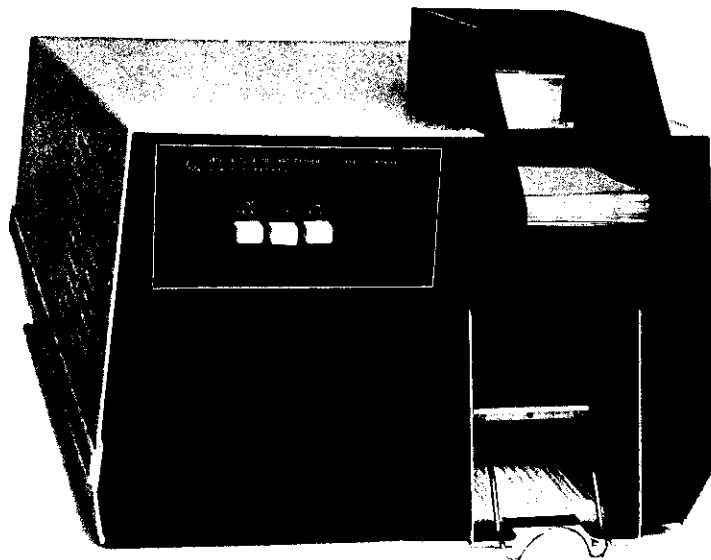


HEWLETT  PACKARD

9869

9869A CALCULATOR CARD READER

TECHNICAL DATA* SEPTEMBER 1976



DESCRIPTION

The HP 9869A is a hopper-fed card reader for use with the 9800-Series programmable computing systems. Hollerith-coded, standard data processing cards can be read at speeds up to 300 cards per minute. The 9869 reads both marked and punched cards with equal reliability. Punches and marks can be intermixed on the same card. The 9869 can also be set, by a back panel switch, to read data processing cards with or without clock marks. Binary images of the cards can be transmitted to the calculator under program control (refer to the ROM table). The internal card reader buffers allow the multiple transfer of data from a card to the calculator under program control. An optional select hopper provides rapid-sort capability for data file search and reduction.

DATA ENTRY AT SOURCE

Cards can be custom designed for the specific application. The marked card becomes an easy and convenient form for data entry with the card printed in the language of the user. The use of clock marks on the card permits the data columns to be positioned exactly where the user desires. Also, areas

can be reserved for preprinted instructions and handwritten notes on the card. Cards up to 11 in. long can be read. The binary image transfer capability of the 9869 facilitates the design and interpretation of the customized cards.

FEATURES

The 9869 can read 300 cards/min and has a 450-card input hopper. Other features include the following:

- both punched and marked cards can be read with or without clock marks,
- punches and marks can be intermixed on the same cards,
- binary image of the cards can be transferred under program control,
- internal card reader buffers allow multiple transfer of card data,
- optional select hopper provides rapid-sort capability,
- cards can be custom designed for specific applications,
- cards up to 11 in. long can be read.

ROMs

The following ROMs are required to control the 9869. Also summarized in the table are the commands necessary to enter data/programs into different calculators.

CALCULATOR	ROMs	COMMAND SEQUENCE	REMARKS
9810A	Peripheral Control (HP 11264A)	(3) (Select Code) (.)	Enter numeric data.
	Peripheral Control II (HP 11252A)	(3) (Select Code) (.)	Enter numeric data.
		(3) (Select Code) (op-to)	Enter program steps.
		(6) (Select Code) (x+1)	Enter binary image of card.
9820A/9821A	Peripheral Control I (HP 11220A)	RED Select Code, Register Name ₁	Enter numeric data.
	Peripheral Control II (HP 11224A)	RED Select Code, Register Name ₁	Enter numeric data.
		RDB Select Code [→ Register Name]	Enter binary image of card.
9825A	General I/O and/or	red Select Code, A, B, C	Enter numeric or alphanumeric data.
	Extended I/O	rdb Select Code, A	Enter binary image of card.
9830A	Extended I/O (HP 11272B)	10 ENTER (Select Code, Format No.) A,B,C	Enter numeric data.
		10 ENTER (Select Code, *) A\$,B\$,C\$	Enter alpha characters (requires HP 11274B String Variables ROM). Enter BASIC program.
	Batch Basic (HP 11278B)	10 CARD Select Code	Enter binary image of card. Enter programs and data on HP educational BASIC cards (HP 9320-2051).

Note: For more details on the control of the card reader from various calculators, refer to the ROM manuals.

SPECIFICATIONS

Technical:

Speed: Up to 300 cards per minute
 Code: Cards can be marked or punched in Hollerith; binary image of card can be transmitted under program control
 Cards: American National Standards Institute specifications for general purpose cards for information processing

Physical:

Power requirement: 300 VA
 Voltage range: 100/120 V ac ± 5%
 220/240 V ac ± 5% (Opt. 005)
 Frequency Range: 60 Hz ± 5%
 50 Hz ± 5% (Opt. 006)
 Weight: 24 kg (54 lb) net
 32 kg (72 lb) shipping
 Length: 610 mm (24 in.)
 Width: 368 mm (14.5 in.)
 Height: 235 mm (9.25 in.)

Environmental:

(Exclusive of cards)
 Storage temperature: -40° C to 75° C
 Operating temperature: 0° C to 55° C ambient
 Relative humidity: <95% at 40° C

ORDERING INFORMATION

The following options are available with the 9869:

Opt. 002 Select Hopper
 Opt. 005 220 V ac
 Opt. 006 50 Hz Pulley

One of these options must be ordered with the indicated interfaces:

Opt. 010 9810 Interface
 Opt. 020 9820 Interface
 Opt. 021 9821 Interface
 Opt. 025 9825 Interface
 Opt. 030 9830 Interface



ACCESSORIES SUPPLIED

9800-Series calculator interface (refer to options list)
 Power cord (The appropriate power cord will be supplied based on the origin code of the sales order.)
 Diagnostic cards (4 sets of 20 cards each)
 Service manual
 Dust cover

PURCHASE PLANS

Contact one of the Hewlett-Packard worldwide sales and service offices for specific prices and plans in your area.

MAINTENANCE AGREEMENTS

Maintenance agreements are available for all calculator products. Current U.S. rates are to be found in the Maintenance Service and Prices publication, Pubn. No. 5952-2432D. These agreements represent HP's best level of support. Major advantages to the customer include:

- fixed annual cost,
- priority service response,
- on-site service,
- regular maintenance,
- individualized contracts

*Data subject to change.

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