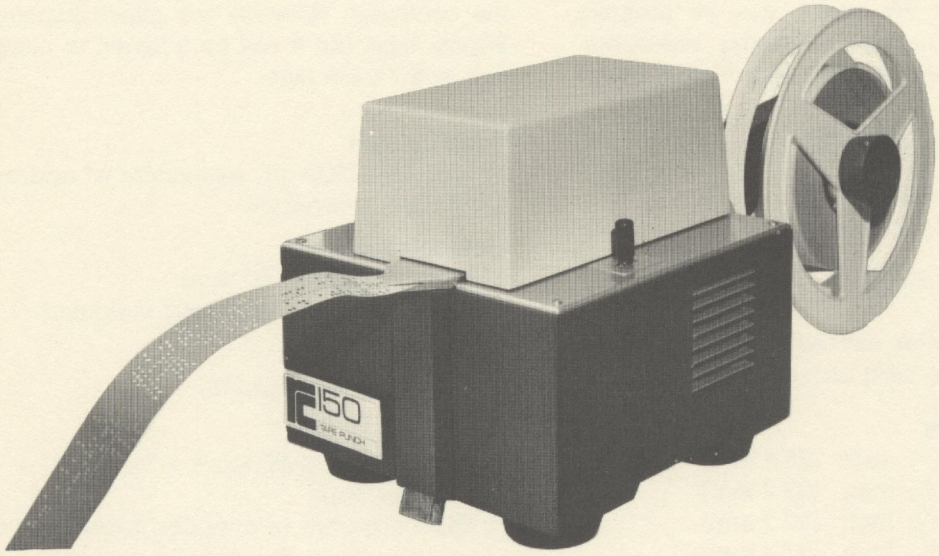
RC 4000® COMPUTER

SPECIFICATION

HARDWARE

RC 150 PAPER TAPE PUNCH AND RC 4171 PAPER TAPE PUNCH CONTROLLER

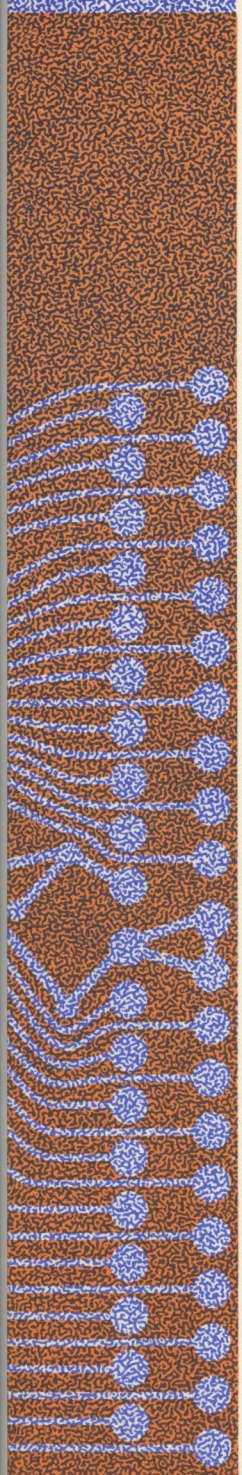


The paper tape punch produces 8-track characters on one-inch tape with 1/10 inch intercharacter spacing center to center. The punching speed is 150 characters/second. The punch can be adapted to punch 5, 6, and 7-track tape as well. The tape is supplied from a reel containing a maximum of 1000 feet of tape, equivalent to about 120,000 characters. The paper tape punch is connected to the low-speed data channel of the RC 4000. The paper tape punch controller can generate a parity bit, odd or even, to be punched in each character.

The punch, which is motor driven and solenoid controlled, operates synchronously. The tape is advanced from the supply reel past a brake plate and a feed rod, which vibrates with intercharacter space amplitude. During operation the tape is alternately attached to the brake plate and the feed rod for incremental tape advance. From the feed mechanism the tape passes a punch frame, where guillotine operated, solenoid controlled hammers perform the punching. Chads are extruded through a tube at the front of the punch.

The punch is designed for table operation and can be placed on the console for the operator's convenience. The power supply and amplifiers for the solenoids are housed in a 19-inch rack module designed for placing in the central processor or an input/output controller cabinet along with the punch controller.

The punch power supply and punch are connected by two cables, maximum 12 m in length.



Operation

The punch is operated by a standard input/output instruction for tape punching. The controller executes an operation without engaging the computer and generates an interrupt signal when the operation is completed. An instruction (write command) transfers a character from the RC 4000 to the device buffer. The punch motor is started – if not already running – and the character is transferred from the device buffer to the punch for punching on tape. The punch motor is kept running for 1 second after each punching operation to enable discontinuous operation without motor start delays.

The status of the punch can be program sensed by an instruction (sense command). Status indication includes end of tape, punch operation failed, and operator intervention required.

The punch has a local/remote switch, which can be set manually.

In remote mode the punch is program controlled. In local mode the operator can feed blank tape or insert a new reel of tape.

A toggle switch on the punch enables local mode request and blank tape feed.

Data Formats

The punch produces characters of up to 8 bits. Characters of 7 bits can be punched with an odd or even parity bit generated by the controller. Normally the punch punches 8-track tape, but it can be adapted to punch 5, 6, and 7-track tape.

CHARACTERISTICS

Punching Speed
Max. 150 char/sec

Character Formats
Max. 8 bits
The controller can add an odd or even parity bit to 7-bit characters.

Tape Formats
8 tracks: 1 inch (25.4 mm)
7 tracks: $^{7}/_{8}$ inch (22.2 mm)
6 tracks: $^{7}/_{8}$ inch (22.2 mm)
5 tracks: $^{11}/_{16}$ inch (17.4 mm)

Hole Format
Diameter: 1.8 mm
Spacing: $^{1}/_{10}$ inch (2.54 mm) center to center, transversal and longitudinal

Tape Materials
Paper, oiled paper, mylar, metalized mylar

Tape Thickness
$^{3}/_{1000}$ inch (0.08 mm)
The punch can be adjusted to any tape thinner than 0.12 mm.

Tape Length
1000 feet (300 m), equivalent to approx. 120,000 characters

Reel Diameters
Inner: 2 inches (50 mm)
Outer: 8 inches (200 mm) maximum

Motor Start Time
Less than 0.8 seconds

Power
220 V ± 10 %, 50 Hz ± 4 %,
1 A maximum
The controller is supplied from the power supply in the central processor or a controller cabinet.

Ambient Air
Temperature: 16 to 30°C
Relative humidity: 40 to 70 %

Size and Weight
Width: 20.5 cm
Depth: 52.0 cm
Height: 22.0 cm
Weight: 13.5 kg

The power supply and controller are placed in the central processor or a controller cabinet.

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