



# Fifty 110 cameras

**You can pay under £10 or more than £100 for one of these easy-to-load cameras. In this report on 50 models we tell you what sort of pictures they take, how versatile they are, and how easy to use.**

Since it was introduced by Kodak eight years ago, the 110 camera has gradually become the most popular type of camera for the ordinary snapshotter. It is simple to load with a film cartridge – it usually adjusts automatically to suit the type of film – and most cameras do not require focusing.

More expensive cameras have lenses with larger apertures – which let in more light and so can take pictures in duller conditions – and these need to be focused. Most of them also have automatic exposure control that adjusts the camera for the amount of light.

The first 110 cameras used Magicubes for taking flash pictures but these gradually were replaced by the Flipflash (or Topflash) system where an array of eight or ten flash bulbs can be attached to the camera. The recent trend is towards built-in electronic flash which is easier to use and much less expensive in the long run than cubes or Flipflash. Separate electronic flash is available for most cameras not having built-in flash, usually designed to go with particular cameras.

Many 110 cameras now have a built-in 'tele' lens which you slide into position to make your subject appear closer, and some have zoom lenses that can be set at any position between normal and tele.

We have tested cameras of all these types, including two 110 single lens reflex (SLR) cameras – one with interchangeable lenses and one with a

## A World Test

The International Organization of Consumers Unions (IOCU) chose 110 cameras as a 'World Test' because in most countries of the world you buy the same cameras; they are not affected by the voltage or safety regulations that complicate the distribution of electrical goods.

The costs of this project are being shared by consumer organisations in Australia, Austria, Belgium, Canada, Denmark, France, W Germany, Hong Kong, Israel, Netherlands, Norway, Sweden, Switzerland, UK and USA. The results will be made available to smaller consumer organisations at no charge. Testing was carried out at the *Which?* laboratory.

wide-range zoom lens. We have also tested three cameras with a built-in motor to wind on the film, and one camera designed for use underwater.

## Our tests

In the laboratory we measured how sharp a picture each camera could take, whether it would set the correct exposure with and without flash, and whether you would get in your picture what you saw in the viewfinder. We also gave the cameras to people to use at home; they told us how easy they found them to use and we saw how successful they were at taking pictures with them. Finally we tried to find out how well the cameras would stand up to use and misuse.

Overleaf we tell you more about these tests; the results are summarised in the Table on pages 606 and 607.

## Prices and availability

Our target prices are based on a survey of shops carried out in August this year. You may find 'special offers' in your local shops or in advertisements in photographic and other magazines; compare them with our prices to see how 'special' they really are. The prices of electronic flash guns are for those recommended for the camera.

We found Agfa and Kodak cameras by far the most widely available, but the Boots, ITT, Minoltas, Pentax, Prinz (from Dixons and Wallace Heaton) and Vivitar Tele 835 AW were quite easy to find.

## BUYING GUIDE

The cheapest cameras that produced acceptable results cost around £20; for £30 you could buy a camera that performed well. Electronic flash is worth the extra if you plan to take a lot of shots indoors; users found built-in electronic flash convenient.

But if you want to be able to take pictures in a variety of conditions, you will probably need to pay £50 or more and be prepared to focus the camera. At this price, a 35mm camera will almost certainly give better results and is unlikely to be much more fiddly to use (apart from loading and rewinding the film).

Tele or zoom lenses can be useful, but on many of the cameras we tested they would not produce such good pictures as a normal lens.

For verdicts, see page 608.

## 110 cameras – the details

### Size

The 110 was originally called a 'pocket' camera and most of ours could conveniently be carried in a side jacket pocket or a handbag. Those with built-in flash were usually bigger than those without flash but not so bulky as most of the cameras with a separate electronic flash attached. The symbols in our Table give you an idea of the relative size of the cameras. The Minolta SLR was by far the biggest of the cameras tested; the Rollei and Voigtlander models, without flash, were exceptionally small, though the Rollei was quite heavy for its size.

### Focusing

The figures in the Table for **focal length** indicate how much you would get into your picture from a given point – the lower the number, the more is included. Cameras in the Table with two focal lengths – like 25/43 – have a longer-focus 'tele' lens that can be moved into position by a slider. Zoom lenses – 27-42 for example – can be set to any focal length between the figures shown. We bought separate wide-angle and telephoto lenses for the Pentax Auto 110; other lenses, including a zoom, are being introduced.

The shorter the focal length and the smaller the lens opening (higher aperture number), the greater the range a camera can show in sharp focus at once. The simpler 110 cameras have fixed-focus lenses, because everything beyond 1 to 1.5m from the camera should be in sharp focus. We checked to see how well the cameras focused on close and distant objects: the tele lenses of Boots Tele 110, Halina Telemaster and Prinz Lightmatic 400 were not in sharp focus for distant objects, and neither was the Fujica 330 Zoom at its maximum zoom setting.

Some cameras could be focused by moving a slider or turning the lens or a knob. Some had focusing distances marked as zones (symbols such as a figure or mountains), some had distance scales and some had rangefinders.

### Exposure

For a camera to take a good picture, the right amount of light has to reach the film – the correct exposure.

The cameras we tested used various methods for adjusting exposure:

- **slider or dial** – moving a control, usually marked with weather symbols (cloud or sun, for example), altered the aperture (the size of the lens opening through which the light passes) or shutter speed (the length of time for which the shutter is open), or both at once
- **automatic** – a built-in exposure meter adjusted the shutter speed, and sometimes the aperture as well, depending on the amount of light on the subject. On the Minolta SLR and Minox you had to set the aperture with a dial first. Cameras with automatic exposure controls had a signal in the viewfinder to warn when there was not enough light to take a picture holding the camera in your hand without flash. A few other cameras had similar warnings to tell you when there wasn't enough light, and with the Agfomatic 901E you set the exposure by

moving a slider to a point where two arrows were lit (a semi-automatic system)

- **flash** – attaching a Flipflash or separate electronic flash gun, or switching on the built-in flash gave a larger aperture or slower shutter speed. In fact, though the aperture is still important, it is the duration of the flash rather than the shutter speed that is relevant; and the amount of light on the subject depends on its distance from the camera and on the brightness of the flash

- **film type** – there are two main types of film available for 110 cameras: those rated 80 or 100 ASA, and those rated 400 ASA, which need only one-quarter of the amount of light. In a 110 camera designed for both types of film, a flange on one end of the 80 or 100 ASA film cartridge pushes down a small protrusion in the camera. A 400 ASA film has part of the flange cut away so that the protrusion is not pushed down. Most cameras used this in combination with the other methods to control exposure.

Many cameras used the film type adjustment to insert a filter, to cut down the light entering the camera when a 400 ASA film was used. This system negates the advantages of a 400 ASA film – a film with a higher speed rating should allow you to take pictures in duller conditions or at smaller apertures (giving greater depth of field), or at faster shutter speeds (giving less chance of the camera shaking or letting you take moving subjects). Most of these cameras did not impose the filter for flash pictures, so the 400 ASA film would extend the flash range. However, on the Lightmaster 1000 the filter was left in for flash too. So the extra cost of a 400 ASA film is completely wasted. On the Keystone XR408 or Vivitar Tele 835AW you could move the filter by hand – useful for very bright conditions or close-up flash pictures.

### Exposure range

We measured the maximum aperture and the shutter speeds for each camera. The rating in the Table is based on how the camera can cope in gloomy weather or low light levels (without using flash) – **the majority of these cameras were not capable of taking a correctly exposed picture outdoors on a cloudy day using the normal 100 ASA film.**

We did note that makers' specifications for maximum aperture and for fast shutter speeds were often optimistic.

### Exposure accuracy

Looking at the films taken by our user panels, the most noticeable feature was the large number of pictures that were under-exposed – the prints were dull and indistinct and the negatives were light. Some cameras made it clear from their weather symbols and in their instructions that you should not use a 100 ASA film in cloudy conditions, but other cameras gave no such warning.

Our rating for exposure accuracy takes into account our measurements, what was marked on the cameras and what was said in the instructions. For automatic cameras, we checked the accuracy of their settings, and on these and other cameras with low light warnings, we checked to see if the warning came on at the correct light level – that of the Kodak 600, Minolta 460TX and Weathermatic did not come on until the light got much too dim. In our ratings, we

bear in mind that print films can tolerate quite a lot of *over-exposure* before you notice any significant deterioration of the picture. With slide films, however, exposure needs to be more exact; our measurements showed that you would be particularly likely to get over-exposed slides with the Agfomatic 901E Motor, Vivitar 742XL and Voigtlander 110EL.

Because most simple cameras tend to under-expose, you would usually be better off using 400 ASA film even in those non-automatic cameras which didn't have any internal adjustment for this film – the Agfa 508, 2008, 2008 Tele and Colour King 200, Regula 218LE (if you ignored the low-light warning) and Voigtlander 110. However, with a 400 ASA film, the automatic Agfa Colour King 400 would, in dull weather, set shutter speeds too slow for hand-holding. 400 ASA films are grainier than 100 ASA and this is more noticeable on 110 prints than on 35mm or 126 ones which do not have to be enlarged so much.

### Sharpness

This was measured by taking photographs of test patterns and analysing the results with the help of a microscope linked to a computer. As the Table shows, results varied widely. Most of the tele lenses were less sharp than the standard lens on the same camera.

### User pictures

For our user assessments, we divided the cameras into two groups. The focusing cameras – at the bottom of the Table – were given to people who had a particular interest in photography and so had experience in adjusting camera controls. The rest of the cameras were given to people with less experience – they owned a simple camera so were not complete beginners. Each camera was used at home by 10 different people for a week each, using a 100 ASA film in each camera.

We had the films processed and gave each picture a score, based mainly on exposures and sharpness. We did not count against the camera faults that were obviously due to the user, and we kept a separate tally of fingers in front of the lens.

The ratings give an indication of how successful an ordinary person is likely to be in using the camera, but you should bear in mind that the test was not strictly controlled – people took what they wanted – and each person was using each camera for the first time.

Based mainly on the faults we saw in the user pictures, we have made up a list of do's and don'ts that we hope will help you to be more successful than many of our panel members – see opposite.

The Minolta Weathermatic became available too late for this part of our tests; a *Holiday Which?* inspector tried out one sample snorkelling off the Florida Keys. It worked well, but underwater photography requires practice: you need to get close to your subject as visibility is seldom very good, and you must hold the camera steady. Getting the fish to pose is not easy either.

### Viewfinder accuracy



It is obviously important that what you see in the viewfinder is the same as you get in your picture. Unfortunately, things are complicated by the fact that printing



machines mask off part of the image that is on the negative. We have marked down severely cameras where you get much less than you see – making chopped off heads and feet likely – but always getting much more than you want can also be annoying.

### Flash

The Table shows the **types of flash** each camera could use. As we have mentioned, flash cubes and Flipflash work out very expensive in use – up to 16p or 20p a flash whereas the batteries for electronic flash usually work out at less than ½p a flash (unless you leave the flash turned on for long periods).

**Flash uniformity** This is a rating that shows how evenly the flash lit up the whole area of the picture. Those rated poorly tended to give you a bright spot in the centre and dark corners – this was very noticeable in some of the pictures taken by our users.

**Flash range** These ratings are calculated from the brightness of the flash and the aperture of the lens. Cameras rated  would give correct exposure with electronic flash up to a distance of only 1.3m (about 4½ft) with 100 ASA film; those rated  up to 2m. Using 400 ASA film will normally double the range.

If your camera has a Flipflash socket, you can buy a separate electronic flash that clips into the socket. We bought and tested the **Sunagor GK-5** (£8.50). We found, however, that when used with a simple camera, the range would be less than 1m with 100 ASA film or only 1.7m with 400 ASA. It would rate  for uniformity and  for range.

On the other hand, using a Flipflash in the socket, you can get an extended range by following the instructions that came with the flash for firing two or three flashes simultaneously. This would cost up to 50p a time, so you would want to use it on special occasions only – a wedding group perhaps.

Red spots in the eyes of people in flash pictures – ‘red eye’ – are caused by the light from the flash being reflected off the back of the subject’s eyes: see ‘Do’s and Don’ts’.

### Overall ratings

**Picture quality** This is a rating that takes into account exposure accuracy and sharpness and, to a lesser extent, lens defects, vignetting (the tendency of a lens to give much less light to the edges than to the centre), flash uniformity, and the results of our user pictures.

**Versatility** This rating shows how well the cameras could cope with different sorts of conditions – low light levels, and subjects close to and far away from the camera, with and without flash, and with 100 and 400 ASA film. We have taken into account tele and zoom lenses and the fact that some cameras adjust their exposure to allow you to take close-up flash pictures without over-exposing. The Minolta SLR and Pentax with its extra lenses were the most versatile cameras.

**Convenience** Our rating includes:

- size and weight – the smaller the easier to carry
- setting exposure – the fewer controls the easier
- changing batteries – how many?; can you do it without spoiling the film?; any problems?
- winding the film – how many thumb strokes or other actions were needed after (or before) each picture?
- viewfinder – could you see all you want without taking your eye away?; was it sufficiently bright?; how easy was it to use with spectacles on?
- using flash – having it built-in is much the easiest; a short recycling time between flashes is convenient
- lens protection and shutter lock – for example, a telescopic action that covers the lens and prevents the shutter release being pressed accidentally is very convenient; a manual cover is also useful
- finger prints – on some cameras it is all too easy to smear the lens or cover glass and mar your pictures
- instructions – were they complete and clear (not a muddle of languages)
- other things – users kept putting their fingers in the picture with the tiny Voigtlanders (you would learn after a few films); some cameras were thought by users to be better balanced or easier to hold steady than others; separate lenses (Pentax) are less convenient than a zoom; special features such as a date indicator (Canon) can be useful; the flash of the Kodak 600 switched on automatically when the light level was very low.

We did not give much credit in this rating for a **motor winder**: our users’ views on this feature were mixed.

Similarly, **handles** – a feature of Kodak cameras in particular – were not universally liked. They were useful as covers and for steadying the camera but some users found them awkward for vertical shots.

**Construction** This rating includes:

- frame spacing Some cameras did not always position the image exactly in the centre of the frame that is marked on the 110 film
- light tightness We hung the cameras, with the lens uncovered and ready for use, in the sun for four hours with 400 ASA films in them. A few cameras let in enough light to spoil a picture
- other faults In our tests at high and low temperatures, the only problem was with the Minolta SLR – it gave incorrect exposure at -10°C
- endurance We ‘exposed’ 100 20-exposure films with each camera to test the durability of shutter and winding mechanisms. We also took note of faults when the cameras were received and breakdowns occurring during our other laboratory tests and the user trial
- impact resistance We hit the cameras with a spring-loaded hammer to simulate what might happen if they were dropped. Some cameras were unharmed, others were made unworkable
- carrying case We checked the protection it afforded. The Minox case was particularly well-made.

## DO’S and DON’TS for successful 110 colour prints

DO be pessimistic when setting to weather symbols – if in doubt, set to cloudy

DO set simple cameras for flash for outdoor pictures in dull weather – it will give you maximum aperture and so help exposure even beyond the flash range

DO steady the camera by resting it against your nose

DO squeeze the shutter release slowly

DO, when taking flash pictures, try to arrange your scene so that all important subjects are the same distance from you

DO allow for the printer to cut off the edges of your picture – take a test film. Remember that what you lose at the sides of a horizontal picture will be the top and bottom of a vertical one

DO be choosy about your processor and ask for free reprints if your negatives are good but the prints are poor

DO wait for the sun to come out if you can

DO check that the ready light has come on and then wait a few seconds before taking a flash picture

DO try to avoid red-eye by turning on as many room lights as possible before taking a flash picture (this makes the pupils of your subject’s eyes contract)

DO take close-ups of people and things – your pictures will be more interesting

DO continue with a film even if the back of the camera opens accidentally: you’ll lose only a few pictures

DO carry spare batteries

DON’T take pictures in dull weather with a simple camera and 100 ASA film

DON’T try to light up things beyond the range of your flash

DON’T take flash pictures opposite a reflective surface such as a window or the glass over a painting – stand at an angle

DON’T take flash pictures too close to your subject, particularly with a simple camera and 400 ASA film (unless you put a handkerchief over the flash)

DON’T take pictures of subjects partly in the sun and partly in the shade – you cannot give correct exposure to both parts

DON’T take pictures looking towards the light (unless you are able to correct your exposures or want a silhouette effect)

DON’T take subjects closer than about one metre unless your camera can be focused

DON’T let sand or salt water spray get on the camera

DON’T always take people straight-on; try different angles for more interesting results

DON’T have subjects looking directly at cameras for flash (to avoid red-eye)

target prices

controls (see Key)

KEY TO RATINGS	best	←	→	worst
	■	◻	◻	■

camera £

electronic flash £  
B = built-in

relative size[1]

focal length[2]mm

focus setting

aperture setting

shutter setting

features and accessories  
(see key)

SIMPLE CAMERAS										
1	Agfamatic 508	India	12	12	▶▶	31	F	F	X[3]	PT(c)w
2	Agfamatic 2008	W Germany	19	12	▶▶	25	F	F	W	BPTZ(c)w
3	Agfamatic 2008 Tele	[4] W Germany	30	12	▶▶	25/43	F	F	W	BPTZ(c)w
4	Agfamatic 901 Motor	W Germany	28	12	▶▶	27	F	F	W	BKMPZ(c)w
5	Agfamatic 901E Motor	[4] W Germany	45	12	▶▶	27	F	Y[5]	Y[5]	ABKMPZ(c)w
6	Agfa Colour King 200	[6] W Germany	17	12	▶▶	26	F	F	W	BPTZ(c)w
7	Boots 110 Minigrip	Hong Kong	9	—	▶▶	26	F	W	F	Hw
8	Fujica 330 Zoom	[4] Japan	30	10	▶▶▶▶	27-42	F	X	F	BZcw
9	Halina 110 Auto-Flip	Hong Kong	8	—	▶▶	26	F	W	F	Hw
10	Kodak Ektra 200	(replaces similar Ektra 12) W Germany	15	13	▶▶	22	F	F	X[3]	Hw
11	Kodak Ektra 250	(replaces similar Ektra 22) W Germany	20	13	▶▶	25	F	F	W	BEHw
12	Kodak Tele-Ektra 32	[4] UK	23	13	▶▶	22/37	(Z)	F	W	BEHVw
13	Kodak Ektra 52	[4] W Germany	35	13	▶▶▶	25	F	F	A	ABHJw
14	Pocket Special 110	[7] Hong Kong	8	—	▶▶	26	F	W	F	Hw
15	Prinz 110 Speedmatic	[6] Hong Kong	8	—	▶▶	26	F	W	F	H(c)w
16	Regula 218 LE Electronic	W Germany	18	—	▶▶	32	F	F	W	AZw
17	Voigtlander Vitoret 110	Singapore	16	13	▶	24	F	W[5]	W[5]	BLPZb(c)w
18	Voigtlander Vitoret 110 EL	Singapore	35	incl	▶	24	F	W	A	ABJLPZ(c)w
SIMPLE CAMERAS WITH BUILT-IN FLASH										
19	Agfamatic 3000 Flash	Portugal	30	B	▶▶▶	26	F[8]	W[5]	W[5]	PT(c)w
20	Boots Tele 110 Electronic Flash	Hong Kong	20	B	▶▶▶	24/43	F	X[3]	F	Tw
21	Halina STB Flashmatic 110 Tele	Hong Kong	18	B	▶▶▶	25/43	F	X[12]	F	w
22	Halina Telemaster Flash	Hong Kong	24	B	▶▶▶	24/43	F	W	F	PTw
23	Halina Mini 110 EF Tele	Hong Kong	20	B	▶▶▶	24/43	F	X[3]	F	Tw
24	Hanimex Tele 110 TF	Hong Kong	20	B	▶▶▶	25/43	F	X[12]	F	w
25	Hanimex VIF 110	[4] Japan	20	B	▶▶▶	21	F	X[3]	F	Pcw
26	ITT Magicflash Telephoto IC402T	Taiwan	28	B	▶▶▶	24/43	F	W	F	PRcw
27	Keystone XR 408 Everflash	USA	30	B	▶▶▶	23	F	B[12]	F	A(c)w
28	Kodak Ektra 22 EF	[4] W Germany	25	B	▶▶▶	25	F	F	W	BEHw
29	Kodak Stylelite	[13] USA	16	B	▶▶▶	25	F	F	T	KLRw
30	Kodak Tele-Ektralite 600	USA	35	B	▶▶▶▶	22/44	(Z)	F	T	ABHJNRZw
31	Lightmaster 1000	[16] Singapore	14	B	▶▶▶	27	F	W[17]	F	cw
32	Photosport Highlite Tele	Hong Kong	17	B	▶▶▶	25/43	F	X[12]	F	(c)w
33	Pocket Master 110	[7] Hong Kong	16	B	▶▶▶	25/43	F	X[12]	F	w
34	Prinz Lightmatic 200	[6] Singapore	12	B	▶▶▶	27	F	X	F	(c)w
35	Prinz Lightmatic 400 Tele	[6] Hong Kong	20	B	▶▶▶	24/43	F	W	F	PT(c)w
36	Regula 430	W Germany	28	B	▶▶▶	25	F	W	T	ABPTZw
37	Tudomatic Electroflash 202EF	Singapore	15	B	▶▶▶	27	F	X	F	(c)w
38	Vivitar Tele 835AW	Japan	35	B	▶▶▶	24/48	(Z)	B[12]	F	KMRw
FOCUSING CAMERAS										
39	Agfamatic 4000 Flash	Portugal	45	B	▶▶▶	26	Z	X[3]	A	ABJTZw
40	Agfa Colour King 400	[6] W Germany	35	12	▶▶	26	Z	X	A	ABJPTZw
41	Canon 110 ED-20	Japan	80	20	▶▶▶	26	R	W	A	ABCDJKLPVZcw
42	Hanimex VEF Zoom	[4] Japan	30	incl	▶▶▶▶	25-40	S	W	F	BCPZdw
43	Keystone Zoom 66	Japan	50	incl	▶▶▶▶	27-42	Z	W	T	BPZ(c)w
44	Minolta Autopak 460TX	Japan	50	B	▶▶▶	26/43	S	W[3]	F	ABJKLQRUZcw
45	Minolta Weathermatic-A	Japan	50	B	▶▶▶▶	26	Z	W	F	ABURVWZ(c)w
46	Minolta 110 Zoom SLR MkII	Japan	120	22	▶▶▶▶▶	28-67	M	D	A	ACEFJKPRSVXYZcdghn
47	Minox 110S	W Germany	80	31	▶▶	25	H	D	A	ABCEGJKLPVZcw
48	Pentax Auto 110 Flash kit	Japan	79	incl[19]	▶▶▶	24	M	A	A	ACJPVZcdw
	Complete kit	[21] Japan	180	incl[22]	▶▶▶▶▶[23]	18/24/50	M	A	A	ACJPVZcdfhmwxy
49	Rollei A110	Singapore	80	—	▶	23	SZ	A	A	ABJPTVbcw
50	Vivitar 742XL	[4] Japan	40	B	▶▶▶▶	24	R	A	A	ABCKLPRUVZw

camera					flash				overall					
exposure range	exposure accuracy	sharpness[2]	user pictures	viewfinder accuracy[2]	Flipflash	electronic	range	uniformity	range	picture quality	versatility	convenience	construction	
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☑	☑	☑/☑	☑	☑/☐	☐	☐	☐	☑	☑	☑	☑	☐	☑	38
☐	☑	☑	[15]	☑	☐	☐	☐	☑	☑	☑	☐	☑	☐	39
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☑	☐	☐/☑	☑	☑/☐	☐	☐	☐	☑	☑	☑	☑	☑	☐	43
☑	☑	☑/☐	[15]	☑/☑	☐	☐	☐	☑	☑	☑	☑	☑	☑	44
☑	☑	☑	[15]	☑	☐	☐	☐	☑	☑	☑	☑	☑	☑	45
☑	☑	☑	☐	☑	☐	☐	☐	☑	☑	☑	☑	☑	☐	46
☑	☑	☑	☑	☑	☐[18]	☑[18]	☐	☑	☑	☑	☑	☑	☐	47
☑	☑	☑	[20]	☑	☐	☐	☐	☑	☑	☑	☑	☑	☑	48
☑	☑	☑/☑	[24]	☑	☐	☐	☐	☑	☑	☑	☑	☑	☑	49
☑	☑	☑	☑	☑	☐	☐	☐	☑	☑	☑	☑	☑	☑	50

**Key to controls**  
**A** automatic  
**B** by moving a filter  
**D** aperture markings  
**F** fixed  
**M** split-image rangefinder  
**R** double-image rangefinder  
**S** scale marked with distances  
**T** no control, but shutter speed alters with film type  
**W** weather symbols  
**X** by setting to flash  
**Y** lights show if exposure set  
**Z** distance zone symbols  
**(Z)** zone focusing for tele lens only

**Key to features and accessories**  
**A** low light level indicator  
**B** bright frame in viewfinder  
**C** cable release socket  
**D** can print date on pictures  
**E** exposure information in viewfinder  
**F** eye piece shutter built-in (for time exposures or self-timer)  
**G** gauge to show depth of field  
**H** handle which acts as cover  
**J** battery can be checked  
**K** shutter can be locked  
**L** manually operated lens cover  
**M** motor wind built-in  
**N** flash is switched on automatically at low light levels  
**P** tripod socket  
**Q** audible low light level warning  
**R** flash ready light in viewfinder  
**S** self-timer built-in  
**T** telescopic action for winding film and covering lens  
**U** distance scale illuminated when camera set for flash  
**V** focusing information in viewfinder  
**W** waterproof casing  
**X** exposure correction possible  
**Y** macro focusing down to 20cm  
**Z** parallax markings in viewfinder (or equivalent)  
**b** flash cube holder  
**c** carrying case  
**(c)** carrying case optional  
**d** lens cap  
**f** filters and close-up lenses  
**g** 'action' grip for easier holding  
**h** rubber lens hood  
**m** motor winder  
**n** neck strap  
**w** wrist strap  
**x** wide-angle lens  
**y** tele-photo lens

[1] The more ▶s, the larger  
 [2] Double ratings or figures are for standard lens/tele lens or minimum-maximum zoom, if these differ  
 [3] Maximum aperture or slowest shutter speed set on flash  
 [4] Discontinued  
 [5] Single aperture/shutter control  
 [6] Available only from Dixons or Wallace Heaton  
 [7] Available by mail order from Gratspool film processors  
 [8] Two focusing zones for flash  
 [9] Flash cube used, not Flipflash  
 [10] Range increased less than usual with 400 ASA film  
 [11] Range with tele lens shorter  
 [12] Actual aperture is fixed but effective aperture changed by neutral density filter  
 [13] Available on special offers only, eg from Weetabix cereal  
 [14] Tele lens not tested; this version not available in time  
 [15] New model obtained too late to be included in user test  
 [16] Available only from Woolworth  
 [17] Neutral density filter reduces effective aperture with 400 ASA film  
 [18] Flash range not increased by 400 ASA film  
 [19] With Pentax AF100P flash gun  
 [20] Camera not user-tested separately - see Complete kit  
 [21] Also available as 'Major kit' £140 without filters, close-up lenses, lens hoods and tripod spacer  
 [22] With Pentax AF130P flash gun  
 [23] Includes motor winder  
 [24] Rating for wide angle reduced due to severe vignetting

## Verdicts on good value and interesting cameras

### Cheap cameras

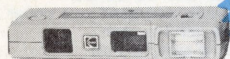
**Hanimex VIF 110** £20 (discontinued)



**good value**

A simple camera that produced good pictures and was quite easy to use. Flash not very even

**Kodak Stylelite** £16



**good value**

A simple camera, very easy to use, that produced acceptable pictures in good conditions. Available only as special offers (such as Weetabix cereal)

Both of these cameras have built-in electronic flash. If you can't track down either of these, you could consider:

**worth thinking about**

**Agfa Colour King 200** £17 without flash

**Agfamatic 2008** £19 without flash

**Kodak Ektra 200** £15 without flash

**Kodak Ektra 250** £20 without flash.

None of these has any major disadvantages or particular advantages. If you want to use electronic flash, one of the more expensive models with built-in flash would be a better bet.

### Middle-price cameras

**Agfamatic 3000 Flash** £30



**good value**

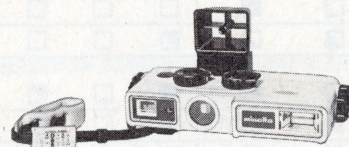
Did well in most laboratory tests and produced good pictures for most of our users. Only snag was the rather brittle cover to the shutter release button that cracked on two of our samples

**worth thinking about**

**Agfamatic 4000 Flash** £45

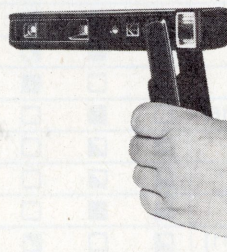
An automatic version of the Agfamatic 3000 Flash. Did well in laboratory tests (but arrived too late for our user tests)

**Minolta Weathermatic-A** £50



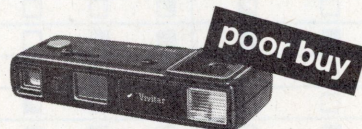
Sealed for use underwater or in rain, sandy places, etc. Rather large and (intentionally) conspicuous but fulfils its purpose. Low light level warning was inaccurate

**Kodak Tele-Ektralite 600** £35



The only camera tested that turned the flash on automatically when light levels low – pity it didn't work well enough

**Vivitar Tele 835AW** £35

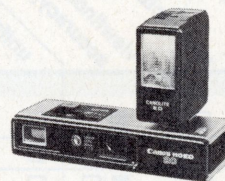


**poor buy**

Built-in motor drive and tele-lens but performed poorly in most tests and two of our samples broke down.

### Expensive cameras

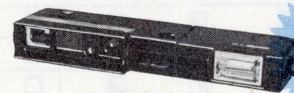
**Canon 110ED-20** £100 including flash



**good but pricey**

Excellent results but rather heavy, and separate flash not very convenient. Expensive

**Minox 110S** £111 including flash



**good but pricey**

Very good results and convenient to use despite separate flash. Very expensive

**Pentax Auto 110** £80 for camera and flash



**good but pricey**

£140 for 'Major' kit  
£180 for 'Complete' kit

Basic camera is small and quite easy to use; extra lenses and motor drive make it more complicated and less convenient but results were good

**Minolta 110 Zoom SLR MkII** £142 including flash



Very versatile with all sorts of features but big and cumbersome compared with other 110s. Very expensive

## Verdicts on good value and interesting cameras

### Cheap cameras

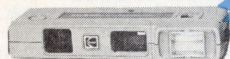
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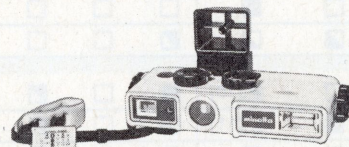
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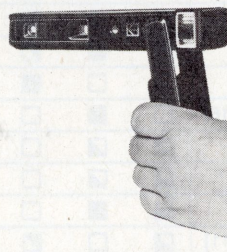
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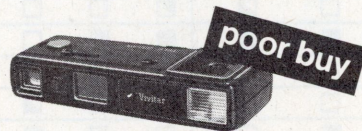
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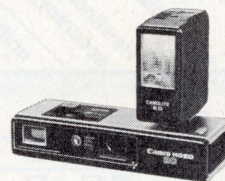


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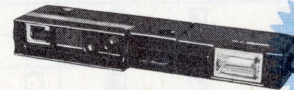
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