

# EPSON

Take anywhere,  
use any time...



## **HX-20** PORTABLE COMPUTER

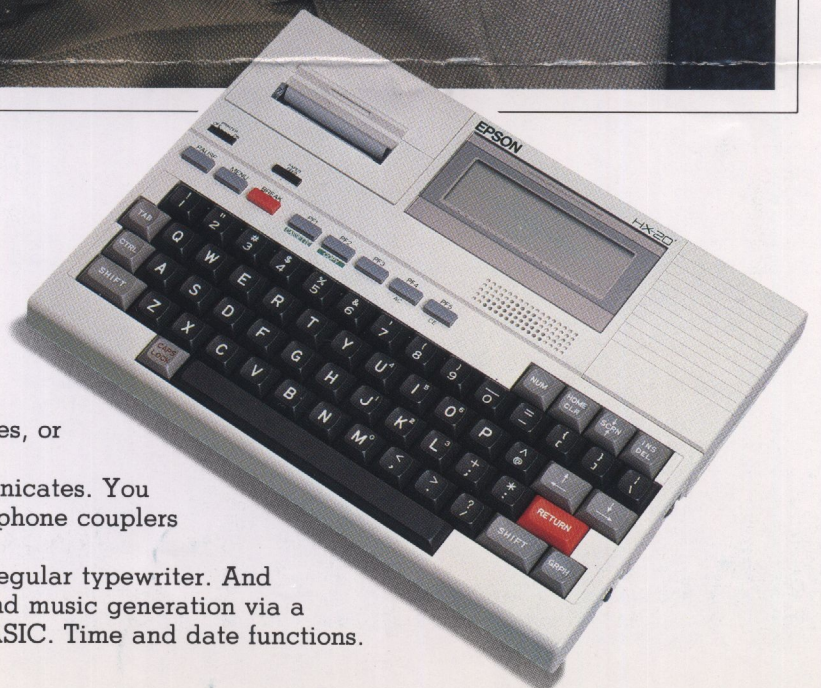
### **The little computer with big performance**

The HX-20 is a full-function, portable computer. Not a sophisticated calculator.

Its standard 16KB RAM expands up to 32K bytes, or the 32KB ROM memory to 72KB.

This remarkable portable computer also communicates. You can connect RS-232C and serial interfaces to telephone couplers and other peripherals.

The full-size ASCII keyboard works just like a regular typewriter. And it's complete with built-in printer, a LCD screen and music generation via a piezo-electric speaker. Full extended Microsoft BASIC. Time and date functions.





# Compared to ordinary computers, Epson HX-20 offers six big advantages.

# EPSON

1. Small size
2. Built-in power source
3. Automatic function keys
4. Interfaced for peripherals
5. A Memory Saver
6. Costs less

## Specifications

### CPU and Memory

Main CPU	CMOS 8-bit microprocessor 6301, 614 KHz clockrate
Slave CPU	CMOS 8-bit microprocessor 6301, 614 KHz 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; 120×32 dot matrix; 20×4 character display; 5×7 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
Clock	Time and calendar, built in CMOS battery backup
Music Generator	Programmable pulse drive, four octaves with half-tones

### Communications

RS-232C	Full/half duplex, 110 to 4800 b.p.s. 8-pin DIN connector
Serial	Full/half duplex, 38.4K b.p.s. RS-232C level, 5-pin DIN connector

### Peripheral Interfaces

Bar Code Reader	Special connector
External Cassette	Standard audio cassette interface
System Bus	16-bit address bus; 8-bit data bus and control lines, 40 pin connector.
ROM Cartridge/ Microcassette Interface	I/O port with 3 input, 6 output lines

### Switches, internal

4-bit DIP	3 bits for international character set selection; 1 bit programmable
-----------	--

### Switches, external

Main Power Printer On/off Reset	
------------------------------------	--

### Power Supply

NiCd batteries, internal; Sub C type, 1200 mA/H capacity; 40-hour capacity running BASIC (less depending on use of RS-232C port, printer or optional microcassette)  
Full charge within 8 hours

### Recharge

### Keyboard and Character Set

Type	Standard
Function	Interruptable
Total Number of Keys	68
Function Keys	5
Special Keys	13
Ten-key Pad	Function locked in by (NUM) key
Graphic Shift	32 special graphic characters
International Character Set	Selectable by DIP switch

### Environmental

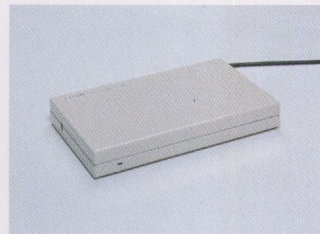
Temperatures	
Operating	5-35°C (41-95°F)
Charge	5-35°C (41-95°F)
Storage	-20-60°C (-5-140°F)
Data Storage	-5-40°C (22-104°F)
Humidity	
Operating/Non-operating	10-80% non-condensing

### Physical Characteristics

Size	29.0×21.5×4.4 cm (11.4"×8.5"×1.7")
Weight	Approx. 1.7 kg (3 lbs. 13 oz.)

### Options

Expansion Unit	8KB RAM plus 24KB ROM or 16KB RAM plus 16KB ROM. Total expansion is 32KB
Microcassette ROM Cartridge	Uses standard microcassette tapes Uses 8, 16 or 32KB ROM to load program into RAM



### Optional display controller puts HX-20 on TV.

The serial interface of the HX-20 can be used to connect to this optional display controller. With it, any CRT can be used to monitor the computer—even a household television. The display will show 32 characters by 16 lines for a total of 512 characters. For graphic executions, 4-colour graphics

can be computed on a 128×64-dot matrix. Monochrome graphics can be done on a 128×96-dot matrix. The display controller also allows the connection of floppy disk drives simultaneously with the CRT for full computer capabilities.



### Optional floppy disks give 640KB additional memory.

TF-20 floppy disk drives are more compact than any other on the market today. One-third the width of the ordinary drive unit and still holding two 5.25-inch disks. Two of these units will connect to the Epson display control bus.



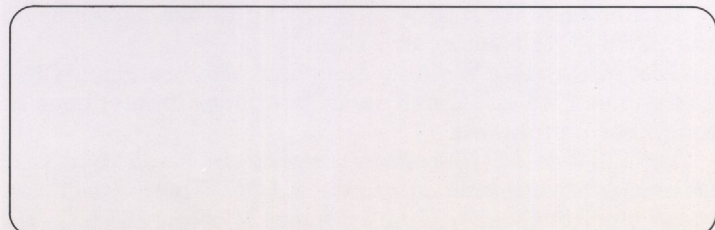
### Optional acoustic coupler lets HX-20 talk on the phone.

Speedy information gathering and exchange are the life blood of the modern corporate organization. CX-20, Epson's acoustic coupler, fits the HX-20 to let data be sent from anywhere there is a standard style telephone. Custom-designed CMOS circuits keep current needs to a mini-

mum and nickel-cadmium batteries provide four hours of continuous usage. Self test capability and operation confirmation included.

Specifications subject to change without notice.

Products shown in this brochure may differ slightly from those actually available. Also, availability of peripherals will vary from market to market. Ask your Epson dealer for details.



### EPSON CORPORATION

Head Office: 80 Hirooka, Shiojiri-city, Nagano 399-07 Japan  
Phone: 02635-2-2552 Telex: 334-2214 EPSON J