GENERAL ELECTRIC PROUDLY PRESENTS THE NEW

GE 150 DATA PROCESSING SYSTEM

FOR THE AUTOMATION OF BUSINESS DATA PROCESSING

GENERAL ⊕ ELECTRIC
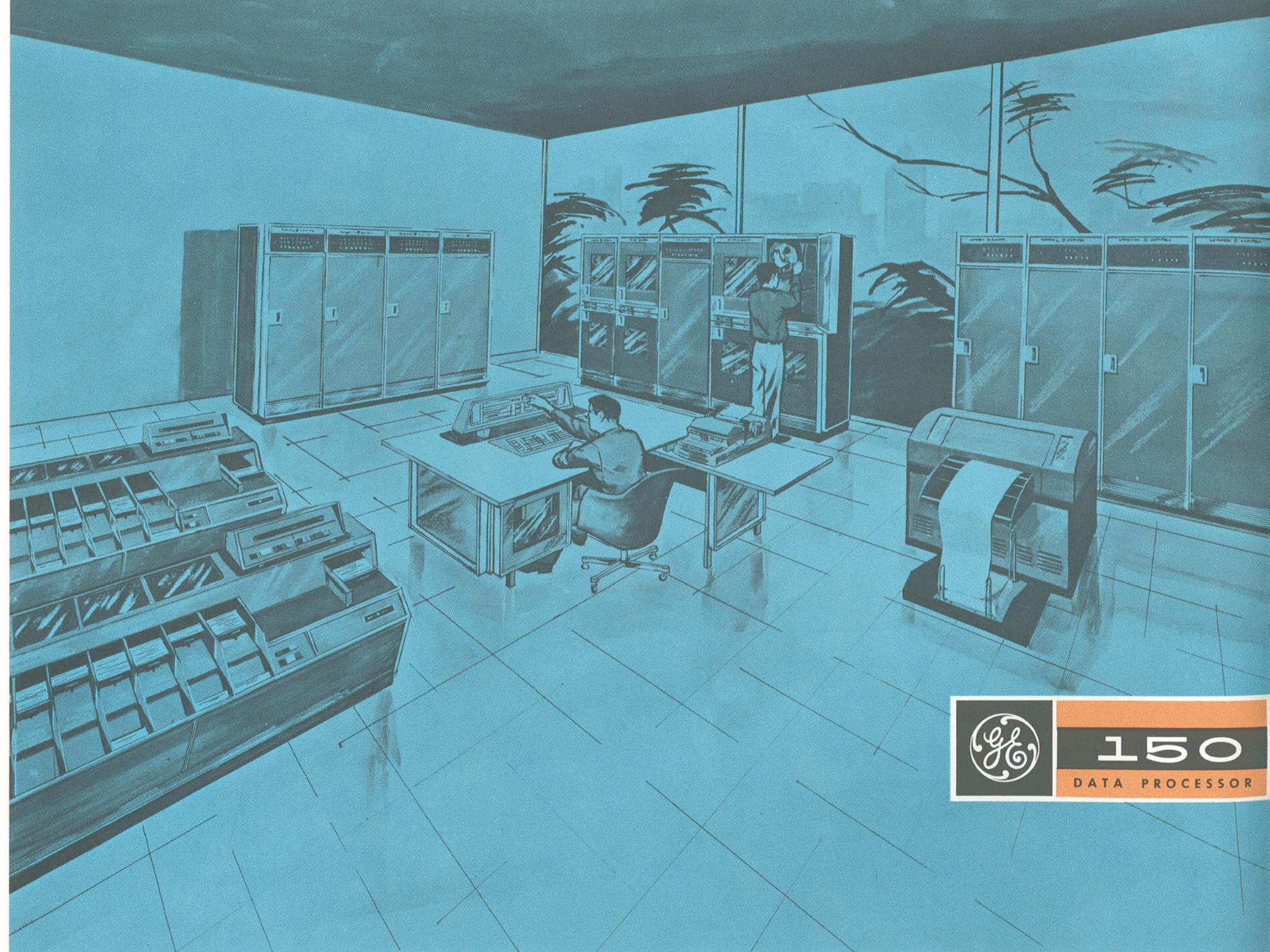
GE 150 DATA PROCESSOR

The urgent need for the automation of business data processing, to absorb the ever-increasing volume of present-day paper-work, to help achieve more effective management, and to cope with the increasing complexity of business mathematics and statistics, may be uniquely fulfilled through the use of the new General Electric GE 150 DATA PROCESSING SYSTEM.

The GE 150 system is a fully integrated general purpose digital computer system designed especially for business data processing applications. It employs magnetic ink character reading, high speed automatic document sequencing, complete transistorization, printed circuit boards and other advanced electronic computer techniques. With a full complement of input/output peripheral devices including magnetic ink character imprinting, an instruction repertoire of unusual scope, and a comprehensive programming package of utility, general purpose, and automatic programming routines, the GE 150 system is completely flexible and easily programmable.

THE GE 150 DATA PROCESSING SYSTEM PROVIDES:

> **SPEED AND ACCURACY** in processing increasing quantities of business data.

> **TIME AND COST SAVINGS:** magnetically imprinted original source documents of varying size and thickness may be used as inputs to the system
> — eliminates need to convert documents to another medium acceptable to data processor
> — simplifies verification, reconciliation and audit procedures
> — reduces bookkeeping errors and costs.

> **RELIABILITY** assured through the use of built-in self-checking circuits.

> **FLEXIBILITY** resulting from full complement of input and output media.

THIS PROVED GE 150 SYSTEM IS AVAILABLE!

MAJOR UNITS *of the GE 150 data processing system include:*

DOCUMENT HANDLER
— accepts magnetically encoded documents of varying size, quality, and degree of mutilation, one at a time, and
— reads magnetic ink characters on each document and
— sorts documents

all under control of stored program within central processor

CENTRAL PROCESSOR
— accepts information from document handler, magnetic tape, paper tape, punched cards, and typewriter
— controls operation of document handler
— provides output information to magnetic tape, high speed printers, paper tape, punched cards, or typewriter

CONTROL CONSOLE
— provides indicating and control station for operation of the system

MAGNETIC TAPE UNITS
— read and write at speeds of 30,000 or 55,000 numeric characters per second
— stores bulk information for long term use
— multiplex buffering

HIGH SPEED MAGNETIC RE-ENTRY PRINTER
— prints re-entry characters in magnetic ink on output documents

HIGH SPEED PRINTER
— prints out necessary lists, journal entries, trial balances, reports and statements from information furnished from central processor

CARD READER
— reads 80 column punched cards, 2,000 per minute

CONSOLE PAPER TAPE READER
— reads punched paper tape for entry into computer

CARD PUNCH
— punches 80-column cards from magnetic tape

CONSOLE TYPEWRITER
— acts as control printer
— provides input and output communication

POWER SUPPLY
— supplies necessary regulated voltages

400 CYCLE MOTOR ALTERNATOR
— isolates critical computer and control circuits from power line transients

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EQUIPMENT SPEEDS

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Card Input	2,000 cards per minute
Document Input	750-1200 documents per minute
Magnetic Tape	30,000 or 55,000 numeric characters per second
Computer	$A+B \rightarrow C = 192$ microseconds
Printer	Alphanumeric printing: 600 lines per minute
	Numeric printing: 900 lines per minute
	Slew speed: 16 inches per second
Console Paper Tape Reader	200 or 500 characters per second

FEATURES *of the GE 150 data processing system:*

COMPONENTS
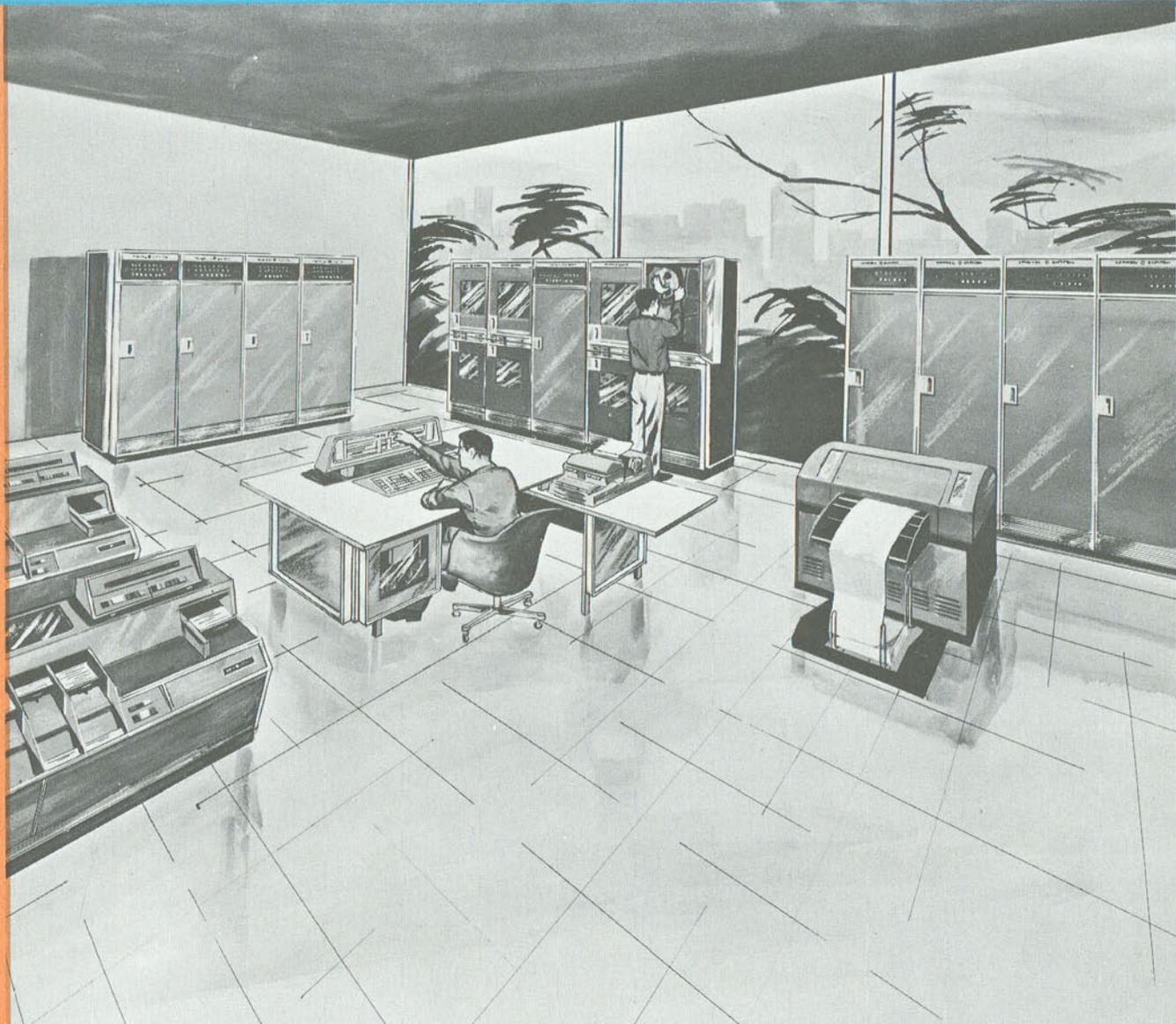
MAGNETIC TAPE UNITS

150
DATA PROCESSOR
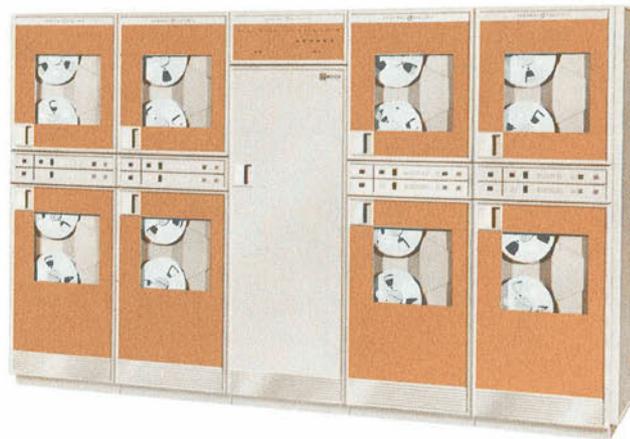
TWELVE POCKET DOCUMENT HANDLER

FEATURES *of the* GE 150 *data processing system:*

CENTRAL PROCESSOR

CONTROL CONSOLE, INCLUDING CONSOLE PAPER TAPE
READER (LEFT) AND CONSOLE TYPEWRITER (RIGHT)

TWO-POCKET DOCUMENT HANDLER

GE 150
DATA PROCESSOR

MAJOR UNITS *of the GE 150 data processing system include:*

MEMORY UNIT

HIGH SPEED PRINTER
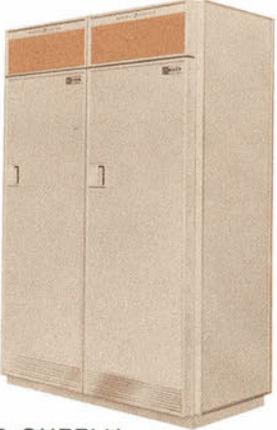
GE 150 DATA PROCESSOR

POWER SUPPLY
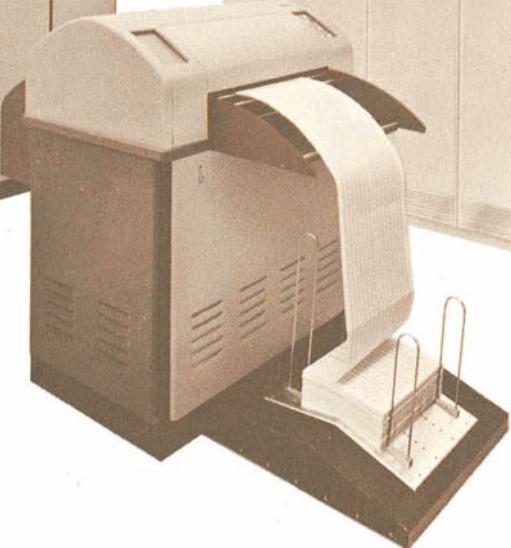
FEATURES *of the GE 150 data processing system:*

Handles and reads information directly from various types of source documents — no costly, time-consuming translation

High-speed automatic document sequencing

On-line and off-line handling of magnetically encoded documents

Extremely wide selection of input/output methods and equipment, including original documents, magnetic tapes, paper tape, punched cards, typewriter, high-speed printer — specifically designed for flexible business data processing

Building block equipment flexibility — 4000 or 8000 word core memory, 30 or 55 KC magnetic tape-system, up to 13 magnetic tape transports

Latest manufacturing and circuit techniques — use of printed circuit boards, magnetic core memory and complete transistorization, resulting in smaller equipment size, lower power consumption, less heat dissipation, better accessibility, lower installation and maintenance costs, greater component life expectancy, and increased equipment reliability

Simultaneous high-speed reading, writing, rewinding and computation

Magnetic ink character reading — permits the handling and reading of information directly from source documents

Magnetic ink character printing — permits printing of documents which, with a minimum of variable information, can be automatically read by the magnetic ink character reader

Complete arithmetic, audit checking and self-checking facilities

System flexible and expansible — as volumes of documents increase, system can be expanded

Powerful instruction repertoire simplifies programming

Proved automatic programming, general purpose and utility routines available

WHY MAGNETIC INK PRINTING?

To utilize most effectively the automatic techniques inherent in computing systems, a language, common to both man and machine, is needed for the processing of business documents.

Many ideas and methods for achieving this common language have been tried. Among them were:

— Punching the necessary information into the document, as in a punched card

— Coding the information on a document using a bar code

— Coding the document with invisible fluorescent ink spots

— Placing the document in an envelope and coding the envelope

— Attaching an adhesive tab to the document and coding the tab

After lengthy investigations, magnetic ink imprinting has been adopted by General Electric. The reasons for making this decision were many:

— The characters can be printed on the source document itself.

— Time and money are saved by not having to translate the basic information to a different form, acceptable to a data processing system.

— The possibility of errors during translation due to the human element is eliminated.

— Because both the machine and men read the same language, verification, reconciliation, and other accounting procedures are simplified.

— Magnetic ink characters are not obliterated, as far as the data processing system is concerned, by overprinting, by dirt, or even by tape placed over them to repair a torn document.

— Magnetic ink can be applied to many existing documents having varying physical properties.

Thus, with the introduction of magnetic ink printing and magnetic ink character recognition equipment, complete automation has become available for modern business data processing.

General Electric, leader in . . .

> magnetic ink type design

> magnetic ink and paper research

> operating magnetic ink character readers

> quality control equipment for magnetic ink printing

> unique magnetic ink error detection techniques

> installed and operating customer magnetic ink character reading systems

SERVICES *of the General Electric Computer Department*

PROGRAMMING CONSULTING SERVICES

1. A comprehensive package of proved utility, general purpose and automatic programming routines is available for the GE 150 System user.

2. Upon firm order for a GE 150 System, your personnel will be trained in its operation by General Electric personnel skilled in the application of the System to your business operations. This training will be provided at either your site or at a General Electric location.

3. An experienced Application Engineer will be made available to give full-time professional assistance to your data processing personnel following the training period until the system is operating.

4. Consultation service will be provided by General Electric Application Engineering throughout the use of the GE 150 System.

INSTALLATION SERVICES

1. Continuing liaison services to assist you, your architects and building contractors in planning modifications, if required, to adapt your site to accommodate your GE 150 General Electric Data Processing System.

2. Unpack and assemble all equipment at the prepared site.

3. Wire-up the system, starting with the primary source within the building and including all wiring associated with the equipment.

4. Make all the necessary on-site adjustments for operating the system.

MAINTENANCE SERVICES

After your GE 150 System has been installed, experienced General Electric Product Service representatives will maintain the System for optimum utilization by your operators. This service includes both maintenance and spare parts and will be furnished at all times that your System is in use.

You can visualize the tremendous possibilities involved in utilizing the GE 150 DATA PROCESSING SYSTEM to automatically process your business documents printed with magnetic ink characters.

The GE 150 DATA PROCESSING SYSTEM, with its extremely flexible capabilities, is now available to work for you in alleviating the acute problem of business paper processing.

Progress Is Our Most Important Product

GENERAL 🆐 ELECTRIC

COMPUTER DEPARTMENT · DEER VALLEY PARK
PHOENIX, ARIZONA

Inquire Today!

For more information or assistance regarding computers and
data processing, contact the General Electric Computer
Department, Deer Valley Park, Phoenix, Arizona.

FOR FIGURES IN A HURRY—FIGURE ON A GE COMPUTER

🆐 GENERAL ELECTRIC **DATA PROCESSING**
AUTOMATED BY GENERAL ELECTRIC