Imagine a totally portable computer that slips into your briefcase, incorporating an LCD screen, full typewriter keyboard, printer and microcassette, and runs on its own power supply for use anywhere.

We did.





HX-20 PORTABLE COMPUTER **EPSON**

Extraordinary product. Exceptional quality.

Taking the computer a step further.

A computer small enough to fit into a briefcase yet with full size typewriter keyboard, LCD Virtual Screen, printer and microcassette facility actually built in.

Improbable. Until today.

Functions fantastic.

The HX-20 is a real computer, not a gimmicky toy. Or an extension of your calculator. Or just another desk top computer. It is a precision machine with 16k RAM which is optionally expandable to 32k and 32k ROM expandable to 64k, RS-232C and serial interfaces.

The full size ASCII typewriter keyboard and five programmable keys brings ten separate program functions to your fingertips.

The HX-20 can run on its own power supply for over 50 hours which can be easily recharged overnight, and has the ability to retain its memory in RAM even when switched off.



The HX-20's LCD Screen is unique, keeping you in the picture by showing any 20 characters by 4 lines at a time. You can,

therefore, carry out word processing or data entry as if you are using a large screen.

Upper and lower case letters,

numerals, punctuation marks and graphics are easily read by simply adjusting the viewing angle.



Print out. Built in.

A built-in 24 column dot matrix impact microprinter offers 42 LPM in a crisp, precise 5 x 7 matrix for perfect hard copies on plain paper. Every time.

And there's more. . . Bit addressable graphics allow you to design your own characters for full graphic capability, a cartridge ribbon, full ASCII character set including £ sign and enough international symbols for reproducing most Western languages.



Add-on capability.

Choose from a wide range of peripherals. Barcode readers, audio

cassette for loading and saving programs, microcassette and ROM cartridges, and the world famous Epson dot matrix computer printers for quality output . . . to name just a few.

Via acoustic couplers
this superb machine
can also be linked
through the telephone to
other computers.



Software and the hard facts.

The HX-20 uses a full extended version of Microsoft BASIC, with a 24 hour clock, date and alarm, string functions, and music generation. The interface options (with RS-232C and serial interfaces as standard) include a standard cassette, a ROM cartridge, plus a system bus that allows you to expand the RAM and ROM capabilities.





Specifications of HX-20

ns and Ambient Conditions

Dimensions and Weight

1. Dimensions:

290mm wide 215.5mm deep 44mm high Approx. 1.7 kg



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2. Weight:

Ambient Conditions 1. Temperature:

5°C to 35°C (operating) 5°C to 35°C (charging) -5°C to 40°C (data storage) (RAM battery backup) -20°C to 60°C (non-operating)

2. Relative humidity:

10% to 80% (operating, no condensation) 10% to 80% (non-operating, no condensation)

1 G for 1 ms maximum (operating) 3. Shock resistance: 4. Vibration resistance: 0.25G 55 Hz maximum (operating)

Supply (Nied batte

1. Voltage:

4.5V to 6.0V (operating) 4.0V to 6.0V (data storage) 4.5V (low voltage detection)

Approx. 1100 mAH 2. Battery capacity:

1. Input voltage:

AC 220V/240V ± 10%

2. Power consumption: 3. Insulation resistance:

10megohms between AC power supply and case

Can withstand 1 kV applied between AC power supply and case 4. Insulation strength:

for 1 minute or more

Microprinter (M-160) 1. Printing system:

Dot impact (4 printing solenoids)

2. Printing format a. Total number of dots:

144 dots maximum/dot line

b. Number of characters

per line:

(5 x 7 dots; character-to-character space 1 dot) (6 characters/printing solenoid)

3. Printing speed

a. 1 dot line: b. 5 x 7 dot matrix Approx. 150 ms (continuous printing)

(interline space 3 dots):

Approx. 0.7 line/s (continuous printing) 42 lines per minute

4. Character size a. Dot spacing:

0.33mm horizontal 0.33mm vertical

b. 5 x 7 dot matrix

1.7mm wide, 2.4mm high

5. Recording paper

Plain paper 57.5 ± 0.5mm

a. Kind: b. Paper width: c. Outside diameter:

50mm or less 0.07mm

d. Thickness: e. Weight:

52.3 g/m² (45 kg/1000 sheets/1091 sheets x 788mm) Automatic feed every dot line; with paper release

6. Paper feed:

7. Inking Ribbon cartridge type

Automatic continuous feed during motor operation

a. Colour:

Purple/Black

b. Dimensions:

Approx. 91mm wide, 25mm deep, 7mm high

c. Life:

Approx. 10,000 lines ERC-09

d. Standard:

Liquid Crystal Display 1. Text:

Upper and lower case, numerals, symbols, graphic characters and more; 20 characters per line; 4 lines in total $(20 \times 4 = 80 \text{ characters})$ 120 dots (horizontal) \times 32 dots (vertical) = 3840 dots

2. Graphic: 3. View angle adjustment: Adjustable with VIEW ANGLE density control

1. Key switches:

Typewriter layout, full size. 68 keys (including 5 function keys and 13 special keys)

2. Others:

Power on switch, VIEW ANGLE density control for LCD, and adjusting circuit built in

RS-232C Interface

1. Connector.

2. Input and output levels:

DIN (8-pin) TCS 4480 RS-232C standard 110, 150, 300, 600, 1200, 2400, 4800 bps (selectable by operator)

3. Transfer speed:

Serial Interfac

1. Connector.

DIN (5-pin) TCS 4450 RS-232C standard

2. Input and output levels:

3. Transfer speed:

38, 150, 400, 600, 4800 bps (selectable by operator).

PORTABLE COMPUTER

Epson (UK) Limited Dorland House 388 High Road Wembley Middlesex HA9 6UH Telephone: 01-900 0466/9 Telex: 8814169