

addressing which is effectively using extended memory but casts off all the previous restrictions on how to address the memory. If a program wants 32MB to work in it just says "Windows, give me 32MB" and that's that. There is no need for it to get involved in making calls to either the LIM EMS or LIM XMS type of system. That's all long gone.

 Return to top

Notes about mice

Like keyboards, for our early PCs we designed our own weird and wonderful mouse interface that was polled rather than interrupt driven so on 1512, 1640 and 2086 not only can you ONLY use an "Amstrad" mouse, you MUST also use an Amstrad mouse driver.

On 1286, 1386, 2286, 2386, 3286, 3386, 4386 we used the same rodent but the interface as far as the CPU was concerned was now compatible with the Microsoft Bus mouse so that means that although only our physical mouse could be plugged onto the 9 pin D connector port (it isn't a serial interface as some people think!) the standard Microsoft MOUSE.COM can be used with it (BUT some 1xxx and 2xxx machines suffer from a slight incompatibility that leads to an error message "Interrupt jumper missing" but this can be fixed with a MOUSEFIX program that I have available).

If you have a problem with the mouse on any machine I'd highly recommend getting a modern serial mouse and using it off the serial(COM) port as long as you don't need the port for anything else - it really is the easiest way to add a mouse and they can cost as little as £10. Remember that on all the machines listed at the start of the previous paragraph you MUST remove the link inside the machine to disable the built in mouse interface. It is not enough to just use the /C parameter on MOUSE.COM.

Once one has run MOUSEFIX (if necessary) many people find that the mouse still won't work in Windows even though they are loading MOUSE.COM in DOS before starting Windows. In theory, this should work, as long as you load the DOS based MOUSE.COM at the DOS prompt or in AUTOEXEC.BAT before starting Windows then Windows 3.x will use it as long as it is version 6.2 or better and my guess is that if you have Windows 3/3.1 you have 7.04/8.21 which should be fine.

However there is one small fly in the ointment. On the very first occasion that you run Windows after installing it, it goes on a hunt for your mouse and writes a file into \Windows called MOUSE.INI - if on that occasion you didn't have the DOS driver loaded then for all subsequent times it won't see the mouse because it will just have written a default MOUSE.INI with the wrong information. The solution? Easy, in DOS just delete the MOUSE.INI file in \Windows, load MOUSE.COM and then start Windows. This time the right value will be written to MOUSE.INI.

 Return to top

Windows Monitor drivers

A very common question is where one can find a Windows driver for a particular type of Amstrad monitor. There never have been and never will be any Amstrad specific monitor drivers for Windows. Win95 ships with a perfectly adequate set of monitor drivers so under "Change display type" just select "(standard monitor types)" then, because about 95% of all Amstrad monitors are 14" select "SVGA 800x600" and that will be fine.

 Return to top

Increasing Speed

People often consider fitting a faster processor to increase a machine's speed and while our more recent machines can easily be upgraded our older ones will require something like a Cyrix clip-on upgrade processor if the CPU is not socketed (or even if it is in some cases). I'd recommend contacting Cyrix or Intel for details of what is known to be compatible with our PCs.

In our portable machines there generally is not enough room to fit such an upgrade processor so they simply can't be upgraded in this way.

Remember that the CPU is not necessarily the slow part in the jigsaw. Other things that dramatically affect speed are RAM size, HD type and VGA type. You'll often find that upgrading RAM from 4 to 8 or 16MB can have a far more dramatic effect than upgrading a processor. Changing from an 8 year old 1MB/s HD to a modern 10MB/s hard disk can be equally dramatic and modern VGA cards with plenty of fast access RAM can often perform 10 or more times faster than old cards.

 Return to top

Adding/Upgrading a modem

There are two types of modem you can get to add to a PC - internal or external. Internal card modems have two advantages 1) is that they are hidden inside so the only messy bits hanging outside the computer is the phone line and 2) is that they have their own UART built in which for modern fast modems means a 16550 UART with FIFO buffers. This means that you can then use a fast modem even in a PC that only has an old, unbuffered 8250 UART.

External modems also have a couple of advantages. 1) is that they don't use up an expansion slot inside the machine which may be important if you add lots of other bits and pieces that each require a slot and 2) they have lots of lights on the front so it's much easier to see what's going on (though this perhaps isn't so important these days).

An external modem is usually going to be about 10% more expensive than an internal modem because of the cost of it's pretty case and external power supply (which might count as a disadvantage).

The question as to which modems are compatible with Amstrad PCs is irrelevant. The fact is that as long as the PC is IBM compatible (and all Amstrad PCs are) then you should be able to buy any of about 100 different modems that are

available and use that in the PC. Naturally I would recommend getting a Dataflex one because Amstrad own Dataflex but any of theUSR/Zoom/Sportster/Pace/Hayes/etc./etc. modems would be fine.

Fitting an external modem is very easy - you just plug the cable from the modem onto one of the COM ports on the back of the PC and you're off. To fit an internal modem will require the opening of the PC case and the location of a free slot (possibly removing an existing modem if upgrading). However fitting cards is still very easy and requires nothing more than a screwdriver. If one doesn't feel confident then a local computer store should be able to do the fitting for you (except that they'll probably charge an arm and a leg for a 5 minute job!).

Once you've fitted the modem mechanically you will probably need to configure your operating system (I presume it will be Windows 95) to find it and send the right commands. This will vary depending on whether, for example, the modem is a "Plug & Play" device but whatever it should come with some instructions and perhaps a driver disk to let you configure it properly. This isn't something I can help with really because it varies from modem to modem and it is up to the modem supplier to sort any problems out.

As to the cost of modem - modems, like everything in the PC world, are always subject to improvement so what tends to happen is that the top of the range modems have remained at a fixed price for the last 10 years (perhaps £150-£200) but the range of features just keeps increasing. The first modem I used regularly about 11 years ago to connect to Prestel had a 1200baud receive speed and a 75baud transmit speed. The very latest modems these days have a 56,000baud receive speed and a 28,800baud transmit speed. So the receive performance has increased by x46 and the transmit by x384!!! It's always possible to get "last years" modem at a reduced price which means that the predecessor to the 56K modem was the 33K modem and can now be bought for £120 (say) while it's predecessor was the 28.8K modem and you can get these for well under £100. Before this came the 14.4K modem and those can now be purchased for a lot less than £50. However a slow modem is a false economy. If you download a lot of data from the Internet you get it in a quarter of the time using 56K than you would at 14.4K which means that the length of time you need to be on the phone is less. After a few months you will probably save the additional cost of a fast modem in the reduced phone charges and web surfing is a whole lot more pleasant at the fast speed.

 Return to top

Compatibility

I get tons of email from people who say that they've got one of our PCs (any model with PC as the start of the model number such as PC1512, PC1640 (aka PC6400 in US), PC2386, etc etc) and ask where they can get special peripherals or software for it. The fact is you don't need to. All our PC's are designed (as far as possible) to be compatible with the IBM PC (XT or AT) so you don't need "special, Amstrad only" software or peripherals. Anything for a standard PC should work on our machines. With the obvious proviso of the fact that each model has limitations on graphics/memory/CPU etc. which will prevent some software/peripherals being used. As a rough guide, here is a potted spec of most our PCs:

1512 - 512K RAM, 8086, CGA, XT
PPC512 - 512K RAM, 8086, CGA, XT
PPC640 - 640K RAM, 8086, CGA, XT
PC200 - 640K RAM, 8086, CGA, XT
1640 - 640K RAM, 8086, EGA, XT
2086 - 640K RAM, 8086, VGA, XT (with hints of PS/2 30)
1286 - 1MB RAM, 80286, VGA, AT
1386 - 1MB RAM, 80386DX, VGA, AT
2286 - 1MB RAM, 80286, VGA, AT
2386 - 4MB RAM, 80386DX, VGA, AT
3286 - 1MB RAM, 80286, VGA, AT
3386 - 4MB RAM, 80386SX, VGA, AT
4386 - 4MB RAM, 80386SX, VGA, AT
5286 - 80286, VGA, AT
5386 - 80386SX, VGA, AT
5486 - 80486SLC, VGA, AT
6486 - 80486SX, SVGA, AT
7386 - 80386SX, SVGA, AT
7486 - 80486SX, SVGA, AT
8486 - 80486, SVGA, AT
9486 - 80486, SVGA, AT
9486i - 80486, SVGA, AT/PCI
9555i - 80586, SVGA, AT/PCI

 Return to top

Upgrades, life, the universe and everything

I tend to update these web pages as and when I receive email asking about specific items if I think the answer might be of general interest to all readers of these pages. (And hence prevent me writing the same reply for the ten zillionth time). The question I get asked more often than anything else is about upgrading an old Amstrad that you've got

I have one general rule about this and it is probably best summed up by a small analogy. (Sorry if this is a bit UK biased!). If you have a 30 year old Ford Anglia do you a) add Carlos Fandango wheels, go faster stripes, electric windows, Ferrari engine, intercooler, turbo charger, air conditioning, supercharger and furry dice or b) sell it to a junk yard for £50 and put that towards a nice, reliable little '94 reg fiesta?

Sure a 1512 can have a LIM expanded memory card fitted to it or a 3286 might (at a pinch) have a 486 upgrade processor fitted to it with a gazillion megabytes of memory but just sit back for a moment and ponder whether it really makes sense? A 1512/1640 is worth about £20, a 3286 about £30 and a 3386 about £50. You are probably going to pay hundreds of pounds for an upgrade processor and sufficient DRAM to make it worthwhile along with a reasonably sized hard disk. So why hinder yourself by trying to make a silk purse out of a sow's ear? I'd say sell the PC in your local paper for a few quid and put that towards a completely new system - starting with a "blank sheet of paper".

As noted above, the peripheral systems of most of our earlier PCs only come in a weird and wonderful "Amstrad" flavour and will be of no use on a modern PC. You might be able to reuse a 3.5" floppy drive and if your lucky a new motherboard might still have 30 pin SIMM sockets that the old machine's memory can be reused in but apart from that it's all just so much "junk". You might not be able to stretch to a 333MHz Pentium but the older entry level

486SX-25s (for example) only cost a couple of hundred quid these days. If you go to a computer auction or look in the small ads you can pick up a 386SX based system for £50. Similarly you can get 386SX based laptops with a 20/40MB hard disk for the same money so why bother trying to do anything with an old PPC? (for example - to add a hard disk to it might cost several hundred pounds!).

I guess you get the general drift of what I'm saying. Apart from the component cost of trying to make a PC into something that it isn't think about the cost of your own time and energy. Personally I'd say that every hour I wasted on doing something like this would be worth about £50. So that pretty soon adds up too!

 Return to top



More details will appear here as I build these pages.



[Back to the Products page](#)



[Back to the Amstrad home page](#)