# **EPSON**®

The Epson HX-20 is the world's first "notebook size" portable computer. The battery powered HX-20 measures 8½" x 11," weighs less than four pounds and fits easily into a briefcase. It features a full-size keyboard, a built-in 24-column dot-matrix micro-printer that produces both text and graphics and for loading programs and storing data, a built-in microcassette tape drive. An easyto-read LCD screen provides a 20-character by 4-line text display with a 120 x 32 dot graphics resolution. The unit comes standard with 16K bytes of RAM and 32K bytes of ROM. It can be expanded with an expansion unit to 32K bytes of RAM. Built-in rechargeable nickel-cadmium batteries provide up to 40 hours of continuous operation and maintains the data in memory even when power is turned off. The HX-20 is also equipped with a clock/calendar, speaker, audio cassette interface, RS-232C port, high speed serial interface and a bar code reader port for greater versatility in special applications.

### PORTABLE COMPUTER

The HX-20 offers a low-cost solution to specialized applications requiring a compact, lightweight battery-powered microcomputer.

#### The applications specialist:

- Ideal for dedicated vertical applications.
- Compact and lightweight for easy portability.
- Weighs less than four pounds and notebook sized.

#### Postal metering device:

- For metering outgoing mail.
- Imprinting company or individual identification on envelopes.

#### Inventory control:

- As a source for monitoring incoming and outgoing stock.
- Assess sales trends based on inventory flow.

#### Medical data base:

- Use to determine a patient's most effective treatment in hospitals.
- Use to collect and store medical information.

#### Hotel key programming:

- Tracks room keys to specific guests.
- Determine the status of each room during the course of a guest's stay.

#### Bar code reader:

- Using the optional bar code reader, an ideal way to speed inventory control.
- Its portability frees the user from workstation or desktop use.

#### Data collector:

- An excellent choice for insurance, accounting or special applications where field work is necessary.
- The 40 hour battery life replaces conventional power sources.

## Expand HX-20's capabilities with easy-to-use peripherals:

- CX-20<sup>™</sup> Acoustic Coupler: provides 300 baud communications with phone handset; access remote data bases or office computer
- TF-20 external floppy disk drive: boosts storage for data intensive applications
- RAM/ROM expansion unit: expand the memory capacity for programs and data
- ROM cartridge unit: develop custom applications

#### One year warranty

As part of our confidence in product reliability and continuing commitment to total value and customer satisfaction, a one-year warranty comes with the HX-20 and every Epson product.



# HX-71

#### **Specifications**

**CPU AND MEMORY** 

Main CPU: CMOS 8-bit microprocessor 6301, 614 KHz

clockrate

Slave CPU: CMOS 8-bit microprocessor 6301, 614 MHz

clockrate

RAM: 16KB (standard) expandable to 32KB with

expansion unit

ROM: 32KB (standard) expandable to 40KB internally

to 72KB with expansion unit

**BUILT-IN PERIPHERALS** 

Display: Liquid crystal screen: 120 x 32 dot-matrix; 20 x 4

character display: 5 x 7 font; virtual addressable area 255 columns by 255 lines (if sufficient

memory is available)

**Printer:** 24-column dot-matrix impact microprinter;

> print rate 42 lines per minute; bit addressable graphics: full ASCII upper and lower case

character set; cartridge ribbon

Microcassette: Uses standard microcassette tapes

Clock/Calender: Time and calendar, built in CMOS battery backup

Music: Programmable pulse drive, four octaves

with half tones Generator:

COMMUNICATIONS

RS-232C: Full/half duplex, 110 to 4800 BPS, 8-pin

connector

Full/half duplex 38.4K BPS RS-232C level, Serial:

5-pin DIN connector

PERIPHERAL INTERFACES

Bar Code Reader:

Special connector, requires optional software

External cassette:

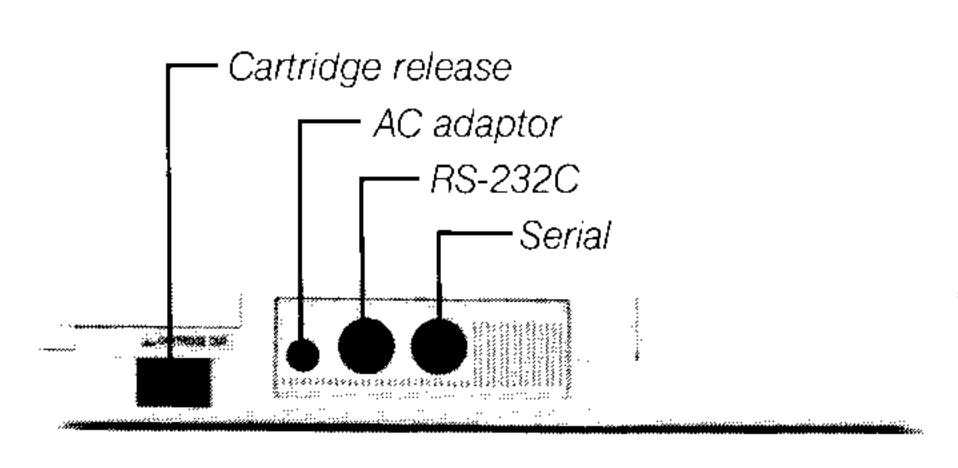
Standard audio cassette interface

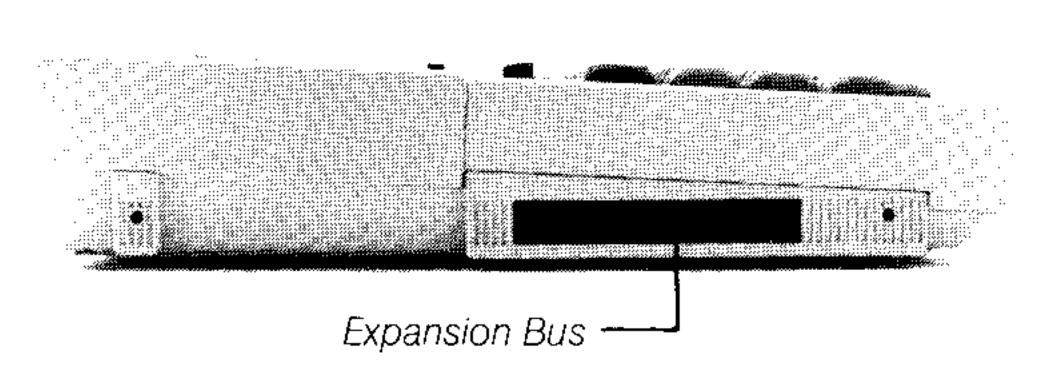
16-bit address bus; 8-bit data bus and control System Bus:

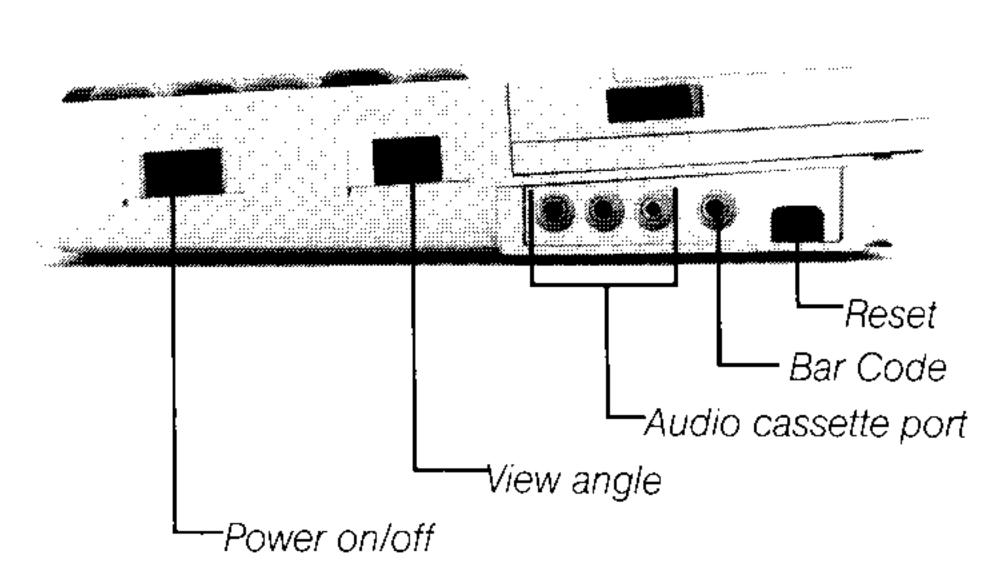
lines, 40 pin connector

ROM Cartridge/ Microcassette

I/O port with 3 input, 6 output lines Interface:







SWITCHES, INTERNAL

4-bit DIP: 3 bits for international character set selection;

1 bit for disk option

SWITCHES, EXTERNAL

Main Power:

Printer: On/off, paper feed

On/off

Reset

**POWER SUPPLY** Ni-Cad batteries, internal; Sub C type, 1100

mA/H capacity; 40-hour capacity running BASIC (less depending on use of RS-232C port,

printer or optional microcassette)

RECHARGE AC adaptor 120V

**KEYBOARD AND CHARACTER SET** Standard typewriter style Type:

Total Number

68 of Keys:

Function Keys: Special Keys:

Ten-key Pad: Function locked in by (NUM) key Graphic Shift: 32 special graphic characters

International

Character Set: Selectable by DIP switch

**ENVIRONMENTAL REQUIREMENTS** 

**Temperatures** 

+5° to 35°C (41 to 95°F) Operating: +5° to 35°C (41 to 95°F) Charge: -20 to 60°C (−5 to 140°F) Storage:

Data Storage:

-5 to 40°C (22 to 104°F)

Humidity Operating/ Non-

> 10-80% non-condensing operating:

PHYSICAL CHARACTERISTICS

Size: 29.0 x 21.5 x 4.4 cm (11.4" x 8.5" x 1.7")

Weight: Approx. 1.7 kg (3 lbs. 13 oz.)

**OPTIONS** 

8KB RAM plus 24KB ROM or 16KB RAM Expansion plus 16KB ROM. Total expansion is 32KB Unit: **ROM** Uses 8, 16 or 32KB ROM to load program

Cartridge: into RAM CX-20 ACOUSTIC COUPLER

Communications Mode:

Full/half duplex selectable

Operating

Mode:

ORIG/ANS mode, selectable

Signaling

Up to 300 BPS Speed: Interface: Standard RS-232C

Power Supply:

Ni-Cad batteries, AC adaptor (120V + 10%, 60 KHz); charge with AC adaptor

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