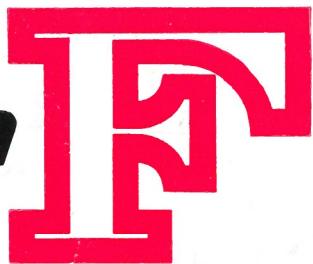


FULLY AUTOMATIC REFLEX

***Nikon***



**INSTRUCTIONS**





## FRONT VIEW

1. Automatic exposure counter
2. Film load reminder
3. Single stroke film advance lever
4. Shutter release button (with screw thread for attaching cable release)
5. A-R ring for setting film advance (A) and film rewind (R)
6. Shutter speed selector dial
7. Synchro selector ring for flash synchronization control
8. Synchro indicator for flash synchronization
9. Eye-level penta-prism view finder
10. Accessory shoe
11. Film rewind crank
12. Terminal for flash and electronic flash
13. Lens aperture (F-number) pre-select ring
14. Aperture indicator dot
15. Distance indicator with depth of field scale
16. Release button for removing lens
17. Lens focusing ring with distance scale
18. Mirror-lock knob
19. Calibrated, dual purpose self-timer
20. Depth-of-field preview control button
21. Diaphragm slot for coupling diaphragm to exposure meter



## REAR VIEW

22. Release button for detaching the view finder
23. Finder eyepiece window
24. Film type (ASA speed) reminder dial
25. Tripod socket
26. Lock for removing and replacing camera back

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## EVEREADY CASE



After putting the camera in the case fasten the locking screw nut found on the bottom.

This nut is threaded so that the camera can be attached to a tripod without removing from the case.

The eveready case permits the use of camera by simply detaching its snap-on front only.

A soft leather case is also available.

## CARE OF CAMERA AND LENS

The exterior of the camera body should be cleaned with a piece of a soft linen.

To clean the inside use a soft hair brush or a handblower, with care. Do not use frayed cloth. Keep the film pressure plate clean.

To clean lens and reflex mirror surfaces, first remove dust with a feather or handblower, and then use soft washed-out linen or lens tissue.

When cleaning the mirror surface, be careful not to apply too much pressure.

Alcohol should be used sparingly for cleaning the lens surfaces, as an excess of it may reach the balsam layer and impair the quality of the lens.

As the finder screen is made of synthetic glass, handle it with special care so as not to scratch its surface.

Don't oil the camera mechanism. The Factory used a special oil which can not be mixed with ordinary oil.

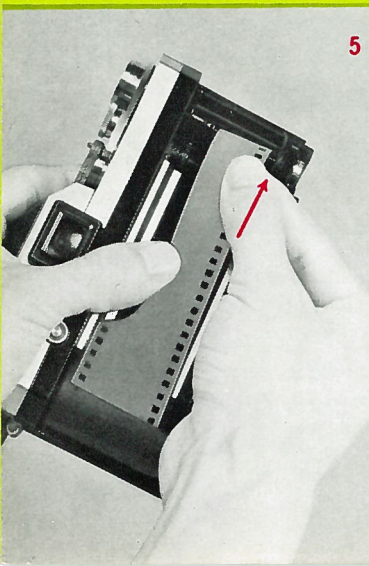
Do not try to dismantle the lens. If there is any question concerning your equipment, refer to your Dealer or to the Manufacturer.

## LENS CHARACTERISTICS

High grade optical glass may sometimes contain small bubbles. These bubbles in a lens do not interfere with lens quality and do not affect picture quality.

Coated lens surfaces may sometimes show slight "slicks" when viewed by reflected light. These "slicks" have no effect on transmitted light and will not affect picture quality. A careful cleaning will usually remove them.

## LOADING THE CAMERA



Turn the lock on the camera bottom to the "Open" position (Fig. 3). The camera back is then unlocked and may be completely removed by sliding it off with the thumb (Fig. 4).

The take-up spool is fixed and cannot be taken out, assuring more uniform film take-up and easier film loading.

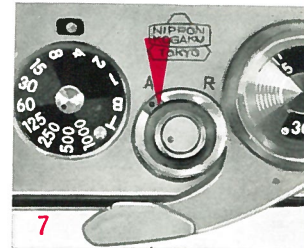
Place a film cartridge or loaded cassette (See p. 27) in the left chamber, so that the projection of the cassette fits into the guide notch.

Insert the end of the leader of the film into the slot on the take-up spool (Fig. 5), so that the projection in the take-up slot catches the perforation of the film (Fig. 6).

Rotate the spool in the direction of the film cartridge so that the film passes under the spool and the emulsion side is wound face out.

Replace the camera back and lock it. Turn the A-R ring (Fig. 7) on the shutter release button to "A" (Advance) position\*, and shoot one or two "blank" exposures which will dispose of the portion of the film exposed during loading. While doing this, note that the rewinding knob rotates in the direction opposite to the arrow on the knob, indicating that the film is correctly loaded and is being advanced. If it does not move as indicated after the first "blank" exposure, gently wind in the direction of the arrow to take up the film slack in the cartridge.

\*It is important that the A-R ring on the shutter release button be turned to "A" before the "blank" shots are made.

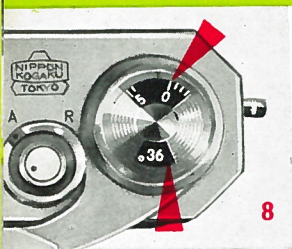


## AUTOMATIC EXPOSURE COUNTER

The Exposure Counter (Fig. 8) on the camera automatically returns to one or two spaces before zero when the camera back is removed.

After loading the camera, shoot two or three "blank" shots, until the counter registers 1. The camera is now ready for the first shot. Thereafter, the counter will automatically advance consecutively up to 36.

## FILM LOAD REMINDER



This feature indicates whether you have loaded a 20 or 36 exposure magazine. Move the indicator pin located to the left of "36" (Fig. 8) to change the indicator to "20".

## FILM-TYPE REMINDER DIAL

The Film-Type Reminder Dial (Fig. 9) on the bottom of the camera serves as a reminder of the type of film (expressed in ASA speed), with which the camera is loaded. It can be set for either color or black-and-white film.

"E" represents "Empty" and may be used to indicate that the camera is not loaded.



## PRE-SELECTING LENS APERTURE

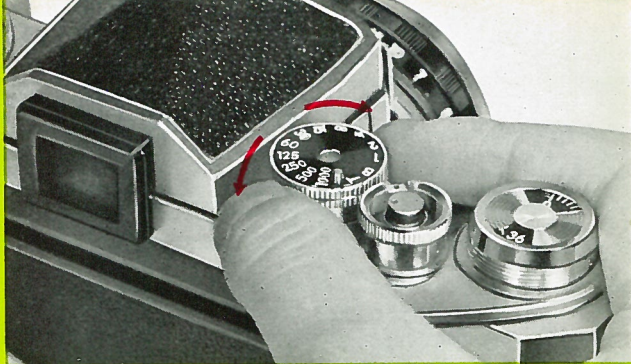
To pre-set the aperture, turn the aperture ring on the lens barrel until the desired F-number is opposite the black indicator dot on the milled ring (Fig. 10). The diaphragm can be pre-set for intermediate openings—between markings—and it will still function automatically without disturbing the setting.

Interchangeable Nikkor-Auto from 28mm through 135mm (except 105mm F: 4 lens) and Telephoto-Zoom lenses are designed so that the diaphragm automatically closes down to the preselected aperture when the shutter button is depressed. The diaphragm automatically reopens to full aperture immediately after the shutter has been fired. Consequently, the finder image is seen bright and clear at all times except for the instant the shutter is released.

A button (Depth-of-Field Preview Control) is provided on the front of the camera to permit closing the diaphragm down manually to the pre-selected aperture. When this button is released, the diaphragm automatically opens to full aperture (See page 16).

When interchanging lenses, no attention need be paid as to whether the shutter was previously wound. The diaphragm is automatic and foolproof.

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## SHUTTER SETTING

All 13 click-stop shutter speed setting are on a single selector dial (Fig. 11), which can be set before or after the shutter is wound. Speeds are : 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, B and T. The shutter speed setting desired is made by aligning the speed wanted with the black dot on the camera body.

The dial turns a full 360° in either direction and can be set from fastest to slowest speeds without obstruction.

Numbers on the Speed Selector Dial represent the actual shutter speed. For example, 125 on the dial represents 1/125 th second.

**Bulb exposure :** When the dial is set "B", the shutter will remain open for as long as the shutter release button is held depressed.

**Time exposure :** When the dial is set at "T" the shutter will remain open even after your finger is removed from the shutter release button. To close the shutter, turn the dial to the right or to the left.

For greater convenience when using flash, the dial is color-coded to coincide with the color-coding of the Synch Control (See "Flash Synchronization" p. 19 for details).

Note that there is a pin on the top of the shutter speed selector dial to permit direct coupling of speed dial to exposure meter.

## SELF-TIMER

The calibrated, dual-purpose Self-Timer allows you to trip the shutter in approximately 3, 6, or 10 seconds, or any intermediate time delay. It can be set before or after winding the shutter.

To set the Self-Timer, push the lever down (Fig. 12)\*. To start the timer, depress the release button beneath the lever. When the pre-determined time delay has elapsed, the shutter is automatically released. Setting the indicator line to the nearest white dot will give approximately a 3 second delay ; the next dot, approximately a 6 second delay ; and setting the lever to third dot gives approximately a 10 second delay. Note that the timer does not operate unless the lever is set to the first dot (or any position beyond this dot).

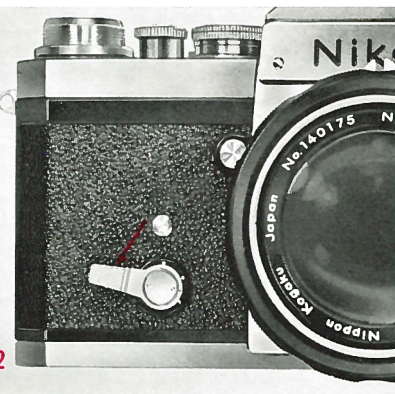
The Self-Timer is also an ingenious aid for hand-held exposure at slow shutter speed. Wind the shutter. Set the Self-Timer for 3 seconds. Press the release button, and then use the delay to steady the camera with both hands.

The Self-Timer should not be used for B or T setting.

If you decide not to use the Self-Timer after it has been wound, take the picture at the speed you want, using the shutter button. Now depress the release button of the Self-Timer and let it "run off".

\*Once the lever has been set, it can be moved backward with no restraint.

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## FOCUSING



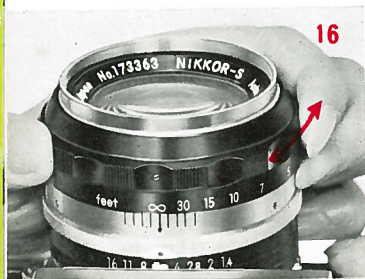
If you look through the eyepiece of the Eye-Level View Finder, you will see a brilliant finder image reflected in the Fresnel-type screen. In the center of the finder field is a circular, split-image range finder section (Fig. 13).

When out of focus, the subjects are seen as a split-image (Fig. 14) in the center and at the same time are blurred in the remaining area of the finder screen. If a subject is in sharp focus, the split-image in the center becomes complete and continuous (Fig. 15) and the image appears sharp in the remaining area.

To bring your subject into sharp focus, turn the focusing ring (Fig. 16) on the lens to the right or the left.

To determine the exact distance from the camera to the subject on which you are focused, look at the figure on the distance scale, opposite the black indicator line.

The Nikon F is designed so that its reflex mirror is in "position" at all times, permitting continuous, uninterrupted viewing and focusing (except for the instant shutter is released). The mirror returns to precise focusing-viewing position the instant the exposure is made, even with the camera hold upside down.



## PICTURE COMPOSING

First, determine and then set the combination of shutter speed and lens aperture you want.

Place your left hand under the camera (Fig. 17), with your thumb and forefinger on the focusing ring of the lens. Grasp the camera with your right hand, cradling the lower right-hand corner of the camera in the palm of your hand. Use your thumb to advance the film and your forefinger for the shutter release button.

Since the "taking" lens of the single-lens reflex camera is also used as the viewing lens, the finder shows the exact picture that will appear on your film. Regardless of focal length of the lens being used or the shooting distance, no accessory finder\* is required, even if the lens is changed; and no problem of parallax arises at whatever distance the picture is taken from.

\*When the 21mm super wide angle lens is used, the mirror must be raised because of the deep seating of the lens in the camera. Consequently an individual accessory view finder is available for use with this lens.

## MAKING THE PICTURE



With a single stroke of the advance lever (Fig. 19), the film is advanced, the shutter is wound, and the film counter operates.

If the winding lever has not been wound completely, the shutter cannot be depressed. Wind it once more, this time, fully; then the shutter will operate correctly.

Now, focus by rotating the focusing ring, compose your picture in the view finder, and then shoot by gently depressing the shutter release. For speeds slower than 1/30 second a tripod or some other support and a cable release should be used to avoid any possibility of jarring the camera.

When the advanced lever is released it will not swing back completely into position but will leave a small clearance for greater convenience in advancing the film for the next exposure.

### Note :

There is a black dot in the center of the shutter speed dial. When the shutter is wound, this dot lines up with the black dot on the outside of the dial. This serves as a convenient indicator to show that the shutter has been wound.

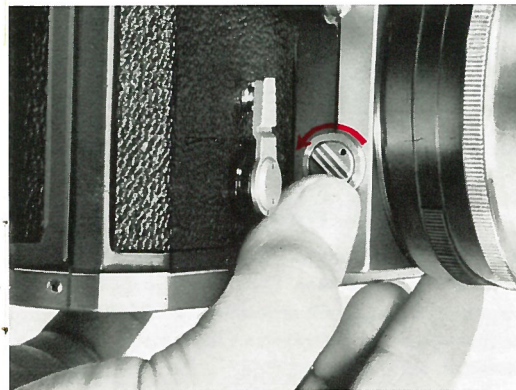
An automatic shutter release lock prevents accidental firing of flash before the shutter is wound. Once the shutter released, the shutter release button cannot be depressed again until the film has been advanced and the shutter wound.

## LOCKING THE MIRROR UP

To lock the mirror in the "up" position turn the button (Fig. 20) upwards until the black dot on the button meets the red dot on the camera body. Wind the shutter and then shoot (a blank exposure is made). The reflex mirror will move up, out of the way, and will not return to position after the shutter has operated. This is necessary when using the 21mm (super wide angle) lens, because of its deep seated mount. (An accessory 21mm finder which attaches to the camera accessory shoe, is available for use with this lens). The locking "up" of the mirror mechanism is also important for continuous shooting with the Nikon Electric Motor Drive, at 4 frames per second, or for a sequence of copying work or in photomicrography.

To return the mirror to its original focusing and viewing position, turn the button (Fig. 20) downwards until the black dot on the button meets the black dot on the camera body. This should be done after the shutter is released. Otherwise, the mirror will not return to position until the next exposure is made.

Note that if the knob is turned after the film advance lever is wound up, the mirror does not return until the shutter is released (a blank shot is made).





## DEPTH OF FIELD

Depth of Field is the range of distance between the nearest and the farthest limits of a subject, within which acceptable image sharpness is attained. The sharpest image is at the point at which the lens is focused. Depth of Field varies with the lens opening (F-number) and with the focused distance. The larger the F-number used, the greater the Depth of Field, in reverse, the smaller the F-number, the smaller the Depth of Field. Depth of Field also increases as the distance from the camera to subject increases.

Nikkor lenses (from 21mm through 135mm) for the Nikon have a color-coded depth of field scale engraved on the lens barrel opposite to the distance scale, permitting easy reading of Depth of Field for the selected aperture. Each set of differently colored lines, one to the right and one to the left of the middle black indicator line, represents a different F-number the color of that matches the colored F-number figure on the aperture scale.

For example, when you are taking a picture using the 50mm F: 1.4 lens, with the distance scale setting at 30ft. and with an F: 11 opening, (F: 11 is shown in

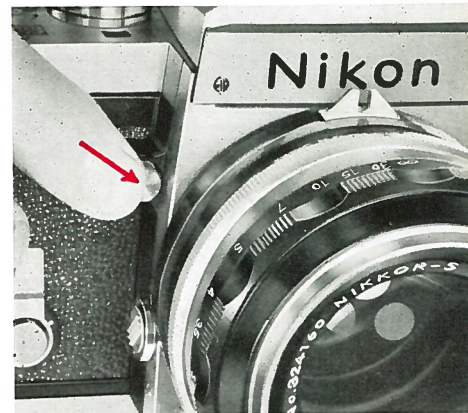


yellow) the depth of field indicated by the yellow-colored lines on either side of the black indicator line will be between 15 ft. and ∞ (Fig. 21). This means that a picture taken at F: 11, with a lens focused at 30 ft. will show a range of acceptable sharpness between 15 ft. and ∞. The sharpest point will be at the 30 ft.

## DEPTH OF FIELD PREVIEW CONTROL

The button located on the camera front (Fig. 22), is the instant-action preview control. Press the button and the diaphragm closes down to the aperture you selected. This permits you to see the depth of field (See Page 15) at "taking" aperture, or it permits you to select the "taking" aperture you want on the basis of depth of field. Release the button and the diaphragm instantly reopens. The preview control is independent of the shutter release and cannot cause accidental exposure.

When using the preview control note that the split-image portion of the finder will slightly darken if the preselected aperture is smaller than F: 4.



### Caution !

Do not release the shutter, while the Depth of Field Preview Button is being depressed. This will cause the inside reflex mirror to remain in the "up" position. If this should happen make a blank exposure, and the mirror will return to normal viewing position.

## CHANGING THE VIEW FINDER AND FOCUSING SCREEN

The eye-level view finder with penta-prism can be interchanged with the waist-level finder (Fig. 23) or Photomic Finder (p. 23). To change finders, depress the lock button\* located on the back of the camera (Fig. 24), and then lift off the finder. To replace a finder, put it back into position on the camera and then press down gently until the click is heard.

The following interchangeable screens are available besides the Fresnel screen with split-image (type A) which is fitted as standard to the camera :

- B. All mat
- C. Cross hair
- D. Plain mat
- E. Vertical and horizontal lines

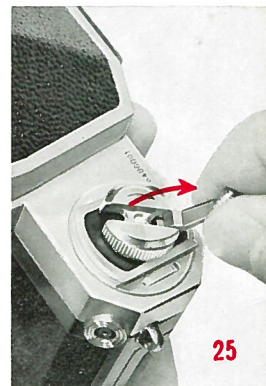
To replace a screens, first remove the finder as described above. Depress the lock button (Fig. 20) again and gently turn the camera upside down. The screen will drop into your hand. To insert a new screen, simply depress the lock button and drop the screen into position. Be sure that each screen is put into the camera with the mat or Fresnel surface downwards and the marking "Nikon F" on the frame facing front (toward the camera lens), or you may not be able to focus properly.

\* With a pointed piece.

## UNLOADING THE CAMERA

The exposed film must be rewound back into its original cartridge or film magazine. To rewind the film, turn the A-R ring on the shutter release button to the "R" (rewind) position, lift up the rapid rewind crank (Fig. 25) from its position on the rewind knob and turn it in the direction of the arrow.

As the film is being rewound, a slight resistance will be felt, and the black dot on the shutter release button will revolve. Keep on winding until the resistance stops and the dot stops its motion. The film is now completely in the magazine and the camera back may be opened to remove the film from the camera.



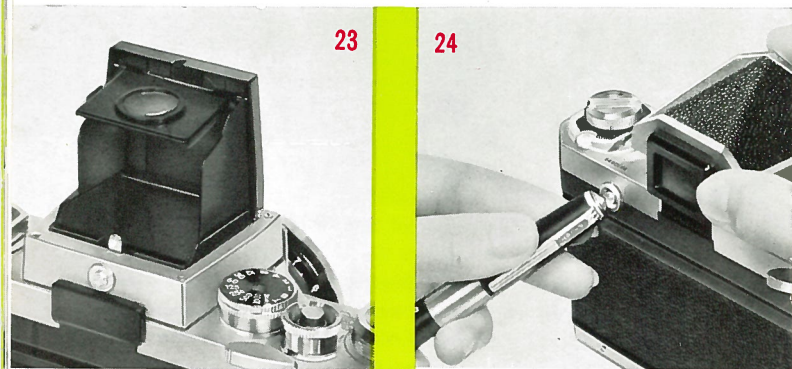
## DOUBLE EXPOSURE

Here is the procedure to follow in making an intentional double exposure. Make the first exposure. Then set the A-R ring around the shutter release button to "R".

Turn the rewind knob in the direction of the arrow, until the shutter release button makes one complete rotation (or slightly more). This can be determined by the rotation of the black dot on the shutter button.

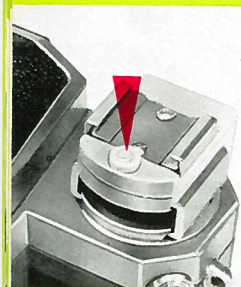
Set the ring back to "A" and wind the shutter for the second exposure. It is not necessary to use the same shutter speed as before.

**Note :** The double exposure procedure also operates the automatic exposure counter, with the result that the counter number will read one or two more than the actual number of frames exposed.



# FLASH SYNCHRONIZATION

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The Nikon BC-4 or BC-5 flash unit is mounted on the accessory shoe of the Nikon F by means of the Adapter. Instantaneous connection is made with the flash terminal located on the adapter (Fig. 26), eliminating the need for a connecting cord.

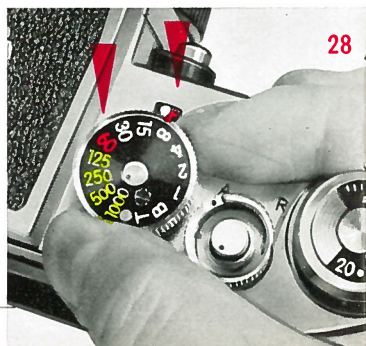
On the front left side edge of the camera there is a synchro-socket (Fig. 27) which accepts a regular flash unit ("Nikon BC-3" is recommended) or an electronic flash, provided with a standard PC flash cord or the snap-in Nikon flash cords.

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For positive synchronization, set the synchro-selector according to the bulb and shutter speed used. See table on page 20. Lift up the milled selector ring on the outer edge of the shutter speed dial (Fig. 28), and turn it until the desired colored dot and/or figure, appears in the selector window (Fig. 28) adjacent to the dial; then drop the ring into place. By clockwise rotation of the

selector ring the above markings come into view in the following sequence :



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		Flash Bulb			Shutter Speed												
		Make															
Class	G. E. Westing-house	Sylvania	Mazda	West	1000	500	250	125	60	30	15	8	4	2	1	B	
					FP	PH/6 Type FP/26	No. 6 No. 6Z	No. 6 No. 6Z									
F	PH/SM	Type SF	F 1 F 2 F 3	SM SF SS	---	---	---	---	●	●	●	●	●	●	●	●	●
M	PH/5 PH/8 M 5	Press-25 M 25	No. 3 No. 5 Z 5	No. 3 Z-Press	---	---	---	---	●	●	●	●	●	●	●	●	●
	PH/M2	Type M2	No. 0 2 - M	No. 0 MX - 0	---	---	---	---	---	---	---	---	---	---	---	---	---
X	Electronic, instantaneous firing				---	---	---	---	---	---	---	---	---	---	---	---	---
	Electronic, with firing delay				---	---	---	---	---	---	---	---	---	---	---	---	---

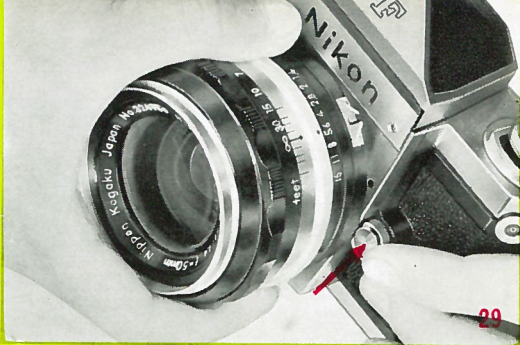
Small FP, M or F class bulbs are recommended for use with the Nikon. When the small FP or M bulb is used, select the color dot that matches the colored numbers on the shutter speed dial. For example, a shutter speed shown in green will match with the green dot.

When using F class bulbs, the color of the "F" figure must coincide with the color of the shutter speed being used.

For setting the correct lens aperture, determine the "Guide Number" by use of the exposure calculator on the flash unit.

## Electronic Flash

Most electronic flash units are instantaneous, and have no firing delay. With electronic flash unit of this type, set the speed dial at 60 (or slower) and the synchro-selector at FX, as shown on the above table. For units which have a firing delay, the shutter should be set at 30 or slower.



## CHANGING LENSES

To remove the lens, hold the camera as shown above; depress the lock button and turn the lens barrel clockwise until the black dot on the aperture indicator of the milled ring of the lens lines up with the black dot on the camera body.

To mount a lens\*, line up the black dot on the lens with the black dot on the camera body, press in gently and turn the lens counter-clockwise until the lens clicks into position.

### Caution:

When a lens is removed, the opening in the camera body should not be exposed to the sun, especially if the camera is loaded. Protect the inside of the camera by using a body cap, whenever the camera is carried or kept with the lens removed.

When the lens is carried separately from the camera, protect it from damage and dust by using a case and the front and rear caps.

\* When mounting the 21mm F: 4 wide angle lens, do not forget to lock the reflex-mirror in the up position. To mount the lens, line up the black dot on the lens base ring with the white dot, and then the latter with the black dot on the camera. Turn the base ring with the black dot (instead of the whole lens barrel) until the lens clicks into position.

## INTERCHANGEABLE LENSES

The following interchangeable lenses are available for the Nikon F camera.

type	Focal length	Aperture range	Picture angle	Closest focus distance	Apert. diaphragm	Exposure meter	Filter size		Hood type
							Screw-in	Series	
Wide angle	21mm†	F/4 - F/16	92°	90cm or 3 ft.			52mm	VII	Screw-in*
	28mm	F/3.5 - F/16	74°	60cm or 2 ft.	Auto	Couples	52mm	VII	Screw-in*
	35mm	F/2.8 - F/16	62°	30cm or 1 ft.	Auto	Couples	52mm	VII	Screw-in*
Normal	50mm	F/2 - F/16	46°	60cm or 2 ft.	Auto	Couples	52mm	VII	Snap-on
	50mm	F/1.4 - F/16	46°	60cm or 21 ft.	Auto	Couples	52mm	VII	Snap-on
Tele-photo	105mm	F/2.5 - F/22	23°20'	1.2m or 4 ft.	Auto	Couples	52mm	VII	Snap-on
	105mm	F/4 - F/22	23°20'	80cm or 2.75 ft.	Preset		34.5mm	VI	Snap-on
	135mm	F/3.5 - F/22	18°	1.5m or 5 ft.	Auto	Couples	52mm	VII	Snap-on
	180mm	F/2.5 - F/32	15°30'	2m or 7 ft.	Preset			IX	Screw-in
	200mm	F/4 - F/22	12°20'	3m or 10 ft.	Auto	Couples	52mm		Built-in
	250mm	F/4 - F/32	10°	3m or 10 ft.	Preset			IX	Screw-in
350mm	F/4.5 - F/22	7°	4m or 13 ft.	Semi-Auto				IX	Screw-in
	500mm	F/5	5°	15m or 50 ft.				39mm	Screw-in
1000mm	F/6.3 - F/22†	2.5°	30m or 100 ft.				216mm		Slip-on
	85 ~ 250mm	F/4 (F/4.5) ~ F/16	28°30' ~ 10°	4m or 13ft 2.2m* or 7.5 ft.	Auto	Couples	82mm	IX	Screw-in
Tele-photo-Zoom	200 ~ 600mm	F/9.5 - F/32	12°20' ~ 4°	4.2m or 13 ft. 2.4m* or 8 ft.	Auto	Couples	82mm	IX	Screw-in

Type	Focal length	Aperture range	Picture angle	Aperture diaphragm	Focusing range	Filter size	Use
Nikkor	135mm	F/4-F/22	19°	Preset	∞ ~ life size	43mm	In short mount for use on Nikon Bellows
PC Nikkor	35mm	F/3.5-F/22	62° (76°)	Preset	∞ ~ 1 ft. or 0.3m	52mm	Shifted up to 11mm in every direction
Fish-eye Nikkor	8mm	F/8-F/22	180°		Fixed focus	79mm	Circular picture field 24mm in dia.
Micro-Nikkor	55mm	F/3.5-F/22	43°	Preset	∞-0.7 ft. or 0.21m (life size)	52mm	For micro-copy and general use
EL-Nikkor	50mm	F/2.8-F/16	46°				Enlarger lens with screw-in mount

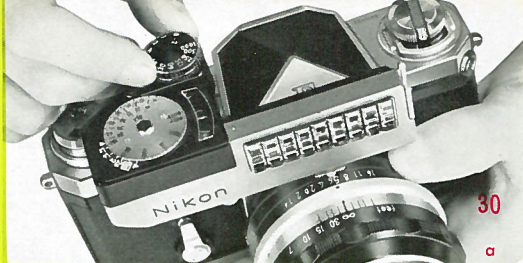
Telephoto lenses are furnished with their own hoods. 180, 250, 350 or 1000mm lens requires use of the intermediate adapter collar (N-F).

\* Exclusively designed for each lens.

† Individual finder included.

‡ Not with diaphragm but with built-in 4 neutral filters.

• Supplied with close-up supplementary lenses.



## EXPOSURE METER FOR NIKON F

The following models of exposure meter are available for the Nikon F camera.

### Model 3 (Fig. 30a)

Designed to be attached onto the top of the camera and couples to both the camera's shutter speed and aperture diaphragm of lens (Nikkor Auto). Correct exposure setting is obtained by bringing two pointer needles into coincidence with each other. With wide measuring range. Booster and incident light opal plate are provided.

### Photomic Finder (Fig. 30b)

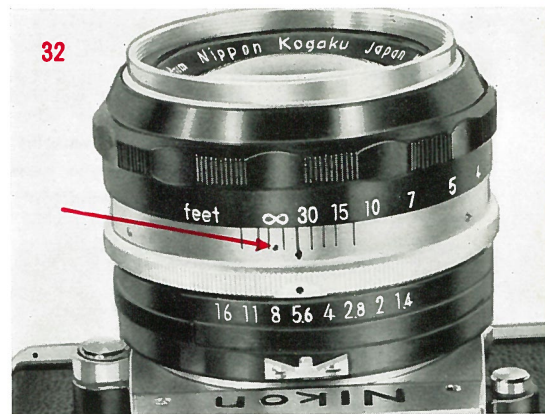
Designed to be attached in place of the interchangeable viewfinder of the camera and couples to both the camera's shutter speed and aperture diaphragm of lens, permitting correct exposure setting by centering the pointer needle which appears in the viewfinder and on the outside top of the Photomic Finder. With the widest measuring range. Light acceptance converter tube and incident light opal plate are provided.



## INFRA-RED PICTURES

When taking infra-red pictures the distance setting obtained by focusing on the screen has to be adjusted before shooting. This is done by rotating the lens slightly, until the focused point on the distance scale is changed to align with the red dot on the lens barrel.

For example in Fig. 32 the 50mm F:1.4 lens—in this case focused at infinity—has been rotated slightly so that the infinity marking  $\infty$  is now aligned with the red dot.



## LENS HOODS

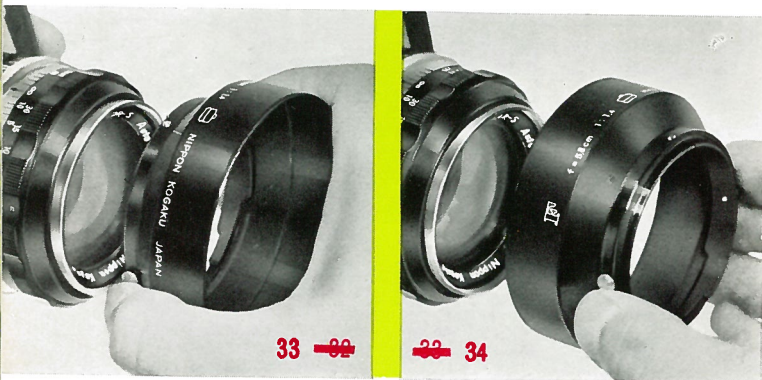
The use of lens hood is recommendable at all times even when the lens is not turned towards the light, or where there is no stray light present. Two types of lens hoods are available for Nikkor lenses—(See page 22)—snap-on and screw-in.

### Snap-on lens hood

Snap-on lens hoods combine "Slip-on" speed and "Screw-in" security. By depressing the button (one located on either side of the hood—Fig. 33), the hood is attached or detached. The hood will also fit directly over a screw-in filter, permitting use of both units with the lens at one time. The hood can also be "stored" in reverse position on the lens (Fig. 34).

### Screw-in lens hood

Screw-in hoods can be used with screw-in filters or Series filters. However, the screw-in filter is recommended since the hood, in combination with the Series filter, may not always give satisfactory results with wide angle lenses because of possible vignetting.



## NIKON FILTERS FOR BLACK-AND-WHITE FILM

Nikon filters are precisely ground, polished optical flats, hard coated on both sides.

### Filter mount

They are supplied either in screw-in or Series type mounts. Screw-in filters are used with the lenses from 21mm through 135mm. Series filters are used with lenses from 180 through 350mm, which are furnished with screw-in type lens hoods. When the hood is not used, the filter can be attached to these lenses by means of the adapter ring and adapter ring insert.

### Filter size

Choose the correct size Nikon filter for your lens consulting the interchangeable lens table on p. 22. The use of Nikon filters is recommended as satisfactory results may not always be obtained with other makes of filters. (Possible vignetting, scratching of lens surface, etc.)

### Filter factor

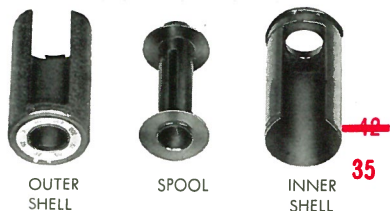
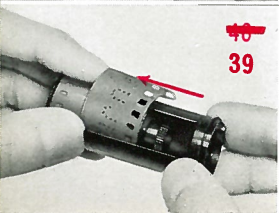
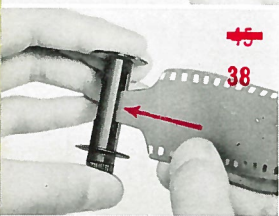
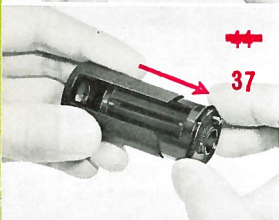
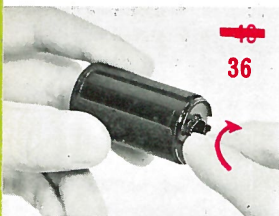
Filters reduce the amount of light transmitted, therefore an increase in exposure is necessary when using them. This increase is expressed as a factor. Thus, a filter with a factor 2 means that double the normal exposure is required; e. g. use 1/30 instead of 1/60 second, or alternatively change the aperture from, say, F: 8 to F: 5.6. Correct filter factors also depend upon color of lighting and color sensitivity of film used.

Color and Shade		Denomination engraved on the filter	Filter Factors	
			Daylight	Artificial Light (Tungsten)
Yellow	Light	Y43, Y44, Y45	1.5	1
	Medium	Y37, Y48, Y49	1.7	1.2
	Dark	Y51, Y52, Y53	2	1.5
Orange		O55, O56, O57	3	2.5
Red		R59, R60, R61	6	
Green	Light	X0	2	1.7
	Dark	X1		2
Ultra-Violet		L38, L39, L40	1	1

Polarizing filter 52mm is also available.

## FILM CASSETTE

The Nikon F camera will accept any standard daylight loading cartridge containing a ready-cut length of 35mm film. The Nikon cassette (or magazine) can be loaded with a ready-cut film length or fed from a stock of 35mm.



The cassette (Fig. 35) consists of outer and inner shells and a spool. The figures on the bottom of the outer shell show ASA speeds and are used to indicate the speed of the film in the cassette. The white dot on the edge is the index. The black figures are for black-and-white film, and the red for color film. When the film has been exposed, the red dot index should replace the white.

### To Open the Cassette

Hold the cassette in your left hand, with the bottom showing the ASA speeds, away from you. Depress the small button with a right hand finger, and turn the inner shell of the cassette clockwise (Fig. 36) until the side openings of both the shells meet and the inner shell simultaneously pops out slightly, ready to be pulled out (Fig. 37).

## To Load the Cassette

(In the dark room)

Trim the end of the film so as to form a tongue to be fed into the spool. This must not be made too wide for it has to be pulled out at the other side of the spool slit when the film has been exposed and cut away. To load the spool, first hold it in your left hand with the projecting end toward you. Thread the film tongue with the right hand (Fig. 38), emulsion surface downward, through the large opening of the slot in the spool. When the teeth inside grip the film, wind the film on the spool (emulsion surface in).

Insert the loaded spool into inner shell, so that the projecting end fits the opening at the opposite end. Then hold the outer shell in your left hand and slide it over the inner shell. Be sure that the film end extends out of the outer shell (Fig. 39).

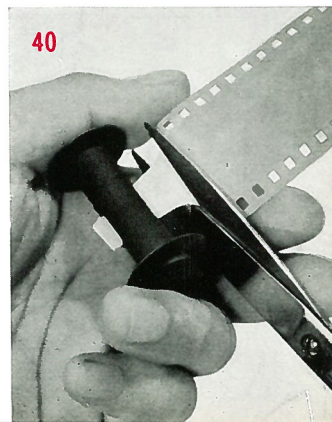
Push the top of the inner shell until it seats. Then, turn it counter-clockwise within the outer shell until you hear two clicks. The cassette has now been loaded, and is perfectly light tight, and is ready to be placed in the film chamber of the camera.

## To Unload the Cassette

(In the dark room)

The loaded cassette should be opened as described above, the spool taken out, the film unrolled and cut off at the spool (Fig. 40).

The film end remaining in the slot should be pulled out in the opposite direction from which it was inserted.



## CAUTION!

- When the camera is carried in the eveready case, be sure to fasten the locking nut screw, fitted on the bottom of the case, so that the camera will not drop out.
- Don't exert any force against the shutter curtain of the camera, which is made of extremely thin titanium foils, as it may damage the curtain.
- When the camera is not in use, the shutter and self-timer should not be kept in a wound position for any length of time.
- Do not lose the guarantee card which bears the serial numbers of the camera and lens. It is also advisable to keep a record of these serial numbers in the event that you lose the camera or lens.

Item	No.

## LIST OF ACCESSORIES FOR NIKON F

- Electric motor drive model F36
- Electric motor drive model F250
- Battery case for Nikon motor drive
- Relay box for use with Nikon electric motor drive
- Flash unit BC-3
- Flash unit BC-5
- Flash unit BC-6
- Flash gun coupler
- Offset bracket for flash unit
- Electronic flash unit for Nikon motor drive
- Nikon bellows focusing attachment
- Slide copying adapter for the above
- Nikon extension tubes
- Close-up attachment lenses
- Microscope adapter
- Microflex for taking photomicrograph
- Telescope adapter
- Repro kit model PF
- Panorama head
- Bubble level
- Focusing adapter for 135mm lens in Nikon S or screw mount
- Viewfinder correction lenses
- Lens front cap
- Camera body cap
- Pistol grip
- Electrical switch unit
- Eveready cases
- Nikon compartment cases
- Eye-level viewfinder
- Waist-level viewfinder
- Interchangeable viewfinder screens
  - A. Split-image Fresnel finder screen
  - B. Mat Fresnel finder screen
  - C. Cross hair mat finder screen
  - D. Plain mat finder screen
  - E. Fresnel mat screen with vertical and horizontal lines
- N-F adapter tube for using Nikon long focus lenses on the Nikon F camera
- BR2 ring for using the lens in the reversed position on the Bellows
- BR1 tube for use Nikkor 135mm F: 4 in short mount on the Bellows
- M-B tube for use Micro-Nikkor lens on the Bellows in the reversed position
- Filters
- Lens hoods
- Film magazine
- Cable release





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