BUYERS' GUIDE

Having taken a detailed look at how computers communicate with each other, we now turn our attention to the vexed problem of choosing a suitable modem and communications package for your micro. Rather than suggesting specific packages, however, we outline some of the more pertinent questions you can ask.

You may have been advised, when originally selecting your computer system, that you should first decide what software you want to use and then choose the hardware that will run it. To some degree, this is sound advice when choosing a communications system. However, we suggest that it is often far better to buy your modem and software as a package from the same dealer.

The first thing you must do is decide what you're going to use the system for. To access viewdata systems such as Prestel you'll need a 1200/75 baud modem; for most bulletin boards and electronic mail systems you'll need a 300 baud modem; and for direct user-to-user work, a 1200 baud rate is recommended. To access Compunet, a special Compunet modem is required, since some of the software is stored in the modem's ROM. You'll also need to take into account the frequencies used. In the UK, you require CCITT frequencies; in the US, you need Bell tones. Therefore, if you intend to make direct transatlantic calls, your modem needs to be capable of both frequencies.

For user-to-user communications, it's strongly advisable to have a modem that can be switched between 'originate' (transmission) and 'answer' (reception) frequencies. If your modem operates only on originate, the modem you're calling must be capable of being switched to answer.

If you intend to call bulletin boards, an *auto-dial* modem is virtually essential. This is because most bulletin boards have only a single telephone line and allow access to one user at a time. For this reason they are frequently engaged, so it makes sense to get the modem to do the repeated dialling for you. An auto-dial modem should also have supporting software that is capable of obtaining a number — either from the keyboard or from a database of phone numbers — and sending this to the modem in the correct format. Unfortunately, different auto-dial modems want the number sent to them in different forms, so the modem and software need to be compatible — a good argument for buying both modem and software as one package.

If you want people to send data directly to you, you may find an *auto-answer* modem a worthwhile investment. If you plan to use your normal telephone line for this purpose, however, it's polite to warn your friends — particularly those without modems. Otherwise, your modem may whistle at them for ten seconds, and then hang up!

Appropriate software is also essential for an auto-answer modem. Such software ranges from packages capable of opening a new file for each call and saving this to disk, to sophisticated bulletin board software such as TBBS. An interesting piece of auto-answer software for CP/M micros is Remote CP/M. This package allows you to dial up your CP/M micro and execute any CP/M program over the telephone — which is ideal for users with both a desk-top and a portable micro.

In choosing suitable software, you will almost

STEVE CROSS

Making The Connection
The range of available hardware and software options makes buying a modem a confusing and specialised task: our ideal unit (shown here) combines the features of a number of actual modems. For a beginner, the best approach is to specify your anticipated communications requirements, and rely on a dealer to choose the appropriate package