

All-in-one printers

NEED TO KNOW

An all-in-one, or multifunction, printer is a printer, scanner and copier in one. All-in-ones are easy to connect up and install, and the functions are integrated in a way you're unlikely to get with separate components – so you can easily 'photocopy' from the scanner to the printer, for example. All this can cost under £100. An all-in-one is definitely worth considering if you need a new printer and have occasional need of a scanner, copier or fax.

FEATURES

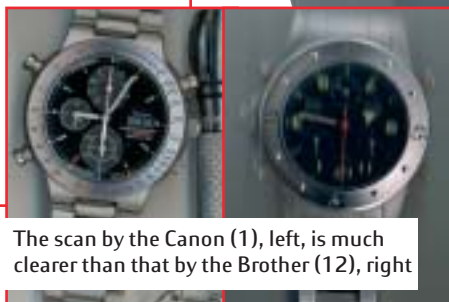
All-in-ones can print letters, documents or photos in colour or black and white, often to a high standard (although none was quite as good as the best models in our last printers test). With the built-in scanner, you can capture photos and documents and save the images to your computer's hard disk. All except the Epsoms come with optical character recognition (OCR) software, which allows text to be scanned in and saved as a file that can be worked on in a word processor. You can also photocopy letters and bits of magazines, for example, without turning on your computer. Some models can send and receive faxes, too.

The downside of all-in-ones is that they can be quite bulky, and you'll have a problem if you outgrow the capabilities of one part of it – perhaps because you need a better scanner or a faster printer.

SCANNER

All-in-ones generally have a flatbed scanner (the most common type, with a flat glass bed and a lid that closes over it). However, not many have an automatic document feeder, like this Canon (1), which allows several pages to be scanned (or faxed) consecutively. It's the scanner that allows the all-in-ones to operate as copiers, too, but if you're used to standard photocopier speeds, you might be disappointed. It takes 20 to 40 seconds to copy an A4 letter – but at least that's better than the three minutes it can take to copy a magazine page in colour.

With some scanners, items scan clearly only when pressed hard up against the surface of the glass bed – tricky when copying a book, say. Others, including our Best Buys, have better depth of field.



The scan by the Canon (1), left, is much clearer than that by the Brother (12), right

BEST BUY

1 Canon
PRINTER/
SCANNER/COPIER

BEST BUYS

PRINTER/SCANNER/COPIER

The Best Buys have been chosen on the basis that they're the best all-rounders – they make a good job of pretty much all the tasks you're likely to ask of them.

Our Best Buy printer/scanner/copier is the **Canon (1)**. It's a bit pricey at £219 from Jessops, but it stands head and shoulders above other machines in many tests. It's a well-built machine and it should make any home office look businesslike. It's one of the few in the test that had an automatic document feeder, which means it will feed 30 or so A4 sheets in automatically when scanning, instead of you laboriously placing them

under the scanner lid one at a time.

It produces good photos, and conveniently, too, through a simple cable hook-up with a compatible digital camera via its PictBridge socket. You can also print to it from photo software on a connected computer. Ratings for speed and quality are up there with the best – but what clinches the recommendation is that, as with all Canon's printers, ink costs aren't too high, either.

The one downside to this model, and the other Canon on test, is its high power consumption when turned off (see 'Power use', above opposite), which is hard to understand, given the printer is so advanced in other respects.

All-in-one printers

PRINTER/SCANNER/COPIER

- 1 Canon PIXMA MP 750
- 2 Epson CX6600
- 3 HP PSC 2355
- 4 Epson Stylus CX3600
- 5 Lexmark P6250
- 6 HP PSC 1315
- 7 HP PSC 1215
- 8 Dell 922

PRINTER/SCANNER/COPIER/FAX

- 9 HP Photosmart 2610
- 10 Canon PIXMA MP 780
- 11 Lexmark X7170
- 12 Brother MFC210C

POWER USE

Disappointingly, both the Canons (1) and (10) and the HP (9) use more power when switched off than others use when switched on and idle. At under £8 a year, it won't break the bank, but it's a needless waste of energy. Get around the problem by turning it off at the wall socket.



TABLE NOTES

We tested best-selling inkjet models for the home market from leading manufacturers. Canon was revising its range as our tests started so we couldn't include its smaller machines.

All these models work with PCs (with Windows 98, Me, 2000 and XP) and Macs (all with OSX, and all except the Canons with OS9x). The exception is the Dell, which works with PCs running 2000/XP only, but also came with a Linux driver. All connect via a USB cable, and none could be used with a PC's parallel interface. Some came with out-of-date software drivers. Check on the maker's website that you have the most recent. We updated where possible, but a few still had software bugs.

All were easy to set up and use – we'd rate them all ☆. Where there was a fax function, all were good.

Features

Direct photos cable/card

Whether you can print photos by plugging your digital camera cable directly into the machine, or by inserting a memory card into the printer's reader sockets.

Performance

Printing overall Speed and quality of plain text, desktop publishing, business graphics and photos.

Print speed (letters) Speed of printing a letter. **Print quality (photos)** Quality of printing an A4 photo.

Scan Quality and speed of scanning, the ability to scan different-sized items and how effective the supplied OCR software was at 'reading' a range of documents. **Copy** Speed and quality of day-to-day copying of text and images, with and without a computer attached. We also tested copying photos.

Print costs

These take into account the cost of cartridges, how efficiently the printer uses the ink, and how long the ink lasts.

In use

Versatility This is a measure of the model's functionality. The higher the rating, the more it can do. **Power** A measure of energy efficiency. We downrated models that used more than a trickle of electricity when turned off.

SCORE

This ignores price and is based on:

Performance	65%
Ease of use	20%
Versatility	10%
Noise/power use	5%

KEY

★	☆	○	◐	●
Best				Worst
■	Best Buy			

Specification		Features		Performance					Print costs			In use		Score
Price (£)	hwxwd (cm)	Direct photos cable	Direct photos card	Printing overall	Print speed (letters)	Print quality (photos)	Scan	Copy	Text (p)	Graphics (p)	Photo (£)	Versatility	Power	(%)
219	30x48x52	✓		☆	☆	☆	☆	☆	2	7	0.65	★	●	66
130	32x45x57		✓	○	☆	☆	○	○	3	16	1.40	○	☆	56
150	17x44x51	✓	✓	○	☆	○	○	○	5	16	1.04	○	◐	56
85	32x43x54			○	◐	☆	○	○	7	15	1.56	◐	★	54
150	31x43x56	✓	✓	○	☆	◐	○	○	8	27	2.47	☆	◐	53
100	17x42x35	✓		○	☆	○	○	○	10	19	1.69	○	◐	53
70	17x42x35			○	☆	☆	○	○	8	20	1.52	◐	○	53
69	31x44x51			○	★	◐	○	○	5	14	1.25	○	◐	47
230	26x47x48	✓	✓	☆	☆	○	☆	☆	4	23	1.68	☆	●	67
259	30x48x52	✓		☆	☆	☆	☆	☆	2	7	0.60	★	●	66
194	29x38x49	✓		○	★	◐	☆	○	3	12	1.00	☆	◐	56
130	14x37x44		✓	◐	○	○	○	○	5	16	1.49	○	★	48

ALL-IN-ONE PRINTERS

**BEST
ON
TEST**

9 HP
PRINTER/SCANNER/
COPIER/FAX

DIRECT PRINTING

Many all-in-ones offer direct photo printing. You send images directly to the printer – not via your computer – by plugging your camera's USB cable into the 'PictBridge' socket (pictured below), as on this HP (9), or by inserting a memory card into the printer's reader sockets. With your camera connected, its LCD screen doubles as a monitor for the print process. With memory cards, the printer needs a screen, as on this HP, or it prints a proof sheet of all images, which you mark up and put in the scanner to tell it which ones to print.



BEST BUYS

PRINTER/SCANNER/ COPIER/FAX

If you need a fax, you'll usually have to pay a little more. (Remember that Windows XP has a fax function built in that may be enough for occasional users, although you'll have to leave your PC on or on standby to receive faxes.) We have two Best Buys in this category.

The versatile **HP (9)**, £230 from Jessops, PC World, Comet, Currys and John Lewis, has no fewer than 27 buttons on its control panel. It can print photos direct from a media card or camera (it even has a small colour screen, so you can preview results), or you can use its proof sheet, which gives a thumbnail image of each picture. It faxes, in colour if need be, and does all the usual scanning, copying and printing with generally good ratings, although the photo prints aren't the absolute best.

It can be linked to several computers as part of a network, which is great for printing but awkward if you're located away from the machine and need to scan or change to photo paper, for example.

The £259 **Canon (10)**, from Jessops, is also a good machine, with all the strengths (and weaknesses) of its MP 750 cousin. It leads on number of buttons on the control panel, with 43. Choose this if you value photo quality and low ink costs over network ability.

**BEST
BUY**

10 Canon
PRINTER/SCANNER/
COPIER/FAX

PRINT COSTS

It's worth checking the price of cartridges before buying any printer, as replacements can be a significant cost. However, it can be hard to compare models. You can print more pages with some printers because their cartridges contain more ink, or the printer uses it more efficiently. But some manufacturers' driver software prevents you from printing

when it decides the ink's getting low. Our figures show the true ink costs, taking all of this into account (they don't include the cost of paper).

Annoyingly, the Dell, all the HPs, and both the Lexmarks use a colour cartridge containing three colours. Although this is cheaper than three separate cartridges, the whole unit has to be binned when just one colour is used up.

WHICH? EXTRA

Our website has information on 36 printers, including reliability and running costs: www.which.co.uk/printers