

Nikon



• Contents
General Introduction to the Nikkormat FT3 3
Nomenclature
Specifications 6
Brief Guide to Camera Handling 8
Viewing/Metering Functions
Film Transport Functions
Shutter Functions
Flash Synchronization Functions
Lens Operation Functions 17

Description	Code Number	Price	
Nikkormat FT3 Body, chrome	100-34-001		
Nikkormat FT3 Body, black	100-34-041		
1.5V Silver-oxide Battery	100-30-900		
Nikkormat FT3 Body w/1.5V Silver- oxide Battery, chrome	100-34-100		
Nikkormat FT3 Body w/1.5V Silver- oxide Battery, black	100-34-140		
CH-6 Hard Leatherette Camera Case	100-30-800		
CH-7 Hard Leatherette Camera Case	100-30-801		
CF-4 Semi-soft Leatherette Camera Case	100-26-808	<i>a</i>	

General Introduction to the Nikkormat FT3

The Nikkormat FT3 camera is one of the family of "new generation" precision SLRs from Nikon offering greater ease of operation via the all-new Automatic Maximum Aperture Indexing (AI) system for lens-body meter coupling. Built around the traditional Nikon bayonet mount, the finest in 35mm SLR photography, the AI system enables most new Nikkor lenses to couple directly and automatically to the camera's metering system as the lens is locked "home." Thus, there's no fumbling when mounting, no need to rotate the aperture ring to the minimum and maximum aperture settings to index, and that means that lens mounting operation is virtually error-free.

Of course, the Nikkormat FT3 has more to offer the serious photographer than ease of lens mounting alone. The FT3 carries with it the tradition of the Nikkormat series of fine SLR cameras and the solid operational conveniences of its immediate predecessor, the Nikkormat FT2. And, of course, the FT3 continues as the standout companion camera to the F2 Nikons and electronic ELs offering the exceptional ruggedness and high dependability that have always been the hallmarks of cameras bearing the Nikon/Nikkormat names. Solid performance features of the Nikkormat FT3 include the following:

- Sturdy and reliable Nikon bayonet mount. The Nikkormat FT3 is fitted with the same renowned bayonet mount employed in Nikon cameras since the introduction of Nikon SLRs. Noted for its strong, precise seating and alignment of the mounted lens, the Nikon bayonet mount accepts any Nikkor SLR lens, including all of the more than 50 lenses presently available.
- Accurate Nikon center-weighted metering system. The FT3 features the time-tested Nikon center-weighted TTL (through-the-lens) metering system for the ultimate in exposure measurement accuracy. This system, long considered one of the most effective in producing naturallooking and balanced exposures, concentrates 60% of the measurement in the central 12mm diameter portion of the field visible in the finder, while simultaneously measuring the total field for perfect exposures every time.
- High-strength focal-plane shutter mechanism. The camera employs the proven Copal Square S vertical travel shutter for outstanding performance, particularly when operating with electronic flash units. This proven mechanism is yet another assurance that the Nikkormat FT3 will provide dependable service for years to come.

- On-camera flash mount with hot-shoe contact. The FT3' pentaprism-mounted accessory shoe provides for convenient flash unit connection and operation. The shoe features an ISO-type electrical contact for cordless connection to the mounted flash accessory, and it also includes an electrical safety switch that eliminates the chance of electrical shocks when a flash unit is not mounted.
- Automatic MX switchover mechanism. Another of the conveniences aimed at simplifying flash operation with the Nikkormat FT3, the builtin MX switchover mechanism provides for automatic selection of the correct synchronization timing as the shutter speed is set. This mechanism, adopted from the F2 Nikon cameras, is another example of how Nikon design and systemization works for the convenience of Nikon users.
- High-performance, dependable power source. The FT3 uses a high-performance silver-oxide battery power source for greater power stability over a wide range of temperatures. With solid, wide-temperature-range performance, the Nikkormat FT3 proves itself under the most demanding operating conditions.
- Film speed selector lock. The lock mechanism built into the tip of the shutter speed selector lever ensures that the film speed selector remains set to the speed desired. The chance of accidentally moving the film speed selector is totally eliminated.

3

- Reinforced neckstrap eyelets. The neckstrap eyelets of the FT3 are reinforced for solid durability under the toughest use—a feature introduced with the F2 Nikon cameras.
- Plastic-tipped control levers. The plastic covering on the camera's self-timer and film-advance levers makes for easier access and greater operation comfort.

The Nikkormat FT3, with its heritage of solid performance and wide popularity among professional and amateur photographers alike, truly reflects the quality and tradition of Nikon products, and it should continue to prove itself a valuable key to the "new generation" of Nikon camera products.





Specifications

Type of camera:	35mm single-lens reflex with built-in exposure meter	Metering range:	EV 3~EV 17 (i.e., f/1.4, 1/4 sec.~f/11, 1/1000 sec. at ASA 100 with 50mm f/1.4
Picture format: Lens mount: Lenses available:	24mm x 36mm (35mm film format) Nikon bayonet mount Nikkor 50mm f/1.4, f/2 or 55mm f/1.2 as standard; more than 55 Nikkor lenses in all	ASA film speed setting: Lens diaphragm	lens) ASA 12~1600; film speed scale lock provided
Shutter:	Metal focal-plane shutter (travels vertical- ly); speeds from 1/1000 to 1 sec. plus B; delayed exposure via built-in self-timer up to 10 sec. (approximately)	coupling:	Built-in meter coupling lever for Nikkor lenses capable of automatic maximum aperture indexing with maximum aper- tures of from f/1.2 to f/5.6; meter/dia-
Flash			phragm coupling of from f/1.2 to f/32
synchronization:	Automatic MX switchover with shutter speed setting; hot-shoe contact (ISO- type) with built-in safety switch pro- vided; one threaded PC sync terminal provided for off-camera flash operation.	Film winding:	provided Via single-stroke lever with 135° winding angle and 20° stand-off angle; lever also serves as meter on/off switch; multi- slotted take-up spool for easy film load-
Synchronization	,	· ·	ing
range:	$1/1000 \sim 1/250$ sec., $1/30 \sim 1$ sec. and B for FP and M bulbs; $1/30 \sim 1$ sec. and B for MF bulbs; $1/125 \sim 1$ sec. and B for electronic flash	Frame counter:	Shows number of frames exposed (addi- tive type); automatically resets to "S" (two frames before "O") when camera back is opened
Accessory shoe:	ISO-type built into finder housing; fitted with hot-shoe contact and electric safety	Film rewinding: Depth-of-field	Manual via film rewind crank
	switch which turns on contact as flash unit is mounted	preview: Camera back:	Via button provided on front of camera Hinged; opens by pulling the camera back
Viewfinder:	Fixed eye-level pentaprism type with built-in through-the-lens (TTL) exposure meter; selected shutter speed and "neigh- boring" shutter speeds appear in view- finder; meter needle also visible in view- finder; viewfinder magnification, 0.9X with 50mm lens set at infinity; finder coverage, approx. 92% of the picture field	Body finish: Battery: Weight: Dimensions:	latch Satin-chrome or semi-gloss back One 1.5V silver-oxide battery powers exposure meter 780g (body only) 148mm (W) x 96mm (H) x 54mm (D)

Focusing screen: Matte Fresnel field with central splitimage rangefinder surrounded by microprism ring; 12mm-dia. reference circle defines area of meter center-weighing; similar to Nikon Type K screen

Reflex mirror: Exposure

metering:

6

Through-the-lens, center-weighted measurement at full aperture with two CdS cells on either side of eyepiece; exposure correctly set by centering meter needle; stop-down control also possible; meter needle with plus and minus marks appears on the right side of viewing field and atop the camera body

Instant-return type; lockup lever provided



Brief Guide to Camera Handling



The Nikkormat FT3's conveniently placed controls facilitate rapid operation of the camera. The following five operational steps are all that is needed for most "shutter-priority" photographic situations. Note also that a similar five-step operation is also available for "aperture-priority" camera operation.

- 1. Set the shutter speed via the conveniently placed control lever.
- 2. Turn on the meter by simply moving the filmadvance lever out 20°.
- 3. Look through the viewfinder to compose the picture.
- 4. Focus the subject by turning the lens' focusing ring until the image is sharp.
- 5. Set the meter needle for the proper indication by turning the aperture ring.



Ready access to battery via baseplate chamber

0



Exposure meter turned ON as film-advance lever is moved to the 20° standoff position



Access to the film chamber via conveniently positioned camera back latch



Verification of depth of field at the touch of a button



External meter indicator for special shooting situations



Simple lever operation to lock up the mirror



Automatic maximum aperture indexing as lens is mounted



Sturdy, convenient on-camera flash operation with hot-shoe mounting



Self-timer operation at the touch of a lever

Viewing/Metering Functions

The Nikkormat FT3 is fitted with a fixed pentaprism finder offering convenient eye-level viewing and composing. The image, viewed through the mounted lens via the camera's built-in reflex mirror, appears unreversed and erect on the focusing screen for the fullest ease of viewing and focusing. The finder coverage is approximately 92% of the picture area registered on the film, and corresponds to almost the entire picture area of a mounted color slide. The focusing screen fitted in the camera is similar to the Type K screen available for F2 Nikon cameras; it has a central split-image rangefinder surrounded by a microprism collar and a matte Fresnel field. For focusing, the photographer can use either the central rangefinder or microprism collar, or any part of the matte screen to meet the requirements of the particular lens or shooting situation. In total, the FT3 viewfinder, when combined with fully automatic Nikkor lenses, assures the brightest possible images for comfortable, sure viewing and pinpoint focusing.

The Nikkormat FT3's viewfinder also houses the camera's thru-the-lens (TTL) exposure measurement system. The finder meter measures the total image area, but favors the 12mm diameter central portion representing one-eighth of the total field; with this system, approximately 60% of the meter reading is taken in only the central reading, with the additional 40% representing the value for the remainder of the field. By employing the centerweighted measurement technique, the Nikkormat FT3 assures the most balanced readings for the widest range of lighting conditions and for equally balanced readings in both vertical and horizontal format shooting. All meter readings are crosscoupled with the camera's shutter speed and aperture controls to ensure full consideration of the lens/camera settings in use. The range of the camera's metering system is EV3 to EV17, sufficient to cover operation from f/1.4 at 1/4 second to f/11 at 1/1000 second with a 50mm f/1.4 lens and ASA 100 film. The highest metering accuracy is ensured over a wide range of temperatures by the use of a 1.5V silver-oxide battery as the power source.

10

The viewfinder displays essential information concerning both the shutter speed selected and the metering setting. On the scale visible just below the viewfield are found three shutter speeds corresponding to the selected value (in the center), the next faster speed (to the left) and the next slower speed (to the right); to ensure quick recognition, the center value is in white, with the others in yellow. Also, to the right and within the field is found the metering indicator; this display consists of the moveable meter needle and a bracketing frame with a plus and minus defining, respectively, overexposure and underexposure. Additonal controls are detailed on the following page.



The crisp, in-focus image

Convenient meter "ON" action

Film-Advance Lever. The camera's metering circuit, powered by the silver-oxide battery in the base of the camera, is turned on by the operation of the film-advance lever. As the lever is moved outward to the 20° standoff position, the meter is turned on; this condition is indicated by the red meter ON index dot visible on the camera body.

Meter Coupling Lever. The Nikkormat FT3 features the new Automatic Maximum Aperture Indexing (AI) system via the meter coupling lever mounted at the base of the lens mounting flange. This spring-loaded mechanism engages the meter coupling ridge on the AI lens as it is locked "home," and couples the aperture setting selected to the camera's metering circuit for error-free exposure measurement. With this mechanism, no rotation of the aperture ring is required to index the lens' maximum aperture. For exposure measurement with non-AI lenses, the stop-down method is available.

Depth-of-field Preview Button. The preview button aids when viewing by allowing the photographer to close the lens' iris diaphragm to the preselected aperture for an accurate "preview" of the focus range prior to exposure. When using automatic Nikkor lenses not fitted with meter coupling ridge, the preview button allows the photographer to stop down the lens to the shooting aperture so that exposure measurement can be performed. For operations mentioned, the button's convenient location makes for precise, effortless preview operation.

Finder Eyepiece. The camera comes equipped with a plain glass eyepiece mounted on the finder. The finder frame is threaded for easy removal of the eyepiece, thus, enabling the attachment of a variety of viewing accessories including eyepiece correction lenses, eyepiece magnifier, and right-angle viewing attachment.

Film Speed Scale/Film Speed Selector. The FT3 can be set precisely for the film sensitivity via the film speed scale and selector provided at the lower portion of the shutter speed ring. The scale is provided with 22 settings for film speeds from ASA 12 to ASA 1600 and, to ensure that the selector remains exactly as set, a selector lock is fitted at the end of the shutter speed lever; when the selector is set at the desired speed, the selector lock retracts back into the tip of the lever, with the selector securely in place.

External Meter Window. For convenience of operation when viewing through the finder is not necessary (e.g., candid photography, etc.), or when the meter in the finder is not visible (e.g., when the eyepiece magnifier etc. is attached), the external meter window located on the left top of the camera comes in very handy. Within the window are a meter needle, a circle denoting correct exposure, and plus/minus marks denoting overexposure and underexposure, respectively.



Automatic, precise maximum aperture index coupling



Fingertip, depth-of-field preview



Adaptability for viewfinder accessories



External meter display convenience

Film Transport Functions

The Nikkormat FT3 features a precision film transport mechanism that maintains film flatness within narrow tolerances for the sharpest exposures. As the film is advanced with each stroke of the lever provided, it travels over/between precision-ground guide rails that serve to position the film emulsion surface exactly over the film gate. Aiding the two sets of guide rails in assuring film flatness are the film roller and the precision-finished film pressure plate, both attached to the interior of the camera back.

Film advance operation at the completion of each exposure is accomplished via the single-stroke advance lever provided at the upper right of the camera body. The lever, when stroked through a full 135° , performs the functions of advancing the film one frame, cocking the shutter, advancing the frame counter to the next graduation, and freeing the shutter release for the next exposure. As the lever is moved to the 20° standoff position, the red meter ON index is revealed and power is applied to the camera's circuitry.

Positioned within the rear of the body, and coupled to the film advance lever, is the film take-up spool that winds the film emulsion-side-out to compensate for the film's natural tendency to curl. Film feed to the take-up spool is precise via the sprocket roller provided between the spool and the film gate; this roller has sprockets at either end to engage the upper and lower perforations on the film, and thus provides smooth feed.

12



Film advance with a short 135° stroke



Finest film transport system

Additional elements of the film transport/control system are as follows:

Film Plane Indicator. Under demanding photographic situations such as close-up photography, precise subject-to-film distance must often be measured to ensure the best results. With the Nikkormat FT3, this operation can be easily performed using the film plane indicator provided on the upper right of the camera body. Positioned precisely in the film plane, and 46.5mm from the front surface of the lens mounting flange, the indicator mark (Θ) helps to equip the FT3 for precision photographic situations.

Frame Counter. The FT3 employs an additive-type frame counter directly coupled to the film advance mechanism. With each stroke, the counter advances one graduation to show the number of frames exposed. Numbers are provided at every second frame from 0 to 36, with 12, 20 and 36 in red for recognition. The counter does not operate during rewind, and it resets to "S" (two frames before "O") as the camera back is opened to remove the film cartridge.

Film Rewind Button/Crank. When all frames on the roll have been exposed, rewinding is necessary before the camera back can be opened, and film changed. By simply depressing the rewind button on the baseplate of the camera body, the film advance mechanism is disengaged for the start of rewind operation via the fold-out crank at the upper left. The knob, to which the crank is attached, is engraved with an arrow denoting the direction to rotate for film rewinding. After a new roll of film is loaded into the camera, the first advance stroke of the film advance lever will reset the rewind button for normal operation.

Camera Back Latch. Light-tight closure of the camera back is a must for top performance, and the solid latching mechanism of the FT3 ensures this condition at all times. Spring-loaded, the camera back latch at the lower left end of the camera makes for easy opening of the camera back (by simply pressing the latch downward, the back springs open), yet is secure against accidental release.



Easy-to-read film plane indicator and frame counter



Easy-to-actuate film rewind button



Ease of access to film chamber

Shutter Functions

The Nikkormat FT3 is fitted with a Copal Square S focal-plane shutter (vertical downward-travel type) offering speeds of from 1 second to 1/1000 second, as well as "B" for longer exposure. The shutter curtains are each constructed with three blades and travel across the film gate in approximately 6.7 milliseconds. With this shutter configuration, the curtains are moving (downward) across the shorter 24mm vertical gate dimension, thus, resulting in a more rapid transition from fully closed to fully open. This effect means that the gate will be fully open for electronic flash synchronization at shutter speeds of 1/125 second and slower, thus offers approximately a one-step increase in the usable fast shutter speed, as when compared to most horizontal-travel shutter mechanisms.

The selection of the desired shutter speed is via a ring located at the base of the lens mounting flange at the front of the camera body. As the ring is rotated through its full operation range via the lever provided, the changing settings appear successively within the finder (see "VIEWING/METERING FUNCTIONS") so that the photographer can make necessary adjustments while countinuing to look through the finder eyepiece. Externally, the settings can be verified by checking the shutter speed scale on the ring. For precise setting from ''B'' \sim 1/125 second (no intermediate settings can be used in this range), click-stops help alignment with the index dot provided; from 1/250 second to 1/1000 second, click-stops are also provided, however, intermediate settings can be selected for precise meter settings when fixed aperture Reflex-Nikkor lenses are used. Specific speed settings provided are "B" for bulb time exposures, 1 for one second, and 2, 4, 8, 15, 30, 60, 125, 250, 500 and 1000 for fractional values of from 1/2 second to 1/1000 second. Lastly, the shutter speed settings are colorcoded for easy reference when flash synchronization operation is required; settings from 250 to 1000 are in red to indicate that these speeds cannot synchronize with electronic type flash units and that intermediate fractional shutter speeds are available, while the remaining settings are in black.



Durable, accurate Copal Square S shutter



Fingertip shutter speed selection



Convenient-to-read shutter speed scale/index

The shutter is released via the release button fitted atop the camera body, slightly forward of the advance lever. The button may be actuated either by applying direct finger pressure, or via a standard ISO-type shutter release (e.g., AR-3 Cable Release) attached to the button (a Nikon-type release such as the AR-1 or AR-2 may also be used via the additional threads provided). At shutter speeds of from 1 second to 1/1000 second, the button acts to trip the shutter for the time interval set via the shutter speed ring. When the ring is set to "B," however, the release button operation determines the duration of the shutter opening—as long as the button is depressed, the shutter remains open. This latter feature enables long time exposures.

The self-timer fitted on the front of the body can be used to delay the release of the shutter--a condition ideally suited for self-portraits or other special shooting situations. After advancing the film and setting the aperture and shutter speed controls as desired ("B," however, cannot be used), the plastictipped self-timer lever is turned approximately 50° preparatory for shutter release; then, when ready, the photographer simply depresses the shutter release button and the timer begins its 10-second (approx.) delay cycle, ending with the shutter being released for the interval specified by the shutter speed setting. Note that the self-timer lever is marked with a white stripe for better visibility during the delay cycle. It should be added that the selftimer can be used for vibration-free, special-purpose photography; set the timer as usual, and when the shutter is released, the mirror will rise immediately and the shutter will operate after the 10second delay.



Perfectly positioned shutter release button



Self-timer puts the photographer in the picture

Flash Synchronization Functions

The Nikkormat FT3 exhibits excellent operation convenience in the area of flash operation. Through the use of the same vertical-travel type focal-plane shutter mechanism, the camera retains the capability to synchronize with electronic flash units at speeds to 1/125 second, as well as with bulb flash units at almost all shutter speeds. Also, the FT3 features the automatic MX switchover mechanism which selects the proper synchronization timing as the shutter speed is set. This automatic function, similar to that used in the F2 Nikon cameras, offers greater convenience and virtually error-free operation for perfect flash exposures.

The FT3 is also fitted with a fixed accessory shoe atop the pentaprism housing. Electrical connection between the camera and the flash unit is possible via either of two synchronization connections provided. The electrical contact built into the shoe provides for direct synchronization with all electronic or bulb flash units fitted with an ISO-type hot-foot contact—simply slide the unit in place and the built-in safety switch activates the shoe for operation. When using flash units that have no electrical contact (or when using any flash unit offcamera), the threaded PC synchronization terminal provided at the end of the camera body proves convenient.

The interrelationship between shutter operation and flash synchronization with the Nikkormat FT3 can best be explained by viewing the various timing elements involved. The synchronization functions for the FT3 are depicted in the figure above. Upper curved lines represent various flash sources, while shutter curtain movement at various speeds are depicted below.



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Nikkormat



Precision hot-shoe for "on-camera" flash convenience

Threaded sync terminal for "off-camera" flash



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

Synchronized Cannot be used

*Some M class bulbs that have shorter flash duration may not cover these speeds.

Lens Operation Functions

The Nikkormat FT3 is fitted with a reflex (i.e., reflecting) mirror that enables parallax-free image viewing/composing/focusing through the lens attached to the front of the camera body. During exposure, the mirror moves rapidly out of the optical path to enable light to reach the film plane; at the completion of the exposure, the mirror returns to the original (lowered) position to enable the continuation of thru-the-lens operation. During the period that the mirror is moving upward, the iris diaphragm of the automatic lens mounted is closed to the preset aperture via the lever provided within the camera body: with this lever, it is possible to use the lens continuously at the full aperture position for viewing convenience, yet rapidly close the lens diaphragm during the interval just prior to shooting. Additional camera controls related to lens operation are as follows:

Mirror Lockup Lever. When certain special lenses, such as deep set Fisheye-Nikkor lenses, are mounted on the Nikkormat FT3, they interfere with the free movement of the reflex mirror. For these situations, the camera's mirror lockup lever provides the means to secure the mirror in the closed (upper) position, thus, enabling the use of the lens. The operation of this lever is independent of other controls, and may be used at any time to lock (or release) the mirror. The mirror lockup lever is also useful for special purpose_exposure situations; the mirror is locked up prior to shutter release to eliminate mechanical vibrations that might otherwise blur the exposure.

Lens Mounting Flange. The FT3 is fitted with the Nikon-standard (44mm-diameter) bayonet-type lens mounting flange for attachment of any Nikkor interchangeable lens. The flange is made of specially-treated, hard-wearing, steel that ensures precise seating and alignment for exact 46.5mm flange-to-film distance. The bayonet design of the mount enables a short 60° twist-to-lock action for quick and sure connection.



Large reflex mirror for full-frame viewing



17

Mirror lockup for special lenses, special pourposes



Nikon bayonet mount-the world's finest

Lens Release Button. The lens mounting flange is fitted with a lens locking mechanism that ensures solid lens connection. As the lens is twisted counterclockwise during mounting, the locking mechanism clicks in place to secure the lens; when the lens is to be removed, the lens release button at the right of the flange is depressed to disengage the locking mechanism, thus enabling lens removal. During lens removal, it is recommended that the release button be depressed and held to minimize component wear.

Coupling Lever Release. Although designed for automatic maximum aperture indexing with lenses fitted with the meter coupling ridge, the Nikkormat FT3 is also capable of operation with other Nikkor lenses not fitted with the coupling ridge. For these latter lenses, stop-down exposure measurement is available via the depth-of-field button. However, as a prerequisite for this operation (and also when using some special accessories such as a bellows attachment, etc.), the camera's meter coupling lever must be moved out of the way to prevent interference with the unit being mounted. The coupling lever release located in close proximity with the lever enables this action-simply depress and hold the release and lift the coupler up and back out of the way. In this position, the non-ridge-fitted lens or accessory can be attached and operated with stop-down measurement as previously mentioned.



Conveniently positioned lens release button





Simple, quick lever lockup

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