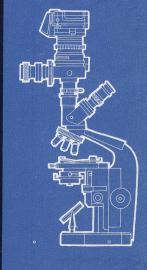




FOR FLEXIBILITY

& VERSATILITY









WHEN YOU BUY A NIKON, YOU BUY

A CAMERA SYSTEM

You start with a camera body whose precision is recognized throughout the camera world. And, you can change your Nikon's capabilities to suit exactly the requirements of each photographing situation.

Look through this catalogue and you will be sure to find lenses and accessories that will be valuable additions to your equipment. You'll find that Nikon offers more lenses for 35 mm photography than any other camera.

And, Nikon accessories can be teamed up for any type of shooting in the outdoors, in the laboratory or operating room . . . in the world of photojournalism, science, industry or just plain "Sunday photography."



NIKKOR INTERCHANGEABLE LENSES

Today, Nikkor lenses are acknowledged all over the world as the finest optics available. Speed and resolution and high, color rendition perfect. Nikon offers over 20 Nikkor lenses from 8 mm to 1000 mm—more than any other camera.

Nikkor normal, wideangle, telephoto and zoom optics; Micro, high definition close-ups; Fisheye, hemispheric reproduction; Medical, close-ups with built-in flash; PC Nikkor, shiftable axis. With this incomparable versatility, you're ready for any application. Did you know, only three name camera manufacturers own their own glass factories? Nikon is one of them. The advantages to Nikon—and to you as a Nikon camera owner—are more than significant. First of all, Nikon need not depend on the open market supply of glass. Nikon never has to accept alternates...it can produce the right glass for the right lens under its own quality control.

In the Nikon glass factory, lens experts design and supervise the manufacture of lenses. In addition to silica, they work with alumina, antimony, titanium, strontium, thorium, cadmium, lead, sodium, potassium, calcium, zinc, boron, fluorine, phosphorus and the rare earth element, lanthanum. Thus, these experts are able to design an almost limitless variety of glass compositions. Result: Nikon is first with the new lenses that widen the scope of 35 mm photography.

Nikkor lenses are designed to be used with ease. All markings are highly visible. Depth-of-field limit lines and aperture settings have the same color coding. Just set the aperture, and operate within the same colored line limits on the distance scale. Fast, easy reading. Lenses are available in metric or foot calibration. Preference should be specified.

Nikkor lenses in leather, wooden or cardboard cases are supplied with both front and rear caps.

Lenses in plastic cases supplied with front caps only.

The Nikkor *Auto* is lightweight. At the instant of exposure, its lens diaphragm closes down to preset "taking" aperture, then automatically reopens to full aperture. All *Auto* lenses couple to Nikon meters except as noted.

NIKKOR NORMAL LENSES

A 50 mm focal length is regarded as "normal"—as the best general purpose lens for all round work. This is the lens usually supplied as standard equipment with 35 mm cameras. It offers high speed, and in terms of perspective and depth of field, it is intermediate between wideangle and telephoto lenses. The 55 mm Micro-Nikkor *Auto* may also be classified with 50 mm lenses, but its excellent close-up features place it more accurately in the section on close-up lenses.

Nikkor Auto 50 mm f 1.4

Nikkon was first to offer a 50 mm lens with an f 1.4 aperture. This lens is probably the most versatile individual lens in $35\,\mathrm{mm}$ photography. It provides critical sharpness and accurate color reproduction with speed to handle almost any lighting situation. This high speed makes your viewfinder the brightest of any reflex sold today. Features automatic diaphragm with clickstops to f 16. 46° angle of view. Focuses down to 2 feet or 60 cm. Accepts 52 mm screw-in filters. Supplied with plastic case. Leather case supplied on order.

Nikkor Auto 50 mm f 2

This high resolution lens is sufficient for nearly any available light situation. It features an automatic diaphragm with click-stops to f 16. 46° angle of view. Focuses down to 2 feet or 60 cm. Accepts 52 mm screw-in filters. Supplied with plastic case. Leather case supplied on order.

NIKKOR WIDEANGLE LENSES

Ideal for photography of architectural exteriors and interiors or in confined areas. Because their depth of field is greater than normal lenses, even rough focusing will produce a sharp picture. Consequently, they are used by many photographers for "instant" candid work. For "special effects," the wideangle PC-Nikkor and Fisheye Nikkor are also available. These are discussed in the section on "Special Effects" lenses.



Nikkor 21 mm f 4 and Viewfinder



Nikkor Auto 50 mm f 1.4



Nikkor Auto 50 mm f 2



Nikkor Auto 28 mm f 3.5



Nikkor Auto 35 mm f 2.8



Nikkor 21mm f4

Nowhere is the quality of Nikkor optics better demonstrated than in the critical demands of this extra-wideangle lens. Despite its 92° angle of view, it offers unusual resolution, true color rendition and almost no linear distortion. Click-stops to f 16. Focuses down to 3 feet or 90 cm. Accepts 52 mm screw-in filters. Non-meter coupling. Supplied with these components: leather case and supplementary viewfinder.

Deep-seat-mount requires mirror to be locked in "up" position.

Nikkor Auto 28 mm f 3.5

The widest-angle Nikkor lens available with automatic diaphragm that click-stops to f 16. 74° angle of view. Focuses down to 2 feet or 60 cm. Accepts 52 mm screw-in filters. Supplied with plastic case. Leather case supplied on order.

Nikkor Auto 35 mm f 2.8

This lens provides ample speed for most lighting situations, and is eminently suited for general work. Features automatic diaphragm with click-stops to f 16. 62° angle of view. Focuses down to 1 foot or 30 cm. Accepts 52 mm screw-in filters. supplied with plastic case. Leather case supplied on order.

NIKKOR TELEPHOTO LENSES

The telephoto is a high magnification lens. It is excellent for close-ups of distant subjects such as stage performers, players, birds or animals. It permits you to take candid photos from a distance and is also ideal for portrait work. Also, the telephoto, with less depth of field at a given f-stop than a short-focus lens, lets you throw unwanted background detail out of focus. Since perspective is reduced as focal length is increased, this lens can be used for foreshortening effects. Two particular telephoto lenses, because of their applications . . . Medical-Nikkor *Auto* and Nikkor 135 mm f 4 in short mount, are discussed in the "close-up work" section.



Nikkor Auto 105 mm f 2.5



Nikkor 105 mm f 4



Nikkor Auto 135 mm f 3.5



Nikkor Auto 200 mm f 4

Nikkor Auto 105 mm f 2.5

This lens is one of the most popular for moderate telephoto effects and portraiture. It provides about 2 times the magnification of a normal lens. 23°20′ angle of view, high-speed and high resolution make it the choice of many who seek their first telephoto lens. Features an automatic diaphragm with clickstops to f 22. Focuses down to 4 feet or 120 cm. Accepts 52 mm screw-in filters. Supplied with snap-on lens hood and plastic case. Leather case with shoulder strap available.

Nikkor 105 mm f4

For photographers who do not need the exceptional speed or the automatic diaphragm feature of the 105 mm f 2.5. Features a preset diaphragm with click-stops to f 22. 23°20′ angle of view. Focuses down to 2.75 feet or 80 cm. Accepts 34.5 mm screwin filters. Non-meter coupling. Supplied with snap-on lens hood and leather case with shoulder strap. Plastic case also available.

Nikkor Auto 135 mm f 3.5

The standard telephoto lense. It has the widest range of the hand-held telephoto lenses. Fast with high resolution it provides 2.7 times magnification with an 18° angle of view. Automatic diaphragm with click-stops to f22. Focuses down to 5 feet or 150 cm. Accepts 52 mm screw-in filters. Supplied with snap-on lens hood and plastic case. Leather case with shoulder strap also available.

Nikkor Auto 200 mm f 4

Light, compact, high resolution telephoto. Ideal for sports and nature photography. It weighs only 20 ounces (600 g) and is only 6" long (154 mm).

Automatic diaphragm with click-stops to f 22. $12^{\circ}20'$ angle of view. Focuses down to 10 feet or 3 meters. Accepts 52 mm screw-in filters. Supplied with built-in lens hood. Leather case with shoulder strap also available.



Nikkor 180 mm f 2.5

A fast, high resolution telephoto providing 3.6 times magnification with a 13°30′ angle of view. Preset diaphragm with clickstops to f 32. Focuses to 7 feet or 2.1 meters. Accepts Series 9 filters. One tripod socket. Non-meter coupling. Supplied with screw-in lens hood. Fits Nikon F Standard and F Photomic with N-F Adapter.

Nikkor 250 mm f 4

A versatile, high resolution telephoto that delivers 5 times magnification with a 10° angle of view. Preset diaphragm with click-stops to f 32. Focus markings to 10 feet and 3 meters in dual calibration. Accepts Series 9 filters. One tripod socket. Non-meter coupling. Supplied with screw-in lens hood. Fits Nikon F Standard and F Photomic with N-F Adapter.

Nikkor 350 mm f 4.5

Lightweight telephoto. 7 times magnification with a 7° angle of view. Semi-automatic diaphragm with click-stops to f 22. Focus markings to 13 feet and 4 meters in dual calibration. Accepts Series 9 filters. One tripod socket. Non-meter coupling. Supplied with screw-in lens hood. Fits Nikon F Standard and F Photomic with N-F Adapter.

Nikkor 500 mm f 5

High resolution, long telephoto providing 10 times magnification with 5° angle of view. Preset diaphragm with stops to f 45. Focus markings to 30 feet and 8 meters in dual calibration. Accepts 110 mm filter. One tripod socket. Non-meter coupling. Supplied with screw-in lens hood and wooden case. Fits Nikon F Standard and F Photomic with N-F Adapter.



Nikkor 180 mm f 2.5

Nikkor 250 mm f 4

Nikkor 350 mm f 4.5



Reflex-Nikkor 500 mm f 5



Reflex-Nikkor 1000 mm f 6.3

Reflex-Nikkor 500 mm f 5

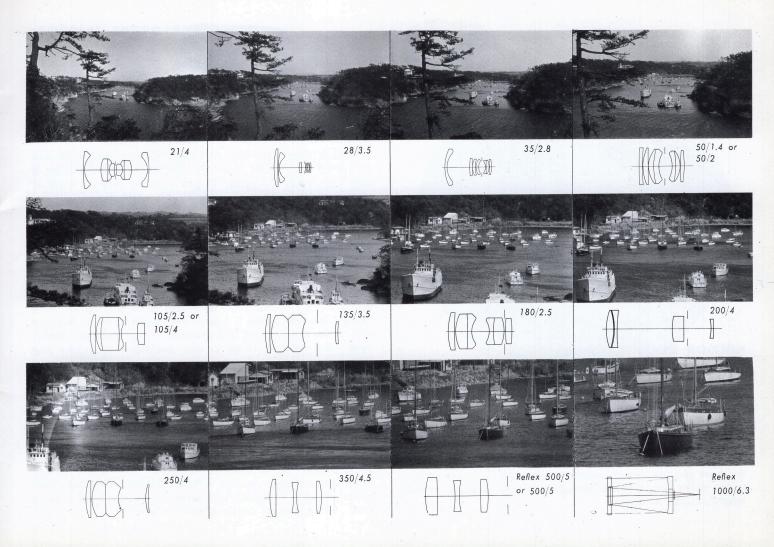
Long telephoto providing 10 times magnification with a 5° angle of view. Uses catadioptric (combination mirror and lens) system. Remarkably light and compact: only 73/4'' (20 cm) long; weighs 31/2 lbs. (1.6 kg). Focus markings to 50 feet and 15 meters in dual calibration. Provision for filter to be attached to rear of lens. Supplied with five 39 mm screw-in filters: neutral density, skylight, yellow, orange, red. Lens speed can be controlled by the neutral density filter. One tripod socket. 90° rotary mount allows horizontal or vertical picture format. Non-meter coupling. Supplied with screw-in lens hood, and leather case. Photomic F finder must be removed for use of Reflex 500 mm.

Reflex-Nikkor 1000 mm f 6.3

Longest focal length Nikkor lens. High resolution super telephoto that provides 20 times magnification with a 2°30′ angle of view. Catadioptric type. Lens speed controlled by means of three built-in neutral density filters. Approximates f 11, f 16 and f 22. Focus markings to 100 feet and 30 meters in dual calibration. 4 built-in interchangeable filters: ultraviolet haze, red, orange, and yellow. One tripod socket. Non-meter coupling. Supplied in fitted metal case with front leather cap, rear metal cap and slip-on hood.



Reflex-Nikkor 1000 mm f 6.3...T. Tanaka





Auto Nikkor Telephoto-Zoom 85 mm f 4—250 mm f 4.5

Auto Nikkor Telephoto-Zoom 200 mm f 9.5—600 mm f 10.5

NIKKOR ZOOM LENSES

Nikon was first to introduce high resolution zoom lenses... first to introduce a zoom lens system with 35 mm cameras. Zoom lenses provide varying focal lengths without the need to interchange lenses. A single lens does the work of many lenses. You focus a Nikkor Zoom lens once...and it stays in sharp focus throughout zooming operation. One ring permits simultaneous focusing and zooming with one hand.

Electric Motor Drive teamed with a zoom lens puts in your hands the most exciting 35 mm camera conceivable. You get all the action in an action scene through sequence shooting at the magnification you want.



Zoom-Nikkor Auto 43-86 mm f 3.5

Zoom-Nikkor Auto 43-86 mm f 3.5

Automatic diaphragm with click-stops to f 22. Angle of view 53° to 28°30′. Focus markings to 4 feet and 1.2 meters in dual calibration. Accepts 52 mm screw-in filters. Supplied with plastic case. Leather case with shoulder strap also available.

Auto Nikkor Telephoto-Zoom 85 mm f 4-250 mm f 4.5

Automatic diaphragm with click-stops to f 16. Angle of view $28\,^{\circ}30'$ to $10\,^{\circ}$. Focuses down to 13 feet or 4 meters $(7^{1/2}$ feet or 2.2 meters when close-up lens is attached). Maximum aperture is f 4 at "85" and decreases to f 4.5 at "250" focal length. Accepts Series 9 filters. Two tripod sockets. Supplied with screw-in lens hood and close-up lens. Eveready leather case, with shoulder strap, is also available for camera and lens.

Auto Nikkor Telephoto-Zoom 200 mm f 9.5-600 mm f 10.5

Automatic diaphragm with click-stops to f 32. Angle of view $12^{\circ}20'$ to $4^{\circ}10'$. Focus markings to 13 feet or 4 meters $(7^{1}/2)$ feet or 2.3 meters when close-up lens is attached). Maximum aperture is f 9.5 at "200" and decreases to f 10.5 at "600" focal length. Accepts Series 9 filters. One tripod socket. Rotary mount allows vertical or horizontal picture format. Nonmeter coupling. Supplied with screw-in lens hood and close-up lens. Fitted wooden case available for lens.

"SPECIAL EFFECTS" LENSES

The following lenses can not be classed accurately as "wide-angle", because both have highly individualized characteristics and advantages. They were developed to further broaden the range of versatile Nikon photography.

Fisheye Nikkor 8 mm f8

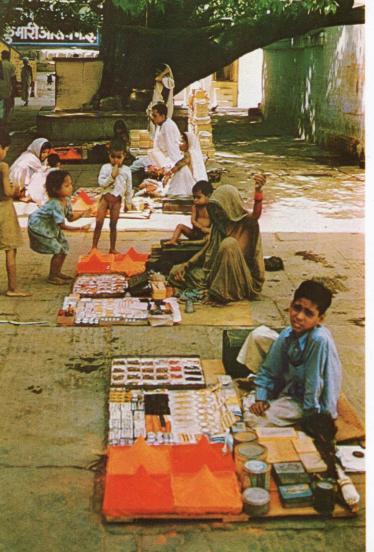
The only super—wideangle lens for a 35 mm camera covering a 180° picture angle—horizontally and vertically. A round image, 24 mm in diameter is reproduced on the negative. Manual diaphragm with click-stops to f 22. Fixed focus because of extremely deep depth of field. Has six built-in filters on an internally rotating turret: orange, medium yellow, dark yellow, skylight, yellowish green and red. Non-meter coupling. Supplied with an aiming finder to be fitted in the accessory shoe. Leather case also available. Fits Nikon F with mirror locked up. Photomic F finder must be removed for attachment of Fisheve.



Fisheye Nikkor 8 mm f 8 and Aiming Finder



180° hemispheric image



PC-Nikkor 35 mm f 3.5

The unique feature of this lens is that its optical axis can be shifted up to 11 mm eccentrically around the picture frame axis. Previously, this could be accomplished only in large view cameras by "snaking" the bellows off center. In 35 mm photography this has never before been possible.

With this lens you can avoid the image conversion produced when the lens is not parallel to the subject. The PC-Nikkor, therefore, is extremely useful in architectural, industrial, commercial photography, and where perspective compensation in the enlarging stage is difficult. Also, it makes possible a continuous panorama of two exactly matching pictures without moving the camera.

PC-Nikkor has a preset diaphragm with click-stops to f 32. Effective angle of view 74°. Focuses down to 1 foot or 30 cm. Accepts 52 mm screw-in filters. Non-meter coupling. Use of Focusing Screen Type E is recommended. Leather case is available. Photomic F finder must be removed for attachment of PC-Nikkor.



PC-Nikkor 35 mm f 3.5



Lens shifted to the right



Taken with ordinary wideangle tilted upward: Verticals converge



Taken with PC-Nikkor: Verticals now correct

LENSES, ATTACHMENTS AND ACCESSORIES FOR CLOSE-UP WORK

Close-up work, macrophotography (magnifications above life-size) and microphotography are the areas in which Nikon single lens reflex cameras excel. Only Nikon lets you see the *exact* picture you're about to take. Finder field covers 100% of the frame area. And, of course, there's absolutely no parallax—no matter how short the working distance. Another thing: you actually *see* your depth of field, compose and focus through the same optical system that takes the pictures.

For scientists and professionals, Nikon fulfills all the requirements for close-up and macrophotography better than any other camera. For camera enthusiasts, it makes close-up photography truly enjoyable...and greatly increases the capabilities for taking such subjects as an individual flower, an insect or postage stamp, or reproducing a manuscript.

In close-up work, viewing with an Eye-Level Finder is sometimes awkward; split-image type screen is inappropriate. Use of Waist-Level Finder and other types of screens, depending on the photographic situation, is possible and recommended.



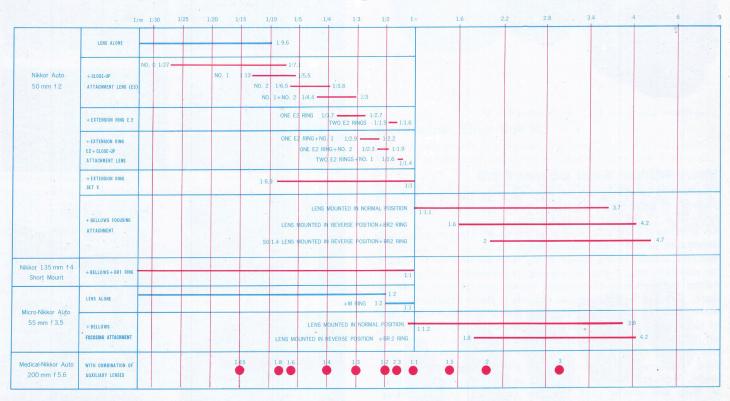
L. L. Smith

Close-Up Attachment Lens used for both pictures

H. Koyama



WHICH LENS AND ACCESSORIES TO USE? CHECK THE DESIRED RANGE OF MAGNIFICATIONS AND REDUCTIONS



Magnification ranges for Nikkor Auto 50 mm f 2, shown above, also apply to Nikkor Auto 50 mm f 1.4. The difference between the lenses is negligible except when used with Bellows. For macrophotography it is advisable to reverse the lens on the Bellows to obtain higher resolution.





Micro-Nikkor Auto 55 mm f. 3.5 and Extension Ring M

Micro-Nikkor Auto 55 mm f 3.5

This lens is ideally suited for close-up and micro-copy work. It permits, in general photography, continuous focusing from infinity to a 1/2 life size reproduction.

An accessory Extension Ring M which couples to the automatic diaphragm permits reproduction from $^{1}/_{2}$ to $^{1}/_{1}$. An ingenious aperture compensating device in the lens automatically adjusts for constant brightness at varying reproduction ratios eliminating the necessity of exposure factor calculation in close-up work. The lens (without Ring M) couples to Nikon Exposure Meter. Micro-Nikkor is primarily designed to give a distortion-free image of high resolution, particularly at close ratios with no shading off in the corners. Even at reproductions up to $^{1}/_{1}$ (life-size) the original sharpness is maintained over the entire picture area. Click-stops to f 32 . . . to f 45 with M Ring. 43° picture angle. Focuses down to 0.79 feet or 24.1 cm. Supplied with M Ring and plastic case. Leather case with shoulder strap available.



Micro-Nikkor does



Add M Ring for 1/1 reproduction



normal lens work,



Use Bellows for macrophotography



lets you get close,



closer



Excellent for reproducing delicate detail

Close-Up Attachment Lenses

Screw-in to front of 50 mm f 2, 50 mm f 1.4, 105 mm f 2.5, 135 mm f 3.5, 200 mm f 4; and 43 – 86 mm Zoom-Nikkor f 3.5. Three powers available. Each can be used individually or in combination on the primary lens for close-up focusing.

No. 0	with 135 mm f 3.5	$1/4.6 \times -1/10.4 \times$
	with 200 mm f 4	$^{1/4.1} \times ^{-1/7} \times$
No. 1	with 50 mm f 2	$^{1/_{5.5} \times - 1/_{13} \times}$
	with 135 mm f 3.5	$1/3.0 \times -1/4.9 \times$
No. 2	with 50 mm f 2	$1/3.8 \times -1/6.5 \times$
	with 135 mm f 3.5	$1/1.8 \times -1/2.5 \times$
No. 1 & 2	with 50 mm f 2	$1/3.0 \times -1/4.4 \times$

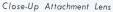
Use of Nikon Close-Up Attachment Lenses does not deprive you of the automatic diaphragm feature or require additional exposure. Each is supplied with leather case.

Extension Ring E2

14 mm thick, it fits between lens and camera body to extend the lens-to-film distance. With a normal lens, it permits close-up shots of subjects too close for photographing with a Close-Up Attachment. Also, Extension Ring E 2 facilitates close-ups of subjects nearer than the minimum focusing distance of a telephoto lens.

Produces reductions from $^{1}/_{2.7}$ to $^{1}/_{3.7}$ with 50 mm f 2 lens. Provided with plunger which, while depressed, opens aperture diaphragm of lens for easier focusing. Release plunger, and diaphragm closes to pre-selected aperture. A shutter cable release can be attached to plunger for vibration-free copying work.



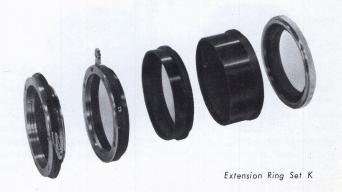




Extension Ring E2

Extension Ring Set K

Set consists of five component rings: K1, K2, K3, K4 and K5. Rings fit between lens and camera body. Each has a different length. May be used individually, or in combinations, with 50 mm f2 lens to provide nine reproductions from 1/1 to 1/8.9. Lens-to-film distance can be extended 46.6 mm by use of entire set. "3-position" engagement allows lens to be oriented for convenient reading of aperture markings. Supplied with leather case.







Nikkor 135 mm f 4



BR I Adapter Tube

Bellows Focusing Attachment

Fits between camera and lens without adapter. Provides means for continuously varying the lens-to-film distance for sharp focus at reproduction ratios up to 8.8 times when used with 28 mm f 3.5 lens. Reproduction with 50 mm f 2 lens ranges from 0.9 to 3.7 times. With 50 mm f 1.4 lens, reproduction ranges from 2 to 4.7 times but lens must be mounted in reverse position and BR 2 Adapter used. With the 135 mm f 4 Nikkor (Short Mount) and BR1 (B-F) Adapter Tube, the range extends continuously from life-size close-up to infinity.

Bellows can also be used with Extension Ring. A rotary mount allows vertical or horizontal picture format.

Nikkor 135 mm f 4 (Short Mount)

Exclusively for use with Nikon Bellows Focusing Attachment. No focusing mechanism—focuses only with Bellows. Focusing range of from infinity to 1/1 (life-size) reproduction. Attaches with BR1 Adapter Tube. Preset diaphragm with click-stops to f 22. 18° angle of view. Accepts 43 mm screw-in filters. Supplied with plastic case.

BR1 (B-F) Adapter Tube

Permits 135 mm f 4 Nikkor to be used with Bellows for life-size close-ups to infinity.



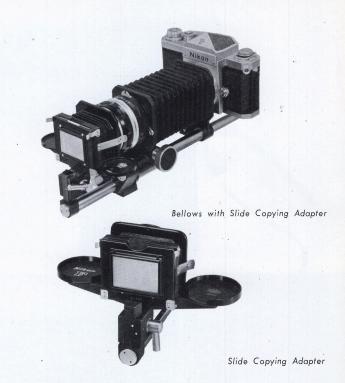
Fresh water micro-organisms taken with Bellows...H. Oda

BR2 Macro Adapter Ring

Used for mounting lens in reversed position on Bellows Focusing Attachment for macrophotography. Magnification to about 4.2 times are obtainable when used with 50 mm f 2 normal Nikkor. May be used with all Nikkor lenses that accept 52 mm screwin filters.



BR 2 Macro Adapter Ring

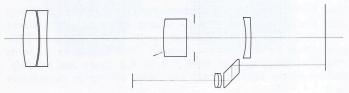


Slide Copying Adapter

Used with Bellows, facilitates duplicating and cropping of 35 mm color and black-and-white film. Copies either $2^{\prime\prime}\times2^{\prime\prime}$ (50 mm \times 50 mm) cardboard slide mounts or 35 mm film strips. Slide holder may be elevated and lowered. With a 50 mm f 2 lens, magnification ranges of from 0.9 to 4.2 times are possible. Bellows on the adapter snaps onto lens, eliminates superfluous light.



Medical-Nikkor Auto 200 mm f 5.6 with Auxiliary Lens



Medical-Nikkor Auto 200 mm f 5.6

Ideal for medical photography, such as observation of natural and surgical cavities. Well suited to numerous commercial and industrial applications as well.

This unique close-up lens has a range of from $^{1}/_{15}$ reduction to 3 times magnification in eleven steps by interchanging six auxiliary attachment lenses. Surprisingly light and compact, you can conveniently hand-operate it for long periods of time, even in awkward positions.

At any magnification, Medical-Nikkor Auto has a much longer working distance than normal lenses. Close-ups of recessed areas can be made with plenty of elbow room.

The lens is equipped with built-in lamps for easy, precise focusing of close-ups in dim light. The built-in electronic ring flash completely illuminates the subject at the instant of exposure, eliminates shadows. Color temperature of the flash is 6000°K, permitting use of daylight type film.

Fully automatic aperture diaphragm has stops to f 45.

The lens is self-compensating so that setting of the film type, film speed (ASA) and desired magnification on the lens produces the right diaphragm opening at instant picture is taken. This eliminates the nuisance of exposure factor calculation inherent in close-up and flash photography.

A mechanism is provided for printing either figures from 1 to 39, or the magnification ratio on each picture frame simultaneously with exposure. This serves to classify conveniently the exposure with regard to subject or size. It also serves as a guide to right-side-up projection. When not needed, this feature may be omitted by manipulating the changeover ring.

Non-meter coupling. Supplied with set of six auxiliary lenses and accessory shoe cover. Choice of power unit: AC model adjustable to 100 V, 117 V, 220 V, 240 V; or DC model rated at 240 V for the ring flash, and 3 V for focusing lamp...uses 4 "D" cells and 1 "B" pack. Leather compartment case to hold camera and above equipment is available.







Microflex FMF—Prism Reflex Microscope Attachment

Designed for high precision photomicrography, fits any standard microscope. Consists of camera adapter collar; eyepiece holder; coupled prism-shutter housing; ocular viewfinder for high power magnification, or dark-field illumination; ground glass screen viewer for low power magnification and its accessory 7-fold magnifier. Shutter with speeds from 1 second to 1/250th plus 'T' and 'B.' Supplied also with 2 cable releases, yellow, orange and green filters and fitted wooden case.

Microscope Adapter

Permits photomicrography with any standard microscope. Economical, well suited to low power magnification. Consists of microscope-to-camera adapter tube containing optics, interchangeable focusing screen Type C and green, yellow and red filters. Image is viewed in camera finder. Exposure is provided by camera shutter. Waist-Level Finder is recommended. Supplied with fitted leather case.



Microscope Adapter



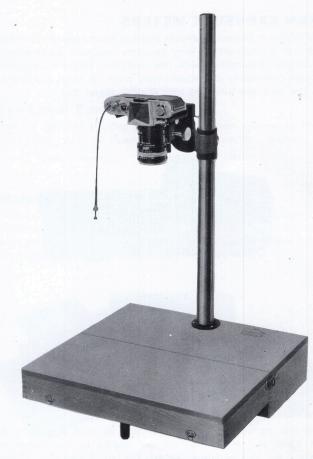


Surface of gabbro taken with Microflex...T. Abe

Repro-Copy Outfit Model PF

Convenient for close-up photography and reproduction of objects and flat copy. Consists of copy head with focusing device, two-piece upright post, camera bracket and Extension Ring K 1. Copy head moves up and down by means of rack and pinion for speedy fine focusing. Camera may be rotated 90° for photographing objects that do not fit on the stand, such as wall-mounted maps. With Close-Up Attachment, Extension Ring or Bellows Focusing Attachment, small areas can be copied and macrophotographs of minute objects made.

With the Model PF you can choose a wooden carrying case which opens to serve as a copy surface, or a "chipboard" (chips of wood compressed into hard uniformly flat board) base plate copy surface. Also, a table clamp to secure the upright post onto work bench or desk is available.



Repro-Copy Outfit Model PF

NIKON EXPOSURE METERS

Nikon exposure meters represent another advantage of the Nikon system of photography. They combine accurate performance and rugged construction with this exclusive Nikon innovation: although completely detachable they may be fully coupled to both the lens aperture ring and shutter speed dial.



Model 3 Exposure Meter

This meter performs the same function as built-in meters on other cameras. Match the pointer needle in the meter by adjusting the shutter-speed dial and / or lens diaphragm setting. Camera is "ready-to-shoot" at correct exposure.

The Nikon Model 3 features automatic internal high-low light

control shunt: silver pointer for high light, gold for low. Shutter speed range is from 1/1000 to 2 seconds (at Bulb); "f" stop range from 1.4 to 22; subject light measuring range from LV 5 to LV 18 with film speed of ASA 100; ASA ratings from 6 to 4000; filter factor settings from 1 to 4. Incident light reading adapter supplied as standard equipment. Rugged and highly accurate, it fits the Nikon F Standard.

Light Amplifier

3.2-fold magnification light amplifier attaches to Model 3 Exposure Meter when measuring low light conditions. Supplied with opal plate for incident light reading and leather case.



Acceptance Angle Converter

Incident Light Reading Adapter

INTERCHANGEABLE VIEWFINDERS

Unique from Nikon... truly precise picture viewing. Would it help you if the picture you saw in the viewfinder was exactly the photo you were taking? If so, Nikon F Standard or F Photomic is your camera. Only the F Standard and F Photomic have 100% Picture-Size Viewing. Your finder image, no more, no less, is reproduced on the negative. You can prove Nikon has it by shooting a test photo.

Photomic Finder

The Photomic Viewfinder combines in one housing an exposure meter and a prism finder. The meter uses a cadmium sulfide photo-conductor which, without a booster, measures 4 times the light of a conventional selenium cell meter. Teamed up with Nikkor Auto lens, the meter couples to both shutter speed and lens diaphragm. Since the exposure needle appears in the viewfinder itself as well as in an outside window, you can focus, compose, set the shutter, select the correct lens aperture—all without taking your eye from the viewfinder.

Can be interchanged with the Nikon F Standard's Eye-Level Finder or a Waist-Level Finder. Shutter speed range from 1/1000 to 2 seconds at Bulb (B2). "f" stop range is identical with that of Model 3 Exposure Meter. Subject light measuring range from LV 3 to 17 with film of ASA 100. ASA ratings 10-1600. The F Photomic is supplied with an 18° light acceptance angle converter, and incident light reading adapter. Converter eliminates superfluous light and picks out particular subjects in the lens field for measurement.

Supplied also with a mercury battery and a plastic prism guard. A leather case which alternatively accepts an Eye-Level Finder or a Waist-Level Finder is provided when the Photomic Finder is obtained as an accessory.

Eye-Level Finder

Fine for general photography. Same prism system as Photomic Finder. May be used with Model 3 Exposure Meter.

Waist-Level Finder

Frequently more desirable for close-up, photomicrography and reproduction work. 'Gives you freedom to shoot from any angle, even from above head or at your side. Power magnifier for pin-point focusing. Collapsible. Supplied with leather case.







Eye-Level Finder

INTERCHANGEABLE FOCUSING SCREENS

Every screen has a condenser to "spread" light uniformly over entire area. Fresnel-lined moulding of Acryl Resin is a further aid for edge-to-edge brightness.

Type A: Fresnel lines with matte surface. Clear center spot with split-image rangefinder. Supplied as standard with camera. For general use. In extreme close-up work use the outer matte surface for focusing.

Type B: Same as type A, but does not have split-image range-finder. Preferable for photography with long focal length lenses or for close-up work.

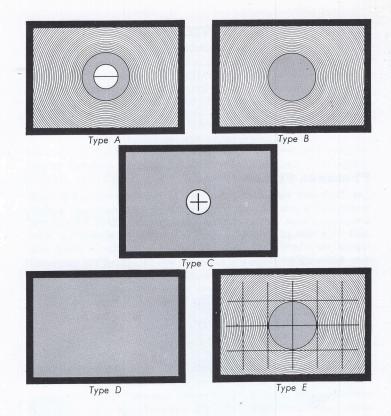
Type C: Glass screen. Plain matte; clear center spot with etched cross-hairs. For use in photomicrography and astrophotography.

Type D: Glass screen. Plain matte. Fine for situations in which Fresnel rings are inappropriate. Uninterrupted, uniform image.

Type E: Same as type B screen, but with "checker board" of etched fine vertical and horizontal lines. For architectural and interior design subject. Particularly good with PC-Nikkor. Also excellent for reproduction work.

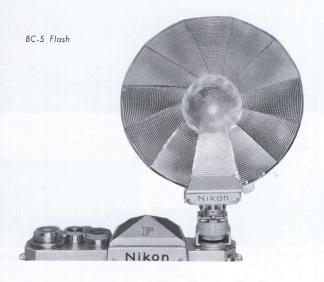
Eyepiece Correction Lenses

Permit eyeglass users to focus and compose without wearing glasses. Available in corrections of: -5, -4, -3, -2, -1.5, +3, +2, +1 and +0.5 diopters. Fit Nikon F Standard EyeLevel and F Photomic Finders. Specify power when ordering.





Eyepiece Correction Lens









FLASH UNITS

BC-5 Cordless Flash Unit

Unique, compact BC unit fits over rewind knob by using Flash Unit Coupler. Makes electrical contact with stud on coupler without wires. Five inch (12.5 cm) collapsible fan-fold reflector tilts to rear for bounce light.

Has built-in tester for checking electrical circuit, flash bulb and battery-capacitor charge plus exposure calculator and bulb ejector.

Automatic changeover socket permits use of either regular bayonet or pinless miniature bulbs.

Uses 22.5 V hearing aid type battery.

Supplied with capacitor and leather case.

BC-6 Flash Unit

Powerful, compact. Automatic changeover socket for using AG-1 or pinless miniature bulbs. Test device for checking bulb, charge and circuit. Exposure calculator. $8^{\prime\prime}$ (20 cm) flash cord connection. Supplied with capacitor and vinyl case. Accepts 15-volt battery.

Flash Unit Coupler

Provides accessory shoe over rewind knob on Nikon F Standard and F Photomic for attaching BC-5 or BC-6 Flash Unit.



NIKON ELECTRIC MOTOR DRIVE

The battery-operated motor Nikon brings a new freedom of operation to the creative photographer. Light and compact, the Electric Motor Drive converts your Nikon F Standard or F Photomic to a sequence camera with motorised firepower. Use it to cover sports events and fast moving news stories. For industrial and commercial applications, time-lapse, time-and-motion studies. It's also ideal for photography involving remote operation: in dangerous or inaccessible areas or in any shooting situation in which the photographer can't be near his camera. The motor-equipped Nikon takes single frames; fires in short bursts or runs off the entire film load at adjustable speeds up to 4 frames per second.

The Nikon Electric Motor Drive distinguishes Nikon as the only 35 mm camera designed to operate with a motor, built to withstand the constant vibration of motor-driven sequence photography.

The motor camera back will be pre-fitted on order at the factory, or fitted on your own camera when returned to the factory directly or through your Nikon dealer.



. F 36 Motor Drive Back



F 250 Motor Drive Back



250 Exposure Film Magazine



Model F 36 Electric Motor Drive Back

For Nikon F Standard and F Photomic. Loads up to 36 exposures. With the Motor Back, the camera becomes only 26 mm higher with no other dimensional increase. Excellent for general photography or documentary work.

Model F 250 Electric Motor Drive Back

For Nikon F Standard and F Photomic. Loads up to 250 exposures (33' of film). Motor Back is double magazine type and may be opened at any time without fogging. 36-exposure cartridge can also be used. With the Motor Back, camera is 165 mm wider, 32 mm higher and 15 mm deeper. This accessory is suited for general photography, copying documents or recording experimental data.

12-Volt Battery Pack

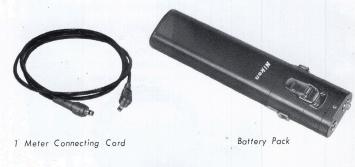
Of eight 1.5 volt "C" batteries powers F 36 or F 250 Motor Drive. On top of pack there is a socket for accepting power cord, and a push button for remote operation, permitting single shots or continuous firing. Comes with shoulder strap.

Connecting Cords

Three-wire type. Fits between Battery Pack and Motor Back, or Battery Pack and Relay Box or Relay Box and Motor Back. 1 m (3') length supplied as standard equipment; 10 m (33') supplied on order.

Battery Checker

Miniature 14-volt meter. Plugs into Battery Pack cord socket.





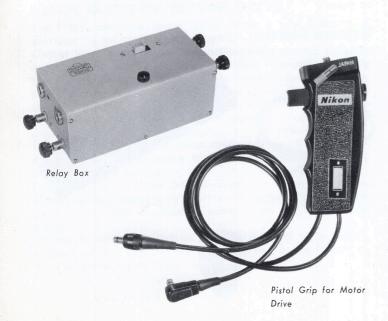
Battery Checker

Relay Box

Permits remote camera operation with timer, or intervalometer, or with wireless control and simultaneous operation of several motor-equipped cameras. For all Nikon Motors.

Pistol Grip for Motor Drive

Screws into Motor-Back-equipped Nikon. Two cords: one connects to Battery Pack; the other with Motor Back. Grip has a built-in selector-switch which lets you set camera to take single shots or fire continuously. Connecting Cable Release fits into socket on Grip and shutter release button on camera.



250 Exposure Film Magazine

Made for Model F 250 Motor Back. Loads up to 33 feet of film cut from 100-foot rolls. Supplied with leather case.

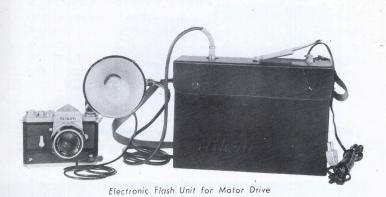
Bulk Film Loader

Rapid film loader for loading film into F250 Motor Back Magazine in darkroom. Stops automatically at preset film length. Fluorescent frame number markings. Can be easily loaded from 100-foot film rolls.



Electronic Flash Unit for Motor Drive

With rapid recharging capability; designed for consecutive exposures with Nikon F Standard or F Photomic equipped with Motor Drive. Power source operating at 100, 117, 220, 240 V AC. Fires at up to 3 times per second. Color temperature 6000 °K. Consists of power control unit, main flash unit with exposure calculator, and 3 cords.





Fitted Compartment Case Model FB 4

30 cm wide, 13 cm deep, 20 cm high. Holds Nikon (fitted with regular camera back or F 36 Motor Drive Back) with normal or wideangle lens; accessory lens (28 mm to 135 mm focal length), Battery Pack, Battery Checker, Waist or Eye-Level Finder; 6 filters or sundries. Outside pocket also provided. F Standard can be stored with meter mounted.

Nikon Wireless Control

Permits wireless remote control of camera in conjunction with Motor Drive and Relay Box. You can activate film advance and shutter release by radio from up to 300 meters distance. Thus, you can take otherwise impossible or inconvenient pictures—in sports, photojournalism, natural life and in many technical and industrial applications.

Nikon Wireless Control is available in two frequency models. Each model can operate two cameras simultaneously in the same area. Different frequency models do not interfere with each other.



Compartment Case Model FB 4

FITTED COMPARTMENT CASES

All are made of top grain cowhide, have shoulder strap with non-slip cushion pad. Roomy, convenient compartments for safe carrying of your Nikon equipment.

Model FB 1

 $17 \, \text{cm}$ wide, $11 \, \text{cm}$ deep, $13 \, \text{cm}$ high. Compact unit for Nikon with normal lens (excluding $43-86 \, \text{zoom}$) or wideangle lens, BC-5 and these accessories: 3 Nikon Film Magazines or spare film cartridges and 3 filters. F Standard can be stored with meter mounted.

Model FB3

27 cm wide, 16 cm deep, 20 cm high. Holds Nikon with normal lens; 2 wideangle lenses; 1 telephoto lens (105 mm to 135 mm focal length); Model 3 Exposure Meter, Light Amplifier, Waist or Eye-Level Finder and Photomic Finder; 6 filters. Outside pocket for miscellaneous accessories. F Standard can be stored with meter mounted.

Foam Rubber Compartment Case

31 cm wide, 13 cm deep, 22 cm high. Holds Nikon with normal or wideangle lens, and 3 accessory lenses (28 mm to 135 mm focal length) and these accessories: BC-5, 6 filters, Extension Ring or 2 Close-Up Attachments. Tripod fastens on outside of case. F Standard can be stored with meter mounted.



FB 3 Foam Rubber Compartment Case

FB 1



J. Sudyk

Eveready Camera Cases

Of fine cowhide. Accommodate Nikon F Standard with meter mounted or F Photomic. Snap-on front permits use of camera in case. Bottom locking nut is threaded so camera can be attached to tripod without removing from case. These features with hard and semi-hard leather cases.

Hard Leather Case

Brown. Wrist and shoulder straps provided.

Semi-Hard Leather Case

Black. Wrist and shoulder straps provided.

Soft Leather Case

Black. Zippered pouch. Neck strap provided. Shoulder strap that fits camera body is available.

Pistol Grip

Convenient camera-lens support. Permits trigger release operation. Requires Connecting Cable Release to activate camera shutter. Pistol Grip screws into tripod socket on camera or long telephoto lens barrel.

Connecting Cable Release

Allows pistol "trigger" operation with camera. One end fits over camera shutter release; the other fits into socket on Grip.

Panorama Head

Used for taking panorama sequences through full 360° , with Nikkor lenses from 28 mm through 135 mm. Permits a series of exactly spaced exposures, each with a slight overlap to assure continuity. Click-stop settings for 35 mm, 50 mm and 105 mm lenses. Colored indicators for 28 mm, 85 mm and 135 mm lenses. Fits tripod socket of Nikon F Standard or F Photomic.



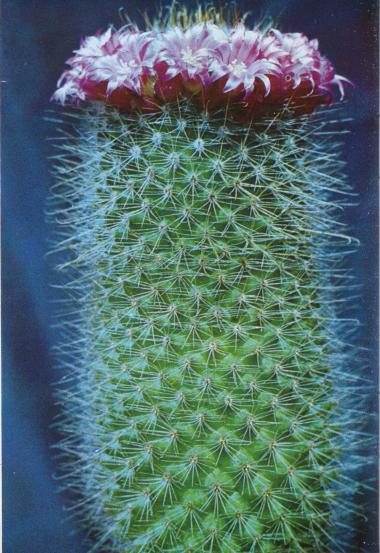
Nikon Film Magazine

Precision-made, simple loading all-metal cassette for spooling film loads from bulk film. Magazine holds up to 36 exposures; fits all Nikon cameras. Reminder markings to tell you whether film has been loaded or not...what type of film is loaded... what the film ASA speed is.

Shutter Cable Release with Auto Stop

This shutter cable release can be operated as ordinary release for vibration-free operation...or the auto stop feature may be used to take time exposures. The auto stop, a special mechanism on the cable requires only one-finger operation. Press the plunger and the auto stop locks it in the depressed position. Press the auto stop and the plunger springs up.





Nikon Filters

Nikon filters are solid glass, polished under strict quality control until both surfaces are perfectly flat and parallel. They are manufactured to be free of stress, and both surfaces have hard coatings to prevent reflections. Each filter faithfully transmits only the color spectrum for which it was designed.

There are two types of Nikon filters: screw-in type and the Series type. Screw-in filters screw directly into the inner lens frame. The Series 9 filters fit into the lens hood which also serves as a filter holder. Series 7 is also available for 50/2, 50/1.4, Micro Auto 55/3.5, 105/2.5, 135/3.5, 200/4, and 43-86 Zoom. Series 7 filters are held between the two rings of the Nikon filter adapter.

The diameter and thickness of a filter affect vignetting of a photograph...may even darken the corners of the picture. Therefore, use only one filter rather than two or more filters together. For color and black-and-white photography, you can use skylight, UV haze, neutral density and polarizing filters. The other filters are exclusively for black-and-white work.

Type		Screw-in			Series	Plain metal frame
S	Size		43 mm	52 mm	9	110 mm
Lens Used		105/4	135/4 Short Mount	21/4, 28/3.5, PC 35/3.5, 35/2.8, 50/2, 50/1.4, Micro Auto 55/3.5, 105/2.5, 135/3.5, 200/4, 43-86 Zoom	85-250 Zoom, 200-600 Zoom 180/2.5, 250/4, 350/4.5	500/5
Skylig	Skylight			0		
UV ha	UV haze		0	0	0	0
Yellow	Light	0	0	0	0	0
	Medium	0	. 0	0	0	0
>	Dark	0	0	0	. 0	0
Orang	Orange		0	0	0	0
Red		0	0	0	0	0
Yellow- ish Green	Light	0	0	0		
	Dark	0	0	0		
Polari	Polarizing			0		
Neutral Density	ND 4X	0			大学等	
	ND 8X	0		0 *		
ıtral	ND 10X	0				
Nen	ND 400X					

Filters for Reflex 1000/6.3 and Fisheye 8/8 are built-in and are not detachable components of their lens systems. Filters for Reflex 500/5 are supplied with lens.

Lens Hoods

Four types of Nikon Lens Hoods are available: screw-in, snapon, slip-on and built-in hoods. In the table below, you see the appropriate hoods for particular lenses. You'll notice some hoods fit only one lens, while others are adequate for more than one.

The Nikon Snap-On Hood fits firmly into the lens frame by means of a threaded spring catch. Attaches as well to filter on lens. For storing or carrying, the hood reverses over the lens body and accepts a lens cap.

Nikon Lens Hoods are accessories, except the hoods for Nikkor telephoto lenses which are supplied as standard equipment.

Type	Lens
Screw-in, 52 mm	21/4
Screw-in, 52 mm	28/3.5, PC 35/3.5
Screw-in, 52 mm	35/2.8, 43-86 Zoom, Micro Auto 55/3.
Snap-on, 52 mm	50/1.4
Snap-on, 52 mm	50/2
Snap-on, 34.5 mm	105/4
Snap-on, 52 mm	105/2.5, 135/3.5
*Snap-on, 46 mm	135/4 short mount
Screw-in, 82 mm	180/2.5
Screw-in, 82 mm	85-250 Zoom 200-600 Zoom
Built-in, 52 mm	200/4
Screw-in, 68 mm	250/4
Screw-in, 82 mm	350/4.5
Screw-in, 108 mm	500/5
Screw-in, 122 mm	Reflex 500/5
Slip-on, 224 mm	Reflex 1000/6.3

^{*} Supplied as accessory.



Snap-on Lens Hood

Rear Lens Caps

5

Recommended to protect rear lens element when detached from camera. Compartment cases cannot accommodate lens housed in its individual case, so rear cap offers needed protection. Four types of rear lens caps: F, 3F, L and T. Code letters indicate correct cap for each lens.

F 28/3.5, 35/2.8, PC 35/3.5, 50/1.4, 50/2, Micro Auto 55/3.5, 105/2.5, 105/4, 135/3.5, 200/4, Medical Auto 200/5.6, Reflex 500/5, 43-86 Zoom, 85-250 Zoom, 200-600 Zoom

3F Fisheye 8/8, 21/4 L 135/4 Short Mount

T 180/2.5, 250/4, 350/4.5, 500/5, Reflex 1000/6.3

The Nikkorex F accepts many of the interchangeable lenses and accessories you've seen in this catalogue. Others require an adapter and some can not be used because of design differences in the Nikkorex F.

These lenses require an N-F Adapter: 180 mm f 2.5, 250 mm f 4, 350 mm f 4.5, 500 mm f 5.

These lenses and accessories can not be used: Fisheye 8 mm f 8, 21 mm f 4, Nikon Exposure Meters, Interchangeable Viewfinders, Interchangeable Focusing Screens, Eyepiece Correction Lenses, BC-5 Flash Unit, Nikon Electric Motor Drive, Panorama Head, Nikon Film Magazine. Connecting Cable and Shutter Cable Release with auto stop require an adapter when fitted over shutter release button. Fitted Compartment Case Model FB1 does not accommodate the Nikkorex F with meter attached. When using the BC-6 Flash Unit, substitute a Nikkorex Shoe Adapter for the Flash Unit Coupler.



NIPPON KOGAKU K.K. Tokyo, Japan Since 1917

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