



membrane 'pop' underneath the panel, the keys lack the sureness of touch of a proper keyboard.

By incorporating an LCD screen, the designers have made the greatest savings in power consumption, since a liquid crystal display uses far less electricity than the usual cathode ray tube. It is here that the greatest problems with PC compatibility lie. It is not that an LCD screen lacks colours, as these can be easily substituted by varying the graphics shading; it is the size of the screen itself that is the major drawback.

The normal IBM screen has a text resolution of 80 by 25 characters but, because of development problems encountered by the screen's Japanese manufacturers in producing the equivalent LCD display, Osborne has been forced to introduce the Encore with a 80 by 16 display. This means that many packages written for the IBM will be unusable on the Encore. This is not a problem for programs that can be scrolled, but on packages where the display is 'paged' the user could run into serious difficulties, especially as prompts are generally shown at the bottom of a screen.

On the right-hand side of the computer, provision is made for a pair of 5¼in floppy disk drives, although the standard model will be equipped with a single drive only. On the opposite side is the power socket for the transformer, an on/off switch, a knob to adjust the contrast of the screen, and the battery housing, which can hold a special nickel cadmium battery pack to enable the machine to be run without access to a power point.

CONNECTING UP

At the rear of the Encore are the I/O ports. Reading from left to right, these comprise a telephone jack that connects to the Encore's built-in modem, a Centronics port to interface with a printer and an RS-232 serial port to connect with devices such as serial printers and modems.

To boot the MS-DOS system disk, you simply press the disk icon on the touch pad. The inbuilt programs can be run at any time, no matter what program is currently being used in the disk drive.

All IBM program disks that were loaded into the Encore were read by the computer. However, the screen restrictions made it difficult to detect whether the programs were running properly as many of the commands were entered 'blind'. Among the programs that the Encore successfully managed to execute was Lotus 1-2-3 — a notoriously difficult program for a compatible to run because of the unorthodox way in which the program accesses the IBM's built-in routines.

It is hard to tell if the Encore will prove to be as successful a machine as the Osborne-1. The screen takes some getting used to since, like all LCD displays, it needs strong light to produce sufficiently readable characters. This is not too much of a problem on lap-held machines with fairly large print, but the Encore's type is about half the size and it is doubtful whether many business customers will wish to take the time to get used to the display.



Speaker
Screen prompts are accompanied by an audible beep

LCD Screen
The Liquid Crystal Display allows the Encore to use far less power than a machine with a standard cathode ray tube, making the battery-run IBM-compatible a realistic proposition

Doubling Up
The Encore keyboard contains fewer keys than the IBM PC, but provides the same functions. To achieve this, some of the keys — marked with blue lettering — also serve as calculator keys



Disk Disadvantage

The disk drive — either single or double drive units may be fitted — are located on the side of the machine. This makes the Encore a very compact package, but the user is forced to check to insert a disk to check whether the correct drive is being accessed