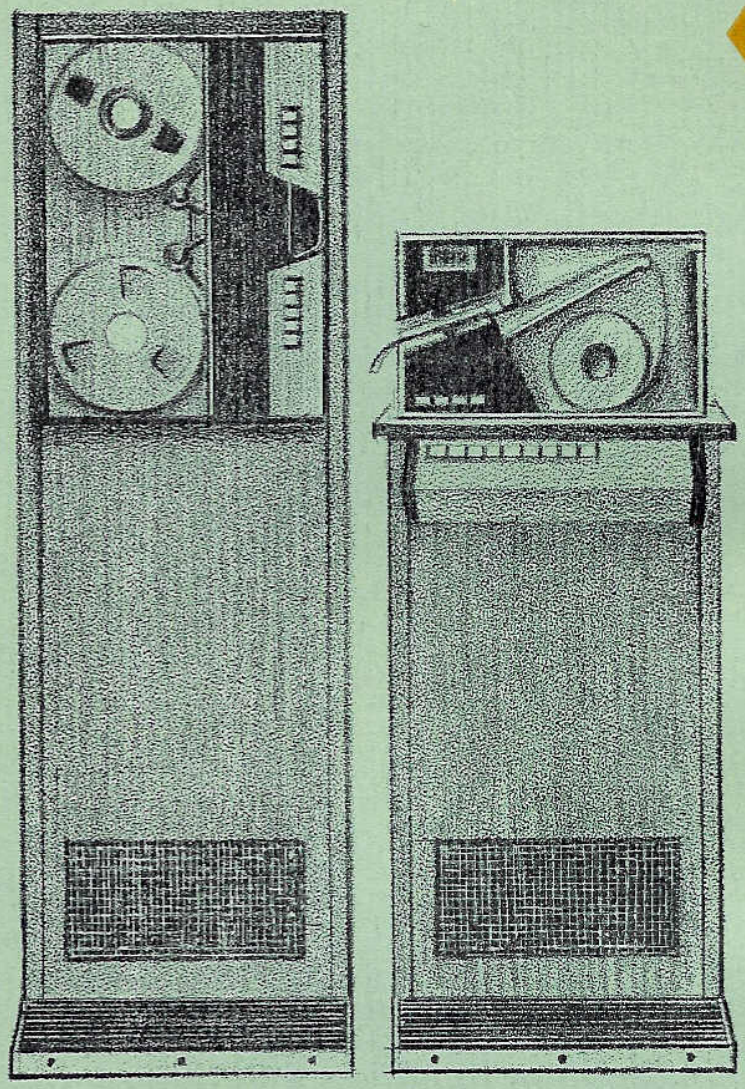
S P E C I F I C A T I O N

GIER
ELECTRONICS

HARDWARE



CONVERTER

The RC 3000 Converter for multi-directional, off-line data conversion provides better utilization of both computer and peripherals by enabling exclusive use of magnetic tape as a high-speed input/output medium for the computer. Conversion modes include: paper tape or alternative input to magnetic tape, magnetic tape to optional output device, and paper tape or alternative input to optional output device.

The RC 3000 consists of the Converter Unit, the RC 2000 Paper Tape Reader, which is mounted on top of the former, and the Magnetic Tape Station, with provision for connection of Line Printer, Punched Card Reader, or any peripheral device that can be conditioned to inpart/receive data in the form of 8-bit characters. Through the use of electronic functions, the number of moving parts has been minimized, and the comprehensive use of solid-state circuitry further ensures reliability. The Converter is compact, neat in appearance, and easy to operate and maintain.

Document E-13 / Revision 0 / October 1965

The Converter Unit contains a core store of 1024 8-bit words and has a cycle time of 7 μs. Parity checking, which is performed throughout the conversion process, includes transfers in the core store, transfers to and from magnetic tape, and input from paper tape or alternative device. A catalog, which is read in to the store before each run, provides universal code conversion; the remainder of the store is used to buffer blocks of data during conversion.

The length of the catalog varies according to the number of bits in the input character, but has a maximum length of 512 words. Functions in the catalog allow: conversion to any 7-bit character, catalog shift, deletion, and end of block (with or without stop). Each block is buffered in the portion of the core store not occupied by the catalog. Block length depends on the size of the catalog, is variable through programming, and may range from 1 to 1024 characters. Data format is optional, and standard American printer formats are catered for.

The Paper Tape Reader and the Magnetic Tape Station are described fully in separate Specifications.

CHARACTERISTICS

Size: width 58.9 cm, depth 62.0 cm, height 140.9 cm

Weight: 121 kg

Converter Unit Core Store
- cycle time: 7 μs
- capacity: 1024 8-bit words

Paper Tape Reader
- speed: 2000 char/sec
- tapes accepted: widths equivalent to 5, 7, 8, and Olivetti 6 tracks tapes
- servo input buffer
  - number of unprocessed characters regulates reading speed
  - adaptable to alternative input device

Magnetic Tape Station
- tape speed: 36 inches/sec
- tapes used: 7-track, ½ inch, internationally compatible
- recording densities: 200 and 556 char/inch
- transfer time: 20,000 char/sec at 556 char/inch
- transfers: binary or BCD characters
- error detection: read-after-write check for parity and continuity

Power: 50 Hz, 220 V
- maximum power: 334 kcal/h (388 W)
- maximum line current: 2 A
- fuses in mains connection: 6 A

Environment
- cooling air: 280 m³/h from ambient
- air temperature: 18–25° C
- relative humidity: 40–70 %

These Characteristics apply to the Converter Unit with the Paper Tape Reader. Complete Characteristics for the Paper Tape Reader and the Magnetic Tape Station are contained in separate Specifications.

Typical Conversion Modes

PAPER TAPE to PUNCHED CARDS OPTICAL READER to MAGNETIC TAPE
PAPER TAPE or PUNCHED CARDS to LINE PRINTER or to MAGNETIC TAPE
MAGNETIC TAPE to LINE PRINTER or to PLOTTER

Selected Conversion Speeds

Paper Tape to Magnetic Tape: 2000 char/sec
Punched Cards to Magnetic Tape: 1200 – 1500 cards/min
Magnetic Tape to Line Printer: ca. 10 lines/sec
Punched Cards to Line Printer: 1200 – 1500 cards/min
Paper Tape to Line Printer: ca. 10 lines/sec

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Printed in Denmark / MERKA