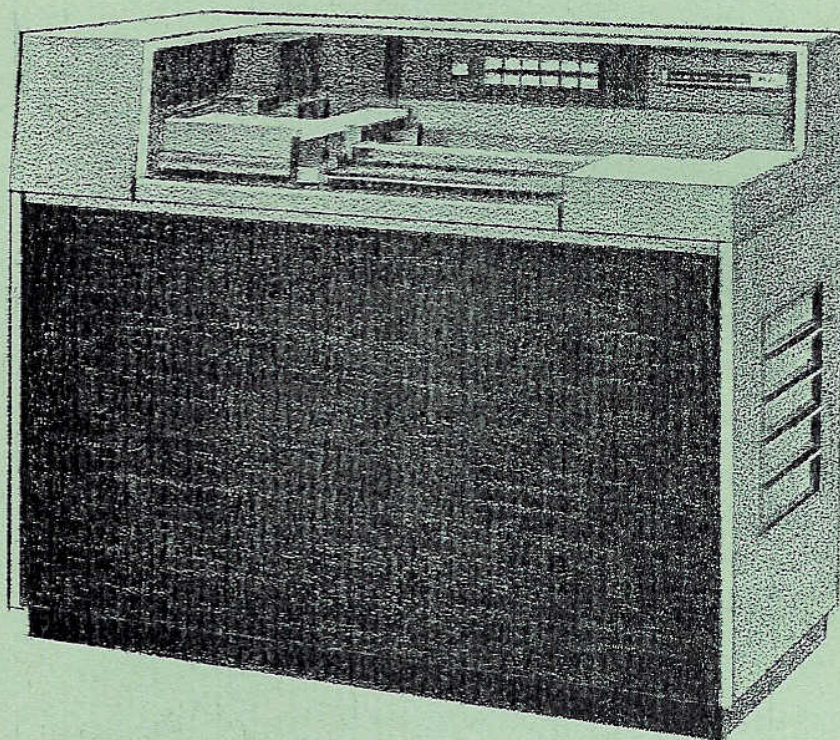GIER
ELECTRONICS

HARDWARE

PUNCHED CARD READER

For input of data on cards, the high-speed Punched Card Reader, which reads 1200 80-column or 1500 51-column cards a minute, is connected to the GIER Computer by means of the Servo Input Buffer System of the RC 2000 Paper Tape Reader (see Specification).

The Card Reader utilizes asynchronous, pneumatic card feed, photo-electric sensing, and column read. Card handling techniques assure reliability, operational efficiency, and extended card life, permitting even the reading of cards that have been bent or crumpled. To ensure accuracy, the read station employs a dual-read comparison check. In addition, a light/dark pre-read check is performed on each data channel, before the card is read. Reading by columns rather than by rows eliminates the need for large data storage and disassembly registers and frees the Computer of the necessity of rearranging the card word.

When cards in the feed tray reach the picker, they are separated by air injection; the cards are then removed in sequence by a rotating vacuum capstan for transportation past the station. If a card is not picked from the deck within a specified time, a fail-to-pick signal is sent to the Computer. From the read station the cards are turned on rollers and passed along to the stacking tray with original sequence and deck orientation maintained.

Following the reading of the last column and without lessening the reading rate, the Computer determines in 1.5 ms whether a card is to be accepted or sent to the reject tray, thus enabling a limited amount of sorting. Depending on instructions from the Computer, the Card Reader can continue reading or stop.

The feed and stacking trays both vibrate to provide a constant force at the picker and the stacker regardless of deck length. The reject tray may be used for sorting or for storing rejected cards.

Housed in a compact, free-standing unit, the Punched Card Reader employs solid-state circuitry combined with pluggable modules and subassemblies. Front access to the logic chassis and power supply and the practical arrangement of the control panel provide operating and maintenance convenience.

CHARACTERISTICS

Size: width 144.7 cm, depth 83.0 cm, height 117.6 cm

Weight: 478 kg

Reading Speed
    80 column: 1200 cards/min
    51 column: 1500 cards/min

Card Tray Capacities
    feed tray: 4000 cards
    stacking tray: 4000 cards
    reject tray: 240 cards

Power: 50 Hz (60 Hz available); 3 x 208 V or 3 x 380 V
    maximum power: 2200 kcal/h (2519 W)
    maximum line current: 10 A at 3 x 380 V
    fuses in mains connection: 15 A

Environment
    cooling air: 850 m³/h from ambient
    air temperature: 17–25° C
    relative humidity: 35–60 %