign, \$6.50 a year / P15

Data Processing Digest / P15

DocuMation, Inc. / P15

**GILLE ASSOCIATES, INC.,** 956 Macabees Bldg., Detroit 2, Mich. / The Punched Card Machine Accounting and Data Processing Semi-Annual / DESCR: a publication dedicated to the advancement and enlightenment of the science of punched card accounting and electronic and integrated data processing / USE: a valuable reference library; a means of interchanging ideas / \$9 per volume / P15

The Institute of Management Sciences / P15

Instrument Society of America / P15

### P16. Punch Card Machines

The British Tabulating Machine Co., Ltd. / P16

Bull S. A. Compagnie des Machines / P16  
Consolidated Diesel Electric Corp. / P16  
Educational Research Corp. / P16  
Electro-Machine Corp. / P16

**INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIV.,** 112 E. Post Rd., White Plains, N. Y. / A complete line of punched card machines / DESCR: card punches, collators, sorters, accounting machines, proof machines, interpreters, Data Transceivers, the Cardatype Accounting Machine, the Ticket Converter, etc. Details available on request / P16  
Kaye Development Co. / P16  
Otis Elevator Co., Electronic Div. / P16  
Powers-Samas Accounting Machines / P16

**REMINGTON RAND UNIVAC DIV., SPERRY RAND CORP.,** 315 4th Ave., New York 10, N. Y. / Punched Card Machines / Complete 90-column punched-card systems, including punched-card electronic computers, card punches, collators, interpreters, reproducers, sorters, tabulators, verifiers, duplicate card detectors, calculating punches, synchronized card punch and accounting machine units, and tag-to-card reproducers for converting data in prepunched garment tags to punched cards / P16

**SOROBAN ENGINEERING, INC.,** Box 1717, Melbourne, Fla. / Paper Tape Perforators / DESCR: high-speed paper tape perforators capable of 8 level perforations at speeds up to 240 characters per second / — / \$8750 / P16  
Underwood Corp. / P16

### R1. Readers

Benson-Lehmer Corp. / R1  
Consolidated Electroynamics Corp. / R1  
**FERRANTI ELECTRIC LTD.,** Industry St., Toronto, Ontario / readers / DESCR: static card readers — see Transactor (I3) / R1

Friden, Inc. / R1

Genisco, Inc. / R1

**THE GEOTECHNICAL CORP.,** 3712 Haggard Drive, Dallas 9, Tex. / chart reader / DESCR: basic reader optically scans trace (curve) of conventional strip charts, circular charts, and film; provides output proportional to trace ordinate; optional computing units perform simultaneous computations on output; optional conversion units offer either analog, digital or mechanical outputs / USE: fully automatic reading and reduction of conventional strip charts, circular charts, or film, eliminating need for manual curve following with subsequent computations / \$15,000 to \$20,000, depending on computations and outputs / R1

Richardson Camera Co., Inc. / R1

Smith-Corona, Inc. / R1

The Standard Register Co. / R1

Wharf Engineering Lab. / R1

### R2. Readers, Character

Avion Div., ACF Industries / R2  
General Electric Co., Computer Dept. / R2  
Intelligent Machines Research Corp. / R2

### R3. Readers, Magnetic Card

American Electronics, Inc. / R3  
The British Tabulating Machine Co., Ltd. / R3

### R4. Readers, Magnetic Tape

American Electronics, Inc. / R4  
**AMPEX CORP., INSTRUMENTATION DIV.,** 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / R4

Consolidated Electroynamics Corp. / R4  
Cook Electric Co. / R4

Digitronics Corp. / R4

**FERRANTI ELECTRIC LTD.,** Industry St., Toronto, Ontario / magnetic tape readers / DESCR: special purpose magnetic tape readers capable of very fast start/stop operation. Tape can be accelerated to full speed in less than 3 milliseconds (see T4) / R4

Lipps Engineering / R4

Potter Instrument Co., Inc. — see T2 / R4

Smith-Corona, Inc. / R4

Stromberg-Carlson, a Div. of General Dynamics Corp. / R4

Wharf Engineering Lab. / R4

### R5. Readers, Mechanical

Bowmar Instrument Corp. / R5

J. H. Bunnell & Co. / R5

Miles Reproducer Co., Inc. — see O1 / R5

Smith-Corona, Inc. / R5

Telectro Industries Corp. / R5

### R6. Readers, Paper Tape

The British Tabulating Machine Co., Ltd. / R6

J. H. Bunnell & Co. / R6

California Technical Industries / R6

Data Instruments Div. of Telecomputing Corp. / R6

**FERRANTI ELECTRIC LTD.,** Industry St., Toronto, Ontario / readers, paper tape, photoelectric / DESCR: range of photoelectric high speed paper tape readers. Speeds up to 270 characters a sec and capable of stopping on detection of a particular code with the code remaining in the reading position. Both panel mounted readers with built in spooling and desk top machines are available. All use solid state circuitry. Separate spoolers are made including one for centre unwinding. A sealed reader with spooling is also made to meet military environment specifications / R6

Kleinschmidt, Inc. / R6

**POTTER INSTRUMENT CO., INC.,** Sunnyside Blvd., Plainview, L. I., N. Y. / Perforated Tape Reader / DESCR: provides character reading speeds of 600, 300, or 150 characters per second; full speed is achieved in 3 milliseconds, and tape stops on or before character following stop code (before next char-



acter at 300 characters per second); models available for handling 5, 6, 7, and 8 level perforated tape / USE: digital computing and data-handling field / prices start at \$3,000 / R6

Smith-Corona, Inc. / R6

**SOROBAN ENGINEERING, INC.**, Box 1717, Melbourne, Fla. / Paper Tape Readers / DESCR: single and dual mechanical sensing paper tape reading devices capable of eight level reading up to speeds of 60 characters per second / — / \$650 to \$1150 / R6

Telectro Industries Corp. / R6

R7. Readers, Photoelectric

**BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP.**, 5630 Arbor Vitae St., Los Angeles 45, Calif. / photoelectric paper tape reader / DESCR: 250 char/sec. avg. speed. Uses novel magazine loading principle which provides convenient storage of tapes and rapid loading. Supplied only as standard equipment on Bendix G-15, together with 20 char/sec. punch. See also C2 / USE: data and program input / not available as separate item / R7

Digitronics Corp. / R7

Ferranti Electric Ltd. — see R6 / R7

Key Electric Corp. / R7

Laboratory for Electronics, Inc., Computer Products Div. — see V1 / R7

National Data Processing Corp. / R7

Smith-Corona, Inc. / R7

R8. Readers, Punch Card

**BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP.** — see C6 / R8

The British Tabulating Machine Co., Ltd. R8

R9. Recording Papers

Alden Electronic & Impulse Recording Equip. Co. / R9

Alfax Paper & Engineering Co. / R9

The Bristol Company / R9

Clarkson Press, Inc. / R9

Eastman Kodak Co. / R9

Edin Co., a Div. of Epsco, Inc. / R9

Minneapolis-Honeywell Regulator Co., Industrial Div. / R9

National Data Processing Corp. / R9

Sanborn Co. / R9

Strandberg Engineering Lab., Inc. / R9

R10. Rectifiers

**AUDIO DEVICES, INC.**, Rectifier Div., 620 E. Dyer Rd., Santa Ana, Calif. / A-D silicon rectifiers / DESCR: Complete line of sealed silicon rectifiers, ranging in rating from 500 milliamperes forward current to 200 amperes and higher. PIV ratings from 100 to 1600 volts. / USE: Clipper and limiter circuits, inductive surge absorbers, magnetic amplifiers, modulator circuits, etc. / — / R10

Automatic Manufacturing Div. / R10

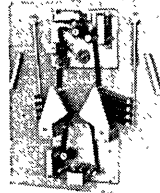
Bradley Laboratories, Inc. / R10

Canadian Westinghouse Co., Ltd., Electronics Div. / R10

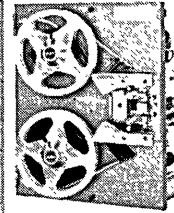
Fansteel Metallurgical Corp. / R10

Federal Telephone and Radio Co. / R10

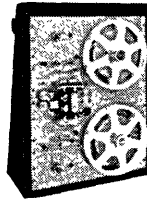
**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / rectifiers /



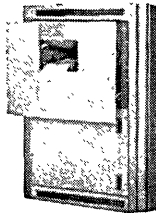
Tape Loop Buffer Devices



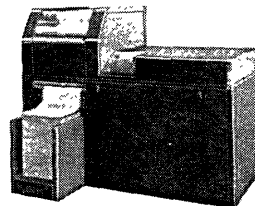
All Transistorized Digital Magnetic Tape Handlers



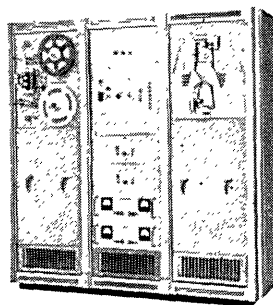
Perforated Tape Readers



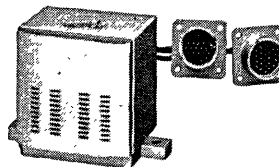
Small Very High Speed 20-40 Column Printers



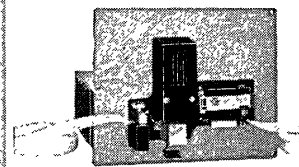
High Speed Magnitypers



Printer Input Equipment



Single and Dual Gap Magnetic Heads



Perforated Strip Readers

*for data processing components and systems*

**SPECIFY POTTER**

Potter instruments and systems are unexcelled in reliability, accuracy and flexibility. The equipment shown is typical of other available high-precision instruments for use as individual components or in integrated systems to meet specific requirements.

"Quick Look" Recorders

Transistorized Record Playback Amplifiers

Transistorized Frequency Time Counters

Random Access Memory Systems

Other Peripheral Equipment

for Data Processing Systems

Write for literature describing these and other Potter special application products. For detailed technical specifications on any of the Potter Products listed above, call or write your Potter Representative or the factory.

**Potter**

**POTTER INSTRUMENT COMPANY, INC.**

Sunnyside Boulevard, Plainview, New York

OVERbrook 1-3200

**R10**

DESCR: a range of silicon rectifiers / R10  
 General Electric Co., Rectifier Dept. — see P8 / R10  
 General Electric Co., Semiconductor Products Dept. / R10  
 General Transistor Corp. / R10  
 Hoffman Electronics Corp., Semiconductor Div. / R10  
 Hughes Aircraft Co. / R10  
 Hughes Products, Semiconductor Div., Hughes Aircraft Co. / R10  
 International Rectifier Corp. / R10  
 International Resistance Co. / R10  
 P. R. Mallory & Co., Inc. / R10  
 Motorola Semiconductor Products Div. / R10  
 Opad Electric Co. / R10  
 Pacific Semiconductors, Inc. / R10  
**RADIO CORP. OF AMERICA, SEMICONDUCTOR & MATERIALS DIV.**, Somerville, N. J. / rectifiers / R10  
 Radio Development & Research Corp. / R10  
 Radio Receptor Co., Inc. / R10  
**RAYTHEON MFG. CO., SEMICONDUCTOR DIV.**, 55 Chapel St., Newton 58, Mass. / rectifiers / DESCR: silicon diffused junction wired-in and 7/16" stud rectifiers / R10  
 Texas Instruments Inc., Semiconductor-Components Div. / R10  
 Thermosen Inc. / R10  
 Transatron Electronic Corp. / R10  
 U. S. Dynamics Corp. / R10  
 Vickers Inc., Electric Products Div. / R10  
 Westinghouse Electric Corp., Semiconductor Dept. / R10

**R11. Registers, Shift**

Airtronics, Inc. / R11  
 American Machine and Foundry, Electronics Div. / R11  
 Burlingame Associates, Ltd. / R11  
**COMPTRON CORPORATION**, 778 Pleasant St., Belmont 79, Mass. / transistorized shift registers / DESCR: a grouping of transistorized flip-flops together with the necessary diode logic cards, providing a shift register which may be serially or parallelly set. Shifts forward or backward and reads either in series or parallel as desired / USE: in digital computers or control circuits / \$100 up depending on size / R11  
 Computer Control Co., Inc. / R11  
 Daystrom Inc., Daystrom Systems Div. / R11  
 Epsco Components / R11  
**ESC CORPORATION**, 534 Bergen Blvd., Palisades Park, N. J. / pulse components / DESCR: embedded assemblies and components, shift registers and miniature pulse transformers / USE: radar, computers, pulse applications / \$3 up, dependent on specifications / R11  
**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / shift registers / DESCR: plug-in transistorized package shift registers, to 500 kc/s or higher with special designs. Magnetic core shift registers. Core-transistor shift registers / R11  
 General Electric Co., Computer Dept. / R11  
 General Electric Co., Specialty Electronic Components Dept. / R11

Mack Electronics / R11  
 Magnetics Research Co. / R11  
 Potter Instrument Co., Inc. / R11  
 Ransom Research / R11  
 Saunders & Co. / R11  
 Sprague Electric Co. / R11  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / R11

**R12. Relays (Computer Types)**

Ace Electronic Associates, Inc. / R12  
 Aemco, Inc. / R12  
 Allied Control Co. / R12  
 Amperite Co., Inc. / R12  
 Assembly Products, Inc. / R12  
**AUTOMATIC ELECTRIC COMPANY**, Northlake, Ill. / relays (telephone-type) / DESCR: small size, light weight, twin contact springs, resistant to vibration, humidity, and extremes of temperature / USE: Standard screw mounting; some are available for tin-dipped printed circuit cards, or mounted on regular octal-type or industrial plugs. Wired or unwired / \$3 to \$8; hermetically sealed at approximately twice as much / R12  
 Automation Controls Corp. / R12  
 The Bristol Company / R12  
**C. P. CLARE & CO.**, 3101 Pratt Blvd., Chicago 45, Ill. / Types HG and HGP mercury-wetted contact relays / DESCR: Sealed-in-glass mercury-wetted contact switch surrounded by operating coil and encased in a metal housing mounted on an octal base / USE: Thermocouple switching; magnetic drum switching; transistor-driven uses; microsecond pulse switching card-punch and typewriter-key in computers, data processing, and automation systems; teletype drive; missile ground controls; video switching; computer relay trees; and general computer uses / \$9 to \$26 / R12  
 Comar Electric Co. / R12  
 Cook Electric Co. / R12  
**THOMAS A. EDISON INDUSTRIES, INSTRUMENT DIVISION**, McGRAW-EDISON CO., 36 Lakeside Ave., West Orange, N. J. / rotary components and relays / DESCR: rotary servo-synchro components, gear heads, magnetic heads, sensitive D. C. relays, time delay relays, thermostats and other components for computers. Separately or as complete packaged miniaturized computers of Edison manufactured components. Complete laboratory, engineering and manufacturing facilities available to design and manufacture complete systems / USE: in missile and aircraft guidance and computer systems / \$400 to \$1200 depending on system required / R12  
 Electronic Specialty Co. / R12  
 General Automatic Corp. / R12  
 The Gerber Scientific Instrument Co. / R12  
 Guardian Electric Mfg. Co. / R12  
 Hillburn Electronic Products Co. / R12  
 Kepco Laboratories, Inc. / R12  
 North Electric Manufacturing Co. / R12  
 Phaotron Instrument and Electronic Co. / R12  
 Phillips Control Corp. / R12  
 Potter and Brumfield Mfg. Co., Inc. / R12

Radio Corp. of America, Components Div. / R12  
 Schweber Electronics / R12  
 Sigma Instruments, Inc. / R12  
 Societe d'Electronique et d'Automatisme / R12  
 Soroban Engineering, Inc. / R12  
 Stromberg-Carlson, a Div. of General Dynamics Corps. / R12  
 Tally Register Corp. / R12  
 Union Switch & Signal Div. of Westinghouse Air Brake Co. / R12  
 Weston Instruments / R12  
 Wheelock Signals, Inc. / R12

**R13. Resistors**

Aerovox Corp. / R13  
 Allen-Bradley Co. / R13  
 Allies' Products Corp. / R13  
 Arnhold Ceramics, Inc. / R13  
 Bourns Laboratories, Inc. — see P7 / R13  
 Calvert Electronics, Inc. — see T19 / R13  
 Centralab / R13  
 Clarostat Mfg. Co. / R13  
 Con-Elco / R13  
 Corning Glass Works, Electronic Component Dept. / R13  
**DALE PRODUCTS, INC.**, Box 136, Columbus, Nebr. / resistors / DESCR: full line of precision power resistors. Both wire wound and deposited carbon. Also precision potentiometers / USE: in all electronic circuits / prices on request / R13  
 The Daven Co. / R13  
 Donner Scientific Co. / R13  
 Ferroxcube Corp. of America / R13  
 General Transistor Corp. / R13  
 International Resistance Co. / R13  
 Kelvin Electric Co. / R13  
 Lapp Insulator Co., Inc. / R13  
 P. R. Mallory & Co., Inc. / R13  
 Non-Linear Systems, Inc. / R13  
 Ohmite Manufacturing Co. / R13  
 Reon Resistor Corp. / R13  
 Resistance Products Co. / R13  
 Sage Electronics Corp. / R13  
 Saunders & Co. / R13  
 Schweber Electronics / R13  
 Shallcross Mfg. Co. / R13  
 Spectrol Electronics Div. of Carrier Corp. / R13  
 Sprague Electric Co. / R13  
 Stackpole Carbon Co. / R13  
 Texas Instruments, Inc., Semiconductor-Components Div. / R13  
 United Mineral & Chemical Corp. / R13  
 Weston Instruments / R13

**R14. Resolvers**

Beckman Instruments, Berkeley Div. / R14  
 Bendix Aviation Corp., Eclipse-Pioneer Div. / R14  
 Control Data Corp. / R14  
 Daystrom Transicoil Corp. / R14  
 Diehl Mfg. Co. / R14  
**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / resolvers / DESCR: spherical tracking resolver giving digital output  $\pm x$  and  $\pm y$  / R14  
 Kearfott Co., Inc. / R14  
 Norden-Ketay Corp. / R14  
 John Oster Mfg. Co., Avionic Div. / R14  
 Reeves Instrument Corp. / R14  
 Westgate Laboratory, Inc. / R14

R15. Resolvers, Coordinate Transform  
Beckman Instruments, Berkeley Div. /  
R15  
Bendix Aviation Corp., Eclipse-Pioneer  
Div. / R15  
Diehl Mfg. Co. / R15  
Donner Scientific Co. / R15  
Reeves Instrument Corp. / R15  
Westgate Laboratory, Inc. / R15

R16. Resolvers, Product  
Beckman Instruments, Berkeley Div. /  
R16  
Bendix Aviation Corp., Eclipse-Pioneer  
Div. / R16  
Reeves Instrument Corp. / R16  
Weston Instruments / R16

R17. Resolvers, Sine-Cosine  
American Electronics, Inc. / R17  
Beckman Instruments, Berkeley Div. /  
R17  
Bendix Aviation Corp., Eclipse-Pioneer  
Div. / R17  
Diehl Mfg. Co. / R17  
Donner Scientific Co. / R17  
Librascope, Inc. / R17  
Reeves Instrument Corp. / R17  
Westgate Laboratory, Inc. / R17

#### R18. Robots

BERKELEY ENTERPRISES, INC., 815  
Washington St., Newtonville 60, Mass.  
/ Small Robots / DESCR: small robots  
such as Simon, a miniature mechanical  
brain; Squee, an electronic robot squir-  
rel; Relay Moe, Tit-Tat-Toe game-  
playing machine; Nim machine; Brain-  
iac, Geniac, Tyniac, electric brain con-  
struction kits, etc. / USE: in shows,  
lecturing, teaching, exhibits, displays,  
explaining / \$10 to \$4000, or rental /  
R18

#### S1. Scanners

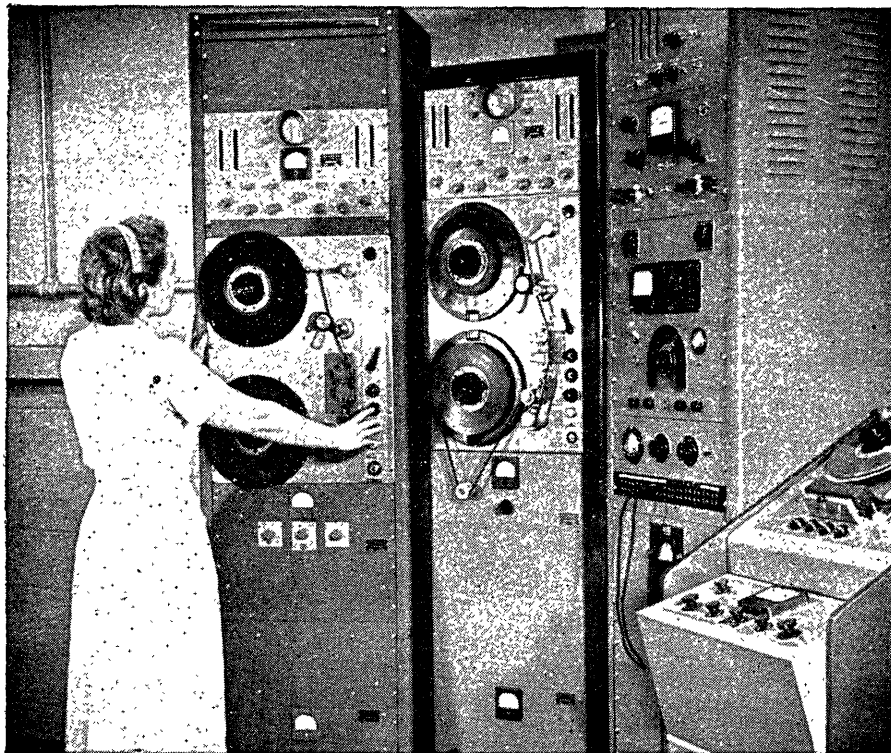
Alden Electronic & Impulse Recording  
Equip. Co. / S1  
American Electronics, Inc. / S1  
Applied Science Corp. of Princeton / S1  
Beckman Instruments, Berkeley Div. /  
S1  
Clary Corp. / S1  
Farrand Optical Co. / S1  
The Foxboro Co. / S1  
The Geotechnical Corp. / S1  
Gilmore Industries / S1  
Non-Linear Systems, Inc. — see C40 / S1  
Strandberg Engineering Lab., Inc. / S1

#### S2. Semiconductors

Allgemeine Elektricitäts-Gesellschaft /  
S2  
Bendix Aviation Corp., Research Labora-  
tories Div. / S2  
Canadian Westinghouse Co., Ltd., Elec-  
tronics Div. / S2  
CBS-HYTRON, Div. of Columbia Broad-  
casting System, Inc., 100 Endicott St.,  
Danvers, Mass. / Electron tubes and  
semiconductors for computer and other  
uses / S2  
Delco Radio Div., General Motors Corp.  
/ S2  
Fenwal, Inc. / S2  
Flight Research, Inc. / S2  
General Electric Co., Rectifier Dept. —  
see P8 / S2

# The world's toughest referee

... a count of one and the tape is OUT!



The machine above is a unique testing instrument, designed by Audio Devices engineers and installed at the Audiotape plant in Glenbrook, Conn. This Automatic Defect Counter records and plays back every inch of the EP Audiotape under test.

Type EP is the extra precision magnetic recording tape for applications in computing, automation, telemetering and seismography. If the tape fails to record a single test pulse out of the millions put on a single reel, the entire reel is rejected. There are no ifs, ands or buts.

This is one of many special quality-control operations to which type EP Audiotape is subjected. The extra attention begins at the raw material stage where the master rolls of base materials are critically examined for uniformity of gauge, freedom from stretch, and cleanliness. The oxide

and binder components are selected for fineness of dispersion and magnetic properties—then combined and fed through a micronic filter and metered on the selected foil in Audio's special dust-free precision coating machines. The coated master rolls are then selected for freedom from imperfections and proceed through the slitting operation. Each ribbon is wiped after slitting to remove all traces of dust, run through the defect counter, rejects discarded, and the defect-free tape packed in hermetically sealed metal cans or plastic cases.

The defect counter does its job so well that type EP Audiotape is *guaranteed* to be defect-free! For more information write for free Bulletin T112A. Write Dept. TA, Audio Devices, Inc., 444 Madison Avenue, New York 22, N. Y.

**type**  **audiotape**  
AUDIO DEVICES, INC.,  
444 Madison Ave., N. Y. 22, N. Y.

Export Dept.: 13 East 40th St., N. Y., 16 • Cables "ARLAB" • In Hollywood: 840 N. Fairfax Ave.  
In Chicago: 5428 Milwaukee Ave. • Rectifier Division: 620 E. Dyer Rd., Santa Ana, Calif.

General Transistor Corp. / S2  
 Hughes Aircraft Co. / S2  
 Kemtron Electron Products, Inc. / S2  
 P. R. Mallory Co., Inc. / S2  
 Motorola Semiconductor Products Div. / S2  
**RADIO CORP. OF AMERICA, SEMI-CONDUCTOR & MATERIALS DIV.,** Somerville, N. J. / semiconductors / S2  
 Radio Receptor Co., Inc. / S2  
 Raytheon Mfg. Co. / S2  
 Sylvania Electric Products, Inc., Woburn Div. / S2  
 Texas Instruments, Inc., Semiconductor-Components Div. / S2  
 Thermosen Inc. / S2  
 Transatron Electronic Corp. / S2  
 Tung-Sol Electric, Inc. / S2  
 United Mineral & Chemical Corp. / S2  
 Vickers Inc., Electric Products Div. / S2  
 Westinghouse Electric Corp., Semiconductor Dept. / S2

**S3. Simulators**  
 Aero Electronics Co. / S3  
 American Research & Mfg. Corp. / S3  
 Applied Science Corp. of Princeton / S3  
**BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP.,** 5630 Arbor Vitae St., Los Angeles 45, Calif. / 3 axis flight system simulator / DESCR: a large high precision analog computer combined with a massive servo-operated 3-axis table / USE: simulation of aircraft and missile guidance and control systems, radar, etc. / price depends on requirements / S3  
 Bendix Aviation Corp., Research Laboratories Div. / S3  
 Computer Engineering Associates, Inc. / S3  
 Computing Devices of Canada, Ltd. / S3  
 Curtiss-Wright Corp., Electronics Div. / S3  
**DIAN LABORATORIES, INC.,** 611 Broadway, New York 12, N. Y. / Computers, Analog / High precision general purpose analog computing systems — simulators — trainers / USE: computing, simulating, training, testing / S3  
 Donner Scientific Co. / S3  
 Erco Plant — Nuclear Products, Div. of ACF Industries / S3  
 The Franklin Institute Lab. / S3  
 Genisco, Inc. / S3  
**FERRANTI ELECTRIC LTD.,** Industry St., Toronto, Ontario / simulators / DESCR: reactor simulator for studies on reactor control systems. Simulator provides for 14 categories of delayed neutrons. Thermal effects can be included. The simulator works in real time and includes function generators / S3  
 The Geotechnical Corp. — see C23 / S3  
 Guardian Electric Mfg. Co. / S3  
 Hillyer Instrument Co. / S3  
 Librascope, Inc. / S3  
 Measurement Engineering, Limited / S3  
 Mid-Century Instrumental Corp. / S3  
 The Newton Co. / S3  
 Societe d'Electronique et d'Automatisme / S3  
 Telectro Industries Corp. / S3  
 Valor Electronics, Inc. / S5  
 Westgate Laboratory, Inc. / S3

**S3A. Soldering Irons**  
**ORYX CO.,** 9015 Wilshire Blvd., Beverly Hills, Calif. / Oryx soldering instruments / DESCR: complete line of long life, low maintenance, pencil-type irons for research and development, production and service use / USE: tip temperatures from 524°F. to 1000°F. Transformers available / \$4.95 up to \$8 / S3A

#### S4. Storage Systems

American Electronics, Inc. / S4  
**AMPEX CORP.,** Instrumentation Div., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder/reproducer for digital data primarily designed for use with computer systems / \$2750 up / S4  
 Arenberg Ultrasonic Laboratory, Inc. / S4  
 Computer Control Co., Inc. / S4  
 Consolidated Electrodynamics Corp. / S4  
 Control Data Corp. / S4  
 Ferranti Electric, Inc. — see D3 / S4  
**FERRANTI ELECTRIC LTD.,** Industry St., Toronto, Ontario / storage systems / DESCR: tape storage systems. Photographic drum storage systems having a capacity of 10<sup>6</sup> bits per square inch. (see M2) / S4  
 General Ceramics Corp. / S4  
 Laboratory for Electronics, Inc., Computer Products Div. — see D12 / S4  
 Rese Engineering, Inc. / S4  
 Smith-Corona, Inc. / S4  
 Soroban Engineering, Inc. / S4  
 Southwestern Industrial Electronics Co. / S4  
 Telectro Industries Corp. / S4  
 Bryant Gage & Spindle Division, a division of Bryant Chucking Grinder Co. / S4

#### S5. Storage Systems, Magnetic

Airtronics, Inc. / S5  
 Alden Products Co. / S5  
**AMPEX CORP., INSTRUMENTATION DIV.,** 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / S5  
 Bryant Gage & Spindle Div. / S5  
 Burlingame Associates, Ltd. / S5  
 Burroughs Corp., ElectroData Division / S5  
 Computer Control Co., Inc. / S5  
 Consolidated Controls Corp. / S5  
 Consolidated Electrodynamics Corp. / S5  
 Control Data Corp. / S5  
 Daystrom Inc., Daystrom Systems Div. / S5  
 Ferranti Electric Ltd., — see S4 / S5  
 General Ceramics Corp. / C5

General Electric Co., Computer Dept. / S5  
 Jacobs Instrument Co. / S5  
 Laboratory for Electronics, Inc., Computer Products Div. — see D12 / S5  
 Laboratory for Electronics, Computer Products Div. — see I2 / S5  
 Rese Engineering, Inc. / S5  
 Saunders & Co. / S5  
 Smith-Corona, Inc. / S5  
 Societe d'Electronique et d'Automatisme / S5  
 Telemeter Magnetics, Inc. / S5

#### S6. Switches

Aerovox Corp. / S6  
 Allen-Bradley Co. / S6  
 Allied Control Co. / S6  
 Applied Science Corp. of Princeton / S6  
 The Bristol Company / S6  
 Centralab / S6  
 Clarostat Mfg. Co. / S6  
 Comar Electric Co. / S6  
 Electro-Snap Switch & Mfg. Co. / S6  
 General Controls Co. / S6  
 Guardian Electric Mfg. Co. / S6  
 P. R. Mallory & Co., Inc. / S6  
 Micro Switch / S6  
 Potter and Brumfield Mfg. Co., Inc. / S6  
 Sangamo Electric Co. / S6  
 Shallcross Mfg. Co. / S6  
 Spectrol Electronics Div. of Carrier Corp. / S6  
 Stackpole Carbon Co. / S6  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / S6

#### S7. Switches, Stepping

Airflyte Electronics Co. / S7  
**AUTOMATIC ELECTRIC COMPANY,** Northlake, Ill. / rotary stepping switches / DESCR: Type 44-small-10, 22 or 33-point selection—up to six 10-point bank levels; Type 45—two to twelve 25-point bank levels—capacities—25 points, 12 levels—50 points, 8 levels. Available with solderless terminals, hermetic sealing, and other special features / — / S7  
 C. P. CLARE & CO., 3101 Pratt Blvd., Chicago 45, Ill. / Types 11, 20, 26, 40, and 52 springdriven stepping switches / DESCR: Uniselectors or electromechanical devices for completing, interrupting, or changing the connections in a succession of electric circuits in response to momentary impulses of current / USE: Selecting any desired point of a series; selecting the first idle point of a series; sequence controlling-automatic control of a series of operations in a predetermined manner; counting and totalizing; monitoring. / \$12 to \$40 / S7  
 Cook Electric Co. / S7  
 The Daven Co. / S7  
 Eagle Signal Corp. / S7  
 Electro-Snap Switch & Mfg. Co. / S7  
 Engineered Electronics Company / S7  
 Guardian Electric Mfg. Co. / S7  
 North Electric Manufacturing Co. / S7  
 Potter and Brumfield Mfg. Co., Inc. / S7  
 Shallcross Mfg. Co. / S7  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / S7

**S8. Synchros**

American Electronics, Inc. / S8  
 Bendix Aviation Corp., Eclipse-Pioneer  
 Div. / S8  
 Canadian Applied Research, Ltd. / S8  
 Consolidated Electrodynamics Corp. / S8  
 Control Data Corp. / S8  
 Daystrom Transicoil Corp. / S8  
 Thomas A. Edison Industries / S8  
 Ford Instrument Co., Div. of Sperry Rand  
 Corp. / S8  
 Helipot Corp. / S8  
 Kearfott Co., Inc. / S8  
 Minneapolis-Honeywell Regulator Co.,  
 Boston Division / S8  
 Norden-Ketay Corp. / S8  
 John Oster Mfg. Co., Avionic Div. / S8  
 Sigma Instruments, Inc. / S8

**S9. Systems Engineering**

Adalia, Ltd. / S9  
 Automation Engineering Laboratory / S9  
 Automation Engineers Co. / S9  
 Automation Management, Inc. / S9  
 Burroughs Corporation, Research Center  
 / S9  
 Dasol Corp. / S9  
 The De Florez Co., Inc. / S9  
 General Kinetics, Incorporated / S9  
 Laboratory for Electronics, Inc. / S9  
 Arthur D. Little, Inc. / S9  
 Nuclear Development Corporation of  
 America / S9  
 Stanford Research Institute / S9  
 Strand Engineering Co. / S9  
 Systems Laboratories, Inc. / S9  
 Telemeter Magnetism, Inc. / S9  
 Haller, Raymond, and Brown, Inc. / S9

**T1. Tachometers**

Airpax Products Co. / T1  
 American Electronics, Inc. / T1  
 Bendix Aviation Corp., Eclipse-Pioneer  
 Div. / T1  
 Canadian Applied Research, Ltd. / T1  
 Diehl Mfg. Co. / T1  
 The Foxboro Co. / T1  
 The A. W. Haydon, Co. / T1  
 Kearfott Co. / T1  
 Measurement Engineering, Limited / T1  
 John Oster Mfg. Co., Avionic Div. / T1

**T2. Tape Handlers**

Alwac Computer Div., El-Tronics, Inc. /  
 T2  
 American Electronics, Inc. / T2  
 Bryant Gage & Spindle Div. / T2  
 J. H. Bunnell & Co. / T2  
**BURROUGHS CORP., ELECTRODATA  
 DIVISION**, 460 Sierra Madre Villa,  
 Pasadena, Calif. / digital magnetic tape  
 transport units / DESCR: 1/2" or 3/4"  
 tape on 10 1/2" reels, 3 or 6 milli-  
 second start-stop, fast rewind, single  
 speeds up to 75 inches per second, mul-  
 tiple speeds / USE: digital computer  
 systems, data processing and telemet-  
 ering systems, automatic controls / a-  
 round \$8,000 / T2  
 Consolidated Electrodynamics Corp. / T2  
 Digitronics Corp. / T2  
 Ferranti, Ltd. / T2  
 Hycon Eastern, Inc. / T2  
 Key Electric Corp. / T2  
**POTTER INSTRUMENT CO., INC.**,  
 Sunnyside Blvd., Plainview, L. I., N. Y.  
 / Model 906, digital magnetic tape

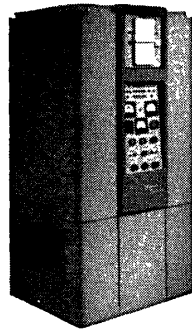
**"We taught ourselves**

**to use the**

**Bendix G-15 computer**

**...it's that easy."**

PETER M. LANG, *Senior Engineer*  
 NUCLEAR PRODUCTS—ERCO DIVISION OF ACF INDUSTRIES, INC.



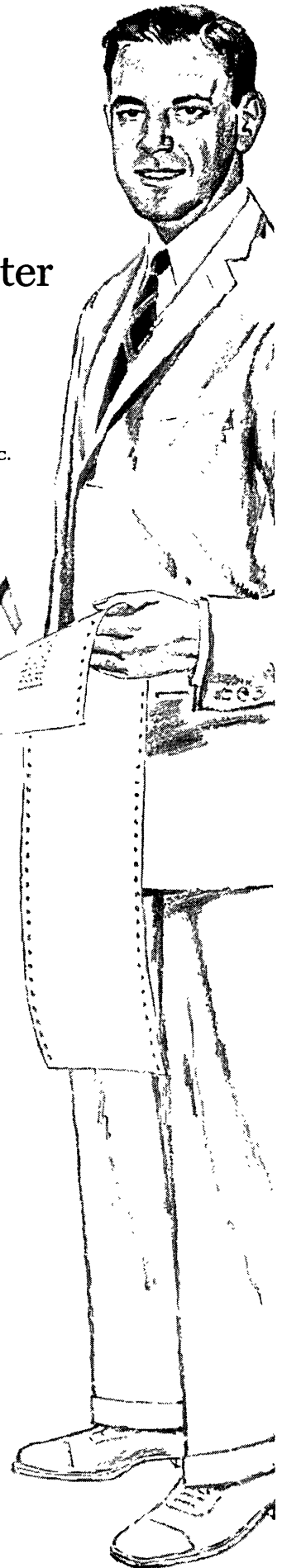
"Our nuclear engineering staff, in developing commercial power reactors, required a full-sized digital computer that the entire group could use. We picked the G-15 and I was first to learn its use. I taught myself in two days without help and in turn taught two-day classes for other ACF employees. Many of us had no previous computer experience, but we are now keeping our G-15 'hopping'—often seven days a week and eight to twelve hours a day."

**THE G-15 GIVES YOU** memory and speed of computers costing four times as much • Typewriter input-output, paper tape output and 250 characters/sec paper tape input at no added cost • Punch card input-output available • Extensive library of programs furnished • Strong user's sharing organization • Proven reliability • Nationwide sales and service • Lease or purchase.

**Bendix** <sup>®</sup> **Computer**

DIVISION OF BENDIX AVIATION CORPORATION

Built and backed by Bendix, the G-15 is serving scores of progressive businesses large and small throughout the world. For details, write to Bendix Computer, Department D.4, Los Angeles 45, California.



handler / DESCR: high-speed transistorized digital magnetic tape handler capable of speeds to 150 ips with rewind on search at 300 ips. Start times of 3 millisecond and stop times of 1.4 millisecond. Capable of cycling rates to 200 cps / USE: input, programming, or output device for digital computers or other digital data devices / \$3000 to \$4000 / T2

J. B. Rea Co., Inc. / T2  
Telectro Industries Corp. / T2

### T3. Tape, Magnetic

American Lava Corp. / T3  
**AMERICAN MOLDED PROD. CO.**, 2727 W. Chicago Ave., Chicago 22, Ill. / Reels, magnetic tape / DESCR: plastic reels, all sizes / USE: recorders, computers / 8c to \$2 ea. / T3

**AMPEX CORP., INSTRUMENTATION DIV.**, 934 Charter St., Redwood City, Calif. / Ampex Magnetic Computer Tape / DESCR: a high-quality precision grade magnetic tape for use with digital tape recorders in conjunction with computers / USE: with digital data-processing magnetic tape recorders. / \$3.00 to \$200 / T3

**AUDIO DEVICES, INC.**, 444 Madison Ave., New York 22, N. Y. / Extra precision audiotape / DESCR: Magnetic recording tape for computers, telemetry, seismography and other specialized applications. Guaranteed defect-free. / USE: — / — / T3

Bendix Computer Division / T3  
Consolidated Electrodynamics Corp. / T3  
Minnesota Mining and Manufacturing Co., / T3

Minneapolis-Honeywell Reg. Co., Davies Labs. Div. / T3

Orradio Industries / T3  
Reeves Soundcraft Corp. / T3  
United Mineral & Chemical Corp. / T3

### T3A. Tape, Magnetic, Filing Systems

The British Tabulating Machine Co., Ltd. / T3A

Burroughs Corp., ElectroData Div. / T3A  
Consolidated Electrodynamics Corp. / T3A

Reeves Soundcraft Corp. / T3A  
Visirecord, Inc. / T3A

### T4. Tape, Readers

**AMPEX CORP., INSTRUMENTATION DIV.**, 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / T4

Avco Mfg. Corp. / T4  
Bendix Aviation Corp., Bendix Computer Division / T4

The British Tabulating Machine Co., Ltd. / T4

J. H. Bunnell & Co. / T4  
California Technical Industries / T4  
Consolidated Electrodynamics Corp. / T4  
Cook Electric Co. / T4  
Digitronics Corp. / T4

Ferranti Electric Ltd. — see R4 / T4  
Minneapolis-Honeywell Reg. Co., Davies Labs. Div. / T4

Reeves Soundcraft Corp. / T4  
Smith-Corona, Inc. / T4  
Societe d'Electronique et d'Automatisme / T4  
Stromberg-Carlson, a Div. of General Dynamics Corp. / T4  
Telectro Industries Corp. / T4  
Wharf Engineering Lab. / T4

### T5. Tape, Recorders

American Electronics, Inc. / T5  
**AMPEX CORP., INSTRUMENTATION DIV.**, 934 Charter City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / T5

Autonetics, Div. of North Amer. Aviation / T5

Avco Mfg. Corp. / T5

**BENDIX COMPUTER DIVISION, BENDIX AVIATION CORP.**, 5630 Arbor Vitae St., Los Angeles 45, Calif. / MTA-2 tape storage unit / DESCR: accessory to Bendix G-15 general purpose digital computer. Up to four units may be used. Each stores 300,000 words. May be searched for blocks or file sections. See also C24 / USE: auxiliary storage of data and programs / \$6800, sale, \$270 mo., lease / T5

Bergen Laboratories / T5

The British Tabulating Machine Co., Ltd. / T5

Burroughs Corp., ElectroData Div. / T5  
Consolidated Electrodynamics Corp. / T5  
Cook Electric Co. / T5

Davies Laboratories, Inc. / T5

Epsco, Inc. / T5

Gulton Industries, Inc. / T5

Key Electric Corp. / T5

Magne-Pulse Corp. / T5

Miles Reproducer Co. / T5

Minneapolis-Honeywell Reg. Co., Davies Labs. Div. / T5

Mohawk Business Machines Corp. / T5

Northam Electronics, Inc. / T5

Potter Instrument Co., Inc. / T5

Radio Corp. of America, Precision Electronic Instruments Division / T5

Reeves Soundcraft Corp. / T5

Smith-Corona, Inc. / T5

Societe d'Electronique et d'Automatisme / T5

Stromberg-Carlson, a Div. of General Dynamics Corp. / T5

Telectro Industries Corp. / T5

Westrex Corp. / T5

### T5A. Magnetic Tape Reels

American Molded Prod. Co. / T5A

### T6. Tape, Paper

Bendix Aviation Corp., Research Laboratories Div. / T6

The British Tabulating Machine Co., Ltd. / T6

Reeves Soundcraft Corp. / T6

### T7. Tape Filing Systems

Reeves Soundcraft Corp. / T7

### T8. Tape Punches

American Electronics, Inc. / T8

Burroughs Corp., ElectroData Div. / T8

California Technical Industries / T8

Clary Corp. / T8

Data Instruments Div. of Telecomputing Corp. / T8

**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / paper tape punches / DESCR: paper tape punch from keyboard input. High speed paper tape punch / T8

Kleinschmidt, Inc. / T8

Litton Industries, Inc. / T8

National Data Processing Corp. / T8

Reeves Soundcraft Corp. / T8

Smith-Corona, Inc. / T8

Societe d'Electronique et d'Automatisme / T8

Soroban Engineering, Inc. / T8

Teletype Corp. / T8

Wharf Engineering Lab. / T8

### T9. Tape Readers

Bendix Computer Division, Bendix Aviation Corp. — see R7 / T9

J. H. Bunnell & Co. / T9

California Technical Industries / T9

Data Instruments Div. of Telecomputing Corp. / T9

**FERRANTI ELECTRIC, INC.**, 95 Madison Ave., Hempstead, N. Y. / Photoelectric Paper Tape Readers TR2 and TR3 / DESCR: reads punched paper tape photoelectrically and gives stop on a character performance up to 200 characters per second and stop on or before next character up to 400 characters per second. Friction drive minimizes tape wear / USE: computer input. Digital data transmission / \$1,750 to \$1,900 / T9

Ferranti Electric, Inc. / T9

Ferranti Electric Ltd. — see R6 / T9

Miles Reproducer Co., Inc. / T9

Potter Instrument Co., Inc. / T9

Reeves Soundcraft Corp. / T9

Remington Rand Univac Div., Sperry Rand Corp. — see I3 / T9

Smith-Corona, Inc. / T9

Soroban Engineering, Inc. / T9

Telectro Industries Corp. / T9

Teletype Corp. / T9

### T10. Telemetry Systems

Aeronca Mfg. Corp. / T10

American Electronics, Inc. / T10

Applied Science Corp. of Princeton / T10

Automation Research & Design Associates / T10

Bendix Aviation Corp., Pacific Div. / T10

Bendix Aviation Corp., Research Laboratories Div. / T10

The Bristol Company / T10

Centronix, Inc. / T10

C G Electronics Corp. / T10

Coleman Engineering Co. / T10

Consolidated Electrodynamics Corp. / T10

Control Data Corp. / T10

Cook Electric Co. / T10

Corbin Corp. / T10

Data Instruments Div. of Telecomputing Corp. / T10

Dorsett Laboratories, Inc. / T10  
 Electronics Development Co., Inc. / T10  
**ELECTRO-MECHANICAL RESEARCH, INC.**, P. O. Box 3041, Sarasota, Fla. / telemetry transmitting and acquisition equipment / DESCR: FM/FM, PDM, PAM, airborne packages and ground station acquisition, data reduction systems / USE: aircraft and missile telemetry / — / T10

**FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / telemetering systems / DESCR: supervisory control systems for power applications / T10  
 Ford Instrument Co., Div. of Sperry Rand Corp. / T10

The Foxboro Co. / T10  
 The Geotechnical Corp. — see C22 / T10

Gulton Industries, Inc. / T10  
 Hallamore Electronics Co., Div. of The Siegler Corp. / T10

**HAMMARLUND MFG. CO., INC.**, 460 W. 34 St., New York 1, N. Y. / centralized operations control equipment / DESCR: audio tone, or pulsed DC or audio tones for transmission of functions or telemetering over common carriers — either wire or radio / USE: for telemetering or remote control — remote supervision / \$250, up, depending on system / T10

**HOOVER ELECTRONICS CO.**, Timonium, Md. / telemetering systems / DESCR: FM/FM telemetering system involving up to 21 subcarrier channels and RF power outputs of up to 50 watts in single pressurized case or multiple covers / USE: transmitting data to remote point / price varies depending upon complexity of system / T10

International Telemeter Corp. / T10  
 Jefferson Electronic Products Corp. / T10  
 Leeds & Northrup Co. / T10  
 Litton Industries, Inc. / T10  
 Minneapolis-Honeywell Regulator Co., Davies Labs. Div. / T10

Northam Electronics, Inc. / T10  
 Orradio Industries / T10  
 Ralph M. Parsons Co., Electronics Div. / T10

Radiation, Inc. / T10  
 Raytheon Manufacturing Co. / T10  
 J. B. Rea Co., Inc. / T10  
 Southwestern Industrial Electronics Co. / T10

Shand & Jurs Co. / T10  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / T10  
 Taller and Cooper / T10  
 Tele-Dynamics / T10

The Thompson-Ramo-Wooldridge Products Co. / T10

**T11. Terminals**

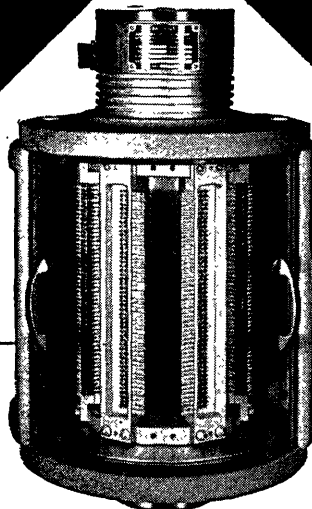
Accurate Electronics Corp. / T11  
 AMP, Inc. / T11

Burndy Corporation, Omaton Div. / T11  
**CAMBRIDGE THERMIONIC CORP.**, 445 Concord Ave., Cambridge 38, Mass. Electronic and electrical components / DESCR: miniature and sub-miniature plugs and jacks; gold, silver and other finish terminals; terminal boards; press mount and spring loaded diode clips; panel and chassis hardware; insulated

**Now you can order from stock...**

**the new  
 BRYANT MAGNETIC  
 STORAGE  
 DRUM**

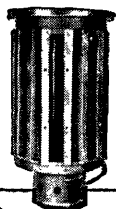
Unequaled for precision, versatility, and low cost



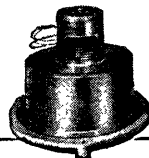
The new 512A Bryant general purpose magnetic storage drum meets the exacting demands of all permanent storage problems, yet is versatile enough to be used as a laboratory instrument. These 5" dia. x 12" long drums are stocked for immediate shipment at a price that is far below the cost of customer-designed drums.

**Features:** Guaranteed accuracy of drum run-out, .00010" T.I.R. or less; Integral motor drive; Capacities to 625,000 bits; Speeds up to 12,000 R.P.M.; 500 kilocycle drum operation possible; Accommodates up to 240 magnetic read/record heads; For re-circulating registers as well as general storage.

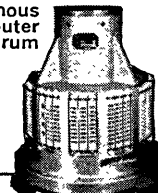
**Special Models:** If your storage requirements cannot be handled by standard units, Bryant will assist you in the design and manufacture of custom-made drums. Speeds from 60 to 120,000 R.P.M. can be attained, with frequencies from 20 C.P.S. to 5 M.C. Sizes can range from 2" to 20" diameter, with storage up to 6,000,000 bits. Units include Bryant-built integral motors with ball or air bearings. Write for Model 512A booklet, or for special information.



High Speed Computer Drum



Mobile Military Computer Drum



Synchronous Computer Drum



Airborne Computer Drum

**BRYANT GAGE and SPINDLE DIVISION**

**P. O. Box 620-K, Springfield, Vermont, U. S. A.  
 DIVISION OF BRYANT CHUCKING GRINDER CO.**



terminals; coils and coil forms; capacitors / USE: individual piece part component / under \$5 / T11  
 General Ceramics Corp. / T11  
 The Geotechnical Corp. / T11  
 Litton Industries, Inc. / T11  
 Litton Industries, Components Div. / T11  
 Measurement Engineering, Limited / T11  
 Winchester Electronics, Inc. / T11

#### T12. Transformers

Automatic Manufacturing Div. / T12  
 Canadian Westinghouse Co., Ltd., Electronics Div. / T12  
 ESC CORPORATION, 534 Bergen Blvd., Palisades Park, N. J. / pulse components / DESCR: embedded assemblies and components, shift registers and miniature pulse transformers / USE: radar, computers, pulse applications / \$3 up, dependent on specifications / T12  
 FERRANTI ELECTRIC LTD., Industry St., Toronto, Ontario / transformers / DESCR: read and write transformers for magnetic drum recording / T12  
 Gulton Industries, Inc. / T12  
 Jefferson Electric Co. / T12  
 Litton Industries, Inc. / T12  
 Mico Instrument Co. / T12  
 Microtran Co., Inc. / T12  
 Polyphase Instrument Co. / T12  
 Sangamo Electric Co. / T12  
 Sola Electric Co. / T12  
 Specialities, Inc. / T12  
 Sprague Electric Co. / T12  
 Stromberg-Carlson, a Div. of General Dynamics Corp. / T12  
 Superex Electronics Corp. / T12  
 Wheeler Electronic Corp., Sub. of Sperry Rand Corp. / T12

#### T13. Transformers, Pulse

ALADDIN ELECTRONICS, A DIV. OF ALADDIN INDUSTRIES, INC., 703 Murfreesboro Rd., Nashville 10, Tenn. / pulse transformers / DESCR: low power pulse transformers available in many case configurations and in both miniature and micro-miniature size. Pulse width from 0.1 to 13 USEC / USE: coupling, impedance matching, and blocking oscillators, either vacuum tubes or transistors \$1.44 to \$8.08 depending on style and quantity / T13  
 Ballastran Corp. — T13  
 Canadian Westinghouse Co., Ltd., Electronics Div. / T13  
 Celco / T13  
 Coilcraft, Inc. / T13  
 Daystrom Inc., Daystrom Systems Div. / T13  
 Digitronics Corp. / T13  
 Dilectron Div. of the Gudeman Co. / T13  
 Electronic Transformer Co., Inc. / T13  
 El-Rad Mfg. Co. / T13  
 Epsco Components / T13  
 ESC CORPORATION, 534 Bergen Blvd., Palisades Park, N. J. / pulse components / DESCR: embedded assemblies and components, shift registers and miniature pulse transformers / USE: radar, computers, pulse applications / \$3 up, dependent on specifications / T13  
 Ferroxcube Corp. of America / T13  
 Gudeman Co. of Calif. / T13  
 Jacobs Instrument Co. / T13  
 Johnson Electronics Inc. / T13

Litton Industries, Inc. / T13  
 PCA Electronics, Inc. / T13  
 Polyphase Instrument Co. / T13  
 Sangamo Electric Co. / T13  
 Sprague Electric Co. / T13  
**TECHNITROL ENGINEERING CO.,** 1952 E. Allegheny Ave., Philadelphia 34, Pa. / pulse transformers / DESCR: miniature and subminiature encapsulated transformers. Stock and wound to specifications. / USE: computers and all pulse circuitry. Transistor circuits a specialty. Memory drivers and sensors. / \$1.75 to \$7 / T13  
 Valor Electronics, Inc. / T13  
 Wheeler Electronic Corp., Sub. of Sperry Rand Corp. / T13

#### T13A. Transducers

BJ Electronics, Borg-Warner Corp. / T13A  
 Bourns Laboratories, Inc. T13A  
 The Bristol Company / T13A  
 Donner Scientific Co. / T13A  
 Electro Products Laboratories, Inc. / T13A  
 Fairchild Controls Corp., Components Div. / T13A  
 General Cybernetics Corp. / T13A  
 Genisco, Inc. / T13A  
 Hathaway Instrument Co. / T13A  
 Northam Electronics, Inc. / T13A  
 Servomechanisms, Inc. / T13A  
 Sturup, Inc. / T13A

#### T14. Transistors

**AMPEREX ELECTRONIC COMPANY,** a Div. of No. Amer. Philips Co., Inc., 230 Duffy Ave., Hicksville, L. I. / Computer components: premium quality, "Reliable" electron tubes, indicator tubes, transistors, and crystal diodes. Ferrites ("Ferroxcube"). Semiconductor. Also application engineering service for these products / \$1 to \$3000 depending on type / T14  
 Baird-Atomic Co. / T14  
 Bendix Aviation Corp., Research Laboratories Div. / T14  
 Calvert Electronics, Inc. — see T19 / T14  
 CBS-Hytron, a Div. of Columbia Broadcasting System / T14  
 Harrison Laboratories, Inc. / T14  
 Hughes Aircraft Co. / T14  
 Kepco Laboratories Inc. / T14  
 Lansdale Tube Co. / T14  
 Microtran Co. / T14  
 Motorola Semiconductor Products Div. / T14  
 National Union Electric Corp. / T14  
 Pacific Semiconductors, Inc. / T14  
**RADIO CORP. OF AMERICA, SEMICONDUCTOR & MATERIALS DIV.,** Somerville, N. J. / germanium and silicon transistors / T14  
 Radio Development & Research Corp. / T14  
**RA<sup>+</sup>THEON MFG. CO., SEMICONDUCTOR DIV.,** 55 Chapel St., Newton 58, Mass. / transistors / DESCR: silicon and germanium transistors, computer transistors, subminiature transistors / USE: computers and related uses / — / T14  
 Stereatronics / T14  
**SYLVANIA ELECTRIC PRODUCTS, INC.,** 1740 Broadway, New York 19,

N. Y. / Crystal diodes, Silicon Point contact diodes, Transistors, Photodiodes / \$1 to \$14 / T14  
 Sylvania Electric Products, Inc., Woburn Div. / T14  
 Texas Instruments Inc., Semiconductor-Components Div. / T14  
 Transistor Products, Inc. / T14  
 Transistron Electronic Corp. / T14  
 Tung-Sol Electric Inc. / T14  
 U. S. Dynamics Corp. / T14

#### T15. Transistors, Germanium

Bendix Aviation Corp., Research Laboratories Div. / T15  
 Calvert Electronics, Inc. — see T19 / T15  
 Canadian Westinghouse Co., Ltd., Electronics Div. / T15  
 CBS-Hytron, a Div. of Columbia Broadcasting System / T15  
 Clevite Transistor Products / T15  
 Delco Radio Div., General Motors Corp. / T15  
 General Electric Co., Semiconductor Products Dept. / T15  
 General Transistor Corp. / T15  
 Hughes Products, Semiconductor Div., Hughes Aircraft Co. / T15  
 RCA Semiconductor and Materials Div. / T15  
 Raytheon Mfg. Co. / T15  
 Texas Instruments, Inc., Semiconductor-Components Div. / T15  
 Transistron Electronic Corp. / T15  
 Tung-Sol Electric, Inc. / T15  
 Westinghouse Electric Corp., Semiconductor Dept. / T15

#### T16. Transistors, Silicon

Bendix Aviation Corp., Research Laboratories Div. / T16  
 Calvert Electronics, Inc. — see T19 / T16  
 CBS-Hytron, a Div. of Columbia Broadcasting System / T16  
 General Electric Co., Semiconductor Products Dept. / T16  
 General Transistor Corp. / T16  
 Hughes Products, Semiconductor Div., Hughes Aircraft Co. / T16  
 Pacific Semiconductors, Inc. / T16  
 RCA Semiconductor and Materials Div. / T16  
 Raytheon Mfg. Co. / T16  
**SPERRY SEMICONDUCTOR DIV. OF SPERRY RAND CORP.,** Wilson Ave., S. Norwalk, Conn. / Semiconductor Products / Research and development, as well as manufacturing of a line of silicon transistors / USE: for all general purposes and small signal and computer applications for semiconductor devices / \$10 to \$30 / T16  
 Texas Instruments Inc., Semiconductor-Components Div. / T16  
 Transistron Electronic Corp. / T16  
 Westinghouse Electric Corp., Semiconductor Dept. / T16

#### T17. Translating Equipment

Beckman Instruments, Berkeley Div. / T17  
 Benson-Lehner Corp. / T17  
 C G Electronics Corp. / T17  
 Consolidated Avionics Corp. / T17  
 Consolidated Electroynamics Corp. / T17  
 Control Data Corp. / T17  
**CUBIC CORPORATION,** 5575 Kearny Villa Rd., San Diego 11, Calif. / tran-

- sistorized playback system / DESCR: playback system accepts recorded digital data, converts to decimal form for display, printout, etc. / USE: primary use data reduction / — / T17
- ELECTRONIC ENGINEERING CO. OF CALIFORNIA**, 1601 E. Chestnut, Santa Ana, Calif. / computer language translator — ZA-100 / DESCR: provides rapid, efficient translation of data between different types of electronic computers and related data processing equipment; performs necessary translation independently from the computer / USE: solves computer to computer and computer to data processing system common language problems / \$50,000 and up — depends on input-output equipment requirement / T17
- Episco, Inc. / T17
- Ferranti Electric, Inc. — see A6 / T17
- The Geotechnical Corp. / T17
- Kay Electric Co. / T17
- Librascope, Inc. / T17
- Ransom Research / T17
- Smith-Corona, Inc. / T17
- Soroban Engineering, Inc. / T17
- THE STANDARD REGISTER CO.**, Dayton 1, Ohio / Electronic equipment (called "Stanomatic") / DESCR: capable of sensing or reading printed codes on business documents and translating them into digital pulses which will actuate office machines such as card punches, tape perforators, computers, etc. / USE: devices for encoding documents at original writing / — / T17
- T18. Typewriters, Electric, Controlled**
- American Automatic Typewriter Co. / T18
- Benson-Lehner Corp. / T18
- Fischer & Porter Co. / T18
- FRIDEN, INC.**, San Leandro, Calif. / Flexowriters / DESCR: electric typewriting machine, standard electric keyboard, code selector, code translator, tape punch, and tape reader, all integrated in one machine; will punch, read, duplicate, correct paper tape; 5, 6, 7, 8 channels optional / USE: to prepare documents at the source, and produce as a by-product punched tapes with complete selected information; the tapes in turn are used to actuate other tape-operated machines, such as communications equipment, address plate embossing machines, tape-to-card punches, computers etc. / T18
- International Business Machines Corp. — see D1 / T18
- INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIV.**, 112 E. Post Rd., White Plains, N. Y. / IBM Typewriter Card Punch (types 824 and 826) / DESCR: both the 824 and 826 prepare punched cards for accounting use as an automatic by-product of typewriting operations. Each machine consists of two units, an IBM electric typewriter and a printing (826) or non-printing (824) card punch. / monthly rentals range from \$95 for 824 Model 1 to \$145 for 826 Model 6. Selling prices range from \$3,700 for 824 Model 1 to \$7,400 for 826 Model 6. All prices exclusive of Federal excise tax / T18
- INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIV.**, 112 E. Post Rd., White Plains, N. Y. / IBM 884 Typewriter Tape Punch / DESCR: creates a perforated tape simultaneously with the typing operation / USE: these perforated tapes control the IBM Tape-to-Card Punch for automatic conversion to punched cards / monthly rental, \$75. Selling price, \$3,750. All prices exclusive of tax / T18
- The Newton Co. / T18
- Remington Rand Univac Div., Sperry Rand Corp. — see I3 / T18
- Robotyper Corp. / T18
- Shepard Laboratories / T18
- Smith-Corona, Inc. / T18
- SOROBAN ENGINEERING, INC.**, Box 1717, Melbourne, Fla. / Automatic Tabulators / DESCR: specialized coding and de-coding devices / USE: in control of electronic tabulators and similar printing devices / \$1600 to \$4900 / T18
- Underwood Corp. / T18
- T19. Tubes, Electronic**
- AMPEREX ELECTRONIC COMPANY**, a Div. of No. Amer. Philips Co., Inc., 230 Duffy Ave., Hicksville, L. I. / Computer components: premium quality, "Reliable" electron tubes, indicator tubes, transistors, and crystal diodes. Ferrites ("Ferroxcube") Semiconductors. Also application engineering service for these products / \$1 to \$3000 depending on type / T19
- Amperite Co., Inc. / T19
- Baird-Atomic, Inc. / T19
- Burroughs Corp., Electronic Tube Div. / T19
- CALVERT ELECTRONICS, INC.**, 536 Broadway, New York 12, N. Y. / Radio and electronics tubes / T19
- CBS-HYTRON, DIV. OF COLUMBIA BROADCASTING SYSTEM, INC.**, 100 Endicott Street, Danvers, Mass. / Electron tubes and semiconductors for computer and other uses / T19
- Federal Telephone and Radio Co. / T19
- FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / electronic tubes / DESCR: magnetrons, klystrons, TR cells. Ceramic tubes, cold cathode tubes / T19
- GENERAL ELECTRIC CO.**, Receiving Tube Dept., 316 E. 9th St., Owensboro, Ky. (Sales offices in Clifton, N. J., Chicago, Ill., and Los Angeles, Calif. — see listings in Roster of Organizations) / receiving tubes / DESCR: industrial and computer tubes, commercial glass metal, and miniature tubes, military miniature, subminiature, and ceramic tubes; computer tubes are specially designed and manufactured to meet the requirements of all types of computers / USE: Various / T19
- International Rectifier Corp. / T19
- International Resistance Co. / T19
- Lansdale Tube Co. / T19
- Litton Industries, Inc. / T19
- National Union Electric Corp. / T19
- RADIO CORP. OF AMERICA, ELECTRON TUBE DIV.**, 415 So. 5th St., Harrison, N. J. / electron tubes and photosensitive devices / DESCR: receiving type tubes, thyratrons, storage tubes, cathode ray tubes, camera tubes, photocells / USE: as components within equipment / — / T19
- RATHEON MFG. CO., INDUSTRIAL TUBE DIV. AND SEMICONDUCTOR DIV.**, 55 Chapel St., Newton 58, Mass. / transistors, semiconductor diodes and rectifiers, electron tubes / DESCR: silicon and germanium transistors, computer transistors, silicon rectifiers, miniature and subminiature tubes, low drain filamentary subminiature and special cathode ray tubes / USE: computer and related uses / — / T19
- RAYTHEON MFG. CO., INDUSTRIAL TUBE DIV.**, 55 Chapel St., Newton 58, Mass. / electron tubes / DESCR: reliable miniature and subminiature tubes, low drain filamentary subminiature tubes, special cathode ray tubes / USE: computer and related uses / — / T19
- Sylvania Electric Products, Inc. / T19
- Sylvania Electric Products, Inc., Woburn Div. / T19
- Thermosen, Inc. / T19
- Tung-Sol Electric, Inc. / T19
- V1. Visual Output Devices**
- Avion Div., ACF Industries / V1
- Burroughs Corp., Electronic Tube Div. / V1
- C G Electronic Corp. / V1
- Chrono-log Corp. / V1
- Control Data Corp. / V1
- Convair, a Division of General Dynamics Corp. / V1
- Corbin Corp. / V1
- FERRANTI ELECTRIC LTD.**, Industry St., Toronto, Ontario / visual output devices / DESCR: machine for providing up to 128 plain language word pictures from digital input / V1
- INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIV.**, 112 E. Post Rd., White Plains, N. Y. / The 740 Cathode Ray Tube Recorder / DESCR: an electronic output device designed for use with the IBM 701, 704, and 709. It provides an output which records data points on the faces of a pair of television-like tubes at the rate of 8,000 per second; the larger tube (780 CRT Display Unit) is used for visual display; the smaller tube (740 CRT Recorder) is used in conjunction with a camera under the control of the 701, 704, or 709. The camera automatically photographs information as directed by the program. / USE: for scientific, engineering, and design problems / monthly rental, \$2,850. Selling price, \$112,000. All prices exclusive of Federal excise tax / V1
- LABORATORY FOR ELECTRONICS, INC., COMPUTER PRODUCTS DIV.**, 141 Malden St., Boston, Mass. / SM generator and viewer / DESCR: a read-out device which translates coded data into written words for immediate viewing or to photograph for permanent record of projection. Applied to data processing, computer and other digitized systems / USE: as read-out, plot-

ting and display device / \$12,000 and up / V1  
 Laboratory for Electronics, Computer Products Div. — see I2 / V1  
 Librascope, Inc. / V1  
 Litton Industries, Inc. / V1  
 Non-Linear Systems, Inc. — see C40 / V1

Ransom Research / V1  
 Sanborn Co. / V1  
 Saunders & Co. / V1  
 Societe d'Electronique et d'Automatisme / V1  
 Strandberg Engineering Lab., Inc. / V1

Stromberg-Carlson, a Div. of General Dynamics Corp. / V1  
 Stromberg-Carlson (West Coast) / V1  
 Tally Register Corp. / V1  
 Union Switch & Signal, Div. of Westinghouse Air Brake Co. / V1

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Following is the index of advertisements. Each item contains: Name and address of the advertiser / page number where the advertisement appears / name of agency if any.

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Arnold Engineering Co., Marengo, Ill. / Page 99 / W. S. Walker Advertising, Inc.

Audio Devices, Inc., 444 Madison Ave., New York 22, N. Y. / Page 89 / Marsteller, Rickard, Gebhardt & Reed, Inc.

Avco Research & Advanced Development, 20 S. Union St., Lawrence, Mass. / Page 35 / Rozene Advertising Agency

Bendix Aviation Corp., Computer Div., 5630 Arbor Vitae St., Los Angeles 45, Calif. / Page 91 / The Shaw Co.

Bryant Chucking Grinder Co., Springfield, Vt. / Page 93 / Henry A. Loudon Advertising, Inc.

Burroughs Corp., Military Field Service Div., 511 N. Broad St., Philadelphia, Pa. / Page 2 / Diener & Dorskind, Inc.

Corp. for Economic and Industrial Research, 1200 Jefferson Davis Highway, Arlington 2, Va. / Page 37 / —

Dialight Corp., 60 Stewart Ave., Brooklyn 37, N. Y. / Page 27 / H. J. Gold Co.

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ESC Corp., 534 Bergen Blvd., Palisades Park, N. J. / Page 5 / Keyes, Martin & Co.

Ferroxcube Corp. of America, E. Bridge St., Saugerties, N. Y. / Page 100 / Sam Groden, Inc.

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Sylvania Electric Products Inc., Electronic Systems Div., 100 First Ave., Waltham, Mass. / Page 29 / Deutsch & Shea, Inc.

John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. / Page 41 / Norman D. Waters & Associates

### The Editor's Notes

[Continued from page 6]

problem of communication among computer people. Dr. Franz L. Alt, editor of the Journal, remarked at the meeting of the Council that he considered the most important topic of the 17 items on the agenda was "consider admitting Users' Groups as organized entities of the Association."

The Association would certainly help all its members by finding out and reporting: Which members are interested in which topics, and have reached what levels of knowledge? Who would like to exchange ideas about what?

Part of the problem of communication however should be solved not mechanically but "humanly." For example, a luncheon meeting of eight people could have a topic introduced and explained for five minutes or so, and then the seven members of the audience could ask plenty of unsophisticated questions, like "I missed your first two points. Will you say them over again?", or "You used the word 'bootstrap.' What does that mean?"

It would be a great aid to the computer field to organize an intelligent, imaginative, "operations research" attack on the problem of better and more satisfying communication of ideas among computer people.

YOUR COMPUTER DESIGNS ARE BETTER  
 YOUR COMPUTERS PERFORM BETTER  
 when you draw from this comprehensive  
 range of



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- o Fast switching speed
- o Low saturation resistance
- o Temperature range  $-65^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

### ONE AMPERE, HIGH FREQUENCY, HIGH GAIN SWITCH

JEDEC-30 Type	Punch through Voltage min.	$f_{\alpha b}$	$H_{FE1}$	$H_{FE2}$	$I_{CO}$	$r_b'$	$C_{ob}$
		ave. Mc	ave. $I_B = 1\text{ mA}$ $V_{CE} = -0.25\text{V}$	ave. $I_B = 10\text{ mA}$ $V_{CE} = -0.35\text{V}$	at $-12\text{V}$ $I_C = -1\text{ mA}$	ohms	$V_{CB} = -6\text{V}$ $\mu\text{f}$
<b>2N658</b>	-24	5	50	40	2.5	60	12
<b>2N659</b>	-20	10	70	55	2.5	65	12
<b>2N660</b>	-16	15	90	65	2.5	70	12
<b>2N661</b>	-12	20	120	75	2.5	75	12
<b>2N662</b>	-16	8	30 min	50	2.5	65	12

### MEDIUM CURRENT, HIGH FREQUENCY, HIGH GAIN SWITCH

JEDEC-30 Type	$V_{CE}$ max. volts	$f_{\alpha b}$ ave. Mc	$H_{FE1}$ ave. $I_B = 1\text{ ma}$ $V_{CE} = -0.25\text{V}$	$H_{FE2}$ ave. $I_B = 10\text{ ma}$ $V_{CE} = -0.35\text{V}$	Rise Time* max. $\mu\text{sec}$
<b>2N404</b>	-24	12	30 min.	—	—
<b>2N425</b>	-20	4	30	18	1.0
<b>2N426</b>	-18	6	40	24	0.55
<b>2N427</b>	-15	11	55	30	0.44
<b>2N428</b>	-12	17	80	40	0.33

\* $I_C = 50\text{ ma}$ ;  $I_B = 5\text{ ma}$ ;  $R_L = 200\ \Omega$ ;  $I_{B2} = 5\text{ ma}$ ; Grounded Emitter Circuit

SUBMIN Type	$V_{CE}$ max. volts	$f_{\alpha b}$ ave. Mc	$H_{FE1}$ ave. $I_B = 1\text{ ma}$ $V_{CE} = -0.25\text{V}$	$H_{FE2}$ ave. $I_B = 10\text{ ma}$ $V_{CE} = -0.35\text{V}$	Rise Time* max. $\mu\text{sec}$
<b>CK25</b>	-20	4	30	18	1.0
<b>CK26</b>	-18	6	40	24	0.55
<b>CK27</b>	-15	11	55	30	0.44
<b>CK28</b>	-12	17	80	40	0.33

Ratings at  $25^{\circ}\text{C}$  unless otherwise indicated  
 Dissipation Coefficients: For 1 Amp types, in air  $0.35^{\circ}\text{C}/\text{mW}$ ; infinite sink  $0.18^{\circ}\text{C}/\text{mW}$   
 For med. current types, in air  $0.40^{\circ}\text{C}/\text{mW}$ ; infinite sink  $0.18^{\circ}\text{C}/\text{mW}$   
 For submin types, in air  $0.75^{\circ}\text{C}/\text{mW}$ ; infinite sink  $0.35^{\circ}\text{C}/\text{mW}$

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This kit is an up-to-the-minute introduction to the design of arithmetical, logical, reasoning, computing, puzzle-solving, and game-playing circuits—for boys, students, schools, colleges, designers. It is simple enough for intelligent boys to assemble, and yet it is instructive even to engineers, because it shows how many kinds of computing and reasoning circuits can be made from simple components. This kit is the outcome of 7 years of design and development work with Geniacs and small robots by Berkeley Enterprises, Inc. With this kit and manual you can easily make over 100 small electric brain machines that display intelligent behavior and teach understanding first-hand. Each one runs on one flashlight battery; all connections with nuts and bolts; no soldering required. (Returnable for full refund if not satisfactory.) . . . Price \$17.95

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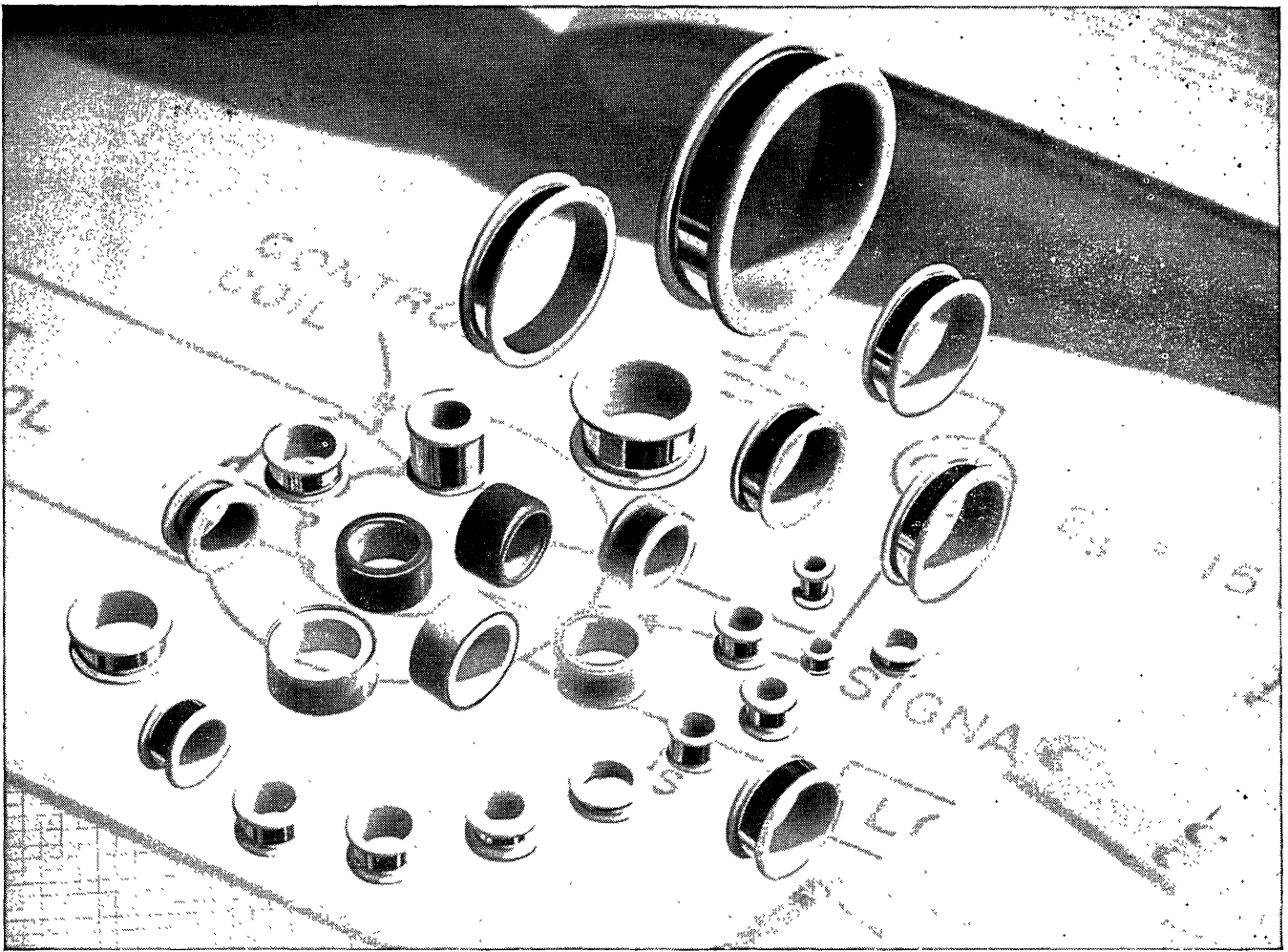
. . . AND MANY MORE

----- MAIL THIS REQUEST or a copy of it -----

Berkeley Enterprises, Inc.  
815 Washington Street, R131, Newtonville 60, Mass.

Please send me BRAINIAC KIT K 15, including manual, instructions, over 400 parts, templates, circuit diagrams, etc. I enclose \$17.95 for the kit plus.....for handling and shipping (30c. east of Mississippi; 80c. west of Mississippi; \$1.80, outside U.S.). I understand the kit is returnable in seven days for full refund if not satisfactory (if in good condition).

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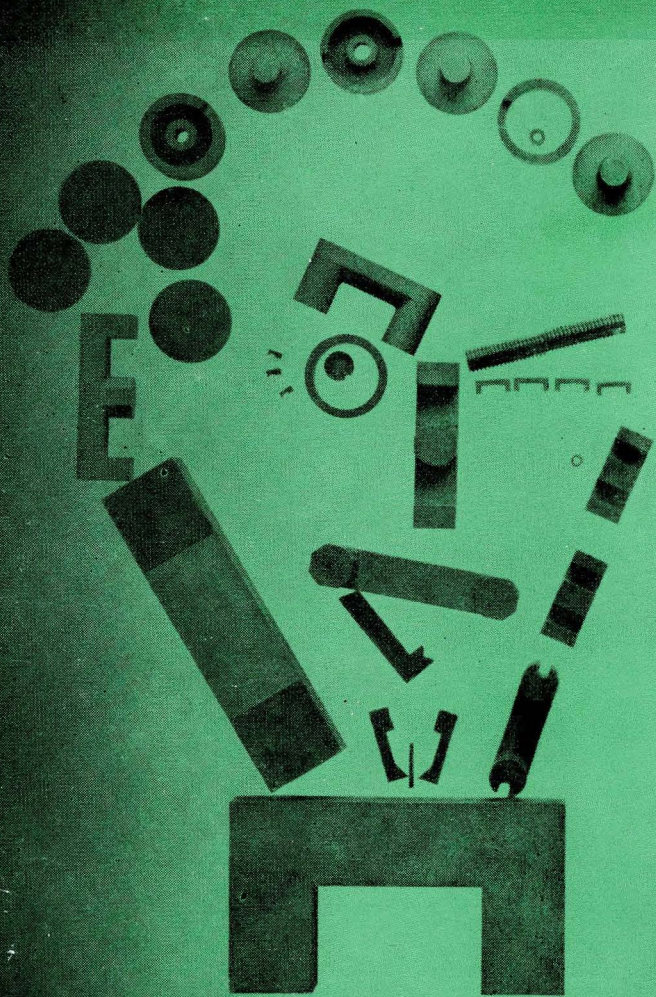
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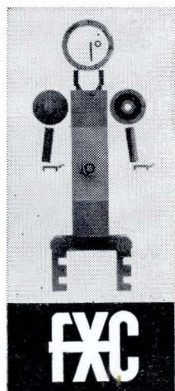
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