

Amstrad XTs: Hardware Compatibility 1

(Using Amstrad XT peripherals on other computers)

Monitors

PC1512

Although PC1512 monitors display a CGA image, they are not electrically compatible with other CGA monitors. For example, the PC1512 uses a composite sync signal, whereas a normal CGA has separate horizontal and vertical syncs. So a PC1512 monitor is not going to be much use on anything except a PC1512.

PC1640, PC20, PC200, PPC

The monitors from these computers are compatible with similar IBM standards:

MDA

PC-MD, S12-MM

CGA

PC-CD, S14-CM

EGA

PC-ECD

In each of these cases you will need a video card that supports the appropriate monitor type. Modern VGA cards are not suitable.

According to the PC1640 manual, PC1640 monitors don't work unless they are providing power to a PC1640 (or a PPC laptop). So you could get the monitor to work on another PC, but the PC1640 would have to come along for the ride.

PC2086, PC3086

The chipsets in these systems support VGA monitors. I wouldn't hold out much hope of getting more than 640x480 resolution from the two monitors I've seen (PC12MD and PC14CD); the Paradise chipset can coax 800x600 out of a PC14CD, but I suspect it uses custom video timings to do it.

PC5086

This is a fairly standard VGA monitor (model PC14CDR). As with the PC2086/3086, the PC's own graphics chipset can get 800x600 out of it by using custom timings, but other cards probably won't be able to take it beyond 640x480.

Floppy drives

The disc drives in the PC1512/1640 are of standard type and can be used in a PC. The main trick is when you are taking the A: drive from the XT; its jumpers will be set as Drive 0, but you will need to change them to Drive 1.



The 3.5" floppy drives in the PPC512, PPC640 and PC20/PC200/PC2086/PC3086 appear to have standard pinouts, so they could probably be transplanted to PCs in a similar manner. I have not tried this. The A: drive from these computers would likewise need to have its jumpers changed before use in a PC.

The 3.5" drive in a PC5086 has a nonstandard 26-pin connector which carries data and power. It cannot be used on a standard PC.

Hard drives

The hard drive from a PC1512, PC1640, PC20, PC200 or PC2086 ought to work (at least in DOS) on anything with a spare ISA slot. In some cases it may be necessary to free up an IRQ (usually IRQ5, which is often used by a sound card). Treat the hard drive and its controller as a matched pair (in the case of hardcards, you have no choice but to do this). It's extremely unlikely that the hard drive will plug into your PC without its original controller, let alone work.

The only hard drive I've seen for the PPC laptops is the Stratum Sprint. I'm not certain, but it *may* be a standard ATA drive; in which case, it should be possible to plug the drive into a modern PC, leaving the Sprint controller in the PPC. Alternatively, there may be a hard drive in a docking station, in which case the situation is pretty much the same as for the PC1512, PC1640 etc.

The PC3086 hard drive is an XT-IDE drive. It won't work on a modern PC.

The PC5086 hard drive is also an XT-IDE drive, but its jumpers can be changed to "AT" mode, allowing it to work on a modern PC. The capacity is tiny by today's standards; and you have to dismantle the PC almost completely to get the drive out.

Since, in all the above cases, the drive is likely to have a very low capacity (20Mb is about average, and I'd be very surprised if you could get one bigger than 512Mb) and be pretty slow, there's not much point in doing this unless you need to get at the data on it.

Keyboards, mice, joysticks, lightpens

For nearly all models of Amstrad XT, the keyboard and mouse are unique and cannot be used on anything else. The exception is the PC5086 keyboard; it has a switch on the back which can put it into XT mode (for the PC5086) or AT mode (for other PCs). Similarly the PC5086 mouse appears to be of standard PS/2 type.

While we're on the subject, the PC1512 and PC1640 keyboards are interchangeable. The PC2086 and PC3086 keyboards are electrically compatible, but the plug on the PC2086 keyboard isn't long enough to reach the PC3086 keyboard socket; you'd need to make an extension lead with a 7-pin DIN plug, a 7-pin DIN socket, and a short length of cable. With a custom adapter lead it is possible to use a PC1512/PC1640 keyboard with a PC2086/3086, and probably vice versa too.

The PC1512 / PC1640 joystick socket uses the Amstrad CPC pinout. Joysticks compatible with this pinout can be used on 8-bit micros (except the Spectrum +2/+3, where Amstrad deliberately [rearranged the pins](#)) and, with a suitable adaptor, [on the PC under Linux](#).

PC20 / PC200 joysticks are analogue and ought to work with the gameport sockets found on 1990s and 2000s PCs.

If you have a lightpen which works on an Amstrad XT, it'll probably work on a suitable CGA or EGA card (such as the Paradise EGA). It might even work on more modern systems if you can find one with a lightpen socket.