

THESE DAYS, most new single-lens reflex cameras seem to be fitted with automatic exposure metering systems. We've tested about ten different makes so far, which means that we can begin to start separating the grain from the chaff.

The Nikkormat EL is clearly one of the grains. It's not a simple camera — in fact, it's one of the most versatile automatics yet — but it is easy to use. Even if you know nothing about photography, you should be able to handle the camera with confidence after a quick read of the instruction booklet.

On the other hand, if you are a really keen photographer, you'll find that the Nikkormat EL will do all you ask of it — and more!

During the test period, we did come across a few features which could be improved, but the overall impression is one of a quality camera designed for photographers by photographers.

Let's take a closer look at it.



THE NIKKORMAT EL is not particularly small, but it's by no means large, either. The design has a streamlined appearance which gives the impression of a compact camera, while retaining a convenient size for handling.

Usually, the body is sold on its own, which lets you decide for yourself which lens is going to be best. It doesn't have to be a standard 50mm. We had a 35mm f/2.8 and a 50mm f/2 lens for testing the camera, and we reckon that about 80 per cent of the shots were made with the wide-angle.

If you prefer the 50 or 55mm, there's choice of three apertures — f/2, f/1.4 and f/1.2. The f/2 seems to be the best value, and certainly suited us well enough. You'll rarely need to shoot at f/1.4 or f/1.2.

On the other hand, it's true that the extra-fast lenses can save the day when you are taking photographs in low-light levels (at pop concerts or clubs, for example), so it's really up to you to decide whether the extra cost is worthwhile.

The lenses themselves are well designed, with good grips for both the focusing and aperture rings and a smooth operation.

One point worth making is that the lens mount is identical to that used on other Nikkormat or Nikon cameras, so the full range of Nikon lenses and accessories can be fitted, and all of them can be used with the automatic metering.

The central feature of the Nikkormat EL is the electronically-controlled focal-plane shutter. This has a continuously variable range from 4 to 1/1000 sec, both on automatic and manual control. It's unusual for an automatic to have such a range of speeds on the manual setting, but a feature which can prove very useful.

The nucleus of the shutter is a single integrated circuit only 2mm square. Believe it or not, this contains nearly 100 micro-miniature electronic components! One advantage of the small size is that temperature and humidity changes will be uniform over the whole area, letting the circuits maintain a stable performance.

If you know much about automatic single-

lens reflexes, you'll have realised by now that the Nikkormat EL uses the aperture priority system.

It's important that you know the shutter speed that's being used for the exposure, since this can drop as low as 4 seconds, or more. At speeds below about 1/30 sec, you need a tripod or some other firm support, if possible, when using the 50mm lenses. Telephoto lenses need even faster speeds for hand-held exposures if you want to reduce the effect of camera shake.

The selected speed is shown in the viewfinder on a scale that runs down the left side of the focusing screen. A thin black needle moves up and down a band of numbers.

The speed range of the shutter is continuously variable, so these numbers just act as convenient reference markers. Speeds such as

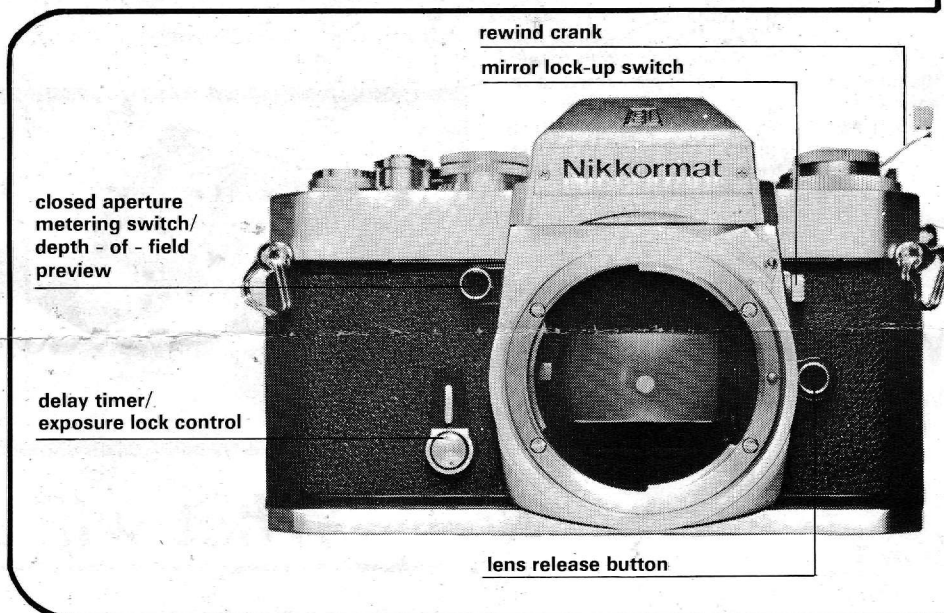
vate it with the camera pointing down, then recompose the image to get back to your original idea. The exposure automatically determined for the ground doesn't change, so you can go ahead and shoot without worrying about under-exposure.

Or again, with a contre-jour subject, you can move in close for the reading, lock the exposure, and then move back for the picture.

The exposure lock on the Nikkormat EL is the delay timer lever, only you push it in towards the lens. The delay time is set by pulling the lever out in the opposite direction.

After saying how much we like the exposure lock being there, we ought to point out a couple of points we don't like about its actual operation.

First, the lever is quite shallow and has a rather sharp corner at the top. This, combined



1/132 sec or 1/119 sec will be more usual than the conventional values of 1/125 sec or 1/60 sec.

One thing we always look for on an automatic camera — but rarely find — is an exposure lock. The Nikkormat EL has one.

It's a feature that no auto SLR should be without, because it gives control over the exposure in situations where the meter can't cope, or where you want a special effect.

It works like this. Let's imagine that you are photographing a fairly ordinary landscape scene, but have composed it so that two-thirds of the image area is taken up with sky. Now although the metering of the Nikkormat EL is weighted towards the lower centre of the scene, it's still going to take in a lot of the sky area with this shot. The result will be that the bright sky will be correctly exposed, but the much darker landscape will be under-exposed.

So, to obtain correct exposure for the ground, you need to angle the camera down, cutting out the sky from the viewfinder. This is where the exposure lock comes in. You acti-

with a moderately heavy spring, makes it rather uncomfortable to use, especially since you have to hold it on to keep the exposure locked. You end up with a small dent in the end of your middle finger.

What's really needed is a switch which stays on once it's been activated, but switches itself off after the exposure has been made. You should also be able to switch it off without firing the shutter. In fact, a good exposure lock would be similar to the meter switch found on Pentax Spotmatic cameras.

Another thing we don't like about the lock is the fact that it doesn't freeze the meter scale in the viewfinder. There's no indication that the lock is on or working properly. You simply have to hope for the best.

Anyway, despite this, it seemed to work very well and it's one of the points which lifts the Nikkormat EL above some of the other automatics.

Another very good feature is the metering system for manual shutter speed settings. On many automatics, the metering only operates on automatic. Not so the EL.

Nikkormat EL

reviewed by
Robert Scott
and **Martin Hodder**

When you turn the shutter speed dial from 'A' to one of the manual settings, a broad green needle moves down from the top of the meter scale in the viewfinder.

It comes to rest over the appropriate speed value, so that you can see which speed is set without having to look away from the eyepiece.

To meter, the black needle and the green needle must be brought together. This can be done by deciding on the shutter speed you want and then adjusting the aperture, or by selecting the aperture and re-setting the shutter speed.

This makes for a pretty versatile system, and provides, among other things, an alternative to the exposure lock. Shutter speed and aperture can be pre-set in this way and won't change as bright or dark subjects are brought

switch or lever do two jobs. There was the exposure lock/delay timer, then the closed-aperture metering / depth - of - field preview button, and now there's the meter switch which doubles as a shutter release lock.

These two items are built into the film advance lever. When it's flush with the camera, the meter is off and the meter needle swings to '15' in the viewfinder. At the same time, the shutter release button locks so that you can't take any accidental exposures.

It's not until the advance lever is pulled out to a stand-off position that the camera can be used.

It's here that we came across another small problem. Or two. First, if you let the film advance lever spring back too fast after winding the film on, it will return past the stand-off position and lock the shutter release. This can

battery just clips into place.

The mirror-lock is on the opposite side of the lens mount to the depth - of - field preview button, just above the lens release button. Apart from uncovering the battery, the lock-up is needed with some of the very wide-angle lenses. These extend back into the camera so far that they would foul the mirror. Accessory viewfinders are needed, since the viewfinder blacks out with the mirror up.

On the back of the camera, to the left of the viewfinder, is a small button and signal lamp. This is the battery check. The button is surrounded by a high collar and you may need a pencil point to push it right down. If the orange light doesn't come on, the battery needs replacing.

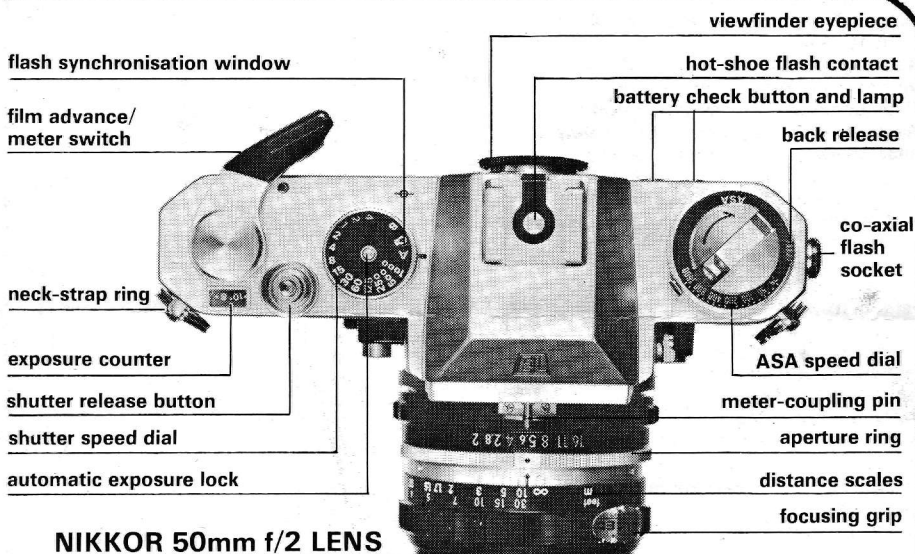
Talking of collars, there's a very good one around the shutter release button. This helps support your finger and gives a high degree of control over the way you release the shutter. Without a doubt, this helps reduce camera shake.

The film speed dial isn't inset in the shutter speed dial, as on most SLRs. Instead, you'll find it surrounding the rewind crank. The figures are large and easy to see, with a positive marker for setting the required ASA value.

The shutter speed dial does have an inset ring, but this only has two positions. One is for electronic flash synchronisation, the other for bulb. You plug the flash lead into the single co-axial socket and set whichever synchronisation is needed. Alternatively, there is a hot-shoe contact in the accessory shoe.

A third feature of the shutter release dial is the small chrome button in the centre. This is the auto exposure release. The dial can't be turned from auto unless this is pressed.

The Nikkormat EL seems to be covered in locks of one type or another, because there's also one for the camera back. This is opened in the usual way by pulling the rewind crank out. However, the crank stays put until you slide a small black lever over to release it. This is to stop you accidentally pulling the crank out and opening the back while rewinding.



into the field - of - view.

Since we've mentioned that the lenses are meter-coupled, you can take it for granted that metering is at open-aperture. The aperture only closes down to the pre-set values when the shutter release is pressed, so the viewfinder stays bright for focusing and composing.

However, if you happen to have a Nikon-mount lens which isn't meter-coupled, or use non-coupled bellows or extension rings, don't worry — the automatic match-needle metering systems can still be used, but at closed-aperture.

All this means is that you have to press the spring-loaded button on the front of the camera, above the delay timer lever. This stops the aperture down to whatever value is set on the lens aperture ring. Then you carry on metering in the usual way.

This closed-aperture metering button also doubles as the depth - of - field preview control. It lets you see what will appear sharp at each particular aperture setting.

Nikon seem quite keen on making one

be very annoying if you are trying to shoot a rapid sequence of shots.

Second, if you use your left eye for viewing, you will probably find the stand-off angle such that your forehead or cheek will keep knocking the lever back, again locking the release and switching the meter off.

These small points are not as serious as they may sound, because you will soon get used to handling the camera so that the problems are avoided. However, it's something to keep in mind when shooting the first few films.

The battery which operates the metering and the shutter is a Mallory PX-28 (or similar) and it's unlikely that you'll be able to find out where it goes without reading the instruction booklet. However, we'll give the game away by saying that it's right inside the body of the camera, beneath the reflex mirror.

To get at the battery compartment, you remove the lens, lift the mirror up with the mirror-lock and release the cover. The old battery falls out if you hold the camera upside down and push the cover right back. The new



SO THAT'S about it. We've covered all the main features and pointed out all the good and bad points. Smaller details and technical gen you can get from the data page.

What you want to know, however, is how this camera compares with other makes, and whether it's worth buying.

Well, as an automatic single-lens reflex, it's one of the best — certainly one of the top three you can buy.

It's difficult to classify cameras more accurately than this, because different photographers look for different features. If you want shutter-priority metering, the Nikkormat EL isn't for you, for example.

However, there are few other cameras which offer the exposure versatility of automatic, and match-needle metering, at both open and closed-aperture, together with such an extensive range of meter-coupled accessories.

On top of this you have the valuable exposure lock, a wide range of shutter speeds, and

countless other features. Plus, of course, Nikkormat quality and reliability.

specification

Name: Nikkormat EL.

Type: Single-lens reflex with automatic through - the - lens metering at open-aperture.

Format: 24 x 36mm, using standard 35mm cassettes.

Standard lenses: Nikkor Auto 50mm f/2, 50mm f/1.4 or 55mm f/1.2.

Lens mount: Nikon F bayonet.

Alternative lenses: Over 40 Nikkor lenses, from 6mm to 2000mm, including zooms. Also, many independent manufacturers supply a wide range of lenses with suitable mounts, most of them meter-coupled.

Shutter: Electronic focal plane; metal, vertical run. Continuously variable speeds from 4 to 1/1000 sec on auto; manual speeds from 4 to 1/1000 sec, plus B. When battery is exhausted, all exposures are made at 1/90 sec. Auto position is fitted with a lock.

Shutter release: Threaded for cable release. Release is locked when film advance lever is flush with camera.

Exposure control: Twin CdS photocells in pentaprism provide centre-weighted through-the-lens automatic metering at open-aperture with aperture priority. Closed-aperture metering also possible. Memory lock for exposure compensation.

Exposure meter range: EV1 to EV18 (1 sec at f/1.4 to 1/1000 sec at f/16) with 100 ASA film and 50mm f/1.4 lens.

Film speed range: 25 to 1600 ASA.

Power source: One 6 volt silver oxide battery; Mallory PX28 or equivalent.

Battery check: Battery check button illuminates orange signal lamp on rear of camera.

Meter switch: Incorporated in film advance lever.

Reflex mirror: Instant return type, with lock-up lever.

Flash facilities: Hot-shoe contact and co-axial socket with bulb and electronic synchronisation selector. Electronic flash can be used at any speed from 4 to 1/125 sec. FP type flash bulbs can be used at any speed; 1/60 sec or slower is recommended for MX type bulbs.

Film transport: Single or several stroke lever wind with 135 degree advancing angle and 30 degree stand-off. Double and blank exposure prevention devices.

Exposure counter: Additive type (0 to 36) with automatic re-set.

Film rewind: Fold-out rewind crank with automatic re-set rewind release button.

Back cover release: Operated by lifting rewind knob. Rewind knob is fitted with a lock to prevent accidental opening of back during film rewind.

Delay timer: 3 to 9 second variable delay. Lever type, fired by shutter release.

Depth - of - field preview: Operated by button above delay timer lever.

Other features: Accessory shoe; tripod bush; neck strap lugs; viewfinder eyepiece threaded for accessories; film plane indicator.

Size: 145 x 93.5 x 54.5mm (body only).

Weight: 780gm (body only).

Manufacturer: Nippon Kogaku K K, Tokyo, Japan.

Importer and distributor: Rank Photographic, PO Box 70, Great West Road, Brentford, Middlesex, TW8 9HR.

Discount price: The Nikkormat EL with 50mm f/2 lens is being advertised at around £200.

Suggested retail prices are no longer quoted by the distributors. Our discount price is based on dealer adverts in recent issues of Practical Photography.

lens performance

50mm f/2

Name: Nikkor-H Auto. **Focal length:** 50mm.

Aperture range: f/2 to f/16. **Aperture selection:** Click-stop.

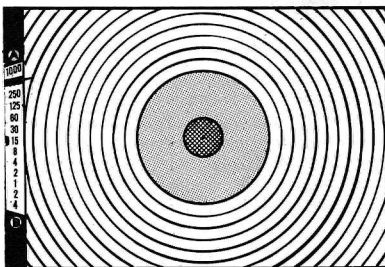
Design: 6 elements in 4 groups. **Angle - of - view:** 46 degrees.

Diaphragm: Fully automatic. **Meter coupling:** For open-aperture metering on Nikkormat and Nikon cameras. **Lens mount:** Nikon F bayonet. **Minimum focusing (from film plane):** 0.6m. **Filter thread:** 52mm. **Other features:** focusing scale in metres and feet; colour-coded depth - of - field scale; infra-red focusing mark.

Length (at infinity focusing): 48mm. **Maximum barrel diameter:** 64.4mm. **Weight:** 205gm. **Discount price:** around £45.

Definition	Good
Image contrast	Good
Balance of aberrations	Good
Best central definition	f/8
Best overall definition	f/4
Overall performance	Good
Notes: There were spots and hairs on internal multi-coated surfaces.	

viewfinder



The fixed pentaprism viewfinder gives approximately x0.85 magnification and 92 per cent coverage with the 50mm lenses.

Finder-image cut-off is said to be not apparent with lenses up to 1000mm.

The fixed focusing screen contains a central micro-prism spot surrounded by a ground-glass collar and a Fresnel lens. An alternative focusing screen with split-image rangefinder is also available, but must be factory fitted.

Shutter speed values are shown on the scale down the left of the screen. The black meter needle indicates the speed selected during automatic metering. The green reference marker shows whether the speed dial is set to 'A' or one of the manual speeds (includ-

ing 'B'). Match-needle metering can be performed with pre-selected shutter speed or aperture by lining up the green and black markers.

checkout

	excellent	adequate	poor
Focusing accuracy			
screen at infinity.....	●	—	—
screen at 7 feet.....	●	—	—
lens scale at infinity.....	—	—	●
lens scale at 7 feet---	●	—	—
Exposure metering			
high level.....	●	—	—
low level.....	●	—	—
Flash synchronisation			
electronic.....	●	—	—
bulb.....	●	—	—
Camera handling			
ease of use.....	●	—	—
ease of focusing.....	●	—	—
film loading.....	●	—	—
film advance.....	●	—	—
film rewind.....	●	—	—

shutter speeds

	excellent	adequate	poor	consistent
2	●	—	—	yes
1	●	—	—	yes
2	●	—	—	yes
4	●	—	—	yes
8	●	—	—	yes
15	●	—	—	yes
60	●	—	—	yes
125	●	—	—	yes
250	●	—	—	yes
500	●	—	—	yes
1000	●	—	—	yes

Comments: The Nikkormat EL electronic shutter is one of the most accurate and consistent we have tested. (It was not possible to test the 4 sec. speed on our equipment.)

Shutter pressure: Light.

Shutter release action: Very good; a large collar helps control the moment of release and reduces camera shake.

Shutter noise: Moderate.

PP ratings

PERFORMANCE



VALUE FOR MONEY



Lens performance is assessed on an optical bench by Jason Adams Optical Co.

Flash synchronisation is tested with a Sunpak electronic unit and Philips AG3B and PF6B flash bulbs.

Shutter speeds are measured on a Holdings 'EE' Shutter Speed Tester and ratings are based on BSI recommended tolerances.