

**Chips Off The Old Block**

Although distributed by three different companies, the Tandy Model 100, Olivetti M10 and NEC PC8201A are all manufactured by the same Japanese company, Kyocera. There are some small differences between the three machines, but even an untrained eye can see that the three portable computers share a common heritage.



IAN MCKINNEL

The Tandy's high-quality keyboard features special keys to access the built-in graphics or to change several of the letter keys into a numeric keypad. Using this facility, key M becomes 0; J, K and L become 1, 2 and 3; U, I and O become 4, 5 and 6; and 7, 8 and 9 retain their normal function. All three machines have four cursor keys, but the position of these varies. The Tandy and Olivetti models have four small keys side by side, located above and to the right of the regular keyboard; the NEC PC8210A has a cursor pad, with the four cursor keys forming a square.

The machines also feature programmable function keys, which are used with the built-in software to manage file-handling functions and movement within and between the programs held in ROM. Again, there are differences here. Tandy's Model 100 has eight function keys, plus four additional keys that are used to perform internal tasks. PASTE is used to move data from one program to another; LABEL assigns names to the function keys so the user always knows what each function key does; PRINT sends files directly to the printer; and the BREAK key halts program execution. This layout is repeated on the Olivetti M10, but the NEC PC8201A has five function keys, programmable for a total of 10 functions, and a Pause key.

MEMORY CAPACITIES

The Model 100 and the M10 are supplied with either eight Kbytes or 24 Kbytes of RAM and this can be expanded to 32 Kbytes with the addition of an internal RAM pack. The NEC is slightly different: this is supplied with 16 Kbytes, but may be expanded to 64 Kbytes internally, or 96 Kbytes if the built-in expansion port is utilised.

The Model 100 comes with Microsoft BASIC and a small 'housekeeping' system that manages the internal software. On power-up, the files stored in memory are displayed, along with the titles of the supplied internal software programs.

Supplied programs include Text, a small word processor that is suitable for drafting memos or writing letters or short reports; this is especially suitable for note-taking, and should be a boon to journalists, students or business users. Schedule is a small database program, specifically designed to help you keep track of appointments, expenses, 'things to do' and other reminders. A built-in search function makes it easy to find information quickly. A third program, called Address, is a similar small database and appears unnecessary as Schedule is available. Finally, there is an RS232-based communications program called Telecom, which allows the Model 100 to be connected to a modem for telephone communications — with a few keystrokes, data can be sent to or received from remote computers. The NEC PC8201A comes with only BASIC, Text and Telecom.

All three machines are well equipped with interfaces, each possessing an RS232 communications port, a parallel printer port, cassette interface, and a socket for a bar-code reader. The Tandy and Olivetti models include a system bus, while the NEC adds two extra serial ports to its list of interfaces.

The use of one basic machine, with slight differences between the three different models, has meant that the manufacturers can provide high-quality products without any one company having to shoulder the full development costs. At a cost of around £450 for the basic versions, all three of these lap-helds offer good value for money.