OFFICES

ATLANTA, GEORGIA	LOUISVILLE, KENTUCKY
BOSTON, MASSACHUSETTS	MEMPHIS, TENNESSEE
CHARLOTTE, NORTH CAROLINA	MINNEAPOLIS, MINNESOTA
CHICAGO, ILLINOIS ●	NEW ORLEANS, LOUISIANA
CINCINNATI, OHIO	NEW YORK, NEW YORK ●
CLEVELAND, OHIO ●	OKLAHOMA CITY, OKLAHOMA
COLUMBUS, OHIO	PHILADELPHIA, PENNSYLVANIA
DALLAS, TEXAS ●	PHOENIX, ARIZONA ●
DAYTONA BEACH, FLORIDA	PITTSBURGH, PENNSYLVANIA
DENVER, COLORADO	SALT LAKE CITY, UTAH
DES MOINES, IOWA	SAN FRANCISCO, CALIFORNIA
DETROIT, MICHIGAN	SCHENECTADY, NEW YORK ●
HOUSTON, TEXAS	SEATTLE, WASHINGTON
HUNTSVILLE, ALABAMA	SPRINGFIELD, MASSACHUSETTS
INDIANAPOLIS, INDIANA	ST. LOUIS, MISSOURI
JACKSONVILLE, FLORIDA	SYRACUSE, NEW YORK
KANSAS CITY, MISSOURI	WASHINGTON, D. C. AREA ●
LOS ANGELES, CALIFORNIA	

Australia:
Australian General Electric Pty. Ltd.
103 York Street, Sydney

552 Lonsdale Street, Melbourne ●

Canada:
Canadian General Electric Co., Ltd.
Electronic Equipment and Tube Dept.
214 King Street West
Toronto, Ontario, Canada

Europe:
International General Electric S.A.
Data Automation Department
1, rue du Temple
Geneva, Switzerland

or write Drawer 270,
Phoenix 1, Arizona

● Information Processing Centers
in these cities offer complete
computer services.

In the construction of the equipment de-
scribed; General Electric Company reserves
the right to modify the design for reasons
of improved performance and operational
flexibility.

Progress Is Our Most Important Product

GENERAL ⓖ ELECTRIC

COMPUTER DEPARTMENT

Two New data processing– data communication computers

SPECIFICATIONS

GE-425

GE-435

GENERAL ⓖ ELECTRIC

THE CENTRAL PROCESSORS

GE-425: 5.1 microsecond memory cycle, equivalent to 1.28 microseconds per character.

GE-435: 2.7 microsecond memory cycle, equivalent to 0.68 microseconds per character.

Core memories up to 131,072 characters. Four character word — 24 bits plus parity. Alphanumeric input/ouptut and data manipulation, decimal arithmetic, binary instruction format and addressing, with added binary capabilities. 70 basic instructions; over 200 total including one- and two-address instructions. Any word in memory may be an index word.

Indirect addressing to any number of levels.

Relocatable Accumulator may be 1, 2, 3, or 4 words in length — changeable by program.

Automatic program interrupt. Scatter-read, gather-write feature enhances performance of all subsystems. Simultaneity — multiple read/write/compute. Up to eight input/output channels. Powerful editing capabilities edit up to 16 characters at a time. GE-425 and GE-435 Central Processors operate with the same peripherals, which are also used with the GE-455 and GE-465.

	GE-425	GE-435
	time in miscroseconds	
Decimal add (single accumulator)	15.9	8.8
Decimal add (quadruple accumulator)	48.3	25.7
Decimal multiply (4 x 8 digits)	361.9 average	250.8 average
Branch: greater, equal, or less	5.1	2.7

CR-20 CARD READER

900 cards per minute. 80-column, 12-row cards with upper left or right corners cut. Reads cards punched in Hollerith or binary codes, or intermixed decks of Hollerith and binary cards.

Serial feed, column-by-column reading.

2000 card input and output hopper capacity.

Simultaneous operation with other peripherals and central processor.

Checking features include: light check between cards, four synchronization station checks, and validity check on Hollerith code.

Alert conditions: hopper empty, stacker full, feed failure, card jam, read alert.

Last batch switch — gives special signal to program when last batch of cards has been read.

End-of-file designator card — a square notch in trailing edge of card at row-eight level identifies end of one job and start of next.

CP-10 CARD PUNCH

100 cards per minute. Punches standard 80-column cards in Hollerith or binary modes. Checking features: read-after-punch, card feed, card positioning, parity check before punching.

Alert conditions: input hopper empty, output stacker full, chad box full, feed failure, card jam.

Operates simultaneously with other peripherals and central processor.

PR-20 PRINTER

1200 lines per minute, 136 columns, 10 characters per inch. Prints 6 or 8 lines per inch, controlled by operator switch. Skips paper at $27^1/_2$ inches per second. After initiation of paper skip, printer accepts next print command. 64-character set includes 10 numerics, 26 alphabetics, and 28 special symbols. 1200 lines-per-minute speed for printing 46 most-used characters. 900 lines per minute for full 64-character set. Paper: 3 inch minimum, 19 inch maximum width. 22 inch maximum fanfold. Prints an original and up to four copies depending on paper weight. Handles continuous tabulating card stock, single part.

136-character buffer holds print line data during printing. Checking features: low paper, out of paper, incorrect parity in paper tape loop, hammer drive fuse failure, skip alert, buffer overflow, incorrect parity on characters in printer buffer.

Vertical format control by print command: single, double, top-of-page, or no spacing. Paper can be skipped to one of 15 positions defined on the paper tape loop, 0 to 15 lines by countdown, or skipped to top of page. Format character can insert 8 to 120 blank positions (in multiples of 8) in the print line.

MAGNETIC TAPE SUBSYSTEMS (2 MODELS)

MT-24 — 83,000 characters per second transfer rate. 150 inches per second forward speed, 300 inches per second rewind. Tape density of 555 bits per inch (83 KC); changeable by operator switch or program to 200 bits per inch (30 KC).

Last batch switch — gives special signal to program when last batch of cards has been read.

End-of-file designator card — a square notch in trailing edge of card at row-eight level identifies end of one job and start of next.

CP-10 CARD PUNCH

100 cards per minute. Punches standard 80-column cards in Hollerith or binary modes. Checking features: read-after-punch, card feed, card positioning, parity check before punching.

Alert conditions: input hopper empty, output stacker full, chad box full, feed failure, card jam.

Operates simultaneously with other peripherals and central processor.

PR-20 PRINTER

1200 lines per minute, 136 columns, 10 characters per inch. Prints 6 or 8 lines per inch, controlled by operator switch. Skips paper at $27^1/_2$ inches per second. After initiation of paper skip, printer accepts next print command. 64-character set includes 10 numerics, 26 alphabetics, and 28 special symbols. 1200 lines-per-minute speed for printing 46 most-used characters. 900 lines per minute for full 64-character set. Paper: 3 inch minimum, 19 inch maximum width. 22 inch maximum fanfold. Prints an original and up to four copies depending on paper weight. Handles continuous tabulating card stock, single part.

136-character buffer holds print line data during printing. Checking features: low paper, out of paper, incorrect parity in paper tape loop, hammer drive fuse failure, skip alert, buffer overflow, incorrect parity on characters in printer buffer.

Vertical format control by print command: single, double, top-of-page, or no spacing. Paper can be skipped to one of 15 positions defined on the paper tape loop, 0 to 15 lines by countdown, or skipped to top of page. Format character can insert 8 to 120 blank positions (in multiples of 8) in the print line.

MAGNETIC TAPE SUBSYSTEMS (2 MODELS)

MT-24 — 83,000 characters per second transfer rate. 150 inches per second forward speed, 300 inches per second rewind. Tape density of 555 bits per inch (83 KC); changeable by operator switch or program to 200 bits per inch (30 KC).

MT-20 — 41,000 characters per second transfer rate. 75 inches per second forward tape speed, 225 inches per second rewind. Tape density is 555 bits per inch (41 KC); changeable by operator switch or program to 200 bits per inch (15 KC).

Trailing head reads and checks all writing operations. Error checking on all data movements.

Tapes used: $^1/_2$ inch Mylar, 1.5 mils thick, up to 2400 feet per $10^1/_2$ inch reel.

File-protect ring for reels. Compatible with most widely used tape format, both binary and BCD.

TAPE CONTROLLERS (4 MODELS)

Single channel model controls up to eight tape units through a single channel. MTC-20 for 41 KC, MTC-24 for 83 KC.

Dual channel model controls up to eight tape units through two channels, permitting simultaneous reading and/or writing within the tape subsystem. MTC-21 dual channel controller for 41 KC, MTC-25 for 83 KC.

TS-20 PERFORATED TAPE READER/PUNCH

Reads and spools 5, 6, 7, or 8-channel tape at 500 characters per second.

Punches and spools 5, 6, 7, or 8-channel paper, Mylar, or Mylar aluminum tape at 150 characters per second. Plugboard allows formatting and operation control. Any tape channel can be assigned to any bit position in the characters entered into memory.

Checking features: odd or even parity check while reading tapes. Check is performed in this subsystem, not in the central processor. Data to be punched is parity checked by the subsystem when it is received from the processor.

Off-line operation: to duplicate tapes; to check parity on data.

TR-20 tape reader, and TP-20 tape punch available separately.

DS-20 DISC STORAGE UNIT

Modularity permits starting with 4 discs, and expanding to 8, 12, or 16 discs. 16-disc file stores 23.5 million 6-bit characters. Up to four 16-disc files (94 million characters) may be connected to one controller. Controller has 1024-character buffer (character addressable). Each disc has separate positioning arm, with

199 millisecond average positioning time. Four or eight discs may have optional fixed arms to provide 26 millisecond average access to high priority data. Operates simultaneously with central processor and other peripherals. Thirty-two 240-character records can be read or written with one command.
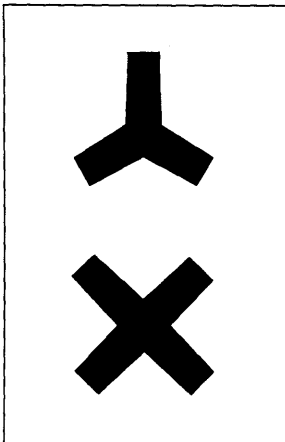
MR-20 MAGNETIC READER / SORTER

Reads and sorts magnetically encoded documents on-line or off-line. Reads 10 numerics and 4 special symbols. 1200 mixed-size documents per minute. Optional features include Transposition Check Digit Verifier and Endorser. Two Magnetic Reader/Sorters can go on-line – each through a separate I/O channel – to give an input rate of 2400 documents per minute.

DATA COMMUNICATION CAPABILITIES

The Compatibles/400 have equally powerful data processing and data communication capabilities. They utilize the Datanet-30 to access and control a complete communication network and the Datanet-20 to provide one-at-a-time computer access to and from remote stations. The Datanet-25 provides communication between computers.

Datanet-20 – a single line data transmission controller. The operator can dial any remote station using a digital subset; or the automatic calling unit may be used, and the computer can dial the call. Remote stations dial in to the computer to gain access.

Datanet-25 – a Multiple Processor Adapter. This adapter interfaces directly with any other Compatibles/400 computer, or any other system meeting the interface requirements. This channel provides direct computer-to-computer communications on a local basis.

OFFICES

ATLANTA, GEORGIA	LOUISVILLE, KENTUCKY
BOSTON, MASSACHUSETTS	MEMPHIS, TENNESSEE
CHARLOTTE, NORTH CAROLINA	MINNEAPOLIS, MINNESOTA
CHICAGO, ILLINOIS ●	NEW ORLEANS, LOUISIANA
CINCINNATI, OHIO	NEW YORK, NEW YORK ●
CLEVELAND, OHIO ●	OKLAHOMA CITY, OKLAHOMA
COLUMBUS, OHIO	PHILADELPHIA, PENNSYLVANIA
DALLAS, TEXAS ●	PHOENIX, ARIZONA ●
DAYTONA BEACH, FLORIDA	PITTSBURGH, PENNSYLVANIA
DENVER, COLORADO	SALT LAKE CITY, UTAH
DES MOINES, IOWA	SAN FRANCISCO, CALIFORNIA
DETROIT, MICHIGAN	SCHENECTADY, NEW YORK ●
HOUSTON, TEXAS	SEATTLE, WASHINGTON
HUNTSVILLE, ALABAMA	SPRINGFIELD, MASSACHUSETTS
INDIANAPOLIS, INDIANA	ST. LOUIS, MISSOURI
JACKSONVILLE, FLORIDA	SYRACUSE, NEW YORK
KANSAS CITY, MISSOURI	WASHINGTON, D. C. AREA ●
LOS ANGELES, CALIFORNIA	

Australia:
Australian General Electric Pty. Ltd.
103 York Street, Sydney
552 Lonsdale Street, Melbourne ●

Canada:
Canadian General Electric Co., Ltd.
Electronic Equipment and Tube Dept.
214 King Street West
Toronto, Ontario, Canada

Europe:
International General Electric S.A.
Data Automation Department
1, rue du Temple
Geneva, Switzerland

or write Drawer 270,
Phoenix 1, Arizona

● Information Processing Centers
in these cities offer complete
computer services.

In the construction of the equipment described; General Electric Company reserves the right to modify the design for reasons of improved performance and operational flexibility.

Progress Is Our Most Important Product

GENERAL ⊛ ELECTRIC

COMPUTER DEPARTMENT