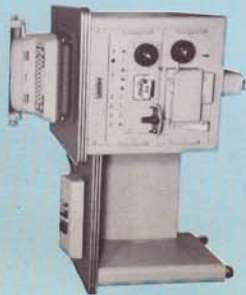


THAT
NEW
IDEA
FROM

NEW

New Analog Computer Developments



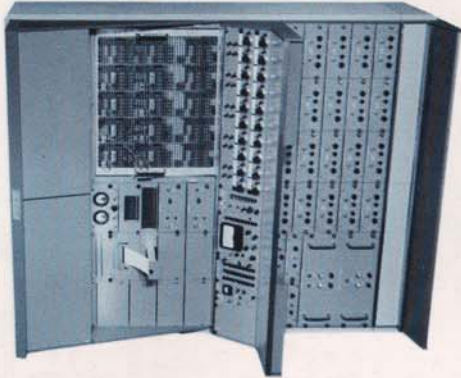
ADIOS

AUTOMATIC DIGITAL INPUT-OUTPUT SYSTEM—ADIOS. Permits faster, more accurate, automatic, servo potentiometer setting, from keyboard or from pre-programmed punched paper tape. Two seconds per setting with .01% accuracy. Settings may be checked from either ADIOS Desk or computer console. Designed to operate up to six computer groups. Pre-programming greatly conserves valuable computer operational-time capacity.

MODULAR DESIGN PRE-PATCH PANEL, Type 5.001, provides 3,450 connection holes with color coding of logically grouped computer components. Many more connections can be made with compact bottle plugs, reducing the number of patch-cords required and thereby cutting down on patch board clutter. "Hold" and "Reset" controls now provided for individual amplifiers.

AERO-AUTOMATIC EXTENDED READ-OUT WITH PRINTER ACCESSORY — Selection of problem read-out points by push button control. Provides instantaneous voltage read-out and prints four figure reading plus sign at the rate of four per second with address of monitored component included to facilitate analysis of problem "runs." Example: A20 + 68.89 indicates that amplifier number 20 reads plus 68.89 volts.

Write for Bulletin AC 802



NEW 231R
ANALOG COMPUTER

The Electronic Associates Analog Computer 231R, provides *more computing, in less time, at less cost, in less space, and with more accuracy* than ever before achieved in electronic computers.

EAI's new automated analog computer has provision for one hundred amplifiers and associated non-linear equipment. Features all-electronic digital voltmeter and high speed print-out system. Potentiometers may be automatically servo-set at twice the speed of any other system. New and larger patching system featuring modular groupings of components, helps to eliminate "patch-board clutter." 100% signal shielding included. Basic 231R Computer System includes 20 amplifiers, 20 potentiometers, vacuum tube voltmeter, push button signal select system, static problem check, rate test, automatic hold, 4 function switches, control panel overload identifier, and all necessary power supplies.



EDVM

MODEL 2.001 ELECTRONIC DIGITAL VOLTMETER—EDVM, provides rapid five figure luminous read-out plus sign. (AV. .005 Second/reading.) Accuracy is 0.01% over the entire voltage read-out range of 0 to ± 120.00 Volts, dc. Transistorized, all-electronic design assures reliability, long life, and compactness. Necessary power and reference supplies are obtained from the Computer.



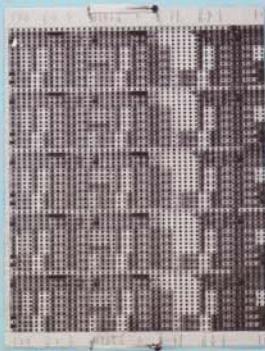
QUAD AMPLIFIER PACKAGE

NEWLY DEVELOPED QUADRUPE AMPLIFIER PACKAGE, employing printed circuits for increased uniformity and reliability, is responsible for the exceptionally high accuracy of the 231R analog computer. The Model 6.002 amplifier requires half the panel space of previous models. It has a .01% gain accuracy with less than 2 mv. peak to peak noise, and less than 0.1° phase shift at 100cps.

231R COMPUTER STANDARD EXPANSION. Two Model No. 4.010 Electronic Multiplier Groups and one Model No. 4.015 Combination Group (not shown) together provide the components necessary to permit utilizing the maximum 231R Computer capabilities. Total of 100 amplifiers, 150 potentiometers, 10 electronic multipliers, 10 servo multipliers, 20 ten segment diode function generators, 5 position or rate resolvers, electronic digital voltmeter and printer, 10 comparators, 20 function switches, 15 or more pot-padding units, time scale check, repetitive operation, 10:1 time scale change plus power supplies and all features found in the basic 231R Computer Console.



MULTIPLIER



PATCH PANEL



AERO

New Analog Plotters & Recorders

Plotters & Recorders

TRANSISTORIZED VARI PLOTTER, MODEL NO. 99.109. EAI's new Transistorized Variplotter provides twice the plotting speed of its widely used 205 series Variplotter with all of the 205's proven features. Transistorizing gives added accuracy and reliability. Maximum dimensions 11" x 45" x 45". Weight 250 lbs. Operates horizontally or vertically.

EIGHT CHANNEL RECORDER—TYPE 99.003. All controls for this rectilinear, computer-output recorder are conveniently mounted on one panel from which control of a complete computer-recorder installation can be obtained. An event marker pen with a one second timer and an automatic scale calibration device are designed into the recorder. Panel switch permits selection of either right or left deflection of stylus for any input. Stepped sensitivities of from 0.5 to 100 volts/centimeter are selectable for each channel by individual push button controls, thus providing speed and flexibility of set-up and re-runs. Drift: Less than 0.5 mm/hr.

THE MODEL 1100E VARI PLOTTER is an EAI design achievement in table top, X-Y recorder versatility and performance. This portable Variplotter is designed to accept plug-in input networks. A low and a high sensitivity network is available for both pen and arm circuits. Arm and pen may be either both high or both low or any combination of high and low sensitivities. Features: Built-in vacuum paper hold down, continuous zero adjustment, long term stability with very high static and dynamic accuracy.

MODEL 26.044 PORTABLE ELECTRONIC DIGITAL VOLT-METER has a built-in transistorized power supply and reference voltages. Provides four figure digital read-out plus sign of analog voltages with .01% accuracy at an average rate of .005 seconds per reading. Use of transistors and elimination of stepping switches gives this instrument maximum reliability in a minimum of space.

Digital Data Reduction Equipment

Reduction Equipment

MAGNETIC TAPE DATAPLOTTER SYSTEM. High speed plotting on X-Y graphs of data recorded in digital form on magnetic tape written by IBM, Remington Rand, ElectroData, and other digital computers. Used with any standard EAI plotting board for point, symbol point or continuous line plotting. Includes all features available in other EAI plotting systems and many others. Analog voltages available for feedback control, etc.

THE 3033B(LP) DATAPLOTTER is the first commercially available device which converts digital point data to accurate continuous line drawings. Point plotting or line plotting is conveniently controlled from the control panel. Plots one to four digits from IBM cards, punched tape, or input keyboard on a vacuum held 30" x 30" paper surface. Twelve significant symbols available with Symbol Printer for plotting several sets of data simultaneously. Speed: point plot — 50 points per minute, line plot — 25 points per minute. Accuracy: Point Plot — .05%, line plot — .1% of full scale.

KEYBOARD INPUT PLOTTER. Provides economical, semi-automatic, graphic presentation of data available in tabular form. Permits X-Y plots of 4 digit X and Y coordinates. Points or symbols plotted with .015 inch accuracy with speed dependent on operator skill. Combines EAI Model 1100E Variplotter and new input keyboard. EAI Symbol Printer available as accessory.

Analog to Digital Conversion Equipment

MODEL 39.012 HIGH SPEED PORTABLE PRINTER. A completely self-contained, portable, high speed digital printer for use with EAI Computer EDVM. Parallel decimal entry, 11 Column printout at 4 lines per second; 3 columns alpha-numeric address, 1 column space, 5 columns digital read-out, 1 column sign, and 1 column decimal point.



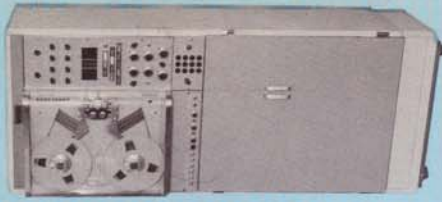
TRANSISTORIZED VARI PLOTTER



8 CHANNEL RECORDER



1100E VARI PLOTTER



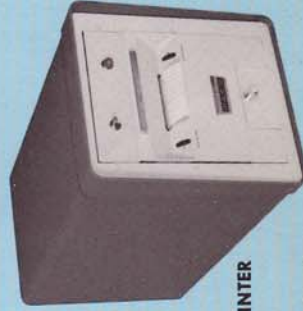
MAGNETIC TAPE DATAPLOTTER



3033B (LP) DATAPLOTTER



KEYBOARD INPUT PLOTTER



PORTABLE PRINTER



PORTABLE EDVM

Control Instrumentation, System Analysis, and Development Engineering Services...

Custom Engineering Services in the fields of control instrumentation and data-logging systems and equipment are also provided by Electronic Associates, Inc. on a contract basis. By coordinating the tremendous knowledge and experience developed in the design and manufacture of analog computing, plotting, and recording, as well as digital data plotting and recording equipment, Electronic Associates makes available to industrial and military research and production groups an invaluable combination of ability and experience. A number of projects requiring application of the talents described above are already under development by EAI Engineering Department and Computation Center mathematicians, physicists, and engineers. Inquiries should be directed to D. H. Corkran, Manager, Engineering Sales.

The capabilities and interests of this group include:

1. Process Control systems and equipment for industrial and military research and on-line applications.
2. Analog computing, plotting, and recording equipment, their design, development, and application.
3. Digital-data plotting and read-out equipment, their design, development, and application.
4. Data-logging and data-handling for both industrial and military research and on-line process analysis and control.
5. General Control Systems involving Servo, Servo Mechanical, pneumatic, Hydraulic, and digital techniques.

EAI COMPUTATION CENTERS SERVE U. S. AND EUROPEAN INDUSTRY


Each day adds to the number of industries that are discovering the amazing capabilities of analog computers to quickly explore the possibilities and limitations of new ideas and design concepts. Capable of accurately simulating an endless variety of mechanical applications from missiles in flight, through chemical refinery design, to a mounting suspension for a washing machine, the analog computer solves in hours problems requiring days or years on other modern computers. Again, years of experience in problem analysis and programming are available from EAI Computation Center Engineers to advise and assist scientists and engineers in rapidly deriving solutions to their design problems.

APPLICATIONS. Heat Transfer Problems, Automotive Stability, Vibration Problems, Simulation of Internal Combustion Engines, and Analysis of Complex Electronic and Mechanical Systems are just a few of the endless number of problems being programmed at EAI Computation Centers.


Write for Computation Center Booklet



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