



# EASTERN PROMISE

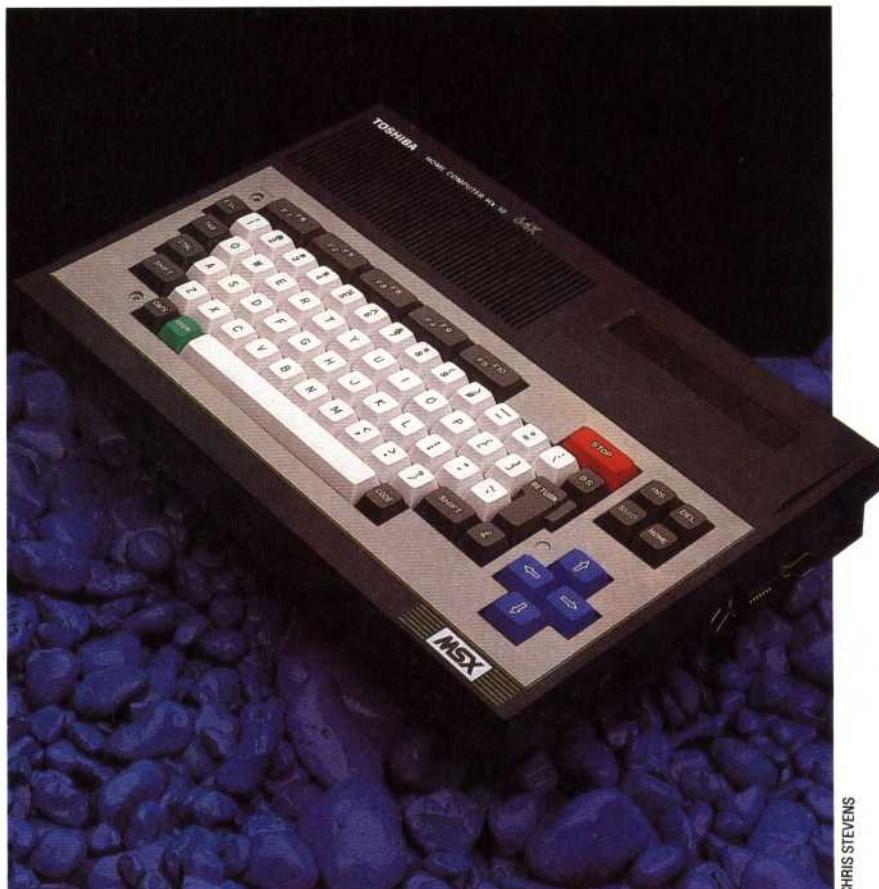
**Over a dozen Japanese companies, many of them household names in other areas of consumer electronics, have agreed on the MSX blueprint for a standard home computer. We take a look at the first MSX micros to reach the UK – the Sony Hit-Bit and Toshiba HX-10.**

The MSX standard (see page 141) dictates the CPU that is used (Z80); the minimum amount of ROM (32 Kbytes) and RAM (eight Kbytes); the type of graphics and sound chip; keyboard contents (though layout can vary); the minimum number of interfaces and their design; graphic and text screens and, of course, the BASIC language that is contained in ROM. Because MSX is a standard design, it is to be expected that MSX machines will all be similar. Manufacturers have flexibility in the amount of memory beyond the minimum, the type of keyboard used, and the number of extra interfaces. In practice, Sony and Toshiba, like most MSX manufacturers, have gone for a higher specification than the minimum requirement.

The Sony Hit-Bit and the Toshiba HX-10 both have good quality keyboards, although some people might find the keys too sensitive. Both micros come with 64 Kbytes of main memory, and 16 Kbytes of additional RAM dedicated to the video display. This gives a total of 80 Kbytes — more than is provided on most home computers. The Sony and Toshiba models each have a standard Centronics printer interface and a pair of joystick sockets — items that are often optional extras on home computers.

Originally, it was expected that the MSX computers would be cut-price machines, but currency fluctuations and increased manufacturing costs have pushed prices up. The Sony, for example, sells for around £300, and the Toshiba is priced at about £280. Another reason for the price increase has been the rush to get the machines onto shelves in Europe. Toshiba is sending all its machines out via costly air-freight, rather than by ship. The company has had to switch all its production lines from building Japanese versions of the machine to constructing the UK model, in the hope of being the first MSX manufacturer to have a product on sale in the UK.

One of the first things you notice when you power up an MSX micro is a row of words across the bottom of the screen. These are keywords from the BASIC language, such as RUN, CLOAD", LIST, etc. The micros have five function keys that produce these commonly used words. The words on the screen serve as labels for the function keys so that



#### Standard System

The Toshiba HX-10 has two joystick ports, a Centronics parallel printer interface, ROM cartridge port, and cursor cluster, as shown here. MSX BASIC deals with joystick control in the same way as control via the cursor, so games can be written for one type of control, and automatically make use of the other as well.

the user does not have to remember the function of each key.

These keys are automatically defined when the machines are turned on, but it is easy to change their definitions by using the KEY command. Although there are five keys only, up to 10 functions can be accessed by pressing the Shift key and the desired function key at the same time. As Shift is pressed, the labels on the screen change to