



A TOUCH OF CLASS

Many different devices have been marketed as aids in the construction of graphics displays. The Touchmaster graphics tablet is unique in that it may be used with most of today's popular home computers and, so the manufacturer claims, can also be used as a simplified replacement keyboard.

Today's best-selling computers all support high-resolution graphics displays. However, unless ready-written graphics software is available, much time and effort is required to create such displays and many features are not fully utilised. A 'sketch' program is not sufficient because the user will often wish to copy an existing image into the computer instead of simply drawing freehand.

Several digitisers have been marketed for this purpose, but these have mostly been designed for use with specific machines, such as the BBC Micro or ZX Spectrum. The Touchmaster graphics

tablet is designed to work with a wide range of home machines (some of which will require a suitable interface or cable). This device is also being promoted as a replacement keyboard, but the simplicity of its design means that such use is restricted to selection between a number of menu options or for simple games control. A computer keyboard is still required for data entry, as well as for loading the Touchmaster software itself.

The Touchmaster is fitted in a neat grey case measuring 350 by 330 by 35mm. The back of this is slightly raised, forming a convenient angle for drawing. A plug-in transformer is supplied, with a single red LED indicating when power is on; however, no on/off switch is fitted. To allow the tablet to be used with a wide range of home machines, both serial and parallel interface sockets are fitted to the rear panel, together with a socket — not mentioned in the manuals — for a foot switch. In fact, the manuals are barely adequate: the hardware manual gives instructions on the connection of the tablet and provides a number of simple BASIC programs for reading co-ordinates, but is insufficiently detailed.

The tablet relies on the membrane technology that was developed on the ZX81 and Spectrum keyboards, and provides a 256 by 256 pixel resolution. The upper layer is separated from the lower resistive film by an insulating mesh, and pressure on the upper layer forces it to make contact with the film. The tablet contains a microprocessor that scans the top film in one direction while scanning the lower layer in another, and the co-ordinate of the 'contact point' is then sent over both serial and parallel interfaces. The serial interface is used to connect the tablet to the BBC Micro, while the parallel interface is required for use with the Commodore 64, Vic-20, Spectrum and Dragon. The Touchmaster's resolution is less than that provided by many hi-res screen displays, so BBC Micro owners, for example, will be unable to resolve to a single pixel in Mode 0.

MULTIPOINT PROGRAM

A drawing program called Multipoint is supplied with the Touchmaster. This provides a demonstration of the facilities provided, but is hardly a comprehensive graphics aid. A plastic template gives a menu of the facilities available, with the selected option displayed in a 'status' window at the bottom of the screen. Five different brush types may be used; each of these can be any width from two to 32 pixels, in steps of two pixels. The window also shows the current drawing mode — Dots, Points or Freehand — and the selected

The Touchmaster Pad

The sheet provided with the software simply slots into the drawing area. By pressing the appropriate command on the right-hand side of the overlay and moving the pencil, stylus or finger to the drawing area the command will be executed on the screen

