

# 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

5th Annual Issue

# THE COMPUTER DIRECTORY AND BUYERS' GUIDE, 1959

the June, 1959 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**

**1959**

•

**VOL. 8 - NO. 6**

Autonetics  
Professional Personnel Dept.  
9150 E. Imperial  
Downey, Calif.

July 15, 1956

Dear Mr. Benning:

I am interested in a responsible position which will more fully utilize my experience and education. I graduated with a Masters Degree in Electrical Engineering in 1952 and for the past four years I have been doing research and development on both analog and digital computers. Though my present job is satisfactory I wish to

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Write your letter today. Please include a resume of your qualifications. Decide now to investigate your opportunities at Autonetics. Reply will be prompt, factual, confidential.

Write P. F. Benning, Manager, Employment Services.  
9150 E. Imperial Highway, Downey, California

**Autonetics**

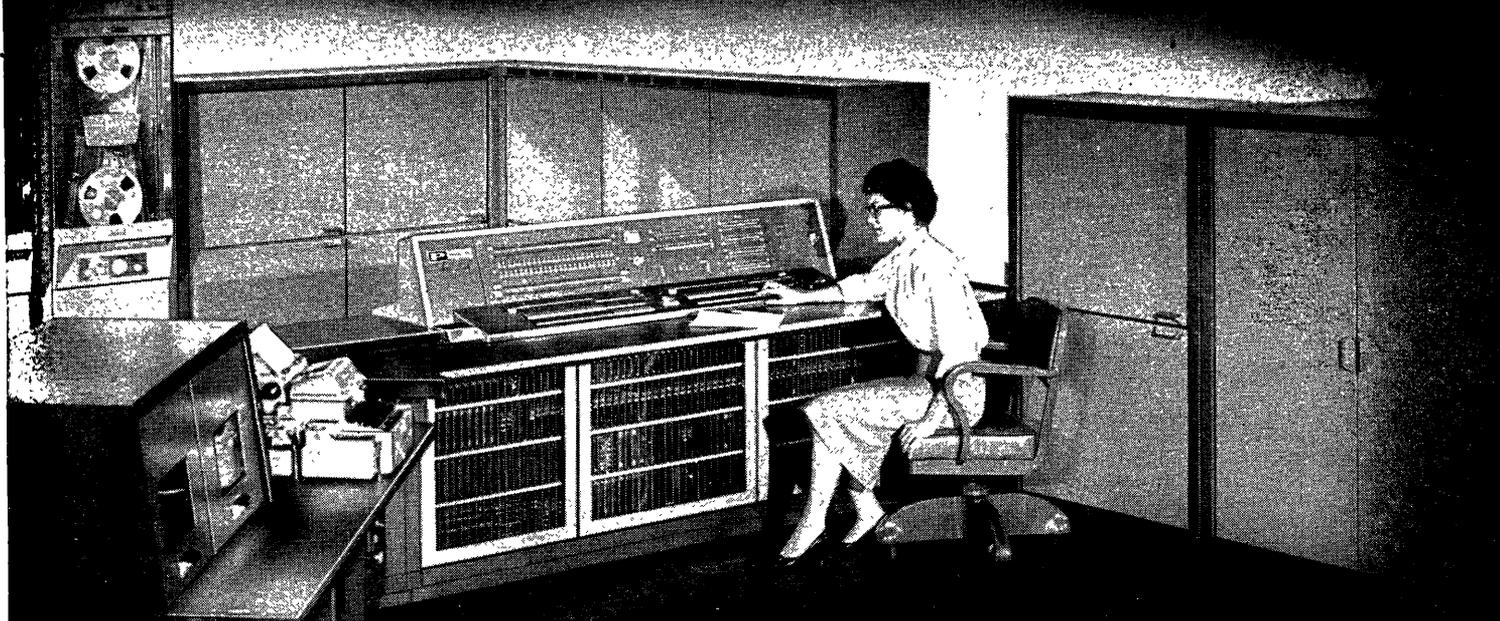
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COMPUTERS and AUTOMATION for June, 1959

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# COMPUTERS

## and AUTOMATION

DATA PROCESSING • CYBERNETICS • ROBOTS

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Number 6

JUNE, 1959

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## The Computer Directory and Buyers' Guide, 1959

Part 1: Roster of Organizations in the  
Computer Field (cumulative). 11

Part 2: Buyers' Guide for the Computer  
Field: Products and Services for Sale  
or Rent (cumulative) . . . . 62

Who's Who in the Computer Field (supplement) . . . 95



The fifth annual 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.

"Part 1, Roster of Organizations in the Computer Field," contains about 740 entries.

"Part 2, Buyers' Guide for the Computer Field: Products and Services for Sale or Rent," contains about 2780 entries.

The "Roster of Organizations," 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.

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.

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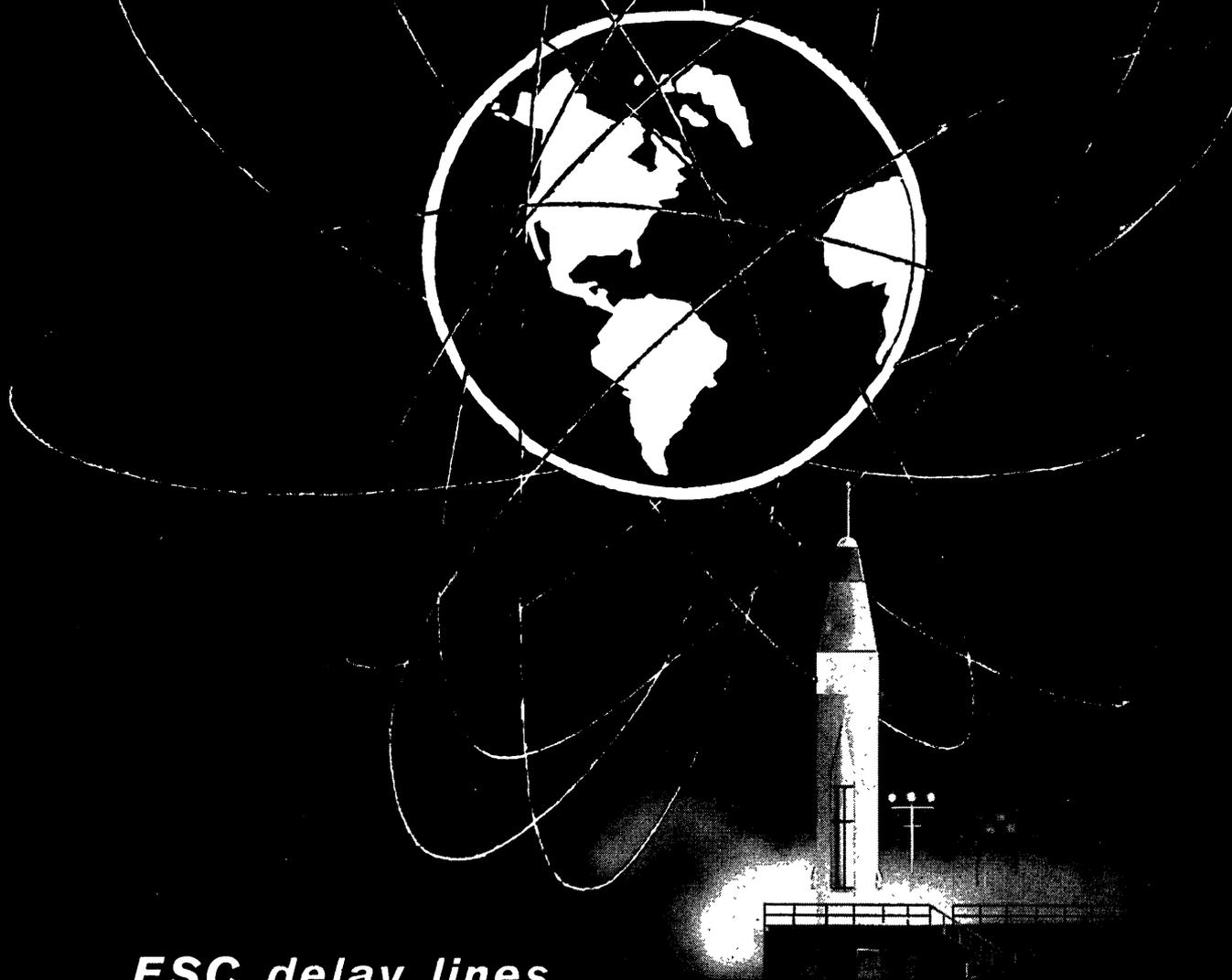
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## ***ESC delay lines take off with America's talking satellite***

On December 18, 1958, the world entered a new era of communications with the successful orbiting of an Atlas ICBM—the Talking Satellite that broadcast President Dwight D. Eisenhower's Christmas message to the world. Circling the earth at a speed of more than 17,000 mph, the Talking Satellite repeated the President's message, erased it, and received and rebroadcast new messages in both voice and code.

ESC Corporation is justifiably proud that its delay lines were selected to aid in this electrifying triumph for America and her electronics industry. Especially designed by ESC, these delay lines were used in the timing sequence for propulsion, the guidance system and the telemetering system.

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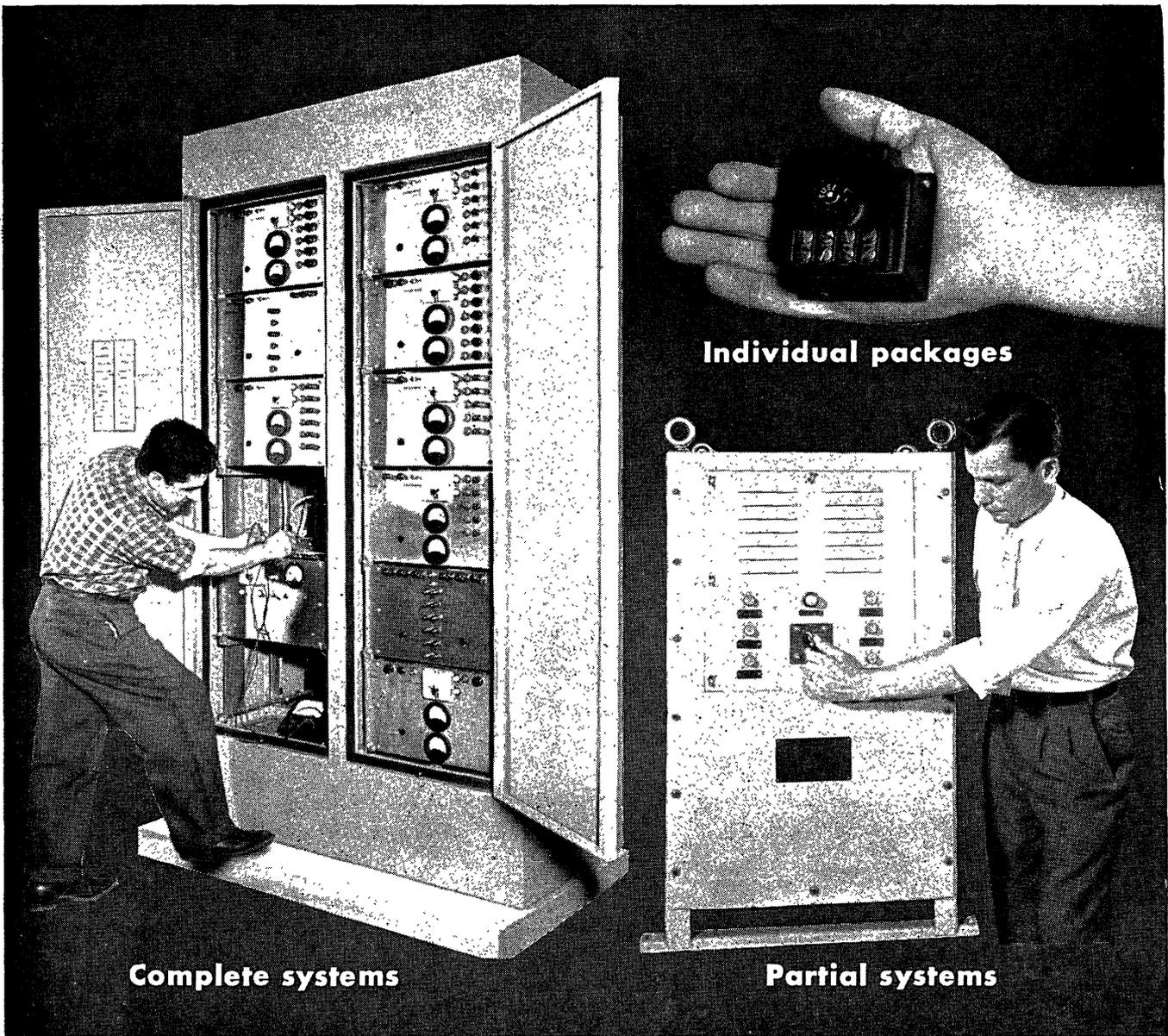
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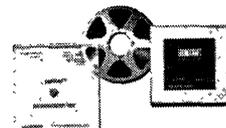


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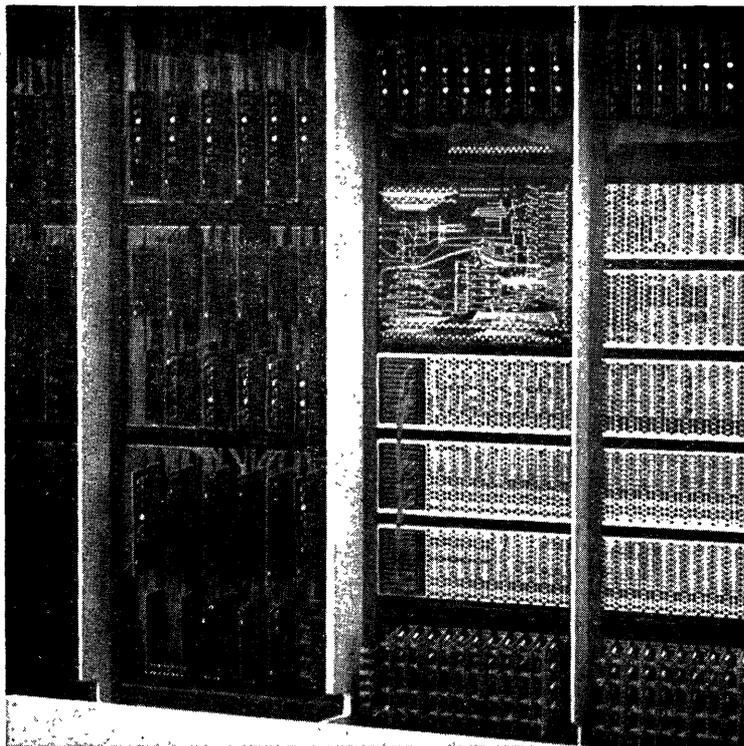
THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959

# NATIONAL'S CONTINUAL RESEARCH BRINGS NOTABLE 'FIRSTS'

*Behind the scenes at The National Cash Register Co. Electronics Division, dedicated scientists and engineers have witnessed the success of their "firsts" in the computer field. These notable achievements include the fully transistorized 304 Electronic Data Processing System, magnetic Rod, photochromic memory, and inhibit-core logic. There is not time to sit back in satisfaction, however. Explorations in both military and commercial computers are now being carried out, which promise to advance the art significantly. Qualified personnel who can contribute to these interesting programs will find a satisfying future at NCR.*

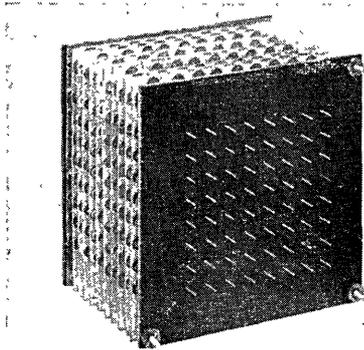
*National\**

The National Cash Register Company  
Electronics Division  
1401 East El Segundo Boulevard  
Hawthorne, California



## NCR 304 All Solid-State Circuitry

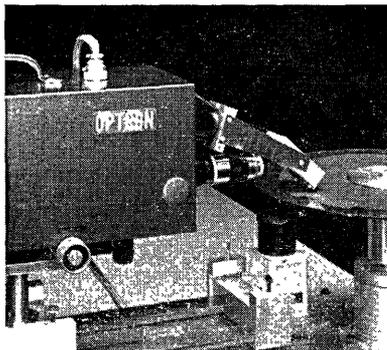
Concentrated research and development at the Electronics Division has led to the marketing of the 304, the first wholly business-designed large-scale computer system featuring all solid-state circuitry. All equipment in the 304 was specifically designed as part of a complete system for processing business data; there was no "building around" existing units. Salient features include a "business command structure," which enables the programmer to write instructions in a simplified language; automatic checking throughout the entire system to assure accurate transmissions; full transistorization; plug-in printed card circuitry; universal converter which permits all input-output functions to be time-shared with the processor; and high-speed magnetic core memory.



## ROD MEMORY

*significant advance in digital computer technology*

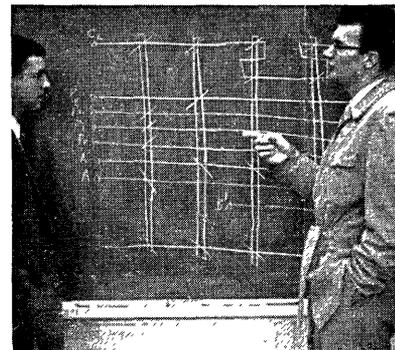
Future electronic computers will be able to "think" 10 to 20 times faster than present models, thanks to NCR's development of the Rod, a magnetic memory element with a 4-millimicrosecond switching speed. Essentially a glass rod with a magnetic coating, the new component is both a switching and information-storage unit. Each Rod is about the size of a straight pin, and thousands of Rods can be linked together electrically in a small space to solve problems with extreme speed. Because it operates reliably over a very wide range of temperature, the Rod will also enable missiles and space vehicles to navigate more dependably.



## PHOTOCHROMIC MEMORY

*based on microencapsulation technique*

NCR Electronics researchers are conducting theoretical and experimental investigation of photochromic memories. In this technique, a light-sensitive liquid dye is stored in a gelatin capsule only  $2\frac{1}{2}$  microns in diameter. It can store and release information immediately in response to a beam of light. These studies may lead to future application in an ultra-high-density memory.

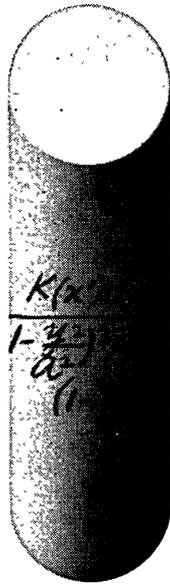


## INHIBIT-CORE LOGIC

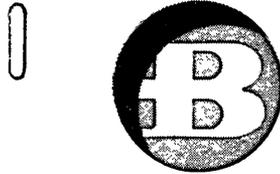
*little to wear out means greater reliability*

Logic circuitry built from NCR's ferrite memory cores or magnetic Rods with very few "active" elements (tubes, semiconductor diodes, and transistors) greatly increases the reliability of computing systems. This is because there are few elements to wear out. Desired logical results are achieved by preventing, or *inhibiting*, the unwanted results by means of currents which prevent cores from switching except under certain combinations of events. This principle reduces power requirements.

\*TRADEMARK REG. U. S. PAT OFF.



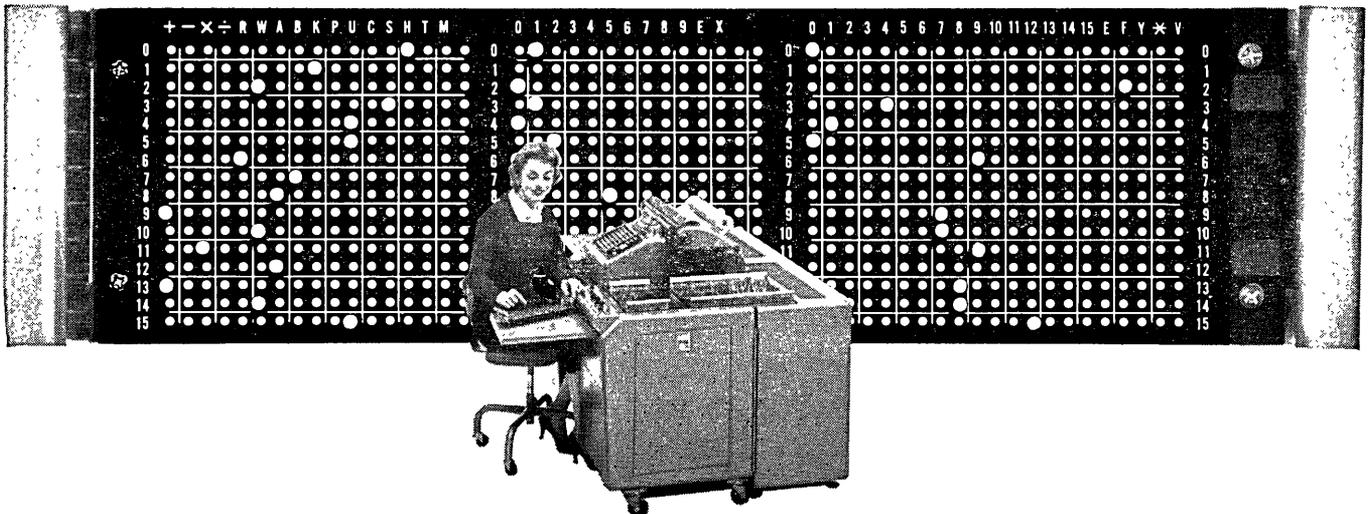
*pinboard programming: easy as putting a round peg in a round hole*



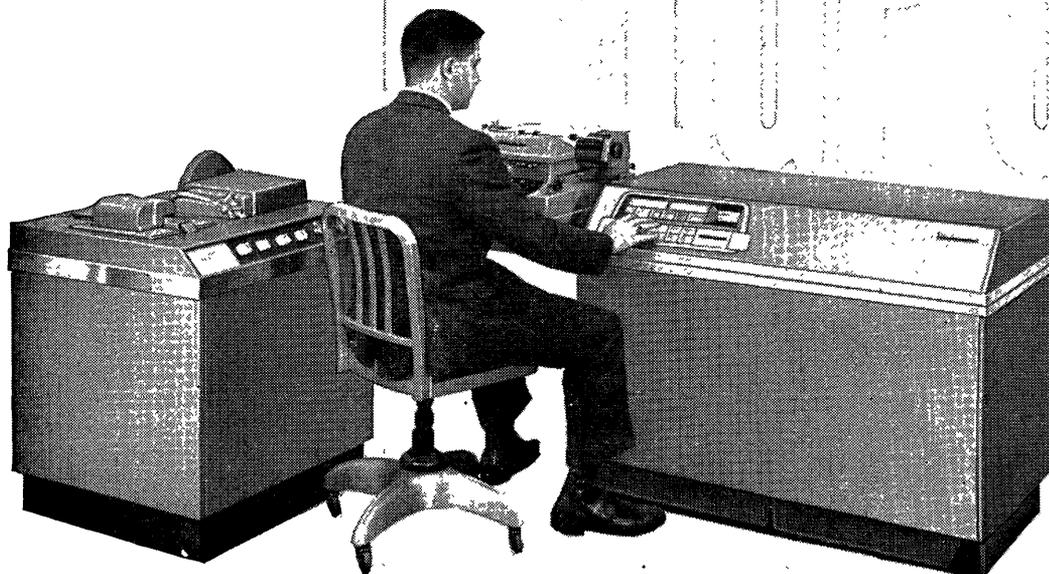
Simplified pinboard programming of the Burroughs E101 electronic digital computer multiplies technical talent. Scientific personnel report time savings of 20 to 1 over manual calculators. Ease of operation makes practical the "open shop" computer approach, with extensive savings of high-priced man hours in scores of installations. Optional input-output units for punched paper tape and punched cards further extend data-handling / problem-solving capacity. From small computers to giant data processing systems, Burroughs equipment means new efficiency...and profits...for you. Write for E101 Brochure today. ElectroData Division, Pasadena, California.

**Burroughs Corporation**

*"NEW DIMENSIONS/in electronics and data processing systems"*



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electronic digital computer  
in greatest demand**

## **Gives you large-capacity electronic computation at desk-side**

Operating from any convenient wall outlet, the powerful LGP-30 gives you the full flexibility of stored-program operation with an unusually large non-volatile memory of 4096 words — *2000 more than the next computer in its class!* And it's the lowest-priced complete computer your company can buy!

Because the LGP-30 command structure and controls have been remarkably simplified, you require only minimum computer experience. What's more, you get complete format control . . . alphanumeric input-output via keyboard or punched paper tape. No additional equipment is required for operation although, if desired, a high-speed photoelectric reader — with or without mechanical punch — is available for system expansion.

The greatest computer value in today's market, the LGP-30 requires no expensive installation or air-conditioning . . . may be purchased on either a sale or rental basis. Customer training is free. An extensive library of programs and sub-routines is available — as well as membership in an active users organization. Sales and service facilities are maintained coast-to-coast. For further information and specifications, write Royal McBee Corporation; Data Processing Division, Port Chester, N. Y. In Canada: The McBee Company, Ltd., 179 Bartley Drive, Toronto 16.

ROYAL McBEE CORPORATION • data processing division

Part I of  
 THE COMPUTER DIRECTORY AND BUYERS' GUIDE, 1959  
 the June, 1959, issue of "Computers and Automation"

# ROSTER OF ORGANIZATIONS IN THE COMPUTER FIELD

(Cumulative, information as of May 1, 1959)

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) / 59: information furnished in 1959 / 58: information furnished in 1958 / 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. 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, ENdicott 5-1211 / \*C 59  
 Plug and strip type plotting boards, connectors, jacks, jack panels, and terminals / RMSa Ss(35) Se (1952) Ic
- Ace Electronics Associates, Inc., 99 Dover St., Somerville 44, Mass. / SOMerset 6-5130 / \*C58  
 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.
- Acheson Colloids Co., a div. of Acheson Industries, Inc., 1640 Washington, Port Huron, Mich. / YUkon 4-4171 / \*C 59  
 Dispersions of colloidal graphite, molybdenum disulfide, and other solids used for surface and conductive coatings / RMSCa Ms(100) Le(1908) Ic
- 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
- Actuarial Computing Service, Inc., 684 W. Peachtree St., N.W., Atlanta 8, Ga. / — / \*C 57  
 Computing service / RCPa Ss Se Dc
- Adalia Computations, Ltd., 1410 Stanley St., Montreal 2, Que., Canada — moved, address not known
- ADB Institutet (Scandinavian Automatic Data Processing Institute), School of Technology, Gothenburg University, Gibraltargatan 5 P, Gothenburg, Sweden / 205209, 205248, 205258 / \*C 59  
 University training in automatic data processing. Consulting, programming, coding and running problems on Alwac III-E computer for industries in Scandinavia / RCPa Ss(15) Se(1957) Dc
- Addo-x, Inc., 300 Park Ave., New York 22, N.Y. / PLaza 5-5420 / \*C 59  
 Solenoid operated adding-, accounting-, and calculating machines; punched tape equipment / RMSa Ls (Sweden, 2500; USA, 40) Me(1941) Ic
- Addressograph-Multigraph Corp., 1200 Babbitt Rd., Cleveland 17, Ohio / Redwood 1-8000 / \*C 59  
 Electronic facsimile printers, magnetic tape electronic printers, transfer printers, card-to-magnetic tape converter, output data converter, addressograph sensing plates, etc. / RMSa Ls(8000) Le(1903) Ic
- Advanced Electronics, Inc., 94 Silas Deane Hwy., Rocky Hill 9, Conn. / JACkson 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 and Applied Mathematics Center, Institute of Mathematical Sciences, 4 Washington Place, New York 3, N.Y. / OREGon 7-0200 / \*C 59  
 Research and computing service for the Atomic Energy Commission. Univac I and IBM 704 with peripheral equipment / RCPGa Ms(100) Se(1952) Dc
- 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 59  
 Digital converters and comparators, digital data handling devices and systems, automatic control equipment, digital computers, telemetering systems, multipliers / RMSa Ms(50) Me(1947) Dc
- AERONUTRONIC SYSTEMS, INC., COMPUTER DIVISION** (a subsidiary of Ford Motor Co.), Ford Rd., Newport Beach, Calif. / ORiole 3-2520 / \*C 59  
 Family of message entry and display equipment for digital computers, including FLIDEN, TACDEN, and GRAPHDEN; large high-speed random access magnetic disk storage systems; multi-megacycle switching and storage systems; solid state digital printed circuit components (flip-flops, read and write amplifiers, blocking oscillators, diode logic); complete magnetic drum memory systems; airborne digital computers; military ground support and control systems, including analog and digital data processing equipment / RMSCa Ms(250) Se(1956) DAIC  
 Dr. Ernest H. Krause, VP & Gen. Mgr. / Dr. S. Dean Wanlass, Dir. of Mktg.
- Aerovox Corp., Belleville Ave., New Bedford, Mass. / WYman 4-9661 / \*C 59  
 Capacitors — all types, resistors, ferrite cores, jacks, magnets, switches / RMSa Ls(3000) Le(1922) Ic
- Ahrendt Instrument Company, 4910 Calvert Rd., College Park, Md. — no response '58, '59
- Airborne Instruments Laboratories, Modac Division, 864 Franklin Ave., Thornwood, N.Y. — moved, address not known
- Airborne Instruments Lab., Inc., 160 Old Country Road, Mineola, L.I., N.Y. — no response '58, '59
- Aircraft Armaments, Inc., Cockeysville, Md. / VA 5-8400 / \*C 59  
 Research, design, development, and manufacture, and test of mechanical, explosive, electronic, and electro-mechanical equipment for land, sea, and air used based on custom specifications / RMSa Ls(780) Se(1950) DAIC
- Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa. — no response '58, '59
- 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 / RMSa Ms(60) Se(1950) DAIC
- Airpax Electronics, Inc., Seminole Div., Ft. Lauderdale, Fla. / LUDlow 3-6160 / \*C 59  
 Complete magnetic, servo and data logging systems / RMSa Ms(325) Me(1948) Ic

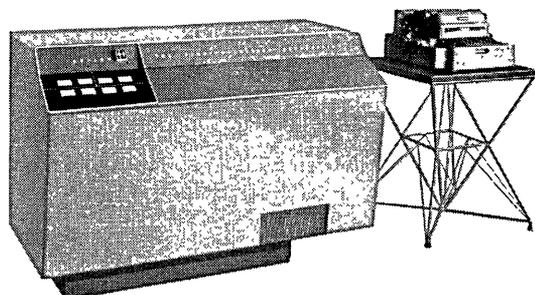
- Airtronics, Inc., 5522 Dorsey Lane, Washington 16, D.C.  
/ OLiver 4-1676 / \*C 58  
Memory units, specialized computer components, specialized instrumentation, and other similar engineering services. Computer-type, packaged, logical, plug-in, potted, printed circuits. Consulting services. Electronic 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 59  
Pulse transformers, magnetic shift registers, computer logical elements utilizing magnetic materials, other magnetic core computing machine components. Ferrite cored inductors. IF transformers, transistor IF transformers / RMSa Ls(600) Le (1908) Ic  
W. W. Stifler, VP and Gen. Mgr. / A. S. Daddario, Ch. Engr.
- Alden Electronic and Impulse Recording Equipment Co., Alden Research Center, Westboro, Mass. / FOr-est 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 59  
Cable assemblies, metal chassis, patch cords, coil winding bobbins, breadboard kits, computer packaged circuits, connectors, magnetic cores, fastening devices, jacks, magnetic storage, lights, indicator systems / RMSa Ms(300) Me(1930) Ic
- Alfax Paper & Engineering Co., Washington St., Westboro, Mass. / FOr-est 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. / RMSa Ls(1250) Me (1932) DIc
- Allgemeine Elektricitaets-Gesellschaft, Frankfurt on Main, Germany  
Semi-conductors, germanium diodes / RMSa Ic
- Allied Control Co., Inc., 2 East End Ave., New York 21, N.Y. / BUtterfield 8-7403 / \*C 59  
Relays and switches / RMSa Ls(1000) Me(1938) Ic
- Allied Engineering Div., Conn. & Richards Ave., S. Norwalk, Conn. — out of business
- Allies' Products Corp., P.O. Box 188, Kendall Branch, Miami 56, Fla. / CE 5-5424 / \*C 59  
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 / RMSa Ms(100) Le(1869) Ic
- American Electro Metal Corp., 320 Yonkers Ave., Yonkers 2, N.Y. — no response '58, '59
- American Electronic Labs., 641 Arch St., Philadelphia 6, Pa. — no response '58, '59
- American Electronics Co., 1203 Bryant Ave., New York 59, N.Y. — no response '58, '59
- American Electronics, Inc., 1025 W. 7th St., Los Angeles 17, Calif. / RIchmond 9-5361 / \*C 59  
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 Enka Corporation — see The Rex Corp.
- American Hydromath Corp., 42-17 Hunter St., Long Island City 1, N.Y. / EX 2-4242 / \*C 59  
Mechanical and electro-mechanical analog computers / RMSa Ss(15) Me(1940) Ac
- American Lava Corp., Manufacturers Rd., Chattanooga 5, Tenn. / AMherst 5-3411 / \*C 59  
Custom manufacturing services including technical ceramics and metal-ceramic combinations / RMSa Ls(over 1000) Le(1902) Ic
- American Machine & Foundry Co., Alexandria Div., 1025 N. Royal St., Alexandria, Va. / King 8-7221 / \*C 59  
System simulation using digital computers, digital computer programming, development of data transmission techniques / Ra Ms(150) Se(1955) Ic
- 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 / RCPa DAc
- American Machine and Foundry, Electronics Division, 1085 Commonwealth Ave., Boston, Mass. — discontinued
- 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  
 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. / JORDan  
 4-0101 / \*C 59  
 Solderless terminals, connectors and wiring devices,  
 programming plugboards and systems, patchcords /  
 RMSa Ls(1000) Me(1941) Ic  
 U.S. Whitaker, Pres. / G. Earle Walker, V.P. and  
 Dir. of Sales  
**AMPEREX ELECTRONIC CORP.,** 230 Duffy Ave.,  
 Hicksville, L.I., N.Y. / WELls 1-6200 / \*C 59  
 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.  
 / CANal 6-1446 / \*C 59  
 Delay relays, ballast tubes for regulation of current  
 and voltage / RMSa Ms(80) Le(1924) Ic  
**AMPEX CORP., INSTRUMENTATION DIV.,** 934  
 Charter St., Redwood City, Calif. / EMERson 9-1481 /  
 \*C 59  
 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 /  
 RMSa Ls(2000) Me(1932) Ic  
**Analogue Controls, Inc.,** 200 Frank Rd., Hicksville,  
 N.Y. / OVerbrook 1-7300 / \*C 59  
 Precision potentiometers, potentiometer test equip-  
 ment, servometers / RMSa Ms(120) Se(1954) Ic  
**Andersen Laboratories, Inc.,** 501 New Park Ave., West  
 Hartford 10, Conn. / ADams 3-4491 / \*C 59  
 Solid ultrasonic delay lines, variable delay lines,  
 tapped delay lines and circuitry / RMSa Ms(70)  
 Se(1951) Ic  
**Anelex Corp.,** 150 Causeway St., Boston 14, Mass. /  
 RICHmond 2-1720 / \*C 58  
 High speed printers / RMSa Ms(100) Se(1948) Ic  
**Applied Science Corp. of Princeton,** P.O. Box 44, Prince-  
 ton, N.J. / SWinburne 9-1000 / \*C 59  
 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, shaft-position digi-  
 tal encoders / RMSCa Ms(320) Me(1946) Ic  
**Arenberg Ultrasonic Laboratory, Inc.,** 94 Green St., Ja-  
 maica Plain 30, Mass. / JAMAica 2-8640 / \*C 59  
 Ultrasonic delay lines / RMSCa Ss(8) Se(1950) Ic  
**Argonne National Laboratory,** P.O. Box 299, Lemont,  
 Ill. / CLearwater 7-7711 / \*C 59  
 Maker of Avidac, Oracle, George, automatic digital  
 computers and other computers, for own use and  
 other government agencies / RGPa Ls(3000) Me  
 (1943) DAIC  
**Arma Div., American Bosch Arma Corp.,** Roosevelt  
 Field, Garden City, Long Island, N.Y. / PIONEer  
 2-2000 / \*C 59  
 Electronic fire control systems for airborne, ship-  
 borne and submarine vehicles; inertial guidance  
 systems for missiles and aircraft; transistorized air-  
 borne digital computers; gyroscopic navigation  
 equipment / RMSa Ls(5000) 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 re-  
 cording. Automatic control machinery. Servomech-  
 anisms. Instrumentation. Computing service: ana-  
 log, digital; IBM 650 digital computer, Goodyear  
 Electronic Digital Differential Analyzers / RCPa  
 Ls(1250) Me(1937) DAISCC  
**Arnhold Ceramics, Inc.,** One E. 57th St., New York 22,  
 N.Y. / PLaza 5-8213 / \*C 59  
 Two-ton high-speed press for memory cores. Cap-  
 less film resistors / RMSa Ss Le Ic  
**THE ARNOLD ENGINEERING CO.,** Railroad Ave.  
 and West St., Marengo, Ill. / (Chicago) ANdover  
 3-6300 / \*C 59  
 Permanent magnets cast and sintered; magnetic  
 cores; high permeability tape wound cores; tape  
 wound bobbin cores; powder cores; special magnetic  
 materials / RMSCa Ls(625) Me(1936) Ic  
 Robert M. Arnold, Pres. / Charles S. Brand, V.P.  
 and Chief Engineer  
**Askania Regulator Co.,** 240 E. Ontario St., Chicago 11,  
 Ill. — no response '58, '59  
**Assembly Products, Inc.,** 75 Wilson Mills Rd., Chester-  
 land, Ohio / HA 3-4436 / \*C 59  
 Contact meter relays, panel meters, "packaged con-  
 trols," special electronic controls, electrically actu-  
 ated controls, automatic control equipment, analog  
 to digital converters / RMSCa Ms(230) Me(1945)  
 DACC  
**Atlas Precision Products Co.,** 3801 Castor Avenue, Phila-  
 delphia 24, Pa. / JEFFerson 5-3700 / \*C 59  
 Mechanical analog computers for fire control, radar,  
 etc.; geared mechanisms, servos, etc.; analog-to-  
 digital converters, sub-assemblies; precision gears,  
 differentials, bearings / RMSa Ms(200) Me(1929)  
 AIC  
**AUDIO DEVICES, INC.,** 444 Madison Ave., New York  
 22, N.Y. / PLaza 1-6640 / \*C 59  
 Magnetic recording tape, guaranteed defect-free for  
 use in computers; telemetry, seismography, auto-  
 mation; 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 59  
 Silicon rectifiers / RMSa Ms(100) Se(1957) Ic  
 G. Eannarind, VP



## FROM REFINING IN TEXAS TO FISSION IN FRANCE...

*Only the RW-300 Digital Control Computer is providing fully automatic control of complete industrial processes.*



The RW-300 Digital Control Computer is the most powerful tool available today to control entire industrial processes and to provide useful data from manufacturing and testing operations. Connected directly to measuring instruments and control devices, the RW-300 collects and interprets operating data, makes control calculations and decisions, and operates valves, starts and stops motors, and takes all the other control actions necessary for fully automatic operation.

By exercising fast, effective control, the RW-300 reduces operating costs, improves product quality, and increases production. It also computes and prints out large quantities of useful data simultaneously with its performance of the control function.

Some of the world's largest companies have purchased the RW-300 Digital Control Computer for uses ranging

from the completely automatic control of an oil refinery unit in Texas to the monitoring of a nuclear reactor in France. Additional RW-300 installations are under way in such fields as chemical manufacturing, cement making, air traffic control, equipment testing, and data reduction.

The RW-300 is one example of the diversified products built by TRW that are contributing to the productivity and efficiency of modern industry. The Thompson-Ramo-Wooldridge Products Company, a division of Thompson Ramo Wooldridge Inc., performs systems engineering and marketing for the RW-300, which was designed and is manufactured by the Ramo-Wooldridge Division.

*For further information, call or write: Director of Marketing, The Thompson-Ramo-Wooldridge Products Company, P. O. Box 90067 Airport Station, Los Angeles 45, California, OSborne 5-4601.*



**Thompson Ramo Wooldridge Inc.**

Main offices • CLEVELAND 17, OHIO • LOS ANGELES 45, CALIFORNIA

Audio Instrument Co., Inc., 135 West 14 St., New York 11, N.Y. / ORegon 5-7820 / \*C 59

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 / RMSa Ms(division, 150, company 25,000) Me(division, 1943; company, 1878) DASCmC

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 59

Rotary stepping switches and telephone-type relays for industrial control, control systems, etc. / RMSa Ls(8500) Le(1891) Ic

H. F. Lello, Pres. / V. E. James, Dir., Control Equipment & Sales

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 59

Publishing ("The Automatic Office—A Monthly Management Report") / Ss(8) Se(1958) Ic

E. F. Murphy, Editor / M. K. Fulton, Dir., Client Serv.

Automatic Signal Division, Eastern Industries, Inc., Norwalk, Conn. / Temple 8-4791 / \*C

Automatic volume-density traffic controllers; digital and analog computers; servomechanisms / MSa Ms(300) Me(1928) Ic

**AUTOMATION CONSULTANTS, INC.**, 155 Fifth Ave., New York 10, N.Y. / OXford 4-6660 / \*C 59

Consulting engineers (office automation field). Publishers of "Office Automation" and "Office Automation Applications" / Ca Ss(12) Se(1953) Dc

R. Hunt Brown, Pres. / Alan D. Meacham, Vice Pres.

Automation Controls Corp., 5737 West 98 St., Los Angeles 45, Calif. / SPring 6-0420 / \*C 59

Automatic control equipment; relays / RMSa Ss(20) Se(1957) ICc

Automation Engineering Laboratory, One E. Putnam Ave., Greenwich, Conn.—no response '58, '59

**AUTOMATION ENGINEERS**, Div. of Associated Industrial Consultants, 344 West State St., Trenton 8, N.J. / OWen 5-8509 / \*C 59

Consultants in automatic control machinery, automatic materials handling equipment, and information handling equipment. Designers of specialized data processing equipment, including office machinery coupling mechanisms. Analysis of automation economics; supervision of installations / RCa 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

Automatic 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, A DIV. OF NORTH AMERICAN AVIATION, INC.**, 9150 E. Imperial Highway, Downey, Calif. / SPruce 3-2233 / \*C 59

Inertial navigation systems, armament and flight control systems, automatic checkout equipment, analog and digital computers, data recording equipment, differential analyzers, armament control equipment, magnetic tape recorders and radars / RMSa Ls(9000) Se(1955) DAic

John R. Moore, VP & Gen. Mgr. / S. W. Horrocks, Asst. Gen. Mgr.

Avco Mfg. Corp., Research and Advanced Development Div., Wilmington, 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

Avion Division, ACF Industries, Inc., 11 Park Place, Paramus, N.J. / COLfax 1-4100 / \*C 58

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) DACc

Avion Division-Alexandria, ACF Industries, Inc., 800 No. Pitt St., Alexandria, Va. / KIng 8-4900 / \*C 59

Analog-to-digital conversion systems; data loggers; systems and components / RMSa Ls(600) Se(1948) DAC

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

Analog computers / RMSa Ac

## B

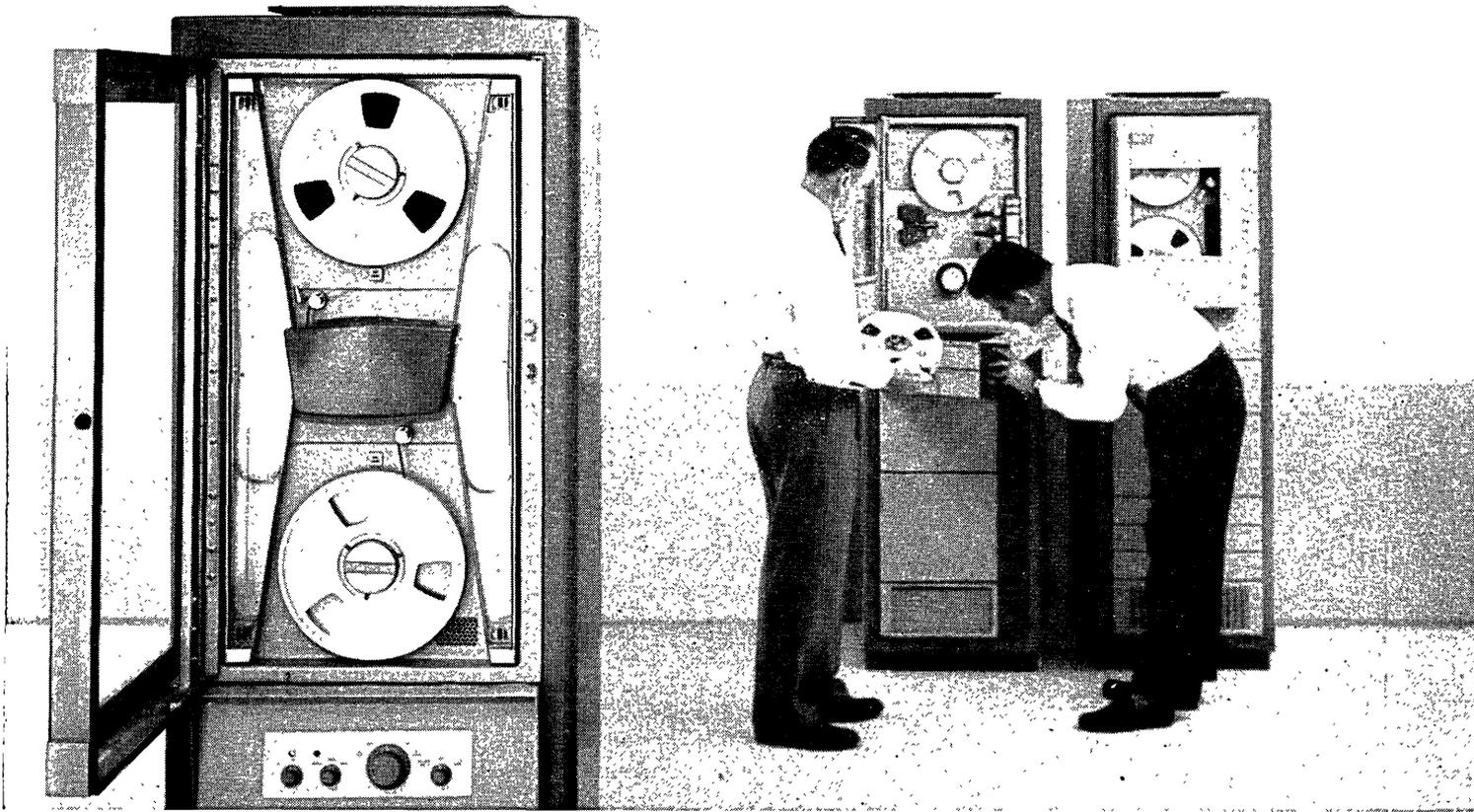
Babcock Radio Engineering, Inc., 1640 Monrovia Ave., P.O. Box 344, Costa Mesa, Calif. / LIBerty 8-7705 / \*C 59

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 4-7420 / \*C 59

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-dig-

## A five-foot bookshelf is a 10-minute task



## for this AMPEX FR-300 digital tape handler

Yes, the Ampex FR-300 could easily "read" or "write" the digitalized equivalent of a five-foot bookshelf in less than ten minutes. Why is this important? Because today's big computers accept and present large quantities of data in a hurry. Their time may be worth as much as \$1000 per hour. Keeping one waiting for data is expensive.

As the fastest available magnetic tape handler for "on-line" duty with these machines, the FR-300 maximizes utilization of high-speed digital computers. By placing two 6-bit alpha-numeric characters side by side on one-inch tape at 150 ips and 300 bits per inch, it achieves 90,000 character-per-second transfer rates.

Short, predictable start/stop times reduce buffer requirements and Ampex dependability further increases computer efficiency.

Ampex offers digital systems complete from head to tape (the sensational new Ampex Computer Tape, by the way) because a system designed as an integrated whole will out-perform those built from tape transports, magnetic heads, amplifiers and tape secured from a variety of different suppliers.

For lesser computers and "off-line" duty on such auxiliary digital equipment as converters, data plotters, printers, etc., the FR-400 and FR-200A tape handlers (not shown) provide a wide range of lower transfer rates. And in the background above are two fine analog recorders, the FR-100A and FR-1100, to remind you that only Ampex offers such a broad line of fixed and mobile recorders for instrumentation and control.

A folder on the FR-300 is available if you would like one.

*First in magnetic tape instrumentation*



AMPEX INSTRUMENTATION DIVISION  
934 Charter Street, Redwood City, California  
Offices in USA and Canada. Engineering representatives cover the world.

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your move  
without  
making a  
move...**



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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">DOMESTIC SERVICE</th> </tr> <tr> <td colspan="2" style="font-size: small;">Check the class of service desired; otherwise this message will be sent as a fast telegram</td> </tr> <tr> <td style="text-align: center;">TELEGRAM</td> <td style="text-align: center;">\$</td> </tr> <tr> <td style="text-align: center;">DAY LETTER</td> <td style="text-align: center;">\$</td> </tr> <tr> <td style="text-align: center;">NIGHT LETTER</td> <td style="text-align: center;">\$</td> </tr> </table>	DOMESTIC SERVICE		Check the class of service desired; otherwise this message will be sent as a fast telegram		TELEGRAM	\$	DAY LETTER	\$	NIGHT LETTER	\$	<h1 style="margin: 0;">WESTERN UNION</h1> <h2 style="margin: 0;">TELEGRAM</h2> <p style="font-size: small; margin: 0;">1206 (4-55) W. P. MARSHALL, PRESIDENT</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">INTERNATIONAL SERVICE</th> </tr> <tr> <td colspan="2" style="font-size: small;">Check the class of service desired; otherwise the message will be sent at the full rate</td> </tr> <tr> <td style="text-align: center;">FULL RATE</td> <td style="text-align: center;">\$</td> </tr> <tr> <td style="text-align: center;">LETTER TELEGRAM</td> <td style="text-align: center;">\$</td> </tr> <tr> <td style="text-align: center;">SHORE-SHIP</td> <td style="text-align: center;">\$</td> </tr> </table>	INTERNATIONAL SERVICE		Check the class of service desired; otherwise the message will be sent at the full rate		FULL RATE	\$	LETTER TELEGRAM	\$	SHORE-SHIP	\$
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FULL RATE	\$																					
LETTER TELEGRAM	\$																					
SHORE-SHIP	\$																					
NO. WDS -CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED																		

Send the following message, subject to the terms on back hereof, which are hereby agreed to

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<input checked="" type="checkbox"/> senior mathematician with a Ph.D. in mathematics and physics and experience with digital computers and modern programming techniques <b>1</b> <input type="checkbox"/> analysis division director with a Ph.D. and eight years of experience since my B.S. or B.A. degree <b>2</b> <input type="checkbox"/> senior OR analyst with a graduate degree in mathematics or the physical sciences and experience in OR and/or systems analysis <b>3</b>	<input type="checkbox"/> associate OR analyst with a graduate degree in mathematics or the physical sciences <b>4</b> <input type="checkbox"/> research aide <b>5</b> <p style="margin-top: 10px;">I am interested in hearing more about positions available at <u>tech/ops</u>.</p>
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**Technical Operations, Incorporated**

Central Research Laboratories / Burlington, Massachusetts

• WASHINGTON, D.C. • MONTEREY, CALIFORNIA • FORT MONROE, VIRGINIA

- ital converters, printers, computer components / RMSa Ms(485) Me(1938) Ic
- BALLASTRAN CORP.**, 1701 N. Calhoun St., Fort Wayne 7, Ind. / Eastbrook 2285 / \*C 59
- Pulse transformers, specialty transformers / RMSCa Ms(125) Me(1946) Ic
- Ordean Kiltie, Pres. & Sales Mgr. / William Weir, Ch. Engr. & Gen. Mgr.
- 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 / CPa Ss Se Dc
- Battelle Memorial Institute**, 505 King Ave., Columbus 1, Ohio / AX 9-3191 / \*C 59
- Research and development in all fields of the physical sciences; computer programming assistance; digital computing and consulting services / RCPa Ls (2500) Me(1929) DAic
- Beckman Instruments Inc.**, Berkeley Div., 2200 Wright Ave., Richmond 3, Calif. / LA 6-7730 / \*C 59
- General purpose analog computers with .01% accuracy including completely automatic punched tape set-up systems with automatic scanning and printout. Electronic counters and data converters. Operational components for computers including: dc amplifiers, servo-set potentiometers, electronic and servo multipliers and diode function generators / RMSa Ls(400 this division, 2600 corp.) Me(1946) Ac
- Beckman Instruments Inc.**, Systems Div., 321 No. Muller Ave., Anaheim, Calif. / Prospect 4-5430 / \*C 59
- 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 / MSa Ms(300) Se(1956) DAc
- Bell Punch Co., Ltd.**, 39 St. James St., London, S.W. 1, England / Hyde Park 1532 / \*C 56
- Small digital computers / RMSa Ls(2000) Le(1878) Dc
- Bell Telephone Laboratories**, Murray Hill, N.J. / CRestview 3-6000 / and 463 West St., New York 14, N.Y. / CHelsea 3-1000 / \*C 59
- Automatic telephone switching. Special purpose computers / Ra Ls(10,000) Le(1925) DAc
- BENDIX AVIATION CORP., BENDIX COMPUTER DIV.**, 5630 Arbor Vitae St., Los Angeles 45, Calif. SP 6-2220 / \*C 59
- G-15 general purpose digital computer and accessories, including small-size low-cost digital differential analyzer, punched card adapters, magnetic tape recorders and readers, plotters, special paper tape readers, and other input/output devices. Also 3-axis flight-control system simulator. Contract systems development work / RMSa Ms(450) Se(1952) DIc
- M. W. Horrell, Gen'l Mgr. / O. P. Staderman, Dir. of Mktg.
- BENDIX AVIATION CORP., BENDIX-PACIFIC DIVISION**, 11600 Sherman Way, No. Hollywood, Calif. / POplar 5-1010 / \*C 59
- Data logging; supervisory control and telemetering systems, digital communications systems; data processing systems; analog-digital converters; input transducers with digital outputs for temperature, pressure, time and date, speed, direction and frequency; digital conversion and buffering equipment; digital building blocks / RMSa Ls(3550) Le(1915, company; 1937, this division) DCIc
- R. C. Fuller, Gen. Mgr. / D. H. Brown, Asst. Gen. Mgr.
- BENDIX AVIATION CORP., ECLIPSE-PIONEER DIV.**, Teterboro, N.J. / ATlas 8-2000 / \*C 59
- Synchros, servo motors and motor generators, gyros, and related components for servomechanisms; magnetic amplifiers, automatic controls, analog-to-digital converters, mechanical and electronic integrators, resolvers / RMSa Ls(8500) Le(1919) DAic
- J. P. Buckley, Dir. Sales and Service / J. E. Bruins, Dir. Engrg.
- BENDIX AVIATION CORP., RESEARCH LABORATORIES DIV.**, P.O. Box 5115, Detroit 35, Mich. / KENwood 7-3300 / \*C 59
- Analog and digital computers, numerical machine-tool controls, servomechanisms, flight simulators, automatic control and test equipment, special-purpose digital equipment, hybrid analog-digital systems, analog-digital conversion equipment / Ra Ls(600) Me(1942) DASCc
- Dr. W. E. Kock, Dir. & Gen. Mgr. / Dr. G. A. Rosselot, Assoc. Dir.
- Benge Associates**, McIntyre Bldg., Spruce and College Sts., Asheville, N.C. / Alpine 2-0852 / \*C 59
- Management consultants; applications of electronic data processing to office procedures; costs, analysis of clerical routines leading to programming / RCa Ss(6) Me(1939) Cc
- Benson-Lehner Corp.**, 11930 W. Olympic Blvd., Los Angeles 64, Calif. / BRadshaw 2-3484, GRanite 9-3723 / \*C 59
- Data reduction, handling, and translating equipment: record readers (oscillographic, film, etc.), data storage and retrieval machines; data display devices including line drawing plotters, point & symbol plotters, high precision digital plotters, analog plotters; special readers including map & blue print readers, digital microscopes & comparators; shaft rotation-to-digital converters; inventory & memory systems; electrically controlled typewriters; photo instrument equipment including high speed cameras, tracking & strike cameras, take-off cameras and associated equipment / RMSCa Ms(240) Se(1950) DAc
- Bergen Laboratories**, 11 Goodwin Ave., Fairlawn, N.J. — no response '58, '59
- EDMUND C. BERKELEY AND ASSOCIATES**, 815 Washington St., Newtonville 60, Mass. / DEcatur 2-5453 or 2-3928 / \*C 59
- Courses by mail in automatic computing machinery, mathematics, and other scientific subjects / PCa Ss(3) Se(1948) Dc (affiliated with Berkeley Enterprises, Inc.)
- BERKELEY ENTERPRISES, INC.**, 815 Washington St., Newtonville 60, Mass. / DEcatur 2-5453 or 2-3928 / \*C 59

- Small robots; robot show-stoppers; Relay Moe (tit-tat-toe machine). Electric brain construction kit for educational purposes, Brainiac, Geniac, Tyniac. Publisher of "Computers and Automation" and other publications / RMSa Ss(6) Se(1954) Dc (Affiliated with Edmund C. Berkeley & Associates) / Edmund C. Berkeley, Pres.
- Berkeley Div., Beckman Instruments, Inc. — see Beckman Instruments, Inc., Berkeley Div.
- Berkshire Laboratories, 732 Bank Village, Greenville, N.H. — no response '58, '59
- 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 59  
Digital and analog computers, machine translation of language, input-output numerical analysis, spoken word recognition, simulation of intelligent behavior / 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, "vibrottron" transducers, memory drums, shaft position digitizers / RMSCa Ms(450) Me(this division, 1944; company, 1910) DIC
- Booz, Allen and Hamilton, 135 South LaSalle St., Chicago 3, Ill. and other cities / Financial 6-1900 (each city) / \*C 59  
Management consultants; technical service in applications of electronic and automatic data processing to management control systems in business, industry, and government / Ca Ls(over 500) Le(1914) DAic
- Booz Allen Applied Research, Inc., 430 Green Bay Rd., Kenilworth, Ill. (also Dayton, Ohio, and Bethesda, Md.) / ALpine 6-0270 / \*C 59  
Technical consulting services in operations research and the following fields of research and development: reliability, applied statistics, electromechanics, instrumentation, systems analysis, electronics and communications, physics, nuclear technology, applied chemistry, meteorology, and biochemistry / RCa Ms(75) Se(1955) Ic
- George W. Borg Corp., Borg Equipment Div., 120 S. Main St., Janesville, Wisc.  
Potentiometers / RMSa Ic
- Borg-Warner Corporation — SEE BJ Electronics
- Bourns Laboratories, Inc., P.O. Box 2112 (6135 Magnolia Ave.), Riverside, Calif. / Overland 4-1700 / \*C 59  
Adjustment potentiometers; potentiometer transducers for linear motion, pressure, acceleration; TRIMPOT®, TRIMIT®, and potentiometer instruments; resistors / RMSa Ms(500) Se(1946) Ic
- 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
- BOWMAR INSTRUMENT CORPORATION, 8000 Bluffton Rd., Fort Wayne, Indiana / Sherwood 3121 / \*C 59**  
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 / RCMSa Ls(4000) Le(1885) Ic
- Bradley Semiconductor Corp., 275 Welton St., New Haven 11, Conn. / STate 7-7181 / \*C 59  
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., 3911 Newberry, Wayne, Mich. / PArkway 2-0515 / \*C 59  
Digital computer service: data processing and programming for civil engineers using LGP-30 / RCPa Ss ?e Dc
- Richard D. Brew and Company, Inc., 90 Airport Rd., Concord, N.H. / Capitol 5-6606 / \*C 59  
Distributed constant, lumped constant and ultrasonic delay lines / RMSa Ms(120) Me(1946) Ic
- Brick Electronic Equipment Co., Norwood, N.J. — no response '58, '59
- THE BRISTOL COMPANY, P.O. Box 1790 CAG, Waterbury 20, Conn. / PLaza 6-4451 / \*C 59**  
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. — name changed to International Computers & Tabulators, Ltd., which see
- BROADVIEW RESEARCH CORP., 1811 Trousdale Dr., Burlingame, Calif. / OXford 7-1221 / \*C 59**  
Programming; scientific calculations; military applications; business and engineering computations; conceptual design of systems; systems analysis and simulation; operations research / RCPa Ms(60) Se(1951) DAC  
Warren R. Ketler, Vice Pres. / Joseph Rosenbaum, Dir. Data Systems Div.
- Brown University, Computing Center, Div. of Applied Mathematics, 182 George St., Providence 12, R.I. / UN 1-2900 / \*C 59  
Computing service, instruction, research; IBM 650 and auxiliary equipment / RCPa Ss(4) Se(1956) Ic
- Brush Instruments, Div. of Clevite Corp., 37th & Perkins Ave., Cleveland 14, Ohio / ENdicott 1-3315 / \*C 59

Direct writing oscillographs and amplifiers for recording systems / RMSa Ms(400) Me(1930) Cc  
Bryant Computer Products Division, a division of Bryant Chucking Grinder Co., Box 620, Springfield, Vermont / TUrner 5-2141 / \*C 59

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, magnetic reading and recording heads; internal grinders; computer components / RMSa Ls(650) Le(1909) Ic

**BULL S. A. COMPAGNIE DES MACHINES**, 94 Avenue Gambetta, Paris 20, France / MEN 81-58 / \*C 59  
Punch card machines. Data processing equipment. Scientific GAMMA computers / RMSa Ls(8000) Me(1931) Dc

Joseph Callies, Pres. / Georges Vieillard, Gen. Mgr.  
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

Bureau of the Census, Washington 25, D.C. / \*C 59  
Statistical data processing by electronic computing system (Univacs), by commercial punch-card equipment, and by special machines designed and built for own use / RCPGa Ms(400 in electronic and mechanical processing primary organization units) Le(1890 in punch card field) Dc

Burlingame Associates, Ltd., 510 South Fulton Ave., Mt. Vernon, N.Y. / MO 4-7530 / \*C 59

Analog computers, computing accessories, X-Y plotters, multichannel recorders, digital voltmeters, magnetic shift registers, magnetic storage systems, high speed digital display / Sa Ss(30) Me(1928) DAic

Burndy Corp., Omaton Div., Richards Ave., Norwalk, Conn. / TEmple 8-4711 / \*C 59

Connectors, crimp-type; terminal blocks, crimp-type / RMSa Ls(600) Le(1924) Ic

**JOHN H. BURNS & ASSOCIATES**, 345 Mt. Lebanon Blvd., Pittsburgh 34, Pa. (also Wash., D.C.) / LOcust 3-6311 / \*C 59

Management consultants specializing in search, appraisal, selection and training of administrative systems personnel, including data processing and computer managers and senior analysts / Ca Ss Se Ic

Burroughs Corp., 6071 Second Ave., Detroit, Mich. / Trianle 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. / RMSPa Ls(19,000) Le(1896) DSc

**BURROUGHS CORP., ELECTRO DATA DIVISION**, 460 Sierra Madre Villa, Pasadena, Calif. / RYan 1-0471 / \*C 59

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 / RMSCa Ls(1600) Se(1954) Dc  
J. R. Bradburn, VP and Gen. Mgr. / E. S. McCollister, Dir. of Mktg.

Burroughs Corp., Electronic Tube Div., P.O. Box 1226, Plainfield, N.J. / PLainfield 6-0876 / \*C 59

High speed electronic switching tubes and indicating devices, pulse control instruments, electronic counters, visual output devices / MSa Ms(100) 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

**BUSINESS ELECTRONICS, INC.**, 420 Market St., San Francisco 11, Calif. / DOuglas 2-0894 / \*C 59

Home study courses in programming for computers, and applications of business problems to computers / CSa Ss(7) Se(1955) DIC

F. H. Bergtholdt, Pres. / J. H. Herrett, V.P.

Byron Jackson Division — SEE BJ Electronics, Borg-Warner Corp.

## C

California Computer Products, 3927 W. Jefferson Blvd., Los Angeles 16, Calif. — moved, address not known

California Technical Industries Div. of Textron Inc., 1421 Old County Rd., Belmont, Calif. / LYtell 3-8466 / \*C 59

Automatic test equipment, cable assemblies, computer test equipment, paper tape readers, paper tape punches, paper tape duplicators, punched card readers / RMSa Ms(125) Me(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 59

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

Cambridge University, Mathematical Laboratory — see University of Cambridge, University Mathematical Laboratory

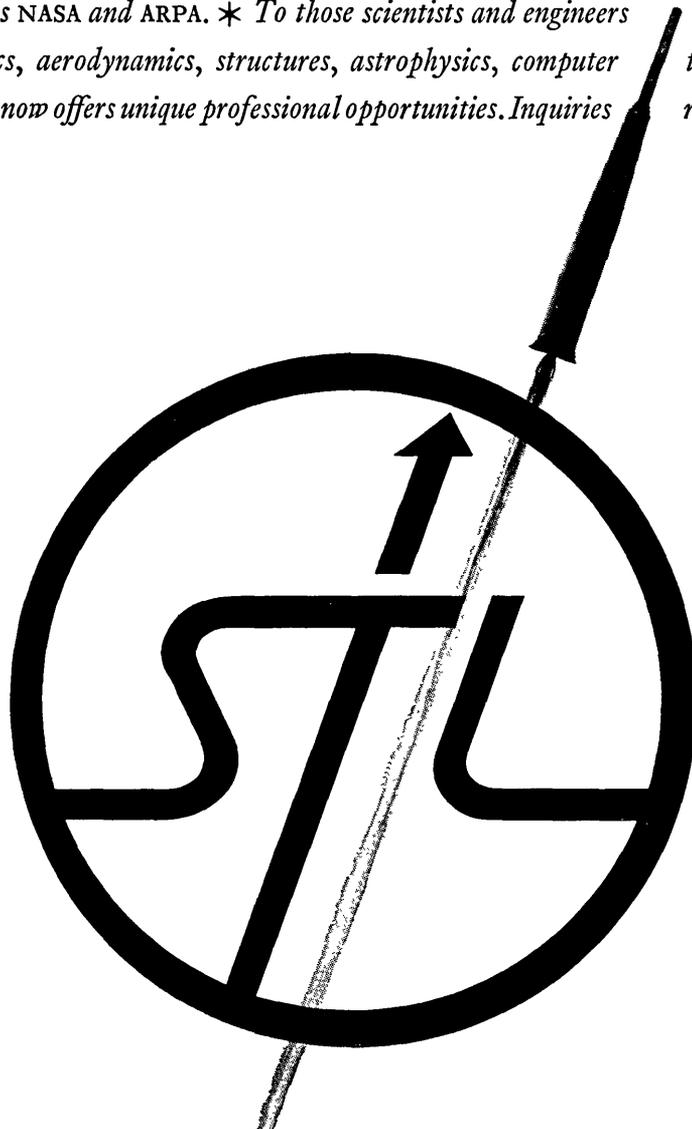
Canadian Applied Research Ltd., 750 Lawrence Ave. W., Toronto, Ont., Can. / RUssell 1-1571 / \*C 59

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(600) Se(1951) ACIc
- Canadian Westinghouse Co., Ltd., P.O. Box 510, Hamilton, Ont., Canada / JACkson 8-8811 / \*C 59  
Analog computation center for outside customers. Also manufactures analog memory wheel, digital and special purpose computers / RMSa Ls(1000) Se(1951) AIc
- Canning, Sisson & Assoc., Inc., 1140 S. Robertson Blvd., Los Angeles 35, Calif. / BRadshaw 2-8425 / \*C 59  
Publishers of "Data Processing Digest" / Sa 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 / RGA Ss(35) Se(1948) Dc
- 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. / METcalf 0-5821 / \*C 59  
Magnetic cores / MSa Ms(75) Se(1951) Ic
- CBS-Hytron, a Div. of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass. / SPRing 4-2360 / \*C 59  
Electron tubes, semiconductor products. Germanium and silicon transistors, diodes / RMSa Ls(5000) Le(1921) Ic
- C-E-I-R, INC. (formerly Corporation for Economic and Industrial Research), 1200 Jefferson Davis Highway, Arlington 2, Va. / OTis 4-6377 (New York Office: 110 E. 42nd St., Tel: MURrayhill 7-5736 / \*C 59  
IBM 704 and 709 Computers with 32K memory. Full line of peripheral data processors. Computing and peripheral equipment available on an hourly rate basis. Operations Research, Mathematical Analysis and Structuring, Econometrics, Linear Programming, Systems Analysis, Problem Formulation and Computer Programming / RCa Ms(150) Se(1952) DAc  
Dr. Herbert W. Robinson, Pres. / William Orchard-Hays, Dir., Computer Svcs Div.
- 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 59  
Electronic components: switches, capacitors, packaged electronic circuits, computer circuits (plugin, potted, printed), transistor amplifiers, variable resistors, switches / Sa Ls(5000) Le(1922) Ic
- Centronix, Inc., 34 Oleander St., Cocoa, Fla. — moved, address not known
- Century Electronics & Instruments, Inc., 1333 N. Utica, Tulsa 10, Okla. / LU 4-7111 / \*C 59  
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 / RMSCa Ms(124) Me(1945) Ic
- Century Engineers, Inc., 2741 N. Naomi St., Burbank, Calif. — moved, address not known
- Century Geophysical Corp., 1333 N. Utica, Tulsa, Okla. — 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. Plugin, 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
- CGS Laboratories, Inc., Routes 7 and 35, Ridgefield, Conn. / IDlewood 8-6571 / \*C 59  
TRAK @ Morse-to-Teletypewriter Code Converters, TWX-to-CCIT Translators / RMSa Ms(160) Me(1947) Ic
- Chadwick-Helmuth Co., 472 E. Duarte Rd., Monrovia, Calif. / ELliot 8-4567 / \*C 59  
Electronic multiplier, high speed, high accuracy, for both computer and instrumentation applications  
RMSCa Ss(10) Se(1953) Ac
- Chrono-log Corp., P.O. Box 4587, Philadelphia 31, Pa. / LOcust 7-5178 / \*C 59  
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 59  
Components for computers; tube sockets, connectors, printed wiring boards, terminal boards, etc. / RMSCa Ls(1400) Le(1924) Ic
- 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
- C. P. Clare & Co., 3101 W. Pratt Blvd., Chicago 45, Ill. / AMbassador 2-7700 / \*C 59  
Mercury-wetted contact relays, Clare type J relays, stepping switches, and miniature relays for the electronic and computer industry / RMSa Ls(1250) 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 59  
Potentiometers, resistors, switches (electronic components) / RMSCa Ls(1400) Le(1921) Ic
- Clary Corp., 408 Junipero St., San Gabriel, Calif. / AT 7-6111 / \*C 59



*Space Technology Laboratories' new corporate symbol represents a bright history in a stimulating age. \* STL has provided the over-all systems engineering and technical direction for the Air Force Ballistic Missile Program since it was assigned the highest national priority in 1954. Five years of accelerated effort produced epic advances in science and technology, and propelled the art of missilery through three distinct generations of progress. STL contributed technical leadership to the science/government/industry team which has built this solid, expandable foundation for future advances in space, and is daily adding new strength to our national security. \* In addition to its major management functions, STL also conducts advanced space probe experiments for the Air Force at the direction of such agencies as NASA and ARPA. \* To those scientists and engineers with capabilities in propulsion, electronics, thermodynamics, aerodynamics, structures, astrophysics, computer technology, and other related fields and disciplines, STL now offers unique professional opportunities. Inquiries regarding staff positions at STL are invited.*



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Space Technology Laboratories, Inc. P. O. BOX 95004, LOS ANGELES 45, CALIFORNIA

- Digital computer, components, desk calculators, automatic control equipment, keyboard printers, scanners, high speed printer, paper tape punches / RMSa Ls(1250) Me(1939) DAic
- CLEVITE TRANSISTOR PRODUCTS**, 241 Crescent St., Waltham, Mass. / TWinbrook 4-9330 / \*C 59  
Power germanium transistors, cartridge diodes (plastic), subminiature glass diodes (germanium, silicon, germanium silicon alloy) / RMSa Ls(700) Se(1952) Ic
- CLIFTON PRECISION PRODUCTS CO., INC.**, Marple at Broadway, Clifton Heights, Pa. / MAdison 6-2101 / \*C 59  
Synchros, servo motors, resolvers, air navigation computers, digital-to-analog converters, analog-to-digital converters / RMSCa Ls(1000) Me(1946) DAic  
John P. Glass, President & Treas. / Thomas W. Shoop, VP, Sales
- 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., Western Div., 2700 West Olive Ave., Burbank, Calif. / THornwall 5-1751 / \*C 59  
Kineplex data transmission equipment; mechanical filters / RMSa Ls(1000) ?e Ic
- Colorado Research Corp., Broomfield, Colo. / (Denver) HA 9-3501 / \*C 59  
Analog computers; angle encoders / RMSa Ss(55) Se(1956) Aic
- Columbia Broadcasting System, Inc. — SEE CBS-Hytron Division
- Columbia Technical Corp., 61-02 31st Ave., Woodside 77, N.Y. / AStoria 8-7401 / \*C 59  
Delay lines, coatings / RMSCa Ss(30) Se(1950) Ic
- Columbian Carbon Co., Mopico Color Div., 601 Cass St., Trenton 10, N.J. — no response '58, '59
- Comar Electric Co., 3349 Addison St., Chicago 18, Ill. / JUNiper 8-2410 / \*C 59  
Relays, including hermetically sealed and sub-miniature, solenoids, coils and switches / MSa Ms(438) Me(1942) Ic
- 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 / RCGPa DAic
- Comptometer Corp., 1735 No. Paulina St., Chicago 22, Ill. / BRunswick 8-5000 / \*C 59  
Comptometers, adding and calculating machines, comptograph adding machines, ComptoTape data preparation machines, written communications equipment, telegraphic word counter, tape winding equipment, data conversion equipment / RMSa Ls(over 1000) Le(1889) Ic
- COMPTRON 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 Control Co., Inc., 225 Old Connecticut Path, Framingham, Mass. (also Western Div., 2251 Barry Ave., Los Angeles 64, Calif.) / CEdar 5-6220 / \*C 59  
Plug-in digital computer modules, special purpose digital data handling, control instrumentation and computing systems, random access core memory, mathematical and programming services / RMSCa Ms(180) Se(1953) Ic
- 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 Equipment Corp., 1931 Pontius Ave., Los Angeles 25, Calif. / GRANite 8-0464 / \*C 59  
Hybrid analog and digital systems, timing and quantizing equipment, recording millivoltmeters / RMa Ss(15) Se(1957) DAic
- Computer Instruments Corp., 92 Madison Ave., Hempstead, L.I., N.Y. / IVanhoe 3-8200 / \*C 59  
Precision carbon film potentiometers and pressure transducers; precision switches / RMSa Ms(100) Se(1950) Ic
- 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; computer test equipment; digital-to-analog converters / RMSa Ms(75) Se(1949) DAic
- COMPUTERS AND AUTOMATION**, 815 Washington St., Newtonville 60, Mass. / DEatur 2-5453 or 2-3928 / \*C 59  
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. — no response '58, '59
- 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) DAic
- Concord Control Inc., 1282 Soldiers Field Road, Boston 35, Mass. — no response '58, '59
- Condenser Products Div., New Haven Clock & Watch Co., 140 Hamilton St., New Haven, Conn. / SP 7-5411 / \*C 59

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**RCA**  
for standard  
or special  
ferrite cores!

...for a wide range of computer applications!

Now—commercially available from RCA—a comprehensive line of fast-switching, low- and high-drive, memory cores and several new memory-plane designs to provide equipment designers with one of the broadest lines of memory core products in the industry.

**MEMORY CORES** • In addition to a line of standard ferrite cores developed for coincident-current memory applications (ranging in switching time from 0.2  $\mu$  sec. to 3  $\mu$  sec.), RCA now offers a new group of ferrite cores particularly suited for both high-speed, word-address memories, and slow-speed, low-drive coincident-current memories. These cores are available for an applied field (H) ranging from 0.2 to 1 oersted, and in sizes from 0.050" x 0.030" to 0.370" x 0.290". The smaller-size cores make possible the design of high-speed memory devices with driving currents suitable for either transistor or tube drivers. Typical characteristics are given in the table.

**MEMORY FRAMES** • A compact, rugged aluminum frame utilizing a new stack-wiring concept makes possible a "bit-packing factor" greater than ever before. 8,192 bits may be stored in a 7" x 7" x 0.3" frame.

For more economical designs and even greater compactness, a laminated frame accommodating 8,192 bits in a 5 1/2" x 5 1/2" x 1/4" space (including terminals) is also available.

**FERRITE APERTURE PLATES** • RCA's apertured-plate construction utilizing ferrite-core material having low-drive, medium-speed characteristics, can store 256 bits of information in a space less than 0.9" x 0.9" x 0.025", thus making possible the design of compact memories for transportable equipment in which minimum weight and space are vital considerations.

The aperture memory plates have a nominal full driving current requirement of 320 ma., a switching time of about 1.8  $\mu$  sec., and an undisturbed output (1) signal ( $\mu$ V) of greater than 40 mv. making them especially suitable for use in transistorized circuits. In addition, the precision registration of the holes makes it possible to stack the aperture plates quickly and accurately.

Rigid production controls insure excellent uniformity of undisturbed output signal and peaking time...testing assures dependable performance of each storage element.

For ferrite cores having uniformity to meet your most exacting design requirements, and for dependable delivery schedules, contact your local RCA Sales Representative.

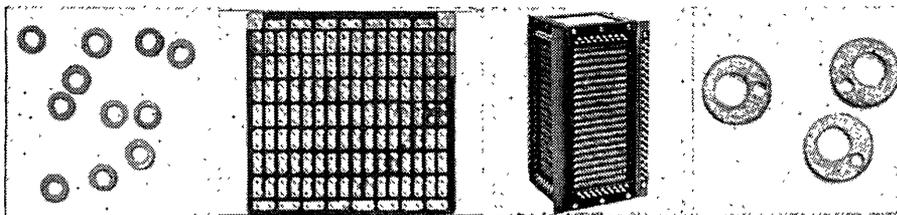


**RADIO CORPORATION OF AMERICA**

Semiconductor and Materials Division

Special Ferrites

Somerville, New Jersey



RCA MEMORY CORES

RCA FERRITE APERTURE PLATE

RCA MEMORY FRAME

RCA TRANSFLUXORS

RCA Type A	T <sub>s</sub> $\mu$ sec.	T <sub>p</sub> $\mu$ sec.	$\mu$ V <sub>i</sub> mv.	$\sigma$ V <sub>e</sub> mv.	Driving Current ma. (I <sub>cc</sub> /I <sub>ppm</sub> )	T <sub>r</sub> $\mu$ sec.
XF-3806	.27	.13	160	26	1100/660	.12
XF-4019	.67	.32	106	14	725/450	.12
XF-3018H	1.18	.53	55	9	460/275	.20
XF-4028	1.08	.60	72	4	380/190	.50
XF-3973	1.28	.71	48	5	350/215	.40
XF-3673	2.80	1.35	22	4	210/126	.50
XF-4003	2.60	1.45	24	3	190/95	.50
XF-4004	2.36	1.26	26	5	190/95	.50
XF-4005	4.10	2.35	10	5	125/63	.50
XF-4006	9.0	4.8	4.5	4.5	90/45	.50
XF-4007	7.5	4.3	4.5	5.0	70/35	.50
XF-4008	13.0	6.5	2.0	3.5	40/20	.50

Time is measured from 10% of current rise to 10% of voltage ( $\mu$ V)<sub>fall</sub>.  
 $\Delta$  All type numbers are for .050" x .030" x .015" size.

RCA Type A	Switching Time (T <sub>s</sub> )— $\mu$ sec.						
	H = .5	H = 1.0	H = 1.5	H = 2.0	H = 3	H = 4	H = 5
XF-3806					.22	.18	
XF-4019				.41	.24	.163	
XF-3018H			1.12	.75	.36	.226	.161
XF-3973			.73	.42	.22	.138	.105
XF-3673		1.16	.63	.40	.22	.15	
XF-4003		1.04	.60	.39			
XF-4004	3.84	.90	.52	.34	.194	.129	
XF-4005	3.69	.81	.48	.312	.174		
XF-4006	2.36	.71	.41	.260	.142		
XF-4007	1.38	.48	.28	.194			
XF-4008	1.53	.41	.242	.165			

Time is measured from 10% rise to 10% fall of  $\mu$ V. Rise time of current pulse is approximately 35 millimicro-seconds. To convert drive in oersteds to current in amperes: For core size of .050 OD x .030 ID, multiply H x 0.25. For core size of .080 OD x .050 ID, multiply H x 0.41.  $\Delta$  All type numbers are for .050" x .030" x .015" size.

- East: 744 Broad St., Newark, N. J. Humboldt 5-3900
- Northeast: 64 "A" Street, Needham Heights 94, Mass. Hillcrest 4-7200
- East Central: 714 New Center Bldg., Detroit 2, Mich. TRinity 5-5600
- Central: 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
- Route 202, Somerville, N. J. RAndolph 5-4500

- Capacitors, power supplies, pulse forming networks / RMSa Me(350) Le(1870) Ic
- Con-Elco, 1711 Mountain Ave., Monrovia, Calif. — no response '58, '59
- Consolidated Avionics Corp., a subsidiary of Consolidated Diesel Electric Corp., 800 Shames Drive, Westbury, L.I., N.Y. / EDgewood 4-8400 / \*C 59  
Power supplies, regulated power supplies, translating equipment, visual output devices, electrical converters, power frequency converters / RMSa Ls(100 this div., 1500 whole co) Me(1942) DAIC
- CONSOLIDATED CONTROLS CORP., 16 Durant Ave., Bethel, Conn. / Pioneer 3-6721 / \*C 59**  
Magnetic amplifiers, analog to digital converters, magnetic storage and memory systems, automatic controls, encoders, digital automation, magnetic drums, switches, robots / RMSa Ms(225) Se(1958) DAICMc  
J. F. Engelberger, Pres. / C. M. Colt, Sales Mgr.
- Consolidated Diesel Electric Corp. — see Consolidated Avionics Corp.
- Consolidated Electrodynamics Corp., 360 Sierra Madre Villa, Pasadena, Calif. / MUrray 1-8421 or SY 6-9381 / \*C 59  
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 equipment, 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 59  
Digital computers, systems, and devices; gyros, accelerometers, magnetic amplifiers, guidance and communications systems; converters; data processing equipment; resolvers, synchros, translating equipment; visual output devices / RMSa Ms(350) Se(1957) DIC
- Control Electronics Co., Inc., 10 Stepar Place, Huntington Station, L.I., N.Y. / HA 7-7961 / \*C 59  
Computer components; electromagnetic delay lines, lumped constant and distributed constant, fixed and variable, sonic delay lines, audio and high frequency filters. VHF-UHF frequency calibrator, direct reading phase angle meter. Electronic instruments, special power supplies / RMSa Ss(50) Se(1951) Ic
- 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. / RMSa Ls(1200) Me(1934) DAIC
- Convair-San Diego-Electronics, a Division of General Dynamics Corp., P.O. Box 1950, San Diego 12, Calif. / CYpress 6-6611 / \*C 59  
High-speed automatic data-acquisition and interpretation systems. Special purpose analog computing systems and equipment, including photoformers; memories for functions of one and two variables; magnetic-tape memories. Special purpose digital equipment. Analog-computer test equipment. Computing services on IBM 704 and 650 computers / RMSa Ls(800) Me(1942) Ic
- 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, Rand Hall, Cornell University, Ithaca, N.Y. / Ithaca 4-3211, X 3325 / \*C 59  
Service computing bureau, using Datatron 220 / R(Education)a Ss(10) 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. / RMSa Ls Le(1910) Ic
- Corning Glass Works, Electronic Component Dept., 550 High St., Bradford, Pa. / 2-4571 / \*C 59  
Electronic components, capacitors, printed circuit boards, ultrasonic delay lines, resistors, trimmers, attenuator plates, level switches, metallized glass components / RMSa Ls(13,000 in company) Le(1851) Ic
- CORPORATION FOR ECONOMIC AND INDUSTRIAL RESEARCH — name changed to C-E-I-R, Inc., which see**
- Creed & Co., Ltd., Telegraph House, CROYDON, Surrey, England / MUNicipal 2424 / \*C 59  
Wide range of teleprinters and punched tape equipment for communications, data processing, automation / RMSCa Ls(2000) Le(1909) DIC
- Cubic Corporation, 5575 Kearny Villa Rd., San Diego 11, Calif. / BRowning 7-6780 / \*C 59  
Transistorized playback system; transistorized digital recording system; digital computers, analog to digital converters, data processing and translating equipment / RMSa Ms(300) Se(1950) DIC
- Cudahy Publishing Company, 6141 North Cicero Ave., Chicago 30, Ill. — no response '58, '59
- Curtiss-Wright Corp., Electronics Div., 631 Central Ave., Carlstadt, N.J. / GE 8-4000 / \*C 58

# Bendix G-15

*the ideal computer for "on-line"  
data processing and control*

In use *now*, as a part of several systems, the Bendix G-15 has proven itself the ideal digital computer for data reduction and control. Its high speed . . . versatile command structure . . . widely varied methods and means of input and output . . . small physical size . . . and its low cost, all contribute to the *reason* why the G-15 is being selected for use in more and more on-line applications.

The G-15 is the fastest general purpose computer in the low price field. In at least one case the G-15 has been chosen for real-time computation where only a million dollar computer has ever been used before.

The versatility of the G-15's basic programming system contributes heavily to its on-line ability. Commands are available for special operations essential to power and efficiency in this type of application.

Perhaps of greatest importance is the computer's unique variety of input-output possibilities. The basic G-15 includes an electric typewriter for input-output and control, a fast paper tape punch, and a magazine loaded high-speed photoelectric tape reader. Punched card and magnetic tape units are also available.

Other devices such as A to D or D to A converters may be connected simultaneously or in place of the accessories

mentioned above and operated under control of the computer.

Finally, information can be directly written on or read from the memory drum, under control of special external devices. Computation can proceed simultaneously with any form of input-output.

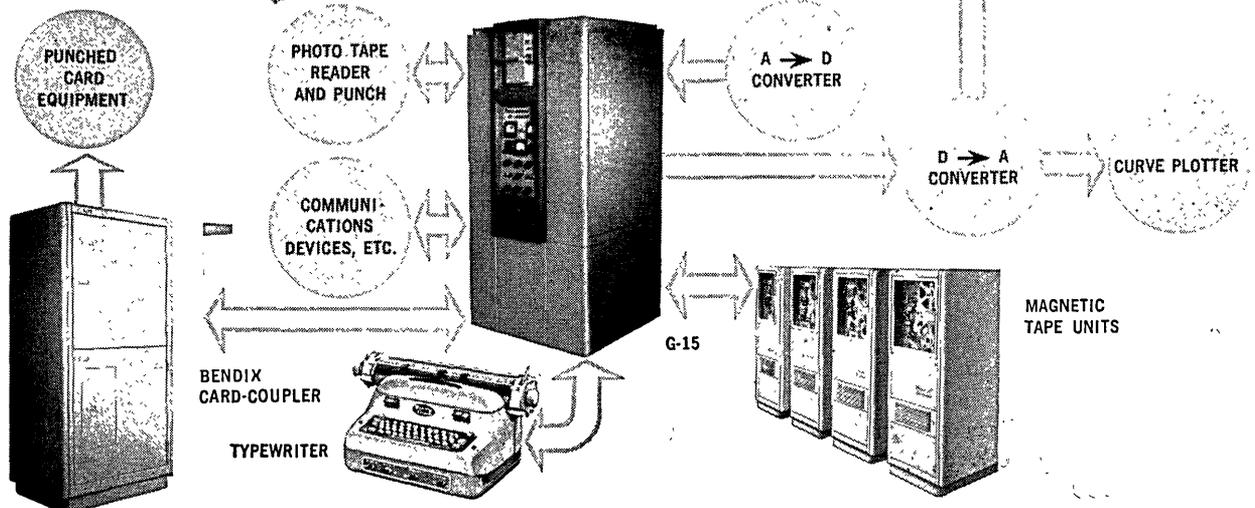
**Note that all of these methods of input and output can be utilized without modification of the computer. Connectors are provided for each type of input and output described.**

If ruggedness is required, the G-15 can prove an enviable record. Two of them have been in use for well over a year bolted directly to the deck of a ship. Average up-time of all G-15's is exceptional. The G-15 is compact too, and of course, it can be used as a powerful general purpose computer, as well as for on-line applications. A variety of simplified programming systems is available, including the renowned INTERCOM 1000, which can be used after four hours training or less.

The reasons are many . . . but the fact is that more and more G-15's are being leased or purchased for on-line use. If you would like to discuss your own requirements, we would be pleased to work with you. Write Department D-6A for a new 24-page bulletin on the G-15 in on-line use.

## TYPICAL SYSTEMS WHERE THE G-15 CAN BE USED

- 1) *Process monitors and controls*
- 2) *Missile tracking and impact prediction systems*
- 3) *Engine test stands and wind tunnels*
- 4) *Machine tool controls and many other open and closed loop systems.*



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., Box 136, Columbus, Neb. / LOcust 4-3131 / \*C 59

Resistors, potentiometers, trimmer potentiometers, sub-fractional H.P. motors / RMSa Ls(650) Se(1951) Ic

Dasol Corp., 14 Charlton St., New York 14, N.Y. / CHelsea 3-1800 / \*C 59

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

Data-Flo Computing Service — name changed to Minute Maid Corp., Data Processing Div. which see

**DATA INSTRUMENTS DIV. OF TELECOMPUTING CORP.**, 12838 Saticoy St., N. Hollywood, Calif. / STanley 7-8181 / \*C 59

Data reduction equipment, tape perforators and tape handling equipment, electro-mechanical counters / RMSCa Ls(2500) Me(1947) DAC

John H. Weaver, VP & Gen. Mgr. / R. E. Poole, Dir. of Sales

**DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO.**, 151 Needham St., Newton Highlands 61, Mass. / DEcatur 2-6960 / \*C 59

Electronic data processing systems. Training, sales, service, and service bureau / RMS(training)a Ls(750) Se(1955) DIC

W. W. Finke, Pres. / G. S. Younkin, VP

**DATA PROCESSING CORP.**, 2727 29th St., N.W., Washington 8, D.C. / COlumbia 5-1888 / \*C 59

Management and operation of data processing systems service centers, including programming and electronic computer services / RCPa Ss Se(1958) DIC

H. Jefferson Mills, Jr., Pres.

Data Processing Digest (Canning, Sisson & Assoc.), 1140 S. Robertson Blvd., Los Angeles 35, Calif. / BRadshaw 2-8425 / \*C 59

Monthly bibliographic service in electronic data processing and related fields / RMSa Ss(5) Se(1954) Dc

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. / ELliot 9-5381 / \*C 59

Analog-to-digital shaft position encoders; automatic controls; data recording and positioning systems; input-output devices, pressure scanners and pressure cutoffs / RMSa Ms(110) Se(1958) DAIC

The Datics Corp., 6000 Camp Bowie Blvd., Fort Worth 16, Texas / Dallas, TA 4-5854; Ft. Worth, PE 8-6505 / \*C 59

Services in electronic digital computing, data processing, data reduction, consulting, research and development, technical writing / RCa Ss(20) Se(1956) DAC

The Daven Co., Route 10, Livingston, N.J. / WYman 2-4300 / \*C 59

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(475) Me(1929) AIC

Davies Laboratories, Inc., Div. of Minneapolis-Honeywell Regulator Co., which see

Daystrom Instrument, Div. of Daystrom, Inc., Archbald, Pa. / Jermyn 1100 / \*C 59

Special purpose computing devices / RMSa Ls(1000) Se(1951) DAISc

Daystrom Systems, Div. of Daystrom, Inc., 5640 LaJolla 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 59

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

DeJur-Amsco Corp., Electronic Sales Div., 45-01 Northern Blvd., Long Island City 1, N.Y. / Ravenswood 1-4009 / \*C 59

Precision potentiometers, panel instruments, precision electrical connectors / RMSa Ms(500) Le(1922) Ic

Delco Radio Div., General Motors Corp., 700 East Firmin St., Kokomo, Ind. / Gladstone 2-8211 / \*C 59

Power transistors; inverters; power supplies / RMSa Ls(4000) Me(1936) Ic

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

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

**DENNISON MFG. CO., MACHINE SYSTEMS DIVISION**, 300 Howard St., Framingham, Mass. / Trinity 3-3511 / \*C 59

Print punch marking machines, tickets and accessories for basic input media to data processing systems / RMSa Ls(2700) Le(1844) Ic

DIALIGHT CORP., 60 Stewart Ave., Brooklyn 37, N.Y.  
/ HYacinth 7-7600 / \*C 59

Indicator lights, pilot lights, ultra-miniature indicator lights ("Datalites") for computer and automation fields. Also Data-Strip and Data-Matrix for computers, etc. Oil-tight indicator lights for heavy-duty industrial applications / RMSa Ms Me(1937) Ic

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

Diamonite Products Mfg. Co., Shreve, Ohio / JO 7-4211 / \*C 59

High strength, low loss, high density, electrical insulating vacuum tight alumina ceramics / RMSa Ms(150) Me(1940) Ic

DI/AN CONTROLS, INC., 40 Leon St., Boston 15, Mass. / HIGHLANDS 5-5640 / \*C 59

Buffer storages, memories, special purpose digital and analog computers, code and format converters, digital computer elements, counters, magnetic and transistor shift registers and logical elements, transistor circuit packages, plug-in circuits, servo amplifiers, special instrumentation equipment / RMSa Ss(40) Se(1958) DAIC

Robert D. Kodis, Pres. / Nathan O. Sokal, Technical Sales Mgr.

Dian Laboratories, Inc., 611 Broadway, New York 12, N.Y. / AL 4-6555 / \*C 59

Analog computing services; general purpose analog computers. Design and construction of special purpose computers, simulators, and trainers / RMSCa Ss(10) Se(1955) Ac

JOHN DIEBOLD & ASSOC., INC., 40 Wall St., New York 5, N.Y. / WH 3-9115 / \*C 59

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 59

Servomotors: tachometers; resolvers; servo amplifiers; servo systems; high frequency phase shifters / RMSa Ls(2700) Le(1888) Ic

Digital Equipment Corp., Maynard, Mass. / TWIN OAKS 7-8821 / \*C 59

Digital computers, digital test equipment; digital system building blocks; special computer systems / RMSa Ms(50) Se(1957) Ic

Digital Service Labs, 23922 Crenshaw Blvd., Torrance, Calif. / DAVENPORT 5-0711 / \*C 59

Electronic computers, service test equipment, and paper tape preparation equipment / RMSCa Ss(8) Se(1955) DAIC

DIGITRONICS CORP., Albertson Ave., Albertson, L.I., N.Y. / PIONEER 7-5090 / \*C 59

Digital computing and data processing systems; auxiliary tape processing equipment including tape interrogators, converters, tape tester; clutches; high speed perforated tape readers / RMSCa Ms(70) Se(1957) DICc

Albert A. Auerbach, Pres. / Robert F. Shaw, Secy.

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

Miniature pulse transformers, delay lines, ceramic

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959

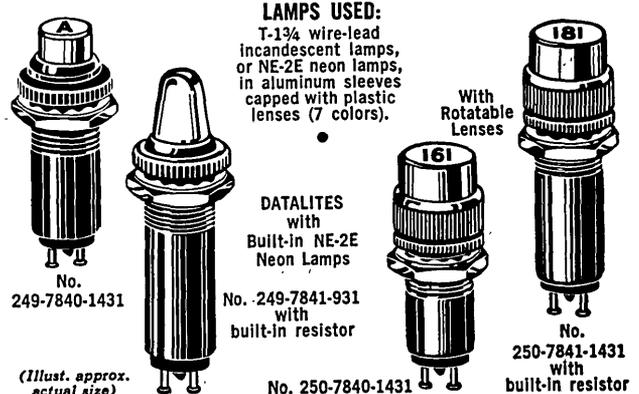


In this brochure—complete facts on DIALCO's

# DATALITES®

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DATALITES by DIALCO are ultra-miniature Indicator Lights specially designed to meet the critical requirements of the computer-automation fields. Made in 2 basic styles: Lamp Holders with DIALCO's own replaceable Lamp Cartridges (see above); or integrated DATALITES with Built-in Neon Lamps which are not replaceable (see below). Ultra-compact, single units mount in 3/8" clearance hole; the twin-lamp assembly mounts in 3/4" clearance hole.



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

disc capacitors / RMSa Ms(200) Se(1953) Ic  
 DIT-MCO, Inc., Electronics Div., 911 Broadway, Kansas  
 City 5, Mo. / Harrison 1-8484 / \*C 59  
 Universal automatic electrical circuit analyzers and  
 multipliers; functional testers for testing complex  
 relay circuitry / RMSCa Ms(165) Se(1953) Ic  
 DocuMation, Inc., Woodbury, N.J. / TI 5-7876 / \*C 58  
 Consulting services — automation applied to infor-  
 mation retrieval and documentation in general; and  
 publishing / RCa Ss(5) Se(1956) Ic  
 Donner Scientific Co., 888 Galindo St., Concord, Calif.  
 / MULberry 2-6161 / \*C 59  
 Analog computers; multipliers; delay and function  
 generators; amplifiers / RMSa Ms(200) Se(1953)  
 ACc  
 Dorsett Laboratories, Inc., 401 East Boyd, Norman,  
 Okla. / JEfferson 4-3750 / \*C 59  
 Special analog computers / RMSCa Ss(30) Se(1950)  
 AIc  
 Dresser Industries, Inc. — see Southwestern Industrial  
 Electronics Co. Div.  
 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 Barberrry Lane, Roslyn Heights,  
 N.Y. / \*C 59  
 Consultant, data handling problems / Ca Ss Se DIc  
 DX Radio Products Co., 2300 W. Armitage Ave., Chi-  
 cago 47, Ill. — no response '58, '59

## E

Eagle Signal Corp., 202 20th St., Moline, Illinois /  
 MOline 2-5571 / \*C 58  
 Timers and counters for automatic control of mach-  
 ines 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 59  
 Primarily manufacturer of photographic equipment.  
 Also manufactures cellulose yarns and staple syn-  
 thetic and organic chemicals and dyestuffs, fire con-  
 trol equipment, facsimile equipment (photocopy),  
 recording paper / RMSa Ls(74,000, world-wide)  
 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. / CPa Ls  
 (1600) Le(1905) DIc  
 Eclipse-Pioneer Division — SEE Bendix Aviation Corpo-  
 ration  
 Edgar, Wesley B., 206 Palmetto State Life Bldg., 1310  
 Lady St., Columbia 1, S.C. — no response '58, '59  
 Edin, a Div. of Epsco, Inc., 207 Main St., Worcester 8,  
 Mass. / PL 7-8394 / \*C 59  
 Industrial and medical electronic instruments, oscil-  
 lograph recorders and amplifiers, frequency ana-  
 lyzers, weld analyzers, recording papers / RMSa Ss  
 (45) Me(1935) Ic  
 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 sub-  
 systems. Time delay relays, thermostats, sensitive  
 D.C. relays, and other thermal devices. Magnetic  
 amplifier; computer packaged circuits, magnetic  
 heads, servo multipliers / RMSa Ms(360 div.) Me  
 1940 div.) ISc  
 Edo Corp., 13-10 111th St., College Point 56, N.Y. /  
 HIckory 5-6000 / \*C 59  
 Delay lines / RMSa Ls(500) Le(1925) Ic  
 Educational Research Corp., 10 Craigie St., Cambridge  
 38, Mass.  
 Digital computers; punch card machines / RMSa Ic  
 EECO Production Co. — SEE Engineered Electronics Co.  
 EFCON (Electric Fabricators, Inc.), 682 Broadway, New  
 York 12, N.Y. / SPring 7-4900 / \*C 59  
 Precision plastic film, high voltage and tantalum  
 capacitors / RMSa Ss(30) Se(1952) Ic  
 ELCO CORP., "M" Street below Erie Ave., Philadelphia  
 24, Pa. / CUmberland 9-5500 / \*C 59  
 Tube sockets for standard and printed circuit use,  
 as well as complete line of printed circuit con-  
 nectors, rack and panel, audio and power connectors  
 / RMSa Ms(285) Me(1947) Ic  
 Benjamin Fox, Pres. / Leo Kagan, Vice-Pres.-Sales  
 Electralab Inc., Industrial Center, Needham Heights 94,  
 Mass. / Hillcrest 4-5000 / \*C 59  
 Printed circuits / RMSa Ms(50) Se(1951) Ic  
 Electrical and Physical Instrument Corp., 42-19 27th  
 St., Long Island City, N.Y. — no response '58, '59  
 Electro Instruments, Inc., 3540 Aero Court, San Diego  
 11, Calif. / BRowning 7-6590 / \*C 59  
 Digital voltmeters; digital ohmmeters, analog-to-  
 digital converters, card converters, frequency count-  
 ers, X-Y Recorders, wideband DC amplifiers, go  
 no-go systems, automation systems, digital testers,  
 and other digital instruments / RMSa Ms(300)  
 Se(1954) Ic  
 ELECTRO PRODUCTS LABORATORIES, INC., 4501  
 N. Ravenswood Ave., Chicago 40, Ill. / LONGbeach  
 1-1707 / \*C 59  
 Metal sensing transducers, over/under speed con-  
 trols, electronic tachometers / RMSa Ms(50) Me  
 (1936) DAIC  
 Richard C. Crossley, Pres. / Lloyd A. Thacher, Sales  
 Mgr.  
 ElectroData Div. of Burroughs Corp. — see Burroughs  
 Corp., ElectroData Div.  
 Electrol, Inc., 9000 W. Pico Blvd., Los Angeles 35, Calif.  
 / BRadshaw 2-6010 / \*C 59  
 Diode function generators, DC amplifiers and count-  
 ers / RMSa Ss(20) Se(1957) ACc  
 N. V. Electrologica, 9 Paleisstraat, The Hague, Nether-  
 lands / 184260 / \*C 59  
 Digital computers / RMSCa Ms(100) Se(1956) Dc  
 Electro-Machine Corp., Box 565, Umatilla, Florida — no  
 response '58, '59  
 Electro-Measurements, Inc., 7524 S.W. Macadam, Port-  
 land 19, Ore. / Cherry 6-3332 / \*C 59  
 ESAC analog computer for calculating and plotting  
 values of algebraic functions of a complex variable  
 / RMSa Ms(80) Se(1949) Ic  
 Electro-Mec Laboratory, Inc., 47-51 33rd St., Long Is-  
 land City 1, N.Y. / STillwell 6-3402 / \*C 59

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., P.O.**  
Box 3041, Sarasota, Fla. / \*C 59

Telemetry transmitting and acquisition equipment / RMSa Ic

T. E. Stewart, VP, Sales

**ELECTROMETRIC DIVISION OF WHITEWATER ELECTRONICS, INC.,** 136 W. Main St., Whitewater, Wis. / 986 / \*C 59

Delay lines for computers and radar systems; inductors of any type / RMSa Ms(150) Se(1955) Ic

A. P. Falduto, Pres.

**Electro-Miniatures Corp.,** 606 Huyler St., South Hackensack, N.J. / HUBbard 9-7770 / \*C 59

Slip rings, ring and brush assemblies, coded commutators, rotary switches / RMSCa Ms(55) Se (1954) ICc

**THE ELECTRO-MOTIVE MANUFACTURING CO., INC.,** South Park and John Sts., Willimantic, Conn. / HA 3-4551 / \*C 59

**CAPACITORS:** molded mica, dipped mica, silvered mica film, ceramic tubular paper, paper dipped, mylar-paper dipped, ceramic disc, ceramic feed-thru, ceramic variable, variable mica trimmer and padder — for computer and other uses / RMSa Ls(1,600) Me(1945) Ic

J. A. Flanzer, VP / L. J. Healy, Sales Mgr.

**ELECTRONIC ASSOCIATES, INC.,** Long Branch, N.J. / CApital 9-1100 / \*C 59

Analog computers, analog plotters and recorders, digital data plotters, analog-digital computer linkage equipment, data processing-logging equipment and systems, development engineering, computation center services / RMSCa Ls(1,000) Me(1945) DACc

Lloyd F. Christianson, Pres. / A. L. Adamson, Exec. V.P.

**ELECTRONIC BUSINESS SERVICES,** 3266 Hunts Point Rd., Bellevue, Wash. / GLencourt 4-5810 / \*C 59

Consultants in automation and data processing service specializing in the needs of small and moderate size business firms / RMSC(Data Processing Services)a Ss(3) Me(1955) Ic

Dorsey S. Lewis, Owner / Adelbert K. Galloway, Engr.

**Electronic Computer Company,** 6191 Ridge Ave., Philadelphia 28, Pa. — no response '58, '59

**Electronic Computer Programming Institute,** 1234 Broadway, New York 1, N.Y. / WIconsin 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 homestudy / C(education)a Ss(8) Se(1956) DIC

**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

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959



Specialists in the  
practical application of  
**MODERN ANALYTICAL  
TECHNIQUES**

to Government, Business and  
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**NEWEST MOST VERSATILE  
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— IBM 704 and 709 —**

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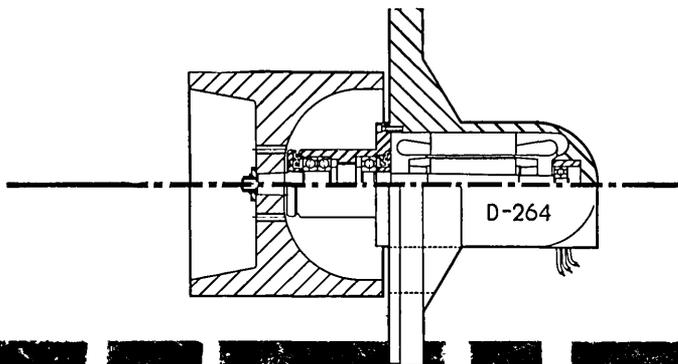
- ★ Computer Programming
- ★ Operations Research
- ★ Market Research
- ★ Mathematical and Statistical Services
- ★ Econometrics
- ★ Economic and Industrial Development Studies

**C-E-I-R, Inc.**

1200 JEFFERSON DAVIS HIGHWAY, ARLINGTON 2, VA.

- 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 / RMSa Ms(85) Se(1953) DACc
- ELECTRONIC ENGINEERING COMPANY OF CALIFORNIA**, 1601 East Chestnut Ave., Santa Ana, Calif. / KImberly 7-5501 / \*C 59  
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 / RMSa Ms(250) Me(1947) Ic  
Burgess Dempster, Pres. / R. B. Bonney, Vice-Pres.
- Electronic Fabricators, Inc. — see EFCON
- Electronic Noise Generator Co., P.O. Box 45344, Airport Station, Los Angeles 45, Calif. — no response '58, '59
- 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)
- 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 / RMSa Ms(165) Me(1937) Ic
- Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass. / TRowbridge 6-9100 / \*C  
Electronic and photoelectronic controls, "Photo-switches," etc. Automatic control and data processing machinery / RMSa Ls(1500) Me(1937) DACc
- Electronics Development Co., Inc., 3743 Cahuenga, No. Hollywood, Calif. / STanley 7-3223 / \*C 59  
Wide-band data transmitters and receivers, ground and airborne; telemetering systems, television transmitters / RMSa Ss(20) Se(1954) Ic
- Electrosnap Corporation, Switch, Optical & Scientific, and Astromatic Divisions, 4218 Lake St., Chicago 24, Ill. / VanBuren 6-3100 / \*C 59  
Lighted controls; snap action, multipole, subminiature, and miniature switches; stepping switches; push-pull controls / RMSa Ms(350) Se(1946) Ic
- Elgenco, Inc., P.O. Box 90344, Airport Station, Los Angeles 45, Calif. / FRontier 5-4685 / \*C 59  
Low frequency Gaussian noise generators for analog computers / RMSa Ss(5) Se(1955) Ic
- Elliott Addressing Machine Co., 143 Albany St., Cambridge 39, Mass. / TRowbridge 6-2020 / \*C 59  
Addressing equipment and addressing stencils of various sizes, including punch card stencil (3¼ x 7¾). Punched paper tape-to-stencil converters. Punch card and punch card stencil comparing and selective addressing / RMSa Ls(1000) Le(1900) Ic
- Elliott Bros. (London) Ltd., Century-Works, Lewisham, London, S.E. 13, England, and Computing Machine Div., Elstree Way, Borehamwood, Herts., England / Tideway 2323, Elstree 2040 / \*C 59  
Servomechanisms; Elliott 402, 405, 405M, 802, electronic digital computers, punched card reader, punched tape reader; GPAC (General purpose analog computer). Computing services; components, instrumentation and control for process industries / RMSa Ls(3500) Le(1800) DASCc
- El-Rad Mfg. Co., 2800 W. Cullom Ave., Chicago 18, Ill. / IRving 8-7300 / \*C 59  
Delay lines, pulse transformers, coils / RMSa Ms(250) Me(1944) Ic
- Engineered Electronics Co., 506 E. First St., Santa Ana, Calif. / KImberly 7-5651 / \*C 59  
Electronic plug-in circuits, vacuum tube and transistorized, decade counters, vacuum tube and transistorized, DC amplifiers, power supplies, stepping switches / RMSa Ms(100) Se(1954) Ic
- Engineers Northwest, 1554 Nicollet Ave., Minneapolis 3, Minn. / Re 5541 / \*C 59  
Test-scoring machines and equipment / RMSa Ss(45) Me(1945) DAC
- The English Electric Company, Ltd., Marconi House, Strand, London, WC2, England / Covent Garden 1234 / \*C 59  
Deuce, universal digital computer; also special purpose electronic digital computers for use with kinetic heat simulators / RMSa Ls(1100) Dc
- 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
- Epsco, Inc., 588 Commonwealth Ave., Boston 15, Mass. / COpley 7-8100 / \*C 59  
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, rocket motor test systems / RMSa Ls(700) Se(1951) DAICMc
- Erco Plant — Nuclear Products — Erco, Div. of ACF Industries, Inc., Riverdale, Md. / WARfield 7-4444 / \*C 59  
Special purpose analog computers, test equipment computers, magnetic clutches, simulators / RMSa Ls(1300) Le(ACF, 1899) AIC
- ESC CORPORATION**, 534 Bergen Blvd., Palisades Park, N.J. / WIndsor 7-0400 / \*C 59  
Delay lines, pulse forming networks, pulse transformers, filters, embedded assemblies and components, shift registers, miniature pulse transformers, etc. / RMSa Ms(230) 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 59

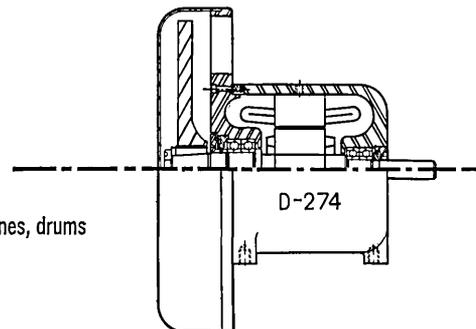
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If you're establishing the requirements for a magnetic storage drum, you have to consider storage capacity, density, signal frequency, access time. We think of the same drum in terms of the accurate distribution of mass about an axis, in terms of machining to minute tolerances, preloading and lubrication of precision bearings, and in terms of precise dynamic balance.

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Route 6 and New Britain Avenue . . . ORchard 7-2607  
Farmington, Connecticut



Edge-punched cards for filing and sorting data. Special cards for correlation of facts. Control systems for a number of electronic computers / RMSa Ms (246) Me(1935) Ic

### F

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

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

Facit, Inc., 404 4th Ave., New York 16, N.Y. (subsidiary of AB Atvidabergs Industrier, Stockholm, Sweden) / MUrray Hill 4-5842 / \*C 59

Desk calculators, adding machines, Odhner adding machine with multiplying features; typewriters, etc. (In 1390 A.D., copper mining) / RMSa Ls(5000) Le(1390 A.D.) Dc

Fairbanks Associates, 248 Greenwich Ave., Greenwich, Conn. — no response '58, '59

Fairchild Camera and Instrument Corp., Robbins Lane, Syosset, L.I., N.Y. / WELLS 1-4500 / \*C 59

Digital magnetic tape transports / RMSa Ls(1500) Le(1920) Ic

Fairchild Controls Corp., Components Div., 225 Park Ave., Hicksville, L.I., N.Y. / WELLS 8-5600 / \*C 59

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 E. 16 St., Costa Mesa, Calif. — discontinued

Fairchild Graphic Equipment, Div. of Fairchild Camera and Instrument Corp., Fairchild Dr., Plainview, L.I., N.Y. / WELLS 8-9600 / \*C 59

Tape perforators and operating units for local or distant automatic control of Linotypes and Inter-types / RMSa Ms(350) Ic

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

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

Farrand Controls, Inc., 4401 Bronx Blvd., New York 70, N.Y. / Fairbanks 4-2210 / \*C 59

"Inductosyn" numerical control equipment / RMSCa Ms Se(1950) Ic

Farrand Optical Co., Inc., Bronx Blvd. and E. 238 St., New York 70, N.Y. / Fairbanks 4-2200 / \*C 59

Gunfire control apparatus, rangefinders, optical and electronic sighting equipment, automatic trackers, infrared search and scanning systems, analog-digital converters, analog computers, etc. / RMSCa Ls(500) Le(1923) DASCc

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 / RMSPa Ls(6500) Me(1941) ISCc

Feedback Controls, Inc., 8 Erie Dr., East Natick, Mass. / TWINbrook 4-1020 / \*C 59

Magnetic amplifiers, quadrature rejectors, data re-

- peaters, servo multipliers, servo-motor gearheads, analog computers, computer test equipment, servo multipliers / RMSa Ms(60) Se(1954) AIC  
 Fenwal, Inc., 362 Pleasant St., Ashland, Mass. / TRinity 5-6111 / \*C 59  
 Temperature indicators and controllers, fire detection systems, monitoring systems / RMSa Ls(700) Me(1935) Cc
- FERRANTI ELECTRIC, INC.**, 30 Rockefeller Plaza, New York 20, N.Y. / Circle 7-0911 / agent for Ferranti Electric Ltd., Moston, England, and Toronto, Canada / \*C 59  
 General purpose digital computers (Pegasus, Mercury, Perseus), 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 (14,000) Le(1896) DIC
- FERRANTI ELECTRIC, LTD.**, Toronto, Canada — now Ferranti-Packard Electric Ltd., which see 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
- FERRANTI-PACKARD ELECTRIC LTD.**, Industry St., Toronto 15, Ontario, Canada / ROger 2-3611 / \*C 59  
 Computers, mark-sensing input equipment, magnetic drums, paper tape readers, 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 sortation; JANET meteor trail communication. Consultation and research facilities involving these and allied fields. See also Ferranti Electric, Inc. / RMSCa Ms(450) Le(1913) DAICc  
 J. Fogarty, VP and Gen. Mgr.—Electronics / E. Mann, Contracts Administrator
- Ferrocube Corp. of America**, 2900 E. Bridge St., Saugerties, N.Y. / CHerry 6-2811 / \*C 59  
 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
- Financial Publishing Co.**, 82 Brookline Ave., Boston 15, Mass. / KENmore 6-1827 / \*C 59  
 Computing service: digital; card programmed calculators, punch card / RMSa Ms(60) Le(1890) Dc
- FISCHBACH, McCOACH & ASSOCIATES, INC.**, 331 Madison Ave., New York 17, N.Y. / OXFord 7-7917 / \*C 59  
 Management consultants specializing in applied scientific techniques to business-type problems. Complete service in appraisals and installation of electronic data processing and control systems for management in business, industry, and government. Operations research; product appraisals; marketing analysis / RCPa Ss Se DAISc  
 Dr. J. W. Fischbach, Pres. / David McCoach III, V.P. & Treas.
- Fischer & Porter Co.**, 330 Warminster Rd., Hatboro, Pa. / OSborne 5-6000 / \*C 59  
 Data reduction and automation equipment including data loggers, analog-to-digital converters and recorders, digital indicators, and telemetering systems / RMSCa Ls(1200) Me(1937) DAIC
- 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 59  
 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 59  
 All electronic digital voltage, resistance and capacitance measuring instruments / RMSa Ms(60) Se(1951) Ic
- The Franklin Institute Laboratories**, Benj. Franklin Pkwy. at 20th St., Philadelphia 3, Pa. / LOcust 4-3600 / \*C 59  
 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. / NEptune 8-0700 / \*C 59  
 Automatic desk calculators; Computyper — automatic wiring-calculating machine; Add-Punch — code tape adding-listing machine; Selectadata — automatic tape reader-selector-sorter; Teledata — automatic 5-8 channel tape transmitter-receiver. Complete line of equipment for reading, punching,

Designed and produced specially for computer service.

Switching currents to 1 amp.  
High frequency-high gain.  
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Baltimore, Southfield 1-1237 • Cleveland, Winton 1-7005  
Kansas City, Plaza 3-5330

verifying, converting, and transmitting common language tape, edge-punched cards, or tabulating cards. Complete line of integrated data processing equipment / RMSa Ls(3000) Me(1934) Dlc

### G

The Gamewell Co., 1238 Chestnut St., Newton Upper Falls 64, Mass. / BI 4-1240 / \*C 59

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 59

Electronic data processing consultants: feasibility studies, programming services, operations research, training of clients' personnel / RCa Ss Se(1955) Dc Dr. H. S. Gellman, Pres.

General Automatic Corp., 12 Carlton Ave., Mountain View, Wayne, N.J. / CLifford 6-2756 / \*C 59

Electromagnetic relays / RMSa Ss(30) Se(1953) Ic

General Automatics, Inc., 2443 Ash St., Palo Alto, Calif. / DA 4-0360 / \*C 59

Special purpose analog and digital computers, automatic control equipment, automatic charge systems, analog less-than-limit sensors, go/no-go comparators, and timer-comparators / RMSCa Ss(10) Se(1954) DACc

GENERAL CERAMICS CORPORATION, Crows Mill Rd., Keasbey, N.J. (near Perth Amboy) / VALley 6-5100 / \*C 59

Ferrites, technical ceramics, magnetic memory cores

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959

and storage planes, memories, ceramic to metal seals; insulators; terminals / RMSa Ls(500) Le(1906) Ic

J. P. Manley, V. P. / James W. Schallerer, Sales Mgr., Applied Logics Div.

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 / RCMSa Ss(18) Se(1953) DAICc

GENERAL ELECTRIC CO., Schenectady, N.Y.

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

GENERAL ELECTRIC CO., CAPACITOR DIV., John St., 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

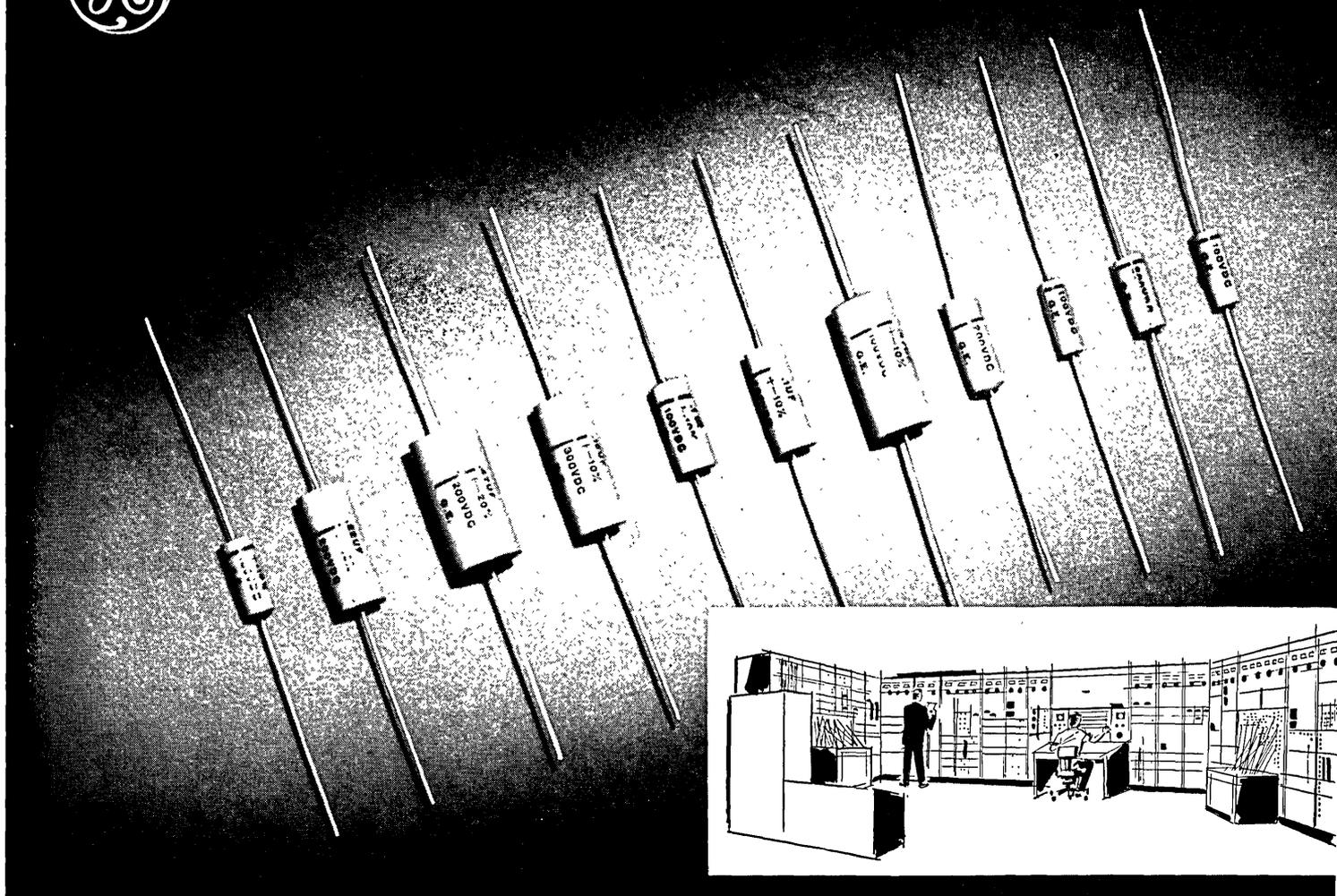
F. R. Flood, Mgr. — Sales, Electrolytic Capacitors / D. F. Warner, Mgr. — Sales, Specialty Capacitors

GENERAL ELECTRIC CO., COMPUTER DEPT.,

- 13430 Black Canyon Highway, Phoenix, Ariz. / WI 3-2351 / \*C 59  
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(1200) Se(1956) DAc  
C. C. Lasher, Dept. Mgr. / G. A. Hagerty, Mktg. Mgr.
- GENERAL ELECTRIC CO., ELECTRONIC COMPONENTS DEPT., 1811 Lemoyne Ave., Syracuse, N.Y.  
Delay lines; magnetic cores / RMSa Ic
- GENERAL ELECTRIC CO., LIGHT MILITARY ELECTRONICS DEPT., French Rd., Utica, N.Y. / SW 7-1000 / \*C 59  
Airborne computers for military use, both analog and digital / RMSa Ls(6000) Se(1952) DAc  
C. D. Brown, Mgr., Mktg. / G. R. Harris, Mgr., Sales
- GENERAL ELECTRIC CO., LOW VOLTAGE SWITCHGEAR DEPT., Mountain View Rd., Lynchburg, Va. / 3-6571 / \*C 59  
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(2000) Le(1916) DAic  
L. B. Gezon, Mgr., Marketing—Low Voltage Switchgear Dept. / J. R. Topper, Mgr. Computer Power Supplies Sales
- GENERAL ELECTRIC CO., RECEIVING TUBE DEPT., 11840 W. Olympic Blvd., Los Angeles 64, Calif. / GRanite 9-7765 / \*C 59  
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 Ls(?) Le(1875) DAic  
I. D. Daniels, Gen. Mgr. / W. F. Greenwood, Mgr.-Mktng.
- 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., 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., 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. Mallng, Dept. Mgr. of Mktg.
- GENERAL INSTRUMENT CORP., SEMICONDUCTOR DIVISION & AUTOMATIC MANUFACTURING DIVISION, 65 Gouverneur St., Newark 4, N.J. / HUmboldt 5-2100 / \*C 59  
Semiconductor division: silicon rectifiers, germanium and silicon diodes; automatic manufacturing division: I. F. transformers / RMSa Ls(5400) Le (1923) Ic  
M. Friedman, Gen. Mgr. / J. P. Tucker, Sales Mgr.  
General Instrument Corp., F. W. Sickles Div. — see F. W. Sickles Div.
- GENERAL KINETICS INCORPORATED, 555 23rd St. South, Arlington 2, Va. / OTis 4-7555 / \*C 59  
Services in: digital computer programming; programming research; computer test equipment. Programming services for all general purpose computers. Recommendation, design, and construction of automatic-programming-automatic-checking systems to fit specific needs. Mathematical studies; numerical analysis; data-reduction; information retrieval; magnetic tape testers; magnetic tape ultrasonic cleaners; acceptance test equipment / RMCa Ss(20) Se(1954) DIc  
A. E. Roberts, Jr., VP / W. L. Anderson, VP.  
General Mills, Inc., Mechanical Div., 1620 Central Ave., Minneapolis 13, Minn. / STerling 9-8811 / C 59  
APSAc digital computer and digital computer components / RMSa Ls(1600) Me(1940) DIc  
General Precision Laboratory Inc., 63 Bedford Rd., Pleasantville, N.Y. / ROgers 9-5000 / \*C 59  
Data processing and display systems (air traffic control) / RMSa Ls(1800) Me(1945) DIc  
General Research Co., 603 Jackson St., Falls Church, Va. — no response '58, '59  
General Transistor Corp., 91-27 138th Pl., Jamaica 35, N.Y. / HIckory 1-1000 / \*C 59



LECTROFILM\* -B CAPACITORS



For Computer Applications, General Electric Announces . . .

## New Lectrofilm\*-B Capacitors With a Design Life of 44,000 Hrs.

Over 3,000,000 unit-hours of life test data in accordance with G-E Specification MTC-3 indicate a probability of survival in excess of 0.99 for 44,000 hour life, under rated voltage at 85 C. At 125 C, indicated probability of survival is in excess of 0.98 . . . and low unit cost means the highest order of reliability per dollar invested.

**LOW FAILURE RATE AND LONG LIFE** of these inexpensive G-E capacitors result from using only the highest quality materials and the closest of process controls . . . units are precision wound with high-purity aluminum foil and capacitor-grade Mylar† film dielectric. No solder is used, and introduction of contaminants through impregnation is eliminated.

**SMALL, LIGHTWEIGHT ENCLOSURE** consists of tape wrapped around the compact roll and sealed with epoxy resin, forming a rugged case which resists humidity, vibration and shock.

**TO MEET YOUR APPLICATION REQUIREMENTS**, 14 case sizes are available in five ratings—100-, 200-, 300-, 400-, and 600-volt. Capacitance range within each rating is: 0.015 to 0.68 uf in 100 volts; 0.010 to 0.47 uf in 200 volts; 0.0047 to 0.22 uf in 300 volts; 0.0033 to 0.15 uf in 400 volts; and 0.0010 to 0.10 uf in 600 volts.

**GET A QUOTATION TODAY ON NEW LECTROFILM-B CAPACITORS** by contacting your General Electric representative. Ask for your copy of life-test data and G-E Specification MTC-3. Or, write to Section 447-5, General Electric Co., Schenectady, N. Y.

\* Trade-mark of General Electric Co.

† Registered trade-mark of DuPont Co.

*Progress Is Our Most Important Product*

**GENERAL  ELECTRIC**

Transistors — germanium and silicon types; precision resistors; germanium diodes, semiconductors, magnetic reading and recording heads / RMSa Ls (525) Se(1954) Ic  
 Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif. / GR 9-4331 / \*C 59  
 Low-level data sampling switches and transducers / RMSCa Ms(250) Me(1946) Ic  
 Georgia Institute of Technology, Rich Electronic Computer Center, Engineering Experiment Station, Atlanta 13, Ga. / TR 4-6331 / \*C 59  
 Computing service: Univac Scientific (ERA 1101), Burroughs 220, IBM 650, analog / RCPa Ss(21) Se (1955) DAC  
 The Geotechnical Corp., 3401 Shiloh Rd., Garland, Tex. / BR 8-8102 / \*C 59  
 7-channel analog data transmission systems for remote recording, computing, simulating, or control; FM voltage-controlled subcarrier oscillators; FM subcarrier frequency discriminators; millimicrovolt amplifiers; long-term data drum recorders; self-developing oscillographs; 90-second period to 50 cps recording galvanometers; earthquake seismograph apparatus; seismic noise survey and calibration services; geophysical and seismological consultation; fully-automatic chart reader (curve follower) / RMSCa Ms(200) Me(1936) DAIC  
 The Gerber Scientific Instrument Co., 163 State St., Hartford, Conn. — no response '58, '59  
 G. M. Giannini & Co., Datex Div. — see Datex Corp.  
 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" / MSa Ss (8) Se(1951) Ic  
 Gilmore Industries, Inc., 13015 Woodland Ave., Cleveland 20, Ohio / RA 1-6400 / \*C 59  
 Electronic control and data handling equipment; scanners, analog to digital converters, force instrumentation, transducer instrumentation, card to magnetic tape and paper tape converters, automatic controls and equipment / RMSCa Ms(50) Se(1950) 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 processing 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 N. Cahuenga Blvd., North Hollywood, Calif. / POplar 6-3725 / \*C 59  
 Data recording, processing, and reduction equipment; cameras; counters; fire control equipment; geophysical apparatus; punch card machines and readers / RMSa Ms(147) Me(1945) Ic  
 GPE Controls, Inc., 240 E. Ontario St., Chicago 11, Ill. / WHitehall 4-3700 / \*C 59  
 Analog and digital process control computers with electrohydraulic control systems / RMSa Ms(400) Me(1931) DAIC  
 GPS Instrument Co., Inc., 180 Needham St., Newton 64, Mass. / \*C 59

Electronic analog & statistical computer; special computing devices for data reduction / RMSCa Ss(25) ?e AIC  
 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., Dilectron Div. — see Dilectron Div., Gudeman Co.  
 Gudeman Co. of Calif., 9200 Exposition Blvd., Los Angeles 34, Calif. — moved, address not known.  
 Gulton Industries, Inc., 212 Durham Ave., Metuchen, N.J. / LIBerty 8-2800 / \*C 59  
 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 supplies, magnetic tape recorders, telemetering systems, transformers, ultrasonic medical equipment / RMSCa Ls(700) Me(1942) ICc

## H

Hallamore Electronics Co., Div. of The Siegler Corp., 714 No. Brookhurst Ave., Anaheim, Calif. / PROspect 4-1010 / \*C 59  
 Instrumentation and telemetering, airborne control, automatic ground support and test, and closed circuit television systems / RMSa Ls(750) Se(1951) Ic  
 HALLER, RAYMOND, AND BROWN, INC., DIVISION OF SINGER MFG. CO., Science Park, State College, Pa. / ADam 7-7611 / also 149 Broadway, New York 6, N.Y. / \*C 59  
 Data processing consulting; custom inventory control systems; special purpose analog and digital computers / RMSCa Ms(475) Se(1947) DAC  
 Dr. J. L. McLucas, Pres. / L. D. Rexroat, Head Contracts Dept.  
 Hall-Scott, Inc., 2950 Ontario St., Burbank, Calif. / VI 9-2341 / \*C 57  
 Analog computers and components / RMSa Ms (250) Le Ac  
 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  
 Harrison Laboratories, Inc., 45 Industrial Rd., Berkeley Heights, N.J. / CRestview 3-9123 / \*C 59  
 Transistorized power supplies / RMSa Ss(33) Se (1954) Ic  
 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 / RCPMa Ms Me(1941) Dc  
 HARVEY-WELLS ELECTRONICS, INC., RESEARCH

- AND DEVELOPMENT DIV., 5168 Washington St., W. Roxbury 32, Mass. / FAirview 7-8000 / \*C 59  
5 megacycle, high speed digital logic building blocks, decade scalars, shift registers, counters and power supplies / RMSa Ms(35) Me(1940) DCc  
R. A. Mahler, Pres. / A. C. Westborn, R & D Director
- Cecil Hastings, Jr., 136 Kuualua St., Kailua, Hawaii / Kai 251528 / \*C 58  
Approximations for digital computers / RCPa Ss Se(1954) Dc
- HATHAWAY INSTRUMENT CO. (subsidiary of Hamilton Watch Co.), 1315 So. Clarkson St., Denver 10, Colo. / Spruce 7-2696 / \*C 59  
Transducers, analog and digital recorders, oscillographs, circuit analysis, etc. / RCMSa Ms(80) Me(1939) Ic
- The A. W. Haydon Co., 232 N. Elm St., Waterbury 20, Conn. / PL 6-4481 / \*C 59  
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 Ms(425) Me(1946) ICc
- Heath Co., Benton Harbor, Mich.  
Assemblable electronic analog computer kit / RMSa DAIC
- Helipot Division of Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif. / TROjan 1-4848 / \*C 59  
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(1000) Me(1943) Ic
- Hewlett-Packard Company, 275 Page Mill Rd., Palo Alto, Calif. / DAvenport 5-4451 / \*C 59  
AC and pulse amplifiers, oscilloscopes, cameras, computer test equipment, digital voltmeters, electronic frequency and pulse counters, digital recorders with analog output, digital recorders with 10-line input, electronic function generators, pulse generators, digital delay generators, DC regulated power supplies, tachometer transducers and indicators / RMSa Ls Le(1939) DAIC
- 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
- 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 / RMSa Ms(100) Se(1945) DAIScC
- Hoffman Electronics Corp., Semiconductor Div., 930 Pitner Ave., Evanston, Ill. / University 9-9850 / \*C 58  
Diodes, power regulators, power rectifiers, silicon photovoltaic readout cells / RMSa Ls(500) Se(1953) Ic
- N. V. Hollandse Signaalapparaten, Zuidelijke Havenweg 40, Hengelo (0), Netherlands / 5850 / \*C 59  
Automatic weapon control systems, such as integrated naval weapon control systems, providing long range warning, aircraft control, target indication and fire control against air, surface and sub-surface targets; automatic air traffic control system SATCO; air defence systems / RMSa Ls(1800) Le(1922) DAICc
- Hoover Electronics Co., 110 W. Timonium Rd., Timonium, Md. / VALley 5-5200 / \*C 59  
Data processing systems, reversible analog-to-digital converters. Digital computer subassemblies. Sequential test sets. Telemetry systems. Logical and arithmetical, packaged circuits. Power supplies / RMSa Ms(100) Se(1952) DAIC
- Huck Co., 37 Wall St., New York 5, N.Y. / Digby 4-4750 / \*C 56  
Card sensing and punching units for computer input-output / RMSa Ms(125) Me(1945) Dc
- Hughes Aircraft Co., Semiconductor Div., 500 Superior Ave., Newport Beach, Calif. / LIBerty 8-0671 / \*C 59  
Transistors, diodes, rectifiers, avalanche diodes / RMSa Ls(2000) Se(1953) 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 / RMSa Ls(15,000 company; 5,000 Res. and Devt. Labs.; 400 computers) Me(1937) DACc
- Hycon Eastern, Inc., 75 Cambridge Parkway, Cambridge 45, Mass. / UN 4-7200 / \*C 59  
Digital (special purpose) magnetic tape search, language format converters / RMSa Ms(200) Se(1955) Ic
- HYDRO MOLDING CO., INC., 100 Sharron Ave., Plattsburgh, N.Y. / 2598 / \*C 59  
Precision molded bobbins, screws and custom molded components; complete engineering and tool room facilities / RMSa Ms(90) Se(1949) Ic  
S. Levites, Sales / William E. Hoffmann, Engineering

## I

- I.D.E.A., Inc. — see Industrial Development Engineering Association, Inc.
- Imperial College, Mathematics Dept., Computer Section, Huxley Bldg., Exhibition Road, So. Kensington, London, England  
Automatic digital computers constructed and in operation / RMa Ss Le(1922) Dc
- Imtra Corp., 11 University Rd., Cambridge 38, Mass. / UNiversity 4-4350 / \*C 59  
Magnetic storage drums, importer / Ba Ss(2) Se(1952) Ic
- The Indiana Steel Products Co., 405 Elm St., Valparaiso, Ind. / 2-5601 / \*C 59  
Permanent magnets / RMSa Ls(800) Le(1908) Ic

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

Servo amplifiers, servo multipliers, automatic controls and instrumentation / RMSa Ss(15) ?e C1c

Industrial Development Engineering Association, Inc., (I.D.E.A.) 7900 Pendleton Pike, Indianapolis 26, Ind. / L1berty 7-3581 / \*C 59

Components; readouts, digital and alpha-numeric / RMSa Ms(200) Me(1945) D1c

Industrial Nucleonics Corporation, 650 Ackerman Rd., Columbus 14, Ohio / Amherst 7-6351 / \*C 59

"AccuRay" process control systems / RMSa Me (400) Se(1950) Cc

Industro Transistor Corp., 35-10 36th Ave., Long Island City 6, N.Y. / EXeter 2-8000 / \*C 59

Germanium transistors for computer applications / RMSa Ms(100) Se(1957) Ic

Information Systems, Inc., 7350 Ridgeway Ave., Skokie, Illinois / ORchard 5-2500 / \*C 59

Information and control systems; consulting and engineering; data processing digital computer; recording & scanning equipment / SCPa Ss(35) Se (1959) DCc

Institut Blaise Pascal, Laboratoire de Calcul Numérique, 25, Avenue de la Division Leclerc, Chatillon-sous-Bagneux (Seine), France / \*C 59

Computing center using Elliott 402E, IBM 650, Bull Gamma — AET / RCPa Ss(25) Se(1957) Dc

Institute for Advanced Study, Electronic Computer Project, Princeton, N.J. — no longer active

The Institute of Management Sciences, 250 North Street, White Plains, N.Y. / \*C 59

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

Instrument Development Laboratories, Inc., 67 Mechanic St., Attleboro, Mass. / Attleboro 1-3880 / \*C 59

Digital converters, shaft angle; sampling switches, high speed; computers — analog, color. Research, development, production of precision components to customer order / RMSa Me(215) Me(1947) DA1c

Instrument Society of America, 313 Sixth Ave., Pittsburgh 22, Pa. / ATLantic 1-3171 / \*C 59

Professional and technical society serving the field of instrumentation systems and automatic control. Publishes "ISA Journal" / PCa Ss(30) Me(1946)

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) D1c

Intercontinental Dynamics Corp., 170 Coolidge Ave., Englewood, N.J. / LOwell 7-3600 / \*C 59

Random noise electronic generator / RMSa Ss(45) Se(1956) Ic

**INTERNATIONAL BUSINESS MACHINES CORP.,** 590 Madison Ave., New York 22, N.Y. / Plaza 3-1900 / \*C 59

Punch card machines. IBM 650, magnetic drum computer. IBM 704, 705, and 709, 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 59

Automatic data processing machines; punch card machines, and accounting machines. IBM 650, magnetic drum computer. IBM 704, 705, and 709, 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 Computers and Tabulators, Ltd. (formerly The British Tabulating Machine Co., Ltd., and Powers-Samas Accounting Machines, Ltd.), 17 Park Lane, London, W. 1, England / Hyde Park 8155 / \*C 59

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 / RMSCa Ls (16,000) Le(1908) DISc

International Rectifier Corp., 1521 E. Grand Ave., El Segundo, Calif. / OREGon 8-6281 / \*C 59

Rectifiers and diodes, selenium, silicon and germanium; references, regulators, limiters for aircraft computers, analog-digital converters, data processing and digital computers / RMSa Ls(650) Se (1947) DA1c

International Resistance Co., Computer Components Division, 401 N. Broad St., Philadelphia 8, Pa. / WALnut 2-2166 / \*C 59

Pulse viewing resistor probes, pressure and displacement transducers, encapsulated voltage divider networks, encapsulated demodulator network / RMSa Ls(600) Le(1925) Ic

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. / RMSCa Ms(100) Se(1950) DCc

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 / RMSCP a Ls(96,000) Le DASC Mc

## J

Bill Jack Scientific Instrument Co., 143 Cedros Ave., Solana Beach, Calif. — no response '58, '59

Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda 14, Md. — no response '58, '59

Jefferson Electric Co., 910 S. 25th Ave., Bellwood, Ill. /  
MANSfield 6-7161 / \*C 59

Constant voltage and low voltage control trans-  
formers / 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 assem-  
blies; electronic, electrical, electromechanical, pre-  
cision assemblies and specialized test equipment;  
plug-in circuits, regulated power supplies, tele-  
metering systems / RMSa Ms(200) Se(1953) Ic

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

Analog, digital, and data-handling systems. Re-  
search and development in jet propulsion and mis-  
sile guidance / RCPa Ls(1,200; about 50 on com-  
puters) Me(1942) DAC

Johnson Electronics Inc., Highway 17-92, P.O. Box  
1675, Casselberry, Fla. / MIDway 4-3311 / \*C 59

Precision electronic components in the coil field;  
development, design, prototypes; magnetic ampli-  
fiers, embedded assemblies and components /  
RMSCa Ms(80) Se(1951) Ic

**JONKERS BUSINESS MACHINES, INC.**, 3939 Lega-  
tion St., N.W., Washington 15, D.C. / WOODley  
6-9019 / \*C 59

Development and systems engineering of informa-  
tion retrieval systems and engineering data control  
systems. Manufacture and sales of "TERMATREX"  
search systems / RMSCa Ss Se Ic  
Frederick Jonkers, Pres.

## K

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

Digital delay generators for accurate measurement  
and generation of time intervals, etc. Automatic  
electronic controls for industrial applications /  
RMSa Ls(3,500) Le(1920) Ic

Kay Electric Co., Maple Ave., Pine Brook, N.J. / CA  
6-4000 / \*C 59

Spectrum analyzers, sound spectographs, sweeping  
oscillators, plug-in circuits, test equipment, con-  
verters, generators, translating equipment, noise  
generators / RMSCa Ms(100) Me(1942) Ic

Kaye Development Co., Connecticut Ave., S. Norwalk,  
Conn. — no response '58, '59

KCS Limited, 20 Spadina Rd., Toronto 4, Ont., Canada  
/ WALnut 4-3381 / \*C 59

Management and technical consultants: electronic  
computing, data processing, operations research,  
economic surveys, statistical analyses, feasibility  
studies. Services: high speed computing, data  
processing, tabulating / RCPa Ss(45) Se(1954) Dc

Kearfott Co., Inc., Clifton, N.J. / Gregory 2-1000 / \*C

Analog-digital converter; digital-analog converter;  
servo motors, synchros, resolvers, integrating tach-  
ometer generators; analog and digital computers /  
RMSa Ls(3000) Le(1916) DAISc

George F. Kelk, Ltd., 130 Willowdale Ave., Willowdale,  
Ontario, Canada / BA 5-7724 / \*C 58

Custom design of analog or digital data handling

$$\int_V (\nabla T)^2 dv = \int_S T (\nabla T \cdot n) ds$$



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**Seattle 24, Washington**

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systems. Custom test and process control equipment / MCa Ss(12) Se(1953) DAC

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

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 Place, Newburyport, Mass. / HO 2-4464 / \*C 59  
Semiconductor devices, components / RMSa Ms Se(1948) Ic

Kepco, Inc., 131-38 Sanford Ave., Flushing 55, N.Y. / IN 1-7000 / \*C 59  
Power supplies, voltage or current regulated; magnetic, transistorized, and vacuum tube types / RMSa Ms(100) Me(1946) Ic

Ketay Dept., United Aircraft Corp., Jericho Turnpike, Commack, L.I., N.Y. / FOrest 8-5500 / \*C 59  
Servomechanism components and gyromechanisms / RMSa Ls Me(1946) Sc

Key Electric Corp., 287 Post Ave., Westbury, N.Y. — no response '58, '59

Walter Kidde & Co., Inc., 441 Main Street, Belleville 9, N.J. / PLYmouth 9-5000 / \*C 59  
Fire detecting and extinguishing equipment, special machine tool and factory automation / RMSa Ls(1460) Le(1917) ICMc

Kidde Ultrasonic & Detection Alarms, Inc., 441 Brighton Rd., Allwood Station, Clifton, N.J. / GRegory 2-5000 / \*C 59  
Automatic fire detection systems; ultrasonic, photoelectric, and capacitance burglar alarm systems; temperature monitoring systems / RMSCa ?s Le (1917) ISCc

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

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

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 / RMSa Ms(200) Le(1885, parent company) DICc

## L

Laboratory For Electronics, Inc., Computer Products Div., 1079 Commonwealth Ave., Boston 15, Mass. / ALgonquin 4-4235 / \*C 59  
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) DMIC

LANDIS & GYR, INC., 45 W. 45th St., New York 36, N.Y. / JUdson 6-4644 / \*C 59  
Impulse counters, predetermining impulse counters, single decade impulse counters with auxiliary contacts / RMSa Ss(13 this company, over 9,000 in associated companies) Le(1926) Ic  
O. H. Schlueter, Pres. / M. U. Wiesendanger, Exec. V. P.

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. — no response '58, '59

Leeds & Northrup Co., 4907 Stenton Ave., Philadelphia 44, Pa. / DAvenport 9-4900 / \*C 59  
Analog computers for electric power industry, recorders and indicators, transducers, data handling systems, systems engineering / RMSa Ls(2900) Le(1898) AICc

Lehigh University, Computing Laboratory, Packard Laboratory, Bethlehem, Pa. / UN 7-5071 ext. 355 / \*C 59  
Computing service using LGP-30 / RCP (training)a Ss(7) Se(1957) Dc

Leonard Electric Products Co., Inc., 67-34 St., Brooklyn 32, N.Y. — no response '58, '59

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 59  
Special purpose computing systems (analog and digital) for industry and military; digital display systems, amplifiers, automatic controls and equipment; integrators, correlators, electronic counters, multipliers; information converters of all types; inventory and magnetic storage systems; shift registers; character readers; cooling devices for memory cores and electronic components / RMSa ?s ?e DAIC

LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. / CItrus 4-6541 / \*C 59  
Digital and analog, general and special purpose computers; computer components, data processing systems, memory systems, etc., Libratrol-500 industrial control computer, LGP-30 business & scientific computer / RMSa Ls(2000) Me(1937) DAIC

LIBRASCOPE, INC., COMMERCIAL DIVISION, 100

East Tujunga Ave., Burbank, Calif. / Victoria 9-6061 / \*C 59

General purpose digital computers, industrial process control computers, shaft-to-digital encoders, magnetic drum memory systems, magnetic drums, read-record heads and amplifiers, X-Y plotters, punched card/punched tape-to-plotter converters, mechanical sine wave generator, mechanical integrators, differentials, and sine-cosine mechanisms, miniature servos and servo amplifiers / RMSa Ms (250) Me(1946) Dlc

LINK AVIATION, INC., Binghamton, N.Y. / 3-9311 / \*C 59

Flight simulators, analog computers, digital computers, digital/analog components and systems, servo-mechanisms, gear boxes, test equipment / RMSCa Ls(3000) Me(1934) DAISCc

F. K. English, District Mgr. (West Coast, Hollywood, Calif.) / J. R. Ritchie, Industrial Sales Mgr. Edwin A. Lipps Engineering, 1511 Colorado Ave., Santa Monica, Calif. / EXbrook 3-0449 / \*C 59

Micro-magnetic instruments; magnetic tape recording and reading heads; consulting services; memory systems; magnetic tape readers / RMSCa Ss (15) Se(1948) Ic

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

Littelfuse, Inc., 1865 Miner St., Des Plaines, Ill. / VAn-derbilt 4-1188 / \*C 59

Fuses, fuse holders, microfuses for printed circuit boards / RMSa Ms(450) Le(1927) Ic

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, hardware, printed circuits / RMSa Ms(150) Se(1955) 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 control, telemetering devices, communication equipment, instrumentation and test equipment, servo-mechanisms. Portable, electronic scientific computers (digital differential analyzer). Accessories: graph plotters, followers, tape input and output devices, digital-analog converters, and magnetic drums and heads. Advanced system design and development. Adding machines / RMSa Ls(8500) Se (1953) DAICc

Logabax S. A., 146, Champs Elysées, Paris 7, France / Elysée 61-64 / \*C 59

198 and 207-register automatic accounting machines; several hundred headings analysing equipment "TELEBAX." Automatic connection with punch card or computing machines / RMSa Ls (700) Se(1949) Dc

Loyola Laboratories, Box 90074, Airport Station, Los Angeles 45, Calif. / ORegon 8-1686 / \*C 59



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Broadview Research Corporation  
1811 Trousdale Drive  
Burlingame, California

Computers, computing services, consulting / RCa Ss(2) Se(1956) Ic

## M

Machine Statistics Co., 180 Varick St., New York 16, N.Y. — out of business

Mack Electronics, a Div. of Mack Trucks, Inc. — Discontinued. Former personnel, facilities and product line now doing business as DI/AN Controls, Inc., which see

MacLeod and Hanopol Inc., 10 Roland St., Charlestown 29, Mass. — no response '58, '59

The Magnavox Co., 2131 Bueter Rd., Fort Wayne 4, Indiana

Analog-to-digital converters; analog and digital computers; data processing equipment; magnetic drums / RMSa Ls DAIC

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

Magnetic Research Corp., 3160 W. El Segundo Blvd., Hawthorne, Calif. / OSBORNE 5-1171 / \*C 59

Components / RMSa Ms(158) Se(1952) ICc

Magnetics, Inc., Box 230, Butler, Pa. / BUTLER 7-1745 / \*C 59

Tape wound cores of ultra-thin high-permeability materials, for computers, etc. / RMSa Ms(300) Se (1949) Ic

Magnetics Research Co., Inc., 255 Grove St., White Plains, N.Y. / WH 9-9588 / \*C 58

- Magnetic components for analog and digital systems and computers. Transistor driven magnetically 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 / RMSCa Ss(30) Se (1951) DA1c
- P. R. Mallory & Co., Inc., 40 S. Gray St., Indianapolis 6, Ind. / MELrose 6-5353 / \*C 58  
Silicon diodes, rectifiers, resistors, rheostats, capacitors, switches, semiconductors, potentiometers, for computer and other uses / RMSCa Ls(4000) Le(1916) Ic
- Alan O. Mann & Associates — dissolved
- Marchant Calculators, Div. of Smith-Corona Marchant Inc., 6701 San Pablo Ave., Oakland 8, Calif. / \*C 59  
Automatic electric calculators (desk type) / RMSa Ls(2500) Le(1910) Ic
- Markite Corporation, 155 Waverly Pl., New York 14, N.Y. / ORegon 5-1384 / \*C 59  
Rotary and rectilinear precision potentiometers for computers and servo controls / RMSa Ms(250) Se(1951) Ic
- Massachusetts Institute of Technology, Computation Center, 77 Mass. Ave., Cambridge 39, Mass. / UNIVERSITY 4-6900 / \*C 59  
Computing service using IBM 704 (32,000 word magnetic core memory) and complete line of peripheral equipment / RCPa Ms(80—600 outside programmers) Se(1957) DAC
- Mathematisch Centrum, 2e Boerhaavesstraat 49, Amsterdam, Netherlands / \*C  
Relay computer; electronic computers; for own use / RCPa Ms(60) Se(1946) Dc
- MAUREY INSTRUMENT CORP.**, 7924 S. Exchange Ave., Chicago 17, Ill. / REgent 1-1717 / \*C 59  
Potentiometers: precision, single-turn, wirewound, linear, non-linear. Rotary switches / RMSa Ss(42) Se(1953) Ic  
E. Maurey, Jr., Pres. / Joseph Popp, Sales Mgr.
- The W. L. Maxson Corp., 475 Tenth Ave., New York 18, N.Y. / Longacre 5-1900 / and elsewhere / \*C 59  
Servomechanisms; analog computers, and digital computers for fire control, navigation, etc. Automatic control machinery / RMSa Ls(1320, incl. div.) Me(1935) DASCc
- H. B. MAYNARD & CO., INC.**, 718 Wallace Ave., Pittsburgh 21, Pa., also other cities in USA and abroad / FREmont 1-9600 / \*C 59  
Management consultants. Feasibility studies, operations research, linear programming applications, cost reduction programs, management controls, office work measurement and controls, office methods improvement, training in office methods and systems / RCPa Ms Me(1934) DA1Cc
- 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
- Mechanical Division of General Mills, Inc. — see General Mills
- 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 / RCa Ss(5) Se(1950) Dc
- 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 / RMSa Ss(6) Se(1956) DAC
- Micro Instrument Company, 80 Trowbridge St., Cambridge 38, Mass. / KIRkland 7-8660 / \*C 59  
Toroid transformers, toroid inductors; ferrite core units for computers, etc. / RMSa Ss(20) Me(1934) Ic
- Micro Switch, a Div. of Minneapolis-Honeywell Regulator Co., 11 W. Spring St., Freeport, Ill. / ADAMS 2-1122 / \*C 59  
Lighted pushbutton switches, snap-action and mercury switches for use in computers and other business machines / RMSa Ls(2400) Me(1937) Ic
- Microtran Co., Inc., 145 E. Mineola Ave., Valley Stream, N.Y. / LO 1-6050 / \*C 59  
Miniature audio and transistor transformers. Transformers designed to customer specifications / RMSa Ms(60) Se(1950) Ic
- Mid-Century Instrument Corp., 611 Broadway, New York 12, N.Y. / SPRing 7-4016 / \*C 59  
Precision analog computers, function generators, multipliers, resolvers, recorders, X-Y plotters, etc. / RMSa Ms(70) Se(1950) Ac
- Midwest Research Institute, 425 Volker Blvd., Kansas City 10, Mo. / LOGan 1-0202 / \*C 59  
Studies in application of digital and analog computers to business and scientific problems; mathematical analysis and computation; computing service; consulting service; contract research; economics research; operations research; systems engineering / RCPa Ms(300) Me(1945) 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
- H. JEFFERSON MILLS, JR., MANAGEMENT CONSULTANT**, 2725 29th St., N.W., Washington 8, D.C. / COLUMbia 5-1888 / \*C 59  
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 systems in business,

- industry and government / RCPa Ss Se(1954) DIc  
H. Jefferson Mills, Jr., Principal
- Minneapolis-Honeywell Regulator Co., Boston Div., 40  
Life St., Boston 35, Mass. / AL 4-5200 / \*C 59  
Linear accelerometers, electronic test equipment,  
d-c data handling amplifiers and preamplifiers, d-c  
null indicators, precision temperature control units,  
and synchros / RMSa Ls(850) Le(1886) SIc
- Minneapolis-Honeywell Regulator Co., Davies Labs.,  
Division, 10721 Hanna St., Beltsville, Md. / WEbster  
5-2700 / \*C 59  
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 / RMSa Ms  
(300) Se(1946) DIc
- Minneapolis-Honeywell Regulator Co., Florida Inertial  
Guidance Center, 13350 U.S. Highway 19, St. Peters-  
burg, Fla. / HEmlock 5-1151 / \*C 59  
Inertial guidance systems, inertial platforms, digi-  
tal computers, analog computers, gyros and accel-  
erometers, digital computers for aircraft or missiles.  
Packaged computer logic circuits; computer ground  
checkout and drum loading equipment; analog to  
digital converters, drums and memory systems;  
input-output devices / RMSa Ls(620) Se(1957)  
DAIc
- Minneapolis-Honeywell Regulator Co., Industrial Div.,  
4580 Wayne Ave., Philadelphia 44, Pa. / DAvenport  
9-8300 / \*C 59  
Automatic controllers. Brown Instruments. Servo  
components used in computers. Recording and in-  
dicating instruments and control equipment, etc.  
Amplifiers, converters, balancing motors, potenti-  
ometers, recording papers, load and frequency con-  
trol systems, data handling systems with computing  
functions, nuclear reactor control systems and sim-  
ulators, telemetering and supervisory control sys-  
tems / RMSa Ls(3200) Le(1859) ACc
- 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
- Minute Maid Corporation, Data Processing Div., 1200  
E. Colonial Drive, Orlando, Florida / GA 4-2225 /  
\*C 59  
Office system and management services, including  
service bureau for converting paper tape to cards  
and processing IBM cards / Ca Ss(20) Se(1957) Ic
- Monroe Calculating Machine Co., 555 Mitchell St.,  
Orange, N.J. / OR 3-6600 / \*C 59  
Adding machines, desk calculators, automatic elec-  
tronic digital computers, data processing machines  
and components, magnetic drum storage systems,  
tape punch equipment, magnetic read-record heads,  
modular drums / RMSa Ls(4100) Le(1911) DIc
- Monroe School of Electrical Engineering, Univ. of Penn-  
sylvania, 200 So. 33 St., Phila. 4, Pa. / EVergreen  
6-0100 / \*C 59  
Computing service: analog, digital; differential an-  
alyzer, automatic digital computer, punch card  
machines. Research, development, systems engi-  
neering, education, consulting / RCa Ms(80) Le  
(1923) DAC
- Moran Instrument Corp., 170 E. Orange Grove Blvd.,  
Pasadena, Calif. / SY 6-7158 / \*C 59  
Shaft position digitizers, analog digitizers, reso-  
lution multipliers, calibrators, regulated high volt-  
age power supply, radiation measurement equip-  
ment, radar survey equipment, radar navigation  
equipment / RMSCa Ss(20) Se(1949) Ic
- F. L. Moseley Co., 409 No. Fair Oaks, Pasadena, Calif.  
/ Ryan 1-0208 / \*C 59  
X-Y recorders (with time base); card and tape  
translators; logarithmic amplifiers; digital volt-  
meters; curve followers, computer accessories /  
RMSa Ms(125) Se(1950) Ic
- Motorola Inc., Semiconductor Products Div., 5005 E.  
McDowell Rd., Phoenix, Ariz. / BRidge 5-4411 /  
\*C 59  
Computer transistors / RMSa Ls(750) Se(1954) Ic

## N

- 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) RCPa Ms(60) Se Dc
- National Bureau of Standards, Applied Mathematics  
Division, Washington 25, D.C. / EMerson 2-4040 /  
\*C 59  
Computing service, using IBM 704, for govern-  
ment and government contractors only / RPCa  
Ms(80) Me(1947) Dc
- 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 ele-  
ments, transistors, diodes, delay lines, etc. (for  
government only). Designed, assembled, and main-  
tain Seac; designed and assembled Dyseac; designed  
several special purpose machines / RMBGa Ms(80)  
Se(1946) DAC
- The National Cash Register Co., So. Main and K Sts.,  
Dayton 9, Ohio / Baldwin 6-1411 / \*C 59  
NCR 304 electronic data processing systems; elec-  
tronic bank posting machines; punched paper tape  
and punch card converters; input-output devices;  
digital computers; magnetic cores / RMSa Ls  
(25,000) Le(1884) DIc
- 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 sys-  
tems; atomic frequency standards, electronic and  
frequency multipliers / RMSa Ms(500) Le(1914)  
Ic
- National Data Processing Corp., Fidelity Union Life  
Bldg., Dallas 1, Texas / RIverside 7-4736 / \*C 59

Photoelectric or magnetic character recognition. High speed tonal wire transmission. Teletype to magnetic tape converters. Tape and card readers. Portable and stationary digital recorders. Special purpose computers / RMSa Ss(30) Se(1957) DIc  
 National Fabricated Products, Inc., 2650 W. Belden Ave., Chicago 47, Ill. — no response '58, '59  
 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. / RCPMa Ls (1000; this division, 40) Le(1900) DIc  
 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 Union Electric Corp., Electronics Div., Bloomington, Ill. / 7-6041 / \*C 59  
 Special purpose electron tubes / RMSa Ls(over 500) Le(1922) Ic  
 New Haven Clock & Watch Co. — see Condenser Products Div.  
 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 / RMSa Ms(150) Se(1947) DIc  
 NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N.J. / CHestnut 1-1500 / \*C 59  
 Electronic power supplies / RMSa Ms(150) Se(1955) Ic  
 Robert Forbes, Exec. VP / A. Lawrence Karp, Sales Mgr.  
 NON-LINEAR SYSTEMS, INC., Del Mar Airport, Del Mar, Calif. / SKyline 5-1134 / \*C 59  
 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 / RMSa Ms(150) Se(1952) DIc  
 A. F. Kay, Pres. / R. C. Wynne, VP — Sales  
 Norden Division, United Aircraft Corp., 58 Commerce Rd., Stamford, Conn. / Davis 5-2611 / \*C 59  
 Digital and analog computers, synchros, potentiometers, servos, tachometers / RMSa Ls(2200) Se(1958) DASCc  
 Norden-Ketay Corp. — see Ketay Dept. and Norden Division

North American Research & Control Instruments Div. — see Phillips Electronics, Inc., Instruments Div.

**NORTH ELECTRIC COMPANY**, 553 S. Market St., Galion, Ohio / HO 8-2420 / \*C 59  
 Data processing and computer systems, automatic controls, switching centrals and related components, switches, relays / RMSCa Ls(1500) Le(1884) Ic  
 William Tucker, Pres. / W. W. Crissinger, Mgr., Industrial Div.  
 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 / RMCPa Ms(95 this project) Se(1950 this project) DAC

**NORTON ASSOCIATES, INC.**, P.O. Box 96, Garden City, N.Y. / IVanhoe 3-2968 / \*C 59  
 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  
 Special purpose data-handling systems. Programming. Operate own "Datatron" providing computing services. Automatic control and materials handling machinery / RMSCa Ms(350) Se(1948) DCMc

## O

Ohmite Manufacturing Co., 3692 Howard St., Skokie, Ill. / ORchard 5-2600  
 Capacitors, computer types; miniature wire-wound resistors; etc. / RMSa Ic  
**OLIVETTI CORP. OF AMERICA**, 375 Park Ave., New York 22, N.Y. / PLaza 1-5333 / and Ing. C. Olivetti & Co., S. P. A., Ivrea, Italy / \*C 59  
 Single and duplex register adding machines. Single and dual register printing calculators / RMSa Ls(24,000) Le(1908) Dc  
 Dino Olivetti, Pres. / Guido Lorenzotti, V. P.

Opad Electric Co., 43 Walker St., New York 13, N.Y. / Worth 6-0380 / \*C 59  
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 / RMSa Ms(100) Se(1949) Ic

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. / RMSa Ss(43) Se(1946) Ic

John Oster Mfg. Co., Avionic Div., One Main St., Racine, Wisc. / MELrose 7-4445 / \*C 59  
Servos, synchros, resolvers, DC motors, servomechanisms, servo torque units, motor-tachometers, computers, indicators / RMSa Ls(1000) Le(1924) Ic

Otis Elevator Co., Defense & Industrial Div., 35 Ryerson St., Brooklyn 5, N.Y. / ULster 5-6800 / \*C 59  
Analog computers; peripheral equipment / RMSa Ms(450) Le(1853) AIC

Owen Laboratories, Inc., 55 Beacon Pl., Pasadena, Calif. / RYan 1-6901 / \*C 59  
Industrial electronic instruments / RMSa Ss(24) Se(1947) Ic

## P

PACIFIC MAGNETIC CORPORATION, Electronic Center, Romoland, Calif. / OLYmpia 7-2637 (Perris Exchange) / \*C 59  
Logic type magnetic amplifiers, transformers, power supplies, toroids; fault-finding systems, using logic type magnetic amplifiers / RMSa Ss(15) Se(1958) Ic  
H. L. Mills, Pres. / Gordon W. Johnson, VP — Dir. of Engrg.

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., 1905 Armacost Ave., Los Angeles 24, Calif. / GRANite 8-4247 / \*C 59  
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 Ms(100) Se(1957) DAC  
Max Palevsky, VP / V. A. van Praag, Dir. of Mktg.

Panellit, Inc., 7401 N. Hamlin Ave., Skokie, Ill. / ORchard 5-2500 / \*C 59  
Coordinated controls centers; annunciators and indicating devices, monitoring systems / RMSa Ms(400) Me(1945) ICc

The Ralph M. Parsons Co., Electronics Div., 151 S. De Lacey Ave., Pasadena, Calif. / (Los Angeles), RYan 1-0461 / \*C 59  
Systems engineering, and manufacturing in electronic instrumentation, telemetry, timing systems, miss-distance indicators, precision delay lines, and precision transponders / RMSa Ms(175) Se(1952) Ic

PCA Electronics Inc., 16799 Schoenborn St., Sepulveda, Calif. / EMPire 2-0761 / \*C 59  
Pulse transformers and delay lines, pulse generator test equipment / RMSa Ms(100) Se(1950) Ic

PDP Div. of American Electronics, Inc. (formerly Taller and Cooper), 75 Front St., Brooklyn 1, N.Y. / ULster 8-0500 / \*C 59  
Mek-a-punch (portable tabulating card punch); data integrator which combines prepunched, variable, and measurable information into tape / RMSa Ms(230) Me(1930) DIC

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 / RPa Ms(55) Se(1946) DAC

Perkin Elmer Corp., Electro-Optical Div., Main Ave., Norwalk, Conn. / VICTor 7-2423 / \*C 59  
Recording missile track systems, infrared systems, laboratory analytical instruments, precision optics, analog computers, potentiometers, special electronic-optical systems / RMSa Ls(1100) Me(1936) AIC

Phaotron Instrument and Electronic Co., 151 Pasadena Ave., South Pasadena, Calif. / CLinton 5-1471 / \*C 59  
Electric panel meters, test instruments, portable laboratory standards, relays / RMSa Ms(450) Me(1937) Ic

George A. Philbrick Researches, Inc., 127 Clarendon St., Boston 16, Mass. / COMmonwealth 6-5375 / \*C 58  
Electronic analog computers; computer components; computer packaged circuits; magnetic amplifiers; computer packaged circuits; magnetic amplifiers; regulated power supplies; consulting services; electronic function generators; electronic integrators; electronic multipliers / RMSCa Ms(70) Se(1947) AIC

PHILCO CORP., GOVERNMENT AND INDUSTRIAL DIVISION, 4700 Wissahickon Ave., Phila. 44, Pa. / VICTor 3-4000 / \*C 59  
Transac S-2000 all-transistor, 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, magnetic tape to paper tape, magnetic tape to card, paper tape to card, converters. High speed printers; high speed card punch; high speed card readers; in-circuit transistor testers; visual display devices; air traffic control systems; data processing machinery; fire control equipment / RMSCa Ls(3000) Le(1892) DIC  
Herbert E. Taylor, Jr., Mktg. Mgr., Ind'l Products / John M. Nisbet, Sales Mgr., Computers

PHILCO CORP., LANSDALE TUBE CO. DIV.,  
Church Rd., Lansdale, Pa. / UL 5-4681 / \*C 59

Transistors, diodes and tubes / RMSa Ls(?) Me(?)  
Ic

PHILCO TECHNOLOGICAL CENTER, 22nd and  
Lehigh Ave., Philadelphia 32, Pa. / BA 3-1800 / \*C 59

Computer and transistor correspondence study  
courses / S(Education)a Ss(25) Se(1957) Ic

R. R. Robinson, Managing Dir. / N. P. Dewees,  
Advtg & Sales Promotion Mgr.

Philips Electronics, Inc., Instruments Div., 750 S. Ful-  
ton Ave., Mount Vernon, N.Y. / MOUNT VERNON  
4-4500 / \*C 59

X-ray diffractometer, x-ray spectograph instruments,  
x-ray cameras, x-ray plating thickness gauges;  
Geiger, proportional, scintillation detectors; indus-  
trial radiography equipment, electron microscopes,  
x-ray microscopes, x-ray microradiograph equip-  
ment, x-ray process control instruments / RMSCa  
Ms(300) Me(1942) Ic

Phillips Control Corp., 59 W. Washington St., Joliet,  
Ill. / Joliet 3-3431 / \*C 59

Digital and analog computers / RMSa Ms(475)  
Se(1946) DAic

Photon, Inc., 58 Charles St., Cambridge 38, Mass. /  
TROWBRIDGE 6-1177 / \*C

Machinery for composing type by photographs /  
RCMSa Ms(100) Me(1940) DIc

PI-SQUARE ENGINEERING CO., INC., 127 Claren-  
don St., Boston 16, Mass. / COMMONWEALTH 6-5375 /  
\*C 59

Analysis and solution of engineering problems.  
Computing services. Analog computing equipment  
available / RCPa Ss(?) Se(1954) ASCc

Plastic Capacitors, Inc., 2620 No. Clybourn Ave., Chi-  
cago 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 59

Pulse and specialty transformers; magnetic compo-  
nents; delay lines; magnetic amplifiers; broadboard  
kits; potted circuits; computer type coils / RMSa  
Ms(80) Se(1948) Ic

Potter and Brumfield Mfg. Co., Inc., Princeton, Ind. /  
FULTON 5-5251 / \*C 59

Electromagnetic relays / RMSa Ls(1400) Le(1932)  
Ic

POTTER INSTRUMENT COMPANY, INC., Sunny-  
side Blvd., Plainview, L.I., N.Y. / OVERBROOK 1-3200  
/ \*C 59

Magnetic and perforated tape handlers with acces-  
sories and high speed line printers / RMSa Ms  
(200) Me(1942) DIc

John T. Potter, Pres. / N. A. Moerman, Dir. of  
Engrg.

Powers-Samas Accounting Machines, Ltd.—merged  
into International Computers & Tabulators, Ltd.,  
which see

Purdue University, Statistical and Computing Lab., En-  
gineering 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, Fla. / Parkway  
3-1511 / \*C 59

Research; ground-air telemetry and data link sys-  
tems; computer input systems and equipment (data  
processing, programming, communication translat-  
ing, converting); computer output systems and  
equipment (recorders and printers) / RMSa Ls  
(900) Se(1950) Ic

Radiation Instrument Development Laboratory, 5737  
South Halsted St., Chicago 21, Ill.—no response '58,  
'59

RADIO CORP. OF AMERICA, ELECTRON TUBE  
DIV., 415 South 5th St., Harrison, N.J. / HUMBOLDT  
3-3900 / \*C 58

Electron tubes and photosensitive devices; com-  
puter 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., Front & Cooper Sts., Camden 2,  
N.J. / WOODLAWN 3-3800 / \*C 59

General purpose electronic data processing systems  
/ RMSa Ls(78,000) Le(1919) Ic

E. D. Foster, VP—EDP / A. R. Hopkins, Market  
Mgr.—EDP

RADIO CORP. OF AMERICA, PRECISION ELEC-  
TRONIC INSTRUMENTS DIV., Building 15-1,  
Camden, N.J.

Magnetic tape recorders / RMSa Ic

RADIO CORP. OF AMERICA, SEMICONDUCTOR  
AND MATERIALS DIV., Somerville, N.J. / RANDOLPH  
5-4500 / \*C 59

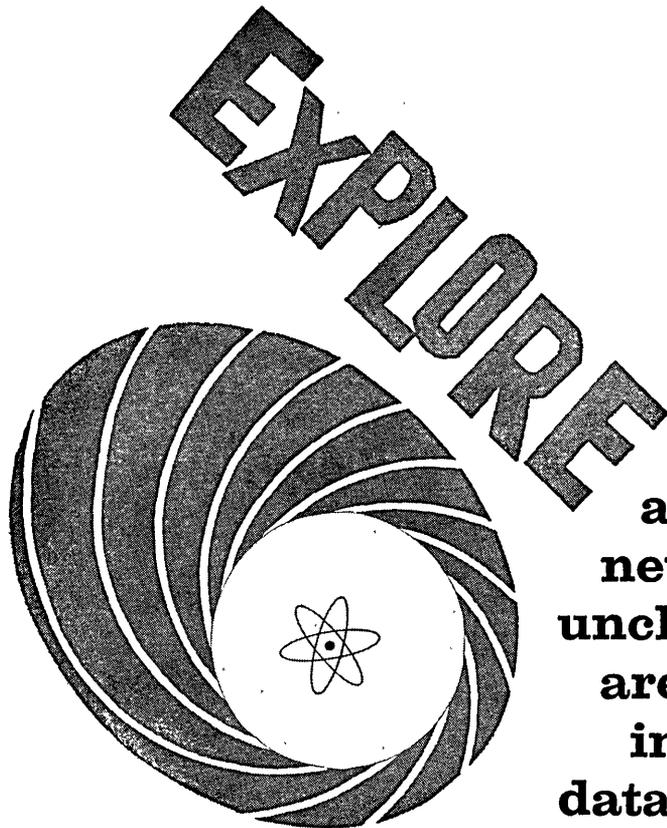
Transistors for computer, military, industrial and  
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ory planes, apertured ferrite memory plates, re-  
lays, and other products for computer and other  
uses / RMSa Ls(78,000) Le(1919) Ic

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New, all-transistorized Honeywell 800 matches the practical speed and performance of its fastest competition in the scientific field—yet costs at least one third less. Medium-scale in size (and price), Honeywell 800 can tackle and solve with ease scientific problems that would stretch the capabilities of some of the most expensive computers now on the market. New, exclusive features of design and logic equip Honeywell 800 to handle scientific computation with unparalleled economy—a vital consideration as research directors everywhere count engineering costs more closely.

## **High Internal Operating Speeds**

Honeywell 800 gives you an internal operating speed of 30,000 three-address operations per second, the equivalent of 70,000 single-address operations as performed by conventional computers. Honeywell 800 can invert an 80 by 80 symmetric matrix in 75 seconds — or fit 100 points with a 10th degree polynomial curve in *one* second. The trajectory of an artillery shell can be determined in 1/30th the time it takes the shell to describe it.

## **Expandable Memory**

The high-speed magnetic core memory of Honeywell 800 is available in modules of 4,096 words, up to a practical maximum of 4 modules (16,384). Of course, if your scientific problems demand an even greater capacity, upward adjustments can be made. And remember — the memory capacity of Honeywell 800 is expressed in 48-bit words, which are half again as long as those of most other systems.

Also available are magnetic tape units capable of operating at a peak rate equivalent to 112,000 decimal digits per second. With such high speed you can now invert large matrices or solve large linear programming problems — fast and efficiently — without the expense of a huge memory.

## **Both Decimal and Binary Floating Point**

Honeywell 800's exclusive ability to work in either decimal or binary, fixed or floating point arithmetic enables you to choose the form most convenient to your purposes.

## **Longer Words Speed Problem Solutions**

The greater length of the Honeywell 800 word permits the System to utilize single-precision arithmetic when other computers would be forced to slow down for double precision.

The floating decimal word in Honeywell 800 has a range of 63 digits before the decimal point to 64 zeroes plus 10 digits after it. This sharply reduces the overflow or underflow which complicates programming on other computers. Also, the mantissa (base number) has 10 digits, minimizing the need for drawn-out, multiple-precision computation.

The floating binary word provides even greater range and precision. Numbers may range from the equivalent of 75 decimal places before the decimal point to 76 zeroes and 12 decimal digits after it. The mantissa has 40 binary places, the equivalent of 12 decimal digits.

## **Maximum Flexibility In Programming Structure**

As you would expect from the company "First in Control," Honeywell engineers and scientists have designed Honeywell 800 to give the programmer much greater control, freedom and flexibility in handling scientific computations. Besides three-address instructions, greater word length and the option to work in binary or decimal, floating or fixed-point arithmetic, Honeywell 800 offers the programmer several other major advantages in flexibility.

*Indexing* (64 index registers) reduces the number of orders required in inductive programming, hence steps up computing speed and conserves memory space. *Word Masking* adds the flexibility of variable-length words to the speed and efficiency of fixed-length words. *Indirect Addressing* enables you to perform such functions as a table look-up or an interchange of rows and columns of a matrix with a single instruction. Honeywell 800's exclusive *Bi-Sequence Operation Mode* gives you the flexibility to depart from the basic program sequence and return to the proper point — without writing special instructions.

## **Full Complement of Input-Output Devices**

In addition to magnetic tape, Honeywell 800 features a full range of standard and high-speed input-output devices in both on-line and off-line models. These include keyboard, paper-tape, punched card and printing devices. Buffering, input-output trunks and internal control have also been designed to simplify the addition of special purpose equipment.

No other system can be adapted so closely to your immediate and specific requirements, or be expanded so easily and economically as those requirements grow.

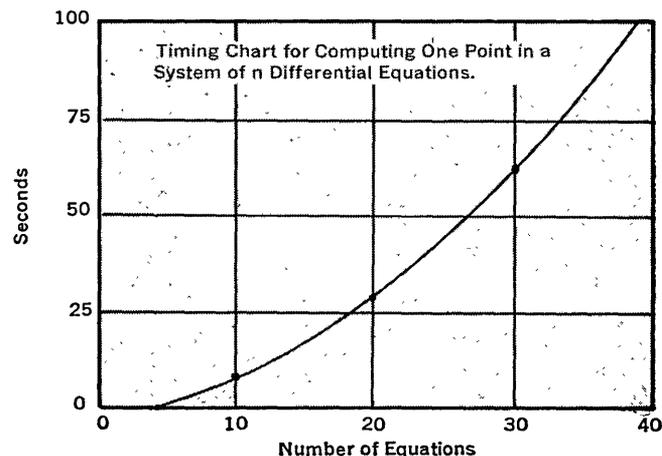
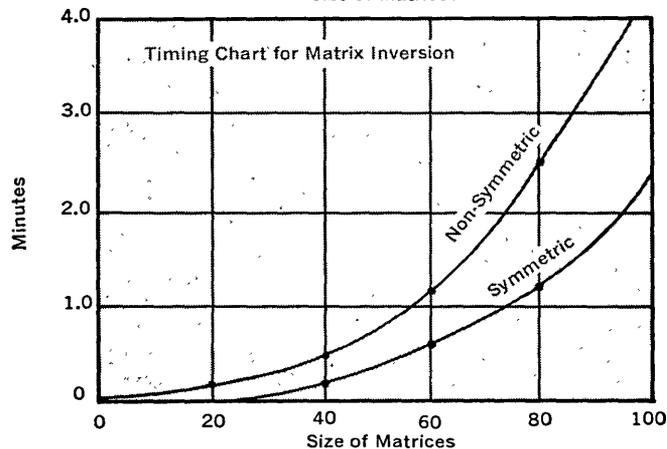
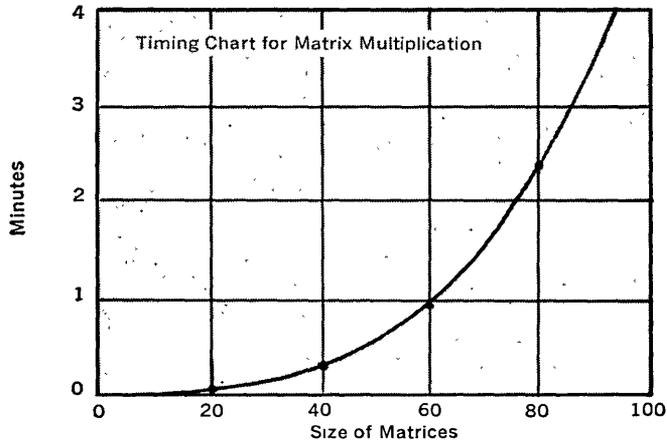
### Automatic Error Correction

Completely self-checked internally and externally, Honeywell 800 offers you still more: *Orthotronic Control*. This exclusive means of tape error correction has economically raised the reliability level of Honeywell 800 far beyond the reach of any other computer.

With Honeywell 800 you could easily expect to perform — without interruption — a matrix inversion requiring 1½ days of computer operation. *Orthotronic Control* is another reason why Honeywell 800 can introduce new economy to scientific computation.

### Data Processing Goes On Simultaneously

Honeywell 800's much-heralded principle of Automatically Controlled Parallel Processing enables this System to process business data *at the same time* scientific problems are being solved. Several different and independently programmed jobs can be processed simultaneously — business, scientific or both. Even a minimum use of parallel processing insures your company of operating efficiency and economy that no other system can approach.



## AUTOMATIC PROGRAMMING AND LIBRARY ROUTINES CUT COSTS OF PROBLEM PREPARATION

Automatic programming aids and library routines currently in preparation include the following:

### Algebraic Compiler

The Honeywell 800 Algebraic Compiler utilizes the same scientific language used on several other popular computers. The subroutine library consists of routines commonly used in solving scientific problems. Thus, existing programs written in this language can be run on Honeywell 800. Because of the speed and efficiency of Honeywell 800, some of these programs will be processed faster than on the system for which they were written.

### Assembly Program

The Honeywell 800 Assembly Program assists the programmer by providing automatic translation from simple pseudo codes to machine language, assigning memory addresses to symbolic tags — assembling various routines comprising the program, and various housekeeping functions associated with program preparation. The job of writing programs is greatly simplified, costs are reduced and accuracy in program preparation is increased.

### Automatic Problem Checkout

The Honeywell 800 Automatic Problem Checkout is a set of routines designed to provide the programmer with a complete evaluation of his program under operating conditions. Errors are located more quickly, changes made more easily, machine time for checking purposes is minimized and program management is made more workable and predictable.

### Scientific Routines

An expandable library of Honeywell 800 scientific routines is being made available for computations involving trigonometric functions, matrix multiplication, matrix inversion, interpolation, curve fitting, ordinary differential equations, and linear programming.

### Data Processing Compiler

The Honeywell 800 Data Processing Compiler simplifies problem preparation and coding and provides for convenient utilization of pre-tested library routines. The programmer prepares his problem in easily-learned business-language codes, which are then automatically translated into machine language by the translator. Individual routines, whether prepared or extracted from the library, are compiled into a complete program at machine speeds. Provision for expanding, modifying and maintaining the subroutine library are included in the Honeywell 800 Data Processing Compiler.

In addition, generator routines for input and output editing and sorting further reduce programming costs.

"*Honeywell 800, a Superior Scientific Computer*" is a booklet containing full details and specifications of this new and exciting *economic* approach to complex scientific computation. To get your copy, just write Minneapolis-Honeywell, DATAmatic Division, Dept. A4, Newton Highlands 61, Massachusetts.

# Honeywell



## DATAmatic

ELECTRONIC DATA PROCESSING

**RAMO-WOOLDRIDGE**, a division of Thompson Ramo Wooldridge, Inc., 5500 W. El Segundo Blvd., Los Angeles 45, Calif. / ORegon 8-0511 / \*C 59

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

R. P. Johnson, V.P. and Gen. Mgr.

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) / RPBa Ls(1000) Se(1946) DAic

Rank Precision Industries, Ltd., Electronics Department, Sulgrave Rd., Hammersmith, London, W. 6, England / \*C 59

High speed computer output printer / RMSa Ic

Ransom Research, P.O. Box 269, 323 W. 7th St., San Pedro, Calif. / TErminAl 2-6848 / \*C 59

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 / RMCa Se(1955) ?s DACc

**RAYTHEON MANUFACTURING CO., INDUSTRIAL TUBE DIV.**, 55 Chapel St., Newton 58, Mass. / BiGelow 4-7500 / \*C 59

Reliable miniature and subminiature tubes, low drain filamentary subminiature tubes, special cathode ray tubes / RMSa Ic

**RAYTHEON MANUFACTURING CO., SEMICONDUCTOR DIV.**, 215 First Ave., Needham Heights 94, Mass. / Hillcrest 4-6700 / \*C 59

PNP and NPN silicon transistors; PNP germanium transistors for switching, computer, AF, RF and general purpose use; silicon and germanium diodes; silicon rectifiers; silicon diffused junction wire-in and 7/16" stud rectifiers / RMSa Ic

J. B. Rea Co., Inc., Electronics Division, 2202 Broadway, Santa Monica, Calif. / EX 3-3768 / \*C 59

Readix digital computer; analog to digital converter, magnetic drums; magnetic reading and recording heads; automatic data handling systems, tape handlers; research and development; memory systems; 60 and 400 cycle voltage stabilizers / RMSCa Ss(30) 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 / RCPa Dc

Reeves Instrument Corp., East Gate Blvd., Garden City, N.Y. / Pioneer 6-8100 / \*C 59

Analog computers and systems, 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(1600) Me(1942) Aic

**REEVES SOUNDCRAFT CORP.**, 15 Great Pasture Rd., Danbury, Conn. / PI 3-7601 / \*C 59

Magnetic recording tapes for all computer instrumentation, and industrial applications / RMSCa Ms(200) Me(1946) Ic

F. B. Rogers, Jr., Exec. VP / Wm. Deacy, VP, Sales

The Reflectone Corp., 639 W. Main St., Stamford, Conn. / FieLdstone 8-4201 / \*C 57

Analog computing equipment for simulating radar, sonar, navigation, etc. / RMSa Ms(200) Me(1940) Aic

Remington Rand Division of Sperry Rand Corp., 315 Fourth Ave., New York 10, N.Y. SPring 7-8000 / \*C 59

Digital electronic computers (Univacs), computing services, office machines, and systems / RMSa Ls(8000) Le(1876) Dc

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 / RC(education)a Ss(7) Se(1952) DAc

Reon Resistor Corp., 117 Stanley Ave., Yonkers, N.Y. / YONkers 5-9850 / \*C 59

Precision wirewound resistors, composition variable resistors / MSa Ms(75) Se(1952) Ic

Rese Engineering, Inc., 731 Arch St., Philadelphia 6, Pa. / WAlnut 2-5841 / \*C 59

Magnetic core memories, magnetics test equipment, consulting, packaged computer circuits, buffers, digital simulators, digital systems engineering / RMSCa Ms(55) Se(1953) Dc

Resistance Products Co., 914 S. 13th St., Harrisburg, Pa. / CEdar 6-5081 / \*C 59

Resistors: wire wound, high voltage, high megohm, high frequency / RMSa Ms(370) Me(1947) Ic

The Rex Corp., subsidiary of American Enka Corporation, Hayward Rd., W. Acton, Mass. / COlonial 3-7721 / \*C 59

Rex-Array photorectifiers; miniature coaxial cable / RMSa Ms(300) Me(1934) Ic

**RICHARDSON CAMERA CO., INC.**, 2526 N. Ontario St., Burbank, Calif. / VICToria 9-4637 / \*C 59

Photogrammetric data reduction and projection equipment; theodolite cameras, pulse-data cameras, film readers, film assessors, electronic counters / RMSCa Ss(30) Me(1937) Ic

Lee R. Richardson, Pres. / Maurice Richardson, VP  
Robotyper Corporation, 125 Allen St., Hendersonville, N.C. — no response '58, '59

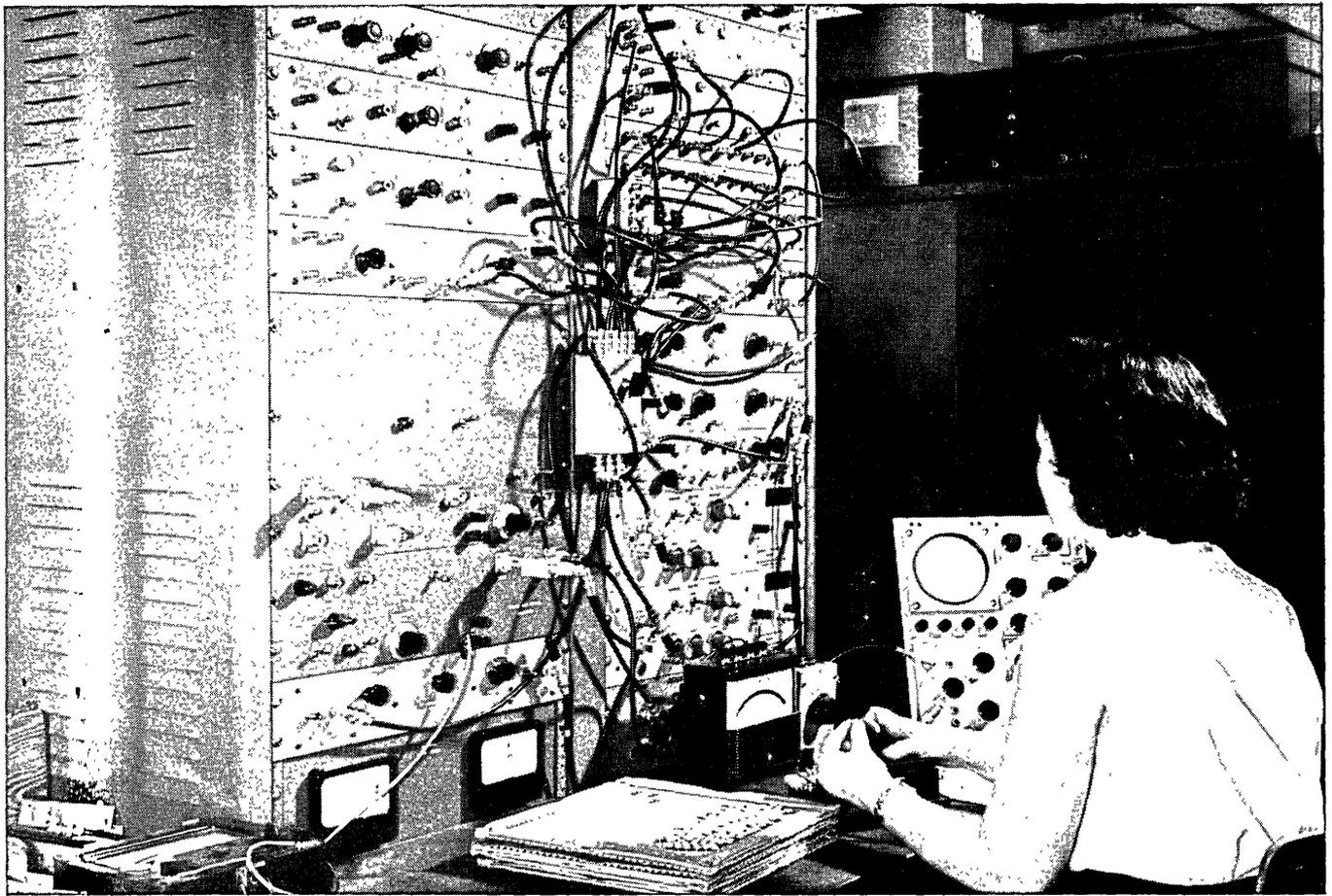
Rome Air Development Center — see U.S.A.F., Rome Air Development Center

Rotron Manufacturing Co., Schoonmaker Lane, Woodstock, N.Y. / ORiole 9-2401 / \*C 59

Cooling devices: small fans and blowers for flushing computer consoles and cabinets with cooling air / RMSa Ms(310) Me(1948) Ic

Royal Electric Corp., 95 Grand Ave., Pawtucket, R.I. / PAwtucket 2-8600 / \*C 59

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



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

A. T. Craft, VP—Sales / A.A.F. Aschauer, Dir, Computer Sales

Rutherford Electronics Co., 8944 Lindblade St., Culver City, Calif. / VE 9-0116 / \*C 59

Electronic test equipment. Pulse generators, accurate time delay generators / RMSa Ms(50) Se (1952) Ic

## S

Sage Electronics Corp., 1 Country Club Rd., P.O. Box 126, East Rochester 10, N.Y. / LUdlow 6-8010 / \*C 59

Wirewound, precision, power resistors / RMSa Ss(50) Se(1949) Ic

Sanborn Co., 175 Wyman St., Waltham 54, Mass. / TWInbrook 4-6300 / \*C 59

Direct-writing oscillographic recording systems; recording paper; analog computer readouts; visual output devices; X-Y recorder, chart viewer; transducers / RMSa Ls(800) Le(1917) Ic

Sangamo Electric Co., Springfield, Ill. / 4-6411 / \*C 59

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

Schweber Electronics, 60 Herricks Rd., Mineola, L.I., N.Y. / Pioneer 6-6520 / \*C 59

Distributor specialists for connectors, capacitors, and other electronic components for computers, etc. / Sa Ss(30) Se(1952) Ic

Scientific Computing Service, 23 Bedford Square, London W C 1, England / Museum 0808 / \*C 59

Problem solving, mathematical and statistical consulting. Digital computing service / RCPa Ss(15) Me(1937) Dlc

Scientific Surveys Div.—see General Automatics, Inc.

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

The Service Bureau Corp., Subsidiary of International Business Machines Corp., 425 Park Ave., New York 22, N.Y. / \*C 59

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, Hous-

ton, 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 / RMSa Ms(300) Me(1946) DAISCc

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 / RMSa Ls(800) Se(1946) ASICc

Servonics, Inc., 834 N. Henry St., Alexandria, Va.—no response '58, '59

Shallcross Manufacturing Co., Jackson & Pusey Avenues, Collingdale, Pa. / LUdlow 3-5100 / \*C 58

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 / \*C 59

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, INC.**, Broad St. at Park Ave., Summit, N.J. / CRestview 3-5255 / \*C 59

High-speed input-output accessories for data processing systems (typers, decoders, tape transports, electronic splicers) / RMSCa Ss(40) Me(1944) Dlc  
F. H. Shepard, Jr., Pres. / E. J. Quinby, Product Mgr.

Short Brothers & Harland Ltd., Montgomery Rd., Castle-reagh, Belfast, N.I. / BElfast 5-9271 / \*C 58

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 / \*C 59

Computer components, magnetic amplifiers, etc. / RMSa Ls(2520) Le(1921) Ic

Sigma Instruments, Inc., 170 Pearl St., S. Braintree 85, Mass. / VIctor 3-5000 / \*C 59

- Sensitive, polarized, keying, latching, photoelectric, high release, magnetic amplifier, relays; synchronous stepping motors; relay test sets / RMSa Ls (750) Me(1935) Ic
- Smith-Corona Marchant Inc., 701 E. Washington St., Syracuse 1, N.Y. / GRanite 6-9911 / \*C 59  
Data processing and recording systems for special applications; communications systems for data processing systems. Adding machines, electric controlled typewriters; desk calculators, 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 Ls (10,000) Le(1903) Ic
- SOCIETE D'ELECTRONIQUE ET D'AUTOMATISME**, 138, Boulevard de Verdun, Courbevoie, (Seine), France / DEFense 41-20 / \*C 59  
Analog computers Type O.M.E. L-2 and O.M.E. P-2 with non linear components and recorders; flight simulators; digital computers Type CAB 500 and 3.000 for scientific applications and data processing, using punched tape and magnetic tape; input and output equipment, tape reader, paper tape punches. Electronic high speed printers "NUMEROGRAPH;" digital to analog converter "ENAC;" automation devices, coders, storage, etc.; numerical control / RMSa Ls(500) Se(1948) DASCic  
M. Gaulet, Pres. / M. F. H. Raymond, Mgr.
- Sola Electric Co., 4633 W. 16th St., Chicago 50, Ill. / Bishop 2-1414 / \*C 57  
Constant voltage transformers, regulated DC power supplies, etc., for computer and other uses / RMSa Ms(250) Me(1930) Ic
- Sorenson & Co., Inc., Richards Ave., So. Norwalk, Conn. / TE 8-6571 / \*C 59  
Low, medium, and high voltage power supplies, voltage regulators, frequency changers / RMSa Ms(465) Me(1943) Ic
- SOROBAN ENGINEERING, INC.**, Box 1717, Melbourne, Fla. / Parkway 3-7221 / \*C 59  
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  
Charles F. West, Pres. / H. F. Manweiler, Sec.-Treas.
- Southern Electronics Corp., 239 W. Orange Grove Ave., Burbank, Calif. / Victoria 9-3193 / \*C  
Precision capacitors, adjustable capacitors / RMSa Ms(60) Se(1951) Ic
- Southwestern Computing Service, 910 S. Boston, Tulsa, Oklahoma / GI 7-8146 / also, 1345 Stout St., Denver 4, Colorado / TA 5-8159 / \*C 59  
Computing service, solving data reduction, engineering and business problems; IBM 604, 650, Al-
- wac III, and associated equipment / RCPa Ss(20) Se(1953) DAC
- Southwestern Industrial Electronics Co., a division of Dresser Industries, Inc., 10201 Westheimer Rd., P.O. Box 13058, Houston 19, Tex. / Ho 5-3471 / \*C 59  
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(900) 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 / RMSa Ms(300) Se(1941) Ic
- Spectrol Electronics Corp., 1704 South Del Mar Ave., San Gabriel, Calif. / ATLantic 7-9761 / \*C 59  
Precision potentiometers; precision mechanisms; transistorized converters and inverters, power supplies, 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 59  
Research, design, development and manufacture of general and special purpose telemetering, data processing equipment; digital and analog computers for fire control; air, sea and space navigation. Specializing in automatic transistorized, miniaturized devices / RMSa Ls(18,000) Le(1910) Aic
- SPERRY SEMICONDUCTOR DIV. OF SPERRY RAND CORP.**, Wilson Ave., S. Norwalk, Conn. / VOLunteer 6-1641 / \*C 59  
Silicon diodes, transistors, rectifiers, semiconductor products / RMSa Ms(300) Se(1956) Ic  
Dr. W. R. Sittner, Div. Mgr. / A. M. Varnum, Sales Mgr.
- Sprague Electric Co., 377 Marshall St., North Adams, Mass. / Mohawk 3-5311 / \*C 59  
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 / RMSa Ls(6000) Le(1926) Ic
- 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 59  
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.—no response '58, '59
- The Standard Register Co., Dayton 1, Ohio / BALdwin 3-6181 / \*C 58

- Electronic equipment (called "Stanomatic") capable of sensing or reading printed codes on original source 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(3500) Le(1912) Dc
- Stanford Computation Center, Stanford University, Stanford, Calif. / DA 1-3300 / \*C 59  
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
- Statistical Instrument Co., 330 Haven Ave., New York 33, N.Y. / LO 8-1223 / \*C 59  
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 Div., 17 Matinecock Ave., Port Washington, N.Y. / PO 7-7200 / \*C 59  
Ground speed drift angle computer / RMSa Ms(284) Se(1952) Ic
- Steward 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
- Strand Engineering Co., 1354 N. Main St., Ann Arbor, Mich. / NORmandy 2-3127 / \*C 59  
Research, design, development of equipment and systems; production engineering; building of pilot models; amplifiers; automatic assembly equipment; automatic control equipment; 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 Ms(50) Se(1955) ICMc
- 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 Ss(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 / RMSa 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
- Sturup, Inc., 50 Silver St., Middleton, Conn. / DIamond 6-9681 / \*C 59  
Ultrasonic delay lines, transducers, etc., for computer and other uses / RMSa Ms(60) Se(1951) Ic
- Sunshine Scientific Instrument Co., 1810 Grant Ave., Philadelphia 15, Pa. / ORchard 3-5600 / \*C 59  
Analog field plotter, prototypes, precision electromechanical assemblies, mechanical components / RMSa Ss(30) Me(1947) AIc
- Superex Electronics Corp., 4 Radford Pl., Yonkers, N.Y. / YONkers 5-6906 / \*C 59  
Cable assemblies, plug in and printed circuits, coils, ferrite cores, jacks, transformers, and other components / RMSa Ms(50) Se(1950) Ic
- SUTHERLAND CO., 1112 First National Bank Co., Peoria, Illinois / 3-5431 / \*C 59  
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 / RMCPa Ss(30) Se(1949) Dc
- Sylvania Electric Products, Inc., 100 First Ave., Waltham, Mass. / TWinbrook 3-9200 / \*C 59  
Research and development activities for general and special purpose computers, data handling devices and computer components / RPa ?s Se(1955) Ic
- Sylvania Electric Products, Inc., 1740 Broadway, New York 19, N.Y. / — / \*C 57  
Computers. Computer products: transistors, diodes, electronic tubes / RMSa Ls(27,000) Le(1901) DAic

Sylvania Electric Products Inc., Semiconductor Division,  
100 Sylvan Rd., Woburn, Mass. / WELLS 3-3500 /  
\*C 59

Transistors, germanium diodes, silicon junction diodes, silicon power rectifiers, microwave diodes / RMSa Ls Le Ic

**SYLVANIA ELECTRONIC SYSTEMS, A Division of Sylvania Electric Products Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Hillcrest 4-3940 / \*C 59**

Large scale, general and special purpose computers; medium scale general and special purpose computers; data handling devices, data conversion devices; plug-in and printed circuit modules, coils, communications systems, computer components / RMSCPa Ls(1800) Se(1955) Dc  
E. J. Vigneron, Plant Mgr. / T. T. Hill, Technical Liaison Mgr.

**SYSTEMS LABORATORIES CORP., 14852 Ventura Blvd., Sherman Oaks, Calif. / STate 9-0501 / \*C 59**  
Computing facility using LGP-30 to solve problems arising from consulting and research in electronic systems / RCPa Ss(40) Se(1956) Ic  
Dr. James Marsh, Pres. / Richard H. DeLano, Exec. V.P.

## T

Taller and Cooper, 75 Front St., Brooklyn, N.Y.— name changed to PDP Div. of American Electronics, Inc., which see

Tally Register Corp., 5300 14th Ave. NW, Seattle 7, Wash. / SUNset 4-5500 / \*C 59

Digital X-Y plotter, paper tape readers, tape punches, tape verifiers; pulse delay logic switches and counters, special digital data systems / RMSCa Ss(40) Se(1950) DIc

Tammen & Denison, Inc., Div. of Land Air Inc., 4751 North Olcott, Chicago 31, Ill. / UNderhill 7-7550 \*C 59

Computer service using Electronic Associates' 1631 analog computer / RPCa Ls(2700) Me(1944) Ac

Taylor Instrument Co., Rochester, N.Y.

Automatic controllers / RMSa Ls Le Cc

**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., 40 Jay St., Englewood, N.J. / Lowell 9-5333 / \*C 59

Printed circuits; photo-etched metal parts / RMSa Ss(15) Se(1954) Ic

**TECHNITROL ENGINEERING CO., 1952 E. Allegheny Ave., Philadelphia 34, Pa. / GARfield 6-9105 / \*C 59**

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 59

Infinite resolution potentiometers; special research and development facilities; pressure transducers; clutches and brakes / RMSa Ms Me(1946) Ic

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 59

Plotting boards, cable assemblies, analog to digital converters, card to magnetic tape converters, magnetic tape to card converters, data processing machinery, data recording equipment, facsimile equipment, mechanical generators, magnetic-reading-recording heads, electronic integrators, readers, simulators, magnetic storage systems, telemetering systems / RMSa Ms(200) Se(1948) Ic

Tele-Dynamics Inc., 5000 Parkside Avenue, Philadelphia 31, Pa. / TRinity 8-3000 / \*C 59

Telemetering components and systems; data handling systems / RMSCa Ls(590) Se(1948) Ic

**TELEMETER MAGNETICS, INC., 2245 Pontius Ave., Los Angeles 64, Calif. / GR 7-4211, BR 2-0991 \*C 59**

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. / Raymond Stuart-Williams, V.P.

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. Magnetrone Reservoir in use at American Airlines reservations center. Magnetrone stock quotation system in use in Toronto Stock Exchange / RMSCa Ls(600) Me(1928) DIc

Teletype Corp., 4100 Fullerton Ave., Chicago 39, Ill. / SPauling 2-1040 / \*C 59

Teletype printers, tape punches and readers / RMSa Ls(5200) Le(1907) Ic

The Teller Company, 101 Hansen Ave., P.O. Box 989, Butler, Pa. / Butler 75-739 / \*C 59

Automatic controls, step motors, digital and analog computers, systems engineering / RMSCa Ms(80) Se(1951) DACc

Texas Instruments Inc., Semiconductor-Components Div., 6000 Lemmon Ave., P.O. Box 312, Dallas, Tex. / ADams 5-3111 / \*C 59

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 59

Temperature limited diodes, silicon power rectifiers, electronic tubes, semiconductors / RMSa Ms Se (1951) Ic

**THE THOMPSON-RAMO-WOOLDRIDGE PRODUCTS CO.**, a Div. of Thompson-Ramo-Wooldridge Inc., P.O. Box 90067, Airport Station, Los Angeles 45, Calif. / OSborne 5-4601 / \*C 59

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 Div. / RMSCa Ms(75) Se (1955) DACc

Dr. Joseph F. Manildi, Gen. Mgr. / Raymond E. Jacobson, Dr. of Mktg.

Traid Corporation, 17136 Ventura Blvd., Encino, Calif. / STANley 3-3373 / \*C 59

Data recording cameras / RMSa Ss(25) Me(1946) Ic

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

Transistor Products, Inc., 241 Crescent St., Waltham 54, Mass. / WALTham 5-9330 / \*C

Transistors, diodes / RMSa Ms(150) Se(1952) Ic

Transitron Electronic Corp., 168 Albion St., Wakefield, Mass. / CRySTal 9-4500 / \*C 59

Transistors, silicon rectifiers, silicon capacitors, germanium diodes / RMSa Ls(3000) Se(1952) Ic

Trio Laboratories, Inc., Expressway Industrial Park, Plainview, L.I., N.Y. / OVerbrook 1-0400 / \*C 59

Analog component for solving three dimensional equations (RODIAC); all transistor voltage comparator; test instruments / RMSa Ms(60) Se(1954) AIC

Tung-Sol Electric, Inc., 95 8th Ave., Newark 4, N.J. / HUMBOLDT 2-4200 / \*C 59

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

## U

**UNDERWOOD CORPORATION**, One Park Ave., New York 16, N.Y. / OREGON 9-3400 / \*C 59

Adding and accounting machines; manual and electric typewriters; Data-Flo systems including wide range of automatic electric typewriters and adding machines, paper tape reading and punching, punch card reading and punching, all integrated under plugboard program control; servotypers, master-typers, and servomasters; automatic electric typewriters for input and output in instrumentation, data logging, and computing equipment; Under-

wood Electronic Business Computer (UEBC) small size, low cost computer with paper tape input and output / RMSa Ls(13,000) Le(1894) DISc  
Frank E. Beane, Pres. & Chairman of the Board / David H. Burrell, VP, Marketing

Union Switch & Signal, Div. of Westinghouse Air Brake Co., Braddock Ave., Pittsburgh 18, Pa. / CHURCHILL 2-5000 / \*C 59

Railroad signaling and control systems. Pipeline control and telemetering systems. Data display indicators (digital and alpha-numerical). Relays (hermetically sealed) / RMSa Ls(3000) Le(1881) DAIC

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 / Ga Ms Me IDC

U.S. Air Force, Digital Computation Branch (WCL-JEU), Wright Air Development Center, Wright-Patterson Air Force Base, Dayton, Ohio / CL 3-7111 (Dayton) X 28235 / \*C 59

Computation services and associated research on three large-scale digital computers, including two Univac Scientifics (1103 and 1103A). Punch card machines. For government use only / RCGPa Ms (50) Se(1950) Dc

U.S. Air Force, Inst. of Technology, Wright-Patterson Air Force Base, Ohio / \*C 59

Philbrick, Reac, and Geda analog computing machines in regular use, also RECOMP II digital computer / RGA Ms(300) Se(1946) DAIC

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 59

Systems analysis reports; non-engineering types of computer applications; programming systems / CGPa Ss(35) Se(1948) Dc

U.S. Air Force, Wright Air Development Center, Aeronautical Research Laboratory, Wright-Patterson Air Force Base, Ohio / CL 3-7111, X28235 / \*C 59

Computing service (for Air Force use) has modernized General Electric Oarac; Univac 1103; Univac 1103A; Reeves system dynamics simulator; Bendix DDA / RCPGa Ms(62) Se(1948) DAC

U.S. Army, Ballistic Research Laboratories, Aberdeen Proving Ground, Aberdeen, Md. / \*C

Computing service (digital); for government and government contractors only) / CPGa Ms Le DAC

U.S. Ceramic Tile Co., Diamonite Div. — see Diamonite Products Mfg. Co.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass. / HIGHLAND 5-3850 / \*C 57

Silicon diodes and power rectifiers, transistors, germanium diodes, and rectifiers, for computer and other uses / RMSa Ms(100) Se(1955) Ic

- U.S. Electronics Development Corp. — name changed to U.S. Semiconductor Products, Inc., which see.
- U.S. Naval Proving Ground, Computation and Analysis Laboratory, Dahlgren, Va. / NOrth 3-2511 / \*C 59  
Mathematical analysis and research, programming, engineering, computing, and data processing services for government and government contractors only; operates NORC computer, Universal Data Transcriber and a variety of auxiliary equipment / RCa Ms(190) 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 / Ga Ls Me Dc
- 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 / RCGPa Ls(3400) Le(1923) DASc
- U.S. Semiconductor Products, Inc., 3540 West Osborn Rd., Phoenix, Ariz. / APplegate 8-5591 / \*C 59  
Solid tantalum capacitors, silicon crystals, diodes, rectifiers / RMSCa Ms(400) Se(1957) Ic  
(formerly U.S. Electronics Development Corp.)
- Univ. of California, Berkeley, Calif. / \*C 56  
Computing service. Has CALDIC, California Digital Computer; also IBM 701 / RPCa Ss(10) Se(1947) DAC
- University of California, Department of Mathematics, Numerical Analysis Research, Los Angeles 24, Calif. / Granite 3-0971 and Bradshaw 2-6161 / \*C 59  
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 RPCa Ss(25) Se(1945) Dc
- University of Cambridge, University Mathematical Laboratory, Corn Exchange St., Cambridge, England / 59,574 / \*C 59  
Built Edsac 1 and Edsac 2. Computing service (digital) for University / RCPa Ss(30) Me(1939) Dc
- University of Durham Computing Laboratory, One Kensington Terrace, Newcastle upon Tyne, 2, England / Newcastle 2-2457 / \*C 59  
Computing service. Has Ferranti Pegasus computer / RCPa Se(10) Se(1956) Dc
- University of Illinois, Digital Computer Laboratory, Urbana, Ill. / EM 7-6611, ext. 2817 / \*C 59  
Computing service (internal to University). Education including research and teaching / RCPa Ms(70) Se(1949) Dc
- University of Manchester, Mathematical Laboratory, Manchester, England / \*C  
Has automatic electronic digital computer built by Ferranti Electric Ltd. / RPa Ss(8) Se(1947) Dc

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) Se(1946) DAC

University of Rochester, Computing Center, Rochester 20, N.Y. / Gr 3-3000 / \*C 59  
Computing services; IBM 650 system / RCa Ss(7) Se(1956) Dc

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 DAC

University of Toronto, Computation Centre, Toronto Ontario, Canada / Walnut 3-1327 / \*C 57  
Computing services. Programming and consulting services. Time available on Tape IBM 650 / RCPa Ss Me Dc

## V

Valor Instruments, Inc. (formerly Valor Electronics Inc.), 13214 Crenshaw Blvd., Gardena, Calif. / FA 1-2280 / \*C 59

Transistorized instruments (power supplies; voltage regulators; special instruments), and magnetic components (lumped constant delay lines, pulse transformers, toroidal inductors, shift register elements) / RMSCa Ss(42) Se(1954) Ic

Vari-Ohm Corp., Sunrise Highway, Amityville, N.Y. — no response '58, '59

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 / RMSa Ms(400) Le(1896) Dc

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 59

Analog-to-digital converters; electronic counters; mechanical and electro-mechanical counting devices for all counting requirements / RMSCa Ls(1200) Me(1928) Ic

Vernistat Div. of the Perkin-Elmer Corp., 771 Main Ave., Norwalk, Conn. / VICTOR 7-2441 / \*C 59

Precision AC potentiometers; variable ratio transformers and adjustable function generators / RMSa Ss(30) Se(1954) Ic

Vickers Inc., Electric Products Div., 1815 Locust St., St. Louis 3, Mo. / CENTRAL 1-5830 / \*C 59

Control equipment, magnetic particle clutches, magnetic amplifiers, automatic controls, rectifiers and semiconductors, nuclear instrumentation components and systems; electrical converters, diodes, frequency and servo multipliers, power supplies / RMSa Ms(500) Se(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. / RMSa Ls(2200) Le(1918) Dc

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 / RMSa ?e Ms(300) Ic

Vitramon, Inc., P.O. Box 544, Bridgeport 1, Conn. / \*C 59

Computer type capacitors / RMSa ?s ?e Ic

## W

Waldorf Instrument Corp., Park Ave., Huntington, N.Y. — no response '58, '59

THE WALKIRT CO., 141 West Hazel St., Inglewood 3, Calif. / OR 8-4814 / \*C 59

Plug-in pulse circuit packages; complete counters, multivibrators, amplifiers, gates, triggers, pulse generators, etc. / RMSa Ss(30) Se(1948) Ic  
Wes Kirchoff, Pres. / Jim A. Robinson, Chief Engr.

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 / RCMSa Ss(8) Se(1951) Dlc

Ward Leonard Electric Co., 90 South St., Mt. Vernon, N.Y. / \*C 59

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 59

Research in logistics data processing under contract with the Office of Naval Research; ONR logistics computer / RCPa Ss(30) Se(1950) Dc

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 59

Analog to digital converters and associated data handling equipment; special purpose digital computers / RMSCa Ms(70) Se(1956) DAc

Wayne State University, Computing Center, 4841 Cass, Detroit 2, Mich. / TE 1-0703 / \*C 59

Computing services using IBM 650 / RCa Ss(20) Se(1950) DAc

Jervis B. Webb Co., 8951 Alpine Ave., Detroit 4, Mich. / WE 3-8010 / \*C 58

Conveyor engineering and manufacturing. Servomechanisms, automatic control machinery, automatic materials handling machinery, pneumatic, hydraulic and electrical testing equipment / RMSCa Ms(400) Le(1919) SCMc

Westgate Laboratory, Inc., 506 So. High St., Yellow Springs, Ohio / ROCKWELL 7-7375 / \*C 59

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, plotters / RMSCa Ss(25) Se(1956) DCIc

WESTINGHOUSE ELECTRIC CORP., AIR ARM DIVISION, P.O. Box 746, Baltimore 3, Md. / SOUTHFIELD 1-1000 / \*C 59

Research, development, design, and production of airborne and spaceborne electronics systems and components for the armed forces and aircraft industry, including: attack armament, missile guidance, reconnaissance, defensive armament, space systems and components, including airborne and spaceborne computers / RMSa Ls(3,400) Se(1951) DAic

Dr. Patrick Conley, Div. Mgr. / N. V. Petrou, Eng. Mgr.

Westinghouse Electric Corp., Analytical Department, East Pittsburgh, Pa. / EXPRESS 1-2800 / \*C 59

Computing service (digital and analog) using: DC and AC calculating boards (network analyzers); ANACOM computer (passive element transient analyzer); electronic differential analyzer; 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 / RMSCP a Ls(corporation, 100,000; dept., 50) Se(dept., 1952) DAsC

Westinghouse Electric Corp., Semiconductor Dept., Youngwood, Pa. / WALKER 5-7272 / \*C 59

Semiconductor products, silicon rectifiers, silicon

- and germanium transistors and diodes / RMSa Ls (650) Se(1956) Ic
- Weston Instruments, Div. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 12, N.Y. / Biegelow 3-4700 / \*C 59  
 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 59  
 Magnetic recording equipment and associated items. Magnetic heads / RMSCa Ls(1400) Me(1926) Ic
- Westronics, Inc., 3605 McCart, Ft. Worth, Texas / WA 3-8211 / \*C 59  
 Research and manufacturing in electronic instrumentation; recording potentiometers, null-balance, strip charts / RMSa Ms(50) Me(1945) SIc
- Wharf Engineering Lab., Fenny Compton, Warwickshire, England / 230 / \*C 59  
 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 59  
 Transformers, communication systems (computer types), regulated power supplies, cable assemblies / RMSa Ls(500+) Le(1909) Ic
- Wheelock Signals, Inc., 273 Branchport Ave., Long Branch, N.J. / CApital 2-6880 / \*C 59  
 Industrial and military electro-magnetic relays / RMSa Ms(200) Le(1922) Ic
- WHITEWATER ELECTRONICS, INC., ELECTRO-METRIC DIV.**, 136 W. Main St., Whitewater, Wisc. / WHitewater 986 / \*C 59  
 Computer components; delay lines / RMSa Ms(85) Se(1955) Ic  
 A. C. Thompson, Pres. / E. J. Klamt
- THE WHITNON MANUFACTURING COMPANY**, Route 6 and New Britain Ave., Farmington, Conn. / ORchard 7-2607 / \*C 59  
 Magnetic storage drums and disks, with speeds from 60 rpm to 30,000 rpm and higher, eccentricities under fifty millionths (.00005") T.I.R. Specialists in the design and manufacture of precision rotary machinery including computer drums, optical scanners, glass fiber spinners, and high performance precision spindles for boring, milling, grinding and drilling / RMSa Ms(50) Me(1954) Ic  
 Robert B. Darlington, VP and Sales Mgr.
- Wiancko Engineering Co., 255 North Halstead Ave., Pasadena, Calif / El 5-7186 / \*C 59  
 Data acquisition systems; dynamic measuring instrumentation; pressure, acceleration, etc., pickups / RMSCa Ms(300) Me(1946) Ic
- Wiltec Electronics, Inc., 53 Water St., South Norwalk, Conn. / TEmple 8-7551 / \*C 59  
 Special indicator tubes for computers, special-purpose tubes for industry and government / RMSCa Ss(10) Se(1958) Ic
- Winchester Electronics, Inc., Willard Rd., Norwalk, Conn. / TEmple 8-8433 / \*C 59  
 Electronic connectors, terminals, hoods, tube sockets, printed circuit connectors / RMSa Ls(600) Me(1942) Ic
- Wright Aeronautical, Wood Ridge, N.J. / PRescott 7-2900 / \*C 56  
 Data processing machines, components / RMSa DIc
- Wright Engineering Co., 180 E. California St., Pasadena, Calif. / RYan 1-8488 / \*C 59  
 Computer in-put out-put devices; switches, shaft encoders, analog to digital encoders and decoders, magnetic drums and heads / RMSa ?s ?e AIc
- The Wright Line, Inc., 160 Gold Star Blvd., Worcester 6, Mass. / \*C 59  
 Data processing accessory equipment and tape handling and storage equipment / RMSa Ms(300) Me(1934) Ic

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 / RCSa Ss Se(1947) Ic
- Zuse Kommandit-Gesellschaft, Kreis Hunfeld, Neukirchen, West Germany / — / \*C 57  
 Relays and electronic digital computers / RMSa Ms(180) Se(1949) Dc



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

(Cumulative, information as of May 1, 1959)

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 in the fourth cumulative edition of this roster, containing approximately 2740 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.

**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, 1959

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? .....

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  
..... 1958 heading number —  
..... see the 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, 1959.

( ) \$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 186 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.

A: Adding Machines	— A1	— Card to Magnetic Tape	— C41	— Frequency	— M6
Addressing Machines	— A2	— Card to Paper Tape	— C42	— Servo	— M7
Amplifiers .....	— A3	— Computing	— C43	O: Office Machines	— O1
— Magnetic	— A4	— Digital to Analog	— C44	Operations Research	— O2
Analog Computers (SEE Computers, Analog)		— Magnetic Tape to Card	— C45	P: Panels .....	— P1
Automatic Assembly Equipment	— A5	— Magnetic Tape to Paper Tape	— C46	— Jack	— P2
Automatic Control Equipment	— A6	— Paper Tape to Card	— C47	— Relay Rack	— P3
B: Boards — Plotting	— B1	— Paper Tape to Magnetic Tape	— C48	Paper Tape	— P4
— Plug	— B2	Cords	— C49	Patch Cords	— P5
— Strip Type	— B3	Cores .....	— C50	Plotters (SEE ALSO Boards — Plotting)	— P6
Bobbins, Coil Winding	— B4	— Ferrite	— C51	Plugboards	— P6A
Breadboard Kits	— B6	— Magnetic	— C52	Potentiometers (Computer Types)	— P7
C: Cable	— C1	Counters .....	— C53	Power Supplies — Regulated	— P8
Cable Assemblies	— C2	— Electronic	— C54	Printers .....	— P9
Cameras .....	— C3	— Frequency	— C55	— High Speed	— P10
— Data Recording	— C3A	— Mechanical	— C56	— Keyboard	— P11
Capacitors (Computer Types)	— C4	— Proportional	— C57	— Line-a-time	— P12
Cards (SEE ALSO Punch Cards)	— C5	Courses by Mail (Computer Field)	— C58	Programming Services	— P12A
— Punch	— C6	D: Data Processing Machinery (SEE ALSO specific types)	— D1	Publications .....	— P13
— Magnetic	— C7	Data Recording Equipment (SEE ALSO Input/Output devices)	— D2	— Magazines	— P15
Chassis — Metal	— C8	Data Reduction Equipment	— D2A	Punch Card Machines	— P16
Circuits .....		Delay Lines (Computer Types)	— D3	R: Readers .....	— R1
— Arithmetical (for Digital Computers)	— C9	Desk Calculators	— D4	— Character	— R2
— Computer, Packaged	— C10	Dials	— D5	— Magnetic Card	— R3
— Logical (for Digital Computers)	— C11	Differential Analyzers	— D6	— Magnetic Tape	— R4
— Plug-in	— C12	Diodes (Computer Types) .....	— D7	— Mechanical	— R5
— Potted	— C13	— Germanium	— D8	— Paper Tape	— R6
— Printed	— C14	— Power	— D9	— Photoelectric	— R7
Clutches .....	— C15	— Silicon	— D10	— Punch Card	— R8
— Magnetic	— C16	Discs, Magnetic	— D11	Recording Papers	— R9
Coatings .....	— C 17	Drums, Magnetic	— D12	Rectifiers	— R10
— Conductive	— C18	E: Economic Research	— E0	Registers, Shift	— R11
— Protective	— C19	Education (see also courses)	— E1	Relays (Computer Types)	— R12
— Salt Spray Resistant	— C20	Embedded Assemblies and Components	— E2	Resistors	— R13
Coils (Computer Types)	— C21	F: Facsimile Equipment	— F1	Resolvers .....	— R14
Communications Systems (Computer Types)	— C22	Fans and Blowers	— F1A	— Coordinate Transform	— R15
Computers (SEE ALSO specific types)	— C22A	Fasteners and Fastening Devices	— F2	— Product	— R16
Computers, Analog	— C23	Fire Control Equipment	— F3	— Sine-Cosine	— R17
Computers, Digital	— C24	G: Generators, Function	— G1	Robots	— R18
Computers, Special Purpose	— C24A	— Electronic	— G2	S: Scanners	— S1
Computers, Test Equipment	— C25	— Mechanical	— G3	Semiconductors	— S2
Computer Components (SEE ALSO specific types)	— C26	Geophysical Apparatus	— G4	Simulators	— S3
Computing Services .....	— C27	H: Heads, Magnetic	— H1	Storage Systems .....	— S4
— Digital	— C28	— Reading	— H2	— Magnetic	— S5
Connectors	— C29	— Recording	— H3	Switches .....	— S6
Consulting Services	— C30	I: Indicators (Computer Types)	— I1	— Stepping	— S7
Controls .....	— C31	Information Retrieval Devices	— I2	Synchros	— S8
— Automatic	— C32	Input/Output Devices	— I3	Systems Engineering	— S9
— Signaling	— C33	Integrators .....	— I4	T: Tachometers	— T1
— Sorting and Counting	— C34	— Electronic	— I5	Tape Handlers	— T2
Converters, Electrical .....	— C35	— Mechanical	— I6	Tape, Magnetic .....	— T3
— High Frequency	— C36	Inventory Systems	— I7	— Filing Systems	— T3A
— Low Frequency	— C37	J: Jacks	— J1	— Readers	— T4
— Power Frequency	— C38	K: Keyboards	— K1	— Recorders	— T5
Converters, Information....	— C39	L: Lights, Indicator	— L1	— Reels	— T5A
— Analog to Digital	— C40	M: Magnets	— M1	Tape, Paper .....	— T6
		Memory Systems	— M2	— Filing Systems	— T7
		Molded Plastics	— M2A	— Punches	— T8
		Multipliers .....	— M3	— Readers	— T9
		— Diode	— M4	Telemetering Systems	— T10
		— Electronic	— M5	Terminals	— T11
				Transducers	— T11A
				Transformers .....	— T12
				— Pulse	— T13
				Transistors .....	— T14
				— Germanium	— T15
				— Silicon	— T16
				Translating Equipment	— T17
				Typewriters, Electric, Controlled	— T18
				Tubes, Electronic	— T19
				V: Visual Output Devices	— V1

## ROSTER

### A1. ADDING MACHINES

Addo-x, Inc.  
R. D. Allen Business Machines, Inc.  
American Automatic Typewriter Co.  
Burroughs Corp.  
Comptometer Corp.  
Fabrica Addizionatrice Italiana S.S.  
Facit, Inc.  
Litton Industries, Inc.  
Monroe Calculating Machine Co.  
Olivetti Corp. of America  
Remington Rand Div. of Sperry Rand Corp.  
Underwood Corporation — see I3

### A2. ADDRESSING MACHINES

Elliott Addressing Machine Co.  
Lanston Industries, Inc.  
National Data Processing Corporation

### A3. AMPLIFIERS

Aeronutronic Systems, Inc.  
Airpax Electronics Co., Seminole Div.  
Andersen Laboratories, Inc.  
Brush Instruments  
Centralab  
Di/An Controls, Inc.  
Diehl Mfg. Co.  
Edin, a Div. of Epsco, Inc.  
Electrol, Inc.  
Electro Instruments, Inc.  
Engineered Electronics Co.  
Feedback Controls, Inc.  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
Hewlett-Packard Company  
Industrial Control Co.  
Ketay Dept. Norden Division United Aircraft Corp.  
Librascope, Inc.  
Link Aviation, Inc. — see C23  
Magnetics Research Co., Inc.  
Minneapolis - Honeywell Regulator Co., Boston Division  
F. L. Moseley Co.  
Ortho Filter Corp.  
Southwestern Industrial Electronics Co.  
Weston Instruments  
Wiancko Engineering Co.

### A4. MAGNETIC AMPLIFIERS

Airpax Electronics Co., Seminole Div.  
American Electronics, Inc.  
American Research & Mfg. Corp.  
Bendix Aviation Corp., Eclipse-Pioneer Div.  
Consolidated Electrodynamics Corp.  
Control Data Corp.  
Epsco Components  
Federal Telephone and Radio Co.  
Feedback Controls, Inc.  
Gulton Industries, Inc.  
Johnson Electronics Inc.  
John Oster Mfg. Co., Avionic Div.  
**PACIFIC MAGNETIC CORP.,** Romoland, Calif. / PMC logic type magnetic amplifiers / DESCR: ultra sensitive, universal magnetic logic switching device with from one to eight control gates. Depending on model, these units weigh from 10 to 29 ounces, provide continuous power output of from 10 to 60 watts, with a response time of less than 2.5ms. / USE: wherever one or more conditions must be met before switching occurs / \$80 to \$140 (less in quantities) / A4  
Polyphase Instrument Co.

Sangamo Electric Co.  
F. W. Sickles Division  
Sigma Instruments Inc.  
Specialties, Inc.

### A5. AUTOMATIC ASSEMBLY EQUIPMENT

Airpax Electronics Co., Seminole Div.  
Automation Engineering Laboratory  
The Foxboro Co.  
General Cybernetics Corp.  
General Electric Co., Computer Dept.  
GPS Instrument Co., Inc.  
Shallcross Mfg. Co.

### A6. AUTOMATIC CONTROL EQUIPMENT

Aeronca Mfg. Corp.  
Airpax Electronics Co., Seminole Div.  
Allen-Bradley Co.  
Armour Research Foundation, Illinois Institute of Technology  
Atlas Precision Products Co.  
The Austin Co., Special Services Division  
Babcock Radio Engineering, Inc.  
Bendix Aviation Corp., Bendix-Pacific Div.  
Bendix Aviation Corp., Eclipse-Pioneer Div.  
**BENDIX AVIATION CORP., RESEARCH LABORATORIES DIV.,** P.O. Box 5115, Detroit 35, Michigan / automatic control equipment / A6  
Canadian Westinghouse Co. Ltd.  
Clary Corp.  
Coleman Engineering Co.  
Computing Devices of Canada Ltd.  
Consolidated Electrodynamics Corp.  
Control Data Corp.  
Cook Electric Co.  
Curtiss-Wright Corp., Electronics Div.  
Dennison Mfg. Co.  
Eagle Signal Corp.  
Feedback Controls, Inc.

**FERRANTI ELECTRIC, INC.,** 95 Madison Ave., Hempstead, N.Y. / precision measuring equipment / DESCR: Produces digital measurement of position using diffraction grating reference. Accuracies to 0.00004". Equipment includes gratings, optical unit, and counters / USE: metrology; analyses of photographic records / \$6,000 to \$7,000 for two axes system / A6

Ferranti-Packard Electric Ltd.  
General Automatics, Inc.  
GPE Controls, Inc.  
Gulton Industries, Inc.  
The W. A. Haydon Company  
Hughes Research & Development Laboratories  
Industrial Nucleonics Corporation  
International Resistance Company  
International Telephone & Telegraph Corp.  
Kidde Ultrasonic & Detection Alarms, Inc.  
Leeds & Northrup Company  
Lewyt Manufacturing Corporation  
Librascope, Inc.  
Litton Industries, Inc.  
The W. L. Maxson Corp.  
Norden Division of United Aircraft Corp.  
North Electric Company  
Nuclear Development Corp. of America  
Opad Electric Co.  
Ramo-Wooldridge  
Servo Corp. of America

Stromberg-Carlson, a Division of General Dynamics Corp.  
Taylor Instrument Co.  
The Teller Company  
**THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO.,** P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / automatic control equipment / A6  
Trio Laboratories, Inc.  
University of Sydney  
Jervis B. Webb Co.

### B1. BOARDS, PLOTTING

Accurate Electronics Corp.  
Aero Electronics Co.  
Benson-Lehner Corp.  
Ferranti-Packard Electric Ltd.  
Link Aviation, Inc. — see C2  
Telectro Industries Corp.

### B2. BOARDS, PLUG

Accurate Electronics Corp.  
Cambridge Thermionic Corporation

### B3. BOARDS, PLOTTING, STRIP TYPE

Accurate Electronics Corp.  
Cambridge Thermionic Corporation  
Cinch Manufacturing Corp.  
Link Aviation, Inc. — see C2

### B4. BOBBINS, COIL WINDING

Acroscope Engineering Co.  
Advanced Electronics, Inc.  
Alden Products Co.  
Hydro Molding Co., Inc.

### B6. BREADBOARD KITS

Di/An Controls, Inc.  
Ferranti-Packard Electric Ltd.  
Helipot Division of Beckman Instruments, Inc.

### C1. CABLE

Jefferson Electronic Products Corp.  
Royal Electric Corp.

### C2. CABLE ASSEMBLIES

Advanced Electronics, Inc.  
Alden Products Co.  
Burdy Corporation, Omaton Div.  
California Technical Industries Div. of Textron Inc.  
Jefferson Electronic Products Corp.  
**LINK AVIATION, INC.,** Binghamton, N.Y. / Cables-Circuits / Complete line of computer type cable assemblies, printed and wired circuits, canned and potted assemblies for analog and digital computer applications / C2  
Superex Electronics Corp.  
Telectro Industries Corp.  
Wheeler Electronic Corp.

### C3. CAMERAS

Canadian Applied Research Ltd.  
The Geotechnical Corp.  
Gordon Enterprises  
Hewlett-Packard Company  
Librascope, Inc.

### C3A. CAMERAS, DATA RECORDING

Alden Electronic and Impulse Recording Equipment Co.

Avco Mfg. Corp.  
Benson-Lehner Corp.  
Canadian Applied Research Ltd.  
Century Electronics & Instruments, Inc.  
The Geotechnical Corp.  
Gordon Enterprises  
Librascope, Inc.  
Radiation Counter Laboratories, Inc.  
Richardson Camera Company, Inc. — see D2A  
Traid Corp.

#### C4. CAPACITORS (Computer Types)

Aerovox Corp.  
Allen-Bradley Co.  
AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / capacitors / DESCR: computer type capacitors / USE: computer circuitry / C4  
Centralab  
Condenser Products Div. New Haven Clock & Watch Co.  
Corning Glass Works  
Electronic Fabricators, Inc. (EFCON)  
The Electro-Motive Manufacturing Co., Inc.  
Electronic Fabricators, Inc.  
Fansteel Metallurgical Corp.  
Franklin Electronics, Inc.  
General Electric Co., Capacitor Div.  
Gulton Industries, Inc.  
Hammarlund Mfg. Co., Inc.  
Ohmite Mfg. Co.  
Plastic Capacitors, Inc.  
Sangamo Electric Co.  
Schweber Electronics  
Southern Electronics Corp.  
Sprague Electric Co.  
Texas Instruments, Inc.  
Transitron Electronic Corp.  
U.S. Semiconductor Products, Inc.  
Vitramon, Inc.

#### C5. CARDS (SEE ALSO PUNCH CARDS)

#### C6. CARDS, PUNCH

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 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

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / CA-2 punched card adapter / DESCR: enables G-15 computer to operate with up to three IBM card readers, punches and tabulators at 100 cards or lines/minute. Handles full 80 columns of mixed alphanumeric and special character data / USE: punched card input-output for scientific and data processing use / \$19,500 sale, \$585 per month lease / C6

E-Z Sort Systems, Ltd.  
National Physical Laboratory, Mathematics Division  
Remington Rand Div. of Sperry Rand Corp.

#### C7. CARDS, MAGNETIC

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959

#### C8. CHASSIS, METAL

Alden Products Co.

#### C9. CIRCUITS, ARITHMETICAL (FOR DIGITAL COMPUTERS)

Di/An Controls, Inc.  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
General Mills, Inc.  
Hoover Electronics Company  
Link Aviation, Inc. — see C2 and C24  
Ransom Research  
SYLVANIA ELECTRONIC SYSTEMS, A Division of Sylvania Electric Products, Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Plug-in packages / DESCR: Highly modular plug-in assemblies, a logic board which receives up to 12 "element" (printed circuit with components mounted) cards / USE: building block for design and construction of logic sections / Prices vary depending on type / C9  
The Walkirt Co. — see C10

#### C10. CIRCUITS, COMPUTER, PACKAGED

AERONUTRONIC SYSTEMS, INC. (a subsidiary of Ford Motor Co.), COMPUTER DIVISION, Ford Road, Newport Beach, Calif. / Digital computer solid state printed circuit packages / DESCR: Flip-flops, diode logic boards, read and write amplifiers, blocking oscillators. Frequencies to 500 KC. Rugged, high-density packaging. Low power consumption. Insensitive to variations in environment, circuit elements and power supplies. Employ ultra-reliable pulse gated techniques. Special circuit packages designed to customer needs / USE: in digital computer equipment, for both ground (commercial and military) and airborne use / price dependent on type and quantity / C10

Airtronics, Inc.  
Avion Division, ACF Industries, Inc.  
Centralab  
Computer Control Co., Inc.  
Di/An Controls, Inc.  
Digital Equipment Corp.  
Thomas A. Edison Industries  
Electronics Research Associates, Inc.  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
Harvey-Wells Electronics, Inc. — see C31  
Librascope, Inc.  
Link Aviation, Inc. — see C2, C23, and C24  
Ransom Research  
Rese Engineering, Inc.  
Short Brothers & Harland Ltd.

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 / C10

#### C11. CIRCUITS, LOGICAL (FOR DIGITAL COMPUTERS)

Airtronics, Inc.  
Avco Mfg. Corp.  
Bendix Aviation Corp., Bendix-Pacific Div.  
Computer Control Co., Inc.  
Di/An Controls, Inc.  
General Electric Co., Computer Dept.  
General Mills, Inc.  
Link Aviation, Inc. — see C2 and C24  
Minneapolis-Honeywell Regulator Co., Florida Inertial Guidance Center  
Ransom Research  
Rese Engineering, Inc.  
SYLVANIA ELECTRONIC SYSTEMS, A Division of Sylvania Electric Products, Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Plug-in packages / DESCR: Highly modular plug-in assemblies, a logic board which receives up to 12 "element" (printed circuit with components mounted) cards / USE: building block for design and construction of logic sections / Prices vary depending on type / C11  
The Walkirt Co. — see C10

#### C12. CIRCUITS, PLUG-IN

Airflyte Electronics Co.  
Airtronics, Inc.  
Avco Mfg. Corp.  
Avion Division, ACF Industries, Inc.  
Bendix Aviation Corp., Bendix-Pacific Div.  
C G Electronics Corp.  
Computer Control Co., Inc.  
The Daven Co.  
Di/An Controls, Inc.  
Digital Equipment Corp.  
Engineered Electronics Co.  
ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Miniature Plug-In Encapsulated Circuit Assemblies / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion an dmissile telemetering / USE: radar, fire control, etc. / — / C12

General Electric Co., Computer Dept.  
Kay Electric Co.  
Lewyt Manufacturing Corporation  
Link Aviation, Inc. — see C2 and C24  
Panellit, Inc.  
Ransom Research  
Rese Engineering, Inc.  
Stromberg-Carlson (West Coast)  
Superex Electronics Corp.

SYLVANIA ELECTRONIC SYSTEMS, A Division of Sylvania Electric Products, Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Plug-in packages / DESCR: Highly modular plug-in assemblies, a logic board which receives up to 12 "element" (printed circuit with components mounted) cards / USE: building block for design and construction of logic sections / Prices vary depending on type / C12  
The Walkirt Co. — see C10

#### C13. CIRCUITS, POTTED

Airflyte Electronics Co.  
Airtronics, Inc.  
Avco Mfg. Corp.  
C G Electronics Corp.  
The Daven Co.

Ferranti-Packard Electric Ltd.  
Link Aviation, Inc. — see C2 and C23  
Polyphase Instrument Co.  
Stromberg-Carlson (West Coast)  
Sunshine Scientific Instrument Co.  
The Walkirt Co. — see C10

#### C14. CIRCUITS, PRINTED

American Printed Circuits Co., Inc.  
Avco Mfg. Corp.  
Avion Division, ACF Industries, Inc.  
Bendix Aviation Corp., Bendix-Pacific Div.  
C G Electronics Corp.  
Cinch Manufacturing Corp.  
Consolidated Electrodynamics Corp.  
Corning Glass Works  
Electralab, Inc.  
Ferranti-Packard Electric Ltd.  
General Mills, Inc.  
Gulton Industries, Inc.  
Hoover Electronics Company  
Lewyt Manufacturing Corporation  
Link Aviation, Inc. — see C2, C23, and C24  
Litton Industries, Components Div.  
Mellon Institute of Industrial Research, University of Pittsburgh  
Panellit, Inc.  
Sprague Electric Co.  
Superex Electronics Corp.

**SYLVANIA ELECTRONIC SYSTEMS,**  
A Division of Sylvania Electric Products, Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Plug-in packages / DESCR: Highly modular plug-in assemblies, a logic board which receives up to 12 "element" (printed circuit with components mounted) cards / USE: building block for design and construction of logic sections / Prices vary depending on type / C14

Techniques, Inc.  
Technitrol Engineering Company

#### C15. CLUTCHES

Flight Research, Inc.  
Technology Instrument Corp.

#### C16. CLUTCHES, MAGNETIC

Erco Plant — Nuclear Products  
Ferranti-Packard Electric Ltd.  
Helipot Division of Beckman Instruments, Inc.  
Sterling Precision Corp.  
Vickers, Inc.

#### C17. COATINGS

Columbia Technical Corp.  
Ferranti-Packard Electric Ltd.

#### C18. COATINGS, CONDUCTIVE

Acheson Colloids Co.

#### C19. COATINGS, PROTECTIVE

Columbia Technical Corp.

#### C20. COATINGS, SALT SPRAY RESISTANT

Columbia Technical Corp.  
Gulton Industries, Inc.

#### C21. COILS (COMPUTER TYPES)

Advanced Electronics, Inc.  
Coilcraft, Inc.  
Comar Electric Co.  
Electronic Transformer Co., Inc.

El-Rad Mfg. Co.  
Gulton Industries, Inc.  
Johnson Electronics Inc.  
National Moldite Co.  
Polyphase Instrument Co.  
Sterling Precision Corp.  
Sunshine Scientific Instrument Co.  
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
Technitrol Engineering Company  
Wheeler Electronic Corp.

#### C22. COMMUNICATIONS SYSTEMS (COMPUTER TYPES)

Bendix Aviation Corp., Bendix-Pacific Div.  
J. H. Bennell and Co.  
Control Data Corp.  
Corbin Corp.  
Daystrom Instrument, Div. of Daystrom, Inc.  
Federal Telephone and Radio Co.  
Ferranti-Packard Electric Ltd.  
The Geotechnical Corp.  
Litton Industries, Inc.  
National Co., Inc.  
National Data Processing Corporation  
Packard Bell Computer Corp.  
The Standard Electric Time Co.  
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
Wheeler Electronic Corp.

#### C22A. COMPUTERS

American Electronics, Inc.  
AUTONETICS, a Div. of No. American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / General purpose computers (see also C24) / C22A  
Canadian Westinghouse Co. Ltd.  
Computer Control Co., Inc.  
Computing Devices of Canada Ltd.  
Control Data Corp.  
Control Instrument Co.  
JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / Computers / C22A  
Electronic Contractors, Inc.  
General Electric Co., Light Military Electronics Dept.  
General Mills, Inc.  
GPE Controls, Inc.  
International Computers & Tabulators Limited  
Librascope, Inc.  
Logabax S.A.  
Orradio Industries  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Royal McBee Corp. — see C24  
Servo Corp. of America  
Sylvania Electric Products, Inc. (Waltham)  
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / computers / C22A  
Underwood Corporation — see D1  
U.S. Air Force, Cambridge Research Center  
Westinghouse Electric Corp., Air Arm Division

#### C23. COMPUTERS, ANALOG

Aero Electronics Co.  
American Hydromath Corp.  
Applied Science Corp. of Princeton  
Atlas Precision Products Co.  
Automatic Signal Division, Eastern Industries, Inc.  
Automation Research and Design Associates  
AUTONETICS, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / analog computers / C23  
Avion Division, ACF Industries, Inc.  
Avion Division of ACF, Erco Div.  
Beckman Instruments, Inc., Berkeley Div.  
BENDIX AVIATION CORP., RESEARCH LABORATORIES DIV., P. O. Box 5115, Detroit 35, Michigan / analog computers / C23  
Birkbeck College  
Burlingame Associates, Ltd.  
Canadian Westinghouse Co. Ltd.  
C G Electronics Corp.  
Colorado Research Corp.  
Computer Equipment Corp.  
Convair-San Diego-Electronics  
Corbin Corp.  
Daystrom Instrument, Div. of Daystrom, Inc.  
Dian Laboratories, Inc.  
Digital Service Labs  
Donner Scientific Co.  
Dorsett Laboratories, Inc.  
Electro-Measurements, Inc.  
Electronic Associates, Inc.  
The English Electric Co. Ltd.  
Erco Plant — Nuclear Products  
Farrand Optical Co., Inc.  
Feedback Controls, Inc.  
Ferranti-Packard Electric Ltd.  
Ford Instrument Co.  
The Foxboro Co.  
General Automatics, Inc.  
General Electric Co., Computer Dept.  
General Electric Co., Light Military Electronics Dept.  
The Geotechnical Corp.  
Goodyear Aircraft Corp.  
GPE Controls, Inc.  
GPS Instrument Co., Inc.  
Haller, Raymond, & Brown, Inc.  
Hall-Scott, Inc.  
Heath Co.  
Jet Propulsion Laboratory  
Kearfott Co., Inc.  
Leeds & Northrup Company  
Harry Levinson Co.  
Lewyt Manufacturing Corporation  
Librascope, Inc.  
LINK AVIATION, INC., Binghamton, N.Y. / Analog Computers / Standard modules for assembly of both a.c. and d.c. Special Purpose Analog Computers. These modules include usual computing control and execution circuits plus off-the-shelf type Linear Interpolators and multi-variable Universal Analog Function Generators / C23  
The Magnovox Co.  
The W. L. Maxson Corp.  
Mid-Century Instrument Corp.  
Minneapolis-Honeywell Regulator Co., Florida Inertial Guidance Center  
National Bureau of Standards, Data Processing Systems Division  
Norden Division of United Aircraft Corp.

Northrup Aircraft, Inc.  
Otis Elevator Co.  
The Perkin-Elmer Corp.  
George A. Philbrick Researches, Inc.  
Phillips Controls Corp.  
The Rand Corp.  
Reeves Instrument Corp.  
The Reflectone Corp.  
Seismograph Service Corp.  
Servomechanisms, Inc.  
Short Brothers & Harland Ltd.  
Société d'Electronique et d'Automatisme  
Southwestern Industrial Electronics Co.  
Sperry Rand Corp., Sperry Gyroscope Div.  
The Standard Electric Time Co.  
Sterling Precision Corp.  
Strand Engineering Co.  
Tammen & Denison, Inc.  
U.S. Navy, Naval Research Lab.  
University of Sydney

#### C24. COMPUTERS, DIGITAL

Aeronca Mfg. Corp.  
Alwac Computer Div., El-Tronics, Inc.  
Argonne National Laboratory  
Arma Div., American Bosch Arma Corp.  
Automatic Signal Division, Eastern Industries, Inc.  
Automation Research and Design Associates

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 / \$86,000; Lease: \$3,000 per month / C24

Avco Mfg. Corp.  
Avion Division, ACF Industries, Inc.  
Bell Punch Co., Ltd.

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 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 AVIATION CORP., BENDIX COMPUTER DIVISION, 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 AVIATION CORP., RESEARCH LABORATORIES DIV., P. O. Box 5115, Detroit 35, Michigan / digital computers / C24

Birkback College  
Bull S. A. Compagnie des Machines — see D1  
Burroughs Corp.

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 punched card and 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 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); high-speed printer, on line or off line operation, up to 1500 lines per minute; 93-command programming structure / USE: commercial applications, mathematical, scientific, engineering computation / \$375,000 to \$600,000 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

Canadian Westinghouse Co. Ltd.  
Carbide and Carbon Chemicals Company-AEC

C G Electronics Corp.  
Clary Corp.  
Commonwealth Scientific and Industrial Organization  
Computer Control Co., Inc.  
Computer Equipment Corp.  
Control Data Corp.  
Corbin Corp.

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

DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 151 Nedham St., Newton Highlands 61, Mass. / Honeywell 800 Transistorized Data Processing System / DESCR: medium-scale, general purpose, fully transistorized system. Internal operating speed is 30,000 three-address operations per second; magnetic tape speed is 96,000 decimal digits/second.2 Magnetic-core memory capacity is 4,096 to 16,384 words. Works in both binary and decimal arithmetic, floating-point arithmetic is optional. Automatically controlled parallel processing permits up to 8 programs (business and/or scientific) in parallel operation. Reads, writes, and computes simultaneously. Small building-block units permit unlimited expansion / USE: business data processing and/or scientific computing / Monthly rental, \$11,000 and up; selling price, \$528,000 and up / C24

Daystrom Instrument, Div. of Daystrom, Inc.

DI/AN CONTROLS, INC., 40 Leon St., Boston 15, Mass. / Digital Computers / DESCR: special purpose digital computers, code and format converters, digital computer elements / C24

JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / Digital Computers / C24

Digital Service Labs  
Educational Research Corp.  
N. V. Electrologica  
Elliott Bros. (London) Ltd.  
The English Electric Co. Ltd.  
Ferranti, Ltd.  
Ferranti-Packard Electric Ltd.  
Ford Instrument Co.  
General Automatics, Inc.  
General Electric Co., Computer Dept.  
General Electric Co., Light Military Electronics Dept.  
GPE Controls, Inc.  
Haller, Raymond, & Brown, Inc.  
Imperial College  
Information Systems, Inc.

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 7090 Data Processing System / DESCR: Fully-transistorized version of the IBM 709, with improved synchronization of data transmission to and from input-output devices. Internal operation of the 7090 is five times faster than that of its predecessors. Memory consists of 32,768 words of core storage, a word consisting of 36 binary digits (equivalent to ten decimal digits). Up to eighty tape units, eight card readers, eight card punches, and eight printers

can be used with a 7090 system. The 7090 can read, write, and compute at the same time / USE: For both business and scientific problems / Monthly rental for a typical system, \$64,000. Selling price for a typical system, \$2,880,000. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 705 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 / USE: primarily for business problems / Monthly rental for an average system \$35,000 and up. Selling price for an average system, \$1,713,000 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 705-III Data Processing System / DESCR: Includes ultra high-speed tape unit, IBM 729 Model 3, which can write at a rate of 62,500 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 positions of magnetic core memory, which can be enlarged to 80,000 positions by use of additional core storage / USE: primarily for business problems / Monthly rental, \$38,500 and up; selling price, \$1,925,000 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 704 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 only 12 millionths of a second. Core storage is supplemented by magnetic drums and magnetic tape. The 704 can perform 42,000 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 tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 650 Data Processing System / DESCR: A medium-sized data processing system.

The units of the basic 650 are: a console unit which contains the magnetic drum "memory," 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, paper tape input, magnetic core storage, and disk storage with random access and direct interrogation (IBM RAMAC 650). Disk files can be installed either singly or in any combination of up to four units, providing storage capacities of from 6 to 48 million digits / USE: the 650 is a general purpose system which is used for commercial and scientific computing problems / Monthly rental, \$3,750 and up. Selling price, \$182,400 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 607 Electronic Calculator / DESCR: A larger version of the IBM 604 consisting of the 607 calculating unit and either the 529 or 542 punching unit. The 529 operates at 100 cards per minute; the 542 operates at 200 cards per minute. The 607's memory capacity makes it possible to use intermediate calculated results as well as original data in solving a problem. The 607 can go through as many as 140 separate steps to obtain the solution to a single problem / USE: for business and scientific problems / Monthly rental, \$800-\$960 and up. Selling price, \$37,500-\$46,500 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 610 Automatic Decimal Point Computer / DESCR: A completely self-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 the 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 are a critical factor / Monthly rental, \$1,150. Selling price, \$55,000. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM RAMAC 305 (Random Access Method of Accounting and Control) / DESCR: A medium-sized business data processing system built around a disk memory unit which consists of 50 magnetic

metal disks. Data is entered onto or extracted from these disks by means of a rapidly-moving access arm. Disk units can be obtained with storage capacities of 5-million and 10-million digits. Any combination of two disk files may be used, providing storage capacities of 5, 10, 15, and 20-million digits. The RAMAC 305 has arithmetical and logical processing ability, punched card input, and both punched card and printed output. Optional features include punched paper tape input, remote printing stations, dual disk files, dual access arms, dual system control, and faster, more flexible printing / USE: continuous, or "in-line" accounting for all types of businesses / Monthly rental with punched card output, \$2,875 and up; with printed output, \$3,200 and up. Selling price with punched card output, \$167,850 and up; with printed output, \$189,950 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 7070 Data Processing System / DESCR: A fully-transistorized high-speed data processing system utilizing modular, or "building-block" construction. The 7070 ranges in capability between medium and large-scale systems, depending on the number and types of units included. Combining the various units results in three basic types of data processing systems—a card system, a magnetic tape system, and a tape-RAMAC system. Compared to a card 650 system with drum storage, the card 7070 has two-and-one-half times the storage capacity in its magnetic core "memory" and card input/output is at least twice as fast / USE: for business and scientific problems / Monthly rental for a typical system, \$20,350. Selling price for a typical system, \$900,500. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / 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 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 tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 604 Electronic Calculating Punch / DESCR: A general purpose calculator consisting of the 604 electronic calculating unit and either the 521 or 541 punching unit. The 521 operates at 100 cards per minute; the 541 operates at 200 cards per minute. The 604 reads problem data from IBM punched cards and can go through as many as 60 separate steps to obtain the solution to a single problem / USE: for business and scientific problems / Monthly rental, \$550-\$735. Selling price, \$25,900-\$34,000. All prices exclusive of tax / C24

Jet Propulsion Laboratory

Kearfott Co., Inc.

Kellogg Switchboard & Supply Co.

Lewyt Manufacturing Corporation

Librascope, Inc.

Librascope, Inc., Commercial Division

LINK AVIATION, INC., Binghamton, N.Y. / Digital Computers / Standard modules for assembly of data sorting, processing and computing operations. Production items include all types of logic and execution circuits, plus peripheral equipment like drum loaders, A to D and D to A Converters, Universal Digital Function Generators, etc. / C24

The Magnovox Co.

The W. L. Maxson Corp.

Minneapolis-Honeywell Regulator Co.,

Florida Inertial Guidance Center

Monroe Calculating Machine Co.

Moore School of Electrical Engineering

National Bureau of Standards, Data Processing Systems Division

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

National Physical Laboratory, Control Mechanisms and Electronics Division

New London Instrument Co.

Norden Division of United Aircraft Corp.

Northrop Aircraft, Inc.

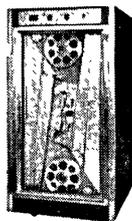
Packard Bell Computer Corp.

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

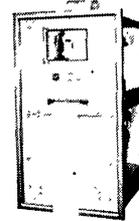
Phillips Control Corp.

Radio Corp. of America, Electronic Data Processing Division — see D1

RAMO-WOOLDRIDGE, A DIVISION OF THOMPSON RAMO - WOOLDRIDGE INC., 5500 West El Segundo Blvd., Los Angeles 45, Calif. / R-W

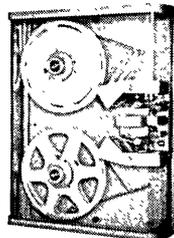


M908  
Magnetic  
Tape  
Transport  
With  
Complete  
Program  
Freedom

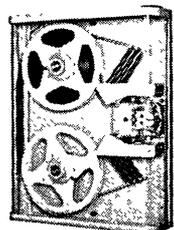


M3260  
High Speed  
Alphanumeric  
Printer

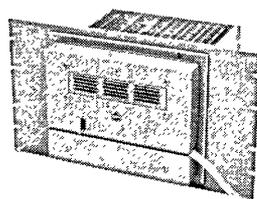
**ALL  
SOLID  
STATE  
DESIGNS**



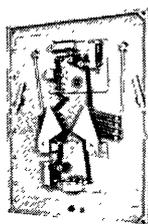
M907  
Perforated  
Tape  
Reader



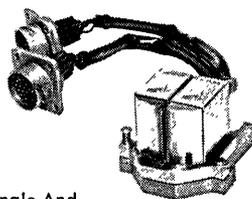
M906  
General  
Purpose  
Magnetic  
Tape  
Transport



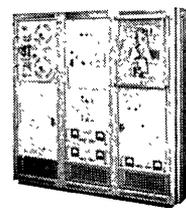
M909 Perforated Strip Reader



M3269  
Tape  
Loop  
Buffer



Single And  
Dual Gap Read/Write Heads



Integrated Systems For Data Processing

## DATA PROCESSING COMPONENTS AND SYSTEMS

By

# POTTER

Potter designed data processing equipments have an established reputation for unexcelled performance and reliability. Maintaining or exceeding the "State of the Art" is the company's philosophy in this fast moving technology.

Custom designs are offered to satisfy military or commercial specifications.

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 plant.



**POTTER INSTRUMENT COMPANY, INC.**

Sunnyside Boulevard, Plainview, N. Y.

Overbrook 1-3200

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.

J. B. Rea Co., Inc.

Remington Rand Div. of Sperry Rand Corp.

ROYAL McBEE CORP., Westchester Ave., Port Chester, N.Y. / Royal Precision Electronic Computer LGP-30 / DESCR: A serial, single address, stored program, digital computer / USE: Data processing problems in business, industry and government / \$49,500. Rental \$1100 monthly / C24

Servomechanisms, Inc.

Société d'Electronique et d'Automatisme Southwestern Industrial Electronics Co.

Sperry Rand Corp., Sperry Gyroscope Div.

Strand Engineering Co.

Sutherland Co. — see C30

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

Technitrol Engineering Company

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / RW-300 Digital Control Computer / C24

Underwood Corporation — see D1

U.S. Navy, Naval Research Lab.

University of Manchester

University of Sydney

Victor Adding Machine Co.

Wayne-George Corp.

Zuse Kommandit-Gesellschaft

#### C24A. COMPUTERS, SPECIAL PURPOSE

Aeronutronic Systems, Inc.

Aircraft Armaments, Inc.

American Hydromath Corp.

Atlas Precision Products Co.

Baird-Atomic Co.

Bell Telephone Laboratories

Bendix Aviation Corp., Bendix-Pacific Div.

Bendix Aviation Corp., Research Laboratories Div.

Canadian Westinghouse Co. Ltd.

CGS Laboratories, Inc.

Clifton Precision Products Co., Inc.

Computer Control Co., Inc.

Control Data Corp.

Convair-San Diego-Electronics

Daystrom Instrument, Div. of Daystrom, Inc.

Di/An Controls, Inc.

Dian Laboratories, Inc.

Digitronics Corp.

Donner Scientific Co.

The English Electric Co. Ltd.

Erco Plant — Nuclear Products

Feedback Controls, Inc.

General Automatics, Inc.

General Electric Co., Computer Dept.

General Mills, Inc.

The Geotechnical Corp.

Goodyear Aircraft Corp.

GPE Controls, Inc.

Haller, Raymond, & Brown, Inc.

N. V. Hollandse Signaalapparaten

Hughes Research & Development Laboratories

George F. Kelk, Ltd.

Leeds & Northrup Company

Librascope, Inc.

Link Aviation, Inc. — see C23 and C24

Mathematisch Centrum

National Bureau of Standards, Data Processing Systems Division

Nuclear Development Corp. of America

Pennsylvania State Univ.

PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV., 4700 Wissahickon Ave., Philadelphia 44, Pa. / special purpose computers / C24A

Ransom Research

Seismograph Service Corp.

Sterling Precision Corp.

Stromberg-Carlson, a Division of General Dynamics Corp.

Stromberg-Carlson (West Coast)

Sylvania Electric Products, Inc. (Waltham)

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

Technitrol Engineering Company

Teleregister Corp.

The Teller Company

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / special purpose computers / C24A

University of Michigan

Vectron, Inc.

Wayne-George Corp.

Westinghouse Electric Corp., Air Arm Division

#### C25. COMPUTERS, TEST EQUIPMENT

Aircraft Armaments, Inc.

Airpax Electronics Co., Seminole Div.

Analogue Controls, Inc.

Baird-Atomic Co.

Burroughs Corp.

Burroughs Corp., Electronic Tube Div.

Computer Engineering Assoc., Inc.

Computer-Measurements Corp.

Convair-San Diego-Electronics

Cornell-Dublier Electric Corp.

Di/An Controls, Inc.

Digital Equipment Corp.

Digital Service Labs

Digitronics Corp.

Erco Plant — Nuclear Products

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

GENERAL KINETICS INCORPORATED, 555 23rd Street, South, Arlington 2, Va. / Computer test equipment / DESCR: Magnetic tape testers, magnetic tape ultrasonic cleaners, acceptance test equipment, and specifications / — / — C25

Hewlett-Packard Company

George F. Kelk, Ltd.

Leeds & Northrup Company

Lewyt Manufacturing Corporation

Link Aviation, Inc. — see C23 and C24

Ramo-Wooldridge

Rese Engineering, Inc.

Servo Corp. of America

Statistical Instrument Co.

Strand Engineering Co.

Sunshine Scientific Instrument Co.

Technitrol Engineering Company

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / computer test equipment / C25  
Westinghouse Electric Corp., Air Arm Division

#### C26. COMPUTER COMPONENTS

Acroscope Engineering Co.

Airflyte Electronics Co.

Airtronics, Inc.

Aladdin Electronics

Allen-Bradley Co.

American Lava Corp.

Andersen Laboratories, Inc.

Atlas Precision Products Co.

AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N.Y. / computer components / C26

Bowmar Instrument Corp.

Bowser, Inc.

The Bristol Company

BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic storage drums / USE: memory systems / \$1,000 to \$50,000 / C26

Burlingame Associates, Ltd.

Burroughs Corp.

Burroughs Corp., Electronic Tube Div.

Calvert Electronics, Inc.

Celco

Centralab

Chrono-log Corp.

Clarkson Press, Inc.

Clarostat Mfg. Co., Inc.

Coilcraft, Inc.

Collins Radio Company, Western Division

Comptometer Corp.

Comptron Corp.

Computer Control Co., Inc.

Computer Equipment Corp.

Computing Devices of Canada Ltd.

Control Instrument Co.

Convair-San Diego-Electronics

Cook Electric Co.

Corbin Corp.

Cornell-Dublier Electric Corp.

Creed and Co., Ltd.

Curtiss-Wright Corp., Electronics Div.

The Daven Co.

Daystrom Transicoil Corp.

The de Florez Co., Inc.

DIALITE CORP., 60 Stewart Ave., Brooklyn 37, N.Y. / Computer Components / C26

Diamonite Products Mfg. Co.

JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / computer components / C26

Digital Equipment Corp.

DIT-MCO, Inc.

Donner Scientific Co.

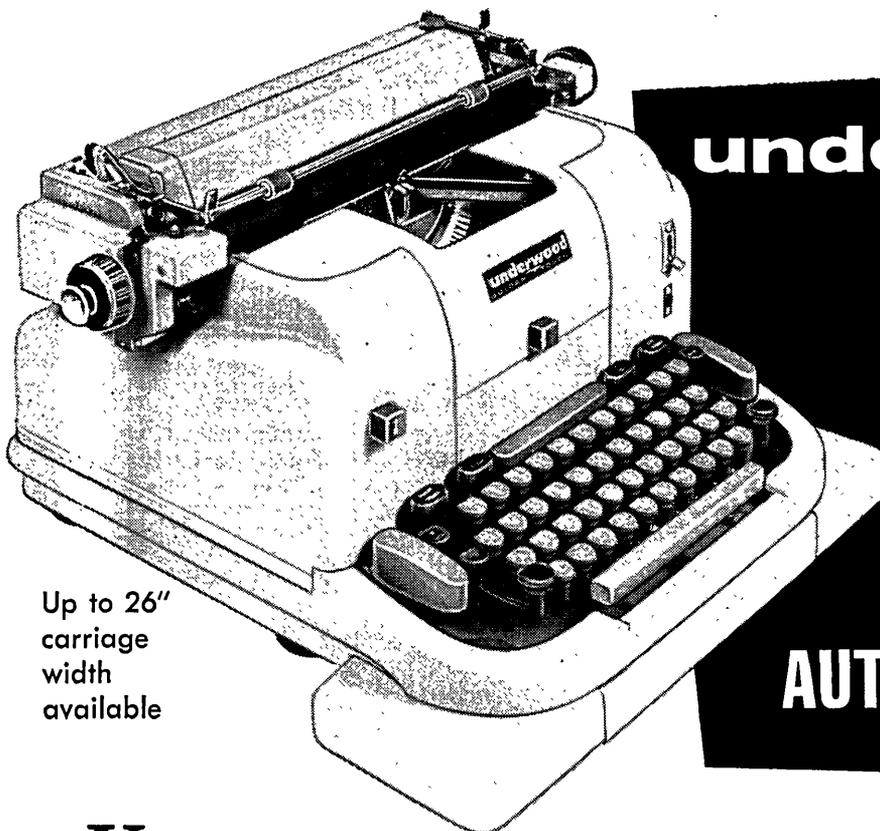
J. H. Drillick Research Lab., Inc.

Thomas A. Edison Industries

Electronics Research Associates, Inc.

Epsco Components

ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Pulse Forming Networks / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / C26



Up to 26"  
carriage  
width  
available

**underwood**  
**DATA-FLO**  
**SERVOTYPER**  
**RECORDS**  
**DATA**  
**AUTOMATICALLY**

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The Servotyper is a "slave" electric typewriter. Type bars are automatically operated by solenoids which are triggered by electrical signals originating from your equipment. A great variety of standard devices—quantizers, digital converters, diode matrices, transducers with digital outputs, etc. are commercially available for translating data into electric signals. These signals are simply and directly used as inputs for operation of the Underwood Data-Flo Servotyper.

The equipment has been specifically designed for data logging and telemetering problems—test and research results, process variables, maintenance data, meteorological data, etc.—anywhere information is secured by electrical instruments.

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ARE STANDARD  
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DATA-FLO  
SERVOTYPER**

- Solenoid operation of all keys, space bar, shift key, back space, carriage return, tabulation and red ribbon.
- Standard keyboards.
- Speed of operation to 11 characters per second.
- Self governing feedback provides true servo operation; supplies proper pulse to govern associated equipment, so that it operates at maximum typing speed.



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ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Filters / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / C26

Fairchild Controls Corp., Components Div.  
 Feedback Controls, Inc.  
 Ferranti, Ltd.  
 Ferranti-Packard Electric Ltd.  
 General Ceramics Corporation  
 General Electric Co., Computer Dept.  
 General Electric Co., Specialty Electronic Components Dept.  
 General Mills, Inc.  
 The Geotechnical Corp.  
 Hall-Scott, Inc.  
 The A. W. Haydon Company  
 Hughes Research & Development Laboratories  
 Industrial Development Engineering Assoc., Inc.  
 Librascope, Inc.  
 Link Aviation, Inc. — see C23 and C24  
 Littelfuse, Incorporated  
 Litton Industries, Inc.  
 Magnetic Metals Co.  
 Magnetic Research Corp.  
 Magnetics, Inc.  
 Magnetics Research Co., Inc.  
 P. R. Mallory & Co., Inc.  
 Measurement Engineering Ltd.  
 Metron Corp.  
 Mico Instrument Co.  
 Minneapolis - Honeywell Regulator Co. Industrial Division  
 F. L. Moseley Co.  
 National Bureau of Standards, Data Processing Systems Division  
 New London Instrument Co.  
 North Electric Company  
 Norton Associates, Inc. — see H1  
 The Ralph M. Parsons Co.  
 George A. Philbrick Researches, Inc.  
 Philips Electronics, Inc.  
 Photon, Inc.  
 Potter Instrument Company, Inc.

**RADIO CORP. OF AMERICA, ELECTRON TUBE DIVISION**, 415 South 5th St., Harrison, N.J. / components / DESCR: electron tubes, photosensitive devices; computer tubes, receiving tubes, thyratrons, storage tubes, cathode ray tubes, camera tubes, photocells / — / — / C26

Radio Corp. of America, Semiconductor and Materials Division  
 Sangamo Electric Co.  
 Schweber Electronics  
 Servo Corp. of America  
 Shallcross Mfg. Co.  
 Shepard Laboratories, Inc.  
 Short Brothers & Harland Ltd.  
 F. W. Sickles Division  
 Spectrol Electronics Corp.  
 The Standard Register Co.  
 Sterling Precision Corp.  
 Stromberg-Carlson, a Division of General Dynamics Corp.  
 Sylvania Electric Products, Inc. (New York)  
 Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
 Technitrol Engineering Company  
 The Teller Company  
 Trio Laboratories, Inc.

Wang Laboratories  
 Westinghouse Electric Corp., Air Arm Division  
 Westronics, Inc.  
 Whitewater Electronics, Inc.  
 Wiancko Engineering Co.  
 Wright Aeronautical

### C27. COMPUTING SERVICES

Actuarial Computing Service, Inc.  
 AEC Computing Facility  
 Aero Electronics Co.  
 Airtronics, Inc.  
 American Machine & Foundry Co., Computing Center  
 Applied Science Corp. of Princeton  
 Armour Research Foundation, Illinois Institute of Technology  
 Booz, Allen Applied Research, Inc.  
 Brown University, Computing Center  
 Bureau of the Census

**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.  
 Carnegie Institute of Technology

**C-E-I-R, INC.** (Formerly Corporation for Economic and Industrial Research), 1200 Jefferson Davis Highway, Arlington 2, Va.; N.Y. Office: 110 E. 42nd St., New York, N.Y. / IBM 704 and 709 Computers with 32K memory / DESCR: full line of peripheral data processors. Computing and peripheral equipment available on hourly rate basis. 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 / — / Hourly rates and zone allowance plan / C27

Computer Control Co., Inc.  
 Computer Engineering Assoc., Inc.  
 Convair-San Diego-Electronics  
 Cook Electric Co.  
 Cornell Computing Center  
 Curtiss-Wright Corp., Research Division

**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

**DATA PROCESSING CORPORATION**, 2727 29th St., N.W., Washington 8, D.C. / Computing Services / DESCR:

management and operation of data processing systems service centers, including programming and electronic computer services / C27

Dian Laboratories, Inc.  
**JOHN DIEBOLD & ASSOCIATES**, 40 Wall St., New York 5, N.Y. / Computing Services / C27  
 Digital Service Labs  
 Digitronics Corp.  
 Electronic Associates, Inc.  
 The Foxboro Co.  
 The Franklin Institute Laboratories

**GENERAL ELECTRIC CO.**, Schenectady, N.Y. / computing service / DESCR: Computing service: analog; network analyzer AC and DC, differential analyzer; not restricted as to users / C27

**GENERAL ELECTRIC CO., COMPUTER DEPT.**, 13430 N. Black Canyon Highway (P.O. Drawer 270) Phoenix, Ariz. / Computing services / C27

General Electric Co., Specialty Electronic Components Dept.  
**GENERAL KINETICS, INC.**, 555 23rd St., South, Arlington 2, Va. / Complete services in the fields of digital computer programming and programming research / DESCR: programming services for all general purpose computers; recommendation, design, and construction of automatic programming-automatic checking systems to fit specific needs; mathematical studies; numerical analysis; data-reduction; information retrieval / — / estimates prepared for each job / C27

Georgia Institute of Technology  
 The Geotechnical Corp.  
 Lehigh University  
 Loyola Laboratories  
 Midwest Research Institute  
 Moore School of Electrical Engineering  
 National Analysts, Inc.  
 National Bureau of Standards, Applied Mathematics Division  
 National Physical Laboratory, Mathematics Division  
 Nuclear Development Corp. of America

**PI-SQUARE ENGINEERING CO., AMERICAN CENTER FOR ANALOG COMPUTING**, 127 Clarendon St., Boston 16, Mass. / analog computing / DESCR: AC/AC makes available to science or industry a complete analog computing installation. The client may utilize his own experts, have personnel trained or call on specialists recommended by AC/AC / USE: for solving complex problems of any nature / fees — hourly and contractual basis / C27

Purdue University  
 Radio Corp. of America, Electronic Data Processing Division — see D1  
 Ramo-Wooldridge  
 Reeves Instrument Corp.  
 Rensselaer Polytechnic Institute  
 Seismograph Service Corp.  
 The Service Bureau Corp.  
 Southwestern Computing Service  
 Stanford Computation Center  
 Stanford Research Institute  
 Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
 Systems Laboratories Corporation  
 Tammen & Denison, Inc.

U.S. Air Force, Digital Computation Branch  
 U.S. Air Force, Inst. of Technology  
 U.S. Air Force, Rome Air Development  
 Center  
 U.S. Air Force, Structures Branch  
 U.S. Air Force, Wright Air Development  
 Center, Aeronautical Research Lab.  
 U.S. Naval Proving Ground  
 University of California  
 University of Durham Computing Labora-  
 tory  
 University of Illinois  
 University of Michigan  
 University of Rochester  
 University of Toronto  
 The George Washington University  
 Watson Scientific Computing Laboratory  
 Wayne State University Computing Center  
 Westinghouse Electric Corp., Air Arm  
 Division

**C28. COMPUTING SERVICES,  
 DIGITAL**

American Machine & Foundry Co.  
 Battelle Memorial Institute  
**BENDIX AVIATION CORP., BENDIX  
 COMPUTER DIVISION**, 5630 Arbor  
 Vitae St., Los Angeles 45, Calif. /  
 machine time and programming /  
 DESCR: machine time and program-  
 ming assistance on Bendix G-15 digital  
 computer (see C24) available at fac-  
 tory and in several cities / USE: sci-  
 entific, engineering and data processing  
 problems / Machine time, \$25-hr.; pro-  
 gramming, analysis, operation, \$10-hr.  
 / C28  
 B J Electronics, Borg-Warner Corp.  
 Brender and Brender, Inc.  
 C G Electronics Corp.  
 Computer Control Co., Inc.  
 Convair-San Diego-Electronics  
**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 consul-  
 tation, analysis and programming for  
 commercial, industrial or governmental  
 recordkeeping, or for scientific or en-  
 gineering applications. All services  
 available on a contract basis / Hourly  
 rates for use of equipment and/or  
 services / C28  
 The Datics Corp.  
**JOHN DIEBOLD & ASSOCIATES,  
 INC.**, 40 Wall St., New York 5, N.Y.  
 / digital computing services / C28  
**ELECTRONIC BUSINESS SERVICES**,  
 3266 Hunts Point Rd., Bellevue, Wash.  
 / Consultation in automation and data  
 processing service / DESCR: consul-  
 tation services, particularly for oper-  
 ators of small and moderate size busi-  
 nesses having problems in data pro-  
 cessing, automation, etc. / USE: serv-  
 ices vary to fit needs of clientele /  
 charges vary depending on amount of  
 work involved and results produced  
 / C28  
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 Financial Publishing Co.  
 The Franklin Institute Laboratories  
 General Electric Co., Computer Dept.  
 General Kinetics Incorporated — see C27

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 Cecil Hastings, Jr.  
 Institut Blaise Pascal  
 Arthur D. Little, Inc.  
 Moore School of Electrical Engineering  
 Norton Associates, Inc. — see H1  
 Pi-Square Engineering Co. — see C27  
 Radio Corp. of America, Electronic Data Processing Division — see D1  
 Recording and Statistical Corp.  
 Remington Rand Div. of Sperry Rand Corp.  
 Swedish Board for Computing Machinery  
 Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
 U.S. Army, Ballistic Research Labs.  
 U.S. Naval Proving Ground  
 University of California, Dept. of Mathematics  
 University of Cambridge  
 Westgate Laboratory, Inc.  
 Westinghouse Electric Corp., Analytical Department

### C29. CONNECTORS

Accurate Electronics Corp.  
 Alden Products Co.  
**AMP INCORPORATED**, Eisenhower Blvd., Harrisburg, Pa. / connectors / DESCR: computer connectors and wiring devices / USE: computer circuitry / C29  
 Amphenol Electronics Corp.  
 Cinch Manufacturing Corp.  
 DeJur-Amsco Corp.  
**ELCO CORPORATION**, "M" St. below Erie Ave., Philadelphia 24, Pa. / Connectors for printed-circuit and standard application / DESCR: versatile and flexible line of connectors providing almost any spacing desired. Reliable insertion and withdrawal data under stringent conditions already proven. Variety of connectors allows for engineering freedom of design. Available in standard, miniature, and microminiature sizes / USE: quick disconnect for electronic circuits / Depending on size from 50c on up / C29  
 Gulton Industries, Inc.  
 Sangamo Electric Co.  
 Schweber Electronics  
 Westinghouse Electric Corp., Analytical Department  
 Winchester Electronics, Inc.

### C30. CONSULTING SERVICES

ADB Institutet  
 Automation Consultants, Inc.  
**AUTOMATION ENGINEERS**, 344 W. State St., Trenton, N.J. / Management consultants / Analysis of automation opportunities and the economics of application; specialists in data processing; supervision in design and installation of automation improvements: Registered Professional Engineers / C30  
 Automation Research and Design Associates  
 Bengé Associates  
 Booz, Allen and Hamilton  
 Booz, Allen Applied Research, Inc.  
 Bowles, Andrews and Towne, Inc.  
 Burndy Corporation, Omaton Div.  
 John H. Burns & Associates  
 C-E-I-R, Inc. — see C27

C G Electronics Corp.  
 Circuit Engineering  
 Comptron Corp.  
 Computer Engineering Assoc., Inc.  
 Computing Consultants, Inc.  
 Computing Devices of Canada Ltd.  
 Cook Electric Co.  
 Corbin Corp.  
 Dasol Corp.  
 The Datics Corp.  
**JOHN DIEBOLD & ASSOCIATES, INC.**, 40 Wall St., New York 5, N.Y. / Consulting Services / C30  
 DocuMation, Inc.  
 Arnold I. Dumey  
 Ebasco Services Inc.  
 Wesley B. Edgar

**ELECTRONIC BUSINESS SERVICES**, 3266 Hunts Point Rd., Bellevue, Wash. / Consultation in automation and data processing service / DESCR: consultation services, particularly for operators of small and moderate size businesses having problems in data processing, automation, etc. / USE: services vary to fit needs of clientele / charges vary depending on amount of work involved and results produced / C30

Electronic Computer Programming Institute  
 Ferranti-Packard Electric Ltd.  
 Fischbach, McCoach & Associates, Inc.  
**H. S. GELLMAN & CO., LTD.**, 110 Bloor St. West, Toronto, Ont., Canada. / consulting services / electronic data processing consultants. Feasibility studies, programming services, operations research, training of clients' personnel / C30

General Electric Co., Computer Dept.  
 General Kinetics Incorporated — see C25 and C27

Gulton Industries, Inc.  
 Haller, Raymond, & Brown, Inc.  
 Information Systems, Inc.  
 KCS Ltd.  
 Edwin A. Lipps Engineering  
 Arthur D. Little, Inc.  
 H. B. Maynard & Co., Inc.  
 Midwest Research Institute  
 Measurement Engineering Ltd.

**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

Moore School of Electrical Engineering  
 National Analysts, Inc.  
 George A. Philbrick Researches, Inc.  
 Ramo-Wooldridge  
 Ransom Research  
 Scientific Computing Service  
 Short Brothers & Harland Ltd.  
 Stanford Research Institute

**SUTHERLAND CO.**, 1112 First National Bank Bldg., Peoria, Ill. / consulting services / DESCR: Information systems specialists within the management and operational environment. Practical application of advanced scientific management and operations research tech-

niques to provide optimum decision criteria and summary-control and exception-type reports from information processing, storage and retrieval systems. Evaluation, analysis, documentation, computer programming, and utilization of other information processing equipment / USE: clients in industry, commerce and government / billing based on work assignment / C30

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

University of Toronto

Watson Scientific Computing Laboratory

### C31. CONTROLS

Airpax Electronics Co., Seminole Div.  
**BENDIX AVIATION CORP.**, RESEARCH LABORATORIES DIV., P.O. Box 5115, Detroit 35, Michigan / controls / C31

Comptron Corp.  
 Data Systems Div., Norden-Ketay Corp.  
 Daystrom Systems, Div. of Daystrom, Inc.  
 The de Florez Co., Inc.  
 Electronic Control Systems, Inc.  
 Electronics Corp. of America  
 Electrosnap Corp.  
 Elliott Bros. (London) Ltd.  
 E-Z Sort Systems, Ltd.  
 Farrand Controls, Inc.  
 The Foxboro Co.  
 GPE Controls, Inc.  
 Guardian Electric Mfg. Co.  
 Hammarlund Mfg. Co., Inc.

**HARVEY-WELLS ELECTRONICS, INC.**, Research and Development Div., 5168 Washington St., West Roxbury 32, Mass. / building blocks / DESCR: 5-megacycle Data Bloc and Data Pac, high speed digital logic building blocks, an entirely new concept in computer control systems. Logic units, decade scalars, shift registers, counters and power supplies are included in the Harvey-Wells line of digital building blocks / USE: in data handling, data conversion, process control and automation, missile tracking systems and radar simulation. The Data Bloc units are primarily intended for planning and prototype work. Data Pacs are used for subsequent production runs / — / C31

The A. W. Haydon Company  
 Hughes Research & Development Laboratories

International Telemeter Corp.  
 Kaiser Metal Products, Inc.  
 The Walter S. Kraus Co.  
 Minneapolis-Honeywell Regulator Co., Industrial Division

National Bureau of Standards, Data Processing Systems Division

Philco Corp., Government & Industrial Div. — see C24, D1

Ramo-Wooldridge  
 Ransom Research  
 Visirecord, Inc.  
 Westgate Laboratory, Inc.

### C32. CONTROLS, AUTOMATIC

Advanced Electronics, Inc.

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Up to 12 bits/character!

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TWO Roxbury, Mass. 1057  
HIGHLANDS 5-5640

Applied Science Corp. of Princeton  
Assembly Products, Inc.  
Atlas Precision Products Co.  
Consolidated Controls Corp. — see D12  
Datex Corp.  
Di/An Controls, Inc.  
Electronic Specialty Co.  
Elliott Bros. (London) Ltd.  
Engineers Northwest  
General Controls Co.  
General Electric Co., Computer Dept.  
GPE Controls, Inc.  
The A. W. Haydon Company  
Hillyer Instrument Co.  
N. V. Hollandse Signaalapparaten  
Industrial Control Co.  
Industrial Nucleonics Corporation  
International Resistance Company  
Leeds & Northrup Company  
Lewyt Manufacturing Corporation  
Measurement Engineering Ltd.  
Miles Reproducer Co., Inc.  
Minneapolis-Honeywell Regulator Co., Boston Division  
Notifier Corp.  
Panellit, Inc.  
Ransom Research  
Servomechanisms, Inc.  
The Teller Company  
The Thompson-Ramo-Wooldridge Products Co., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / automatic controls / C32  
Vickers, Inc.  
Weston Instruments

## C33. CONTROLS, SIGNALING

Advanced Electronics, Inc.  
American Electronics, Inc.  
Applied Science Corp. of Princeton  
Bendix Aviation Corp., Bendix-Pacific Div.  
Bowmar Instrument Corp.  
Electronic Specialty Co.  
Elliott Bros. (London) Ltd.  
General Electric Co., Computer Dept.  
GPE Controls, Inc.  
Industrial Nucleonics Corporation  
International Resistance Company  
Leeds & Northrup Company  
Miles Reproducer Co., Inc.  
Notifier Corp.  
Ransom Research  
Vickers, Inc.

## C34. CONTROLS, SORTING AND COUNTING

Avco Mfg. Corp.  
Baird-Atomic Co.  
Di/An Controls, Inc.  
Digitronics Corp.  
Eagle Signal Corp.  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
The A. W. Haydon Company  
Industrial Nucleonics Corporation  
Measurement Engineering Ltd.  
Opad Electric Co.  
Ransom Research  
Stromberg-Carlson, a Division of General Dynamics Corp.  
Sunshine Scientific Instrument Co.

## C35. CONVERTERS, ELECTRICAL

Audio Instrument Co., Inc.  
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Ferranti-Packard Electric Ltd.  
Kay Electric Co.  
Packard Bell Computer Corp.  
Sangamo Electric Co.

**C36. CONVERTERS, ELECTRICAL,  
HIGH FREQUENCY**

**C37. CONVERTERS, ELECTRICAL,  
LOW FREQUENCY**

Airpax Electronics Co., Seminole Div.  
Leeds & Northrup Company

**C38. CONVERTERS, ELECTRICAL,  
POWER FREQUENCY**

Airpax Electronics Co., Seminole Div.  
Consolidated Avionics Corp.  
Northam Electronics, Inc.  
Opad Electric Co.  
Sangamo Electric Co.  
Trans Electronics, Inc.  
Vickers, Inc.

**C39. CONVERTERS, INFORMATION**

Avion Division, ACF Industries, Inc.  
Bendix Aviation Corp., Bendix-Pacific  
Div.  
Benson-Lehner Corp.  
GCS Laboratories, Inc.  
Control Data Corp.  
DI/AN CONTROLS, INC., 40 Leon St.,  
Boston 15, Mass. / Converters /  
DESCR: code and format converters /  
C39

Electronic Engineering Co. of Calif.  
Ferranti-Packard Electric Ltd.

Fischer & Porter Co.  
General Electric Co., Computer Dept.  
General Mills, Inc.  
The Geotechnical Corp.  
The A. W. Haydon Company  
Hewlett-Packard Company  
Librascope, Inc.

LINK AVIATION, INC., Binghamton,  
N.Y. / Converters / High Speed Digital  
to Analog and Analog to Digital  
converters, Paper Tape to computer  
intelligence, etc. available as standard  
design items / C39

National Data Processing Corporation  
Northrup Aircraft, Inc.

PHILCO CORP., GOVERNMENT &  
INDUSTRIAL DIV., 4700 Wissahickon  
Ave., Philadelphia 44, Pa. / con-  
verters, information / C39

Ransom Research

Rex Corp.

Statistical Instrument Co.

Telemeter Magnetics, Inc. — see M2

The Thompson-Ramo-Wooldridge Prod-  
ucts Co.

U.S. Naval Proving Ground

**C40. CONVERTERS, INFORMATION,  
ANALOG TO DIGITAL**

Aeronca Mfg. Corp.

Airflyte Electronics Co.

Airpax Electronics Co., Seminole Div.

Armour Research Foundation, Illinois In-  
stitute of Technology

Bendix Aviation Corp., Bendix-Pacific  
Div.

Bendix Aviation Corp., Eclipse-Pioneer  
Div.

Clifton Precision Products Co., Inc.

Coleman Engineering Co.

Colorado Research Corp.

CONSOLIDATED CONTROLS CORP.,  
Bethel, Conn. / magnetic shaft po-  
sition encoder / DESCR: shaft position  
to digital voltage encoder; magnetic  
pickoffs operate out of contact with  
no wear / USE: digital position feed  
back / price on request / C40

Cubic Corporation

Datex Corp.

The Datics Corp.

Daystrom Systems, Div. of Daystrom, Inc.

Di/An Controls, Inc.

Electro Instruments, Inc.

Farrand Optical Co., Inc.

Fischer & Porter Co.

Ford Instrument Co.

General Electric Co., Computer Dept.

General Mills, Inc.

Gilmore Industries, Inc.

GPE Controls, Inc.

Hoover Electronics Company

Kearfott Co., Inc.

Lewyt Manufacturing Corporation

Librascope, Inc.

Librascope, Inc., Commercial Division  
Link Aviation, Inc. — see C23, C24, and  
C39

The Magnovox Co.

Measurement Engineering Ltd.

Minneapolis-Honeywell Reg. Co., Davies  
Laboratories Division

Minneapolis-Honeywell Regulator Co.,

Florida Inertial Guidance Center

Moran Instrument Corp.

The Newton Co.

NON-LINEAR SYSTEMS INC., Del Mar  
Airport, Del Mar, Calif. / Analog to  
Digital Converters and Data Logging  
Systems / DESCR: convert electrical  
parameters into digital visual and elec-  
trical form. Complete systems permit  
automatic recording of up to 1000 in-  
put channels / USE: computer set-up  
and solution recording / converters,  
\$1285 to \$8500; systems, \$2000 to  
\$80,000 / C40

Norden Division of United Aircraft Corp.

Radiation Counter Laboratories, Inc.

Ransom Research

J. B. Rea Co., Inc.

Reeves Instrument Corp.

The Standard Register Co.

Stromberg-Carlson (West Coast)

Telectro Industries Corp.

The Thompson-Ramo-Wooldridge Prod-  
ucts Co.

Veeder-Root, Inc.

Wayne-George Corp.

Weston Instruments

**C41. CONVERTERS, INFORMATION,  
CARD TO MAGNETIC TAPE**

Addressograph-Multigraph Corp.

Di/An Controls, Inc.

Electronic Engineering Co. of Calif.

General Electric Co., Computer Dept.

National Data Processing Corporation

Radio Corp. of America, Electronic Data  
Processing Division — see D1

Remington Rand Div. of Sperry Rand Corp.

Telectro Industries Corp.

**C42. CONVERTERS, INFORMATION,  
CARD TO PAPER TAPE**

Atlas Precision Products Co.

Di/An Controls, Inc.

Electrosnap Corp.

General Cybernetics Corp.

General Electric Co., Computer Dept.

INTERNATIONAL BUSINESS MACH-  
INES CORPORATION, DATA PRO-  
CESSING DIVISION, 112 East Post  
Rd., White Plains, N.Y. / IBM 63  
Card-Controlled Tape Punch / DESCR:  
The 63 reads alphabetical and numeri-  
cal information in IBM punch cards  
and perforates 5-channel telegraphic  
tape with that data. The machine con-  
sists of a card reading unit and a tape  
punching unit / USE: to transmit  
data automatically by commercial wire  
services / Monthly rental, \$75. Selling  
price, \$3,600. All prices exclusive of  
tax / C42

International Computers & Tabulators Lim-  
ited

National Data Processing Corporation

PDP Division American Electronics, Inc.

Remington Rand Div. of Sperry Rand Corp.

Underwood Corporation — see T18

**C43. CONVERTERS, INFORMATION,  
COMPUTING**

Airpax Electronics Co., Seminole Div.

Applied Science Corp. of Princeton

BENDIX AVIATION CORP., BENDIX  
COMPUTER DIVISION, 5630 Arbor  
Vitae St., Los Angeles 45, Calif. /  
AN-1 alphanumeric adapter / DESCR:  
enables Bendix G-15 general purpose  
digital computer to read or punch codes  
via paper tape or other media, of other  
data handling, computing and commu-  
nication devices (see C24) / sale  
\$13,650; lease \$550 per month / C43

Control Data Corp.

Di/An Controls, Inc.

General Electric Co., Computer Dept.

Librascope, Inc.

Ransom Research

**C44. CONVERTERS, INFORMATION,  
DIGITAL TO ANALOG**

Airflyte Electronics Co.

Airpax Electronics Co., Seminole Div.

Armour Research Foundation, Illinois In-  
stitute of Technology

Bendix Aviation Corp., Bendix-Pacific  
Div.

Clifton Precision Products Co., Inc.

Coleman Engineering Co.

Computer-Measurements Corp.

Di/An Controls, Inc.

Ford Instrument Co.

General Electric Co., Computer Dept.

Hewlett-Packard Company

Kearfott Co., Inc.

Librascope, Inc.

Link Aviation, Inc. — see C23, C24, and  
C39

Ransom Research

Reeves Instrument Corp.

Société d'Electronique et d'Automatisme

Systems Laboratories Corporation

The Teller Company

**C45. CONVERTERS, INFORMATION,  
MAGNETIC TAPE TO CARD**

Di/An Controls, Inc.

Electronic Engineering Co. of Calif.

General Electric Co., Computer Dept.

Minneapolis-Honeywell Reg. Co., Davies  
Laboratories Division

National Data Processing Corporation  
Radio Corp. of America, Electronic Data  
Processing Division—see D1  
Remington Rand Div. of Sperry Rand Corp.  
Telectro Industries Corp.

#### C46. CONVERTERS, INFORMATION, MAGNETIC TAPE TO PAPER TAPE

Control Data Corp.  
Di/An Controls, Inc.  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
National Data Processing Corporation  
Radio Corp. of America, Electronic Data  
Processing Division—see D1  
Ransom Research  
Remington Rand Div. of Sperry Rand Corp.

#### C47. CONVERTERS, INFORMATION PAPER TAPE TO CARD

Di/An Controls, Inc.  
Digital Service Labs  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 46 Tape-to-Card Punch / DESCR: The 46 reads alphabetic or numerical information from a punched paper tape and converts it to IBM punched cards / USE: Model 1 reads 5 and 8-channel tape; Model 2 reads 8-channel only. 5-channel tapes can be transmitted by commercial wire services / Monthly rental, Model 1, \$140, Model 2, \$135. Selling prices, Model 1, \$6,300, Model 2, \$6,050. All prices exclusive of tax / C47

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 47 Tape-to-Card Printing Punch / DESCR: The 47 reads alphabetic or numeric information from a punched paper tape and converts it to IBM punched cards. With the 47, any information punched may be printed along the top of the card. The printed characters will appear in the same column as their corresponding punches. Model 1 reads 5 and 8-channel tape. Model 2 reads 8-channel tape only / Monthly rental prices, Model 1, \$160, Model 2, \$155. Selling prices, Model 1, \$7,200, Model 2, \$6,950. All prices exclusive of tax / C47

International Computers & Tabulators Limited  
Minute Maid Corp.  
National Data Processing Corporation  
Remington Rand Div. of Sperry Rand Corp.  
Underwood Corporation—see T18

#### C48. CONVERTERS, INFORMATION, PAPER TAPE TO MAGNETIC TAPE

Control Data Corp.  
Di/An Controls, Inc.  
Digital Service Labs  
Digitronics Corp.  
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 char-

acters/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

Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
National Data Processing Corporation  
Ransom Research  
Remington Rand Div. of Sperry Rand Corp.

#### C49. CORDS

AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / cords / DESCR: power supply cords / USE: computer circuitry / C49

#### C50. CORES

THE ARNOLD ENGINEERING CO., P.O. Box G, Marengo, Ill. / cores / —see C52 / C50  
Ferroxcube Corp. of America  
Magnetics, Inc.  
Magnetics Research Co., Inc.  
National Moldite Co.  
Stackpole Carbon Co.  
Steward Mfg. Co.  
Telemeter Magnetics, Inc.—see M2

#### C51. CORES, FERRITE

Aerovox Corp.  
Allen-Bradley Co.  
Ferroxcube Corp. of America  
General Electric Co., Computer Dept.  
Mico Instrument Co.  
Radio Corp. of America, Semiconductor and Materials Division  
The Yale & Towne Manufacturing Co.

#### C52. CORES, MAGNETIC

THE ARNOLD ENGINEERING CO., P.O. Box G, Marengo, Ill. / Bobbin cores / DESCR: Bobbin cores of 4-79 Mo-Permalloy and Deltamax as well as tape wound cores including Supermalloy and Supermendur; powder cores of Molybdenum Permalloy, Sendust and carbonyl iron; "C" and "E" cores; Alnico permanent magnets; special magnetic materials / USE: in shift registers, coincident current matrix systems, pulse transformers, static magnetic memory elements, harmonic generators and similar equipment / between 40c and \$5.00 / C52

Carstedt Research, Inc.  
Columbian Carbon Co., Mopico Color Div.  
Ferroxcube Corp. of America  
General Ceramics Corporation  
General Electric Co., Computer Dept.  
General Electric Co., Electronic Components Dept.  
General Electric Co., Semiconductor Products Dept.  
THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / magnetic cores / C52  
The Yale & Towne Manufacturing Co.

#### C53. COUNTERS

Airpax Electronics Co., Seminole Div.  
Alden Products Co.  
Bendix Aviation Corp., Bendix-Pacific Div.

Data Instruments Div. of Telecomputing Corp.

Electrol, Inc.  
Engineered Electronics Co.  
Ferranti-Packard Electric Ltd.  
General Controls Co.  
Gordon Enterprises  
Harvey-Wells Electronics, Inc.—see C31  
The A. W. Haydon Company  
Hewlett-Packard Company  
Hillburn Electronic Products Co.  
Landis & Gyr, Inc.  
Magnetics Research Co., Inc.  
Radiation Counter Laboratories, Inc.  
Tally Register Corp.  
The Walkirt Co.—see C10

#### C54. COUNTERS, ELECTRONIC

Airpax Electronics Co., Seminole Div.  
Baird-Atomic Co.  
Bendix Aviation Corp., Bendix-Pacific Div.  
Bowmar Instrument Corp.  
Burroughs Corp., Electronic Tube Div.  
Di/An Controls, Inc.  
Ferranti-Packard Electric Ltd.  
Gordon Enterprises  
Hewlett-Packard Company  
Lewyt Manufacturing Corporation  
Richardson Camera Company, Inc.—see D2A  
Strand Engineering Co.  
Strandberg Engineering Lab., Inc.  
Veeder-Root, Inc.  
The Walkirt Co.—see C10

#### C55. COUNTERS, FREQUENCY

Airpax Electronics Co., Seminole Div.  
Bendix Aviation Corp., Bendix-Pacific Div.  
Electro Instruments, Inc.  
Ferranti-Packard Electric Ltd.  
Gordon Enterprises  
Hewlett-Packard Company  
The Walkirt Co.—see C10

#### C56. COUNTERS, MECHANICAL

Atlas Precision Products Co.  
Bendix Aviation Corp., Bendix-Pacific Div.  
Bowmar Instrument Corp.  
Chrono-log Corp.  
Fischer & Porter Co.  
Gordon Enterprises  
Sigma Instruments Inc.

#### C57. COUNTERS, PROPORTIONAL

Baird-Atomic Co.  
Bowmar Instrument Corp.  
The A. W. Haydon Company

#### 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.  
Electronic Computer Programming Institute

**THE PHILCO TECHNOLOGICAL CENTER**, 22nd and Lehigh Ave., Philadelphia 32, Penna. / computer and transistor correspondence courses / DESCR: basic theory, operational aspects and transistor correspondence courses and applications of analog and digital computers, including computational mathematics, programming, installation, maintenance, operation and manufacturing techniques of all makes / USE: instruction / \$40 to \$125 / C58

#### D1. DATA PROCESSING MACHINERY

Addo-x, Inc.

American Electronics, Inc.

**AUTOMATION ENGINEERS**, 344 W. State St., Trenton, N.J. / Data inter-coupler / DESCR: Mechanism for cable connecting an automatic multiplying typewriter with any standard accounting machine. Programmed output information for the typewriter is automatically transmitted to the accounting machine / USE: simplifies accounting systems by combining the complete invoicing operation with accounts receivable, inventory, and sales-profit analysis / between \$2,000 and \$3,000 / D1

Avion Division, ACF Industries, Inc.

Benson-Lehner Corp.

**BULL S.A. COMPAGNIE DES MACHINES**, 94 Avenue Gambetta, Paris 20, France / DESCR: punch card machines; data processing equipment; scientific gamma computers / \$20,000 to \$3,000,000 / D1

Burroughs Corp., Research Center

Canadian Applied Research Ltd.

C-E-I-R, Inc. — see C27

Computer Control Co., Inc.

Consolidated Electrodynamics Corp.

Control Data Corp.

**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 / D1

**DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO.**, 151 Needham St., Newton Highlands 61, Mass. / Honeywell 800 Transistorized Data Processing System / DESCR: medium-scale, general purpose, fully transistorized system. Internal operating speed is 30,000 three-address operations per second; magnetic tape speed is 96,000 decimal digits/second. Magnetic-core memory ca-

capacity is 4,096 to 16,384 words. Works in both binary and decimal arithmetic, floating-point arithmetic is optional. Automatically controlled parallel processing permits up to 8 programs (business and/or scientific) in parallel operation. Reads, writes, and computes simultaneously. Small building-block units permit unlimited expansion / USE: business data processing and/or scientific computing / Monthly rental, \$11,000 and up; selling price, \$528,000 and up / D1

Dennison Mfg. Co.

**JOHN DIEBOLD & ASSOCIATES, INC.**, 40 Wall St., New York 5, N.Y. / Data Processing Machinery / D1

**DI/AN CONTROLS, INC.**, 40 Leon St., Boston 15, Mass. / Data Processing Machinery / DESCR: buffer storages, memories, special purpose digital and analog computers, code and format converters, digital computer elements, counters, magnetic and transistor shift registers and logical elements, transistor circuit packages, plug-in circuits, servo amplifiers, special instrumentation equipment / D1

Electronic Associates, Inc.

Electronic Control Systems, Inc.

Electronic Engineering Co. of Calif.

Electronics Corp. of America

The English Electric Co. Ltd.

Fairchild Camera & Instrument Corp.

Ferranti, Ltd.

Ferranti-Packard Electric Ltd.

**FRIDEN, INC.**, San Leandro, Calif. / Add-Punch / DESCR: ten-key electric adding and listing machine that produces a standard adding machine tape as an original source document and, as an automatic by-product, punches complete or select data on a common language tape for subsequent data processing; has visible check dials which show each item entered before adding, printing, or punching / USE: to record data at source level for integrated data processing by card-punch or other common-language machines / D1

**FRIDEN, INC.**, San Leandro, Calif. / Friden Computyper / DESCR: electro-mechanical automatic writing-calculating machine. Automatic input from punched tape, edge-cards, or tab cards, or manual input from standard typewriter keyboard; all calculations performed and printed automatically. With coded input, production of original documents and integrated records is automatic. Machine has full compatibility with variety of auxiliary input-output units. USE: billing or invoicing with simultaneous punching of tab cards and by-product punched tape for automatic processing or wire transmission; computer input; sales and purchase order writing; payroll computing / D1

General Electric Co., Computer Dept.

General Precision Laboratory, Inc.

The Geotechnical Corp.

Gordon Enterprises

GPE Controls, Inc.

Hewlett-Packard Company

Hughes Research & Development Laboratories

**INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION**, 112 East Post Rd., White Plains, N.Y. / IBM Series 1200 Character Sensing Equipment / DESCR: A new electronic system for the automatic handling of bank checks. The new Series 1200 equipment makes use of an arabic character "common language" which can be read by both men and machines. These characters, representing the amount, bank number, and other essential data, are imprinted on each check in magnetic ink. The Series 1200 equipment reads this information from each check, proves and accumulates totals for all checks being processed, sorts the checks into desired sequence, and posts check data directly into an IBM data processing system for a completely automatic check processing operation. The new Series 1200 equipment consists of four units: a utility inscriber, proof inscriber, sorter-reader, and a control unit. Series 1200 equipment can be used with the IBM 407 accounting machine, RAMAC 305 computer, and 650, 705, and 7070 data processing systems to meet the needs of banks of various sizes / USE: automatic check handling / Rental and purchase prices available from the manufacturer / D1

International Computers & Tabulators Limited

The Kybernetes Corp.

Lewyt Manufacturing Corporation

Librascope, Inc.

**LINK AVIATION, INC.**, Binghamton, N.Y. / Data Processing and Display / Full range of both analog and digital computer equipment for data processing and reduction. Resultant display equipment includes x-y plotters, continuous and periodic event recorders and a Forty Character Oscilloscope Display / D1

The Magnovox Co.

M. I. T. Computation Center

Monroe Calculating Machine Co.

National Analysts, Inc.

**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

**THE NATIONAL CASH REGISTER CO.**, Electronics Div., 1401 East El Segundo Blvd., Hawthorne, Calif. / data processing machinery / DESCR: electronic research and development in the field of business data processing systems / D1

The Newton Co.

**NON-LINEAR SYSTEMS INC.**, Del Mar Airport, 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 \$20,000 / D1

Northam Electronics, Inc.  
Northrop Aircraft, Inc.  
PDP Division American Electronics, Inc.  
**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, \$1,200,000 up; monthly rental, \$30,000 / D1

Radiation, Inc.

**RADIO CORPORATION OF AMERICA, ELECTRONIC DATA PROCESSING DIVISION**, Front & Cooper Sts., Camden 2, N.J. / the RCA 501 electronic data processing system / DESCR: the RCA 501 is 100% transistorized, including peripheral equipment . . . expandable from medium size to practically unlimited capacity. It can perform 16 different simultaneous operations, read its magnetic tapes forward or backward. The system employs unique storage and processing techniques which can save hours of computer time per day / USE: to achieve extremely low cost per unit of work in general business data processing / rental; \$11,850/mo. to \$35,000/mo.: purchase; \$550,000 to \$1,500,000 / D1

Ramo-Wooldridge

**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.

Smith-Corona Marchant, Inc.

Southwestern Industrial Electronics Co.

Sperry Rand Corp., Sperry Gyroscope Div.  
The Standard Register Co.

Strand Engineering Co.

Stromberg-Carlson, a Division of General Dynamics Corp.

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

**TECHNICAL OPERATIONS, INC.**, Burlington, Mass. / data processing systems / DESCR: computer systems and applications / D1

Technitrol Engineering Company

Telectro Industries Corp.

The Teller Company

**THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO.**, P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / data processing machinery / D1

**UNDERWOOD CORPORATION**, One Park Ave., New York 16, N.Y. / data processing machinery / DESCR: Data-Flo systems with manual programming, tape programming, or plug board programming with 88,275 or 550 steps. Systems comprise electric typewriters, adding machines, paper tape punches and readers, card punches and readers, independently controlled. Underwood

**Electronic Business Computer (UEBC)**, small size, low cost computer, with on line output printers, paper tape punches and readers (see also I3 and T18) / USE: any business applications requiring integrated data processing, either as self-contained systems, or in conjunction with any other equipment using paper tape, specially input to punch card systems, or to medium or large scale computers / \$1,850 to \$12,000, (Data-Flo) \$74-\$480 monthly; \$24,000 to \$32,000, (UEBC) \$720-\$960 rentals / D1

U.S. Navy, Aviation Supply Office  
Wiancko Engineering Co.  
Wright Aeronautical

## D2. DATA RECORDING EQUIPMENT

Addo-x, Inc.

Alleghany Instrument Co., Inc.

American Electronics, Inc.

**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 / D2

Automation Engineers — see D1

**AUTONETICS**, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / data recording equipment / D2

J. H. Bennell and Co.

Benson-Lehner Corp.

Century Electronics & Instruments, Inc.

Consolidated Controls Corp. — see D12

Consolidated Electrodynamics Corp.

Control Data Corp.

Convair-San Diego-Electronics

Cook Electric Co.

Cubic Corporation

Fischer & Porter Co.

Flight Research, Inc.

The Foxboro Co.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Gordon Enterprises

Hewlett-Packard Company

International Telemeter Corp.

Librascope, Inc.

Link Aviation, Inc. — see D1

Minneapolis-Honeywell Reg. Co., Davies Laboratories Division

**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 / D2

National Data Processing Corporation

National Physical Laboratory, Control Mechanisms and Electronics Division

real . . .  
rational . . .  
remarkable . . .

# ROBOTS

for trade shows,  
sales meetings,  
exhibits, etc.,

*guaranteed to STOP every person attending the show and make him notice your display —*

## RELAY MOE

A robot that will play the game Tit-Tat-Toe with a human being and either win or draw all the time, or (depending on the setting of a switch) will sometimes lose so as to make the game more encouraging for the human being. Pictured in Life Magazine, Radio Electronics. Has drawn crowds in Dallas, Texas, Atlantic City, and New York. Went to Stockholm, Sweden, for 2-week exhibit.

## CYCLOPS

An improved electronic robot squirrel with a single photoelectric eye and a scoop, that will "hunt" for a "nut" indicated by a person in the audience, pick it up in his "hands", take the "nut" to his "nest", there leave it, then hunt for more nuts. Operates in lighted areas.

## REMOTE CONTROL POWER SHOVEL

Miniature electric power shovel. Moves forward and back, turns right or left, raises or lowers boom, raises or lowers shovel, extends or retracts shovel. Operates at end of a cable.

## "TEST YOUR NERVE" MACHINE

A game of skill, fun, mystery. This device with automatic scoreboard has a hidden photo-electric cell which triggers a series of lights. The audience participant tries to move a disc on the end of a wand in a straight line keeping the light beam covered. Each deviation is penalized by an increasing score. Comes complete with interchangeable copy plaques, extendable wands (for playing from the aisle) and different size discs (to vary the level of difficulty).

And other fascinating, intelligent small robots, finished or being developed, **FRANKEN, MARBELLINA, SIMON, MAGDUM. . . .**

Mail this coupon (or a copy of it)

To: Berkeley Enterprises, Inc.  
815 Washington St., R141  
Newtonville 60, Mass.

Please send me free data on robots for rent or sale. The application we have in mind is.....

My name and address are attached.

North Electric Company  
 Northam Electronics, Inc.  
 Northrop Aircraft, Inc.  
 Notifier Corp.  
 Radiation, Inc.  
 Radio Corp. of America, Electronic Data Processing Division — see D1  
 Reeves Instrument Corp.  
 Sanborn Company  
 Servo Corp. of America  
 Shand & Jurs Co.  
 Southwestern Industrial Electronics Co.  
 The Standard Register Co.  
 Stromberg-Carlson, a Division of General Dynamics Corp.  
 Technitrol Engineering Company  
 Telectro Industries Corp.  
 The Thompson-Ramo-Wooldridge Products Co.  
 Westrex Corp.

#### D2A. DATA REDUCTION EQUIPMENT

Alwac Computer Div., El-Tronics, Inc.  
 Andersen Laboratories, Inc.  
 Avion Division-Alexandria, ACF Industries, Inc.  
 Benson-Lehner Corp.  
 Control Data Corp.  
 Data Instruments Div. of Telecomputing Corp.  
 Datex Corp.  
 Di/An Controls, Inc.  
 General Electric Co., Computer Dept.  
 The Geotechnical Corp.  
 Gordon Enterprises  
 Hycon Eastern, Inc.  
 Leeds & Northrup Company  
 Lewyt Manufacturing Corporation  
 Librascope, Inc.  
 Link Aviation, Inc. — see D1  
 Minneapolis-Honeywell Reg. Co., Davies Laboratories Division  
 Remington Rand Div. of Sperry Rand Corp.  
**RICHARDSON CAMERA CO., INC.**, 2526 N. Ontario St., Burbank, Calif. / Photogrammetric Data Reduction and Projection Equip. / DESCR: semi-automatic reduction and recording of filmed data; 16mm, 35mm, and 70mm interchangeable precision film transport; 5½", 9½", and glass plate capabilities, variable speed cine-motion, stop motion, fwd-reverse; viewers and portable projectors for study, evaluation, and editing all sizes of film, special cameras / USE: to assess reduce filmed data such as missile test, aircraft test, photo panels, instrumentation recording, oscillograph and monometer recording etc. / \$3,000 to \$20,000, depending on requirements / D2A  
 The Teller Company  
**THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO.**, P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / data reduction equipment / D2A  
 U.S. Navy, Naval Research Lab.

#### D3. DELAY LINES (COMPUTER TYPES)

**AMP INCORPORATED**, Eisenhower Blvd., Harrisburg, Pa. / delay lines / DESCR: computer type delay lines / USE: pulse delay / D3

Andersen Laboratories, Inc.  
 Arenberg Ultrasonic Laboratory, Inc.  
 Audio Instrument Co., Inc.  
 Richard D. Brew & Co., Inc.  
 Coilcraft, Inc.  
 Columbia Technical Corp.  
 Computer Engineering Assoc., Inc.  
 Control Electronics Co., Inc.  
 Corning Glass Works  
 Delttime, Inc.  
 Dilectron Div. of the Gudeman Co.  
 Edo Corp.  
 Electrometric Division of Whitewater Electronics, Inc.  
 El-Rad Mfg. Co.  
 Epsco Components  
**ESC CORP.**, 534 Bergen Blvd., Palisades Park, N.J. / Delay Lines / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / D3

**FERRANTI ELECTRIC, INC.**, 95 Madison Ave., Hempstead, N.Y. / magnetostriction 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. Temperature coefficient less than 1 ppm/°C where required / USE: digital storage, stable delays, signal integration / \$100 to \$300 / D3  
 General Electric Co., Electronic Components Dept.  
 General Electric Co., Semiconductor Products Dept.  
 Gulton Industries, Inc.  
 Helipot Division of Beckman Instruments, Inc.  
 Litton Industries, Components Div.  
 The Ralph M. Parsons Co.  
 PCA Electronics Inc.  
 Polyphase Instrument Co.  
 Sturup, Inc.  
 Technitrol Engineering Company  
 Valor Instruments, Inc.  
 Whitewater Electronics, Inc.

#### D4. DESK CALCULATORS

**FRIDEN, INC.**, San Leandro, Calif. / automatic desk calculators / DESCR: add, subtract, multiply, divide automatically; wide variety of styles including Model SRW for automatic extraction of square root and new Model SBT with automatic "back transfer," grand totals, and fractional-cent adjustment / USE: desk calculation of all kinds / \$475 to \$1300 (taxes not included) / D4  
 Marchant Calculators Division of Smith-Corona Marchant Inc.  
 Olivetti Corp. of America  
 Remington Rand Div. of Sperry Rand Corp.  
 Vaucanson

#### D5. DIALS

Sterling Precision Corp.

#### D6. DIFFERENTIAL ANALYZERS

**AUTONETICS**, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / differential analyzers / D6

**BENDIX AVIATION CORP.**, BENDIX COMPUTER DIVISION, 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). Can be used as DDA alone when connected to G-15 or as combination general purpose computer and DDA / USE: easy solution to differential equations / \$13,700, sale; \$550 a mo., lease (G-15 general purpose computer also required) / D6  
 Computer Control Co., Inc.  
 Donner Scientific Co.  
 Ferranti-Packard Electric Ltd.  
**GENERAL ELECTRIC CO.**, Schenectady, N.Y. / differential analyzer / see C27 / D6  
 General Electric Co., Computer Dept.  
 Moore School of Electrical Engineering  
 Packard Bell Computer Corp.  
 Reeves Instrument Corp.  
 Vectron, Inc.

#### D7. DIODES (COMPUTER TYPES)

Amperex Electronic Co.  
 Hoffman Electronics Corp.  
 International Rectifier Corp.  
 Kemtron Electron Products, Inc.  
 Pacific Semiconductors, Inc.  
 Qutronic Semiconductor Corp.  
 Radio Corp. of America, Semiconductor and Materials Division  
**RAYTHEON MFG. CO., SEMICONDUCTOR DIV.**, 215 First Ave., Needham Hgts. 94, Mass. / semiconductor diodes and rectifiers / DESCR: silicon and germanium diodes, silicon rectifiers / USE: computer and related uses / — / D7  
 Rex Corp.  
 Sylvania Electric Products, Inc., Semiconductor Div.  
 Thermosen, Inc.  
 Transistor Products, Inc.  
 Tung-Sol Electric, Inc.  
 Westinghouse Electric Corporation, Semiconductor Department

#### D8. DIODES (COMPUTER TYPES), GERMANIUM

Allgemeine Elektricitaets-Gesellschaft  
 Amperex Electronic Co.  
 Clevite Transistor Products  
 Federal Telephone and Radio Co.  
 General Electric Co., Semiconductor Products Dept.  
 General Instrument Corp., Semiconductor Div. and Automatic Mfg. Div.  
 General Transistor Corp.  
 Hughes Aircraft Company, Semiconductor Div.  
 Kemtron Electron Products, Inc.  
 Philco Corp., Lansdale Tube Co. Div.  
 Raytheon Mfg. Co., Semiconductor Division — see D7, R10  
 Transistron Electronic Corp.  
 United States Dynamics Corp.  
 Westinghouse Electric Corporation, Semiconductor Department

#### D9. DIODES (COMPUTER TYPES), POWER

Amperex Electronic Co.  
 Clevite Transistor Products  
 Ferranti-Packard Electric Ltd.  
 International Rectifier Corp.

Kemtron Electron Products, Inc.  
 Raytheon Mfg. Co., Semiconductor Division — see D7, R10  
 Vickers, Inc.  
 Westinghouse Electric Corporation, Semiconductor Department

#### D10. DIODES (COMPUTER TYPES), SILICON

Amperex Electronic Co.  
 AUDIO DEVICES, INC., SILICON RECTIFIER DIV., 620 E. Dyer Rd., Santa Ana, Calif. / silicon diodes / D10  
 Clevite Transistor Products  
 Ferranti-Packard Electric Ltd.  
 General Electric Co., Semiconductor Products Dept.  
 General Instrument Corp., Semiconductor Div. and Automatic Mfg. Div.  
 Helipot Division of Beckman Instruments, Inc.  
 Hughes Aircraft Company, Semiconductor Div.  
 International Rectifier Corp.  
 Kemtron Electron Products, Inc.  
 P. R. Mallory & Co., Inc.  
 Motorola, Inc., Semiconductor Products Division  
 Philco Corp., Lansdale Tube Co. Div.  
 Sperry Semiconductor Division of Sperry Rand Corp.  
 Texas Instruments, Inc.  
 United States Dynamics Corp.  
 U.S. Semiconductor Products, Inc.

#### D11. DISCS, MAGNETIC

BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, 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 / USE: memory systems / \$1,000 to \$50,000 / D11

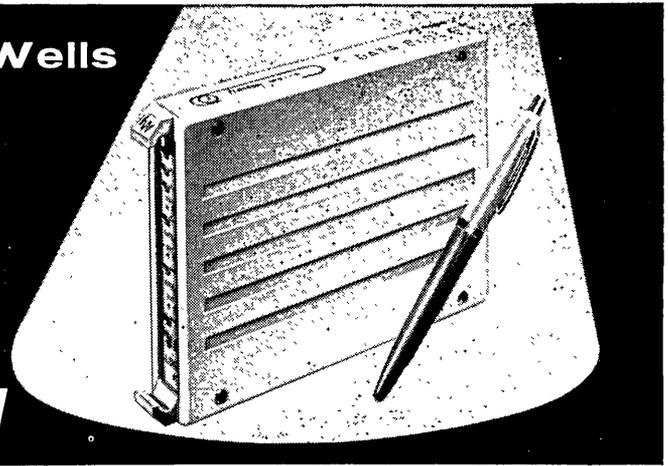
General Electric Co., Computer Dept.  
 THE WHITNON MANUFACTURING CO., Route 6 and New Britain Ave., Farmington, Conn. / magnetic discs / DESCR: Precision rotary devices for magnetic storage; speeds of 60 rpm to 30,000 rpm or higher, with eccentricity under fifty millionths (.00005"). Diameters to 16", lengths to 48". Integral motor drive or belt drive. Special drums manufactured to customer's requirements / \$500 and up / D11

#### D12. DRUMS, MAGNETIC

Aeronutronic Systems, Inc.  
 Alvac Computer Div., El-Tronics, Inc.  
 BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, 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,

Harvey-Wells

HERE  
 NOW



## 5 mc Data Bloc • Data-Pac

Versatile, High-Speed digital building blocks for data handling, data conversion systems . . . special purpose counters . . . process control and automation . . . laboratory research and test equipment.

*NMR instrumentation, electromagnets and power supplies, error signal comparator . . . digital components.*



**HARVEY-WELLS ELECTRONICS, INC.**

*Research and Development Division*

5168 WASHINGTON ST., WEST ROXBURY 32, MASS.

000,000 bits / USE: memory systems / \$1,000 to \$50,000 / D12

CONSOLIDATED CONTROLS CORP., Bethel, Conn. / magnastat recording drum / DESCR: magnetic drum for digital information storage whose output is totally independent of drum speed / USE: program control, automation, robot memory (depends on application) / price on request / D12

Di/An Controls, Inc.

FERRANTI ELECTRIC, INC., 95 Madison Ave., Hempstead, N.Y. / magnetic storage drums 200B, 1009, 1201A and specials / DESCR: 200B: 20,000 bits 2.5 millisecond access, small size, 20 tracks. 1009: 400,000 bits, 144 tracks, up to 6000 RPM, can be synchronized to external clock. 1201A: 2,200,000 bits, 200 tracks, air bearing, air servoed head columns / USE: 200B, buffer storage or small volume main storage; 1009, 1201A, main storage—can be used in multiple, also available as storage unit with complete electronics / 200B, \$3000 to \$1500 with heads; 1009, \$14,000 with heads; 1201A, about \$20,000 with heads / D12

Ferranti-Packard Electric Ltd.  
 General Electric Co., Computer Dept.  
 Imtra Corp.  
 Laboratory for Electronics, Inc.  
 Librascope, Inc.  
 Librascope, Inc., Commercial Division  
 Minneapolis - Honeywell Regulator Co., Florida Inertial Guidance Center  
 Norton Associates, Inc.—see H1  
 Radio Corp. of America, Electronic Data Processing Division—see D1

Strand Engineering Co.  
 Wharf Engineering Lab

THE WHITNON MANUFACTURING CO., Route 6 and New Britain Ave., Farmington, Conn. / magnetic drums / DESCR: Precision rotary devices for magnetic storage; speeds of 60 rpm to 30,000 rpm or higher, with eccentricity under fifty millionths (.00005"). Diameters to 16", lengths to 48". Integral motor drive or belt drive. Special drums manufactured to customer's requirements / \$500 and up / D12

Wright Engineering Co.

#### E0. ECONOMIC RESEARCH

Automation Engineers—see C30  
 C-E-I-R, Inc.—see C27  
 Midwest Research Institute

#### E1. EDUCATION

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 at DATAMatic's main offices in Newton, Mass. and periodically in leading cities throughout the country. Attendance by invitation / No charge / E1  
 Moore School of Electrical Engineering  
 Stanford Computation Center

## E2. EMBEDDED ASSEMBLIES AND COMPONENTS

Di/An Controls, Inc.  
International Rectifier Corp.  
International Resistance Company  
Johnson Electronics Inc.  
Technitrol Engineering Company

## F1. FACSIMILE EQUIPMENT

Addressograph-Multigraph Corp.  
Alden Electronic and Impulse Recording Equipment Co.

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 Engineers — see D1  
Eastman Kodak Co.  
Technitrol Engineering Company  
Telectro Industries Corp.

## F1A. FANS AND BLOWERS

Lewyt Manufacturing Corporation  
Rotron Manufacturing Co.

## F2. FASTENERS AND FASTENING DEVICES

Hydro Molding Co., Inc.

## F3. FIRE CONTROL EQUIPMENT

Arma Div., American Bosch Arma Corp.  
Atlas Precision Products Co.  
Avco Mfg. Corp.  
Control Instrument Co.  
Corbin Corp.  
Daystrom Instrument, Div. of Daystrom, Inc.  
Eastman Kodak Co.  
Feedback Controls, Inc.  
Fenwal, Inc.  
Ferranti-Packard Electric Ltd.  
Ford Instrument Co.  
Gordon Enterprises  
N. V. Hollandse Signaalapparaten  
Hughes Research & Development Laboratories  
Kidde Ultrasonic & Detection Alarms, Inc.  
Lewyt Manufacturing Corporation  
Librascope, Inc.  
The W. L. Maxson Corp.  
Norden Division of United Aircraft Corp.  
Notifier Corp.  
Philco Corp., Government & Industrial Div. — see C24, C31  
Servo Corp. of America  
Sterling Precision Corp.

## G1. GENERATORS, FUNCTION

Donner Scientific Co.  
Electrol, Inc.  
Elgenco, Inc.  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
The A. W. Haydon Company  
Hewlett-Packard Company  
Intercontinental Dynamics Corp.  
Kaiser Metal Products, Inc.  
Kay Electric Co.  
Link Aviation, Inc. — see C23, C24, and G2  
Mid-Century Instrumatic Corp.

Packard Bell Computer Corp.  
Statistical Instrument Co.

## G2. GENERATORS, FUNCTION, ELECTRONIC

Donner Scientific Co.  
Fairchild Controls Corp., Components Div.  
General Electric Co., Computer Dept.  
Hewlett-Packard Company  
Lewyt Manufacturing Corporation

LINK AVIATION, INC., Binghamton, N.Y. / Electronic Function Generators / Multiple-variable Universal Analog and Digital Function Generators. Complete Digital assembly accommodates 64 simultaneous analog inputs while providing 80 analog outputs; capacity even greater for straight digital input/output situation. Also available, tappable and re-tappable 2" potentiometers for analog approximation / G2  
George A. Philbrick Researches, Inc.  
Rutherford Electronics Co.  
Vernistat Division of the Perkin-Elmer Corp.

## G3. GENERATORS, FUNCTION, MECHANICAL

Atlas Precision Products Co.  
Librascope, Inc., Commercial Division  
Telectro Industries Corp.

## G4. GEOPHYSICAL APPARATUS

Curtiss-Wright Corp., Electronics Div.  
Gordon Enterprises  
Lewyt Manufacturing Corporation  
Moran Instrument Corp.  
Southwestern Industrial Electronics Co.

## H1. HEADS, MAGNETIC

Alwac Computer Div., El-Tronics, Inc.  
Avco Mfg. Corp.  
BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, 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 / USE: memory systems / \$1,000 to \$50,000 / H1  
Consolidated Controls Corp. — see D12  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
Laboratory for Electronics, Inc.  
Librascope, Inc.  
Librascope, Inc., Commercial Division  
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division  
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

Radio Corp. of America, Electronic Data Processing Division — see D1  
Telectro Industries Corp.  
Westrex Corp.  
Wharf Engineering Lab  
Wright Engineering Co.

## H2. HEADS, MAGNETIC, READING

General Electric Co., Computer Dept.  
Librascope, Inc.  
Librascope, Inc., Commercial Division  
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division  
Monroe Calculating Machine Co.  
Norton Associates, Inc. — see H1  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Telectro Industries Corp.

## H3. HEADS, MAGNETIC, RECORDING

General Electric Co., Computer Dept.  
Librascope, Inc.  
Librascope, Inc., Commercial Division  
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division  
Monroe Calculating Machine Co.  
Norton Associates, Inc. — see H1  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Telectro Industries Corp.  
Smith-Corona Marchant, Inc.

## I1. INDICATORS (COMPUTER TYPES)

Aero Electronics Co.  
Amperex Electronic Co.  
Bowmar Instrument Corp.  
Burrroughs Corp., Electronic Tube Div.  
Convair-San Diego-Electronics  
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 ( $\frac{3}{8}$ " mounting) indicator lights, trademarked "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. Also Data-Strip and Data-Matrix for computers, etc. / I1  
Di/An Controls, Inc.  
Fenwal, Inc.  
Industrial Development Engineering Assoc., Inc.  
The Kybernetes Corp.  
Librascope, Inc.  
Link Aviation, Inc. — see C39  
NON-LINEAR SYSTEMS, INC., Del Mar Airport, Del Mar, Calif. / digital readouts / DESCR: displays up to 12 symbols or messages per window. Standard units have up to 6 windows in 3 window sizes. Display is actuated by energizing the one proper lamp out of the 12 lamps per window. No moving parts. Only  $1\frac{1}{2}$ " deep. Message display plates are easily changed by user / USE: for displaying alphanumeric or other symbolic data available in contact closure or voltage form from computers, analog-to-digital converters, etc. / \$25 to \$150 / I1  
The Ralph M. Parsons Co.  
Union Switch & Signal

## 12. 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

Bendix Aviation Corp., Bendix-Pacific Div.

Benson-Lehner Corp.

Computer Control Co., Inc.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Haller, Raymond, & Brown, Inc. — see I7

JONKERS BUSINESS MACHINES, INC., 3939 Legation St., N.W., Washington 15, D.C. / Information Retrieval Devices / DESCR: manufacture and sales of "TERMATREX" search systems / — / — / I2

Laboratory for Electronics, Inc.

Librascope, Inc.

Stereotronics

Stromberg-Carlson, a Division of General Dynamics Corp.

Zator Co.

## 13. INPUT/OUTPUT DEVICES

Addo-x, Inc.

AERONUTRONIC SYSTEMS, INC. (a subsidiary of Ford Motor Co.), COMPUTER DIVISION, Ford Rd., Newport Beach, Calif. / Computer message entry equipment / DESCR: an electronic device which permits rapid, simple and error-free entry of messages into a data processing system by unskilled personnel. It provides for message composition, verification, correction, automatic coding and automatic entry. In addition it can display messages from other units or from data processors / USE: in central data processing applications where remote entry or reception of messages or data is required / between \$20,000 and \$40,000 depending on particular design / 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

Avion Division, ACF Industries, Inc.

Bendix Aviation Corp., Bendix-Pacific Div.

Benson-Lehner Corp.

Century Electronics & Instruments, Inc.

Chrono-log Corp.

Computer Engineering Assoc., Inc.

Convair-San Diego-Electronics

Creed and Co., Ltd.

Dennison Mfg. Co.

Di/An Controls, Inc.

Elliott Bros. (London) Ltd.

Epsco, Inc.

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Hewlett-Packard Company

International Development Engineering Assoc., Inc.

International Computers & Tabulators Limited

Lewyt Manufacturing Corporation

Librascope, Inc.

Librascope, Inc., Commercial Division

Link Aviation, Inc. — see C39, D1, and G2

Minneapolis-Honeywell Reg. Co., Davies Laboratories Division

Minneapolis-Honeywell Regulator Co., Florida Inertial Guidance Center

Moran Instrument Corp.

National Data Processing Corporation

Radio Corp. of America, Electronic Data Processing Division — see D1

Ransom Research

Remington Rand Div. of Sperry Rand Corp.

Sanborn Company

Shepard Laboratories, Inc.

Société d'Electronique et d'Automatisme

The Standard Register Co.

The Teller Company

UNDERWOOD CORPORATION, One Park Ave., New York 16, N.Y. / input/output devices / DESCR: servotypers — solenoid operated electric typewriters. Mastertypers — electric typewriters actuating switches for simultaneous coded and uncoded input. Servomasters — electric typewriters with solenoids and switches for input and/or output. Totalizers — 2-register, 11-digit, 10-key adding subtracting machine with solenoids for all functions, and with numerical and sign storage switch buffer, for input and output. See also Data-Flow under D1, and T18 / USE: output printers, or input keyboards for all digital or analog/digital equipment / Servotypers from \$750; Servomasters from \$1,100; Mastertypers from \$850; Totalizers from \$1,100 / I3

The Walkirt Co.

Wright Engineering Co.

## 14. INTEGRATORS

Andersen Laboratories, Inc.

Avion Division, ACF Industries, Inc.

Ford Instrument Co.

General Electric Co., Computer Dept.

Librascope, Inc.

Link Aviation, Inc. — see C23 and C24

Telectro Industries Corp.

## 15. INTEGRATORS, ELECTRONIC

General Electric Co., Computer Dept.

Lewyt Manufacturing Corporation

Librascope, Inc.

Link Aviation, Inc. — see C23 and C24

Packard Bell Computer Corp.

George A. Philbrick Researches, Inc.

Reeves Instrument Corp.

Telectro Industries Corp.

Weston Instruments

# A Logical Deduction

**Because** ordinary magnetically-regulated power supplies are **too sluggish** to handle load and line transients,

**Because** NJE refused to be satisfied with such performance, and developed, back in 1956, a **fundamentally superior circuit**,

**Because** this thoroughly proven circuit uses the speed and power-gain of a transistor amplifier to force rapid response from the magnetic amplifier,

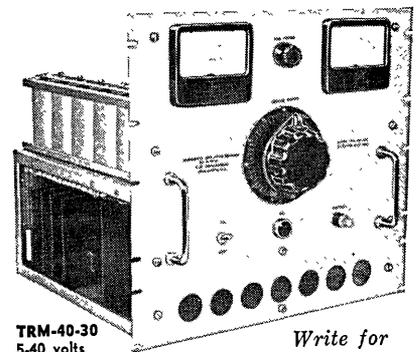
**Because** the transistors are never in the power path, but handle low-level signals only,

**Because** this transistor-magnetic—"TRM"—circuit retains the reliability and economy of magnetically-regulated supplies, but greatly improves speed of response (15 millisecon. typical) widens operating range (8:1 typical) and tightens regulation (0.1% typical),

**Because** TRM supplies can be "zero-lagged" against line and load transients,

**It follows that** NJE TRM is your **best buy** in a magnetically-regulated power supply!

## QED... choose NJE



TRM-40-30  
5-40 volts  
0-30 amperes

Write for  
complete catalog

MODEL	OUTPUT RANGE	
	VOLTS	AMPERES
TRM-28-30	24-32	0-30
TRM-28-60	24-32	0-60
TRM-28-120	24-32	0-120
TRM-40-15	5-40	0-15
TRM-40-30	5-40	0-30
TRM-40-60	5-40	0-60
TRM-40-120	5-40	0-120
TRM-80-7.5	10-80	0-7.5
TRM-80-15	10-80	0-15
TRM-80-30	10-80	0-30
TRM-80-60	10-80	0-60
TRM-160-7.5	20-160	0-7.5
TRM-160-15	20-160	0-15
TRM-160-30	20-160	0-30

**NJE**  
CORPORATION

345 Carnegie Avenue, Kenilworth, New Jersey  
CH 1-1500 TWX - Roselle, N. J. 51 FAX - FFP

**16. INTEGRATORS, MECHANICAL**  
Bendix Aviation Corp., Eclipse-Pioneer Div.  
Librascope, Inc.  
Librascope, Inc., Commercial Division

**17. INVENTORY SYSTEMS**

Bendix Aviation Corp., Eclipse-Pioneer Div.

Bcoz, Allen and Hamilton  
Ferranti-Packard Electric Ltd.

**HALLER, RAYMOND, & BROWN, INC.**, Science Park, State College, Pa. / Inventory Control Systems / DESCR: This desk-top size data processing machine solves inventory control problems at a fraction of the cost of comparable equipment. Ideal for small and medium size businesses. Recorded or telephone output; input from telephone, punch-card, sorter, etc. / USE: Gives audible signal or printed inventory level of an item upon receiving the appropriate telephone dial signal from an inquirer / Between \$10,000 and \$15,000 / I7

PDP Division American Electronics, Inc.  
Remington Rand Div. of Sperry Rand Corp.

**J1. JACKS**

Accurate Electronics Corp.  
Aerovox Corp.  
Burndy Corporation, Omaton Div.  
Cambridge Thermionic Corporation  
Cinch Manufacturing Corp.

**K1. KEYBOARDS**

**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, trademarked "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. Also Data-Strip and Data-Matrix for computers, etc. / L1

Electrosnap Corp.  
The Walkirt Co.

**M1. MAGNETS**

Aerovox Corp.  
**THE ARNOLD ENGINEERING CO.**, P.O. Box G, Marengo, Ill. / magnets (see also C52) / M1  
The Indiana Steel Products Co.  
The Yale & Towne Manufacturing Co.

**M2. MEMORY SYSTEMS**

**AERONUTRONIC SYSTEMS, INC.** (a subsidiary of Ford Motor Co.), COMPUTER DIVISION, Ford Rd., Newport Beach, Calif. / Complete magnetic drum memory systems / DESCR: Standard and special magnetic drum memory systems. These feature drums with

high-precision coating, high pulse density, pre-recorded tracks if desired, and high read signal; and solid state printed circuit read and write amplifiers and associated logic / USE: in general and special purpose digital data processing equipment / depends on type and quantity / M2

Airtronics, Inc.

**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

B J Electronics, Borg-Warner Corp.

**BRYANT COMPUTER PRODUCTS DIV.**, Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, 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 / USE: memory systems / \$1,000 to \$50,000 / M2

Canadian Westinghouse Co. Ltd.  
Computer Control So., Inc.  
Daystrom Systems, Div. of Daystrom, Inc.  
Di/An Controls, Inc.  
Ferranti-Packard Electric Ltd.  
Ford Instrument Co.

General Electric Co., Computer Dept.

Gulton Industries, Inc.  
Hycon Eastern, Inc.  
Librascope, Inc.  
Edwin A. Lipps Engineering  
Miles Reproducer Co., Inc.  
Minneapolis-Honeywell Regulator Co.,  
Florida Inertial Guidance Center  
Norton Associates, Inc.—see H1  
Pacific Magnetic Corp.

Radio Corp. of America, Electronic Data Processing Division—see D1  
J. B. Rea Co., Inc.  
Rese Engineering, Inc.

Strandberg Engineering Lab., Inc.  
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

**TELEMETER MAGNETICS, INC.**, 2245 Pontius Ave., Los Angeles 64, Calif. / Magnetic Core Memories / DESCR: Random access small and large scale core memories. Capacities from 100 to 1 million bits. Cycle times from 2 to 30 microseconds / USE: Rapid access random storage in digital computing, automatic control, and data processing / \$50,000—\$500,000 / M2  
Wang Laboratories

**M2A. MOLDED PLASTICS**

Accurate Electronics Corp.  
Hydro Molding Co., Inc.

**M3. MULTIPLIERS**

Aeronca Mfg. Corp.

DIT-MCO, Inc.  
Donner Scientific Co.  
Mid-Century Instrumatic Corp.

**M4. MULTIPLIERS, DIODE**

Andersen Laboratories, Inc.  
International Rectifier Corp.

**M5. MULTIPLIERS, ELECTRONIC**

Andersen Laboratories, Inc.  
Chadwick-Helmuth Co.  
Di/An Controls, Inc.  
Donner Scientific Co.  
General Electric Co., Computer Dept.  
Link Aviation, Inc.—see C23 and C24  
National Co., Inc.  
George A. Philbrick Researches, Inc.

**M6. MULTIPLIERS, FREQUENCY**

American Research & Mfg. Corp.  
Andersen Laboratories, Inc.  
Hycon Eastern, Inc.  
National Co., Inc.

**M7. MULTIPLIERS, SERVO**

Andersen Laboratories, Inc.  
Atlas Precision Products Co.  
Thomas A. Edison Industries  
Feedback Controls, Inc.  
Industrial Control Co.  
Link Aviation, Inc.—see C23  
Sterling Precision Corp.

**O1. OFFICE MACHINES**

Addo-x, Inc.  
Automation Engineers—see D1  
Fabrica Addizionatrice Italiana S.S.  
Ferranti-Packard Electric Ltd.  
General Kinetics Incorporated  
International Computers & Tabulators Limited

Monroe Calculating Machine Co.

**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

Olivetti Corp. of America  
Remington Rand Div. of Sperry Rand Corp.  
The Standard Register Co.  
Victor Adding Machine Co.

**O2. OPERATIONS RESEARCH**

American Machine & Foundry Co.  
Automation Engineers—see C30  
Booz, Allen Applied Research, Inc.  
Booz, Allen and Hamilton  
**BROADVIEW RESEARCH CORP.**, 1811 Trousdale Drive, Burlingame, Calif. / operations research / DESCR: inventory and production control, distribution, transportation and scheduling; optimization problems, queuing theory, military operations research and systems simulation / O2

C-E-I-R, INC. (Formerly Corporation for Economic and Industrial Research), 1200 Jefferson Davis Highway, Arlington 2, Va.; N.Y. Office: 110 E. 42nd St., New York, N.Y. / IBM 704 and

709 Computers with 32K memory / DESCR: full line of peripheral data processors. Computing and peripheral equipment available on hourly rate basis. 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 / — / Hourly rates and zone allowance plan / O2

H. S. Gellman & Co., Ltd. — see C30  
 H. B. Maynard & Co., Inc.  
 Midwest Research Institute  
 National Analysts, Inc.  
 Remington Rand Div. of Sperry Rand Corp.  
 Scientific Computing Service  
 Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
**TECHNICAL OPERATIONS, INC.**, Burlington, Mass. / operations research / DESCR: Industrial, commercial and military operations research / O2  
 U.S. Naval Proving Ground  
 University of California, Dept. of Mathematics  
 The George Washington University  
 Westgate Laboratory, Inc.

#### P1. PANELS

Accurate Electronics Corp.  
 Burndy Corporation, Omaton Div.  
 The Datics Corp.  
 DeJur-Amsco Corp.  
 Panellit, Inc.

#### P2. PANELS, JACK

Accurate Electronics Corp.  
 Cambridge Thermionic Corporation  
 The Datics Corp.

#### P4. PAPER TAPE

Digital Service Labs

#### P5. PATCH CORDS

Alden Products Co.  
**AMP INCORPORATED**, Eisenhower Blvd., Harrisburg, Pa. / patchcords / — / USE: computer circuitry / P5

#### P6. PLOTTERS

Alden Electronic and Impulse Recording Equipment Co.  
 Alden Products Co.  
 Alwac Computer Div., El-Tronics, Inc.  
 Atlas Precision Products Co.  
**BENDIX AVIATION CORP.**, BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / digital point plotter / DESCR: plots 20 increments of 0.1 inch/second. For use only with Bendix G-15 general purpose digital computer or 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.  
 Electronic Associates, Inc.  
 Librascope, Inc., Commercial Division  
 Link Aviation, Inc. — see D1  
 Mid-Century Instrumatic Corp.  
 Sterling Precision Corp.

Sunshine Scientific Instrument Co.  
 Tally Register Corp.  
 Westgate Laboratory, Inc.

#### P6A. PLUGBOARDS

**AMP INCORPORATED**, Eisenhower Blvd., Harrisburg, Pa. / plugboards / DESCR: Programming plugboards and systems / P6A  
 Burndy Corporation, Omaton Div.  
 The Datics Corp.

#### P7. POTENTIOMETERS (COMPUTER TYPES)

Ace Electronics Associates, Inc.  
 Allen-Bradley Co.  
 Analogue Controls, Inc.  
 George W. Borg Corp. — Borg Equipment Div.  
 Bourns Laboratories, Inc.  
 Clarostat Mfg. Co., Inc.  
 Computer Instruments Corp.  
 Dale Products, Inc.  
 DeJur-Amsco Corp.  
 Electro-Mec Laboratory, Inc.  
 Fairchild Controls Corp., Components Div.  
 The Gamewell Co.  
 Helipot Division of Beckman Instruments, Inc.  
 Ketay Dept. Norden Division United Aircraft Corp.  
 Link Aviation, Inc. — see C23  
 Litton Industries, Components Div.  
 P. R. Mallory & Co., Inc.  
 Markite Corporation  
**Maurey Instrument Corp.**  
 Norden Division of United Aircraft Corp.  
 The Perkin-Elmer Corp.  
 Specialties, Inc.  
 Spectrol Electronics Corp.  
 Sterling Precision Corp.  
 Technology Instrument Corp.  
 Vernistat Division of the Perkin-Elmer Corp.  
 Westronics, Inc.

#### P8. POWER SUPPLIES — REGULATED

American Research & Mfg. Corp.  
 Avion Division, ACF Industries, Inc.  
 Baird-Atomic Co.  
 Condenser Products Div. New Haven Clock & Watch Co.  
 Consolidated Avionics Corp.  
 The Daven Co.  
 Electronic Specialty Co.  
 Engineered Electronics Co.  
 Ferranti-Packard Electric Ltd.

**GENERAL ELECTRIC CO., LOW VOLTAGE SWITCHGEAR 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 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.  
 Harrison Laboratories, Inc.  
**HARVEY-WELLS ELECTRONICS, INC.**, Research and Development Div., 5168 Washington St., West Roxbury 32,

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Hewlett-Packard Company  
Jefferson Electronic Products Corp.  
Kepco, Inc.

Leeds & Northrup Company  
Moran Instrument Corp.

**NJE CORPORATION, Kenilworth, N.J.**  
/ electronic power supplies / DESCR: low voltage, high current, high voltage, low current. Regulated and unregulated. Utilizing vacuum tube, ohyratren rectifiers, transistors, and magnetic amplifier circuitry / USE: to convert AC to DC current / \$250 to \$6000 per unit / P8

Northam Electronics, Inc.  
Oupad Electric Co.  
Ortho Filter Corp.

Owen Laboratories, Inc.  
Pacific Magnetic Corp.  
Packard Bell Computer Corp.  
Plastic Capacitors, Inc.  
Radiation Counter Laboratories, Inc.

Radio Receptor Co.  
Sangamo Electric Co.  
Sola Electric Co.

Sorenson & Company, Inc.  
Spectrol Electronics Corp.

**TECHNICAL OPERATIONS, INC., Burlington, Mass.** / power supplies / DESCR: transistorized power supplies for computer systems / P8

Trans Electronics, Inc.  
Valor Instruments, Inc.  
Vickers, Inc.  
Wheeler Electronic Corp.

#### P9. PRINTERS

Addressograph-Multigraph Corp.  
Elliott Addressing Machine Co.  
Hewlett-Packard Company  
A. Kimball Co.  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Rand Precision Industries Ltd.  
Soroban Engineering, Inc. — see T18  
Teletype Corp.  
Underwood Corporation — see I3

#### P10. PRINTERS, HIGH SPEED

Anelex Corp.  
Clarkson Press, Inc.  
Computer-Measurements Corp.  
General Electric Co., Computer Dept.  
International Computers & Tabulators Limited  
Potter Instrument Company, Inc.  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Rand Precision Industries Ltd.  
Remington Rand Div. of Sperry Rand Corp.

Société d'Electronique et d'Automatisme Stromberg-Carlson (West Coast)

**TECHNITROL ENGINEERING COMPANY, 1952 E. Allegheny Ave., Philadelphia 34, Pa.** / high speed print station / DESCR: high speed print station, anelix synchroprinter output. 1000 lines per minute of any 64 character 6 bit code. On-line or off-line operation. Accepts magnetic tape input, performs parity check up to 1024 character storage / USE: on-line and off-line printing of output of high speed digital computers such as IBM 600 and 700 series computers, including the 7070 and 7090 / \$80,000 and up / P10

#### P11. PRINTERS, KEYBOARD

Remington Rand Div. of Sperry Rand Corp.  
Underwood Corporation — see I3

#### P12. PRINTERS, LINE-A-TIME

General Electric Co., Computer Dept.  
**POTTER INSTRUMENT COMPANY, INC., Plainview, N.Y.** / high speed alphanumeric printer / DESCR: up to 120 column line printer completely integrated with solid state storage and programming electronics tailored type fonts and format controls along with installation coupling devices / USE: output display of data system, logger, or listing / \$5,000 to \$60,000 / P12

Rank Precision Industries Ltd.  
Remington Rand Div. of Sperry Rand Corp.

#### P12A. PROGRAMMING SERVICES

ADB Institutet  
American Machine & Foundry Co.  
Automation Engineers — see C30  
Battelle Memorial Institute  
Booz, Allen and Hamilton  
Booz, Allen Applied Research, Inc.  
Brender and Brender, Inc.

**BROADVIEW RESEARCH CORP., 1811 Trousdale Drive, Burlingame, Calif.** / programming services / DESCR: programming, scientific calculations, military applications, business and engineering calculations, conceptual design of systems, systems analysis and simulation / P12A

Canadian Westinghouse Co. Ltd.

**C-E-I-R, INC. (Formerly Corporation for Economic and Industrial Research), 1200 Jefferson Davis Highway, Arlington 2, Va.; N.Y. Office: 110 E. 42nd St., New York, N.Y.** / IBM 704 and 709 Computers with 32K memory / DESCR: full line of peripheral data processors. Computing and peripheral equipment available on hourly rate basis. 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 / — / Hourly rates and zone allowance plan / P12A

Computer Control Co., Inc.  
The Datics Corp.  
H. S. Gellman & Co., Ltd. — see C30  
General Electric Co., Computer Dept.

**GENERAL KINETICS INCORPORATED, 555 23rd Street, South, Arlington 2, Va.** / Complete services in the fields of digital computer programming and programming research / DESCR: programming services for all general purpose computers; recommendation, design, and construction of automatic programming - automatic checking systems to fit specific needs; mathematical studies; numerical analysis; data-reduction; information retrieval / — / estimates made on request / P12A

The Geotechnical Corp.

H. B. Maynard & Co., Inc.  
National Analysts, Inc.

Nuclear Development Corp. of America  
Remington Rand Div. of Sperry Rand Corp.  
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

U.S. Air Force, Structures Branch  
University of Toronto

#### P13. PUBLICATIONS

Automatic Control  
Automation Consultants, Inc.  
Canning, Sisson & Assoc., Inc.  
Data Processing Digest  
**JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y.** / publications / P13  
DocuMation, Inc.  
Gille Associates, Inc.

#### P15. PUBLICATIONS, MAGAZINES

**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 Progress

**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

The Institute of Management Sciences  
Instrument Society of America

#### P16. PUNCH CARD MACHINES

Bull S. A. Compagnie des Machines — see D1  
Educational Research Corp.  
Elliott Addressing Machine Co.  
Elliott Bros. (London) Ltd.  
Gordon Enterprises  
Huck Co.  
**INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y.** / A complete line of punched card machines includ-

ing the new low-cost Series 50 equipment / DESCR: card punches, sorters, accounting machines, interpreters, collators, verifiers, proof machines, Data Transceivers, the Ticket Converter, the Cardatype Accounting Machine, etc. Details available on request / P16  
International Computers & Tabulators Limited

A. Kimball Co.  
Logabax S.A.  
Moore School of Electrical Engineering  
National Data Processing Corporation  
PDP Division American Electronics, Inc.  
Recording and Statistical Corp.  
Remington Rand Div. of Sperry Rand Corp.  
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  
U.S. Air Force, Digital Computation Branch  
Wharf Engineering Lab

#### R1. READERS

J. H. Bennell and Co.  
Benson-Lehner Corp.  
Ferranti-Packard Electric Ltd.  
Intelligent Machines Research Corp.  
A. Kimball Co.  
Kleinschmidt, Inc.  
Link Aviation, Inc. — see D1  
The Standard Register Co.  
Teletype Corp.  
Wharf Engineering Lab

#### R2. READERS, CHARACTER

Avion Division, ACF Industries, Inc.  
General Electric Co., Computer Dept.  
Link Aviation, Inc. — see D1  
National Data Processing Corporation

#### R3. READERS, MAGNETIC CARD

American Electronics, Inc.  
General Electric Co., Computer Dept.  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Telectro Industries Corp.

#### R4. READERS, MAGNETIC TAPE

American Electronics, Inc.

#### 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

Avco Mfg. Corp.

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Telectro Industries Corp.

#### R5. READERS, MECHANICAL

Telectro Industries Corp.

#### R6. READERS, PAPER TAPE

Addo-x, Inc.

California Technical Industries Div. of  
Textron Inc.

Digital Service Labs

Digitronics Corp.

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

National Data Processing Corporation

Radio Corp. of America, Electronic Data Processing Division — see D1

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 / Anemometer Reading Head capable of 8 level readings up to speeds of 1000 characters per second / — / \$450 to \$1150 / R6

Tally Register Corp.

Telectro Industries Corp.

#### R7. READERS, PHOTOELECTRIC

##### BENDIX AVIATION CORP., BENDIX

COMPUTER DIVISION, 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. Tape can be searched in either direction under program control and input can be accepted during computation. Supplied only as standard equipment on Bendix G-15, together with 20 char/sec. punch and electric typewriter / USE: data and program in-put / not available as separate item / R7

Digitronics Corp.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Hoffman Electronics Corp.

International Rectifier Corp.

National Data Processing Corporation

Radio Corp. of America, Electronic Data Processing Division — see D1

Telectro Industries Corp.

#### R8. READERS, PUNCH CARD

California Technical Industries Div. of  
Textron Inc.

Cinch Manufacturing Corp.

Elliott Bros. (London) Ltd.

General Electric Co., Computer Dept.

Gordon Enterprises

International Computers & Tabulators Limited

National Data Processing Corporation

Radio Corp. of America, Electronic Data Processing Division — see D1

#### R9. RECORDING PAPERS

Alfax Paper and Engineering Co.

Eastman Kodak Co.

Leeds & Northrup Company

Sanborn Company

Sunshine Scientific Instrument Co.

Strandberg Engineering Lab., Inc.

#### R10. RECTIFIERS

AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N.Y. / rectifiers / R10

AUDIO DEVICES, INC., SILICON RECTIFIER DIV., 620 E. Dyer Rd., Santa Ana, Calif. / Audio Devices Silicon

## MANUSCRIPTS

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Consequently, a writer should seek to explain his subject, and show its context and significance. He should define unfamiliar terms, or use them in a way that makes their meaning unmistakable. He should identify unfamiliar persons with a few words. He should use examples, details, comparisons, analogies, etc., whenever they may help readers to understand a difficult point. He should give data supporting his argument and evidence for his assertions.

We look particularly for articles that explore ideas in the field of computers and automation, and their applications and implications. An article may certainly be controversial if the subject is discussed reasonably. Ordinarily, the length should be 1000 to 3000 words. A suggestion for an article should be submitted to us before too much work is done.

TECHNICAL PAPERS: Many of the foregoing requirements for articles do not necessarily apply to technical papers. Undefined technical terms, unfamiliar assumptions, mathematics, circuit diagrams, etc., may be entirely appropriate. Topics interesting probably to only a few people are acceptable.

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All suggestions, manuscripts, and inquiries about editorial material should be addressed to: *The Editor, COMPUTERS and AUTOMATION, 815 Washington Street, Newtonville 60, Mass.*

Rectifiers / DESCR: Sealed silicon rectifiers from 50 to 500 volts, 200 milliamps to 200 amps / R10  
Bradley Semiconductor Corp.  
Fansteel Metallurgical Corp.  
Federal Telephone and Radio Co.  
Ferranti-Packard Electric Ltd.  
General Electric Co., Semiconductor Products Dept.  
General Instrument Corp., Semiconductor Div. and Automatic Mfg. Div.  
Hoffman Electronics Corp.  
International Rectifier Corp.  
Kemtron Electron Products, Inc.  
P. R. Mallory & Co., Inc.  
Motorola, Inc., Semiconductor Products Division  
Opad Electric Co.  
Pacific Semiconductors, Inc.  
Radio Receptor Company  
RAYTHEON MFG. CO., SEMICONDUCTOR DIV., 215 First Ave., Needham Hgts. 94, Mass. / rectifiers / DESCR: silicon diffused junction wired-in and 7/16" stud rectifiers / R10  
Sylvania Electric Products, Inc., Semiconductor Div.  
Texas Instruments, Inc.  
Thermosen, Inc.  
Transitron Electronic Corp.  
United States Dynamics Corp.  
U. S. Semiconductor Products, Inc.  
Vickers, Inc.

#### R11. REGISTERS, SHIFT

Aladdin Electronics  
AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / shift registers / — / USE: in digital computers or control circuits / R11  
Bendix Aviation Corp., Bendix-Pacific Div.  
Burlingame Associates, Ltd.  
Computer Control Co., Inc.  
Delttime, Inc.  
Di/An Controls, Inc.  
ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Shift Registers / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / R11  
Ferranti-Packard Electric Ltd.  
General Electric Co., Computer Dept.  
General Mills, Inc.  
Harvey-Wells Electronics, Inc. — see C31  
Hycon Eastern, Inc.  
Lewyt Manufacturing Corporation  
Ransom Research  
Sprague Electric Co.  
Valor Instruments, Inc.

#### R12. RELAYS (COMPUTER TYPES)

Ace Electronics Associates, Inc.  
Aemco, Inc.  
Allied Control Co., Inc.  
Amperite Co., Inc.  
Assembly Products, Inc.  
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: Video switching; low-level switching; data processing

and automation systems. Some are available for tin-dipped printed circuit cards, or mounted on regular octal-type or industrial plugs. Wired or unwired / from \$3.00; hermetically sealed at approximately twice as much / R12

Automation Controls Corp.  
The Bristol Company  
C. P. CLARE & CO., 3101 W. Pratt Blvd., Chicago 45, Ill. / Types HG, HGP, and HGS 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 type-writer-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.  
Thomas A. Edison Industries  
General Automatic Corp.  
Guardian Electric Mfg. Co.  
Hillburn Electronic Products Co.  
Walter Kidde & Company, Inc.  
North Electric Company  
Phaotron Instrument and Electronic Co.  
Phillips Control Corp.  
Potter and Brumfield Mfg. Co., Inc.  
Sigma Instruments Inc.  
Union Switch & Signal  
Wheelock Signals, Inc.  
Zuse Kommandit-Gesellschaft

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Allen-Bradley Co.  
Allies' Products Corp.  
Arnhold Ceramics, Inc.  
Calvert Electronics, Inc.  
Centralab  
Clarostat Mfg. Co., Inc.  
Corning Glass Works  
Dale Products, Inc.  
The Daven Co.  
General Transistor Corp.  
Kelvin Electric Co.  
P. R. Mallory & Co., Inc.  
Ohmite Mfg. Co.  
Reon Resistor Corp.  
Resistance Products Co.  
Sage Electronics Corp.  
Sprague Electric Co.  
Stackpole Carbon Co.  
Sterling Precision Corp.  
Texas Instruments, Inc.  
Ward Leonard Electric Co.

#### R14. RESOLVERS

American Electronics, Inc.  
Clifton Precision Products Co., Inc.  
Control Data Corp.  
Diehl Mfg. Co.  
Ferranti-Packard Electric Ltd.  
Franklin Electronics, Inc.  
Ketay Dept. Norden Division United Aircraft Corp.  
Mid-Century Instrumatic Corp.  
Norden Division of United Aircraft Corp.  
John Oster Mfg. Co., Avionic Div.

R15. RESOLVERS, COORDINATE TRANSFORM  
Bendix Aviation Corp., Eclipse-Pioneer Div.  
Clifton Precision Products Co., Inc.

R16. RESOLVERS, PRODUCT  
Clifton Precision Products Co., Inc.

R17. RESOLVERS, SINE COSINE  
Clifton Precision Products Co., Inc.  
Librascope, Inc.  
Librascope, Inc., Commercial Division

#### 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 squirrel; Relay Moe, Tit-Tat-Toe game-playing machine; Nim machine; Brainiac, Geniac, Tyniac, electric brain construction kits, etc. / USE: in shows, lecturing, teaching, exhibits, displays, explaining / \$10 to \$4000, or rental / R18

#### S1. SCANNERS

Applied Science Corp. of Princeton  
Assembly Products, Inc.  
Datex Corp.  
General Electric Co., Computer Dept.  
The Geotechnical Corp.  
Gilmore Industries, Inc.  
Instrument Development Laboratories, Inc.  
Leeds & Northrup Company  
National Data Processing Corporation  
Owen Laboratories, Inc.  
Strandberg Engineering Lab., Inc.  
The Whitton Manufacturing Co.

#### S2. SEMICONDUCTORS

Allgemeine Elektricitaets-Gesellschaft  
Amperex Electronic Co.  
Baird-Atomic Co.  
CBS-Hytron  
Flight Research, Inc.  
General Instrument Corp., Semiconductor Div. and Automatic Mfg. Div.  
General Transistor Corp.  
Hughes Aircraft Company, Semiconductor Div.  
International Rectifier Corp.  
Kemtron Electron Products, Inc.  
Philco Corp., Lansdale Tube Co. Div.  
Radio Corp. of America, Semiconductor and Materials Division  
Sperry Semiconductor Division of Sperry Rand Corp.  
Texas Instruments, Inc.  
Thermosen, Inc.  
Tung-Sol Electric, Inc.  
Vickers, Inc.  
Westinghouse Electric Corporation, Semiconductor Department

#### S3. SIMULATORS

Aero Electronics Co.  
Aircraft Armaments, Inc.  
Applied Science Corp. of Princeton  
BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 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.  
 Dian Laboratories, Inc.  
 Erco Plant — Nuclear Products  
 Feedback Controls, Inc.  
 Ferranti-Packard Electric Ltd.  
 Hillyer Instrument Co.  
 Lewyt Manufacturing Corporation  
**LINK AVIATION, INC.**, Binghamton, N.Y. / Simulators / Single function, complex equation and complete system simulators especially designed. Variety includes power plant analyzers, radar simulators and comparators, missile trajectory simulators, land-mass and navigation simulators as well as a complete missile, airframe and electronic systems simulation / S3  
 Minneapolis-Honeywell Regulator Co., Industrial Division  
 National Physical Laboratory, Control Mechanisms and Electronics Division  
 The Newton Co.  
 Rese Engineering, Inc.  
 Sterling Precision Corp.  
 Telectro Industries Corp.  
 Westgate Laboratory, Inc.

#### S4. STORAGE SYSTEMS

**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  
 Andersen Laboratories, Inc.  
 Canadian Westinghouse Co. Ltd.  
 Computer Control Co., Inc.  
 Ferranti-Packard Electric Ltd.  
 General Mills, Inc.  
 Hycon Eastern, Inc.  
 Radio Corp. of America, Electronic Data Processing Division — see D1  
 Rese Engineering, Inc.  
 Smith-Corona Marchant, Inc.  
 Société d'Electronique et d'Automatisme Sturup, Inc.  
 Sutherland Co. — see C30  
 Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
 Telectro Industries Corp.  
 The Whitton Manufacturing Co. — see D11

#### S5. STORAGE SYSTEMS, MAGNETIC Aeronutronic Systems, Inc.

**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

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 MAYWOOD, CALIFORNIA

systems, etc. / USE: magnetic tape recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / S5

Burlingame Associates, Ltd.  
 Computer Control Co., Inc.  
 Consolidated Controls Corp. — see D12  
 Di/An Controls, Inc.  
 Epsco, Inc.  
 General Electric Co., Computer Dept.  
 General Mills, Inc.  
 Hycon Eastern, Inc.  
 Monroe Calculating Machine Co.  
 Radio Corp. of America, Electronic Data Processing Division — see D1  
 Smith-Corona Marchant, Inc.  
 Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
 Telectro Industries Corp.  
 The Whitton Manufacturing Co. — see D12

#### S6. SWITCHES

Aerovox Corp.  
 Allen-Bradley Co.  
 Allied Control Co., Inc.  
 The Bristol Company  
 Centralab  
 Clarostat Mfg. Co., Inc.  
 Comar Electric Co.  
 Computer Instruments Corp.  
**CONSOLIDATED CONTROLS CORP.**, Bethel, Conn. / proximity switch / DESCR: proximity switch which is triggered by small magnet and may therefore be used in ferrous environ-

ments. Repeatability better than 0.001" / USE: limit switch on transfer machines, machine tools, etc. / \$75.00 to \$120.00 / S6

The Daven Co.  
 General Controls Co.  
 Genisco, Inc.  
 Guardian Electric Mfg. Co.  
 Hughes Aircraft Company, Semiconductor Div.  
 Instrument Development Laboratories, Inc.  
 Kellogg Switchboard & Supply Co.  
 Maurey Instrument Corp.  
 Micro Switch, a division of Honeywell  
 North Electric Company  
 Pacific Magnetic Corp.  
 Philco Corp., Lansdale Tube Co. Div.  
 Sangamo Electric Co.  
 Spectrol Electronics Corp.  
 Stackpole Carbon Co.  
 Tally Register Corp.  
 Wright Engineering Co.

#### S7. SWITCHES, STEPPING

Airflyte Electronics Co.  
**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. — see R12

Eagle Signal Corp.  
Electro-Miniatures Corp.  
Electrosnap Corp.  
The A. W. Haydon Company  
Sigma Instruments Inc.

## S8. SYNCHROS

American Electronics, Inc.  
Bendix Aviation Corp., Eclipse-Pioneer Div.  
Clifton Precision Products Co., Inc.  
Control Data Corp.  
Ford Instrument Co.  
Kearfott Co., Inc.  
Ketay Dept. Norden Division United Aircraft Corp.  
Librascope, Inc., Commercial Division  
Minneapolis-Honeywell Regulator Co., Boston Division  
Norden Division of United Aircraft Corp.  
John Oster Mfg. Co., Avionic Div.

## S9. SYSTEMS ENGINEERING

Aircraft Armaments, Inc.  
Airpax Electronics Co., Seminole Div.  
American Machine & Foundry Co.  
Automation Engineers — see C30  
Babcock Radio Engineering, Inc.  
Booz, Allen and Hamilton  
Booz, Allen Applied Research, Inc.  
Canadian Westinghouse Co. Ltd.  
Computer Control Co., Inc.  
Consolidated Avionics Corp.  
Dasol Corp.  
Data Systems Div., Norden-Ketay Corp.  
Daystrom Instrument, Div. of Daystrom, Inc.  
Di/An Controls, Inc.

## ELECTRONIC BUSINESS SERVICES,

3266 Hunts Point Rd., Bellevue, Wash.  
/ Consultation in automation and data processing service / DESCR: consultation services, particularly for operators of small and moderate size businesses having problems in data processing, automation, etc. / USE: services vary to fit needs of clientele / charges vary depending on amount of work involved and results produced / S9

Feedback Controls, Inc.  
General Electric Co., Computer Dept.  
GPE Controls, Inc.  
Information Systems, Inc.  
Walter Kidde & Company, Inc.  
Leeds & Northrup Company  
Lewyt Manufacturing Corporation  
Link Aviation, Inc. — see C23, C24, G2, and S3  
H. B. Maynard & Co., Inc.  
Midwest Research Institute  
Minute Maid Corp.  
Moore School of Electrical Engineering  
Pacific Magnetic Corp.  
Panellit, Inc.  
The Ralph M. Parsons Co.  
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations  
Technitrol Engineering Company  
The Teller Company  
THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / systems engineering / S9  
Vickers, Inc.

## T1. TACHOMETERS

Airpax Electronics Co., Seminole Div.  
Diehl Mfg. Co.  
Electro Products Laboratories, Inc.  
Hewlett-Packard Company  
Kearfoot Co., Inc.  
Sunshine Scientific Instrument Co.  
Weston Instruments

## T2. TAPE HANDLERS

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 millisecond start-stop, fast rewind, single speeds up to 75 inches per second, multiple speeds / USE: digital computer systems, data processing and telemetering systems, automatic controls / around \$8,000 / T2  
California Technical Industries Div. of Textron Inc.  
Digital Service Labs  
Fairchild Camera & Instrument Corp.  
General Electric Co., Computer Dept.  
Potter Instrument Company, Inc.  
Radio Corp. of America, Electronic Data Processing Division — see D1  
J. B. Rea Co., Inc.  
The Wright Line, Inc.

## T3. TAPE, MAGNETIC

THE ARNOLD ENGINEERING CO., P.O. Box G, Marengo, Ill. / magnetic tape / — see C52  
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  
Data Instruments Div. of Telecomputing Corp.  
General Electric Co., Computer Dept.  
Edwin A. Lipps Engineering  
Minnesota Mining and Mfg. Co.  
REEVES SOUNDCRAFT CORP., 15 Great Pasture Rd., Danbury, Conn. / magnetic tape / DESCR: magnetic recording tape / USE: for all instrumentation and industrial applications / — / T3  
Société d'Electronique et d'Automatisme

## T3A. TAPE, MAGNETIC FILING SYSTEMS

Southwestern Industrial Electronics Co.

## T4. TAPE, MAGNETIC READERS

Addo-x, Inc.  
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  
Edwin A. Lipps Engineering

National Data Processing Corporation  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Société d'Electronique et d'Automatisme  
Telectro Industries Corp.

## T5. TAPE, MAGNETIC RECORDERS

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, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / magnetic tape recorders / T5

Avco Mfg. Corp.

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 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

Epsco, Inc.

Gulton Industries, Inc.  
Edwin A. Lipps Engineering  
Miles Reproducer Co., Inc.  
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division  
National Data Processing Corporation  
Radio Corp. of America, Electronic Data Processing Division — see D1  
RADIO CORP. OF AMERICA, PRECISION ELECTRONIC INSTRUMENTS DIVISION, Building 15-1, Camden, N.J. / magnetic tape recorders / T5  
Telectro Industries Corp.

## T5A. TAPE, MAGNETIC REELS

American Molded Products Co.

## T6. TAPE, PAPER

Digital Service Labs

## T7. TAPE, PAPER FILING SYSTEMS

## T8. TAPE, PAPER PUNCHES

Addo-x, Inc.  
California Technical Industries Div. of Textron Inc.  
Digital Service Labs  
Fairchild Graphic Equipment  
Ferranti-Packard Electric Ltd.  
Fischer & Porter Co.  
General Electric Co., Computer Dept.  
Kleinschmidt, Inc.  
Monroe Calculating Machine Co.  
Radio Corp. of America, Electronic Data Processing Division — see D1  
Société d'Electronique et d'Automatisme  
Tally Register Corp.

## T9. TAPE, PAPER READERS

Addo-x, Inc.

**BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION**, 5630 Arbor Vitae St., Los Angeles 45, Calif. / PR-2 multi-code paper tape reader / DESCR: Reads any numeric code punched in 5, 6, 7, or 8 channel tape at 400 characters per second. Accepts tapes from cash registers, adding machines, accounting machines, A-D converters, etc. Matrix easily rewired or replaced to change external code to be read. Stops on one character. Special reel-less winding and unwinding devices included / USE: G-15 computer input from and data source that punches numeric tape / sale, \$4,350; lease, \$130 per month / T9

California Technical Industries Div. of  
Textron Inc.

Digital Service Labs

Digitronics Corp.

Elliott Bros. (London) Ltd.

**FERRANTI ELECTRIC, INC.**, 95 Madison Ave., Hempstead, N.Y. / Photoelectric Paper Tape Readers / DESCR: TR2B, TR3B, TR5, TR7, 196 and specials read punched paper tape photoelectrically and give stop on character performance at all speeds up to 1000 characters per second with various models. Friction drive minimizes tape wear. TR5, TR7 and 196 fully transistorized and self-contained units including power supplies, amplifiers and control circuits / USE: computer input, digital data transmission, control / \$1820 to \$9500 / T9

General Electric Co., Computer Dept.

Kleinschmidt, Inc.

Miles Reproducer Co., Inc.

Radio Corp. of America, Electronic Data Processing Division — see D1

Tally Register Corp.

#### T10. TELEMETERING SYSTEMS

Aeronca Mfg. Corp.

Aircraft Armaments, Inc.

Airpax Electronics Co., Seminole Div.

**AUDIO DEVICES, INC.**, 444 Madison Ave., New York 22, N.Y. / telemetering systems / T10

Automation Research and Design Associates

Bendix Aviation Corp., Bendix-Pacific Div.

Canadian Westinghouse Co. Ltd.

Coleman Engineering Co.

Daystrom Instrument, Div. of Daystrom, Inc.

**ELECTRO-MECHANICAL RESEARCH, INC.**, P.O. Box 3041, Sarasota, Fla. / Telemetry transmitting and acquisition equipment / DESCR: FM/FM, PDM, PAM, PCM airborne packages and ground station acquisition, data reduction systems / USE: aircraft and missile telemetry / — / T10

Electronics Development Co., Inc.

Fischer & Porter Co.

The Foxboro Co.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Gulton Industries, Inc.

Hallamore Electronics Co.

Hammarlund Mfg. Co., Inc.

Hoover Electronics Company

Instrument Development Laboratories, Inc.

International Telemeter Corp.

Jefferson Electronic Products Corp.

Leeds & Northrup Company

Litton Industries, Inc.

Minneapolis-Honeywell Regulator Co.,

Industrial Division

National Data Processing Corporation

Orradio Industries

The Ralph M. Parsons Co.

Radiation, Inc.

Shand & Jurs Co.

Sperry Rand Corp., Sperry Gyroscope Div.

Telectro Industries Corp.

Tele-Dynamics Inc.

#### T11. TERMINALS

Accurate Electronics Corp.

American Lava Corp.

**AMP INCORPORATED**, Eisenhower Blvd., Harrisburg, Pa. / terminals / DESCR: solderless terminals / — / T11

Burdny Corporation, Omaton Div.

Cambridge Thermionic Corporation

Cinch Manufacturing Corp.

General Ceramics Corporation

Litton Industries, Components Div.

Winchester Electronics, Inc.

#### T11A. TRANSDUCERS

Airpax Electronics Co., Seminole Div.

B J Electronics, Borg-Warner Corp.

The Bristol Company

Computer Instruments Corp.

Electro Products Laboratories, Inc.

Fairchild Controls Corp., Components Div.

General Cybernetics Corp.

General Electric Co., Computer Dept.

Hathaway Instrument Co.

Industrial Nucleonics Corporation

International Resistance Company

Sanborn Company

Servomechanisms, Inc.

Technology Instrument Corp.

Wiancko Engineering Co.

#### T12. TRANSFORMERS

Airpax Electronics Co., Seminole Div.

**AMP INCORPORATED**, Eisenhower

Bld., Harrisburg, Pa. / transformers /

DESCR: pulse transformers / USE:

radar, computers, pulse applications /

T12

**BALLASTRAN CORPORATION**, 1701

North Calhoun St., Fort Wayne 7, Indiana /

specialty transformers /

DESCR: design, development and

manufacture of power, audio, pulse and

saturable core transformers / T12

Beckman Instruments Inc., Systems Div.

Bradley Semiconductor Corp.

Ferranti-Packard Electric Ltd.

Gulton Industries, Inc.

Jefferson Electric Co.

Mico Instrument Co.

Microtran Company, Inc.

Pacific Magnetic Corp.

PCA Electronics Inc.

Polyphase Instrument Co.

Sola Electric Co.

Specialties, Inc.

Superex Electronics Corp.

Vernistat Division of the Perkin-Elmer

Corp.

Wheeler Electronic Corp.

# THE COMPUTER DIRECTORY AND BUYERS' GUIDE 1959

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Organization.....

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### T13. TRANSFORMERS, PULSE

Airpax Electronics Co., Seminole Div.  
Aladdin Electronics  
Ballastran Corporation — see T12  
Beckman Instruments Inc., Systems Div.  
Coilcraft, Inc.  
Dilectron Div. of the Gudeman Co.  
Electronic Transformer Co., Inc.  
El-Rad Mfg. Co.  
Epsco Components

ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Medium and Low-Power Transformers / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / T13

ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Pulse Transformers / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / T13

Ferroxcube Corp. of America  
PCA Electronics Inc.

Polyphase Instrument Co.  
Sangamo Electric Co.

Sprague Electric Co.  
Technitrol Engineering Company  
Wheeler Electronic Corp.

### T14. TRANSISTORS

Amperex Electronic Co.  
Baird-Atomic Co.  
Calvert Electronics, Inc.  
General Electric Co., Semiconductor Products Dept.

Industro Transistor Corp.  
Pacific Semiconductors, Inc.

Philco Corp., Lansdale Tube Co. Div.  
RAYTHEON MFG. CO., SEMICONDUCTOR DIVISION, 215 First Ave., Needham Heights 94, Mass. / transistors / DESCR: both PNP and NPN silicon transistors, PNP germanium transistors for switching, computer, AF, RF and general purpose use. Many types available in submin size / USE: computers and related uses / — / T14

Sylvania Electric Products, Inc. (New York)

Sylvania Electric Products, Inc., Semiconductor Div.

Transistor Products, Inc.  
Transitron Electronic Corp.  
United States Dynamics Corp.  
Westinghouse Electric Corp., Semiconductor Dept.

### T15. TRANSISTORS, GERMANIUM

Amperex Electronic Co.  
Clevite Transistor Products  
Delco Radio Div.  
General Transistor Corp.  
Hughes Aircraft Company, Semiconductor Div.

Industro Transistor Corp.  
Motorola, Inc., Semiconductor Products Division

Philco Corp., Lansdale Tube Co. Div.  
Raytheon Mfg. Co., Semiconductor Division — see T14

Texas Instruments, Inc.  
Tung-Sol Electric, Inc.  
Westinghouse Electric Corp., Semiconductor Dept.

### T16. TRANSISTORS, SILICON

Amperex Electronic Co.  
General Transistor Corp.  
Hughes Aircraft Company, Semiconductor Div.

Philco Corp., Lansdale Tube Co. Div.  
Raytheon Mfg. Co., Semiconductor Division — see T14

Sperry Semiconductor Division of Sperry Rand Corp.  
Texas Instruments, Inc.  
Westinghouse Electric Corp., Semiconductor Dept.

### T17. TRANSLATING EQUIPMENT

Automation Engineers — see D1  
Bendix Aviation Corp., Bendix-Pacific Div.

Benson-Lehner Corp.  
CGS Laboratories, Inc.  
Consolidated Avionics Corp.  
Cubic Corporation  
Di/An Controls, Inc.

Electronic Engineering Co. of Calif.  
Epsco, Inc.  
General Electric Co., Computer Dept.  
Lewyt Manufacturing Corporation  
F. L. Moseley Co.

National Data Processing Corporation  
Ransom Research  
The Teller Company

### T18. TYPEWRITERS, ELECTRIC, CONTROLLED

Automation Engineers — see D1  
Digital Service Labs

FRIDEN, INC., San Leandro, Calif. / Flexowriter / DESCR: automatic writing machine; operates automatically from punched tape, edge-cards, or tab cards; produces by-product tape or cards; standard electric keyboard for manual input; code selector, code translator, tape punch and tape reader (tab card reader optional); will punch, read, duplicate, correct paper tape; 5, 6, 7, 8 channels optional / USE: to prepare documents at the source, to cause automatic punching of tab cards through direct connection with card punch or by tape-to-card conversion; to produce as a by-product punched tapes with complete or select information; 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.; to read and cause automatic document preparation directly from tab cards / T18

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East 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 rental ranges from \$95 to \$145. Selling price ranges from \$3,700 to \$7,400. All prices exclusive of tax / T18

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 884 Typewriter Tape Punch / DESCR: The 884 creates a perforated tape simultaneously with the typing operation / USE: Perforated tapes created by the 884 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

Olivetti Corp. of America  
Remington Rand Div. of Sperry Rand Corp.  
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 CORPORATION, One Park Ave., New York 16, N.Y. / Data-Flo systems / DESCR: Tapemaster — electric typewriter with paper tape punch and reader, programmed by paper tape, with optional extra tape reader or slave electric typewriter. 88 programmer—plugboard program control for Data-Flo systems where tape programming is inadequate. 275 and 550 programmers — comprehensive plugboard program control for Data-Flo systems with ability to compare, store, add, subtract, conditional and unconditional program transfer, and to perform iterative subroutines, with both input and output for paper tape and/or punch cards. See also I3 / USE: automatic letter writing, automatic selective punching of paper tape or punch cards as by-product of original typing, automatic data processing by paper tape or punch card input, tape to card or card to tape conversion as by-product of automatic typing, etc. / \$1,850 to \$12,000; \$74 to \$480, monthly rental / T18

Vari-Typer Corporation

### T19. TUBES, ELECTRONIC

Amperex Electronic Co.  
Amperite Co., Inc.

Burroughs Corp., Electronic Tube Div.  
 CBS-Hytron  
 Ferranti-Packard Electric Ltd.  
 General Electric Co., Receiving Tube Dept., (Ky., Ill., N.J., and Calif.)  
 National Union Electric Corp.  
 Philco Corp., Lansdale Tube Co. Div.  
 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. (New York)  
 Thermosen, Inc.  
 Tung-Sol Electric, Inc.  
 Wiltec Electronics, Inc.

#### V1. VISUAL OUTPUT DEVICES

Automation Engineers — see D1  
 Avion Division, ACF Industries, Inc.  
 Baird-Atomic Co.  
 Benson-Lehner Corp.  
 Burroughs Corp., Electronic Tube Div.  
 Consolidated Avionics Corp.  
 Di/An Controls, Inc.  
 Ferranti-Packard Electric Ltd.  
 The Geotechnical Corp.  
 The A. W. Haydon Company  
 Industrial Development Engineering Assoc., Inc.  
 Instrument Development Laboratories, Inc.

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / The IBM 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 computer program / USE: for scientific, engineering, and design problems / Monthly rental, \$2,850. Selling price, \$112,000. All prices exclusive of tax / V1

Laboratory for Electronics, Inc.

Librascope, Inc.

Link Aviation, Inc. — see D1

PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV., 4700 Wissahickon Ave., Philadelphia 44, Pa. / visual output devices / V1

Sterling Precision Corp.

Strandberg Engineering Lab., Inc.

Stromberg-Carlson (West Coast)

Technitrol Engineering Company

Trio Laboratories, Inc.

Union Switch & Signal

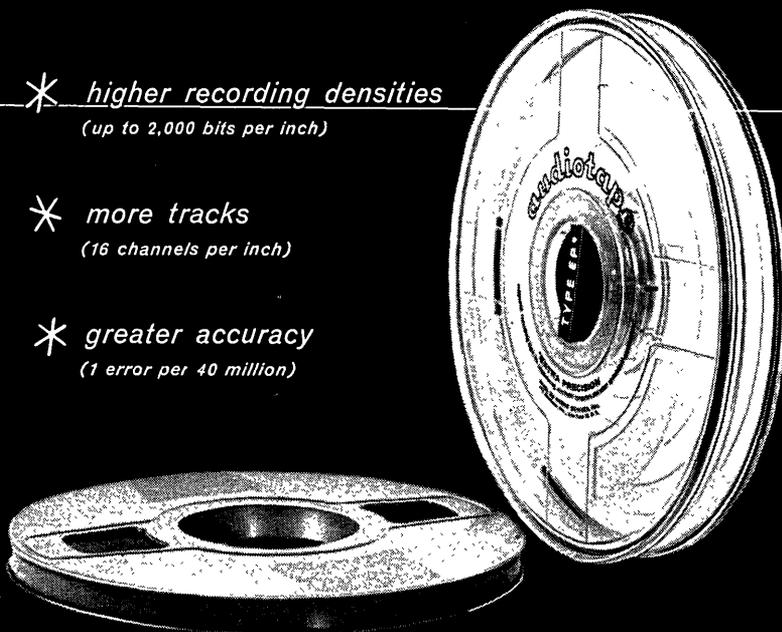
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This kit is an up-to-the-minute introduction to the design of arithmetical, logical, reasoning, computing, puzzle-solving, and game-playing circuits — for boys, students, schools, colleges, designers. It is simple enough for intelligent boys to assemble, 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 8 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 150 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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Syllogism Prover  
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IF, NEITHER . . . NOR Machines  
A Simple Kalin-Burkhart Logical Truth Calculator  
The Magazine Editor's Argument  
The Rule About Semicolons and Commas  
The Farnsworth Car Pool

#### GAME-PLAYING MACHINES

Tit-Tat-Toe  
Black Match  
Nim  
Sundorra 21  
Frank McChesney's Wheeled Bandit

#### COMPUTERS — to add, subtract, multiply, divide, . . . . .

using decimal or binary numbers.  
— to convert from decimal to other scales of notation and vice versa, etc.

Operating with Infinity  
Adding Indefinite Quantities  
Factoring Any Number from 45 to 60  
Prime Number Indicator for Numbers 1 to 100  
Thirty Days Hath September  
Three Day Weekend for Christmas  
Calendar Good for Forty Years 1950 to 1989  
Money Changing Machine  
Four by Four Magic Square  
Character of Roots of a Quadratic  
Ten Basic Formulas of Integration

#### PUZZLE-SOLVING MACHINES

The Missionaries and the Cannibals  
The Daisy Petal Machine  
Calvin's Eenie Meenie Minie Moe Machine  
The Cider Pouring Problem  
The Mysterious Multiples of 76923, of 369, etc.  
Bruce Campbell's Will  
The Fox, Hen, Corn, and Hired Man  
The Uranium Shipment and the Space Pirates  
General Alarm at the Fortress of Dreadeerie

The Two Suspicious Husbands at Great North Bay  
The Submarine Rescue Chamber Squalux  
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Signals on the Mango Blossom Special  
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From time to time we bring up to date our "Who's Who in the Computer Field." We are currently asking all computer people to fill in the following Who's Who Entry Form, and send it to us for their free listing in the Who's Who that we publish from time to time in **Computers and Automation**. We are often asked questions about computer people—and if we have up to date information in our file, we can answer those questions.

If you are interested in the computer field, please fill in and send us the following Who's Who Entry Form (to avoid tearing the magazine, the form may be copied on any piece of paper).

Name? (please print) .....  
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 Its Address? .....  
 Your Title? .....

Your Main Computer Interests?

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- Electronics
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- Programming
- Sales
- Other (specify):

.....  
 Year of birth? .....  
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 Year entered the computer field?.....  
 Occupation? .....  
 Anything else? (publications, distinctions, etc.) .....

When you have filled in this entry form please send it to: Who's Who Editor, **Computers and Automation**, 815 Washington Street, Newtonville 60, Mass.

**WHO'S WHO IN  
THE COMPUTER  
FIELD**

(Supplement)

A full entry in the "Who's Who in the Computer Field" consists of: name / title, organization, address / interests (the capital letters of the abbreviations are the initial letters of Applications, Business, Construction, Design, Electronics, Logic, Mathematics, Programming, Sales) / year of birth, college or last school (background), year of entering the computer field, occupation / other information such as distinctions, publications, etc. An absence of information is indicated by - (hyphen). Other abbreviations are used which may be easily guessed like those in the telephone book.

Every now and then a group of completed Who's Who entry forms come in to us together from a single organization. This is a considerable help to a compiler, and we thank the people who are kind enough to arrange this. In such cases, the organization and the address are represented by . . . (three dots).

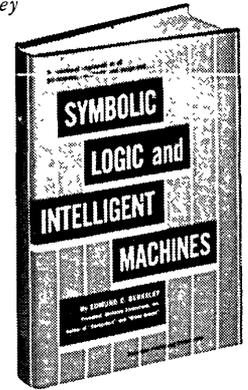
- Auerbach Electronics Corporation, 109 North Essex Avenue, Narberth, Pa.
- Anstey, Charles E / Tech Staff, . . . / CDE, Systems Planning, Eqpm Design and Evaluation / '29, LaSalle, '54, Systems Equip Engr
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- Dickson, Robert B / Tech Staff, . . . / AMLP, Systems Planning, Design and Evaluation / '19, Haverford Coll, Univ of Pa, '51, mathn, systems engr
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- Miller, A. Eugene / Tech Staff, . . . / ABDLMPS, Systems Synthesis, Op Res, Design and Evaluation / '29, Univ of Pa, '51, Systems Engr
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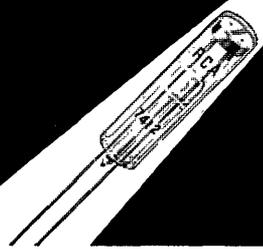
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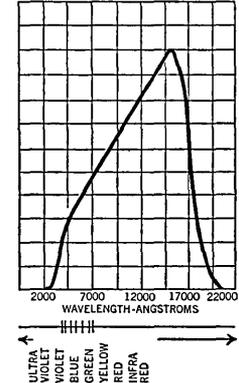


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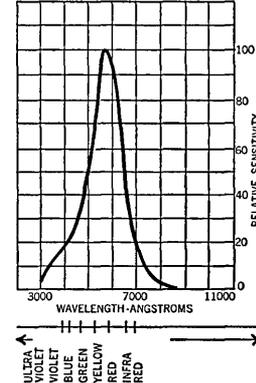
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S-14 Spectral Response



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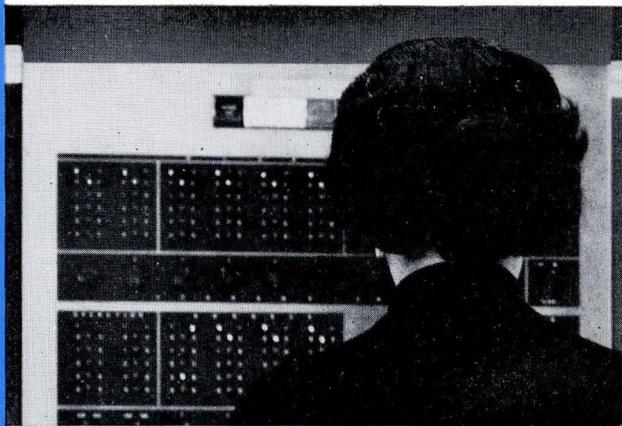
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