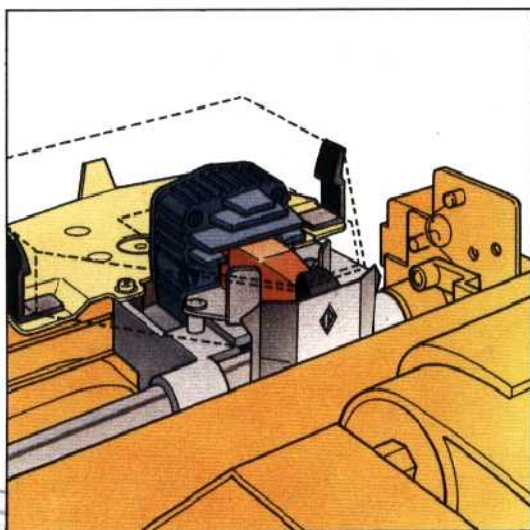




**Daisy Wheel Motor**

The motor revolves the daisy wheel and aligns the characters with the mallet which strikes them against the ribbon and paper



STEVE CROSS

**The Dot Matrix Printer**

The dot matrix method uses a grid (matrix) of dots to form a character. The print head contains a group of needles that punch against the printer ribbon leaving a dot on the paper. As the print head moves along the paper, the pins are fired by electrical impulses in the correct sequence to form the character

Up to now you probably haven't given much thought to using a printer. After all, if you are quite happy using your home computer to play games or calculate your home finances there isn't much need for a printed copy of what your television screen or monitor displays.

But as you become more skilled at using a home computer the limitations of doing serious work without a printer become obvious. If you are interested in writing your own programs, you will want to keep copies of your program lists. If you use your computer for your accounts, a printed record of the calculations will be needed.

Choosing a printer for your needs is a fairly tricky job. How much you have to pay depends on the speed at which the printer can produce words and the quality of the results.

**Choosing Your Printer**

There are three main types of printers for home computers: the dot matrix, daisy wheel and thermal printer.

The most common method of printing is the dot matrix. This works through a print head that contains a group of needles. Characters are printed by combinations of these needles striking the ribbon. The advantage of the dot matrix method is that it is very fast and the printers are relatively inexpensive at around £300. However, because the letter or number is made up of a series of dots, the print quality tends to be poor. The printer is also rather noisy.

Some dot matrix printers overcome the problem of poor print quality by overprinting the dots two or three times. In this case, the print head moves slightly so that the new dots fill in the spaces between the dots that were first printed.

Dot matrix printers are acceptable if you want to keep rough copies of what your computer has produced. They will also produce charts and graphs, as the print head can be made to print patterns as well as characters. But you will need a different printer if you need high quality printing for, say, a letter to your bank manager.

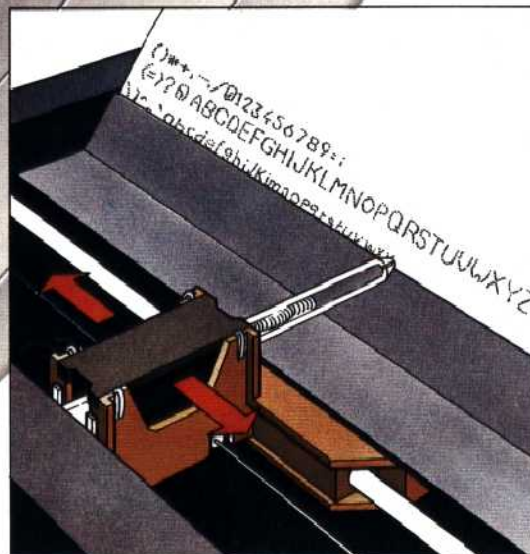
For typewriter-style quality you must turn to a daisy wheel printer; so-called because the printer uses a wheel with long 'petals' that look like a daisy. At the end of each petal is a letter, symbol or number. To print out, the wheel turns to put each petal in line with a little metal 'mallet' that pushes the character at the end of the petal against the printer ribbon and printer. The daisy wheel is made of either plastic or metal. You may also change daisy wheels for different varieties of print face as you would with a golfball typewriter.

The problem with daisy wheel printers is that they are much slower in operation than dot matrix printers and tend to be more expensive. They are also not as suitable for charts and graphs, as several wheels would be required to produce the various graphics shapes. You can expect to pay at least £400 for a daisy wheel.

Higher up the price scale are ink jet printers.

**The Ink-Jet Printer**

This appropriately-named printer fires a jet of ink through a nozzle which breaks the ink up into tiny drops. Each drop is given an electrical charge and passes through metal deflector plates. The charge ensures that the ink drops hit the paper in the right pattern to form the character



STEVE CROSS

