

BURROUGHS

L Series



SUMMARY

Burroughs L Series comprises a family of computers intended for accounting applications. Individual members vary in capabilities, but higher-performance members can be used for data analysis and report generation. The design emphasis is on interactive processing and simple control by novice users responding to the step-by-step guidance of indicator lights on the console. The series includes models capable of operating as terminals in a data processing network as well as models intended exclusively for stand-alone operation.

The family is distinguished from other small business computers by the nature of its working storage; L Series members utilize magnetic disc rather than core or semiconductor. Interestingly, however, only the most powerful member, the L 7000, has the capability for disc storage of on-line master files. The L 7000 is also unique in the series in that its working storage incorporates a scratchpad memory made from integrated circuits.

All L Series models support a Cobol compiler, a powerful tool for programming business applications.

CONFIGURATION GUIDE

Burroughs L Series is composed of the following members: L 2000, L 3000, L 4000, L 5000, and L 7000.

L 2000 features a standard typewriter keyboard, a numeric keyset, a set of program select keys, indicator lamps, and service keys. It includes an integral serial printer with a rear-

feed forms handler that can simultaneously handle up to two cut or continuous forms. In addition, L 2000 can support readers and punches for handling cards, paper tape, and edge-punched cards.

L 3000 differs from L 2000 primarily in its use of a front-feed forms handler. One version, the L 3000 Window Accounting Computer, has a tall, freestanding "pillar" shape, which makes it suitable for use at a teller's window.

L 4000 is also designed for front-fed forms but it differs from the L 2000 in its much larger platen, which provides a 255-character print line. In addition, its keyboard has space for 24 program select keys rather than for 16 as on the L 2000. The L 5000 resembles the L 4000, varying primarily in the 5000's ability to accept data input from magnetic record cards. Used in conjunction with a magnetic record reader that can read forms 11 inches long and from 6 to 14-1/2 inches wide, the L 5000 can process and analyze magnetic unit records to generate management reports.

The L 7000 is the most powerful of the L Series. It incorporates 2,560 words (16-bit) of magnetic disc main memory, which is field expandable to a maximum 8,704 words by the addition of three 2,048-word modules. Scratchpad memory is also available in 32-word increments, from 32 to 256 words capacity.

L 7000 Series can accommodate either single or dual 80-column punched card or punched paper tape/edge-punched card peripherals (two input devices, two output devices), in various combinations. A card/tape subsystem controller which contains input/output buffers controls the input/output devices. Like the L 5000, the L 7000 can accept data input from magnetic record cards. L 7000, however, can support a single-track record (interchangeable with the L 5000) and adds a dual-track capability.

SOFTWARE

The L Series is unusual in terms of programming flexibility, because it remains the only one that permits Cobol programming for small operator-attended systems. Such Cobol programs must be compiled on the larger Burroughs B 3500 computer. However, if the L Series system has data communications ability, the program can be transmitted to a remote B 3500 for compilation.

This series can be programmed in assembler language. The programs are assembled either on the L Series machines or remotely on a B 3500 if desired. The company provides, at no

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extra cost, preprogrammed routines to assist in program debugging, as well as several utility routines.

Burroughs offers a wide range of standard application packages including: accounts payable, general ledger and financial statements, payroll accounting with reports, public utility billing, billing and account updating, cash receipts and posting, general ledger and month-end reports, payroll accounting, accounts receivable, age analysis, and general billing. In addition, Burroughs will either modify these standard packages to meet the user's specialized needs or write appropriate customized programs.

DESIGN FEATURES

The L Series is unique in its use of magnetic disc for main memory. However, except for the L 7000, no provision is made for storing auxiliary files on magnetic disc. The L 5000's ability to use a file of magnetic record cards offers some compensation for this shortcoming.

Models L 2000 to 5000 use so-called firm-ware microprograms stored permanently in the disc memory to perform such functions as arithmetic and printer control. While storing firmware on the disc is more economical than processor residency, access times are usually slower. For the L 7000, special semiconductor memory is incorporated in the processor console to store firmware. This enables faster processing for the firmware function.

L Series also provides versatile printed output via an interchangeable ball-type printing head, available in a variety of fonts.

PERFORMANCE

The fact that the L Series of computers can be programmed in Cobol gives it a versatility that exceeds the basic design as a series of sophisticated electronic accounting machines with the ability to be configured into a network. Both L 5000 and 7000, with their magnetic memory card capability and ability to generate management reports, have some of the flexibility of the larger small business computers. The L Series upper performance range is also significantly enhanced by the L 7000's magnetic disc storage capability.

Forty-eight standard application packages are available, all written in Cobol, and covering every ordinary accounting application, as well as sales analysis, daily operating control reports, cash flow forecasts, stock status reports, and others.

MAINTENANCE

L Series maintenance is performed by Burroughs service personnel available on-call during normal business hours and operating from over 200 branch locations throughout the country, in addition to a large number of fully stocked residence posts. First-year maintenance is covered by a warranty. A separate contract covers subsequent service.

HISTORY

Burroughs Corporation, founded in 1905, is one of the two largest manufacturers of electronic accounting machines, as well as one of the largest computer manufacturers. The company employs over 52,000 people, grosses approximately \$900 million a year, and maintains a worldwide marketing force.

PRODUCT SPECIFICATIONS

CENT PROCESSOR	
Word Size (bits)	64; 16
Capacity (words)	1,024-8,704
Cycle Time (μ sec)	5
Working Storage	Magnetic disc
AUX STORAGE	L 5000 and 7000, magnetic cards; L 7000 only, magnetic disc
DATA OUTPUT	
Line Printer (lpm)	—
Serial Printer	Yes
Card (cpm)	19
Paper Tape (cps)	40
DATA INPUT	
Keyboard	Standard
Card (cpm)	100; 200
Paper Tape (cps)	40
SOFTWARE	
Assembler	Yes
Operating System	Yes
Compiler	Cobol