

GIER

CONVERTER

ELECTRONICS

RC 3000

Versatility is merely one attribute of the new RC 3000, developed by GIER Electronics for multi-directional off-line data conversion. Quality and reliability too are combined with moderate price in the RC 3000 Converter, designed for more effective utilization of computers and peripheral devices. By enabling exclusive use of magnetic tape as a high speed input/output medium for the computer, RC 3000 eliminates the time-consuming incompatibility in operating speeds produced when the slower peripherals are used on-line.

APPLICATIONS

Since installation operating efficiency is greatly improved by transferring the time-consuming burden of basic input/output from the computer itself to a converter, the reduction of job costs and running time achieved through the introduction of RC 3000 will mean an increase in installation capacity and rentability.

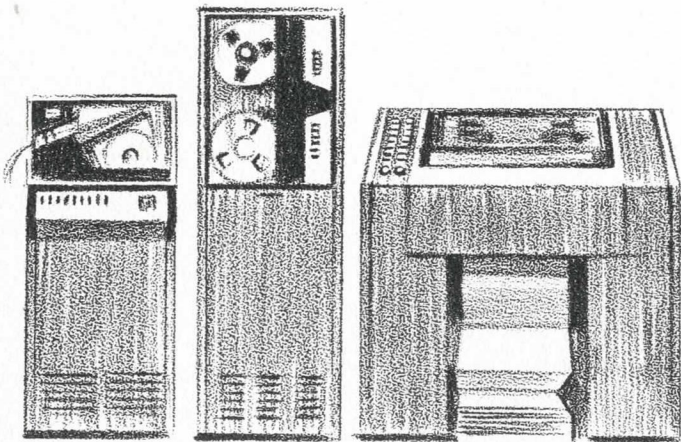
The RC 3000 has application both with respect to business concerns and service centres that have their own medium to large installations and to firms and branch organizations that have their data processed on a routine basis by a centralized computing service.

As a satellite machine for central computer installations, the RC 3000 Converter is especially applicable where current input/output speeds place a limit on rentability, or where the sole possibility of taking on more processing jobs lies in a reduction of the time used for input and output. Incorporation of RC 3000 will mean a lessening of running costs and throughput time per job; and the service centre customer knows that the time he is paying for is being used effectively.

Decentralized conversion independent of computer availability is made possible through the RC 3000. Original documents may be retained at the source, and printed documents may be processed at will.

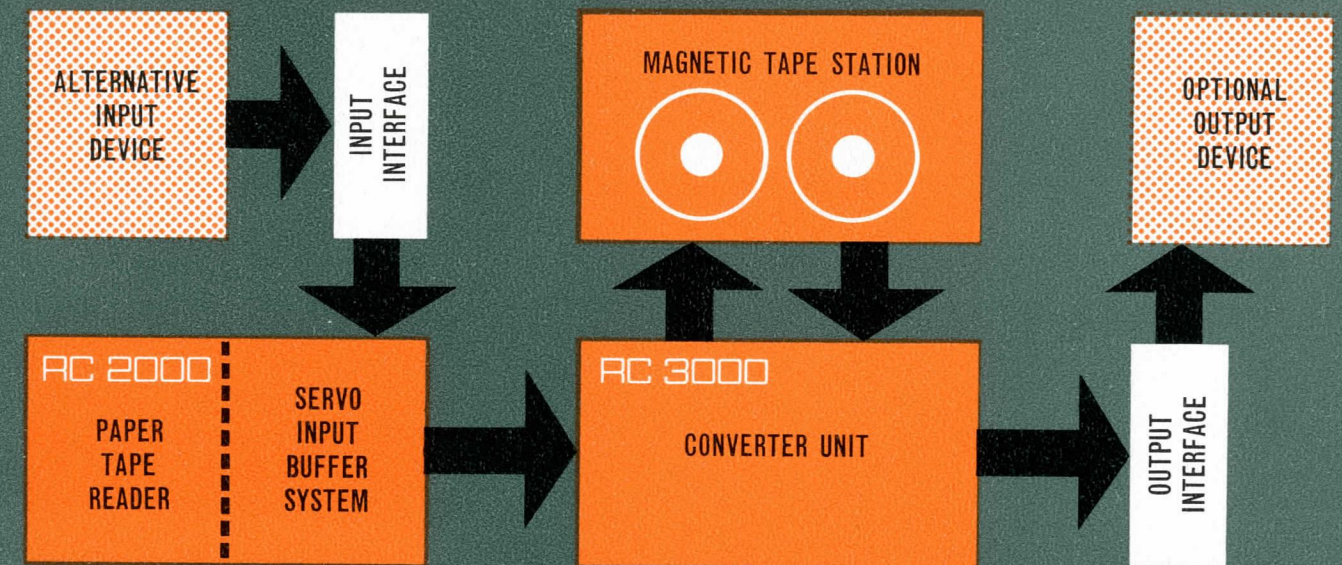
Where data is normally sent to and from a service centre on paper tape, punched cards, or optical reader documents, employment of the RC 3000 Converter simplifies this process considerably, since data and reports can be produced in a form that is at once more manageable and easily transported. Once the data has been converted to magnetic tape on the user's premises, the tapes can be sent to the service centre, processed, and then returned to the user for production of reports and the like via a line printer, for instance, connected to RC 3000. Magnetic tape weighs less and takes up less space than the paper on which the original data is prepared, and the risk of losing a single punched card is eliminated.

With decentralized conversion on the RC 3000, the service centre user has greater control over his original data and over the production of reports. There are no delays due to misunderstandings about the data itself or the forms on which the reports are to appear. Printed reports can be easily stored on magnetic tape and reprinted at will by the user himself, while punched cards and the like, used as documents as well as input data, are immediately available for use after conversion to magnetic tape.



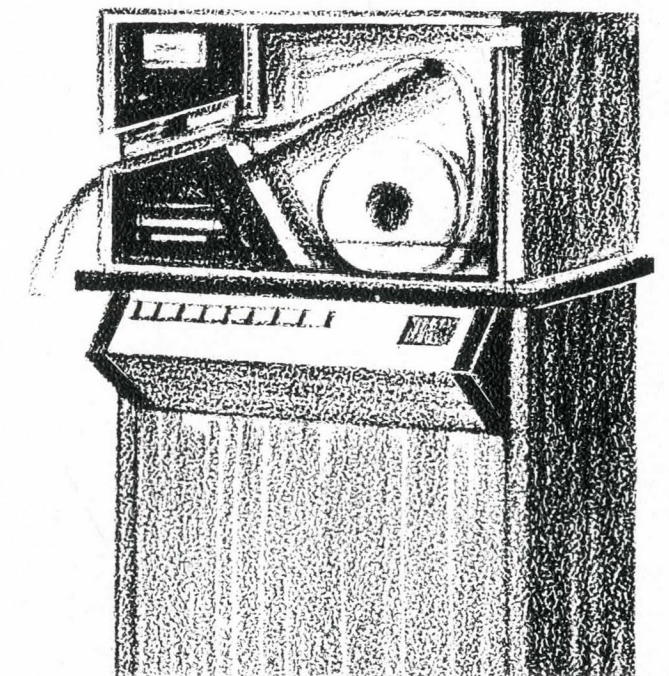
TYPICAL CONVERSION MODES

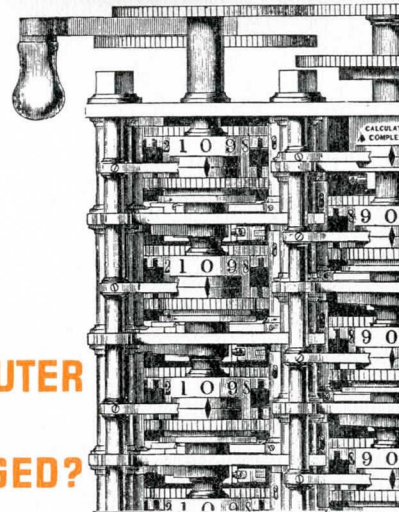
- PAPER TAPE → MAGNETIC TAPE
- MAGNETIC TAPE → LINE PRINTER
- PAPER TAPE → PUNCHED CARD
- PUNCHED CARD → LINE PRINTER
- OPTICAL READER → MAGNETIC TAPE
- MAGNETIC TAPE → PLOTTER
- PUNCHED CARD → MAGNETIC TAPE
- PAPER TAPE → LINE PRINTER



Further information on the use of the RC 3000 Converter and/or help in appraising the applicability of converter equipment in your EDP installation is available on request from:

A/S Regnecentralen, Sales Division
Falkoneralle 1, Copenhagen F, Denmark





**COMPUTER
OGS
LOGGED?**

...the new versatile RC 3000 provides

COMPUTER COMPATIBLE CONVERSION

Modern electronic computers are characterized by their high internal operating speeds, with cycle times ranging from 2 to 10 microseconds, i.e. character processing at the rate of 100,000 to 500,000 characters/second.

At present, however, most communication with computers is performed on-line using relatively slow peripheral devices, e.g. paper tape, punched card, or optical document readers for input, and line printers for output, which have typical operating speeds of only 500 to 2000 characters/second. Basic input/output is a burden that can bog down anybody's computer!

Since the potential operating capacity of the computer is not being used to its fullest, and since peripherals too must often "wait" while data is being processed by the computer, many users of modern EDP equipment are recognizing the urgent need of eliminating this input/output bottleneck.

Magnetic tape, with speeds of 10,000 to 100,000 characters/second, provides the only means of communication compatible with computer operating speeds. Minimizing the time consumed by the computer itself for input and output would mean greater

efficiency and better economy in terms of both time and of EDP installation investment; this can be realized by using magnetic tape instead of other input/output media — provided that off-line conversion to and from magnetic tape is feasible.

The new RC 3000 Converter, acting as a go-between between the computer and the desired peripheral devices, does just that!

FEATURES

INTERFACE MODULARITY facilitates connection of Optional Peripherals.

UNIVERSAL CODE CONVERSION via table read into the Core Store prior to each run.

CONVERSION MODES include:
Paper Tape to Magnetic Tape
Magnetic Tape to Line Printer
Paper Tape to Line Printer.

RC 2000 PAPER TAPE READER accepts varying tape widths and reads photo-electrically at 2000 characters/second.

SERVO INPUT BUFFER SYSTEM automatically regulates Paper Tape Reader and Alternative Input Devices, ensuring uninterrupted flow of data to Converter.

MAGNETIC TAPE STATION operates with internationally compatible tapes at 20,000 characters/second.

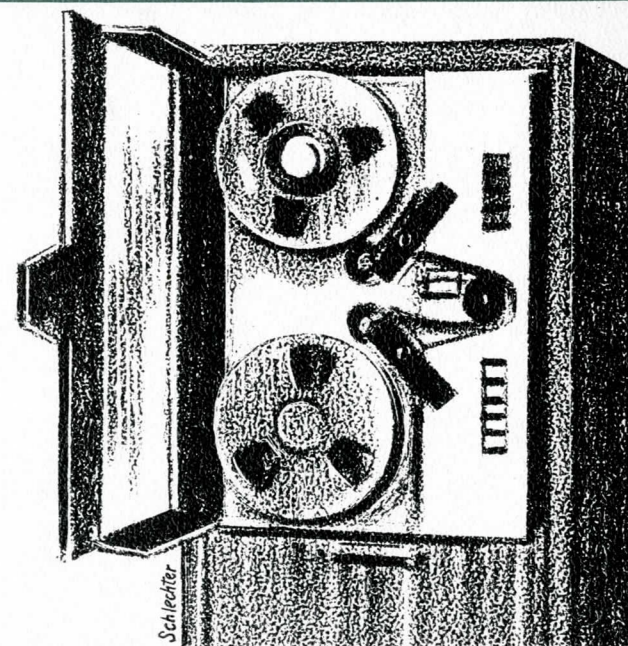
VARIABLE BLOCK LENGTH available through programming and/or manual selector.

CONVERSION TABLE caters for Locking Shift, Deletion, End of Block, and Stop.

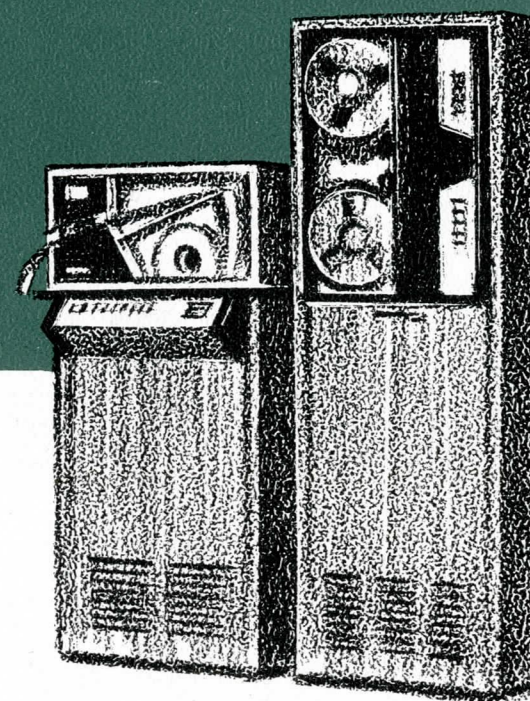
PARITY CHECKING performed throughout conversion process.

RELIABILITY provided by comprehensive use of solid-state circuitry; electronic functions minimize the number of moving parts.

DESIGN FEATURES incorporate Compactness, Neatness of Appearance, and Ease of Operation.



CHARACTERISTICS



DIMENSIONS

Converter Unit
width 57 cm
depth 57 cm
height 141 cm
weight 125 kg

Magnetic Tape Station
width 57 cm
depth 57 cm
height 180 cm
weight 167 kg

ENVIRONMENT

Ambient Air Temperature 16° to 26° C
Relative Humidity 40 to 70 %

CONVERSION MODES

Paper Tape or Alternative Input Device to Magnetic Tape
Magnetic Tape to Optional Output Device
Paper Tape or Alternative Input Device to Optional Output Device

INTERFACE

Any peripheral devices that can be conditioned to impart/receive information in the form of characters or bytes can be connected.

PAPER TAPE READER RC 2000

Operates at 2000 characters/second.
Accepts 5/6/7/8 channel tapes punched in any suitable medium.
Provision for Olivetti 6 channel tape

SERVO INPUT BUFFER SYSTEM

Incorporated in RC 2000
Buffer core store of 256 8-bit words
The number of unprocessed characters in the Buffer regulates reading speed.
Can be adapted to regulate alternative input devices.

CONVERTER UNIT

Core Store of 1024 8-bit words
Cycle time of 7 microseconds

MAGNETIC TAPE STATION

7 track, 1/2 inch tape, internationally compatible
Tape speed of 36 inches/second
Low/high density of 200/556 characters/inch
Transfers in binary or BCD
Read-after-write and after-read error detection

PARITY CHECKING

Transfers in the Core Store including loading of conversion table:

Odd parity — RC 3000 stops if error
Transfers to or from magnetic tape:
Transverse and longitudinal parity — odd or even according to mode of transfer
When reading — erroneous block re-read
When writing — erroneous block re-written after erasure

Input from paper tape or other device:
With or without parity — treated specifically in conversion table

CONVERSION TABLE

Read into Converter Core Store prior to each run.
Remainder of Core Store used for buffering blocks of data during conversion.
Length of conversion table varies according to number of bits in input character.
Maximum length of 512 words
Functions in table allow:
Conversion to any 7-bit character
Locking Shift (alternative conversion table)
Deletion
End of Block with or without Stop

BLOCK FORMATS

Each block is buffered in portion of Core Store not occupied by conversion table.
Block lengths depend on size of conversion table, otherwise may vary for example from 1 to 992 characters.
Format of data optional. Standard American printer formats catered for.

OVERALL OPERATING SPEEDS

Paper Tape to Magnetic Tape 2000 characters/second
Magnetic Tape to Line Printer approx. 10 lines/second
Paper Tape to Line Printer approx. 10 lines/second

POWER REQUIREMENTS

Single phase 220 Volts
Consumption: converter unit alone: 1/2 kW
with magnetic tape station: 2 kW

Are old-fashioned data conversion methods
„clogging the cogs” of YOUR computer ?

Å **REGNE** CENTRALEN

SALES DIVISION

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