



***Nikkormat***

**INSTRUCTION  
MANUAL**

# NOMENCLATURE

## Shutter-Speed Index

Align with the desired shutter speed.

## Neck Strap Eyelet

## Self-Timer

Trips the shutter in 8 seconds delay.

## ASA Film-Speed Index

Adjusts the meter for the speed of the film used.

## ASA Film-Speed Scale

Range: 12-1600 ASA.

## Tripod Socket

## Rewind Button

Press to rewind the film.

## Meter Coupling Pin

Couples the exposure meter to the lens' auto diaphragm.

## Mirror Lock

Slide downward to lock the mirror up out of the optical path.

## Lens Release Button

Unlocks the lens for removing or changing lenses.

## Shutter-Speed Lever

## Camera Back Latch

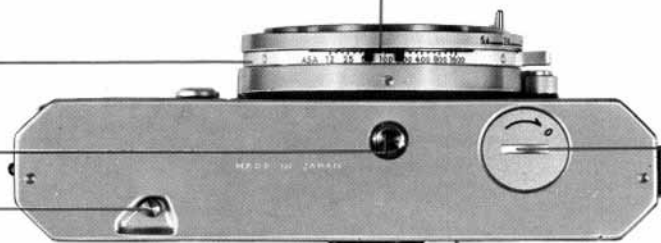
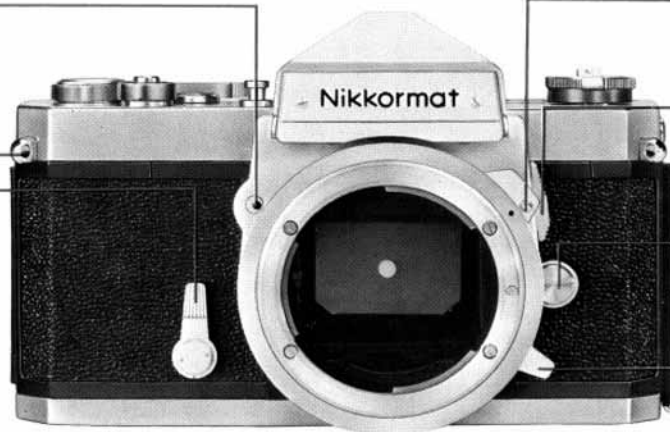
Press to open the camera back.

## Battery Chamber

Houses the mercury battery that powers the meter.

## Camera Back

Hinged to swing open from the side.





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## FOREWORD

The Nikkormat FTN offers the quality performance, handling convenience and versatility professional photographers demand. At the same time, its automatic features make this a camera anyone can use. To get the best results from your Nikkormat, study the instructions carefully and practice using the controls before you load any film in the camera. Keep this booklet handy for ready reference until you have mastered its basics, and follow the instructions for camera care given on page 30. The few minutes you spend in familiarizing yourself with the camera will increase your picture-taking enjoyment many times over.

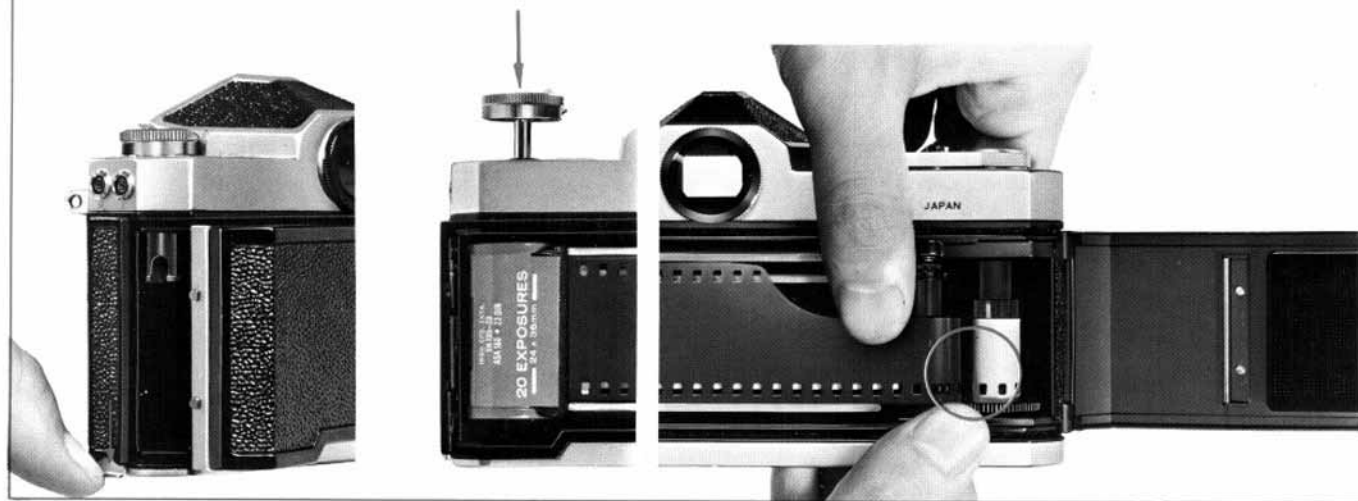
# LOADING THE CAMERA

Press down the camera back latch on the side of the camera and the hinged back will spring open. Pull up on the rewind knob and drop a film cartridge into the film chamber with the film leader pointing towards the take-up spool. Now, push down the rewind knob to hold the cartridge in place and insert the end of the film leader into any one of the six slots in the take-up spool. Rotate the take-up spool as shown in the illustration so that the film passes under the spool with its emulsion side (dull side) facing out. Make sure

that the perforations along the edges of the film mesh with the sprockets.

Close the camera by pressing on the back until it snaps into place. Fold out the rewind crank and turn it gently in the direction of the arrow until you can feel a slight tension. This will take up any slack in the film cartridge. Be careful not to exert too much pressure on the rewind crank.

Loading exposes the first few inches of the film. To dispose of this exposed film, wind the film advance



lever and make two blank exposures. Watch the rewind knob to see if it rotates in the direction opposite the arrow while the film is being advanced. This will indicate that the film has been loaded correctly and is being advanced.

The frame counter on top of the camera should now rest at "0". Advance the film one more frame and you are ready to take the first picture.

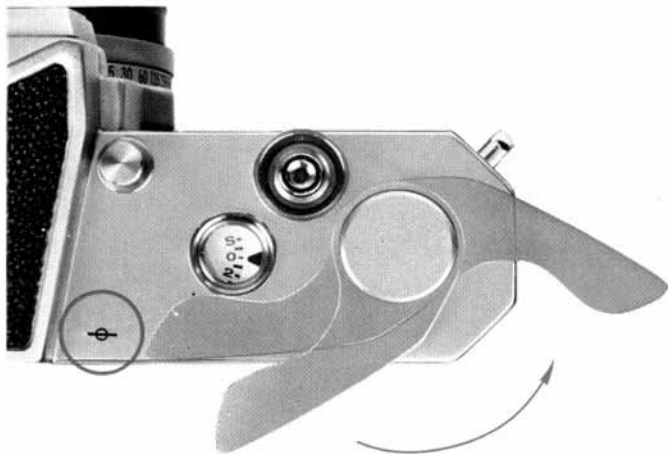
**Caution:** Do not load the camera in bright sunlight. If no other shade is available, shade the camera from the sun with your body while loading.

**To unload,** press the rewind button on the camera baseplate, unfold the rewind crank and turn it with a constant, gentle pressure in the direction of the arrow. Avoid uneven or excessively fast rewinding. When no more tension can be felt and the crank turns loosely, the film has left the sprockets and the camera may be opened. Pull the rewind knob up slightly and the film cartridge will drop out.

The rewind button will pop out again as soon as the film advance lever is stroked.



### Film-Plane Indicator



The (⊕) mark on top of the camera body shows the exact position of the film plane. This is important to know when measuring the film-to-subject distance, especially in close-ups and macrophotography.

### Film-Advance Lever

The film-advance lever simultaneously advances the film, cocks the shutter and operates the frame counter. It also serves as an on-off switch for the exposure meter.

Stroke the film-advance lever with the right thumb in a single stroke. A built-in locking device prevents the shutter from being released unless it is fully cocked and the film has been advanced a full frame.

The film-advance lever springs back to its original position, with ample clearance for the thumb, after each stroke. However, the meter will remain in the “on” position until the lever is pressed flush against the camera body.

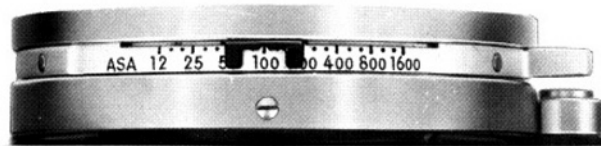


## Frame Counter

The frame counter located on top of the camera works automatically to show how many frames have been exposed. The numbers 20 and 36 are colored red to correspond to the number of frames in a standard 35mm cartridge. The frame counter stops just past the 36-frame mark and resets itself automatically to “S”, two frames before “0”, when the camera back is opened for reloading.



## Film-Speed (ASA) Setting



Film-Speed (ASA) Scale



Some films are more sensitive to light than others. A film's sensitivity is commonly known as its “speed,” expressed in ASA numbers.

In order to work with films of different speeds, the Nikkormat FTN's light-meter circuit must be adjusted for the ASA number of the film used. This is done by means of a slotted index pointer located on the bottom of the shutter-speed ring. The ASA film-speed scale has numbered settings for speeds from ASA 12-1600 with dots between each pair of numbers for intermediate settings such as ASA 64, 80, etc. Grasp the shutter speed lever to prevent the ring from turning and slide the slotted ASA index pointer until it lines up with the ASA number of the film in use. If you are unsure of the film speed, check the film container or data sheet.

# EXPOSURE CONTROLS

The amount of exposure the film receives is determined by a combination of shutter speed and aperture. The larger the lens aperture, the more exposure. Likewise, the slower the shutter speed the greater the exposure. Aperture is expressed in f/numbers with larger numbers representing smaller apertures and vice versa. For example, f/8 gives twice as much exposure as f/11. Shutter speed is expressed in seconds or fractions of a second. The numbers on the Nikkormat shutter-speed scale are reciprocals of the actual speeds (250 represents 1/250 second, etc.).

Camera aperture and shutter-speed controls are calculated so that an increase of one f/number compensates for a one-step decrease in shutter speed. For example, 1/250 at f/8 is equivalent to 1/125 at f/11. The table below shows how aperture and shutter-speed are interrelated. All the combinations give the same exposure.

Aperture	f/1.4	f/2	f/2.8	f/4	f/5.6
Shutter speed (seconds)	1/500	1/250	1/125	1/60	1/30



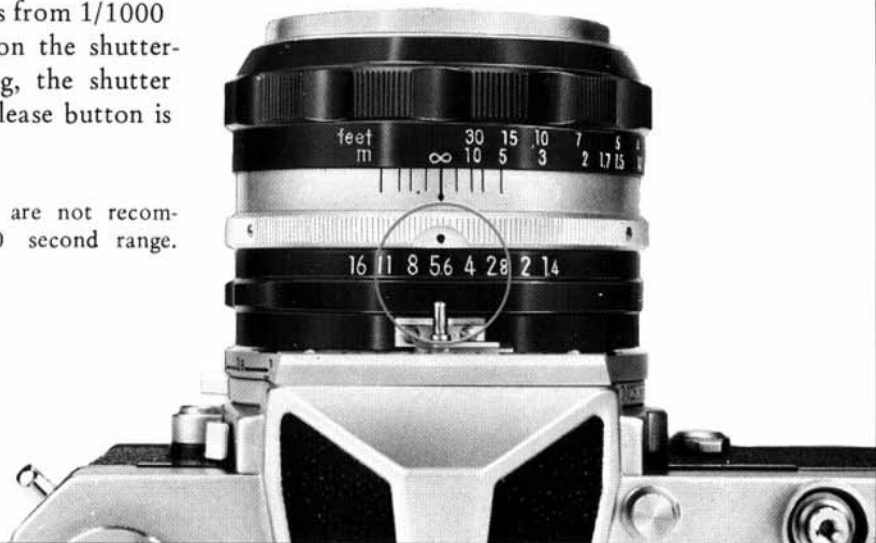
## Setting the Shutter Speed

Shutter speeds are controlled by a ring around the base of the bayonet mount rather than the usual dial on top of the camera body. To set the shutter speed, grasp the lever and turn the ring until the desired speed appears next to the indicator dot on the front of the camera body. For added convenience when measuring exposure, the shutter speed in use as well as the next highest and lowest speeds appear in the bottom of the viewfinder, so the shutter speed can be adjusted while observing the exposure meter needle. Click-stopped settings for shutter speeds from 1/1000 to 1 second plus "B" are engraved on the shutter-speed ring. At the "B" (bulb) setting, the shutter remains open as long as the shutter release button is depressed.

**Note:** Intermediate shutter-speed settings are not recommended except in the 1/250 to 1/1000 second range.

## Setting the Aperture

To preset lens aperture, turn the aperture ring on the lens barrel until the desired f/number appears opposite the black indicator dot on top of the milled ring. The aperture diaphragm can be set for intermediate openings between the click-stopped settings for more precise exposure.



# EXPOSURE MEASUREMENT

The Nikkormat FTN features a center-weighted through-the-lens exposure metering system cross-coupled to the shutter speed and aperture controls. The meter reads the light over the entire focusing screen but favors a central area. This means that correct exposures are possible even in situations where an averaged reading would result in wrong exposure—with strong backlighting, for example.

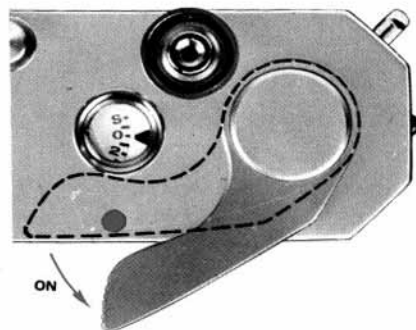
## Full-Aperture Exposure Measurement

The FTN meter takes advantage of automatic diaphragm feature of Nikkor Auto Lenses to measure light at the maximum aperture of the lens. This insures a bright viewfinder image for viewing and focusing and minimizes the influence of light entering through the finder eyepiece.

In order for the FTN meter to measure exposure at full aperture with lenses of different maximum aperture, it must be coupled with the maximum aperture of the lens in use. This is done each time the lens is attached or changed by turning the aperture ring of the lens through its entire range (see "Changing the Lens," p.22.).

## Turning On the Meter

To switch on the Nikkormat FTN's CdS exposure metering circuit, pull out the film advance lever just enough to uncover the red dot on top of the camera body. When the meter is not in use, press the lever flush against the camera body, since the battery is being drained continuously as long as the lever is in the "on" position.



A number of different shutter speed-aperture combinations will usually result in the same exposure. The “best” one depends on the results desired. Use fast shutter speeds to “freeze” motion or slow ones to create deliberate blur. Small apertures give greater depth of field, large ones let the subject stand out against an out-of-focus background (see “Depth of Field,” p.19.).

### Centering the Needle

To determine correct exposure, adjust the aperture and/or shutter speed until the meter needle in the viewfinder is centered (the – and + marks let you know whether you are under- or overexposing). A second meter needle is conveniently located on top of the camera for use with the camera held at waist-level or mounted on a tripod. For fine adjustments of less than one f/number, use the aperture ring as it permits reliable intermediate settings.

Under extremely low light conditions the meter needle may center at the “B” setting on the shutter speed dial. If so, correct exposure time is 2 seconds. If the needle moves erratically or cannot be centered even after all possible aperture-shutter speed combinations have been tried, then the light is too bright or dim for the meter’s range. Effective range (coupl-

ing range) varies according to the lens and film speed used. For example, with the 50mm f/1.4 lens and a film speed of ASA 100, it extends from f/1.4 at 1/4 second to f/11 at 1/1000 second.



### Getting the Right Exposure

The central part of the focusing screen should always be aimed at the main subject when centering the needle. Otherwise unimportant bright or dark areas may give an exposure reading which is too high or too low, resulting in under- or overexposure.

If an off-center composition is desired, first measure the light striking the main subject and set the aperture and shutter speed to center the needle. Then move the camera until the desired composition appears in the viewfinder.

For subjects of uniform tonal brightness, a reading may be taken from any part of the subject. However, if the subject is contrasty (sidelighted portraits, for example), measure the light falling on the most important part of the subject in which detail is desired in the final picture.

For landscapes including large areas of sky, tilt the camera downward during measurement or fill the center of the finder with the main subject to prevent underexposure of the main subject caused by the bright skylight.

#### Photos:

1. Measuring the bright area in the center of the screen will cause underexposure of the main subject.
2. For correct exposure, first measure the light striking the main subject, then compose and shoot.



# HOW TO HOLD THE CAMERA



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

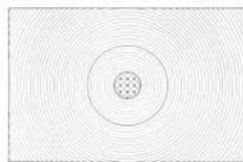
Focusing is always done at full aperture with Auto Nikkor lenses. This gives the brightest possible image on the focusing screen for easy viewing and composing. It also minimizes depth of field so the image snaps in and out of focus distinctly.

The Nikkormat FTN focusing screen consists of a matte Fresnel field with a central 4mm $\phi$  microprism spot for rapid, accurate focusing. Look through the viewfinder at the central spot and turn the focusing ring until the image in the center appears sharp and crisp. (Shown in the photos on the opposite page.)

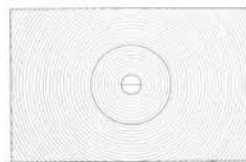
With the Nikkormat supplied with a screen having a split-image rangefinder spot surrounded by a matte Fresnel field, turn the focusing ring so that the two halves of the rangefinder image coincide to form a single sharp image. This is especially suitable for subject with well-defined lines or contours. 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 lens barrel 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.



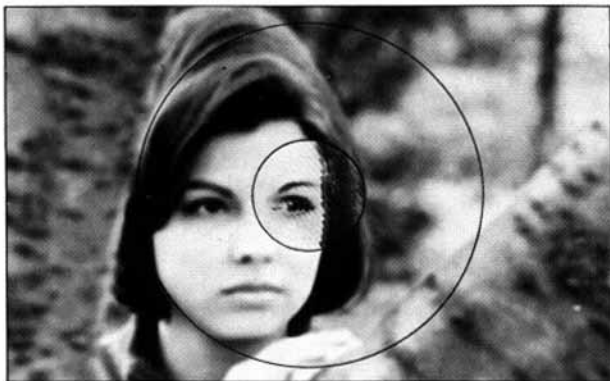
Microprism Screen



Rangefinder Screen







Out of focus



In focus

## Shutter Release

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. For hand-held exposures at speeds slower than 1/30 second, greater sharpness can be obtained if the shutter release is tripped by means of the self-timer. Set the self-timer mechanism in motion (see "Self-timer," p.24.), hold the camera steady and wait for the timer to trip the shutter.

**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.

# FLASH SYNCHRONIZATION

The Nikkormat FTN is designed to synchronize with various types of flashbulbs at all shutter speeds and with electronic flash at speeds up to 1/125 second. Two flash terminals marked "M" and "X" are located on the right side of the camera body. The "M" terminal is for use with flashbulbs types M, FP and MF. The "X" terminal accepts electronic flash units having a standard PC synchro cord. Consult the table below to find out which shutter speeds are acceptable with different types of flashbulbs.

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

■ Synchronized ■ Cannot be used

The Nikkormat accessory shoe must be attached whenever a flash unit such as the Nikon BC-7 is mounted on the camera. Unscrew the finder eyepiece, attach the shoe and replace the eyepiece. Clip the flash unit to the accessory shoe and plug the synch cord into the "M" terminal. With electronic flash, plug the PC cord into the "X" terminal.



# 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 Scale

Depth of field can be read from the color-coded scale engraved on the lens barrel. 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 ( $\infty$ ).

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.



# 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.



## Lens Mounting

In order for the Nikkormat FTN exposure meter to measure light at full aperture with lenses of different maximum aperture, the meter must be adjusted for the maximum aperture of the lens in use. This is done each time a lens is mounted as follows:

First push the camera's coupling pin to the right as far as it will go. Set the lens aperture diaphragm at f/5.6 and insert the lens into the bayonet mount, making sure that the coupling pin fits into the slotted prong on the lens aperture ring. Twist the lens counter-clockwise until it locks in place with a sharp click. Now turn the aperture ring all the way to the minimum aperture setting (largest f/number), then all the way in the opposite direction. This step automatically adjusts the meter to the maximum aperture of the lens.

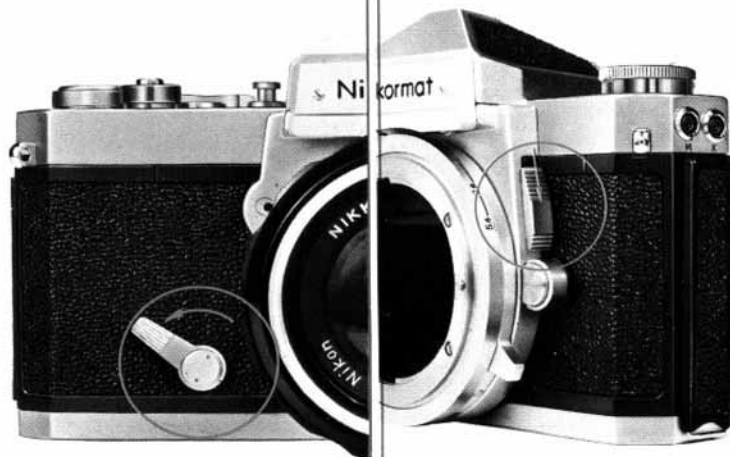
## Maximum-Aperture Scale

The above adjustment can be confirmed by looking at the maximum-aperture scale on ring with the coupling pin. The scale has a range from  $f/1.2$  to  $f/5.6$ . For example, if the 24mm  $f/2.8$  lens is mounted on the camera, the red index mark should fall opposite 2.8.



## 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 7.5mm 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 PICTURE-TAKING

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 ( $\infty$ ). 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.



## MERCURY BATTERY

The Nikkormat FTN's meter circuit is powered by a single 1.3-volt mercury battery located in the battery chamber on the camera baseplate. When the battery is exhausted, the meter will cease to function all at once. Normal battery life is about one year. The battery comes installed with the Nikkormat FTN. 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.



# EXPOSURE MEASUREMENT: SPECIAL CASES

## Stop-Down Exposure Measurement

When a bellows focusing attachment, extension rings or other accessory is inserted between the camera body and lens, or when a preset lens such as the PC-Nikkor is mounted on the camera, the lens aperture diaphragm will not couple with the meter. In this case full-aperture exposure measurement is not possible. Exposure must be determined by the stop-down method as follows:

Push the camera's coupling pin as far to the right as it will go and mount a lens or a lens-and-intermediate unit to the camera in the same way as the Nikkor Auto lenses. Switch on the meter in the usual way and close down the aperture diaphragm manually by turning the aperture ring until the needle centers. If the meter needle will not center, select a different shutter speed.



**Auto-Lenses Without Coupling Prong:** With lenses which have an auto-diaphragm but no coupling prong (the Nikkor 200-600mm Telephoto Zoom, for example), use the stop-down method described above but use the depth-of-field preview button to stop down the lens aperture diaphragm. When the needle centers, transfer your finger to the shutter release button to expose.

**Reflex-Nikkor Lenses:** With the Reflex-Nikkor 500mm f/8, 1000mm f/11 and 2000mm f/11 which have no aperture diaphragm, adjust the shutter speed until the needle centers.

**Note:** Since focusing may be difficult or impossible at small apertures due to image darkening on the screen, first open the lens to full aperture to focus. Then determine the correct exposure by the stop-down method.

## Fisheye-Nikkor Auto 8mm f/2.8

Because of its wide picture angle ( $180^\circ$ ), the Fisheye-Nikkor is susceptible to inflated exposure readings due to direct sunlight. To compensate, open up the lens two stops.

## Micro-Nikkor Lens

When exposure is measured by the full-aperture method with the Micro-Nikkor 55mm f/3.5 at reproduction ratios of 1/10 to 1/2, the diaphragm must be readjusted following exposure measurement as shown in the table below.

Aperture Repro ratio	f/3.5	f/5.6	f/8	f/11	f/16	f/22	f/32
Up to 1/10 incl	No compensation is necessary						
1/10 to 1/4 incl	Stop down 1/2 stop more after exposure setting						
1/4 to 1/2 incl	Stop down 1 stop more after exposure setting						

Assuming that the meter needle is centered at f/5.6, adjust the aperture setting to a point halfway between f/5.6 and f/8 at reproduction ratios up to 1/4.

**Note:** When the new Micro-Nikkor-P Auto 55mm f/3.5 is used, no adjustment is necessary.

When the M-Ring is inserted between the camera body and lens for reproduction ratios from 1/2 to 1:1 (life size), the meter will not couple with the lens aperture diaphragm. Measure exposure by the stop-down method using the depth-of-field preview button.

## Repro-Copying

For originals such as photographs which have tonal gradation, exposure is determined in the usual way. In the case of originals having strong contrast and no gradation, such as documents or line drawings, measure brightness of the white portion of the original (if the original is predominantly black, a sheet of white paper may be substituted) after decreasing film speed by four marks. Or increase exposure about 1-1/3 stops.

## Slide Copying

For originals with continuous tone gradations, determine exposure in the usual way by the stop-down method. To copy slides with letters or figures on transparent background, decrease film speed four marks or increase exposure about 1-1/3 stops. In the case of transparent figures or letters on a dark background, either increase film speed five marks or decrease exposure about 1-2/3 stops.

**Important:** The above are only approximate guidelines. Exact exposure determination is extremely difficult, especially with color reversal films. Therefore, it is advisable to make several different exposures for each subject to be sure of getting one that is correct.

# 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 lens hood, simply depress the buttons on either side of the hood. It 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. They are antireflection coated on both sides. 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.

No exposure compensation for filters is necessary with the Nikkormat FTN. The built-in exposure meter reads only the light passing through the lens and therefore compensates for the loss of light.



## Eyesight Correction Lenses

The nine eyesight 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.



## Finder Eyecup

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



# CAMERA CARE

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.

## Storage

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.

## Camera Body

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.

If smudges or fingerprints appear, clean with lens tissue moistened with alcohol.

## Lens

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 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 the pictures to remember by.

# NIKKORMAT FT<sub>N</sub> FEATURES/SPECIFICATIONS

- 35mm single-lens-reflex camera with thru-the-lens exposure meter.
- Camera back hinges open from the side.
- Metal focal-plane shutter with downward-vertical movement. Speeds from 1/1000 to 1 sec., plus B.
- For flash synchronization, X and M flash terminals are provided: X for speedlight unit at speeds of up to 1/125 sec. and M for flashbulbs at all speeds.
- Built-in self-timer can be set for approximately 8 sec. delay.
- Fixed eye-level viewfinder with pentaprism. Shutter speeds and aperture needle are visible in the viewfinder.
- Focusing screen consists of a matte Fresnel field and a central micropism spot as an aid to rapid and accurate focusing.
- Built-in exposure meter features center-weighted metering at full aperture with Auto-Nikkor lenses. Aperture coupling range extends from f/1.2 to f/32. The meter's sensitivity extends from EV 3 to 17 at ASA 100 (1/4 sec. at f/1.4 - 1/1000 sec. at f/11 with the 50mm f/1.4 lens). Film speeds from ASA 12 to 1600. Maximum aperture scale from f/1.2 to f/5.6. The meter is powered by one 1.3V mercury battery.
- Single-stroke film advance lever winds the film, cocks the shutter and operates the frame counter. Also serves as an on-off switch for the exposure meter.
- Film-rewind crank folds flat when not in use.
- Depth-of-field preview button on top of the camera.
- Nikon F bayonet-type lens mount.
- Self-resetting frame counter.
- Tripod socket on the baseplate.
- Vibration-free automatic instant-return mirror with locking-up feature.
- Dimensions: 148mm x 95mm x 54mm.
- Weight (body without lens): 765g.