

# NIKON F3

Electronic Total System Camera

The Modern Standard Of  
35mm Professionalism





# THE NIKON F3

**THE NIKON F3** stands as a masterpiece of modern technology, dedicated to today's most demanding photographers. It is the finest of the famous breed of cameras born of the unique Nikon commitment to excellence, whose standard of performance has made Nikon the choice of the overwhelming majority of 35mm professionals.

**The F3 demonstrates Nikon leadership in slr technology** with a matchless array of electronic and mechanical advances. Linking these advances with its modular design, it extends automatic exposure control throughout the Nikon system for unprecedented versatility.

**Even more important**, the F3 combines its state-of-the-art technology with Nikon engineering that has long been acclaimed for incomparable precision and ruggedness. And, it incorporates all these advantages in a camera clearly conceived with the photographer in mind. Every feature is designed with an eye towards practical performance... every control devised for easy, fast operation. There are no superfluous controls or features to complicate your picture-taking. Even the unique body design of the F3 was developed to give its compact, light weight body the most natural, balanced feel in your hands.

**Selected by NASA.** The Nikon F3's capabilities extend even to the outermost limits. While still on the drawing board, it was selected for use by NASA astronauts in the Space Shuttle program. Except for modifications required for the special environment in space, these Space Nikons are essentially the same as the rugged, reliable F3 camera bodies available at Nikon dealers everywhere.

Precision, performance and versatility unmatched in the realm of 35mm photography. It's all yours in the Nikon F3 — the standard of 35mm professionalism, today and in the years ahead.







*The Nikon F3 has been selected by NASA as the exclusive operational 35mm slr for use on the U.S. Space Shuttle illustrated here.*



# THE NIKON F3

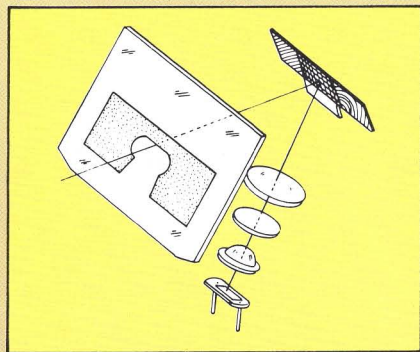
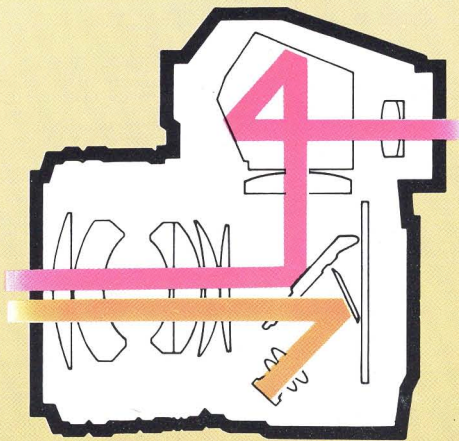
## Electronic exposure control that approaches perfection

Professionals have long relied on the accuracy of Nikon through-the-lens metering. Now, the F3 meter surpasses even its legendary predecessors.

The new technology devised by Nikon to achieve this performance is itself extraordinary. To begin with, a Silicon Photo Diode (SPD) meter cell is built into the camera body. This logical position

for the cell enables it to function with countless different F3/lens/viewfinder/screen combinations. Light enters through the lens and passes through thousands of microscopic non-silvered portions on the reflex mirror to a secondary mirror, which focuses it on the SPD meter cell. The meter's sensitivity spans the range from brilliant sunlight to near-darkness (EV 1 to 18). It responds instantly to brightness changes, without the 'memory lag' of lesser systems.

The F3 meter is sensitive to the entire field of view seen in the finder but concentrates most of its sensitivity (about 80%) in the central area, indicated by a 12mm circle on the finder screen. This improved version of Nikon 'center-weighted' metering has been tested to assure accurate exposures under the widest range of light conditions, even with backlighting or high contrast situations, and for vertical as well as horizontal compositions. Exclusive Nikon electronics, including the Functional Resistance Element, the most reliable variable resistor in 35mm, and a special meter compensation circuit help make the F3 meter uniquely dependable. Because there are no moving parts, the meter is also highly resistant to wear, shock, and extreme heat and cold.

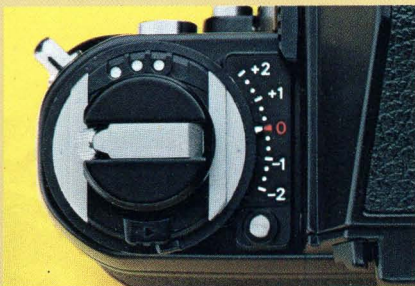
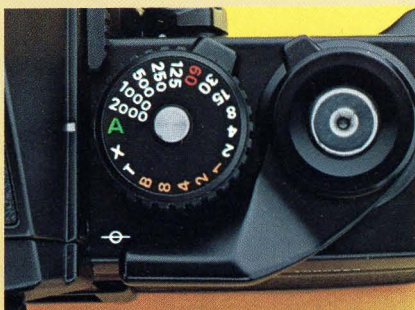




## ...automatically, throughout the Nikon System

As you press the smooth electro-magnetic shutter release button, the F3 meter automatically turns on and then sets the precise shutter speed to match the selected lens aperture ... steplessly, from 1/2000 to 8 seconds ... and clearly shows the calibrated speed closest to it in the viewfinder. What's more, the F3 does it with all of its finders and screens — with any reflex-viewing Nikkor lens and optical accessory — even with polarizers, which play havoc with lesser systems. And you enjoy full, professional depth-of-field and shutter speed control with Nikon aperture-preferred metering. The F3 meters at full aperture — in auto and manual modes — with all AI-type Nikon system lenses and accessories; with non-AI equipment, stop-down metering is used.

The Nikon F3 combines this all-encompassing automation with wide-ranging creative controls. You can override your auto exposures with the electronic 'memory lock' or the +2 to -2 EV compensator, which lets you fine-tune or bracket exposures. Whichever you choose, you always see the exposure information in the F3 finder.





# THE NIKON F3

## Revolutionary LCD finder readouts

The Nikon F3 scores another breakthrough with its Liquid Crystal Display (LCD) readout system. Because it uses far less power than other electronic displays, LCD allows camera batteries to function longer. It is also shock resistant and highly reliable over a wide temperature range — all vital advantages to photographers working under the most challenging conditions.

Activated by the shutter button, the F3's LCD system shows the digital shutter speed (in auto or manual or flash mode) plus under/over-exposure symbols clearly and without distraction. In addition, the F3 displays the selected aperture of the AI-Nikkor lens in

use, via the Nikon Aperture Direct Read-out (ADR) built-in illuminator assures easy LCD/ADR visibility in dim light.

All this information is clearly displayed with any F3 finder and screen, as is a Light Emitting Diode (LED) flash ready-light/exposure verification signal, activated by the F3's 'dedicated' thyristor flash units.

With the Nikon F3, you always enjoy full visual control over the entire picture situation, in any situation.





# The most accurate Nikon shutter ever

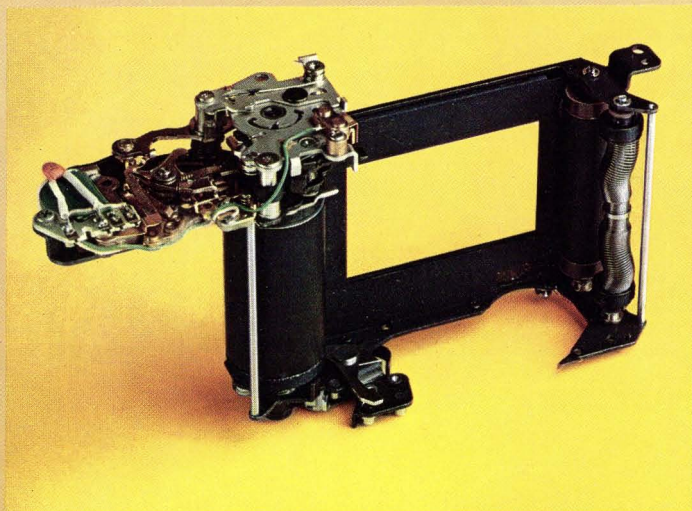
With the F3 in 'auto' mode, shutter speeds are set over a continuously variable range of 1/2000 to 8 seconds with micro-second accuracy by the camera's Large-Scale Integrated circuit (LSI) micro-processors. In 'manual' mode, each of the calibrated speeds, covering the same range, is timed with incredible precision by an electronic system using a quartz crystal time base.

But, it's efficient mechanical design that brings the efforts of electronics to life. And, it's matchless Nikon engineering that brings out the full potential benefits of this combined technology. Nikon professionals are accustomed to a ruggedly reliable shutter that has withstood tests for thousands of exposures. The F3 shutter is Nikon's

best ever. Its curtain system is made of lightweight, super-strong titanium, the space-age material, and 'quilted' for even better performance. For flash photography, its super-fast 'travel-time' permits X-synch up to 1/80 second. Its accuracy throughout the entire range of 8 seconds to 1/2000 is extraordinary... actually measurable to the fourth decimal place!

The F3 shutter fires electromagnetically for the smoothest possible release. There is also a built-in auxiliary release that lets you fire without battery power at mechanical speeds of 1/60 and 'T', providing vital professional fail-safe assurance!

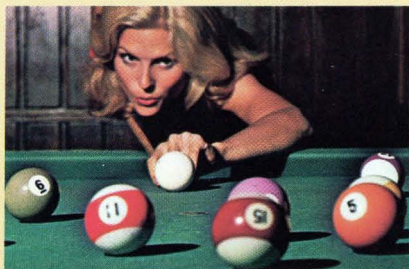
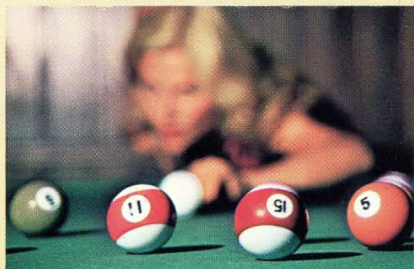
With the Nikon F3, you are always ready *and able* to shoot!





# THE NIKON F3

## System-wide through-the-lens flash automation



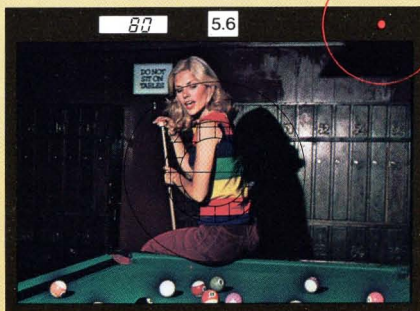
The Nikon F3 brings an extraordinary new dimension to flash photography: automatic through-the-lens flash metering with every interchangeable finder, screen, reflex-viewing lens and lens-mounted accessory! It does this with your choice of two unique Nikon thyristor units, each offering important capabilities:

- **Total depth-of-field control.**

Lens apertures are continuously adjustable even between f-stops over a much wider range than with conventional thyristor units.

- **Superior exposure accuracy.**

The F3's SPD meter cell actually reads the light reflected from the film-plane image during exposure. It works automatically with direct flash, bounce flash, wide-angle and tele lenses, filters, tele converters and close-up accessories — all without special expo-



sure compensation. It does not react to spurious reflections outside the actual picture area (as can happen with other auto flash systems when shooting with a telephoto lens).

- **Extra-fast error-free operation.**

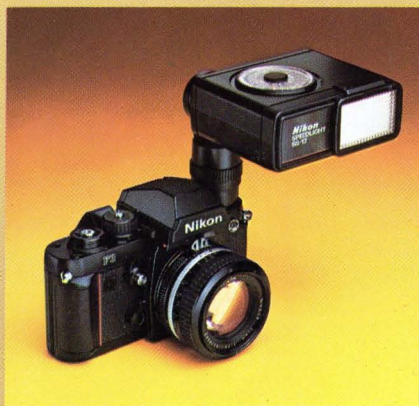
Automatic camera/flash data exchange eliminates the need for separate flash programming or adjustments...and the in-finder LED signal automatically confirms exposure accuracy!



**With the compact cordless Nikon SB-12 unit,** flash photography couldn't be easier. Slide the unit onto the F-3's hot shoe, and the ASA in use is automatically programmed into the SB-12. Turn the SB-12 on, and the F3 is automatically set to the 1/80 synch speed and, when the unit is charged and ready to go, a red LED lights up in the F3's finder.

Now, just select your f-stop from the wide range shown on the unit's indicator dial, and shoot. The light output is adjusted automatically for electronically-accurate exposures. If you choose too small an f-stop, the F3's ready-light will blink after you shoot, telling you to use a different f-stop.

The SB-12's battery-saving thyristor circuitry gives from 160 to hundreds more flashes with just 4 pen-lite batteries, with recycling times from about 8 seconds to under 1 second according to distance and aperture. With ASA 100 film and f2 lens you can shoot at distances from close-up to more than 40 feet away.



**For total professional capabilities, choose the Nikon SB-11.** It offers a powerful ASA 100 Guide No. of 118 (up to about a 60-foot 'reach' at f2), plus tilting reflector for bounce flash and quick-release bracket for off-camera lighting, including close-ups. Automatic through-the-lens flash metering with the Nikon F3 is provided via the accessory cord SC-12. With accessory Remote Sensor SU-2, the SB-11 gives accurate 3-aperture automation in both direct and bounce modes with other Nikon cameras.

While through-the-lens flash metering and viewfinder indication are exclusive with the Nikon SB-11 and SB-12, the F3's PC outlet also permits use of standard cord-type flashes. Nikon adapters are available to fit units with conventional or Nikon F2 shoe mounts on the F3's special hot shoe.

In flash photography, too, the Nikon F3 offers the highest degree of professional accuracy and versatility.





# THE NIKON F3

## Motor drive photography at 6 frames per second

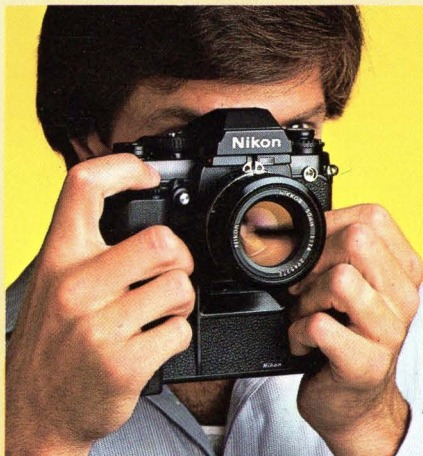
For nearly three decades, the motor-driven Nikon slr has been the very emblem of professionalism. You see this dynamic combination with its dependable, always-ready firepower at work where anything of importance happens.

With the F3 and its compact MD-4 motor drive, this performance is significantly improved.

### Unprecedented firing speed.

Using the Nikon nicad pack, you can shoot up to 6 frames per second with mirror up, 5.5 fps with full reflex viewing and automatic exposure control, faster than with any previous standard motor.

**Highest efficiency.** The MD-4's ingenious, power-saving transistorized circuitry, combined with the camera's specially designed low-friction film transport system fires up to 140 36-exposure rolls with one set of 8 AA alkaline batteries. Both power sources fit into the motor's integral battery compartment. And, both also



operate all powered camera functions, conserving the camera batteries' life.





**All-weather reliability.** Using the Nikon Nicad pack, you can shoot at temperatures down to  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) with all F3 automatic functions operating. (Most cameras and motors stop working long before that.) The MD-4's built-in, subtractive frame counter automatically shuts the motor off at '0' for extra protection against film tearing in frigid weather. You can also preset the counter and shoot bursts of any desired length.

**Supreme handling speed and convenience.** It's yours all the way from fast, easy mounting of the motor on the camera to powered rewinding of a 36-exposure load in just 4.5 seconds. The motor's anatomical grip provides its own electromagnetic shutter release, with the same battery-saving automatic shut-off as the camera release. The F3 and MD-4 combine into a superbly balanced instrument as impressive in its handling ease as in its truly incomparable efficiency.

**Full professional facilities.** In continuous mode, the firing rate is automatically the fastest permitted by the selected shutter speed,

whether in auto or manual mode. There is provision for multiple exposure with precise registration, using a simple top-mounted control. Dual LED's on the motor back indicate film advance, motor counter at "0", and also operate as a motor battery check. When the optional MF-6 camera back is used, the LED's signal the end of the power rewind. Gold-plated contacts inside the camera provide a terminal for operation of optional data backs. The F3/MD-4 combination can be used for remote and even unmanned photography with Nikon intervalometers, wireless and Modulite controls, also with external power sources and with special bulk film and data backs.





# THE NIKON F3

## Incomparably accurate and versatile viewing

No other 35mm slr matches the virtual 100% viewfinder coverage and centering accuracy of the F3, a tradition the F3 shares with its famous predecessors. Nor does any match the full scope of its modular versatility, with interchangeable viewfinders and focusing screens to meet any and all professional requirements and never with any

loss in metering performance. The Nikon F3 finders are newly designed for quick, secure interchange with one hand, even when wearing gloves. Each is designed for optimum protection against dust and moisture. Whichever you are using, you always enjoy the unique F3 exposure automation and data display.





**Standard Eye-Level Finder DE-2** with silver-coated pentaprism displays an extraordinarily brilliant, clear image with corner-to-corner visibility. The eyepiece is rubber-cushioned for comfortable viewing and prevents scratching of eyeglasses. A built-in eyepiece shutter prevents strong extraneous light from affecting meter accuracy when your eye is away from the finder (as in self-timer use or remote operation).

**Action Finder DA-2** features special prism optics that let you view the entire image with your eye up to 2½" from the finder — a vital advantage in situations requiring protective eyewear, when the camera is used in an underwater housing, or for split-second sport action coverage.

**Waist Level Finder DW-3** facilitates low-angle and close-up work. Extremely compact, with folding hood that opens and closes with a touch of your finger, it lets you view and focus from above (or below, with the camera held overhead). Features flip-up 5X magnifier for critical focusing.

**6X Focusing Finder DW-4** is ideal for exacting macro, micro, or astronomical photography. Its 6-element optics magnify the entire image (including data readouts) fully 6 times. Built-in -5 to +3 diopter adjustment assures highest accuracy and comfort. Permits aerial (parallax) focusing with appropriate F3 screens. Also serves as a superior-quality loupe for inspecting negatives and slides.

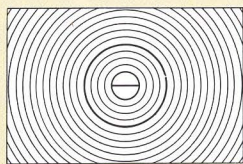




# THE NIKON F3

## Choice of 20 focusing screens

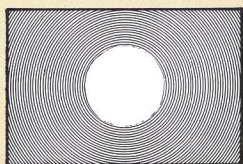
Specially created for the Nikon F3, these screens are mounted in rigid metal frames designed for easy insertion and removal, and offer increased brilliance for extra focusing and composing ease. None requires any exposure compensation, as other systems do, because the F3 meter is independent of the finder and its screens. For extra-bright viewing and critical focusing accuracy in dim light or with special lenses...for precise image alignment in architectural, copying, and multi-exposure work...for accommodating any personal preference, this matchless Nikon F3 versatility is a vital element in the photographer's capabilities.



center-weighted metering area. For general photography with lenses to 400mm telephoto, f4.5 or faster.

### Type A

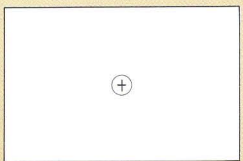
Matte Fresnel field with horizontal split-image range-finder spot and 12mm reference circle outlining



ed for use with long-focal-length lenses and lenses of small maximum aperture (f5.6-f11.).

### Type B

Matte Fresnel field and 12mm fine ground-glass center. For general photography; especially suit-



tions involving high magnification where aerial-image and parallax focusing can be used with 6X magnifying finder, 2X eyepiece magnifier or right angle finder.

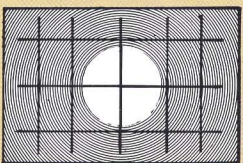
### Type C

Fine-ground glass matte field with clear spot and cross hair reticle. Ideal for photomicrography and other applica-



### Type D

All-matte, fine-ground glass surface. For use with long focal-length lenses or in close-up photography.

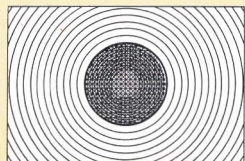


ground glass matte spot. For architectural and other photography requiring careful image placement.

### Type E

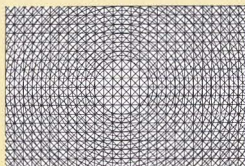
Matte Fresnel field with vertical and horizontal reference lines, 12mm reference circle, and fine-





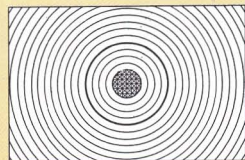
**Type G Series**  
Clear Fresnel field with 12mm diameter microprism focusing spot. Provides extremely brilliant image

for viewing and focusing in poor light. Available in 4 models with individual Fresnel patterns to match specific lenses, as shown on lens/screen selector chart.

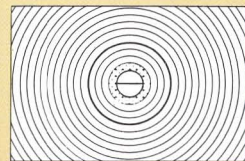


**Type H Series**  
Clear Fresnel field with microprism pattern over entire screen area. Permits rapid focusing on any

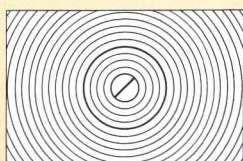
part of screen image, with optimum edge-to-edge brightness. Excellent for use in poor light with moving subjects. Available in 4 models for specific Nikkor lens types.



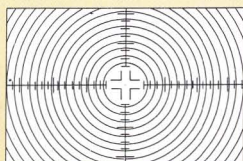
**Type J**  
Matte Fresnel field with microprism focusing spot and 12mm reference circle. For general use with any lens.



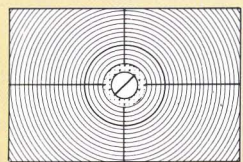
**Type K**  
Matte Fresnel field with central horizontal split-image rangefinder spot surrounded by microprism ring and 12mm reference circle. For general photography with any lens; supplied as standard with all Nikon cameras.



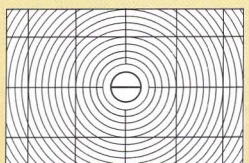
**Type L**  
Similar to Type A but with split-image spot set at 45° angle. Facilitates focusing on horizontal line.



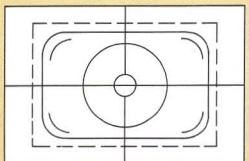
**Type M**  
Clear field with double cross-hair reticle and scales in 1mm increments. For aerial-image focusing in photomicrography and other high-magnification work with compatible finders.



**Type P**  
Matte Fresnel field with split-image spot at 45° angle surrounded by microprism ring plus vertical and horizontal cross lines and 12mm reference circle. For general photography with all lenses.



**Type R**  
Combines features of Types A and E. Rangefinder spot works best with lenses having maximum apertures f3.5 to f5.6. Excellent for architectural and multi-exposure work, where careful image placement is vital.



**TV-Format Screen**  
Has central split-image rangefinder and overall matte Fresnel field. Special, engraved lines show standard TV aspect ratio plus 'safe action' and 'safe title' areas, assure that entire image recorded will be visible in commercial or closed-circuit TV broadcasts.



# THE NIKON F3

## Screen Selector Chart

Nikkor Lens	Recommended Screens	Acceptable Screens
6mm f2.8 Fisheye	A,B,D,E,G-1,G-2,H-1,H-2, J,K,L,P,TV	C,R
8mm f2.8 Fisheye	A,B,D,E,G-1,G-2,H-1,H-2, H-3,J,K,L,P,TV	C,R
13mm f5.6	B,E,H-2,J,R	A,G-2,K,L,P,TV
15mm f3.5, f5.6	B,E,H-2,J,R	A,G-2,K,L,P,TV
16mm f2.8 Fisheye	A,B,E,G-1,H-1,J,K,L,P,R,TV	
18mm f4	A,B,E,G-1,H-1,J,K,L,P,R,TV	
20mm f3.5, f4	A,B,E,G-1,H-1,J,K,L,P,R,TV	
24mm f2, f2.8	A,B,E,G-2,H-2,J,K,L,P,TV	R
28mm f2	A,B,E,G-1,G-2,H-2,J,K,L,P,TV	H-1,R
28mm f2.8	A,B,E,G-1,H-1,J,K,L,P,TV	R
28mm f3.5	A,B,E, J,K,L,P,R,TV	G-1,G-2,H-1
28mm f4 PC	B,E	A,J,K,L,P,R,TV
35mm f1.4, f2	A,B,E,G-2,H-2,J,K,L,P,TV	G-1,H-1,R
35mm f2.8	A,B,E,G-1,H-1,J,K,L,P,TV	H-2,R
35mm f2.8 PC	B,E	A,J,K,L,P,R,TV
50mm f1.2	A,B,E,G-2,H-2,J,K,L,P,TV	R
50mm f1.4	A,B,E,G-2,H-2,J,K,L,P,TV	R
50mm f1.8, f2	A,B,E,G-1,G-2,H-1,H-2,J,K, L,P,TV	R
55mm f2.8, f3.5 Micro	B,E	A,G-2,H-2,J,K,L,P,TV
58mm f1.2 Noct	A,B,E,G-2,H-2,J,K,L,P,TV	H-1,R
85mm f2	A,B,E,G-2,H-2,J,K,L,P,TV	H-1,R
105mm f2.5	A,B,E,G-2,H-2,J,K,L,P,TV	H-1,R
105mm f4 Micro	B,E,H-3	A,G-3,G-4,J,K,L,P,R,TV
135mm f2.0, f2.8	A,B,E,G-2,H-2,J,K,L,P,TV	C,D,R
135mm f3.5	A,B,E,G-2,H-2,J,K,L,P,R,TV	C,D
180mm f2.8	A,B,E,G-3,J,K,L,P,TV	C,D,H-2,H-3,H-4,R
200mm f2, f4, f4 Micro	A,B,E,G-2,H-2,J,K,L,P,R,TV	C,D
200mm f5.6 Medical	B,E,H-2	A,J,K,L,P,R,TV
300mm f2.8, f4.5 & ED	A,B,E,G-3,H-3,J,K,L,P,R,TV	C,D,H-2,H-4
400mm f3.5, f4.5	A,B,E,G-3,H-3,J,K,L,P,R,TV	C,D,G-4,H-4
400mm f5.6 & ED	B,E,G-3,H-3,J,R	C,D,G-4,H-4
500mm f8 Reflex	B,E	A,C,D,J,K,L,P,R,TV
600mm f4, f5.6 & ED	B,D,E,G-4,H-4,J,R,TV	A,C,K,L,P,TV
800mm f8 & ED	B,D,E,G-3,G-4,H-4	A,C,H-3,J,K,L,P,R,TV
1000mm f11 Reflex	A,B,E,J,K,L,TV	C,D,H-3,H-4,P,R
1200mm f11 & ED	B,D,E	A,C,G-4,H-3,J,K,L,P,R,TV
2000mm f11 Reflex	B,D,E,G-4,H-4	A,C,G-3,J,K,L,P,R,TV
25-50mm f4 Zoom	A,B,E,J,K,L,P,R,TV	H-1
35-70mm f3.5 Zoom 43-86mm f3.5 Zoom	A,B,E,H-2,J,K,L,P,R,TV	G-2
50-300mm f4.5 Zoom & ED	A,B,E,G-3,J,K,L,P,R,TV	G-3,H-3
80-200mm f4.5 Zoom	A,B,E,H-2,H-3,J,K,L,P,R,TV	G-3
180-600mm f8, 200-600mm f9.5 & 360-1200mm f11 Zoom	B,D,E,G-4,H-4	A,C,H-3,J, K,L,P,R,TV



## Quick-change camera backs...

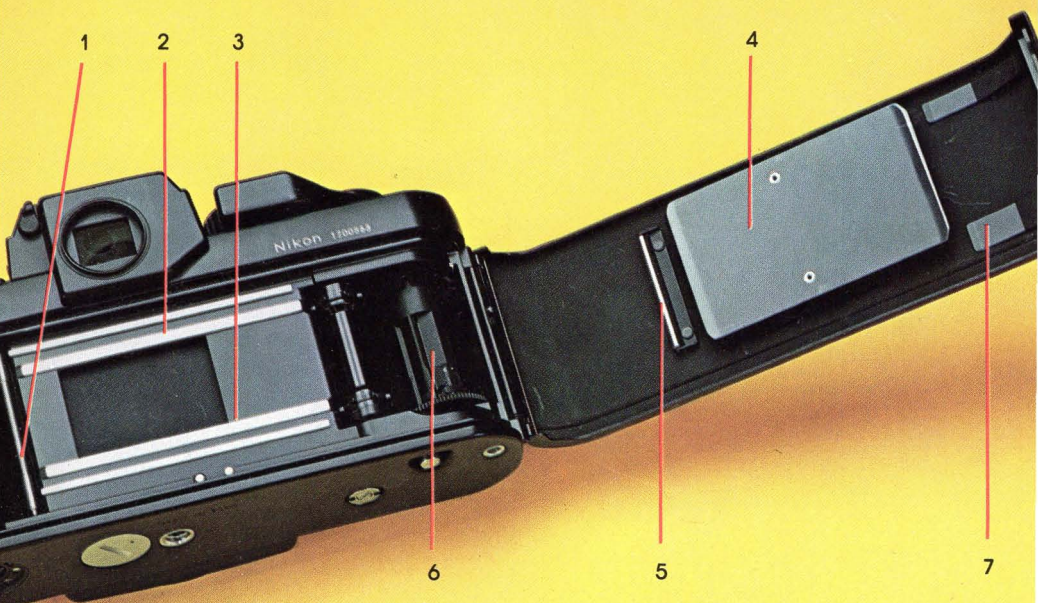
The standard F3 camera back is easily interchanged with special film magazines which, in conjunction with the Nikon MD-4 Motor Drive, further expand the F3's professional capabilities. The Nikon MF-6 Camera Back automatically stops the MD-4's power rewind with

the film leader outside the cassette – an important advantage in automated and daylight-load processing systems. Soon to be available are F3 bulk film backs and others allowing electronic on-film data imprinting.

## with ultra-precise film positioning

With all F3 film backs, no fewer than 7 components assure the critical film alignment and flatness essential for optimal edge-to-edge image sharpness. Film passes over a special *guide roller* (1), for smooth feed even in continuous motorized shooting... then between extra-long, precision-

machined *guide rails* (2, 3) and *oversize pressure plate* (4)...past the *anti-bellying roller* (5)...and winds onto the *take-up spool* (6) with emulsion-side out to counteract the film's natural tendency to curl. The film cassette is gently locked in place by the *cassette stabilizer* (7).





# THE NIKON F3

## Behind its unrivalled capabilities, pace-setting technology

The Nikon F3 is a veritable tour-de-force of innovative technology, integrating exclusive, advanced electronics with the supreme mechanical precision and reliability that are the essence of Nikon photographic performance.

Your ASA film speed and lens aperture settings are converted into electronic signals by the *Functional Resistance Element* (1), a thin-film metallic resistor that uses gold and other precious metals. In automatic mode, all exposure data pass through a unique *Flexible Printed Circuit* (2), which incorporates a series of *Large Scale Integrated Circuit microprocessors* (3) that control the F3's three exposure modes: automatic, manual, and flash. All this takes place in just milliseconds — with superlative accuracy, reliability and repeatability.

The electronic 'memory lock' maintains the automatically set shutter speed when the *control button* (4) is pressed, to pin-point exposure in special lighting situations. Selective automatic exposure control can also be achieved with the *exposure compensator* (5). Linked to the Functional Resistance Element, it permits controlled exposure variations from -2 to +2 EV in 1/3-stop increments for 'bracketing' or intentional under/over exposure. In manual mode, an *electronic quartz crystal oscillator* (6) provides the time base for all electronic F3

shutter speeds with surpassing precision. Every speed, from 8 seconds to 1/2000, remains incredibly consistent even after tens of thousands of exposures — for, unlike mechanical systems, quartz timing is virtually unaffected by stress or wear. Because of its reliable and repeatable accuracy, the F3 quartz crystal also controls other important functions. It switches off the in-finder exposure display 16 seconds after pressure is removed from the *electromagnetic shutter release button* (7), controls the 10-second self-timer delay, and 'pulses' the external *self-timer LED signal* (8) twice each second during the first 8 seconds, then eight times each second for the final 2 to alert you and your subject. It also assures that the LCD display won't constantly flicker at the slightest change in light (while the meter, of course, responds continuously for ultimate accuracy).

The Nikon F3 is the first camera to employ a single meter cell to control both ambient light and flash exposures as well as the viewfinder information display. In other cameras that use separate cells for these functions, failure of part of the system can lead to wrong exposures. The F3's design precludes that possibility.

In the F3, the Silicon Photo Diode meter cell is situated inside the base of the mirror box and precisely aligned with the optical axis



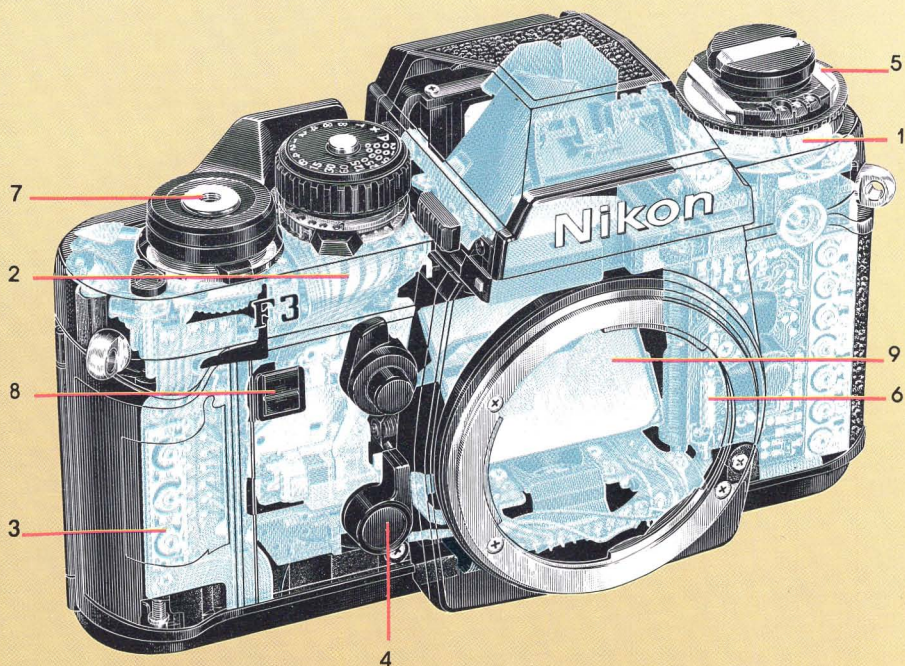
of the lens. The cell receives light transmitted by the lens via a secondary mirror after it has passed through thousands of microscopic non-silvered spots on the *main reflex mirror* (9). This unique system is at the heart of the F3's metering versatility. It resists extraneous light that may enter the finder eyepiece. And, it is compatible with every reflex-viewing Nikon lens and lens accessory.

Add the revolutionary, battery-saving *Liquid Crystal Display*. The *viewfinder LED* flash readylight/through-the-lens exposure verification signal for system-wide accuracy with Nikon thyristor units. And what you have is a camera that utilizes state-of-the-art electronics to achieve an unprecedented level

of professional performance.

For above all, the Nikon F3 is the supreme expression of Nikon mechanical and engineering excellence. From its lightweight, yet incredibly strong *metal body* to its silken-smooth ratchet *film transport*, incorporating miniature ball bearings and special "*balanced gearing*" to equalize torque throughout the advance cycle. From special *shutter braking system* to ingenious pneumatic air-damped *mirror mechanism* for ultimate freedom from vibration.

Through this matchless mechanical quality, the Nikon F3 transforms the promise of space-age electronics into reality: 35mm photography at its finest.

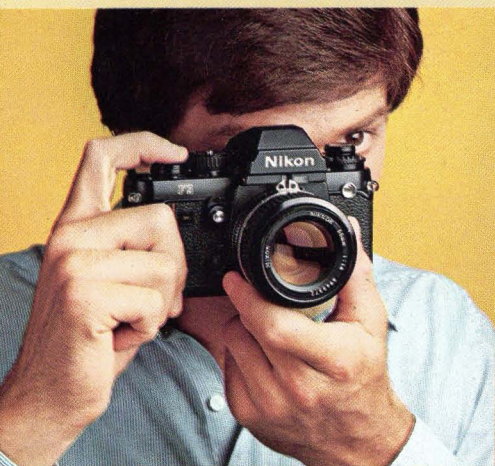
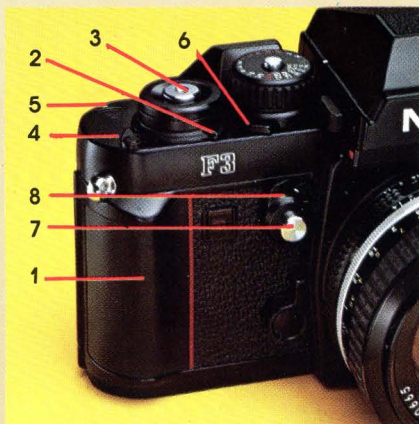




# THE NIKON F3

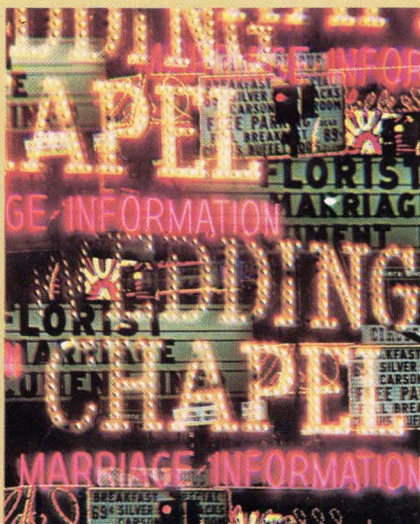
## A new standard of operating ease

You become aware of it the first time you hold the Nikon F3. You experience a sense of perfect balance... an exhilarating responsiveness that proclaims the camera's supreme precision. Professionals know this unique Nikon 'feel'. Their own working experience with Nikon cameras over more than two decades and the genius of renowned industrial designer Giorgio Giugiaro helped shape the F3 into the superbly efficient and totally capable instrument that it is.



It begins with the comfortable, anatomically-shaped 'grip' (1), integrated into the F3 contour — even permitting stable one-hand operation. Move the main power switch (2) to 'On' and touch the electromagnetic shutter release button (3) to activate the meter and LCD finder readout. The LCD also acts as a battery check.

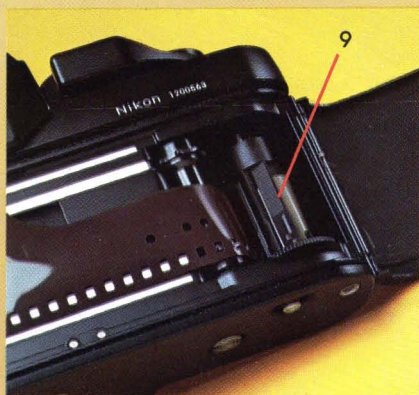
For multiple exposures, in precise registration, simply touch the top-mounted multi-exposure control (4) before advancing. The frame counter (5) remains stationary, so you always know how many shots actually have been taken. Shoot any number of images on a single frame — as fast as 6 per second, if you like, with the MD-4 motor drive.



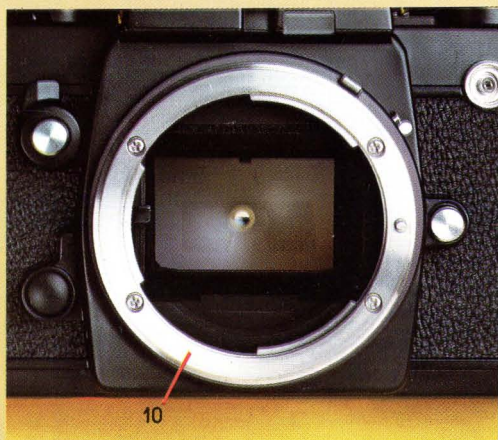


To activate the electronic self-timer, move the lever (6) and press the shutter button. Automatically, the LED signal on the camera front flashes to alert you and your subject. Should you decide not to use the self-timer, merely return the lever to 'cancel' the timed delay. The self-timer can even work as an intervalometer in motor drive operation.

For depth-of-field preview, the convenient button control (7) closes down the lens to the 'taking' aperture. You can use it in auto and manual operation, also for stop-down metering with non-AI Nikon system lenses or accessories. A coaxial control (8) raises the reflex mirror manually for fastest motorized firing rates, virtual-zero vibration in critical micro or astrophotography, and for use with non-reflex-viewing Nikkor lenses such as 10mm OP-Fisheye.



For extra-fast film loading, the F3 features a multi-slot take-up spool (9) that's easy to thread, even when wearing gloves. During loading, the frame counter automatically controls the shutter when the latter is set on 'auto', so there's no annoying delay if you leave a lens cap on or if it's very dark.



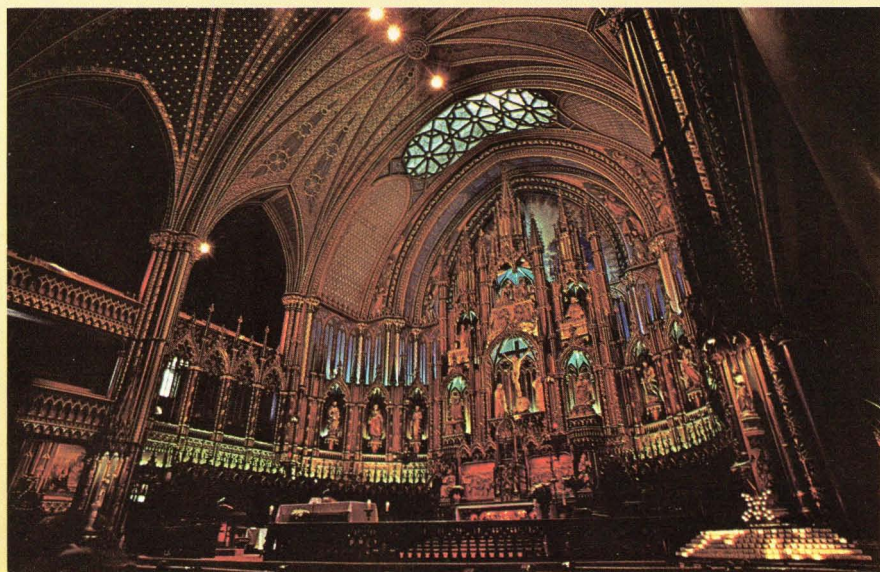
For total optical versatility, the F3's chromed-steel bayonet lensmount (10) accepts any F-mount Nikkor, with just a quick one-sixth turn of the lens. AI-system lenses and earlier lenses modified for AI automatically program the meter for full-aperture operation.

Nothing has been forgotten... no needless complexities have been added. In every way, the Nikon F3 is the most efficient, most versatile, most professional Nikon ever.



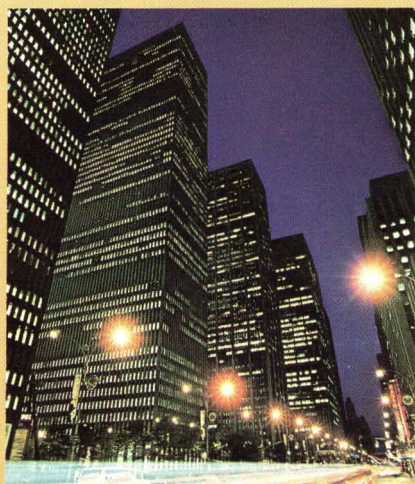
# THE NIKON F3

**For the world's finest camera  
the world's finest optics**



*Cathedral Vision.* A Nikkor ultra-wide angle lens revealed all the beauty of this setting with far-to-near sharpness.

Whatever the criterion — sharpness, color fidelity, innovative design, reliable performance — nothing can compare to the system of nearly 70 Nikkor lenses available to the Nikon F3 photographer. They range from the 6mm Fisheye Nikkor, with spectacular 220° coverage, to the 2000mm Reflex Nikkor, with full 40-power magnification. Together with the Nikon cameras for which they are specifically designed, they symbolize the highest standards of professionalism.



*Towers of Light.* The haunting image of a city at night, captured with a Nikkor wide angle.

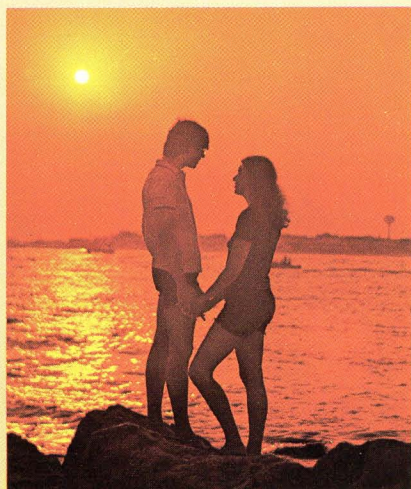


Every Nikkor begins with Nikon's own optical glass, made by Nikon in more than 220 varieties (most other camera and lens manufacturers do not make any glass of their own). This gives Nikon total control of the lensmaking process — an essential element in assuring uniform quality and maximum creative capability. Exclusive Nikon multi-layer Integrated Coating is computer-applied to provide highest light transmission, contrast, flare control, uniform color accuracy, and system-wide consistency in every focal length.

This optical excellence is translated into magnificent image quality through mechanical construction and engineering of extraordinary caliber. Every Nikkor is mounted in rugged, lightweight metal barrels, its elements anchored by metal rings themselves secured by screws for lasting alignment accuracy. Diaphragms incorporate special



**Living Tapestry.** The Micro-Nikkor lens unlocked the myriad splendor of the foliage — without accessories.



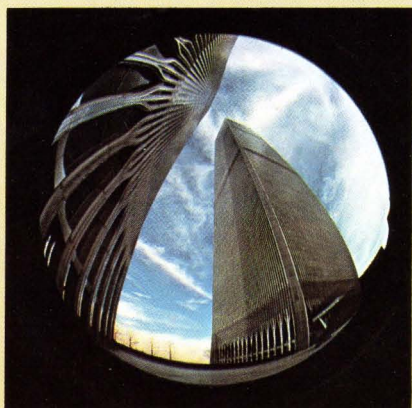
**Day's End.** A Nikkor telephoto enabled recording this haunting image unobtrusively, yet magnificently.

ball-bearing mechanisms for flawless exposure accuracy even at fastest motorized speeds. Focusing, aperture and zoom controls are made from specially matched metals precisely engineered to assure smooth, positive action in rigorous professional use, year after year. Even the interchange of lenses on the camera is made extra fast and secure by special Nikkor mount design. Whatever photographic dimensions you want to explore, you'll find the optics to achieve it in the Nikkor lens system... optics whose consistent quality has revolutionized the art of photography.



# THE NIKON F3

## The largest system of optics in 35mm photography



*Metropolis-in-the-Round.* Achieved through the unmistakable sweep of the famous Nikkor Fisheye.

**Fisheye-Nikkors** from 6mm to 16mm for spectacular pictorial effects...also indispensable for architectural, industrial and scientific photography.

**Wide-Angle Nikkors** from 13mm to 35mm, essential for cramped quarters — indoors and out — ideal for panoramic landscapes and exciting visual imagery.

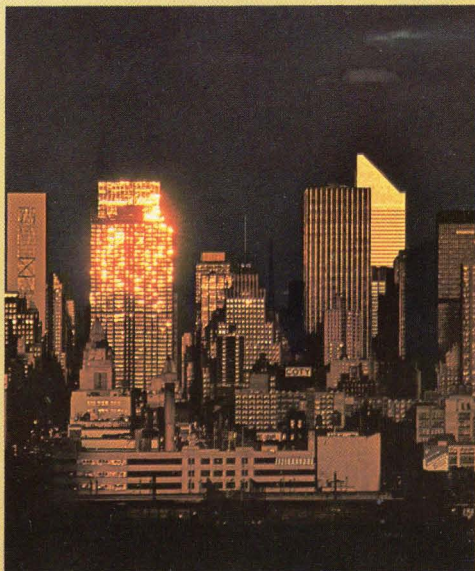


*The Gondolier.* The Nikkor wide angle showed both the subject and the surroundings with critical sharpness.

**Normal 50mm Nikkors** — high-speed all-purpose optics of superior resolution and brilliance, enhanced by multi-layer Integrated Coating.

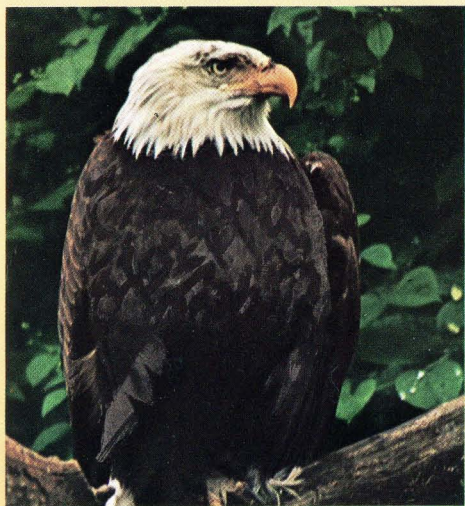
**Telephoto Nikkors** — compact, automatic lenses from 85mm to 400mm that pull in distant objects with ease.

**Ultra-Telephoto Nikkors** from 400mm to 1200mm, to bring far-away action as much as twenty-four times closer.



*Spirit of a City.* A Nikkor ultra-telephoto isolated the desired part of this composition from a vast distance.





*Wizardry on Wings.* The Nikkor telephoto easily captured this otherwise-inaccessible subject.

**ED/IF Tele Nikkors** — 200mm to 1200mm, incorporating exclusive Nikon ED (Extra-low Dispersion) optical glass, with significantly improved sharpness and color correction as compared to conventional telephotos, plus Nikon Internal Focusing for superior resolution and handling ease.

**Reflex Nikkors** from 500mm to 2000mm, utilizing the principles of astronomical telescopes built by Nikon for leading observatories. Compact, lightweight and incredibly sharp.

**Zoom Nikkors** — acclaimed as the first 35mm slr zooms with performance comparable to fixed lenses. The widest range in all 35mm, from 25-50mm to 360-1200mm.

**Micro-Nikkors** — 55mm, 105mm and 200mm, designed for exceptional image quality at distances from ultra close-up to infinity.

**PC-Nikkors** 28mm and 35mm give view-camera perspective control to 35mm photography.

**Medical-Nikkor** 200mm, a self-contained close-up system with built-in shadowless electronic flash and focusing light.

**Ultra-high-speed Nikkors** in the most widely used focal lengths, for successful available-light and action photography.



*Patterns.* A common leaf becomes a thing of uncommon fascination under the all-seeing eye of the Micro-Nikkor lens.



# THE NIKON F3

## It extends its reliable automation throughout the legendary Nikon system

More than a camera, the Nikon F3 is the nucleus of the most comprehensive system ever created for 35mm photography, with literally hundreds of quality-matched components enabling the photographer to meet any imaginable need, today and tomorrow.

**Nikon close-up, macro and micro accessories** offer limitless capabilities with unprecedented ease, thanks to the F3's electronic automation. Choose Nikon close-up lenses for versatility at minimum cost... Nikon extension rings, automatic or standard, for highest quality images to life-size and larger... Nikon bellows units for total flexibility and widest magnification range... Nikon repro copy stands for extra convenience and control... Nikon slide copiers for routine or special creative slide duplication... Nikon ringlight electronic flash units for shadowless illumination.

**Nikon TC-200 and TC-300 Tele-Converters** double the focal length of Nikkor lenses while maintaining the lenses' performance as no other converters can. Exposure compensation is automatically provided, even with flash, by the Nikon F3 meter system. Nikon TC-14 Tele-Converter offers similar advantages with 1.4x magnification, ideal for close-up and moderate tele work, especially with high-speed Tele Nikkor lenses.

**Nikon filters, polarizers and soft-focus attachments** give you wide creative control over image contrast, color, even sharpness and reflections. Their Nikon precision, including plano-parallel flatness and strain-free metal mounting rings, assures highest image quality. The F3 meters accurately through all of them, even polarizers!

**Nikon Intervalometer MT-1** lets you fire any motorized F3 at selected intervals of up to 8 minutes for automated, unmanned time-lapse and sequence photography. Nikon Modulite and wireless remote units permit cordless, electronic triggering of motorized F3 cameras up to 2300 feet away, without interference from CBs, electronic flash units, or infra-red radiation. Nikon F3 remote control cords provide further triggering capabilities.

**Nikon eyepiece accessories** offer increased viewing and focusing versatility with the standard Eyelevel Finder DE-2. Choose among 10 eyepiece correction lenses, from +3 to -5 diopters, for 'personalized' viewing comfort. Nikon Right Angle Finder DR-3 shows upright, unreversed, full-frame image for viewing at chest-level or from either side.



Nikon 2X Eyepiece Magnifier DG-2 doubles size of central finder image for highest focusing accuracy; swings up for normal viewing.

**Nikon Eveready and Compartment Cases** combine exceptionally handsome styling with convenient access and rugged protection. Eveready case CF-20 holds F3 with most Nikkor lenses from 16mm to 85mm. Soft cases CS-7, 9, and 10 accept F3 with extra-long lens or motor drive, according to specific type. Custom shoulder cases CB-1, CB-2 and CB-3 hold F3 with Nikkor normal or smaller lens.

**Compartment Cases**, in many models, feature storage capacity for extra F3 bodies, lenses, and accessories. A special 'holster' case is also available.

All these are in addition to Nikon F3 interchangeable viewfinders, focusing screens, film magazines, electronic flash units, motor drive and related accessories. Each is quickly attached to any Nikon F3 camera, without modification, for the highest degree of versatility ever attained in 35mm photography.





# THE NIKON F3

## Technical highlights

**Camera Type:** Automatic 35mm SLR with accessory interchangeable finders, screens, camera backs, thyristor flash units, motor drive and Nikkor lenses.

**Ambient Light Exposure Control:** Fully automatic aperture-priority with all reflex-viewing Nikkor lenses and attachments; also one-step semi-automatic electronic metering. Built-in exposure compensator (+2 to -2 EV) and electronic 'memory lock.'

**Meter System:** Through-the-lens, center-weighted Silicon Photo Diode measures light traveling through the reflex mirror via unique secondary mirror; full-aperture operation with all AI-Nikkor lenses and AI-system accessories, stop-down metering with non-AI lenses and attachments. Sensitivity range EV 1 to 18 with ASA 100 film and f1.4 lens; ASA range 12-6400.

**Shutter:** Horizontal-travel titanium curtain; stepless speeds 1/2000 to 8 seconds in auto mode, timed by multiple LSI microprocessors; 16 discrete speeds in manual mode use Quartz Crystal time base. Electromagnetic shutter release button; also mechanical and 1/60th plus 'T' setting for operation without batteries.

**Viewfinder:** Virtual 100% framing accuracy with all F3 finders and screens; all show LCD shutter/meter readouts, AI-Nikkor lens aperture (by Nikon Aperture Direct Read-out system), and LED

flash ready-light/exposure verification signal (with Nikon flash units SB-11, SB-12).

**Flash:** Built-in SPD meter cell provides automatic through-the-lens flash metering of film plane image with Nikon SB-11 and SB-12 thyristor units; operates at taking aperture with any reflex-viewing Nikon system lens; permits continuous aperture selection (subject to ASA, subject distance and reflectance); SB-12 automatically programs F3 shutter to 1/80 synch speed (unless slower manual speed is selected); exclusive Nikon F3 hot shoe plus threaded PC outlet for Nikon screw-on or conventional PC cords.

**Film Transport:** Ratchet-action lever operates in 140° movement; accessory Nikon Motor Drive MD-4 automatically advances and rewinds film.

**Multiple Exposures:** With top-mounted lever, automatically disengaging exposure counter; operates with or without motor.

**Other Features:** Extra-large reflex mirror with pneumatic air dampers; depth-of-field preview; auto shutter programming during film loading; electronic self-timer with external LED signal; standard Nikon bayonet lensmount accepts all F-mount Nikkor lenses; meter automatically turns on when shutter release button is touched, turns off 16 quartz-timed seconds after pressure is



removed; 7-point film flatness system; built-in anatomical grip; viewfinder illuminator; film memo holder; cable release and tripod sockets.

**Power Source:** Two 1.5v silver oxide batteries (Eveready EPX76

or equivalent); camera is powered by motor drive batteries when MD-4 is attached.

**Size, Weight:** Measures 3.80(H) x 5.85(W) x 2.58"(D) (96.5 x 148.5 x 65.5mm), weighs 24.69 oz. (700g) less lens.

## Nikon MD-4 Motor Drive

**Firing Rates:** Continuous to approx. 6 fps with mirror up, 5.5 fps (with Nikon nicad pack) with reflex viewing and auto-exposure functions; automatically matches firing rates to shutter speed. Also single frames at any shutter speed.

**Power Sources:** Internal battery chamber accepts holder with 8 AA alkaline cells for approx. 140 36-exposure rolls or special Nikon Nicad pack for approx. 70 rolls; each also powers camera meter/finder/shutter for extended camera battery life and low-temperature operating range.

**Special Features:** Built-in subtrac-

tive exposure counter for firing bursts of any predetermined length plus protection against tearing film in freezing weather; automatic power rewind; dual LED battery strength/advance cycle/end-of-film signals; standard Nikon remote accessory and external power source terminals; anatomical handgrip with electromagnetic shutter release button and S/C selector.

**Size, Weight:** Measures 5.76(H) x 4.52(W) x 2.78"(D) (146.4 x 114.7 x 70.7mm) including handgrip; weighs 16.93 oz. (480g) less batteries.

MAXIMUM FIRING RATES:					
MD-4 Power Supply	Power Source	Mirror Up	Reflex Viewing	No. 36-Exp. Film Rolls (Approx.)	Rewind Time (36 Exp.)
		1/125-1/2000	1/125-1/2000		
MN-2 Nicad Unit	Built-in NC Cells	6.0 fps	5.5 fps	70	4.5 sec.
MA-4 AC/DC Converter	100-120v AC, 50-60 Hz.	5.5 fps	5.0 fps	Unlimited	5.0 sec.
MS-3 Battery Holder	8 AA Alkaline Cells	4.0 fps	3.8 fps	140	8.0 sec.



# THE NIKON F3

## Nikon Thyristor Flash Units

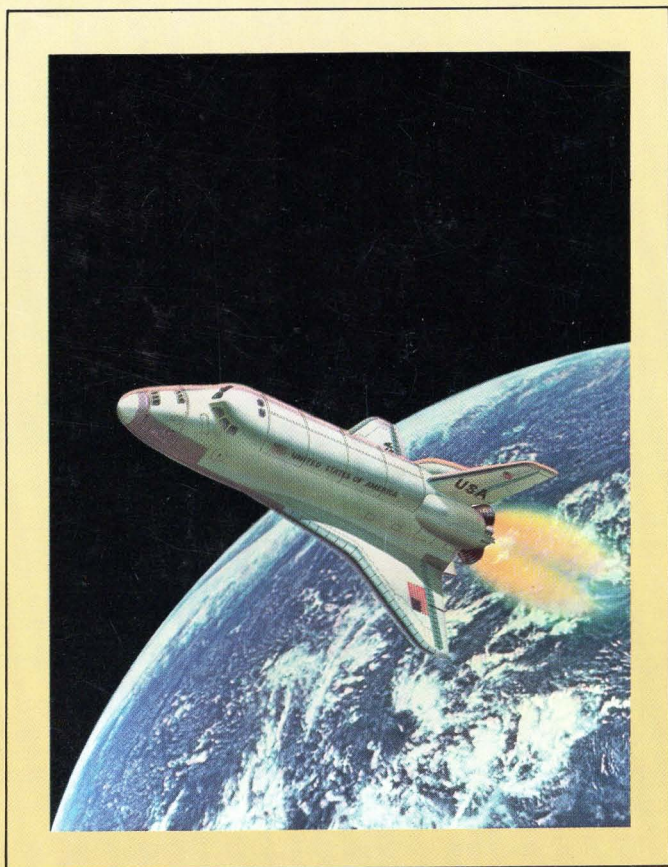
Model	Nikon SB-12	Nikon SB-11
Mounting	Cordless, via Nikon F3 hot shoe	Bracket mount, with Nikon PC cord
Guide No. (ASA 100)	82	118
Light Path	Direct; 3-way horizontal/vertical mount	Direct; bounce over 90° range by tilting flash head; off camera
Angle of Illumination	40x56° (Covers 35mm lens field; optional 28mm adapter avail.)	Same
Auto Aperture Range (ASA 100)	f2-f22 (continuous)	Same
Auto Distance Range (ASA 100)	3'-41' (w/f2 lens)	3'-60' (w/f2 lens)
Recycling Time	Under 1 to 8 seconds	Same
No. of Flashes	160 or more according to distance, aperture	170 or more according to distance, aperture
Power Source	4 AA alkaline cells	8 AA alkaline cells or Nikon Nicad pack
Other Features	Automatic through-the-lens exposure control Viewfinder LED indications Manual control Automatic shutter programming	Same Same Same
Size, exclusive of mounting foot/bracket	1.57(H) x 4.13(W) x 3.3"(D) (40x105x84mm)	10.86(H) x 4.09(W) x 3.35"(D) (276x98x118mm)
Weight (less batteries)	12.35 oz. (350g)	31.75 oz. (900g)





*Nikon F3 with MD-4 motor drive and SB-11 flash unit.*





Nikon Inc., Garden City, New York 11530.  
Subsidiary of Ehrenreich Photo-Optical Industries, Inc.

All specifications in this booklet  
are subject to change without notice.

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