If you want a state-of-the-art computer you don't need to pore over mail-order advertisements any more – just pop down to a local shop, see and try out the goods and have all your questions answered. We took a wander down the high street to see what we could find

Talking
shop

If you know what you're after, buying computer equipment through advertisements in newspapers or magazines can often get you the latest products, the most competitive prices.

For many consumers, though, the very thought of dealing with direct sales can be terrifying. How do you know what to ask for? Suppose you send off a cheque and nothing comes back? What if the firm you buy from should suddenly go bust? Such worries may mean you never get as far as ordering a computer.

If only you could do what you would for many major electrical purchases – wander down to the shops and look at the models on offer. Experts are on hand to offer advice and, best of all, you can try things out before you buy. There's also the comforting thought that, if you have any problems, you could simply pop back to the shop you bought from.

Now, with the spread of superstore shops like Byte and PC World, this prospect is a reality. Even department stores like John Lewis and some major supermarket branches are selling PCs – and not only are they selling state-of-the-art computers, but they can also provide essential back-up with trained staff and after-sales support.

We've scoured the shops to see what sort of deal you can get in the high street, who offers the best service and where the best PCs are be found. We also give you details on 20 of the smartest buys around.

Once sold exclusively in small specialist shops on the outskirts of town, computers are now such a mainstream affair that you'll find them in many high-street shops, department stores and superstores. The problem now is not to find a shop selling computers, but to decide which shop will offer you the deal, service and support you want. While a number of shops may sell the same PC, you'll find that they vary in terms of pre- and after-sales advice, finance deals and repair services. Here's a guide to the major retail outlets that you're likely to find near you.

Byte

As well as 11 superstores around the country, Byte has over 40 franchises within the Office World group. Part of the Specialist Computer Holdings group, Byte began trading in 1993, and its annual turnover has now grown to over £50 million. While opening hours vary between the branches, you will find that most open until 8pm on Thursdays and Fridays, and that many of them are open on Sundays.

Byte sells a wide range of PCs, printers and software and every conceivable add-on and upgrade, with all the major names represented in each department. In addition, each Byte Superstore has a service centre for hardware upgrades, software loading and system configurations.

Kidszones in Byte Superstores offer families the chance to try out entertainment and education software, along with a range of accessories, keyboards and mice.

Like most other retailers, Byte offers financial deals – a number of PCs come with 'Buy now, pay later' options, for instance. There are also extended warranties on offer, for one, three or five years, with 24-hour telephone support and home visits from engineers where necessary.

Comet

Comet is a general electrical retailer with city-centre and out-of-town shops. It now has 188 stores designated as multimedia outlets, each with a strong emphasis on the home PC market and selling PCs, software and a limited range of accessories. PCs sold include IBM, AST, Olivetti and Compaq, as well as most of the popular printer and software brands.

With an entertaining slogan of 'No Anorak Required', Comet produces plenty of information for first-time buyers, including specially-written booklets from manufacturers and *What PC?* magazine. Comet also boasts trained multimedia sales staff, who can help novices and experts alike.

Comet offers price matching against other retailers and will refund the difference plus 10 per cent of that difference if you find the same product cheaper elsewhere within 14 days.

Currys

Part of the Dixons group, Currys is a general electrical retailer, selling washing machines and cookers as well as audio, video and computer equipment. Although

Currys still has a strong high-street presence, its focus is now on superstores based in retail parks – 80 per cent of its £1,002 million sales in the 1995/96 period were made from its superstores. These offer extended opening hours, spacious demonstration facilities and convenient collection points.

After-sales service for Currys customers is available via the Dixons group Mastercare scheme, offering support for technical faults and, through a premium-rate telephone line, general queries on operating queries and software. On-site repair centres are located in all Currys superstores.

Dixons

A long-established presence in high streets, Dixons sells a range of consumer electronics, including photographic, video and audio technology, in addition to computers and their accessories. With sales of £578 million in the financial year 1995/96, Dixons reaped the benefit of converting stores to a new format, concentrating much more on 'carry home' products.

Dixons has a reasonable range of PCs to choose from, including models from Packard Bell and Apricot. You'll also find a respectable selection of printers and, in many shops, a wide array of software packages and computer upgrades.

To help make your major purchases easier, Dixons offers a
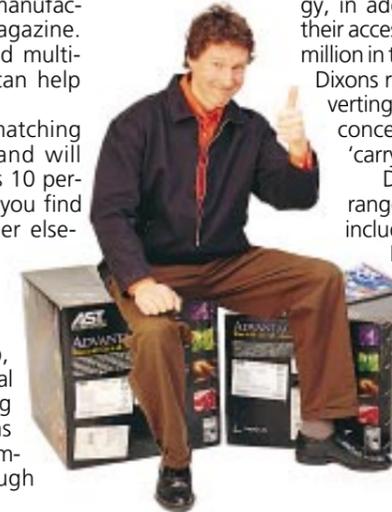
variety of finance options – spread the load over a long period, paying the usual interest rates, or enjoy a few months of interest-free credit and then pay off the balance.

You can also buy Mastercare extended cover for your PC, ranging from two to five years. If you opt for five years, this can increase the cost of your PC by a third, but it does mean that if it packs up entirely within the cover period, you get a completely new replacement.

John Lewis

The John Lewis Partnership has 23 department stores across the UK, from Southampton to Aberdeen, selling computers in all but two of these stores. Famous for its slogan 'Never knowingly undersold', John Lewis aims to be unbeatable on price, promising to refund the difference if a customer finds goods cheaper elsewhere.

John Lewis stores are unusual in that 19 of the 23 branches close on Mondays as well as Sundays, in support of their policy of employing mostly full-time staff.

Selling an exceptionally wide range of computers – AST, Compaq, Packard Bell, Hewlett-Packard and Apple – John Lewis backs its products with a variety of service deals.

One option is the installation of the new system, in which an expert installer will set up the new computer, link it to any peripherals such as printer or modem, and leave it ready to run. The fee also includes a brief overview of the system so that the customer is ready to start using the new computer. Another option is to buy two years' unlimited access to a freephone helpline based in California.

PC World

Another member of the Dixons group, PC World deals exclusively in computer equipment. With 32 superstores located in retail parks around the UK, PC World is geared firmly towards the family buyer – wide aisles and coffee shops, together with a tolerant attitude towards children, provide a welcoming atmosphere.

With a steadily increasing turnover (£262 million in the last financial year), PC World is set to expand further, both in terms of stores and the range of goods on offer.

PC World stores sell leading-brand computers – Packard Bell, Apricot and Hewlett-Packard being some of the best known – and a selection of back-up services. Like Byte and John Lewis, PC World

offers an installation and basic tuition service. In-store technical centres will fit upgrades, but there are no in-store repair centres.

A premium-rate help line is claimed to solve 90 percent of problems over the phone.

Tempo

Tempo is an expanding, general electrical retailer, with its turnover in the financial year 1995/96 exceeding £85 million. It currently operates from 29 stores in and around London and the South East, with plans for at least six new stores this year, including one in Birmingham.

Considering that computers are just one part of its broad product range, Tempo offers a surprising choice of big-name PCs, as well as its own brand, badged as the Vanilla. Tempo stores also stock a reasonable selection of software and computer accessories.

All PCs sold by Tempo come with a one-year, on-site warranty. In addition, Tempo sells CoverPlan extended warranties for up to five years, which includes new-for-old replacement should your computer break irretrievably. A number of payment plans are on offer, including some interest-free deals and low payments over two or three years.

Acer Acros 5166

The Acros 5166 is a conventionally-styled tower-cased PC. There's a door over the disk drives to keep out the dust and the only concession to style is the use of a brighter, whiter plastic than the usual computer beige. Inside, a 166MHz MMX processor drives the machine along at a good pace and there's a fast 3D graphics card in support. A 33.6Kbits/s voice/fax modem is installed, together with the software to control it.

Other components include a comfortable and sturdy keyboard and Acer's own-brand monitor. This is very easy on the eyes, both in terms of styling and picture quality, and it's also easy to adjust using a simple four-button control panel and a row of LEDs.

The main concession to ease of use is Acer's own BACE software (Base Acer Computer Explorer) which offers a simpler way of starting programs and organising the desktop. This is a less sophisticated system than those offered by other manufacturers, so if you click on Help Notes all that happens is that a nine-page technical guide is loaded into Microsoft Works.

The Acros 5166 is a capable all-rounder that is as suitable for the office as it is for the home. It's not as user-friendly as some of the competition but it offers good value and performance.

Acer Acros 5200

The Acros 5200 is housed in the same sort of tower case as the cheaper 5166 model (see left) but it has the advantage of being equipped with 32Mb of memory and a 200MHz MMX (multimedia extensions) processor. These features make the Acros 5200 fairly fly along so it's an ideal machine for multimedia users, whether keen games players or serious graphics enthusiasts.

Though the graphics are good, the sound system falls somewhat short of hi-fi standards because of the diminutive free-standing QuickStart speakers. The rest of the machine is much the same as the 5166, so you get the same Accufeel keyboard, Logitech mouse and 15in AcerView 54eL monitor, though the hard disk is slightly larger at 2.5Gb.

Software includes MS Works, a couple of games and F-Prot anti-virus protection. There's a fast 33.6Kbits/s modem and, as with almost all shop-sold PCs, there are trial accounts to get you onto the Internet. The printed manual describes all the Acros models and is fairly terse in style, but it is well illustrated and covers everything you need to know.

The Acros 5200 is a great performer and offers good value on a bangs-per-bucks basis. It will appeal to second-time buyers who are looking for a faster PC.

Acer Acros 5166	
Features	★ ★ ★ ★ ☆
Performance	★ ★ ★ ★ ☆
Ease of use	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ☆

○ £1,599 (inc VAT)
○ Acer: 01628 533422

Acer Acros 5200	
Features	★ ★ ★ ★ ☆
Performance	★ ★ ★ ★ ★
Ease of use	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ★ ☆
Overall	★ ★ ★ ★ ☆

○ £1,999 (inc VAT)
○ Acer: 01628 533422

How the shops rated

Best in terms of choice, service and facilities are the Byte and PC World superstores. This is understandable given that all the space in these shops is devoted to computer goods and accessories, but bear in mind that Byte also has outlets inside Office World stores where you will only find a limited selection of products.

The staff in Byte and PC World superstores are generally knowledgeable and eager to help and both stores have technical centres where upgrades can be carried out at fixed prices. In general, warranties are provided by computer manufacturers, not retail outlets, so there's not a lot to choose between any of the stores unless you're considering taking out an extended service contract. However, John Lewis offers a free two-year guarantee on PCs. We advise you to compare prices to see whether the fixed-price contracts at Byte and Tempo are cheaper than the sliding scales of charges used by the other stores.

Comet and Tempo, like Dixons and Currys, sell all sorts of domestic electronics as well as computer kit. Naturally, this limits the range of stock that can be physically accommodated in each store, though it can be surprisingly wide. You're also as likely to be served by a hi-fi buff as a computer expert, though one of these is usually on hand to resolve
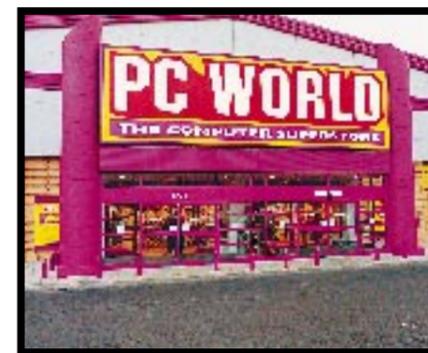
tricky questions.

We found that the quality of advice offered by staff in all the shops and stores varied enormously, and on at least two occasions we were talked out of what we wanted, simply because shops didn't have the goods in stock. Our advice is to shop at the largest and best-stocked store that you can find.

Byte and PC World offer the widest ranges and similar credit terms. PC World stores are good for a family outing with their kids' areas and snack bars, but Byte is your best bet if you want a relaxed, uncluttered environment to browse in.

Apricot MS540

This 133MHz Pentium is one of a range of MS540 PCs with different processors, hard disks and accessories. They all come in the same type of desktop case with a hinged flap on the front to protect the CD-ROM and floppy disk drive. A decent 14in monitor is supplied as standard, but it's worth paying extra for a 15in model that has a flatter screen and gives you more room to work with Windows 95.

Plugging everything together is easy enough following the instructions on the printed 'Welcome Mat' but you have to complete the installation of Windows yourself, which is quite a lengthy procedure. During this process you can also electronically 'brand' your computer to aid identification if it is stolen.

The separate speakers are designed to match the PC, as is the infra-red remote controller that acts as a mouse, joystick and a limited substitute for certain keyboard functions. The remote controller is optional on this model but standard on some of the dearer ones.

A mix of practical and entertainment software is pre-installed, including Works, Money, Hutchinson's 1996 Multimedia Encyclopaedia and five games.

The PCs in Apricot's MS540 range are very well built and all have large hard disks, a voice/fax modem and decent graphics. Save money by buying a model with only the features you need.

Apricot MS660

The Apricot MS660 has a lot going for it: a Pentium 166MHz MMX processor, an infra-red remote controller and a good sound system incorporating Apricot's 'Deep Sound' sub-woofer unit.

Internal components include 32Mb of memory, a 28.8Kbits/s voice modem and a fast graphics card. These are all housed in a bulky but impressive medium-height tower case adorned with a coloured grille, logos and lights.

The 14in monitor is fine, and is in fact the same model as provided with the cheaper MS540 (see left), but it is completely out of place on a £2,200 machine, having no adjustments other than for screen size, position, brightness and contrast.

Connecting the various bits and pieces is easy by following the instruction poster but the user has to complete a lengthy final setting up of Windows. Worse still, the pre-defined monitor is a simple VGA 640x480 model, so before you can use the better graphics modes of which the machine is capable, you have to re-install the monitor driver. Why can't Apricot do this?

There's a generous bundle of software including five MMX games, Microsoft Works, Money and an encyclopaedia.

The Apricot MS660 is a good machine but it is over-priced for the specification. Apricot should have made a better job of configuring the hardware for the first-time user.

Apricot MS540	
Features	★ ★ ★ ☆ ☆
Performance	★ ★ ★ ☆ ☆
Ease of use	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ☆ ☆

○ £1,399 (inc VAT)
○ Apricot: 0121 717 7171

Apricot MS660	
Features	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ☆
Ease of use	★ ★ ★ ☆ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ☆ ☆ ▶

○ £2,199 (inc VAT)
○ Apricot: 0121 717 7171

AST Advantage 7409

The Advantage 7409 comes in a metal desktop case and is powered by a 166MHz MMX processor. It's supplied with an AST Vision 5U monitor with matching clip-on speakers with their own volume and tone controls.
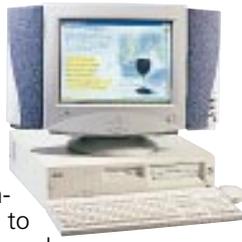
The monitor displays a very crisp, stable picture and it has controls designed to provide instant adjustment of brightness and contrast with a supplementary on-screen display for more advanced settings. The graphics card that drives the monitor is very fast so it's a pity AST doesn't include a utility to set screen refresh rates to make the most of the graphics capabilities.

There's a 16-speed CD-ROM drive and Microsoft's Side-Winder Game Pad, making this a good PC for games players. Three MMX-enhanced entertainment titles are bundled, together with MS Works, the usual Internet services, Quicken personal accounting and more.

The documentation is well designed and printed and there are guides to the bundled software as well as the PC itself. Although there are no extra buttons or hardware enhancements to make the machine easier to use, the specification is up to the minute and performance is good.

There's little not to like about this PC from AST. It offers good performance, styling as well as a comprehensive software bundle and it comes at a reasonable price.

○ £1,699 (inc VAT)
○ AST: 0990 611611

AST Advantage 7409	
Features	★ ★ ★ ★ ☆
Performance	★ ★ ★ ★ ☆
Ease of use	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ☆

AST Advantage 9409

Although the AST Advantage 9409 is the dearest machine we tested, you certainly get what you pay for. There's an excellent 17in monitor, a 200MHz MMX processor and 32Mb of memory.

On top of this you get a massive 4Gb hard disk, a 16-speed CD-ROM drive and a sound system with a floor-standing Bass sub-woofer unit to maximise the multimedia performance.

The main system unit is an imposingly bulky tower unit with more than a touch of HR Giger about it. The software bundle is the same as with AST's 7409 (*see left*), and you get the same keyboard, mouse and SideWinder Game Pad.

This machine really can double as a home entertainment centre with its great sound and graphics and a screen that's big enough for the whole family to gather around, but it is also a very capable performer and well able to run the most sophisticated software.

AST has not adopted colour-coded cabling but there's an introductory poster and good printed documentation for the hardware and the bundled software titles, some of which are pre-installed and some, such as Microsoft Encarta 97, supplied on CD-ROMs.

This machine offers more than the average user needs but it's a good choice if you're going to make your PC work for its living.

○ £2,299 (inc VAT)
○ AST: 0990 611611

AST Advantage 9409	
Features	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Ease of use	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ★ ☆
Overall	★ ★ ★ ★ ★

AST Advantage 9401

The AST Advantage 9401 is housed in the same tower case as the top-of-the-range 9409 but it is powered by a more mundane Pentium 133MHz processor, not the new MMX chip.

Despite this, it turns in a reasonable set of performance figures and it comes with all the essential accessories that these days go to make up a decent PC.

For £1,399, you get a 33.6Kbits/s modem, a 2Gb hard drive providing ample storage space and the same 15in monitor with clip-on speakers as is used on the AST 7409, indicating that the hardware has not been compromised to keep the price down. The monitor is easy to adjust and easy on the eyes, both in terms of styling and picture quality.

The eight-speed CD-ROM drive is more than fast enough for most users and 2Mb of video RAM keeps the graphics system up to speed.

The usual AST bundle of software and Internet accounts is provided – without the MMX software in this instance, of course and, like the AST Avantage 9409, the essential software is pre-installed.

A straightforward PC with few frills, but very well built and bundled with enough software to keep the first-time buyer happy for many months

○ £1,399 (inc VAT)
○ AST: 0990 611611

| AST Advantage 9401	
Features	★ ★ ★ ★ ☆
Performance	★ ★ ★ ☆ ☆
Ease of use	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ★ ☆
Overall	★ ★ ★ ★ ☆

Byte Patriot 133

For just under £1,000 you can't expect cutting-edge technology, but Byte's Patriot 133 is still a very serviceable PC. The desktop case is an angular box with just enough coloured buttons and design lines to make it look less boring.
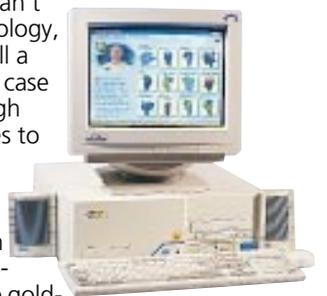
No modem is fitted and only four software titles are supplied but the main weakness is the 14in CTX monitor which, like many displays of this size, suffers from the gold-fish bowl effect of a curved screen. This means that you can't expand the picture into the corners without some geometrical distortion. Six thumbwheels allow you to make basic adjustments to the picture and a refresh utility is installed for the Cirrus graphics adaptor.

This is the only machine we tested for this survey which came with an AMD, rather than an Intel, processor. However, the K5 chip turns in similar results to a 133MHz Pentium and drives the PC at a decent lick of speed. The 16Mb of EDO memory is ample but 1Gb of hard disk space is barely adequate. The small QuickShot speakers are fine for games but not especially good for music.

A good budget PC but if you cost in a bigger monitor, a modem and some more software, it's not really cheaper than the 133MHz Pentium machines we looked at.

○ £899 (inc VAT)
○ Byte: 0121 766 7000

Byte Patriot 133	
Features	★ ★ ★ ☆ ☆
Performance	★ ★ ★ ☆ ☆
Ease of use	★ ★ ★ ☆ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ☆ ☆ ▶

Byte Patriot 200MMX

Byte's Patriot 200MMX shares the same case as the Patriot 133 (*see previous review*) but is equipped with a 200MHz MMX processor and a better display system. It also has superior accessories in terms of an excellent keyboard and a Logitech mouse.

The 15in Samsung Syncmaster GLe monitor displays a sharp picture, adjusted by buttons and wheels hidden under a flap at the front, and is a good match for the Cirrus 3D graphics adaptor.

A surprising omission from the specification is a modem. Neither are there any special software or hardware features to make the PC easier to use. The same basic software bundle is provided as with the Patriot 133 (Works, Encarta 96 and Dangerous Creatures), but this time there are five MMX entertainment titles as well.

The speakers are, if anything, inferior to those supplied with the cheaper Patriot and have only a simple volume control; bass, treble and balance have to be adjusted through software.

The hard disk is adequate at 1.7Gb but a PC with a 200MHz MMX processor deserves 32Mb, rather than 16Mb, of memory. **It's hard to get excited about the Patriot 200MMX. It's a conventional PC with a fast processor but it offers nothing special in the way of design, extras, or value for money.**

○ £1,499 (inc VAT)
○ Byte: 0121 766 7000

Byte Patriot 200MMX

Features	★ ★ ★ ☆ ☆
Performance	★ ★ ★ ★ ★
Ease of use	★ ★ ★ ☆ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ☆ ☆

Compaq Presario 4760

This tower PC's unusual appearance and bulky case stem partly from the deliberate use of a striking design and partly from the need to find somewhere to mount all the extra buttons Compaq has added. These give you control over the CD drive and fast access to the modem and messaging functions.

There's a button marked with a Q to call up Compaq's SmartQ software. This lets up to eight people define their own workspaces so that each can use the PC without interfering with the work of the others.

With a 166MHz MMX processor, a fast 16-speed CD-ROM drive and 24Mb of main memory, this PC is held back only by a limited 1Mb of graphics memory; however, most users will be perfectly happy with its performance. The 15in monitor is in keeping with the style of the main case. It presents a clear, steady picture and there's a volume control for the clip-on speakers.

Colour-coded cables and an introductory poster simplify the setting up of the hardware and there's lots of on-line help and documentation as part of the SmartQ system. **A good machine for first-time users, particularly in families, thanks to the SmartQ software. It's easy to use and well-equipped with all the hardware and programs most people need.**

○ £1,899 (inc VAT)
○ Compaq: 0181 332 3000

Compaq Presario 4760

Features	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ☆
Ease of use	★ ★ ★ ★ ★
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ★ ☆

Alternatives to high-street buying

Walking down the high street, trying out a computer and taking it home there and then is an attractive proposition. However, there are a number of alternatives available to you.

The number one option is to buy from the direct sellers – computer manufacturers who sell their products direct to customers through magazine adverts. This need be neither frightening nor risky, as computer manufacturers these days are geared up to dealing with complete novices. If you buy from a reputable company, you have good protection in case of problems. The chief advantages of buying from direct sellers include value for money – with no retail outlets to fund, savings can be passed on –- and the latest technology. Because there is no stockpiling, direct sellers can respond almost instantly to the latest developments.

Names to look out for include Dan Technology, offering a Pentium 166 MMX, Internet-ready multimedia PC for around £1,640, a deal that compares favourably with £1,599 for a Packard Bell Pentium 133. Other well-established direct sellers are Mesh, Opus and Viglen.

Originally dealing only with mail order, Time has recently responded to customers' demands for a hands-on facility and face-to-face advice. It has opened two 'super showrooms' (in Gateshead and Watford) and has another 24 showrooms within Powerhouse Superstores. In addition, Time has display units within selected Asda stores, with weekend demonstrations.

Selling chiefly Colossus and Omega PCs, Time offers a good range of configurations and processors. It combines highly-powered machines with respectable software selections, often at relatively low prices.

Argos sells a range of PCs, including Olivetti and IBM models. You can order these in-store or by phone, but there's no hands-on facility available. A specialised booklet, *Buying the right Computer from Argos* gives sensible guidelines on which PC will suit your needs and pre-sales advice is also available from manufacturers' helplines. Prices vary through the year, so check the latest price list to see if you can find a good deal.

For a flexible option, you could consider places like Radio Rentals and Granada, both of which offer schemes whereby you can rent equipment for a period and then return it, or keep paying and ultimately own the PC.
● *Dan: 0181 830 1100, Mesh: 0181 452 1111, Opus: 01293 821555, Viglen: 0181 758 7000, Time: 01282 777111.*

Compaq Presario 4180

Like the Compaq Presario 4760 (*see previous review*) this PC is equipped with a number of extra buttons to make it easier to use, but the case design is a desktop rather than a tower. The other significant difference is the larger hard disk (4Gb instead of 2Gb) and the more conservatively rated eight-speed CD-ROM drive. The processor, memory, graphics system, modem, software and all the external devices (including the monitor) are the same as on the 4760, so performance, as you'd expect, is almost identical.

The bundled software is properly installed and ready to use. It comprises MS Works, Encarta 96, Quicken, Dorling Kindersley's Ultimate Human Body and a couple of games. All this is in addition to the help and technical advice incorporated in Compaq's SmartQ system and an introductory on-screen video that guides you through your first encounter with the Compaq. Best of all, a CD-ROM is provided to restore the system to its just-out-of-the-box condition should you accidentally delete anything crucial. Physically, the computer is unlikely to require any attention because the build quality is extremely good.

Though slightly dearer than the similar Compaq 4760, this model is worth the extra for the capacious hard disk. We also find the desktop styling easier to live with.

○ £1,999 (inc VAT)
○ Compaq: 0181 332 3000

Compaq Presario 4180	
Features	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Ease of use	★ ★ ★ ★ ★
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ★ ☆

HP Pavilion 7340P

This 166MHz Pentium MMX PC is easy to set up thanks to colour-coded cables and a get-you-started poster. The essential bits and pieces are built into a pleasingly-styled tower case which, like the 15in monitor with clip-on speakers, won't look too out of place in a living room.

In one of the drive bays is a PhotoDrive scanner to convert snapshot-sized colour photographs into digital images you can store on the computer's hard disk or put straight into whatever document you're currently working on.

Another unusual feature is the keyboard. It includes a number of extra controls for volume adjustment, audio CD playback and fast access to faxes, voice messages and the Internet. There's also a help button to call up information screens telling you how to use your PC. These are part of Hewlett-Packard's Personal Page software, which is an alternative to the Windows 95 menu system and is easier for first-time users to learn.

Other software includes Microsoft Works, Quicken, SoftKey's UK Infopedia reference set and Adobe PhotoDeluxe to edit the pictures you create with the PhotoDrive.

An ideal machine for affluent entrants to the world of PCs who want a plug-and-go computer for use by the whole family. You can buy a faster machine for less money, but it won't be as easy to set up or use.

○ £2,149 (inc VAT)
○ Hewlett-Packard: 0990 474747

HP Pavilion 7340P	
Features	★ ★ ★ ★ ★
Performance	★ ★ ★ ☆ ☆
Ease of use	★ ★ ★ ★ ★
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ★ ☆

HP Pavilion 7315

The tower case design is the same as Hewlett Packard's 7340 (*see previous review*) but a PhotoDrive scanner is not fitted. Other differences are that inside the case is an ordinary (non-MMX) Pentium 166MHz processor.

The 14in multimedia monitor looks good externally with its clip-on speakers for multimedia, but picture quality is disappointing compared to any of the 15in models we looked at. The monitor is a poor partner to a PC costing £1,699.

Fortunately, other accessories from the 7340 such as the special keyboard with its fast-access control buttons and the internal 33.6Kbps modem are still present. A 2.1Gb hard disk, 16-speed CD-ROM drive and 2Mb 3D graphics card are also included. Overall performance is about mid-range for a P166 system.

Lots of software is pre-installed: Works, games, Quicken, several graphics titles and special utilities from Hewlett-Packard. The Personal Page system sits happily alongside Windows 95 and you can switch between the two at will. With an introductory poster, colour-coded cabling, good printed manuals and comprehensive on-line guides, this an easy machine for PC beginners to set up and use.

A good PC for those looking for a ready-to-run product from a big-name maker, but not the best specification or performance you can get for this sort of money.

○ £1,699 (inc VAT)
○ Hewlett-Packard: 0990 474747

HP Pavilion 7315	
Features	★ ★ ★ ★ ☆
Performance	★ ★ ★ ☆ ☆
Ease of use	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ☆ ☆

IBM Aptiva E24

The Aptiva E24 is the cheapest home PC yet from IBM. Despite this, build quality has not been compromised and if there's one thing IBM knows how to do, it's to put together a solid PC. The keyboard is equally well made and has a positive, clicky action that is as good for two-fingered typists as it is for keyboard wizards.

On the down side, there's only a 14in monitor, but it's a good one and sharp enough to use in 800x600 SuperVGA mode. In keeping with the case and monitor are a pair of separately powered speakers with volume and tone controls. These are about half the height of the tower case and they sound as clean and neat as they look.

This machine is fitted with IBM's own 6x86 P150+ processor, which in this PC responded something like a Pentium 133. There's no modem supplied and there are no special buttons to make the computer easier to use, though IBM's AptivaWare programs provide an introduction to the computer and some hints and tips. The principal software provided is Lotus SmartSuite 96.

Without a modem and lacking the comprehensive software bundles that are offered with other machines, this IBM machine is nevertheless a very well-built basic PC.

○ £1,199 (inc VAT)
○ IBM: 0345 727272

IBM Aptiva E24	
Features	★ ★ ★ ☆ ☆
Performance	★ ★ ☆ ☆ ☆
Ease of use	★ ★ ★ ☆ ☆
Value for money	★ ★ ★ ★ ☆
Overall	★ ★ ★ ☆ ☆

Company profiles

The Acer Group is made up of independent Business Units located in Europe, North America, Latin America, Africa and Asia/Australia. Acer UK brought in sales of £45 million in 1996, while the whole group achieved sales of $5.7 billion. Acer develops and manufactures practically all of the primary components for its products, and its computers are produced locally, allowing for easy customisation for voltage differences and so on, and also permitting a reasonably fast reaction to technology developments.

Acer makes a wide range of products, with the AcerAltos servers for corporate requirements, AcerPower high performance PCs, AcerAcros entry-level PCs and the stylishly-presented AcerAspire PCs. Acer also produces colour notebooks and monitors, ranging from 14in to 21in models.

Apricot is part of the Mitsubishi Electric Corporation, one of the world's largest companies, with a revenue in 1995 of $36.5 billion and a resource base of 36 factories and 15 research facilities – one of which is based in Birmingham.

Apricot makes computers for the corporate as well as for the home market. Apricot Computers offer good specifications and excellent build quality, although at a comparatively high price. They come with simple setting-up instructions for the first-time user, and usually a good selection of software. Unusually, Apricot has its own Information Service Provider, Infotrade – and it also offers a limited amount of free Internet access.

Closely allied to electronics company, Samsung, AST is based in California and has a manufacturing, distribution and servicing base in Ireland. Its revenue in the financial year to 1995 was $2.468 billion.

AST's Advantage PCs are sold through a number of retailers, covering a broad range of power and specifications. Generally, AST machines are well designed and solidly built, but some of its cheaper models have a tendency to be under-specified by current standards. At the top end of the range, though, its computers are very well specified and are good value for money.

Based in Houston, Texas, Compaq has manufacturing plants in countries all over the world, including Scotland. With a reputation for excellence, Compaq has established itself in the mainstream PC market in the last two or three years by introducing a range of sensibly priced, technically advanced PCs – and this is reflected in its sales figures, which reached over $14.7 billion in 1995.

If you buy a Compaq, check carefully that you are being offered the latest model, as the company is constantly revising its specifications. The Presario range, for instance, has been through several incarnations in only two years. You may well find some stores selling off old models at low prices, and you will need to be sure that the computer you buy meets your needs.

Hewlett-Packard successfully straddles the PC and printer markets, and many other sectors of the computer industry besides. It has corporate and communication business interests, as well as selling palmtop and notebook PCs. With 112,000 employees worldwide, HP's net revenue for 1996 was $38.4 billion.

HP's Pavilion range of desktop PCs spans the entire price range and has been designed to appeal to home users and first-time buyers by incorporating colour-coded cables, easy instructions and pre-loaded software. Hewlett-Packard targets its various models at different audiences – family fun, imaging and gaming, for instance. Top models include a colour scanner in the body of the PC, which takes in, scans and ejects photographs.

The grandfather of PC manufacturers, IBM is now just one among many companies competing in the PC market. In addition to its involvement in the home market, IBM still makes a lot of expensive, quality computers for connection to networks. With total revenue for 1996 of $75 billion, IBM's future seems secure.

Aptivas are IBM's best-known range, and these have a wide choice of performance and price options. Cheaper Aptivas are quite slow by today's standards, and the dearer models normally represent better value. Try to see an IBM machine in operation before you buy, as their monitors can vary enormously in quality – while some are excellent, others can be very tiring on the eyes.

Established in 1982, MiTAC International is the manufacturing arm of the MiTAC group. It has branches in Taiwan, the US, China and the UK, with assembly operations in several other countries. MiTAC produces notebooks and monitors, as well as a range of desktop PCs. It also produces board-level components such as sound and graphics cards.

Retailing through stores such as Tempo and Comet, MiTAC is best-known for its Pursuit and Professional ranges. Between them, they cover a fair range of technology and they are usually reasonably priced.

Following mergers last year, Packard Bell is now linked with NEC, Bull and Zenith, with an estimated turnover of $8 billion per year making it the third-largest PC vendor in the world, according to the US research company, International Data Corporation.

Packard Bell makes PCs in many formats, including desktop, tower and the all-in-one Spectria designs. All of them are well built and represent good value for money, however, some of its PCs are designed to meet a specific price point, so you should check specifications carefully to make sure the one you're considering comes with everything you need.
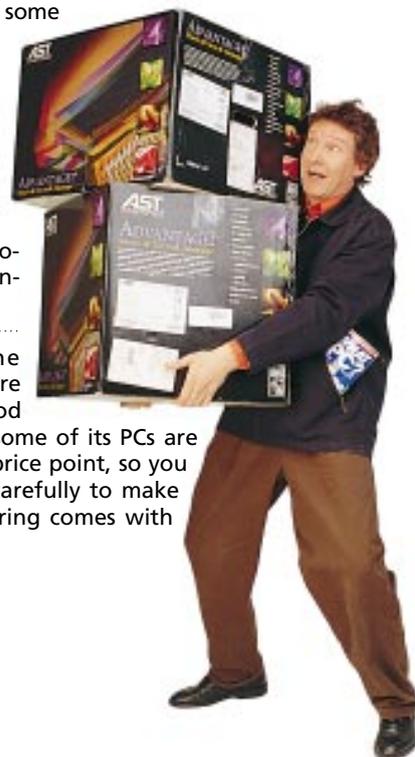
The Mac alternative

Years before PCs and Windows 95 became as prevalent as they are today, Apple was making an easy-to-use system called the Macintosh. Macs, as they're known, offer a great introduction to computing for complete novices but you must be aware that, in comparison to PCs, the range of available software is limited.

The Performa range that we've looked at here is Apple's alternative to a Windows 95 PC. They come with full multimedia facilities and lots of useful software pre-installed.

Apple Macintosh Performa 5400/160

Unless you're a clued-up computer buff, the cryptic labels most computer manufacturers give their machines will mean little to you. And, even with its reputation for producing 'friendly' computers, Apple is just as guilty as any PC manufacturer as the '5400/160' tag ably demonstrates. In this case the '160' refers to the speed of the computer's processor (its 'brain'), and the 5400 is simply the identifier of this low-end Performa range. Through all of Intel's advertising hype, it sometimes difficult to remember that the Pentium is not the only processor in the world. The 5400/160's processor is

the PowerPC 603e, which was invented by a consortium made up by IBM, Motorola and, of course, Apple.

The 5400/160's all-in-one design makes pulling it from the box a muscle-building job. But having just the one monitor-encompassing unit does make it very simple to set up – all you do is plug the keyboard into the back of the box, and the mouse into a socket underneath the keyboard before powering up. **Incredibly simple to set up, well packaged and with a good manual, the Performa 5400/160 will appeal to those who want a computer but aren't yet sure why.**

○ £1,498.13 (inc VAT)
○ Apple: 0181 569 1199

Performa 5400/160

Performa 5400/160		
Build quality	★ ★ ★ ★ ★
Features	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ★ ☆

Apple Macintosh Performa 5400/180

Apart from the faster 180MHz PowerPC 603e processor, the 5400/180 is the same as the cheaper 5400/160 – almost. There is one other, striking, difference: the casing is entirely black.

Like its sibling, after powering up the 5400/180 loads MacOS (Apple's own operating system especially for Macintosh machines) and automatically

opens a folder called 'Launcher'. This folder contains icons leading to a number of useful tutorials, covering topics from basic mouse skills to more complicated operations such as copying documents and folders.

An eight-speed CD-ROM drive sits at the front of the machine, and two small speakers border this. Unlike PCs, the Mac marketplace is not awash with sound cards from third-party manufacturers. Instead you have to be content with Apple's proprietary 16-bit SRS Surround system, but this should prove no great hardship as it provides more than adequate audio facilities.

A faster, and hence more expensive, Mac aimed at novices. If you believe that consumer electronics products should be black, then the 5400/180 will grab you.

○ £1,761.33 (inc VAT)
○ Apple: 0181 569 1199

Performa 5400/180

Performa 5400/180		
Build quality	★ ★ ★ ★ ★
Features	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ★ ☆

WHAT PC? BEST BUY

The best PC in the shops right now is undoubtedly the AST Advantage 9409. We had reservations about awarding it our Best Buy accolade because it's also the most expensive machine, but you do get full value for your £2,299. It's worth paying this sum if you can afford it because the AST represents all that's best in current PC design and performance. By not skimping on any of the components – sound system, processor type, memory, hard disk capacity or 17in monitor – you get a PC that isn't going to need an upgrade for some time to come. In fact, it's hard to see how it could be improved, short of selling it for less.

The Advantage 9409 is a great games machine, a powerful workhorse and a sophisticated entertainment and communications centre. On top of this it's well documented and lavishly supplied with a range of software for family and business use.

WHAT PC? RECOMMENDED

All the PCs we looked at had something to recommend them but three of them stood out for different reasons. The Acer Acros 5166 is the best low-cost Pentium 166MMX in the group and although it's a very conventional model, lacking some of the ease-of-use enhancements fitted to other PCs, this gives it the advantage that it's easy to

upgrade or modify with standard components If required.

Our second recommendation (for families buying their first PC) is the Packard Bell Executive 9005D. Despite its lacklustre performance, this is the easiest PC to use straight out of the box and comes with a huge selection of software and hardware enhancements for only £1,499.

Finally, the Compaq Presario 4180 is rich in features that make it easy to use. In performance terms it's only moderately good, but its build quality and design make up for this. You may regard almost £2,000 as a fair price to pay for the backing of one of the world's largest PC manufacturers.

Sheila Hill and Paul Wardley ▶

High-street PCs compared

	Model	Price from (inc VAT)	Processor	RAM	Hard disk	CD-ROM		Sound card	Monitor	Modem	Warranty	Sold in	Software	
Acer	Acros P133	£999	P133	16Mb	1.2Gb	8x		16 bit	14in	n/a	1-year on-site	PC	Win 95 & 4 titles	Acer
Acer	Acros P150	£1,199	P150	16Mb	2.0Gb	8x		16 bit	14in	33.6	1-year on-site	PC	Win 95 & 3 titles	Acer
Acer	Acros 5166	£1,599	P166 MMX	16Mb	2.0Gb	12x		16 bit	15in	33.6	1-year on-site	Dx, Cy, PC, Te	Win 95 & 6 titles	Acer
Acer	Acros 5200	£1,999	P200 MMX	32Mb	2.5Gb	12x		16 bit	15in	33.6	1-year on-site	Dx, Cy, PC, Te	Win 95 & 4 titles	Acer
Acer	Aspire 3133	£1,099	P133	16Mb	1.2Gb	8x		16 bit	14in	33.6	1-year on-site	Te	Win 95 & 4 titles	Acer
Acer	Aspire 3150	£1,299	P150	16Mb	2.0Gb	12x		16 bit	14in	33.6	1-year on-site	Te	Win 95 & 4 titles	Acer
Acer	Aspire	£1,399	P166	16Mb	1.6Gb	12x		16 bit	14in	33.6	1-year on-site	Te	Win 95 & 4 titles	Acer
Apricot	MS540	£1,399	P133	16Mb	2.1Gb	8x		16 bit	14in	28.8	1-year on-site	PC	Win 95 & 11 titles	Apricot
Apricot	MS540	£1,599	P150	16Mb	2.5Gb	8x		16 bit	14in	28.8	1-year on-site	PC	Win 95 & 11 titles	Apricot
Apricot	MS540	£1,799	P166 MMX	16Mb	2.5Gb	8x		16 bit	14in	n/a	1-year on-site	PC	Win 95 & 16 titles	Apricot
Apricot	MS660	£2,199	P166 MMX	32Mb	3.2Gb	16x		16 bit	14in	28.8	1-year on-site	PC	Win 95 & 16 titles	Apricot
Apricot	MS660	£2,599	P200 MMX	32Mb	3.2Gb	16x		16 bit	14in	28.8	1-year on-site	PC	Win 95 & 16 titles	Apricot
AST	Advantage 9401	£1,399	P133	16Mb	2.0Gb	8x		16 bit	15in	33.6	1-year on-site	By, Co, JL, Te	Win 95 & 14 titles	AST
AST	Advantage 7409	£1,699	P166 MMX	16Mb	2.0Gb	16x		16 bit	15 in	33.6	1-year on-site	By, Co, JL, Te	Win 95 & 17 titles	AST
AST	Advantage 9405	£1,999	P200 MMX	16Mb	2.0Gb	16x		16 bit	15in	33.6	1-year on-site	By, Co, Te	Win 95 & 18 titles	AST
AST	Advantage 9409	£2,299	P200 MMX	32Mb	4.0Gb	16x		16 bit	17in	33.6	1-year on-site	By, Co, JL, Te	Win 95 & 17 titles	AST
Byte	Patriot	£899	K5 133	16Mb	1.0Gb	8x		16 bit	14 in	n/a	1-year on-site	By	Win 95 & 4 titles	Byte
Byte	Patriot	£1,499	P200 MMX	32Mb	1.7Gb	8x		16 bit	15in	n/a	1-year on-site	By	Win 95 & 8 titles	Byte
Compaq	Presario 4110	£1,199	P120	16Mb	1.6Gb	6x		16 bit	14in	33.6	1-year on-site	Te	Win 95 & 12 titles	Compaq
Compaq	Presario 2110	£999	P133+	16Mb	2.0Gb	8x		16 bit	14in	33.6	1-year on-site	PC	Win 95 & 12 titles	Compaq
Compaq	Presario 4166	£1,699	P150	24Mb	2.1Gb	16x		16 bit	15in	33.6	1-year on-site	PC	Win 95 & 12 titles	Compaq
Compaq	Presario 4180	£1,999	P166 MMX	24Mb	4.0Gb	16x		16 bit	15in	33.6	1-year on-site	PC, By, Te	Win 95 & 12 titles	Compaq
Compaq	Presario 4760	£1,899	P166 MMX	24Mb	2.1Gb	16x		16 bit	15in	33.6	1-year on-site	Te, By, JL, PC	Win 95 & 12 titles	Compaq
Compaq	Presario 8770	£2,799	P200 MMX	32Mb	3.8Gb	16x		16 bit	17in	33.6	1-year on-site	PC, JL	Win 95 & 12 titles	Compaq
Fujitsu ICL	Myria	£1,199	P133	16Mb	1.2Gb	16x		16 bit	14in	n/a	1-year on-site	Co	Win 95 & 11 titles	Fujitsu ICL
Fujitsu ICL	Myria	£1,699	P166 MMX	16Mb	2.5Gb	16x		16 bit	14in	28.8	1-year on-site	Co	Win 95 & 16 titles	Fujitsu ICL
Fujitsu ICL	Indiana	£1,999	P200 MMX	16Mb	2.1Gb	16x		16 bit	15in	28.8	1-year on-site	Co	Win 95 & 16 titles	Fujitsu ICL
Hewlett-Packard	Pavilion 5320	£1,399	P133	16Mb	2.1Gb	8x		16 bit	14in	28.8	1-year on-site	By, PC	Win 95 & 26 titles	Hewlett-Packard
Hewlett-Packard	53XX	£1,599	P150	32Mb	2.1Gb	16x		16 bit	14in	33.6	1-year on-site	PC	Win 95 & 26 titles	Hewlett-Packard
Hewlett-Packard	Pavilion 7315	£1,699	P166 MMX	16Mb	2.1Gb	16x		16 bit	15in	33.6	1-year on-site	PC, By, JL	Win 95 & 29 titles	Hewlett-Packard
Hewlett-Packard	Pavilion 7340P	£2,149	P166 MMX	16Mb	2.1Gb	16x		3D	15in	33.6	1-year on-site	By, JL, PC	Win 95 & 30 titles	Hewlett-Packard
Hewlett-Packard	Pavilion 7370V	£2,739	P200MMX	32Mb	3.8Gb	16x		3D	15in	33.6	1-year on-site	By, PC	Win 95 & 27 titles	Hewlett-Packard
IBM	Aptiva E24	£1,199	P150+	16Mb	1.7Gb	8x		Crystal 3D	14in	n/a	1-year on-site	Te, JL	Win 95 & 10 titles	IBM
IBM	Aptiva 440	£1,199	P133	12Mb	1.2Gb	8x		16 bit	14in	n/a	1-year on-site	Te	Win 95 & 10 titles	IBM
IBM	Aptiva 442	£1,399	P133	16Mb	2.0Gb	12x		16 bit	14in	28.8	1-year on-site	Te	Win 95 & 3 titles	IBM
IBM	Aptiva E45	£1,429	P166 MMX	16Mb	2.1Gb	8x		16 bit	15in	33.6	1-year on-site	Te	Win 95 & 10 titles	IBM
IBM	Aptiva 447	£1,599	P133	16Mb	2.0Gb	8x		16 bit	15in	28.8	1-year on-site	PC	Win 95 & 10 titles	IBM
IBM	Aptiva 460	£1,999	P166MMX	16Mb	2.0Gb	16x		16 bit	15in	33.6	1-year on-site	Te	Win 95 & 10 titles	IBM
IBM	Aptiva 461	£2,199	P166MMX	16Mb	3.1Gb	16x		Crystal 3D	15in	33.6	1-year on-site	JL, PC	Win 95 & 16 titles	IBM
IBM	Aptiva 57S	£2,899	P200MMX	16Mb	4.2Gb	16x		Crystal 3D	17in	33.6	1-year on-site	PC	Win 95 & 10 titles	IBM
MiTAC	Professional	£999	P133	16Mb	1.2Gb	8x		16 bit	14in	n/a	1-year on-site	Te, Co	Win 95 & 15 titles	Mitac
MiTAC	Pursuit	£1,499	P166 MMX	32Mb	1.7Gb	8x		3D	14in	33.6	1-year on-site	Te, Co	Win 95 & 20 titles	Mitac
Olivetti	Xana	£1,149	P133	16Mb	1.2Gb	16x		16 bit	14in	n/a	1-year on-site	PC, Te	*	Olivetti
Olivetti	Xana	£1,299	P133	16Mb	1.2Gb	16x		16 bit	14in	33.6	1-year on-site	Co, Te	*	Olivetti
Olivetti	Xana	£1,299	P150	16Mb	1.2Gb	16x		16 bit	14in	n/a	1-year on-site	Co, PC	*	Olivetti
Olivetti	Xana	£1,399	P150	16Mb	1.6Gb	16x		16 bit	14in	33.6	1-year on-site	PC, Te	*	Olivetti
Olivetti	Xana	£ 1,699	P166MMX	16Mb	2.5Gb	16x		16 bit	14in	33.6	1-year on-site	Co, Te	*	Olivetti
Olivetti	Xana	£2,099	P200MMX	32Mb	4.3Gb	16x		16 bit	15in	33.6	1-year on-site	PC, Te	*	Olivetti
Packard Bell	Executive 9012	£1,099	P120	16Mb	1.0Gb	8x		16 bit	14in	n/a	1-year on-site	PC	Win 95 & 30 titles	Packard Bell
Packard Bell	Executive 9200S	£1,199	P120	16Mb	1.2Gb	8x		16 bit	14in	n/a	2-year on-site	JL	Win 95 & 9 titles	Packard Bell
Packard Bell	Executive 9004D	£1,299	P133	16Mb	1.2Gb	8x		16 bit	14in	n/a	1-year on-site	Dx, Cy	Win 95 & 30 titles	Packard Bell
Packard Bell	Executive 9007EN	£1,599	P150	16Mb	2.0Gb	8x		16 bit	14in	28.8	1-year on-site	PC	Win 95 & 30 titles	Packard Bell
Packard Bell	Executive 9016	£1,399	P150	16Mb	1.6b	8x		16 bit	14in	n/a	1-year on-site	PC	Win 95 & 30 titles	Packard Bell
Packard Bell	Executive 9005D	£1,499	P133	16Mb	1.6Gb	8x		16 bit	14in	28.8	1-year on-site	PC	Win 95 & 36 titles	Packard Bell
Packard Bell	Executive 9018	£1,649	P166 MMX	16Mb	2.0Gb	8x		16 bit	14in	n/a	1-year on-site	PC	Win 95 & 30 titles	Packard Bell
Packard Bell	Executive 9019	£1,849	P166 MMX	16Mb	2.0Gb	8x		16 bit	14in	33.6	1-year on-site	PC	Win 95 & 30 titles	Packard Bell
Packard Bell	Executive 9020	£2,099	P166 MMX	32Mb	3.1Gb	8x		16 bit	14in	33.6	1-year on-site	PC	Win 95 & 30 titles	Packard Bell
Packard Bell	Executive 9211X	£2,399	P200 MMX	32Mb	2.0Gb	8x		16 bit	15in	33.6	2-year on-site	JL	Win 95 & 30 titles	Packard Bell
Packard Bell	Executive 9021	£2,399	P200 MMX	32Mb	4.2Gb	8x		16 bit	15in	33.6	1-year on-site	PC	Win 95 & 30 titles	Packard Bell

■ PCs tested in this survey. Best price available from: ■ PC World; ■ Byte; ■ Tempo.

* Software bundle not confirmed at time of going to press. PC= PC World; Dx = Dixons; Cy = Currys; JL = John Lewis; Te = Tempo; By = Byte; Co = Comet.