

## INDEX

- 170 No output
- 170 Testing times
- 170 Faint or garbled output
- 171 Winning by default
- 172 Selective printing
- 172 Network not working
- 172 A word on drivers
- 172 Top 10 printer tips

## Printer troubleshooting tips

Like it or not, we're all dependent on the wiles of the office printer in order to output reports, letters and other important documents. Kyle MacRae's troubleshooting tips show you how to diagnose common printing problems and remedy them, so you can start churning out pages again as quickly as possible

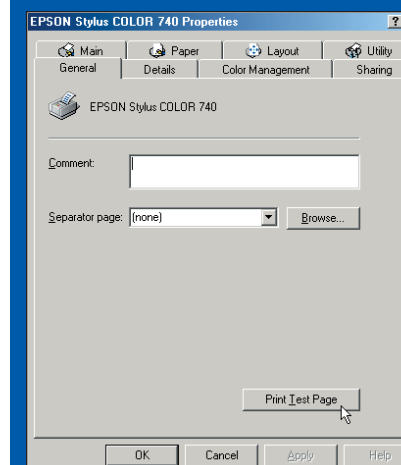
The dream of the paperless office has never really materialised. While we scan paper documents and save them to disk, fill in forms electronically and read e-books on screen, there's simply no substitute for paper. We back up our files, but it just doesn't feel as secure as a sheet of A4 in a briefcase. Digital photography is wonderful, but try passing a monitor around the room when you want to share your snaps. Customers and clients demand hard copies of documents, trees still die to feed photocopiers, Post-It notes decorate our computers and critical letters are still sent in the post rather than by email.

And then there's usability. These words were composed using a word processor and PC because it's easier this way – but were edited with paper and pen because that's easier. The paperless office or home is (to paraphrase Steve Jobs, CEO of Apple) about as practical in the real world as a paperless bathroom. The printer is as central to our computing lives as the PC. Whether it's a domestic or business model, inkjet or laser, nothing matters more than keeping your printer running smoothly. And because it always throw a wobbly just when you need it most, we've compiled out top troubleshooting tips.

## Testing times

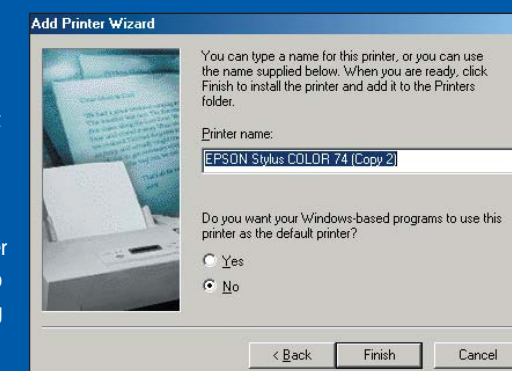
You try to print a document, but nothing emerges. What to do? You could try printing a test page, as shown below: if a perfect page pops out, there's probably a communication problem between your application(s) and the printer rather than

a hardware fault. Try printing from two or three separate programs. If you find you can print a picture with Paint Shop Pro, but not a letter from Word, a simple system reboot will often clear the trouble. If not, here are some other possibilities.

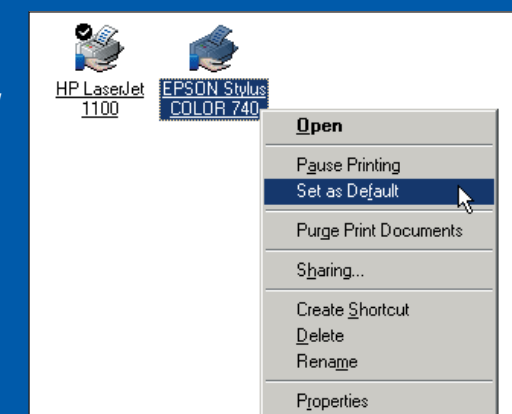


1 Click Start, Settings and Printers to open the Printers folder. Right-click your printer's icon, select Properties and look in the General tab for a Print Test Page option

3 Can't make head nor tail of the messages, or indeed if the test page fails to materialise? Time to reinstall the printer from scratch. Dig out your original installation floppy disk or CD-ROM. Open the Printers folder and click Add Printer. Follow the wizard's instructions and either select your printer model from the list or click Have Disk. Do not accept any option to use the existing driver. When prompted to confirm the printer's name, use '[Copy 2]' as we have here or call it something memorable. You'll now see a new icon in the Printers folder. Open any application, select this new printer from the Print menu and try your luck



2 For further assistance, or if the test page warns of trouble, have a look at the tips and troubleshooting section on the printer manufacturer's website for help with error codes



4 If this solves the problem, remove the original printer. Right-click its icon in the Printers folder and select Delete. Make the newer version your default printer by simply right-clicking it in the Printers folder and selecting Set as Default

### No output

It's almost too obvious to mention, but always check the basics before jumping to conclusions and chucking your printer on the skip. Let's assume it's a complete non-starter – nothing emerges when you try to print a document. Here are the most likely causes and solutions:

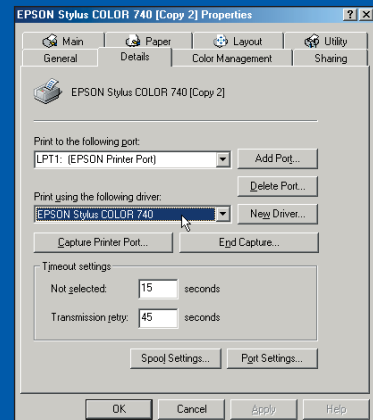
- **Check the power cable** Bearing in mind the caller to a technical support hotline who said that it was too dark to check whether or not her lifeless PC was plugged in on account of the power cut, is the power cable connected at both ends and not dangling idly behind your desk? Is the

- printer itself switched on? Try a spare cable that you know to be working.
- **Check the fuse** If you use a surge protector, check that the fuse hasn't blown. Make sure that the wall socket is okay by testing it with a different device. In short, run through a logical process of elimination to make certain that the printer's well and truly a dead 'un before seeking professional help.
- **Reboot the printer** If you are sure that power is definitely reaching the device, turn it off, wait a few seconds and then turn it back on again. This clears the printer's memory buffer and can often kickstart a stalled device back into action.

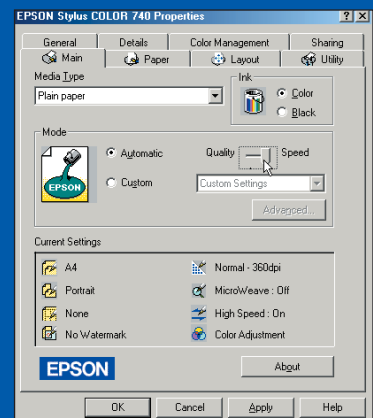
- **Lights, action** Most printers have an array of lights that indicate status and point to internal problems, so check the manual for clues. A blinking light is often a sign of trouble (rising smoke is another).
- **Faint or garbled output** When your printer is functional but only just – it spits out ink- or toner-covered pages but they're faint or garbled – it pays once again to start with the basics.
- **Cable trouble** Printer cables occasionally go bad and this can lead to dodgy output. Swap the cable for one you know works, or test the suspect cable with another printer

## Winning by default

In the Printers folder, right-click your printer's icon and select Properties to access many of the settings that determine how your printer performs. Here are five to pay particular attention to:

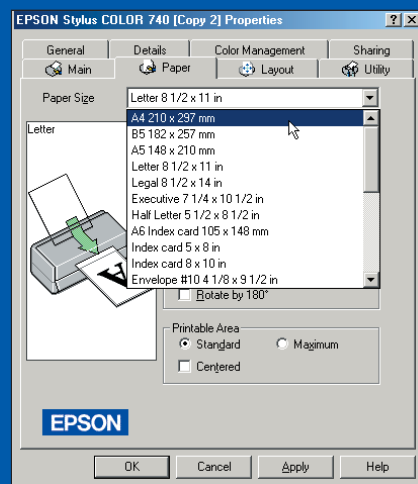


→ Paper size: set the default paper size and orientation here. If you routinely print A4 and the current setting is Letter, a quick change can sort out misalignment and margin problems



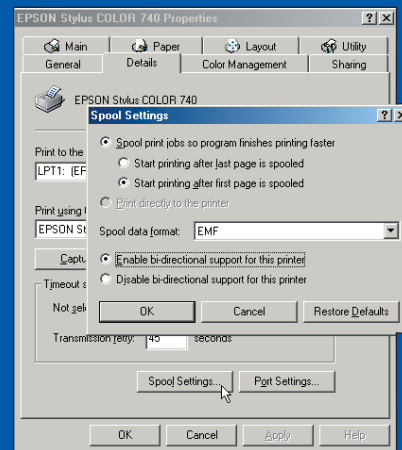
← Driver: ensure your printer is configured to use the best driver. When you install a new printer, it's all too easy to end up with the wrong driver, particularly if you rely on Windows' own database because you don't have an installation disk.

Now is the time to check that the driver and device match. If not, click New Driver and carefully select your printer from the list



← Print mode: there's a trade-off between speed and quality, so why waste time and money when you don't really need to? Draft quality is usually fine for everyday work; switch to top quality when the job demands it

→ Utilities: inkjet printers typically come with a range of self-diagnostic and repair tools. If your prints are subject to patchiness or random splodges, or just aren't quite as crisp and well-defined as you'd hope, run through the full gamut here



↑ Spool settings: if you 'spool' your print jobs, documents are first saved to the hard disk and then pulled off by the printer when it's ready. The advantage is that you can carry on using an application, or even close it, before the printer has finished. You can also queue a number of jobs without overloading the printer's memory



to see if the problem is replicated. Remember, too, that a parallel cable longer than two or three metres is inefficient and may generate data loss.

Check the cable connections at both ends, paying particular attention to the male plug. If a pin is bent, carefully straighten it with fine pliers or super-stong fingernails. If it snaps off (as it most likely will) treat yourself to a new cable.

• **The right cable** Make sure you buy the right cable for your printer. USB connections are

straightforward, but modern parallel port printers usually require a swanky bidirectional IEEE 1284-compliant cable. Check the manual for specification details – and then curse the manufacturer for not including a suitable cable in the box.

• **Check the toner** If your pages come out peaky, you could be running out of toner or ink. Most inkjets give you warning when ink is low through an onscreen monitor. Although such gauges are seldom 100 percent accurate, it's better than plucking

out a cartridge and holding it up to the light. For one thing, you won't be able to see how close to empty it is; for another, you may be unable to accurately reseal the cartridge in its cradle.

• **Shake, shake, shake** With laser printers, the telltale sign of low toner is a fading or banding effect. Remove the cartridge, shake it gently from side to side and replace. The first couple of times you do this, the redistributive effect is sufficient to restore full print quality for a while.

### Selective printing

Does your laser printer usually work fine but occasionally balk at a particular project? This could be because it doesn't have sufficient memory. Laser printers are 'page printers', which means that they have to store each page in memory before transferring it to paper. This isn't a problem when you're printing text or small graphics, but a printer with only 2MB of RAM will stumble when asked to print a 4MB high-resolution image.

• **Extra RAM** The solution is to add more memory. This should be easy and cheap to do – check the manual for available expansion slots and RAM specs.

• **Reduce image size** Alternatively, try reducing the image dimensions or resolution, or use a compressed graphics format like Jpeg.

### Network not working?

As soon as you start networking computers together and asking users to share a printer, you end up with a bottleneck. Too many people sending too many documents to an overloaded machine all at the same time – what you need is a managed queuing system.

• **Invest in a network printer** An ethernet-equipped network printer connects to a network directly, either through a hub or a file server. This is a much better option than routing print jobs through an individual workstation with a parallel printer attached. Most network printers also control queuing jobs on a first come, first served basis. However, they only have so much onboard RAM and can become bogged down when overworked.

• **Invest in a print server** In a busy work environment, you should invest in a print server. This is a dedicated ethernet device that sits between the printer and the network, managing print demands independently of individual workstations, the file server or the printer itself.

• **Remember your manners** Then again, in smaller networks with lighter workloads, simple courtesy works wonders and also cuts down on hardware costs: 'Anyone mind if I print this 300-page dissertation before lunch?'

• **Opt for a different printer** A network may include several printers and there might be times when it's better sending a draft

## Top 10 printer tips

1. Read the manual **You don't want to leave fingerprints on a laser's drum or snap off an inkjet's cartridge cradles for the want of a minute's reading on how it all fits together.**
2. Tread carefully **Customising and refilling cartridges with cheap ink can save money, but it usually invalidates your warranty.**
3. Seeing clearly **Do printed web pages differ from those on screen? Try copying and pasting text to a word processor first to avoid printing unnecessary graphics.**
4. Jamming **Paper jams are a pain but easily avoided. Use only recommended weights and qualities of paper, don't overload the input tray and only attempt to print envelopes and labels if your printer is designed to take them.**
5. Duty bound **Don't exceed a printer's duty cycle (the maximum number of pages it's designed to print in a given period). Expect a foreshortened lifespan if you do.**
6. Respect your printer **Remember that today's generation of printers have processors, memory and fancy electronics onboard, so treat them with just as much care and respect as you do your computer.**
7. Networking **If you're thinking about setting up a network, invest in a heavy-duty printer with stacks of RAM and a fast ethernet interface.**
8. Draft mode **Print in draft or economy mode whenever possible and save the high-quality mode for when you really need it. Not only does this save on consumables, it also speeds up printing considerably.**
9. Software research **Because so much software has been written for the best known printers, many minor brands take advantage of this by building devices that 'emulate' the behaviour of the big boys. This means that your ObscuroPrint inkjet may require, say, a particular HP driver to work properly. As always, consult the manual and refer to the manufacturer's website.**
10. Switching modes **If you regularly switch between high-resolution colour printing and draft-quality greyscale, or between A4, envelopes and labels, there's a quick way to sidestep having to tweak the print settings each time. Simply install multiple copies of the device in the Printers folder using the Add Printer Wizard, configure the print and page settings in each copy to suit a particular project and name each copy accordingly. Now just pick the appropriate printer for the job in hand from within your applications.**

copy of a document to a clunky but idle inkjet instead of waiting for a stressed-out laser to find a spare moment. Instead of instinctively clicking the Print button in your applications to send jobs to your default device, use the File, Print menu and select an alternative from the list.

Also, if you never use a particular printer, or if it's no longer part of the network, simply delete it from your Printers folder (see *Testing times* on page 170) to remove it as an option.

### A word on drivers

Bugs are regularly eliminated and performance enhancements introduced, so it pays to periodically check your printer manufacturer's website for driver updates and upgrades. Remember, without a driver, your printer won't work at all; and without the most recent driver you may not be

getting the best performance. While an old Windows 95 installation disk may just get an ageing printer working with Windows Me or XP, chances are that there's a newer version more suited to the task.

For instance, when we visited Epson's UK site and looked at the download section, we found a driver for our old Stylus 740 that was specifically written for Windows 2000. We duly downloaded it, ran the Setup program and soon had the printer working perfectly under Windows 2000 for the first time. Simple as that. Windows XP drivers should be available online now. ■



See [www.pcadvisor.co.uk/about/printplus.cfm](http://www.pcadvisor.co.uk/about/printplus.cfm) for quick links to driver downloads and FAQs on manufacturers' websites