

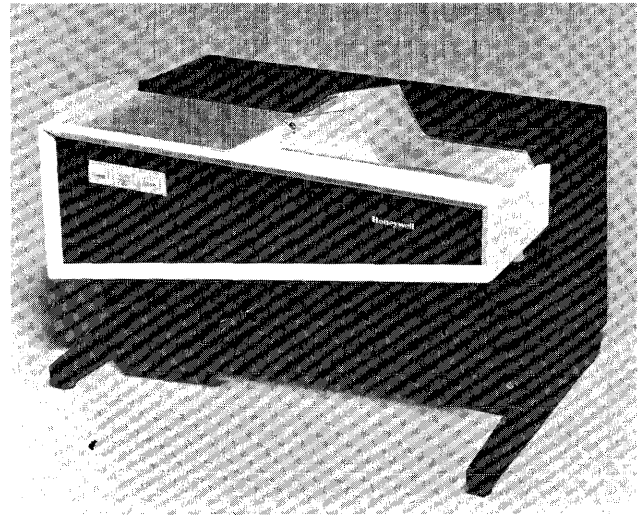
## SERIES 60 (LEVEL 6)

The Types CRU9101/9102/9103/9104 Card Readers are compact, self-contained, tabletop units providing economy and versatility of operation. The CRU9101/9102 and the CRU9103/9104 read 80-column Hollerith or binary punched cards at the rate of 300 and 500 cards per minute, respectively. In addition, the CRU9102 and 9104 have the capability of reading 40- or 80-column mark sense cards. In the mark sense mode, cards marked in either the same or alternate row position as punched card rows can be easily and quickly read. With Option CRF9101, the CRU9101/9102/9103/9104 Card Readers can have the capability of reading 51-column punched cards.

The card readers interface with the Level 6 processor by means of a single-board Multiple Device Controller (MDC9101), a Card Reader Device-Pac (CRM9101), and a 50-foot cable. A maximum of four card readers can be connected to each MDC.

### FEATURES

- Convenient, tabletop size
- Low cost
- Choice of 300- or 500-cpm reader
- Choice of versatile 80-column punched card and 40-/80-column mark sense readers or 80-column punched card readers
- Extremely simple operation – Power, Reset and Stop buttons on all four units; 40-/80-column selector and mark sense/punch selector on CRU9102/9104
- 500-card input hopper and output stacker capacity
- Status and error indication bits that can be read into the processor under program control for error detection and operator notification
- Empty hopper or full stacker signaled by Reset indicator (status transmitted to controller)
- Two program-selected punched card reading modes: ASCII with automatic Hollerith to eight-bit ASCII conversion; and Direct (Binary), with 12-bit binary format
- Test mode for easy maintenance



### OPERATION

All data transfers are under DMA (Direct Memory Access) control, with an end-of-range interrupt after the program selected number of columns have been transferred.

While waiting for a ready indication, the central processor is free to perform other operations. Program interrupt is used to signal the central processor when further device servicing is required.

### SOFTWARE

The card readers are software supported by Level 6 GCOS/BES I/O drivers and executive routines. Test and maintenance programs are provided to assist in fault isolation and maintenance of the equipment.

### SPECIFICATIONS

#### TYPES:

- CRU9101 – 300 cpm, 80-column punched cards
- CRU9102 – 300 cpm, 80-column punched cards, 40- and 80-column marked cards
- CRU9103 – 500 cpm, 80-column punched cards
- CRU9104 – 500 cpm, 80-column punched cards, 40- and 80-column marked cards

INPUT HOPPER CAPACITY: 500 cards  
OUTPUT STACKER CAPACITY: 500 cards  
PROGRAMMED OPERATIONS: Read data from card  
DEVICE INTERFACE: Each card reader requires its own Device-Pac (CRM9101)  
DATA TRANSFER MODE: Automatic translation via system software of Hollerith or binary to ASCII  
READING TECHNIQUE: Photoelectric, column-by-column serially  
CARD SPECIFICATION: Standard punched or mark cards, 7 3/8 in. x 3 1/2 in. (18.6 cm x 8.9 cm), 0.00770 in. (0.01956 cm) thick; cards must be clean and free from excessive curl  
PHYSICAL DIMENSIONS:  
Height — 13.50 in. (34.3 cm)  
Width — 19.25 in. (48.9 cm)  
Depth — 14.75 in. (37.5 cm)  
Weight — 35 lb. (15.9 kg)  
REQUIRED INPUT POWER: 115 Vac  $\pm$  10%, 48-66 Hz, 175W

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Specifications may change as design improvements are introduced.

# Honeywell

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