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Steady camera holding is important for best results, since even the slightest camera movement at the moment of exposure can result in an appreciable loss of sharpness, especially at slow shutter speeds. The photographs show the best way to hold the camera for rock-steady picture-taking.

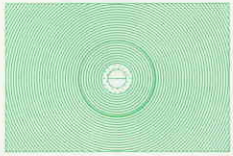
Wrap the fingers of the right hand around the camera body so that the index finger rests comfortably on the shutter release button and the thumb fits between the body and film advance lever. This way you can stroke the film-advance without removing your eye from the viewfinder. Cradle the camera in the left hand for additional support, with the left thumb and index finger grasping the focusing ring. The camera may be switched from horizontal to vertical format in this position.

FOCUSING

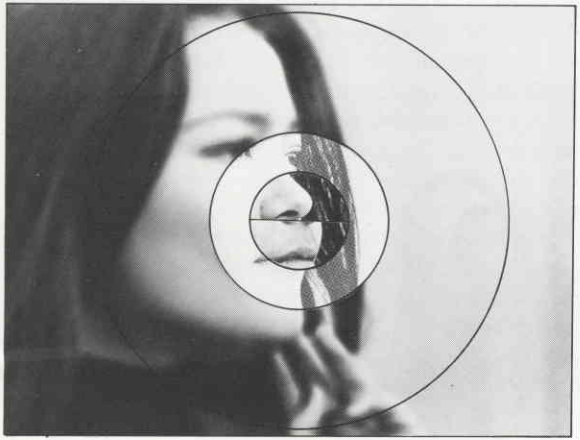
Focusing is always done at full aperture with Nikkor lenses. This gives the brightest possible image on the focusing screen for easy viewing and composing. It also minimizes depth of field so the image snaps in and out of focus distinctly.

The Nikkormat FT3 focusing screen consists of a matte Fresnel field with a central 3mmϕ split-image rangefinder spot surrounded by a doughnut-shaped 1mm-wide microprism for rapid, accurate focusing. Look through the viewfinder and turn the focusing ring until the two halves of the central rangefinder image coincide to form a single, sharp image, or until the image in the microprism appears sharp and crisp. This focusing screen is suitable for subjects with both straight lines and ill-defined contours. However, when used with lenses having a maximum aperture smaller than f/4.5, or in close-up photography, the rangefinder spot is likely to darken. In this case, focus on the surrounding matte field.

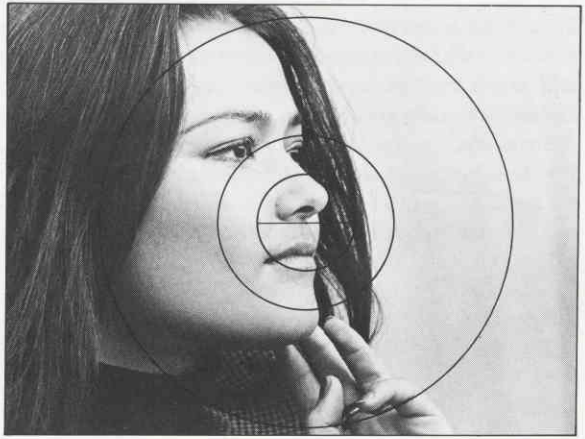
The lens can also be prefocused using the distance scale engraved in both feet and meters on the lens barrel. Line up the black indicator line on top of the milled ring opposite the camera-to-subject distance as measured or estimated. This technique is useful for candid shots of elusive subjects when time does not permit through-the-lens focusing.



Microprism/split-image screen



Out of focus



In focus

SHUTTER RELEASE OPERATION

For sharp pictures, correct shutter releasing is just as important as steady camera holding. A quick, jabbing movement of the finger on the shutter release button will result in camera movement and blurred pictures. Hold the camera steady as shown previously, relax and squeeze the shutter release with a gentle, even pressure. For long time exposures with the camera mounted on a tripod, use a cable release. The shutter release button is threaded to accept the Nikon F and Nikkormat cable releases.

Caution: When mounting the camera on a tripod, do not over-screw the tripod thread into the camera tripod socket as it may damage the camera baseplate.

DEPTH OF FIELD

Depth of field refers to a zone extending in front of and behind the plane of sharpest focus. Within this zone blur (or unsharpness of the image) will be negligible and everything can be accepted as in sharp focus. Depth of field extends a greater distance behind the subject in focus than in front. Depth of field depends on three factors: focal length of the lens, lens-to-subject distance and taking aperture. The smaller the aperture and the shorter the focal length of the lens, the greater the depth of field (for example, wideangle lenses have more depth of field than telephotos). Also, the closer the subject, the smaller the depth of field. These three factors can be adjusted independently or in combination to give the photographer creative control over the final picture.

Depth-of-Field Preview Button

The depth-of-field preview button located on top of the Nikkormat lets you check depth of field before shooting and make desired adjustments. Press the button and the lens stops down to the preselected aperture to allow you to see how much background or foreground is in or out of focus.

DEPTH OF FIELD—continued

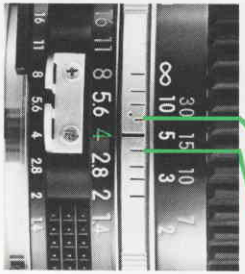
Depth-of-Field Scale

Depth of field can be read from the color-coded scale engraved on the milled ring. The pairs of colored lines correspond to f/numbers of the same color. To find the depth of field at a particular aperture first focus the lens on the subject (or set the lens-to-subject distance on the distance scale). Then check the numbers on the distance scale opposite the colored lines which match the taking aperture of the corresponding color to find the depth of field at that aperture.

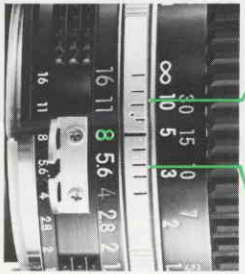
For example, f/16 on the aperture ring of the 50mm f/1.4 lens is blue. With the lens prefocused at 15 feet (4.5m), the numbers on the distance scale opposite the blue lines show that depth of field extends from 8 feet (2.4m) to infinity (∞).

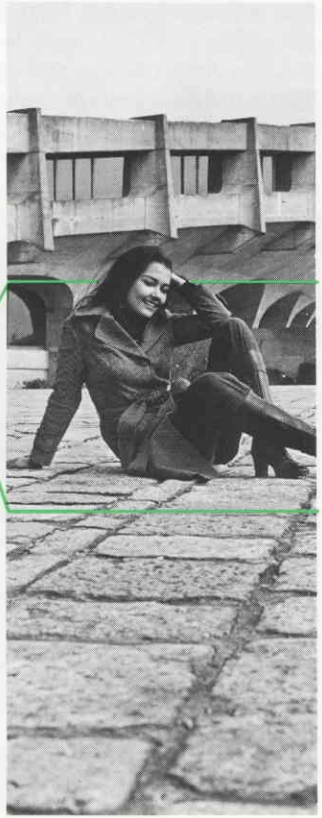
By stopping down the lens only, the depth of field can be increased, as illustrated by the following three photographs:

1. Lens at f/4. Small depth of field with only main subject in focus.

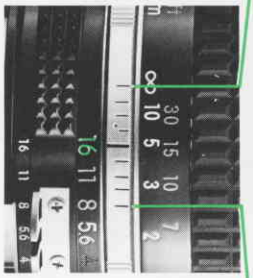


2. Lens further stopped down to f/8. Larger depth of field.





3. Lens at smallest aperture. Great depth of field with subject, background and foreground in focus.



SELF-TIMER

The built-in self-timer can be used to trip the shutter in approximately eight seconds delay. To cock the self-timer, turn the lever downward as far as it will go. When the shutter release button is pressed, the timer starts. The self-timer is independent of the shutter mechanism and can be set before or after the shutter is wound. Do not use at "B" setting.

MIRROR LOCK

The reflex mirror can be locked in the "up" position out of the optical path for use with the Fisheye-Nikkor 6mm f/5.6 and the OP Fisheye-Nikkor 10mm f/5.6, whose rear elements protrude into the camera body and interfere with the movement of the mirror. Simply slide the mirror lock downward and the mirror will remain locked up. To return the mirror to its original focusing and viewing position, slide the lever up again.

INFRARED PHOTOGRAPHY

In infrared photography, the plane of sharpest focus is slightly more distant than the one produced by visible light and seen by the naked eye through the viewfinder. To compensate for the shift in focus, Nikkor lenses have a red dot or line on the lens barrel near the color-coded depth-of-field index scale on top of the lens. After focusing the image sharply through the viewfinder, turn the focusing ring to the left until the red dot lines up with the prefocused distance.

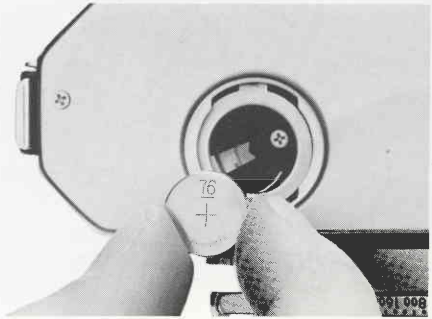
For example, in the picture below the 50mm f/1.4 lens has been focused at infinity (∞). The focusing ring is turned slightly to the left so that the infinity mark appears in line with the red dot. When lenses having a focal length of 50mm or less are stopped down to f/8 or smaller, no adjustment is necessary: at such small apertures and short focal lengths, lenses have enough depth of field to compensate for the shift in focus.

SILVER-OXIDE BATTERY

The Nikkormat FT3's meter circuit is powered by a single 1.5-volt silver-oxide battery located in the battery chamber on the camera baseplate. When the battery is exhausted, the meter will cease to function all at once. To replace the battery, unscrew the cap over the battery chamber with a coin or similar object. When installing a new battery make sure that the plus (+) side faces out.

Note: If the meter is exposed to bright light at below-freezing temperatures over a long period of time, it may malfunction or cease to operate until the temperature rises again. Therefore, be careful not to leave the meter on for more than three minutes at a time in cold weather.

Caution: Never throw discarded batteries into a fire.



FLASH SYNCHRONIZATION

The Nikkormat FT3 features an accessory shoe with built-in hot-shoe contact and automatic MX switch-over via shutter speed selection to facilitate the use of various light sources. Consult the table below to find out which shutter speeds are acceptable for different types of flashbulbs.

Flashbulb \ Shutter Speed	1000	500	250	125	60	30	15	8	4	2	1	B
M												
FP												
MF												
X												

Synchronized Cannot be used

Either a bulb- or electronic-type flash unit slides over the accessory shoe on top of the pentaprism housing. Due to the built-in hot-shoe contact, the need for a synch cord is eliminated for units with a hot shoe. For units without a hot shoe, use a synch cord and connect the threaded synch terminal on the camera body to the synch socket on the flash unit. To prevent accidental electrical shock, the safety switch in the accessory shoe turns on only when the flash unit is in place.

Nikon speedlight units SB-3, SB-4 and SB-5 can be directly attached to the Nikkormat FT3. For mounting the Nikon speedlight unit SB-2 or flash unit BC-7, use of the flash unit coupler AS-2 is necessary. For details, refer to the instruction manual provided with each unit.

Caution: Flash units without a hot shoe may fire accidentally when being slipped into place or when a flashbulb is inserted. Although not recommended, accidental firing may be prevented by covering the hot-shoe contact on the camera body with electrical tape.

CHANGING THE LENS

To remove the lens from the camera, press the lens release button on the front of the camera body and twist the lens to the right as far as it will go. The lens will come loose and can be lifted out easily.

Mounting lenses fitted with a meter coupling ridge: Before mounting the lens, check that the meter coupling lever on the camera is down; if not, push the lever down into place.

Position the lens in the mount, aligning the mounting indexes on the lens and camera body. Twist the lens counterclockwise until it clicks into place. These steps provide for full mounting of the lens, while simultaneously indexing the lens' maximum aperture setting to the camera.

Mounting lenses without a meter coupling ridge: Depress the coupling lever release, and push the meter coupling lever up. Then mount the lens and lock into position as explained previously. For operation with lenses not fitted with a meter coupling ridge, stop-down measurement (as described on page 15) is required.

ACCESSORIES

Lens Hoods

The use of a lens hood is recommended at all times to prevent extraneous light from striking the lens surface and causing flare or ghost, and as an added measure of protection against damage to the lens. Nikon lens hoods come in four types, depending on the lens: Screw-In, Snap-On, Slip-On and Built-In. They are calculated precisely for each focal-length Nikkor lens to provide maximum protection against stray light. To attach or remove the snap-on hood, first depress the spring latch—which is marked with an arrow—and slide it in the direction of the arrow. The hood will also fit directly over a screw-in filter, so both can be used on a lens at the same time. When not in use, the snap-on hood can be reversed for storage on the lens, and the lens and its hood can be stored together in the eveready case.

Filters

Nikon filters are made of optical glass, ground and polished so that both surfaces are optically flat and parallel.

Nikkor lenses and Nikon filters are made for each other. For best results, use Nikon filters on Nikkor lenses. The filters are available in both screw-in and series mounts, depending on the lens.

Except for the R60, no Nikon filter requires exposure compensation when used with the Nikkormat FT3.

When using the R60 filter under tungsten light, increase the exposure by one f-stop more than indicated by the exposure meter.

Note: If you wish to leave a filter on the lens to protect it against accidental damage, the use of the L37 or L37C filter is recommended.
If the lens is pointed toward the sun or toward a very bright light at night, it is best to remove any filter, since light reflected from the filter surface may form ghost images on the film.

Finder Eyecup

The soft rubber finder eyecup fits directly onto the finder eyepiece to prevent extraneous light from entering the viewfinder.

Eyepiece Correction Lenses

The nine eyepiece correction lenses are designed to permit nearsighted or farsighted users to view and focus without their glasses. Available in −2, −3, −4, −5, 0, +0.5, +1, +2 and +3 diopters, each representing the combined dioptry of the lens and the finder. Simply unscrew the finder eyepiece and then screw on the right correction lens.

Good camera care is primarily common sense care. Treat your Nikkormat as you would any valuable precision instrument and it will last a lifetime.
Although the Nikkormat is ruggedly constructed to withstand rough handling, it may be damaged by shock, heat, water or misuse. The following are some basic tips for keeping your camera in top condition.

Brush the inside of the camera periodically using a soft brush. Do not exert pressure on the shutter curtain as this may damage it.
Keep the mirror free from fingerprints and dust.

Keep the lens surface free from fingerprints and dust as far as possible.
Use lens tissue to remove dust, never use cloth or ordinary tissue.
If smudges or fingerprints appear, clean them with lens tissue moistened sparingly with alcohol.
Remember, even an approved lens cleaner can cause damage if it seeps into the lens mount.

Keep the camera in an eveready case or compartment case when not in use to protect it from dust.
Avoid storing the camera in excessively hot, cold or damp places.
Always attach a body cap when the camera body is stored separately.
Do not leave film in the camera for a long period of time.
Never leave the shutter or self-timer cocked if the camera is to be stored overnight or longer.

Keep the camera away from water.
Avoid excessive moisture. When using the camera near water, guard against splashes, especially salt-water spray.
Never oil any part of the camera. Lubrication should be left to an authorized serviceman.
Prior to taking a holiday trip or being assigned an important photo job, test your camera by making a few trial exposures. Remember, it takes at least two or three weeks for processing the test film and making any needed repairs or adjustment. Follow this important precaution and you will have pictures to remember.

35mm single-lens reflex camera

24mm x 36mm (35mm format)

Nikon F bayonet mount

Nikkor 50mm f/2, 50mm f/1.4 or 55mm f/1.2 as standard. More than 50 Nikkor interchangeable lenses are available.

Metal focal-plane shutter with vertical (downward) movement; speeds from 1 to 1/1000 sec., plus B.

Automatic MX switchover with shutter speed setting. Hot-shoe contact with safety switch and threaded synch terminal.

M, FP – 1/1000 ~ 1/250 sec., 1/30 ~ 1 sec. and B

MF – 1/30 ~ 1 sec. and B

X – 1/125 ~ 1 sec. and B

Fixed eye-level pentaprism; focusing screen consists of matte Fresnel field with central microprism/split-image rangefinder (K-type).

Instant return mirror; independent mirror lock-up control.

Through-the-lens CdS meter, center-weighted at full aperture. Powered by a single 1.5V silver-oxide battery. Needle visible in finder and atop the body; plus and minus markings provided. Couples with both diaphragm and shutter speed dial. Metering range: EV3 ~ EV17 (e.g., f/1.4, 1/4 sec. ~ f/11, 1/1000 sec. at ASA 100 with 50mm f/1.4 lens); ASA range 12 ~ 1600; aperture coupling range f/1.2 ~ f/32.

Single-stroke winding lever with 20° stand-off angle and 135° winding angle. Lever also serves as meter on-off switch.

Additive type with automatic reset to "S"; two frames before "0".

Crank type.

Preview button provided.

750g (without lens)

148mm x 96mm x 54mm