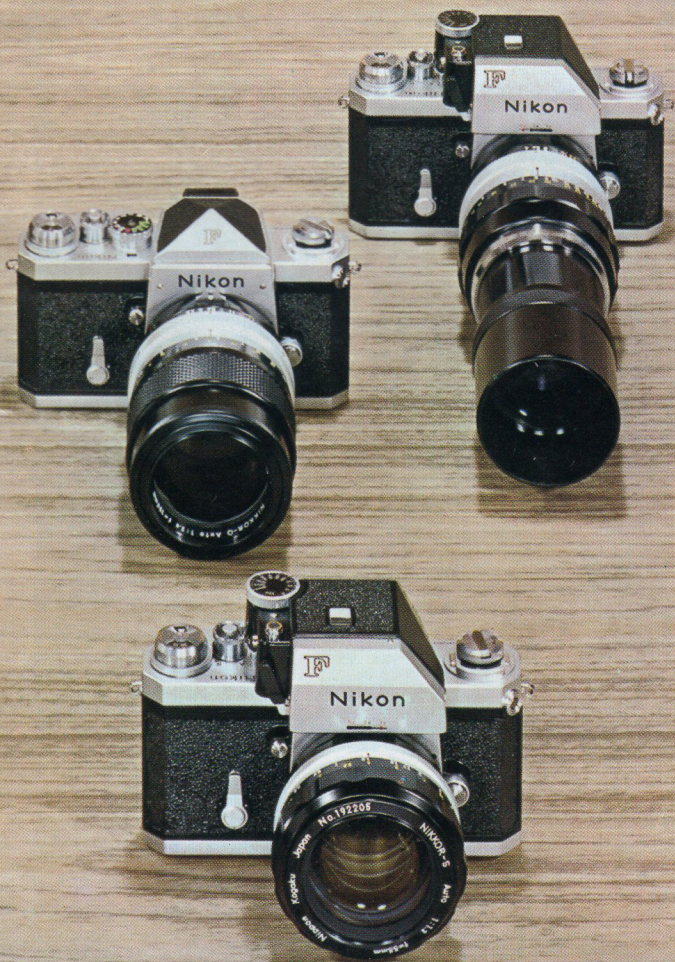


Nikon F **System**

**a comprehensive approach
to 35mm photography**



**The Nikon F is the earnest
camera for all people in
earnest about photography.**



The Nikon F has been so closely identified with the professional user, it has come to be known as "the cameraman's camera." But in a large sense, it is for every man to whom photography fulfils his innermost need for creative self-expression. And it is for every man in photography to whom the possession of fine equipment is in itself a source of gratification. For with the knowledge and appreciation of its quality goes the awareness of the inevitable quality to be enjoyed in its performance.

The main reasons why the Nikon F is today considered as the ultimate camera for 35mm reflex photography can be summarized into the following advanced features.

EXACT FILM FORMAT VIEWING

Nikon F is the only camera that takes the exact picture you see through the viewfinder. The finder shows the picture area exactly as it will be framed on the film—neither more nor less—so there is no worry of parallax. This is a great advantage in close-up or scientific work.

UNIQUE FOCAL PLANE SHUTTER

Nikon was first to make shutter blinds from pure titanium foil which is extremely dependable. The titanium foil together with the ball bearing used ensures outstanding accuracy and invariable performance of the shutter even under extreme temperatures. The shutter action is virtually vibration-free using a patented brake.

MIRROR LOCK-UP

Secures the mirror in 'up' position for use of the Fisheye-Nikkor which fits deep into the camera body. This mirror control can be used to good advantage in consecutive photomicrography or astrophotography work.

INSTANT RETURN MIRROR

When the shutter is released, the mirror flips up, and then instantly springs back to the original focus-viewing position. Except at the instant of exposure, the photographer never loses sight of his subject.

AUTOMATIC DIAPHRAGM ACTION

The diaphragm action of the Nikkor Auto lens is internally coupled to the camera body and the lens aperture is always set fully open for focusing and viewing. It closes down to the preselected aperture at the instant of exposure and automatically reopens to full aperture.

DEPTH OF FIELD PREVIEW CONTROL

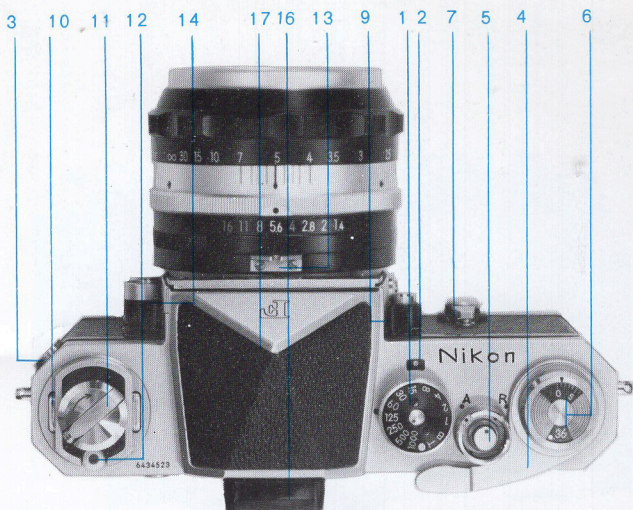
Depth of field can be previewed at 'taking aperture'. As you press the preview button, the diaphragm closes down to the preselected aperture. Release the button and the diaphragm instantly reopens. The button action is completely independent of the shutter release mechanism and cannot cause accidental exposures.

Nikon F Camera Body— Precision and Reliability with Handling Ease

1. **Shutter Speed Dial** . . . Turns a full 360° in either direction for setting the shutter speed to 13 click-stop settings: 1, $1/2$, $1/4$, $1/8$, $1/15$, $1/30$, $1/60$, $1/125$, $1/250$, $1/500$, $1/1000$ sec., Bulb and Time. Shutter speeds are large and clearly marked with fluorescent paint and evenly spaced on black background. They are color-coded according to the color synch reminder codes appearing in the synchronization selector window. The speed dial is easy to set, before or after shutter winding, and does not spin while the shutter is being wound or released. The black dot in the recessed center of the shutter speed dial serves as a check to see whether the shutter is wound.

2. **Flash Synch Selector** . . . For all shutter speeds, with provision for electronic flash up to $1/60$ sec. The flash synch codes, when matched with correspondingly colored shutter speeds, show the range of shutter speed settings for practically all available types of bulbs, providing the photographer with a more comprehensive synchronization capability than offered by most focal plane shutter cameras.

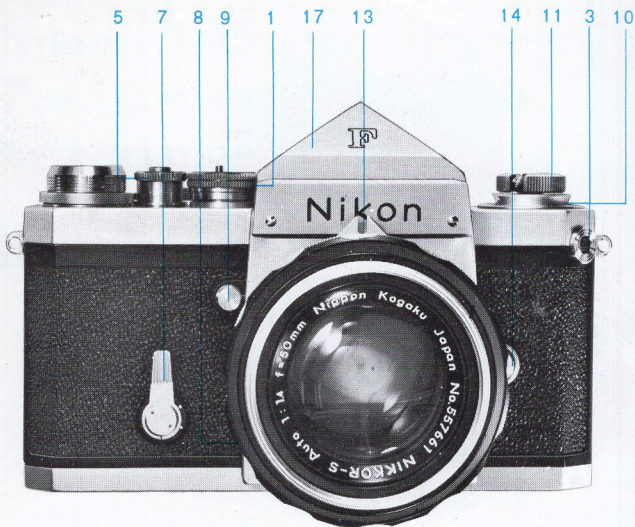
3. **Single Standard Terminal for Flashbulbs and Electronic Flashes** . . . There is only one flash terminal as the switch-in-time can be adjusted with the selector. It is conveniently located so that the connecting cord does not interfere with viewing and operating.



4. Winding Lever . . . A single short stroke simultaneously winds the shutter, advances the film and operates the frame counter. The lever wind can also be inched on when required. Double or partial exposure is prevented through the built-in locking device. A 15° clearance angle for the thumb makes it easy to advance the film for the next exposure.

5. Shutter Release Button . . . Acts with ideal depression not too light, not too heavy. The ring at the base of the shutter release button is threaded for the Nikon Cable Release. A finger guard is provided which also serves as a sprocket release when rewinding the film. A red dot on the shutter release button revolves exactly 360° indicating the transport of one frame. This feature may be helpful for double exposure as a single frame can be accurately rewind. Rotation ceases when the transport sprocket becomes disengaged during rewinding so the film can be stopped before the tongue disappears into the film cassette upon watching the red dot movement.

6. Frame Counter and Film Load Reminder . . . The frame counter automatically indicates the number of frames exposed, and is numbered at intervals of 5 with index pointers for each frame. It automatically resets to pre-"0" when the camera back is removed. Opposite the frame counter is the film load reminder for 20 or 36 exposures.



7. Built-in Self-Timer . . . Trips the shutter in 3, 6 or 10 seconds or any intermediate time delay, with exception of up to 3 seconds delay. Independent of the shutter release mechanism, it can be set before or after winding the shutter.

8. Mirror Lock-Up

9. Depth of Field Preview Control

10. Accessory Shoe . . . Used for mounting the Nikon cordless flash unit or the Fisheye Finder.

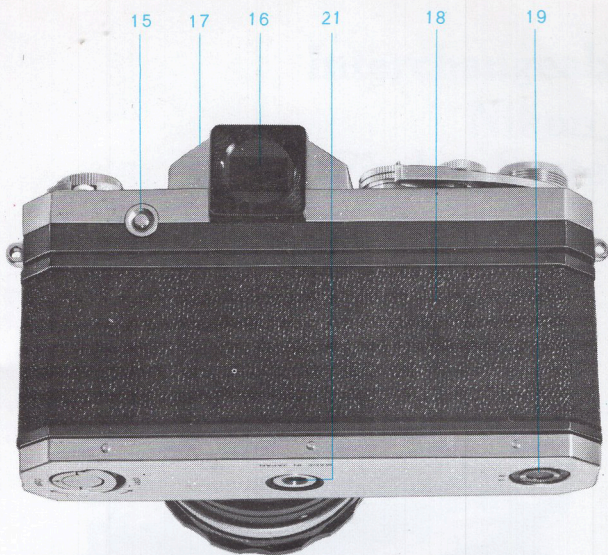
11. High-speed Film Rewind Crank . . . Fits flush into the rewind knob when not in use.

12. Flash Contact . . . Insulated and located on top of the accessory shoe. Makes direct connection when a Nikon flash unit is mounted to the accessory shoe.

13. Meter Coupling Prong . . . Equipped on most Nikkor lenses with automatic diaphragm. It engages the lens used to Photomic FTN meter.

14. Lens-Lock Release Button . . . When pressed, it retracts the locating pin so the lens with a 1/6 (60°) turn can be taken out of the bayonet fitting.

15. Finder Release Button . . . When depressed, the viewfinder can be lifted out. The focusing screen can also be removed by depressing this button, after the viewfinder has been removed.



16. Viewfinder Eyepiece . . . Permits full area viewing even if you wear glasses. Accepts Eyepiece Correction Attachments and Rubber Eye Cup.

17. Eye-Level Finder

18. Standard Camera Back

19. Film Speed Reminder Dial . . . Has settings of "E" (Empty), ASA ratings from 25 to 1600, and two index points—black for black & white film, and red for color film.

20. Fixed Take-Up Spool . . . Makes loading easy. Precisely aligned to ensure even film draw.

21. Tripod Socket in Body Casting . . . Centered for better balance. Being an integral part of the body, it eliminates unnecessary strain on the camera bottom.

Nikon F System

The Nikon F system is the most complete and comprehensive in 35mm photography; its capabilities, as modern and up-to-the-minute as the latest and most recent developments.

The key to this versatility is in the nature of the Nikon F itself. Its design is based on the principle of modular or unit construction. It is an instrument that seemingly knows no obsolescence. This very fact that Nikon does not introduce new cameras every year or two is a tribute to the soundness of the instrument's basic design.

Not only does the Nikon F offer lens interchangeability, but the facility for interchanging finders and focusing screens, as well. This flexibility of design gives the Nikon F user a freedom of choice through which he can achieve the greatest effectiveness in his work. It gives him command of every conceivable picture situation, and extends his mastery of the process from the infinitesimal world of micro-organisms to the infinite expanse of outer space.

The Nikon F was born with a built-in capacity for progress, a timelessness never before achieved. Implemented by the total system, it endows the user with an ability to soar far above the commonplace in photographic expression.

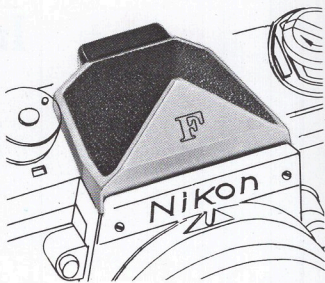
Interchangeable Nikon F Finder System



The Nikon F is acknowledged to be the only 35mm reflex with a truly accurate finder system. It shows the precise picture area, and frames the subject exactly as it will be framed on the film. Composition can be planned with complete confidence. There is no risk of excluding wanted subject matter or including unwanted material. When shooting color slides, and in other applications which preclude cropping, this assurance of framing accuracy is a valuable asset. Also remarkable is the versatility of the Nikon F finder system, growing out of the ready interchangeability of viewfinders and focusing screens. There are four viewfinders to choose from: the Eye-Level, the Waist-Level, the Action and the Photomic FT_N. These finders can be interchanged at will—in a matter of moments—to satisfy any preference, need or convenience. Whatever viewing method may be best suited for a given situation, there is always a way to meet it with Nikon F.

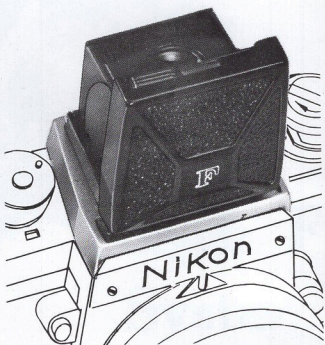
EYE-LEVEL FINDER

Houses an optically precise pentaprism and magnifier eyepiece. The image is bright, erect and unreversed, and almost life-size with the normal lens.



WAIST-LEVEL FINDER

Especially useful in macro-photography and copying, or wherever other-than-eyelevel-viewing is desired. It may be used with the camera overhead or at a low position, or for viewing at right angles to the subject. Single action folds shields and magnifier when the quick self-erecting finder lid is closed, and four shields ensure clear viewing of the image screen. Supplied with leather case.



PHOTOMIC FT_N METER/FINDER

Combines the accuracy of the thru-the-lens exposure control with the convenience of eyelevel viewing. The pentaprism finder and meter system are contained in the same housing.

Making full use of the automatic diaphragm convenience offered by the Nikkor Auto lenses, the FT_N adopts a full-aperture metering system. The lens remains wide open, even while you are metering so you will get a brilliant finder image at all times.

The meter needle and the shutter speed set are visible in the finder above the picture field, so required exposure information are obtainable without removing your eye from the eyepiece. The meter needle is also visible on top of the prism housing.

The Photomic FT_N exposure system is designed to read the entire picture field, but favors its central portion corresponding to the clearly outlined circle of 12mm in diameter (the focusing spot found on most Nikon F focusing screens). This area represents only about 1/8th of the total picture field but it contributes more than half of the total light sensitivity.

Thus, the Photomic FT_N's center-weighted system is a unique Nikon original that is neither a conventional spot nor a full-area integrating system. It provides accurate exposures even when your

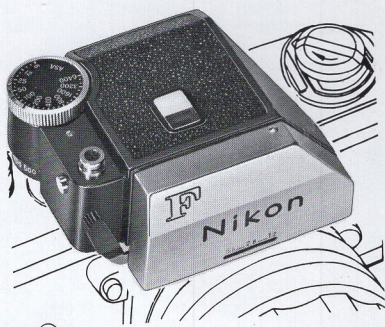
prime subject is in high lighting contrast with the surrounding area.

The full-aperture metering system requires the maximum aperture of the lens used to be set in the meter. This will apply whenever lenses of different focal lengths are interchanged. The FTN takes care of this automatically with a simple one-two operating procedure. Once a new lens is mounted a twist of the lens aperture ring to full aperture readies the FTN for immediate maximum aperture metering.

Where extension rings or bellows are used, which interrupt the coupling linkage, or with non-automatic Nikkor lenses, the correct exposure is obtained by actually stopping down the diaphragm until the meter needle centers.

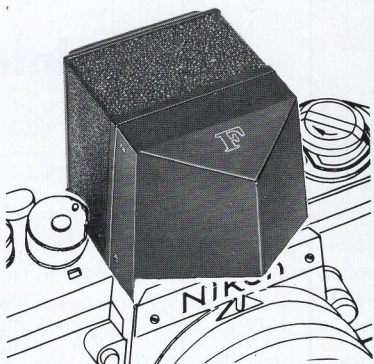
The Photomic FTN can be set for film speeds from ASA 6 to 6,400. Metering range from EV2 through EV17 at ASA 100 with the Nikkor Auto 50mm f/1.4 lens. Uses twin CdS cells powered by two mercury batteries (1.3V each).

Batteries are checked by depressing the meter off-switch button beyond its off position. Supplied with leather case. A Right Angle Viewing Attachment attachable to eyepiece frame, and Eye Cup to permit undisturbed viewing are available.



ACTION FINDER

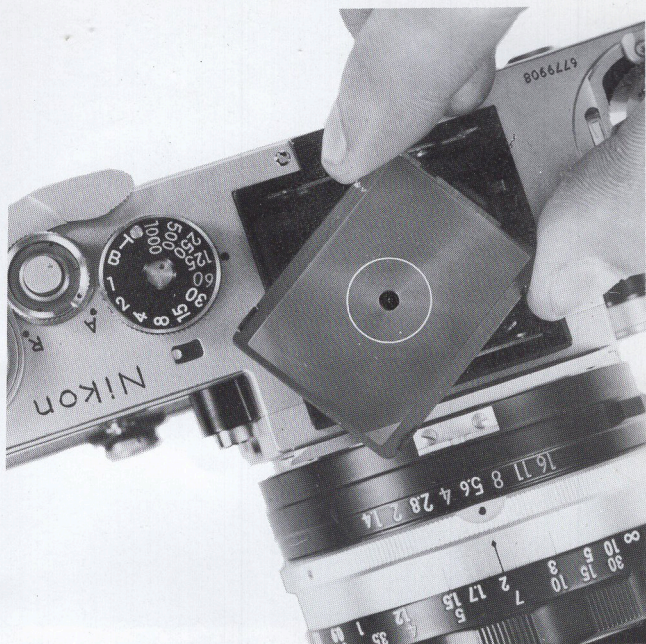
This new prism reflex sportsfinder allows you to see the entire picture area with your eye placed approximately 2-1/2" (60mm) from the finder. The image is right side up and unreversed. It has an over-sized rectangular eyepiece and permits full view of the picture area even from positions other than the center of the finder. Ideal for sports and all types of action photography, and for use when protective glasses and goggles are worn or on occasions when the eye cannot be brought close to the finder.





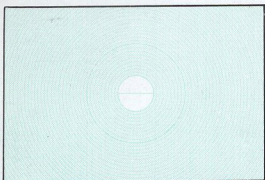
Interchangeable Focusing Screens

The Nikon F user doesn't have to adapt to the limitations of a single screen. He has a freedom of choice through which he can satisfy any need. He can select on the basis of personal preference, comfort or convenience, or because he finds one better suited for certain lenses or picture situations. There are fourteen different screens available for the Nikon F. Each has its own characteristic pattern. And, each offers some advantages in specific applications. The chart on the next page can serve as a useful guide.



FOCUSING SCREEN SELECTOR CHART

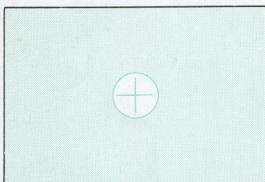
Nikkor Lens	Recommended	Suitable
20mm f/3.5	A, B, E, J, G-1, H-1	
24mm f/2.8	A, B, E, J, G-1, G-2, H-1, H-2	
28mm f/3.5	A, B, E, J, G-1, H-1	
35mm f/2.8	A, B, E, J, G-1, H-1, H-2	
35mm f/2	A, B, E, J, G-1, G-2, H-1, H-2	
35mm f/2.8 PC	A, B, E, J	
45mm f/2.8 GN	A, B, E, J, G-1, G-2, H-1, H-2	
50mm f/2	A, B, E, J, G-1, G-2, H-1, H-2	
50mm f/1.4	A, B, E, J, G-2, H-2	
55mm f/1.2	A, B, E, J, G-2, H-2	
55mm f/3.5 Micro	A, B, E, J, H-2	G-2
85mm f/1.8	A, B, E, J, G-2, H-1, H-2	
105mm f/2.5	A, B, E, J, G-2, H-1, H-2	
135mm f/3.5	A, B, E, J, G-2, H-2	C, D
135mm f/2.8	A, B, E, J, G-2, H-2	C, D
135mm f/4 Bellows	A, B, E, J, H-3	
200mm f/4	A, B, E, J, G-2, H-2	C, D, H-3
200mm f/5.6 Medical	A, B, E, J, H-2	
300mm f/4.5	A, B, E, J, G-3, H-3	C, D, H-2, H-4
400mm f/4.5	A, B, E, J, G-3, H-3	C, D, G-4, H-4
500mm f/5 Reflex	A, B, E, J, H-3	C, D, H-2, H-4
600mm f/5.6	A, B, C, D, E, J, G-3, G-4, H-3	H-4
800mm f/8	A, B, C, D, E, J, G-4, H-4	G-3, H-3
1,000mm f/11 Reflex	A, B, C, D, E, J	H-3
1,200mm f/11	A, B, C, D, E, J, G-4, H-4	H-3
43-86mm Zoom	A, B, E, J	H-2
50-300mm Zoom	A, B, E, J	G-3, G-4, H-3, H-4
85-250mm Zoom	A, B, E, J, G-3, H-3	H-4
200-600mm Zoom	A, B, C, D, E, J, G-4, H-4	G-3, H-3



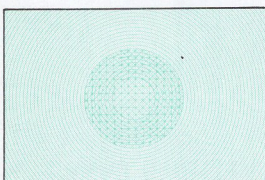
Type A Matt Fresnel field with split-image range-finder spot and a 12mm circle. Accurate focusing. Excellent for general photography.



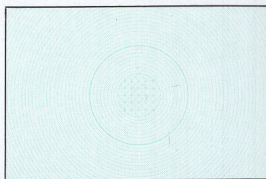
Type B Matt Fresnel field and 12mm fine-ground matt focusing spot. For general photography. Especially suited for use with telephoto lenses.



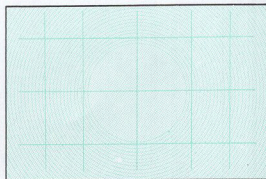
Type C Fine-ground matt field with clear spot and cross-hair reticle. For photomicrography, astrophotography and similar applications.



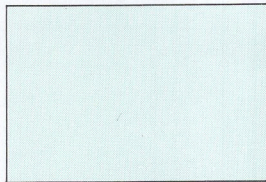
Type G series Clear Fresnel field with 12mm extra bright microprism focusing spot. **Type H series** Clear Fresnel field with microprism focusing pattern over entire screen area. Both series are specially designed for use when brighter viewing is more important than depth of field observation. Four screens are available in both series from No. 1 to No. 4, having Fresnel patterns matching specific lenses.



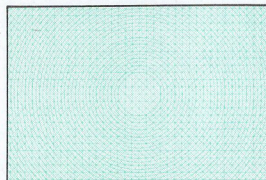
Type J Matt Fresnel field with extra-bright microprism focusing spot. A circle of 12mm in diameter. Easy to focus. Covers most general purposes.



Type E Matt Fresnel field and 12mm fine-ground matt focusing spot with etched vertical and horizontal lines. Ideal for architectural photography.



Type D Overall, fine-ground matt field. For specialized close-up photography, and for use with high-magnification telephoto lenses.





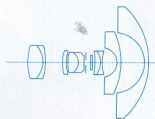
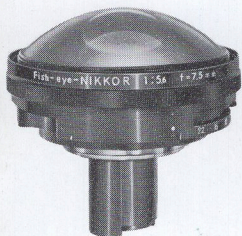
Interchangeable Nikkor Lenses

Nikkor lenses are the eyes and vision of Nikon. They have not only enlightened the path and led the Nikon F to the Hall of Fame but have set a standard of quality in 35mm photographic optics which is now regarded as a symbol of excellence. Whichever criterion you apply—variety, quality, versatility, inventive originality—this inevitable fact stands out: the current complement of interchangeable Nikkor lenses for the Nikon F is without equal in photographic history.

There are some 30 of these Nikkor lenses for the Nikon F, ranging from 7.5mm super-wide-angle to 1,200mm super-telephoto. Widely acclaimed by the most critical, discriminating users, they are universally acknowledged to be the finest lenses ever made available for 35mm photography. Some of them are so significantly unique in concept, in design and in application that special descriptions are warranted.

7.5mm f/5.6 FISHEYE-NIKKOR

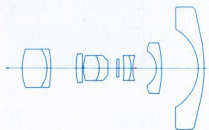
A unique optical achievement, this all-embracing lens “sees” a full 180° hemisphere—everything in front, above, below and to both sides. And it reproduces this extraordinary view of the subject as a circular composition on the film. The advantages of the Fisheye in special-effect photography are obvious. Less obvious, though no less significant are the many applications for the Fisheye in scientific and industrial work. Six filters are built into the lens on a rotating turret. Supplied with a Fisheye Finder.



10mm f/5.6 OP FISHEYE-NIKKOR

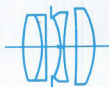
An orthographic projection Fisheye lens with aspheric front lens element, the OP Fisheye-Nikkor covers a complete 180° hemisphere. Through its orthographic projection formula, the OP Fisheye-Nikkor becomes a convenient tool for betterment of the civic environment. In city planning, for instance, it will help obtain the sky factor for evaluating the proper illumination of metropolitan districts; in fire prevention, it can be used to study the extent and transmission of heat radiation from fire; and in environmental improvement, it will help to determine the amount of interior lighting needed.

The OP Fisheye-Nikkor also finds wide application in scientific and industrial studies, as well as in creative special-effects photography. In addition, the OP Fisheye-Nikkor is particularly effective for color photography as it records objects of the same brightness in exactly the same density over the entire 180° picture field.



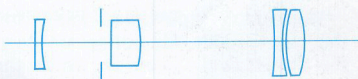
45mm f/2.8 GN-AUTO NIKKOR

This handy and lightweight GN-Auto Nikkor performs automatic flash exposure through a guide number coupling system. Once the flash guide number is set, the diaphragm couples to the focusing mechanism; thus, the lens aperture is automatically set for correct exposure for flash photography. There is no need to adjust the aperture setting with each change of focusing distance. This coupling is disconnected when flash is not used. Because of its focal length, speed and compactness, the versatile GN-Auto Nikkor can also be used for general photography.



200mm f/5.6 MEDICAL-NIKKOR AUTO

A most unusual lens system. It reduces many of the problems in industrial and scientific photography to routine simplicity. It is so completely automatic in operation, consistently successful results are assured even in the hands of people with little or no previous experience. Instead of conventional focusing, the lens provides 11 reproduction-ratio settings from 1/15th actual size to 3X magnification in combination with six auxiliary lenses. The magnification setting, in conjunction with the previous setting of the film speed, automatically "programs" the aperture at which the exposure will occur.



The lens incorporates its own light sources around the front element: incandescent illumination for focusing and viewing ease, and a shutter-synchronized, electronic ring-light flash which gives uniform, shadowless light for the exposure. Portable battery and AC power packs are available for powering the lights.

When the shutter is released, the diaphragm automatically stops down to correct aperture for the built-in flash, automatically compensating for the exposure increase required at each magnification. The lens also embodies facilities for identifying the film as to frame number or magnification ratio.

35mm f/2.8 PC-NIKKOR

By ingenious design, the PC-Nikkor permits photography of fairly extended subjects without tilting or inclining the camera. In so doing, it provides a facility never before possible, except with large view cameras equipped with rising, falling and shifting lens standards.

The PC-Nikkor, therefore, is extremely useful in architectural, industrial and commercial photography and where perspective compensation in the enlargement stage is difficult.

In the PC-Nikkor, a micrometer lead-screw control permits moving the optics off-center by as much as 11mm. The effect is the same as is produced on a view camera having a 3-inch rise and equipped with a 9-1/2-inch lens.

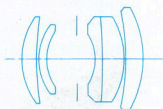
The entire lens mount rotates so that the correction can be applied in any direction—horizontally, vertically or diagonally. There are 12 click-stop positions at 30° intervals. In its normal position, the lens is also an effective intermediate wide-angle with a picture field of 62° .

Use of the Type E focusing screen is recommended.



55mm f/3.5 MICRO-NIKKOR AUTO

The resolving power of this extraordinary lens is almost incredible. As suitable for normal photography as for extreme close-ups, the dual-helical system in which this lens is mounted, gives it an uninterrupted focusing range from infinity to 1 : 2 reproduction ratio. A coupling tube (M-Ring) supplied with the lens further extends this to 1 : 1. The automatic diaphragm action remains operative throughout the entire range, also automatically compensating for the exposure increase required at each magnification all the way to 1 : 1.



REFLEX-NIKKOR LENSES

These remarkable catadioptric systems are based on design principles used in large astronomical telescopes. In conventional refractor lenses, the light follows a single path and direction. In mirror-lens systems, such as these, the light doubles back, travelling the same distance in less space. This leads to surprising compactness and reduced weight. Both the 500mm and 1,000mm lenses weigh about 1.6 kg (3.5 lbs.).

Besides scientific applications, the Reflex-Nikkors can be advantageously used in isolating architectural details, sports action, news and wildlife photography.

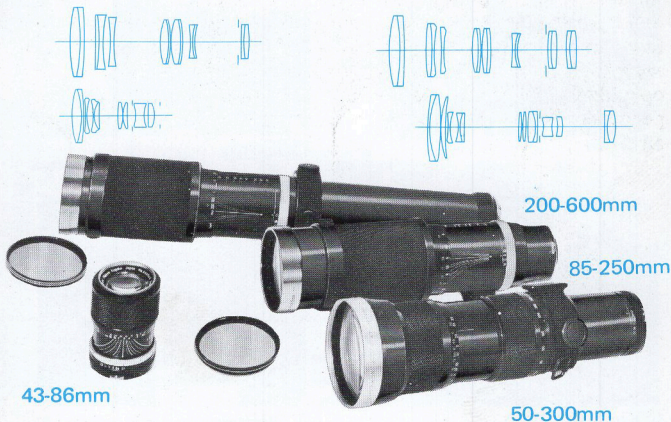
The Reflex-Nikkors are not equipped with aperture diaphragms. So, for adjusting the image brightness neutral density filters are used. Color correction filters are also supplied.



NIKKOR AUTO ZOOM LENSES

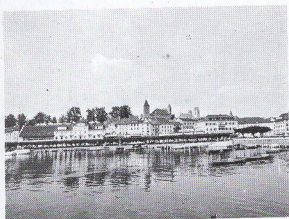
These lenses provide all the advantages of lens interchangeability without the need to change lenses. With one lens and from one shooting position, you can command a wide range of picture angles and magnifications. Without moving camera or subject, you can enlarge or diminish image size for exactly the effect desired. Once in sharp focus at one focal length, your Nikkor Zoom is in sharp focus at all focal lengths. All have automatic, instant-reopen diaphragms.

Nikon was first to design practical zoom lenses for 35mm still photography and first to make zoom lenses comparable in performance to the finest individual, standard lenses available. The Nikkor Zooms cover from medium wide-angle to 12-power telephoto.



In choosing his personal complement of Nikkor lenses, the Nikon F owner enjoys a twofold advantage. He can draw upon a variety that is unexcelled in 35mm photography. And, he can be certain that all his lenses exhibit the same high standard of picture quality in every application.

The pictures shown here illustrate the changes in image size and picture angle obtained by using Nikkor lenses of different focal lengths. All were taken from the same position.



20mm



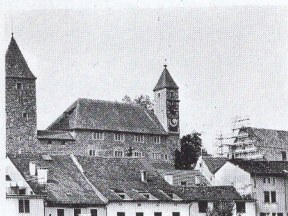
35mm



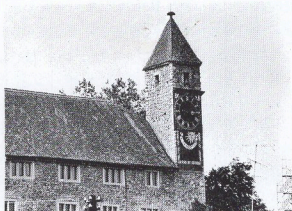
50mm



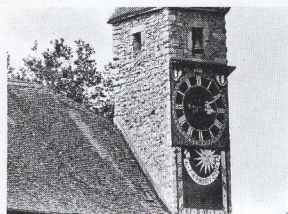
85mm



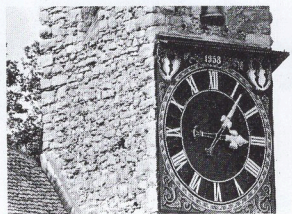
135mm



300mm



600mm



1,200mm

NIKKOR LENS CHART

Lens	Diaphragm Action	Minimum Aperture	Picture Angle	Closest Focus (dual calibration)	Filter Size	Hood	Case
20mm f/3.5	automatic*	f/22	94°	12" (0.3m)	72mm	screw-in	L
24mm f/2.8	automatic*	f/16	84°	12" (0.3m)	52mm	screw-in	ⓅL
28mm f/3.5	automatic*	f/16	74°	24" (0.6m)	52mm	screw-in	ⓅL
35mm f/2	automatic*	f/16	62°	12" (0.3m)	52mm	screw-in	ⓅL
35mm f/2.8	automatic*	f/16	62°	12" (0.3m)	52mm	screw-in	ⓅL
50mm f/1.4	automatic*	f/16	46°	24" (0.6m)	52mm	screw-in snap-on	PL
50mm f/2	automatic*	f/16	46°	24" (0.6m)	52mm	screw-in snap-on	PL
55mm f/1.2	automatic*	f/16	43°	24" (0.6m)	52mm	screw-in snap-on	PL
85mm f/1.8	automatic*	f/22	28°30'	3.5' (1m)	52mm	screw-in	ⓅL
105mm f/2.5	automatic*	f/22	23°20'	4' (1.2m)	52mm	○ screw-in snap-on	ⓅL
135mm f/2.8	automatic*	f/22	18°	5' (1.5m)	52mm	○ built-in	ⓅL
135mm f/3.5	automatic*	f/22	18°	5' (1.5m)	52mm	○ screw-in snap-on	ⓅL
200mm f/4	automatic*	f/22	12°20'	10' (3m)	52mm	○ built-in	L
300mm f/4.5	automatic*	f/22	8°10'	13' (4m)	72mm	○ built-in	L
400mm f/4.5	automatic‡	f/22	6°	16' (5m)	122mm	○ built-in	W
600mm f/5.6	automatic‡	f/22	4°	35' (11m)	122mm	○ built-in	W
800mm f/8	automatic‡	f/22	3°	60' (18m)	122mm	○ built-in	W
1,200mm f/11	manual ‡	f/64	2°	130' (40m)	122mm	○ built-in	W
500mm f/5 Reflex	—	f/10	5°	50' (15m)	39mm	○ screw-in	Ⓛ
1,000mm f/11 Reflex	—	f/11	2°30'	25' (8m)	built-in	○ slip-on	Ⓛ
43mm-86mm f/3.5 Zoom	automatic*	f/22	53° to 28°30'	4' (1.2m)	52mm	screw-in	ⓅL
50mm-300mm f/4.5 Zoom	automatic*	f/22	46° to 8°10'	8.5' (2.5m)	95mm	screw-in	L
85mm f/4-250mm f/4.5 Zoom	automatic*	f/16	28°30' to 10°	13' (4m)	series 9	○ screw-in	L
200mm f/9.5-600mm f/10.5 Zoom	automatic	f/32	12°20' to 4°10'	13' (4m)	series 9	○ screw-in	W
7.5mm f/5.6 Fisheye	manual +	f/22	180°	fixed focus	built-in	—	Ⓛ
10mm f/5.6 Fisheye	manual +	f/22	180°	fixed focus	built-in	—	Ⓛ
35mm f/2.8 PC	preset	f/32	62°	12" (0.3m)	52mm	screw-in	Ⓛ
45mm f/2.8 GN-Auto	automatic*	f/32	50°	3' (0.8m)	52mm	screw-in	Ⓟ
55mm f/3.5 Micro	automatic*	f/32	43°	0.79' (0.241m)	52mm	—	ⓅL
200mm f/5.6 Medical	automatic	f/45	12°20'	3 : 1	—	—	Ⓛ

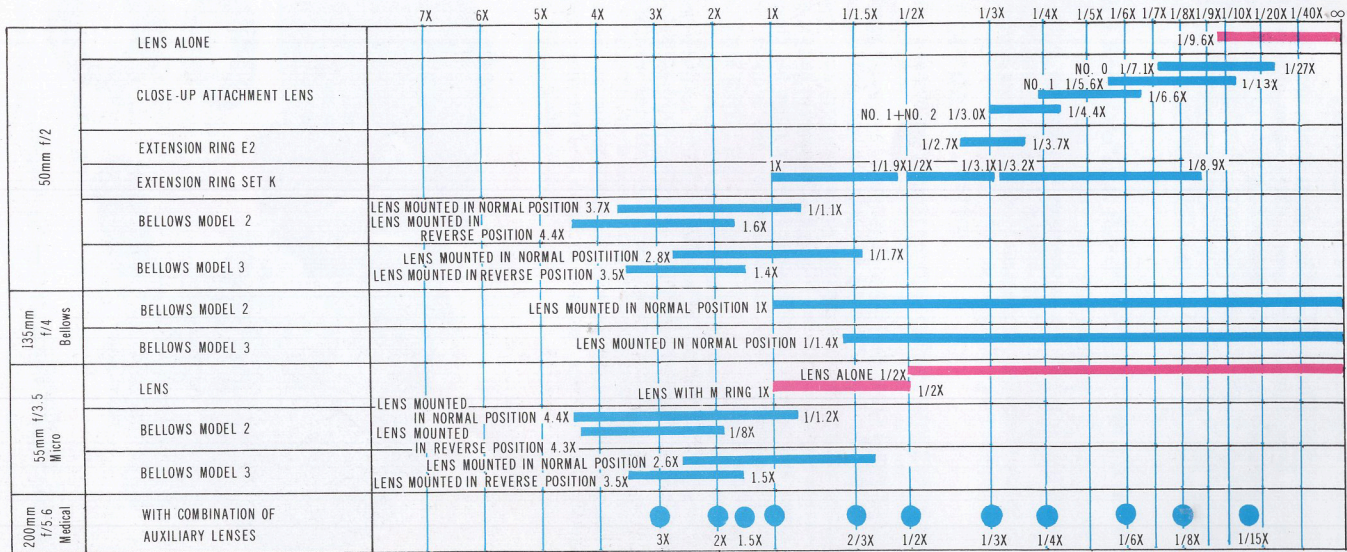
* Couples to Photomic meter system. + Supplementary viewfinder necessary.
 ‡ Focusing Unit necessary. ○ Lens hood supplied with corresponding lens.
 P=Plastic case supplied on order. Ⓟ=Plastic case supplied as standard equipment to lens.
 L=Leather case supplied on order. Ⓛ=Leather case supplied as standard equipment to lens.
 W=Wooden case supplied on order.

Close-Up, Macro- and Micro-photography, and Photomicrography

These are the areas in which the unique capabilities of the Nikon F system can be best demonstrated. Perhaps it is because of the inherently critical nature of this work, especially as it applies to science and industry, or to forensic or educational photography. Or perhaps it is that the subvisible world presents a greater challenge than the world of news events, chiefs-of-state, sports and people. We think not. For the very same versatile qualities of the Nikon F system are at work in either case. Consider the freedom from parallax error the Nikon F provides. Consider the ability to perceive depth-of-field, and the ability to focus and compose through the same lens that takes the picture. And remember, too, that the Nikon F finder provides 100% accuracy—shows you neither more nor less than the film will record. Even if you're not involved in the lofty realms of such use, the same qualities and capabilities are yours for flower photography, postage stamps, insects or reproducing a manuscript—you name it.

The increasing demands of classification and communication in various fields of scientific research have made the faithful record of subvisible specimens and phenomena by a microscope, instead of by camera lenses and extension devices, an almost indispensable requirement. Nikon also being an expert in the manufacture of microscopes offers a complete line of professional equipment for photomicrography besides the ones mentioned on page 27.

Lenses and accessories to use according to the desired range of magnifications and reductions.



LENSES FOR CLOSE-UP PHOTOGRAPHY

The normal 50mm f/2 Nikkor Auto lends itself to successful close-up work with any accessory. But, where high resolution is paramount, the 55mm f/3.5 Micro-Nikkor Auto will be found to meet the most exacting requirements. This lens, as well as the unique 200mm f/5.6 Medical-Nikkor Auto are described elsewhere in this booklet. In addition, there is the following:

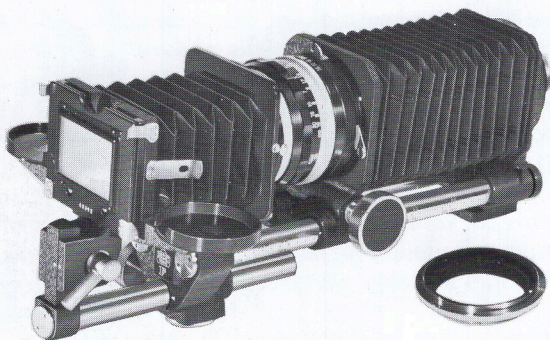
135mm f/4 Bellows-Nikkor

This lens is designed for use with the Bellows Focusing Attachment. No focusing mechanism—focuses only with Bellows. Focusing range extends from infinity to 1 : 1 magnification ratio with Bellows Focusing Attachment Model 2. Accepts 52mm screw-in filters. Supplied with plastic case.

BELLOWS FOCUSING ATTACHMENTS

There are 2 types of Bellows Focusing Attachments, the Model 2 and Model 3. They both fit between camera and lens without adapter, and are the most flexible single accessory for close-up and macrophotography with the Nikon F. They accept almost all Nikon F lenses and provide a continuous focusing range for close-up and macrophotography. They can be used on any support, or with a Repro-Copy Outfit.

On Model 2, reproduction with 50mm f/2 lens ranges from 0.9 to 3.7 times. With the lens in reversed position, reproduction ratios range from 1.7 to 4.3 times. The Model 2 has two tripod sockets. Its rotating camera mount permits both horizontal and vertical formats.



BR-2 Macro Adapter Ring

Bellows Model 2 with Slide Copying Adapter

The Model 3 is simply designed and lightweight weighing only 220g. (8 oz.). Slide copying cannot be performed with this model. With the 50mm f/2 lens reproduction ratios range from 0.6 to 2.8 times magnification. With the lens in reversed position, reproduction ratios range from 1.4 to 3.3 times magnification. This model is equipped with a single tripod socket.

BR-2 MACRO ADAPTER RING

Permits any lens with 52mm front thread to be mounted on Bellows in reverse position. Provides optimum optical performance at reproduction ratios greater than 1 : 1.

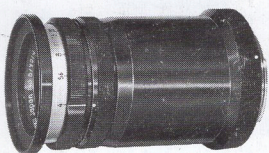
SLIDE COPYING ADAPTER

Provides a simple and accurate means for duplicating 35mm color or black-and-white transparencies. It is used in combination with the Bellows Model 2 and accepts both mounted slides and strips. Besides duplications, enlarging sections of transparencies to full 35mm format can be performed when the lens is attached in reversed position by means of a BR-3 Adapter.

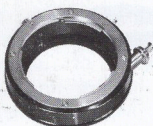
EXTENSION RING E2

This convenient close-up device is inserted between camera body and lens, adding an extension of 14mm. It accepts any Nikkor lens from 20mm up, except the 135mm f/4 Bellows-Nikkor.

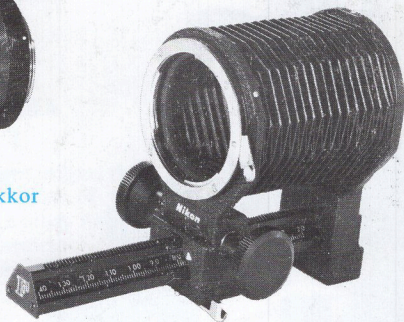
When used with Auto lenses, the built-in plunger is depressed to open the lens to full aperture for viewing and focusing. Releasing the plunger stops the lens down to "taking" aperture. The plunger accepts a Nikon Cable Release.



135mm f/4 Bellows-Nikkor



Extension Ring E2



Bellows Model 3

EXTENSION RING SET K

Consists of a set of 5 rings which can be used individually or in combination. For close-ups from 1 : 8.9 to 1 : 1 with 50mm f/2 lens. Rings fit between camera body and lens; accept any Nikkor lens from 20mm through 300mm (except 135mm f/4 Bellows-Nikkor and 200mm Medical-Nikkor). Supplied with leather case.

CLOSE-UP ATTACHMENT LENSES

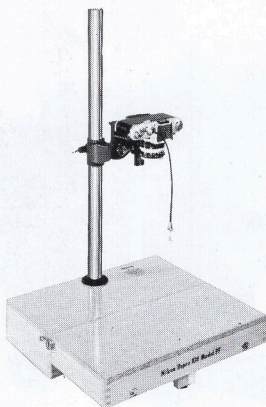
Simple meniscus lenses in 52mm screw-in mounts designed to fit most Nikkor lenses. Readily adapt Nikon F for copying and close-up work. They require no compensation in exposure. Available in three progressively increased powers: No. 0, 1 and 2. Each attachment comes with leather case.

REPRO-COPY OUTFIT MODEL PF

Converts the Nikon F into a completely integrated close-up system for reproducing flat copy or photographing objects and specimens of varying sizes and shapes. The outfit consists of a base, an upright column and sliding arm, equipped with a camera cradle which provides fine up and down rack and pinion movement.

The outfit may be used with Bellows, Extension Rings, or any of the other special accessories. The camera cradle on the sliding arm can be locked at every 45° position which is very convenient in photographing material mounted on a wall, as well as on the base.

Model PFB is supplied with a particle board base; Model PFC, with a particle board carrying case which unfolds to serve as a base; Model PFT, with a table clamp to secure the upright post onto work bench or desk.



Repro-Copy Outfit PFC



Extension Ring Set K

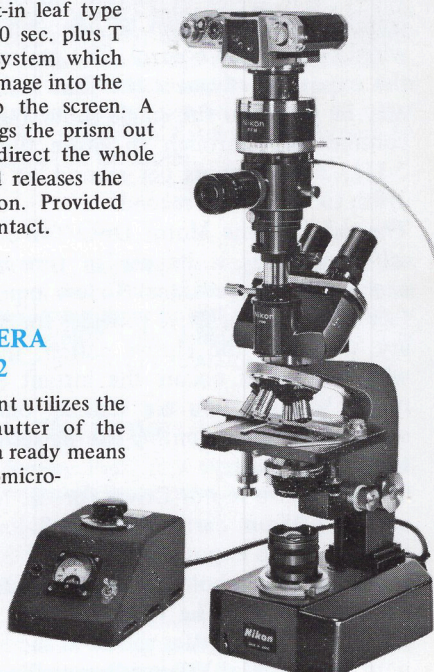


MICROFLEX PFMF—PRISM REFLEX PHOTOMICROGRAPHIC ATTACHMENT

Permits the Nikon F to be used to produce high quality photomicrographic prints or transparencies. Fits any standard microscope. Has a built-in leaf type shutter from 1 to 1/250 sec. plus T and B. It has a prism system which diverts the microscope image into the viewing ocular or onto the screen. A single cable release swings the prism out of the optical path to direct the whole light to the camera and releases the shutter in one operation. Provided with synchronization contact.

MICROSCOPE-CAMERA ADAPTER MODEL 2

This simple attachment utilizes the viewing system and shutter of the Nikon F, and serves as a ready means for producing photomicrographs. It adapts the camera to any standard microscope. Supplied with a green filter and Type C focusing screen in leather case.



Microflex PFMF

Nikon Electric Motor Drives

Automatic Fire Power

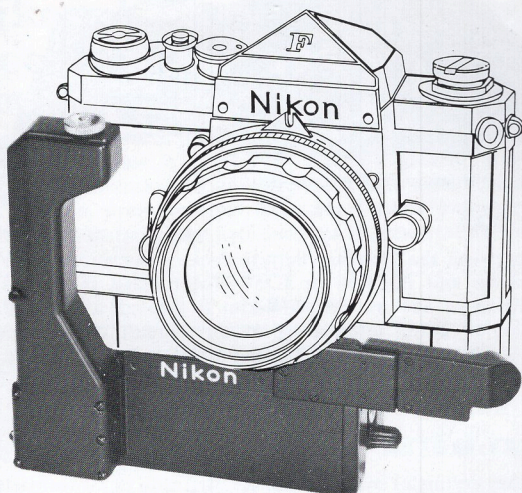


Nikon F with F36 Motor Drive

The simple addition of a Motor Drive transforms the Nikon F into a unique, automatic instrument that opens up a whole new realm of picture opportunities. The motor-equipped Nikon F can be operated in-hand or remotely, wired or by radio control. The motor automatically makes the exposure, advances the film and winds the shutter. It may be preset to fire single shots, burst of two or more, or continuously, through an entire film load, at rates of 2, 2-1/2, 3 or 4 shots per second, at the shutter speeds of 1/8th to 1/1,000th second.

The value of the Motor Drive for producing sequences is self-evident, as is its use in time-lapse studies, motion analysis and surveillance. No less important, however, is the facility the Motor Drive provides for capturing the momentary situation, the elusive action, the fleeting expression which so often occurs the instant after the exposure is made. Whether you are stalking one picture or a whole sequence, the unrelenting fire pattern of the motor is sure to bag your quarry.

There are two Motor Drives for the Nikon F: the F36, for standard 35mm cartridges or bulk-loaded Nikon cassettes with up to 36 exposures; and the F250, for special Nikon cassettes which hold up to 10m (33 feet) of bulk film (250-exposures). The F250 provides the same selection of firing rates and shutter speeds as the F36. They interchange with the standard Nikon F camera back.



Cordless Battery Pack attached

CORDLESS BATTERY PACK

Provides automatic fire power in its most convenient form. Designed for use with the F36 Motor Drive only and transforms the Nikon F into an integrated, one-piece automatic unit. Has built-in release button and selector switch for single and sequence shots. Built-in relay simplifies remote operation. Uses conventional 2-conductor, household-type cord, which may be connected to a manual switch, intervalometer, radio control receiver or other switching devices. It holds 8 penlite AA batteries. It may also be operated from an external 12-volt DC source.

STANDARD BATTERY PACK

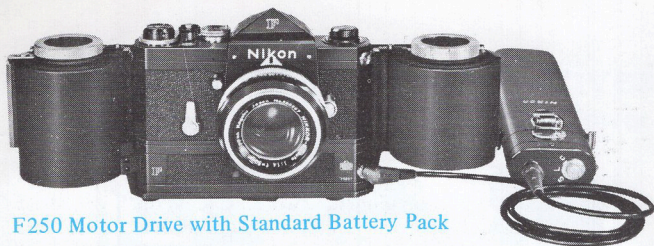
Slim leather case holds 8 "C" batteries. Has triggering button and setting for single or sequence shots. Permits use of remote triggering devices, such as relay box, intervalometer and wireless control, as well as extension cord. Supplied with shoulder strap and 1 m (3-foot) cord for connecting to F250 or F36 Motor Drive.

PISTOL GRIP FOR MOTOR DRIVE

Used with Standard Battery Pack, it is equipped with trigger-controlled micro switch and cords for electrical operation of F36 or F250 Motor Drive.

10m (33-foot) CONNECTING CORD

A 3-conductor cord which leads directly into the Standard Battery Pack to permit a Nikon F equipped with either F36 or F250 Motor Drive to be operated from a distance up to 10m (33ft).



F250 Motor Drive with Standard Battery Pack

RELAY BOX

Used between the Standard Battery Pack or any suitable 12V DC power source and the F36 or F250 Motor Drive, it permits the remote firing of the motorized Nikon F through a conventional two-conductor cord, terminating in any circuit closing device: manual switch, intervalometer, radio control receiver, or others. The Motor Drive may also be operated by button on Relay Box. Supplied with 1 meter (3-foot) three-conductor cord.

BATTERY TESTER

Miniature voltmeter instantly checks condition of motor batteries in Standard Battery Pack. Indicates voltage as well as the point when batteries should be replaced.

NIKON REPEATING ELECTRONIC FLASH UNIT

Designed exclusively for Nikon Motor Drive F36 and F250 to increase their usage and application range. This electronic flash unit is composed of flash head and DC or AC power pack, and enables repeating flashes that synchronize to shutter at the rate of 2, 2-1/2 and 3 shots per second with the recycling time of 1/3 second. The color temperature is approx. 6,000°K.

The DC power pack supplies power for the flash head and offers complete mobility for motorized Nikon F. It accommodates three 510V laminated batteries capable of shooting approx. 1,000 continuous flashes. Provided with a pilot lamp to check battery voltage.

The AC power pack supplies power for both the flash head and motor drive at the same time from AC power source so no extra battery is required.

250-EXPOSURE FILM CASSETTE

Made for F250 Motor Drive, loads up to 33 feet of film cut from 100-foot rolls. Supplied with leather case.

BULK FILM LOADER

Rapid film loader for loading film into 250-Exposure Film Cassette in darkroom. Stops automatically at preset film length. Fluorescent frame number markings. Can be easily loaded from 100-foot film rolls.

COMPARTMENT CASE MODEL FB7

21cm (8.2 in.) wide, 32cm (12.6 in.) long, 21cm (8.2 in.) high. A gadget bag made of cowhide for accommodating two Nikon F's or F Photomic series complete with F36 Motor Drive Back and Cordless Battery Pack. Also holds two lenses with focal lengths ranging from 24mm up to 200mm, plus batteries. A roomy outside pocket provided.

Nikon F Accessories

OPTICAL GLASS FILTERS

Optical quality is as indispensable in filters as in lenses. Only the finest optical glass is employed. Precision ground, polished to plano-parallel flatness and strain-free mounted, these filters are free from striation, stress, or other flaws which might deteriorate image quality. Both surfaces have hard coatings to prevent reflections.

Type		Screw-in				Series
Size		52mm	72mm	95mm	122mm	9
<div> <div>Lens used</div> <div>Filter color</div> </div>		24/2.8, 28/3.5, 35/2.8 PC, 35/2, 35/2.8, 45/2.8 GN, 50/2, 50/1.4, 55/1.2, 55/3.5 Micro, 85/1.8, 105/2.5, 135/3.5, 135/2.8, 135/4 Bellows, 200/4, 43-86 Zoom	20/3.5, 300/4.5	50-300 Zoom	400/4.5, 600/5.6, 800/8, 1200/11	85-250 Zoom, 200-600 Zoom
Skylight		○	○			
UV haze		○	○	○	○	○
Yellow	Light	○				○
	Medium	○	○	○	○	○
	Dark	○				○
Orange		○	○	○	○	○
Red		○	○	○	○	○
Yellowish Green	Light	○				
	Dark	○				
Polarizing		○				
Neutral Density	ND 4X	○				
	ND 8X	○				
Amber	Light	○				
	Dark	○				
Blue	Light	○				
	Medium	○				
	Dark	○				

Filters for 7.5/5.6, 10/5.6 Fisheyes and 1,000/11 Reflex are built-in and filters for 500/5 Reflex are supplied with lens.

52mm FILTER ADAPTER RING

Employed when using the standard Series 7 filters on lenses having a 52mm screw-in front thread.

PISTOL GRIP MODEL 2

A newly designed pistol grip with rounded off corners to give added support for hand-held shooting. Grip screws firmly into tripod socket either under camera, motor drive or under lens as required. Connecting Cable Release couples to the trigger on grip for operating the shutter release on camera. Also provides facility to fire F36 Motor Drive equipped with Cordless Battery Pack by means of Coiled Connecting Cord.

LENS HOODS

Four types of Nikkor lens hoods are available: screw-in, snap-on, slip-on and built-in hoods. Lens hoods are calculated for each focal length to give maximum protection without danger of cutting off. The hoods fit firmly into the lens frame and also attach firmly to filters, when used. The snap-on hood can be reversed on lens for compactness in carrying, and accepts a lens cap.

PANORAMA HEAD

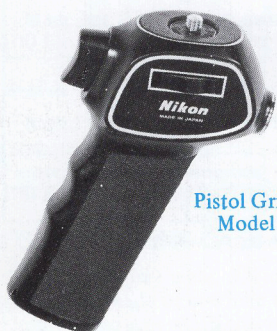
Mounts between camera and tripod, and accurately spaces series of exposures that will join as single panorama picture covering up to 360°. Click-stop positions for 35, 50 and 105mm lenses, and color-coded stop indicators for 28, 85 and 135mm lenses. Bubble Level accessory available to check whether camera and Panorama Head are horizontal.

REAR LENS CAPS AND BODY CAP

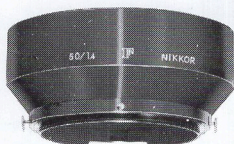
Available to protect and keep lens and camera body dust-free when handled or stored separately.

FILM CASSETTE

All-metal, easy to load with standard bulk film. Can be loaded up to 36 exposures. Recommended for use with Motor Drive. Reminder markings provided to tell you whether film has been loaded or not ... what the film ASA speed is.



Pistol Grip
Model 2



Lens Hood, snap-on



Panorama Head



Bubble Level

EVEREADY CAMERA CASES

Made of top quality cowhide. The following varieties are available to suit your convenience or preference.

Hard Case Brown, velveteen-lined. Shoulder strap and non-slip cushion pad.

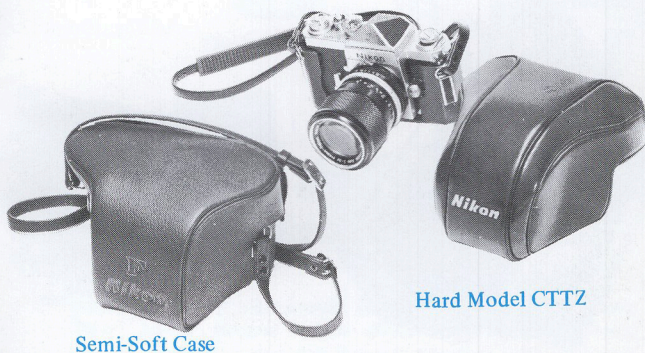
Case Model	Camera	Lens
CTT	Nikon F Photomic-series or Nikon F	24/2.8, 28/3.5, 35/2.8, 35/2, 50/2, 50/1.4, 55/1.2, 85/1.8, 105/2.5, 35/2.8 PC, 45/2.8 GN or 55/3.5 Micro
CTTZ		20/3.5, 24/2.8, 28/3.5, 35/2.8, 35/2, 50/2, 50/1.4, 55/1.2, 85/1.8, 105/2.5, 135/3.5, 35/2.8 PC, 45/2.8 GN, 43-86 Zoom or 55/3.5 Micro

Semi-soft Case, black (Supplied with shoulder strap)	Nikon F Photomic-series or Nikon F	20/3.5, 24/2.8, 28/3.5, 35/2.8, 35/2, 50/2, 50/1.4, 55/1.2, 85/1.8, 105/2.5, 35/2.8 PC, 45/2.8 GN or 55/3.5 Micro
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The snap on front cover of this case can be interchanged to allow accommodation of lenses with long barrels such as, 135/2.8, 135/3.5 or 43-86 zoom. Please specify the type of front cover when ordering.

	Camera	Lens
Soft Zippered Pouch, black (Supplied with neck strap)	Nikon F Photomic-series or Nikon F	20/3.5, 24/2.8, 28/3.5, 35/2.8, 35/2, 50/1.4, 50/2, 55/1.2, 85/1.8, 105/2.5, 35/2.8 PC, 45/2.8 GN, 55/3.5 Micro or 43-86 Zoom

A Semi-soft Case, black to accommodate Nikon F with Action Finder and normal lens is also available. A special case that damps shutter click is available on order. Suitable when taking shots inside theaters and courts.



Semi-Soft Case

Hard Model CTTZ

COMPARTMENT CASES

Nikon offers a selection of deluxe roomy cases for your Nikon equipment. The Nikon F user has the benefit of choosing one that suits his requirement and preference. All cases have shoulder strap with non-slip cushion pad.

Model FB3

16cm (6.4 in.) wide, 27cm (10.6 in.) long, 20cm (8 in.) high. Brown leather case. Holds Nikon F or F Photomic series with normal lens, 2 wideangle lenses, 1 telephoto lens (85mm to 135mm focal length). Waist-or Eye-Level finder and Photomic series finder, 6 filters, and sundries. Outside pocket for miscellaneous accessories.

Model FB5

16cm (6.4 in.) wide, 29cm (11.5 in.) long, 24cm (9.5 in.) high. Made of brown leather and holds Nikon F or F Photomic series, 4 lenses of shorter than 300mm in focal length except 85–250mm Zoom, and 4 filters. One lens is fitted on camera, while the other 3 are engaged securely to the bayonet mounts provided on the bottom baseplate of the case. Two roomy outside pockets.

Model FB6

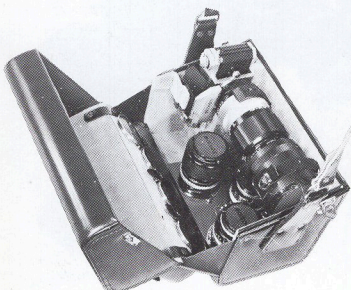
20.5cm (8.1 in.) wide, 31.5cm (12.4 in.) long, 11cm (4.3 in.) high. This brown leather case accepts 2 Nikon F or F Photomic series cameras, each with a normal or wide-angle lens attached, plus 2 lenses up to 200mm. Supplied with a filter pouch accommodating 6 encased 52mm or 72mm filters and an exterior pocket for sundries.

Model FB8

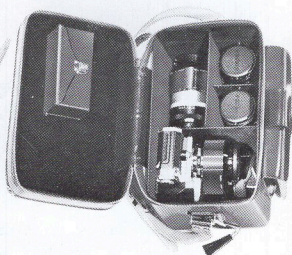
22cm (8.7 in.) wide, 31cm (12.1 in.) long, 23cm (9.1 in.) high. Made of fine black leatherette, it has the same style as Model FB5, but holds two cameras, Nikon F or F Photomic series fitted with lenses up to 135mm focal length. Also accommodates three additional lenses up to 135mm focal length which can be bayoneted firmly to the base plate.

Foam-Rubber Compartment Case Model 2

22.5cm (8.9 in.) wide, 32.5cm (12.8 in.) long, 14cm (5.5 in.) high. This case made of black, scuff-resisting leatherette accepts either a Nikon F or an F photomic series camera with a normal or wide-angle lens attached, three lenses (one up to 200mm and two up to 55mm focal length), the Nikon Flash Unit BC 7 and a few other miscellaneous items. Two bands at the outside bottom for fastening a tripod.



Model FB5



Model FB3

LENS CASES

Either reinforced leather, transparent plastic or wooden cases are supplied as standard cases to lenses. The type of case to be supplied with each lens is indicated in the lens chart on page 21.

Besides the above lens cases, there are Flexible Lens Pouches made of soft black leatherette. Type No. 51 accommodates normal or wide-angle lenses, Type No. 52 telephoto lenses up to 135mm, and Type No. 53 telephoto lenses up to 200mm.

FLASH UNIT BC-7

Compact and cordless flash unit fitting directly onto the Nikon F. A standard 15V battery is used and a synchronizing cord terminal is fitted to facilitate the use of extension flash. The reflector is a collapsible fan type and the click-stop swivel head permits direct or bounced light. It is provided with a three-way socket permitting the use of bayonet or miniature base or AG-1 flash bulb. Test circuits incorporated allow you to check the bulb, capacitor charging and synchronization circuit.

EYEPIECE CORRECTION ATTACHMENTS

Ground to specific powers, these attachments enable wearers of glasses to focus and view without glasses. Screw directly onto the Photomic T series or the Eye-Level finder. Available in corrections from -5 to $+3$ diopters.

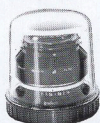
EYEPIECE MAGNIFIER

The Eyepiece Magnifier, screwed into the eyepiece frame of the viewfinder, offers 2-power magnification of the finder screen for pinpoint focusing.

The hinged magnifier swings out of the way. Available with -4 to $+2$ diopter corrections.



Eyepiece Magnifier



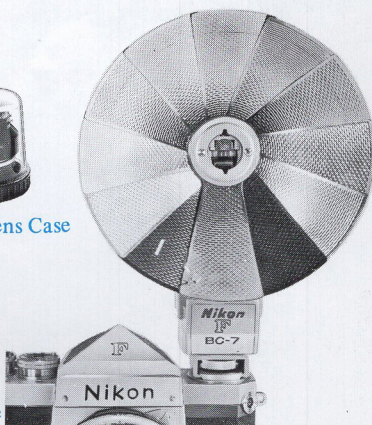
Plastic Lens Case



Flexible Lens Pouch



Leather Lens Case



Flash Unit BC-7

With the exception of viewfinders, focusing screens, 36-exposure film cassette, Nikon electric motor drives and eveready camera cases, all other accessories and attachments together with all lenses listed in this booklet can also be used on the Nikkormat.



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