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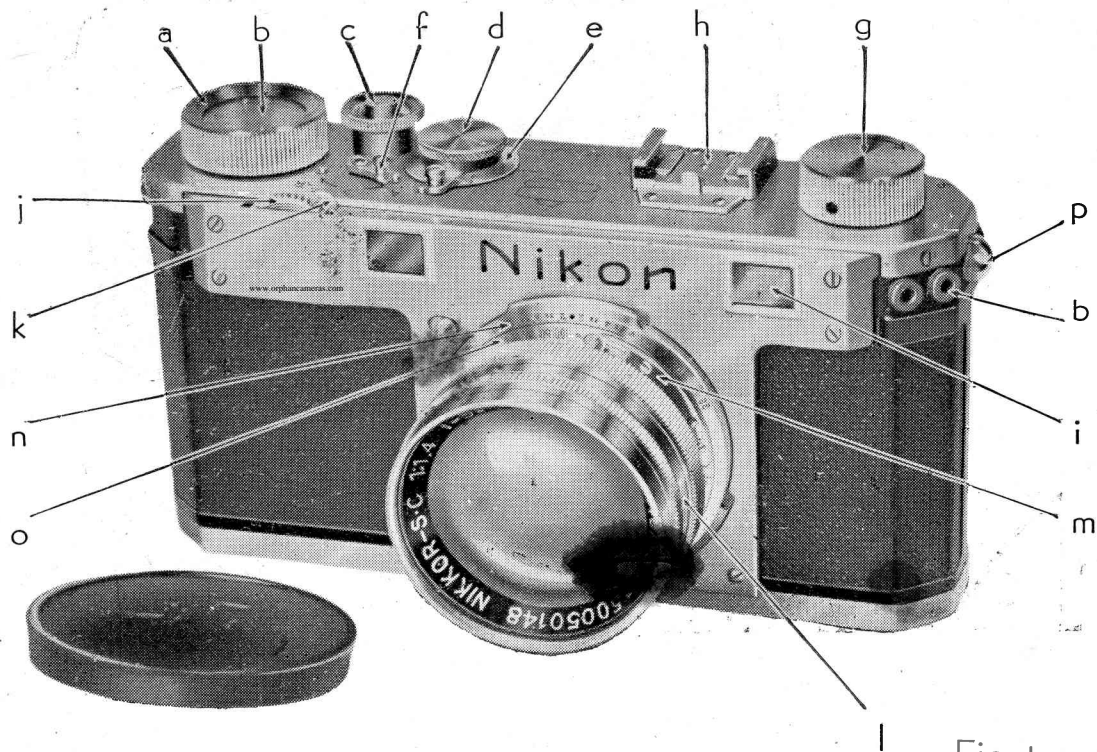
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Nikon



## FRONT VIEW

- a. Winding Knob. Winds shutter and advances film simultaneously.
- b. Counting dial. Automatically records number of exposures made.
- c. Shutter release button and screw for attaching wire release.
- d. Fast shutter-speed dial.
- e. Slow shutter-speed dial.
- f. Reversing lever. Arrow advances film, arrow "R" reverses film.
- g. Rewinding knob.
- h. Clip for Universal View Finder and other attachments.
- i. Range and view finder.
- j. Lens focusing wheel.
- k. Automatic locking device for infinity setting.
- l. Diaphragm ring.
- m. Barrel lock. Press to detach lens barrel.
- n. Depth of field scale.
- o. Range scale.
- p. Loops for strap.
- q. Synchronizer socket "F" for flash gun plug (fast shutter)

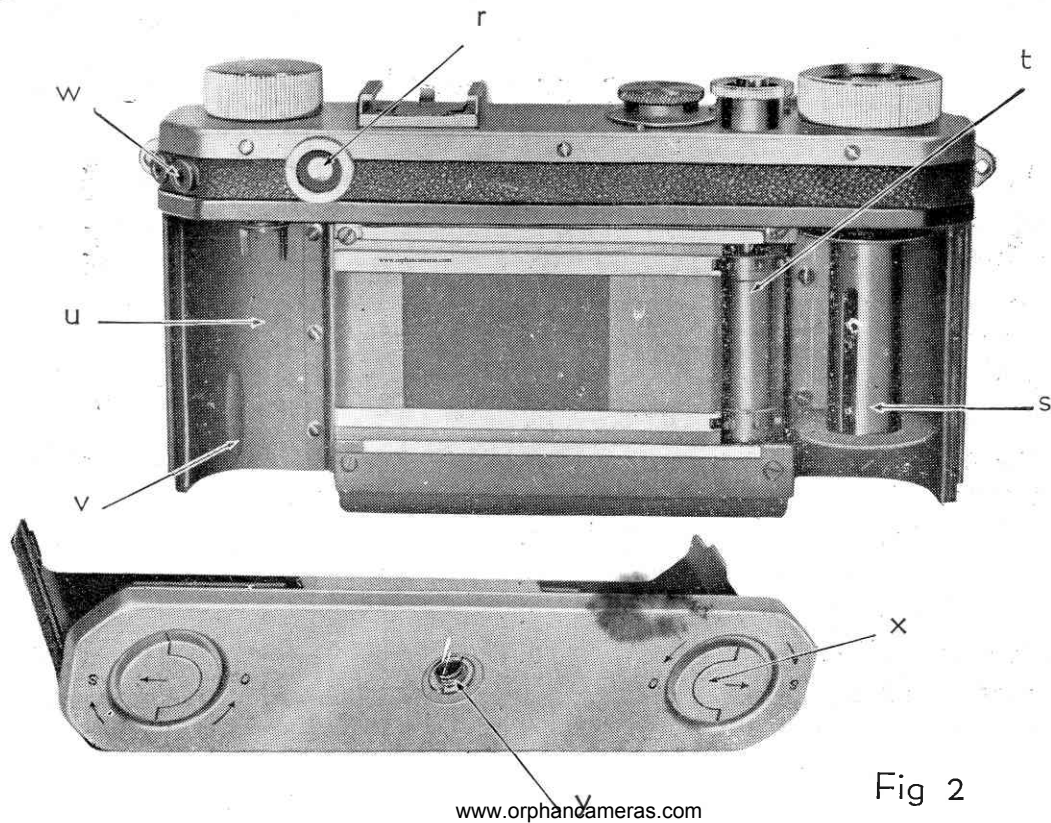


Fig 2

## REAR VIEW

- r. Eye-piece for range and view finder.
- s. Film take-up spool.
- t. Film advancing sprocket.
- u. Space for film magazine or film cartridge.
- v. Guide notch for positioning film magazine.
- w. Synchronizer socket "S" for flash gun plug (slow shutter).
- x. Semi-circular metal strip.
- y. Tripod socket.

## TO LOAD CAMERA

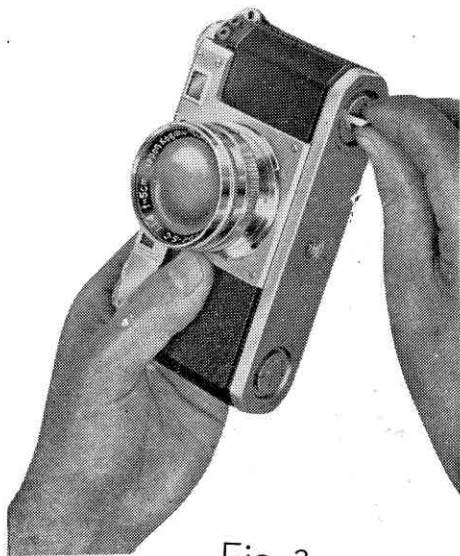


Fig 3

The back and bottom of the camera are made in one piece. To remove, turn the semi-circular metal strips on the bottom of the camera until the engraved arrows point to "O". The camera back is now unlocked and may be removed.

Hold the camera with the bottom facing you and place the loaded film magazine in the left end chamber so that projection on the outer shell of the magazine fits in the guide notch (V. Fig. 2). A cartridge may be inserted similarly.

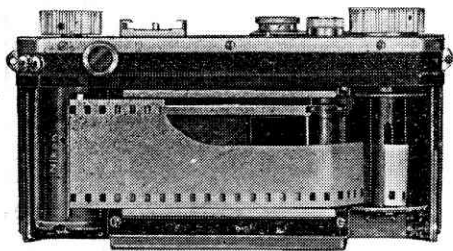


Fig 4

Turn the winding knob slightly and make sure that the film firmly is caught by the spool.

Then let the sprocket catch the perforation of the film.

Tighten the film in the magazine by rotating the rewinding knob (g, Fig 1) in the direction of the arrow.

Insert the end of the film into the slit on the spool and let the little projection at the entrance of the slit catch the perforation on the film.

Set reversing lever on "A" (f, Fig 5) so that film may be advanced.

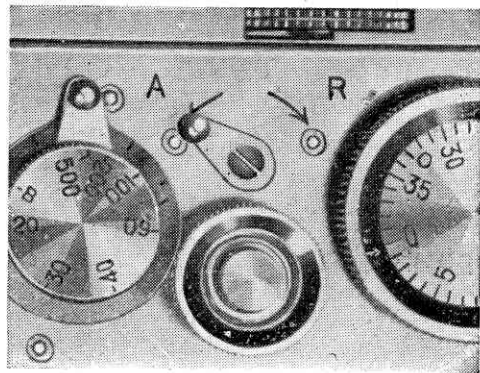


Fig 5



When film has been loaded, replace the camera's back and secure by turning the semi-circular metal strips until the arrows point to "S"

In order to determine that the film is being wound properly, turn the winding knob (a, Fig 1) slightly to see if the rewinding knob rotates in the direction **opposite** to that indicated by the arrow.

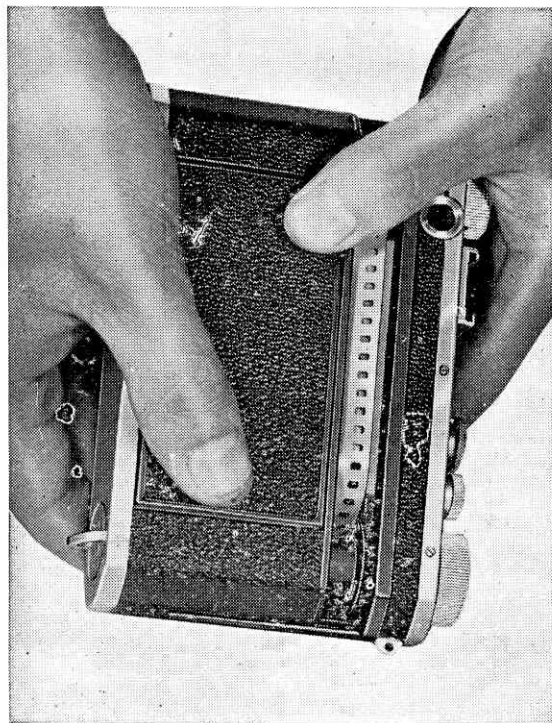


Fig 6

Turn the winding knob until it stops. (Fig 7) This means that the knob has made one complete turn, advancing one frame and that the shutter has been wound. Before taking picture on a new roll of film, turn the winding knob and press the release button. Repeat the operation a **second time** in order to pass that part of the film which has probably been affected by light during loading.

Set the counting dial (Fig 8) to **zero**, using the two small lugs on the face of the counting dial. The counting dial indicates the number of pictures **taken**, not the number of unexposed frames.

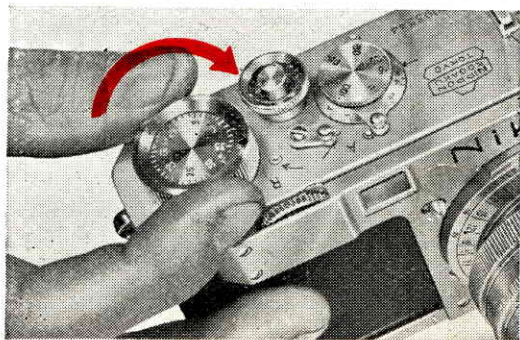


Fig 7

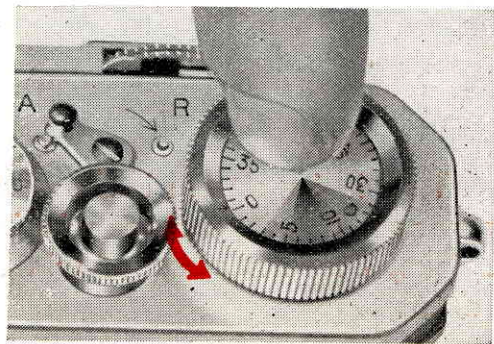


Fig 8

## TO TAKE PICTURES

### 1) TO SET SHUTTER SPEED

There are two shutter speed dials fast and slow, arranged one on top of the other. The fast shutter dial is set for speeds of  $1/30$  to  $1/500$  second. Similarly, the slow shutter dial is adjusted to obtain shutter speeds from 1 second to  $1/20$  second.

Shutter setting should always be made **after** winding the film.

**This is important: if the shutter speed is set before winding the film, the shutter speed will be in error.**

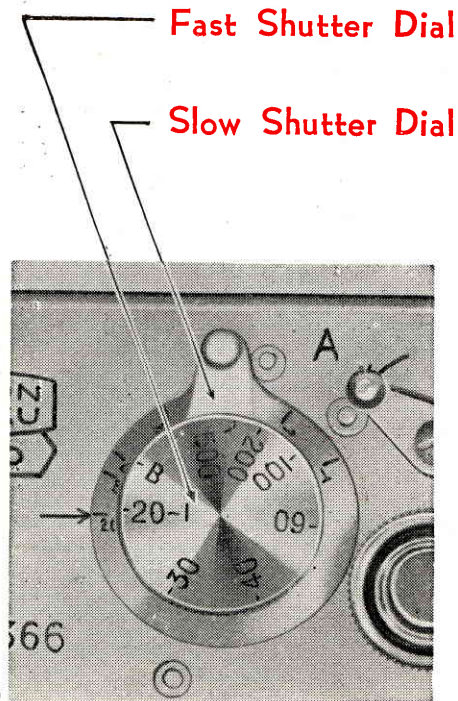


Fig 9

## A. FAST SHUTTER DIAL

Lift the dial lightly and turn.  
Check to see that the dial  
settles into place properly.  
(Fig 10)

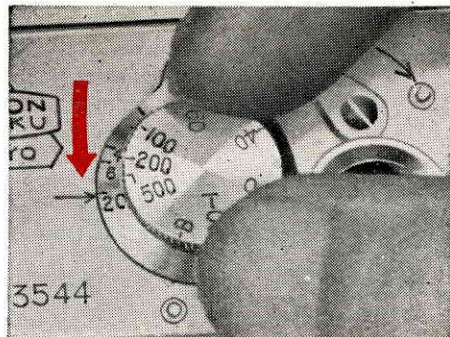


Fig 10

## B. SLOW SHUTTER DIAL

In order to use slow shutter  
speeds, the fast shutter speed  
dial must be set at the red  
marking "20-1".  
Move the slow shutter dial  
by means of the small lever.  
(Fig 11)

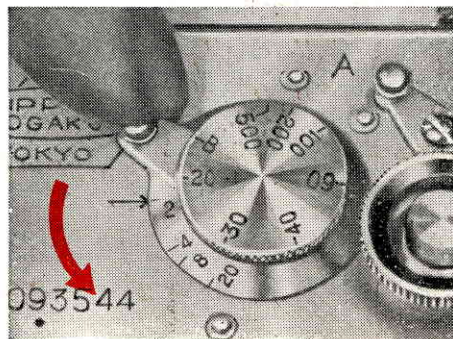


Fig 11



## C. BULB EXPOSURE

First set **slow** shutter dial to  $1/20$ th second ("20" on the dial), then set the fast shutter dial at "**B**". The shutter will remain open as long as the shutter button is depressed.

## D. TIME EXPOSURE (Fig 12, a, b)

Set **fast** shutter dial at the red marking "**20-1**", then set slow shutter dial at "**T**".

When the shutter button is pressed (a), the shutter will remain open until the slow shutter dial is turned back to 1 second. Use the small **lever** on the slow speed dial to close the shutter (b).

## TIME EXPOSURE

Fig 12-a To Open

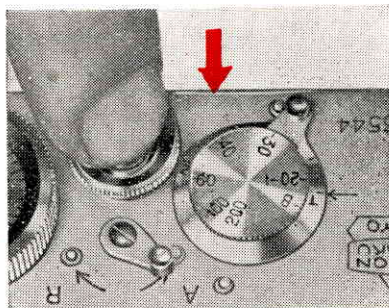
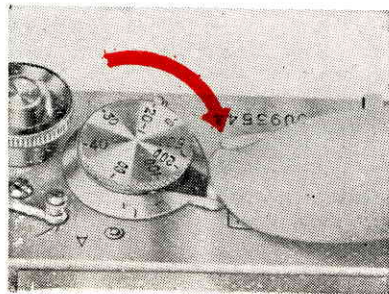


Fig 12-b To Close



## 2) TO SET THE LENS OPENING

Turning the diaphragm ring (I, Fig 1), set the proper marking to the dot on the milled ring of the lens-barrel.

## 3) FOCUSING

Press the infinity lock (K, Fig 1) and rotate the lens focusing wheel slightly to release the automatic device locking the focusing mechanism at infinity setting.

Focusing is obtained, when the double image of the subject in the center square of the field **coincides**, which is accomplished by rotating the lens focusing wheel. The image in the center slides left and right when the camera is held horizontally.

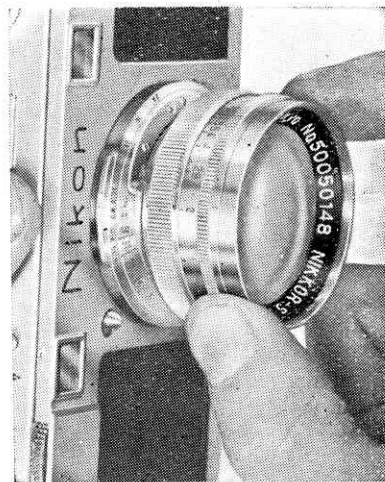
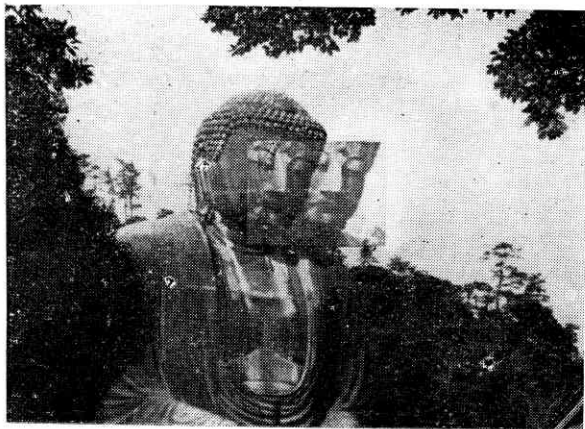


Fig 13

Therefore, in ascertaining the coincidence, the vertical lines of the image are helpful, which, when focused, become solid and the blur of the double image disappears.

Out-of-Focus



In Correct Focus



Fig 14

A red spot below the camera number inscribed on the top of the camera indicates the position the film passes, which will be helpful in photographing close-up subjects.

When infra-red film is used, use the secondary distance index marked "R"

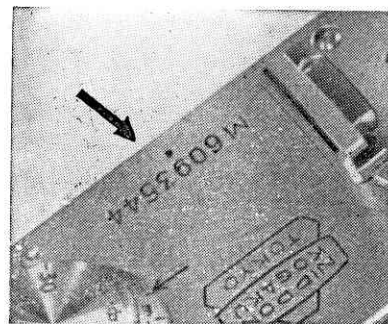


Fig 15

#### 4) TO MAKE THE EXPOSURE

The view obtained with the eye as close as possible to the range and view finder eye-piece is identical with the field of view of the lens when a 50mm lens is being used. The Universal or Vari-focal View Finder must be used to obtain the exact field of view with the 85mm, 135mm, and 35mm lenses. The range finder, coupled through the lens, is accurate with any of the lenses.



Compose the picture in the view finder and press the shutter release button slowly. Do not press hard and do not press fast to avoid moving the camera while the shutter is closing. Use a tripod or rest for any shutter speed slower than  $1/60$  second.

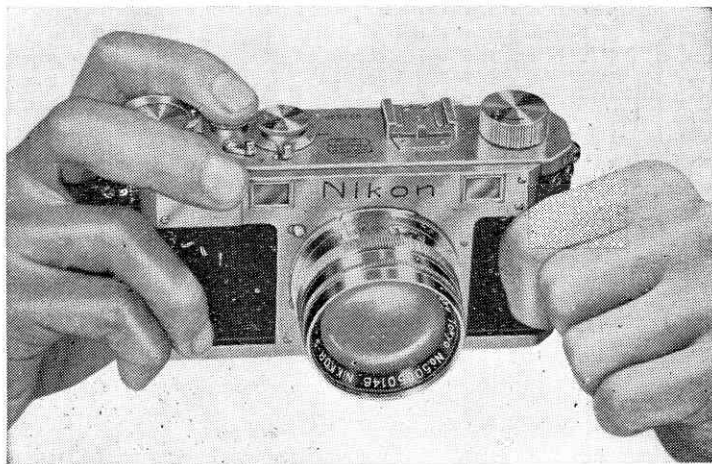


Fig 16

## DEPTH OF FIELD

Depth of field is read directly from the depth of field scale. By definition, depth of field is that part of the field of view of the lens, measured from the camera, which is in focus. Near and far objects are generally out of focus with the middle distance being in sharp focus.

Depth of field depends equally upon the lens opening ( $f:1.4$ ,  $f:5.6$ ,  $f:8$ , etc) and upon the distance from the camera to the object upon which the lens is focused.

To determine which objects in the lens' field of view will be in focus in the finished picture, focus the camera upon the object to be photographed. Separately, by means of a light meter or by reference to the film data usually furnished by the film manufacturer, determine the lens opening required for the light conditions prevailing. Set the lens opening as required.

The depth of field can now be read from the depth of field scale as two points, one representing the distance to the nearest

object which will be in focus, the second representing the distance to the farthest object which will be in focus measured from the camera.

### EXAMPLE

1. Focus the lens on an object 20 feet from the camera.

2. Set the lens opening to  $f:8$ .

3. Notice that the dot on the depth of field scale is opposite 20 on the distance scale.

4. Read the depth of field at the two " $f:8$ " markings on the depth of field scale. The nearest object in focus for this setting will be 12 feet



Fig 17

from the camera, the farthest object which will be in focus will be 50 feet from the camera.

## **EVERYTHING ELSE WILL BE OUT OF FOCUS IN SOME DEGREE**

**NOTE:** Wide angle lenses, the 35 mm and 50 mm lenses, have greater depth of field than the telephoto lenses. Since the depth of field, for a given lens, depends inversely upon the size of the lens opening, always use the smallest lens opening possible. Note also, that the larger the "f" number, the smaller the lens opening. The 50mm lens is wide open at "f: 1.4" or at "f: 2" and nearly closed at "f: 16".

This subject is of extreme importance if satisfactory pictures are to be taken. It is suggested that depth of field be thoroughly understood before any pictures are taken.

# DEPTH OF FIELD (f=50mm LENS)

| Range<br>Scale<br>Lens<br>Opening | 3 ft.                | 6 ft.                | 12 ft.        | 30 ft.         | 50 ft.     |
|-----------------------------------|----------------------|----------------------|---------------|----------------|------------|
| 1.4                               | 2'11 1/2" ~ 3' 1/2"  | 5'10" ~ 6'2 1/4"     | 11'4" ~ 12'9" | 25'11" ~ 35'7" | 40' ~ 230' |
| 2                                 | 2'11 1/4" ~ 3' 3/4"  | 5'9" ~ 6'3 1/4"      | 11' ~ 13'2"   | 24' 6" ~ 36'9" | 36' ~ 354' |
| 4                                 | 2'10 3/4" ~ 3'1 1/2" | 5'6 1/2" ~ 6'6 1/2"  | 13'3" ~ 14'7" | 20'9" ~ 54'7"  | 29' ~ ∞    |
| 5.6                               | 2'10 1/4" ~ 3'2"     | 5'4 1/2" ~ 6'0 1/2"  | 9'3" ~ 15'11" | 13'5" ~ 31'5"  | 24' ~ ∞    |
| 8                                 | 2' 9 1/2" ~ 3'3"     | 5'1 3/4" ~ 7'2 1/2"  | 8'11" ~ 18'6" | 15'10" ~ 309'  | 20' ~ ∞    |
| 11                                | 2' 8 1/2" ~ 3'3 3/4" | 4'10 1/2" ~ 7'9 3/4" | 8'1" ~ 23'5"  | 13'5" ~ ∞      | 16' ~ ∞    |
| 16                                | 2' 7 1/4" ~ 3'5 1/2" | 4'6" ~ 9'1"          | 7'1" ~ 41'2"  | 10'10" ~ ∞     | 13' ~ ∞    |

## REMOVING THE EXPOSED FILM

A roll of film which has been only partially exposed can be rewound and exposed again at a later date. To rewind a partially or fully exposed roll, turn the reversing lever (f, Fig 1) to "R" and turn the rewinding knob in the direction in which the engraved arrow points. When the film is completely rewound, resistance is felt. Turn the rewinding knob until this resistance is no longer felt. The film will now be completely rewound.

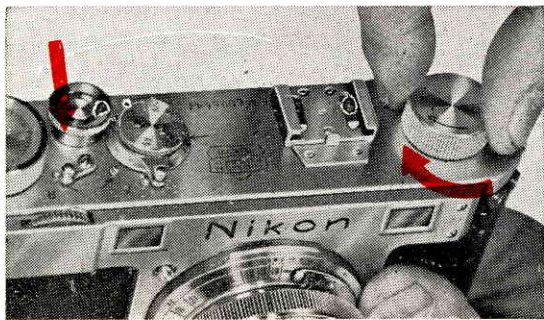
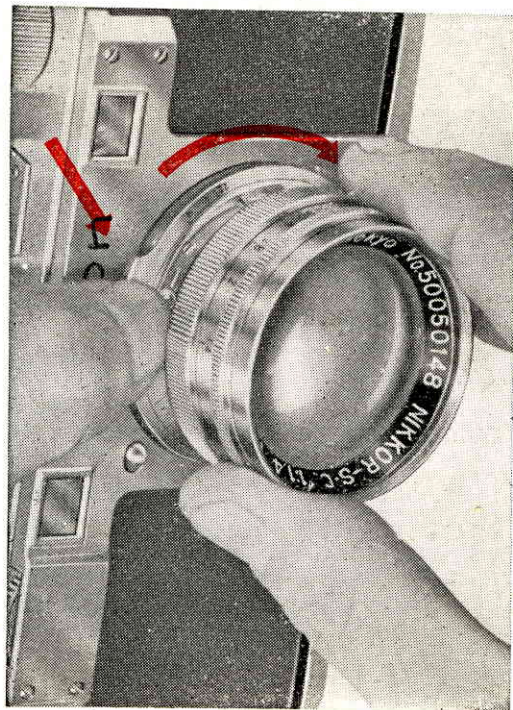


Fig 18

## TO CHANGE LENSES

If it is desired to remove the lens for dusting or to change lenses, set the distance scale **at infinity**, depress the barrel lock (m, Fig 1) and hold down with the left thumb. Turn the barrel **clockwise** with the right hand until the red index mark on the barrel meets the red mark on the camera body. The lens barrel may now be removed gently from the camera body.

Fig 19



In order to fix telephoto or wide-angle lenses to the camera body, set the range scales both of camera and lenses **at infinity**. Push the lens into the opening of the camera body as far as it goes, care being taken that the red mark on the lens barrel is above that of the camera body.

Then press and tilt the fluted piece (Fig 20) toward you, and turn the lens to the **left** (anti-clock-wise) until it stops with a click.

See that in this position the red mark on the lens barrel rests on the highest line of the barrel and that the fluted piece returns to the original position properly.

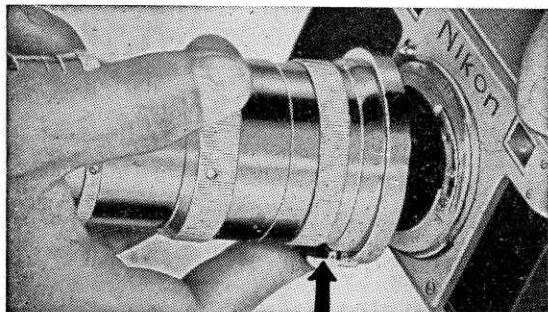


Fig 20



## TO USE FLASH SYNCHRONIZER

The Nikon Camera has a built-in duplex flash synchronizer, which lights automatically the flash bulb on any marketed flash gun, when shutter is released.

When fast shutter ( $1/20$ - $1/500$  sec.) is used, push the smaller plugs on the connecting cord into sockets marked "F" (q, Fig 1) on the camera. When slow shutter ( $1$ - $1/8$  sec.) is used, push the smaller plugs on the connecting cord into sockets marked "S" (w, Fig 2) on the camera. For fast

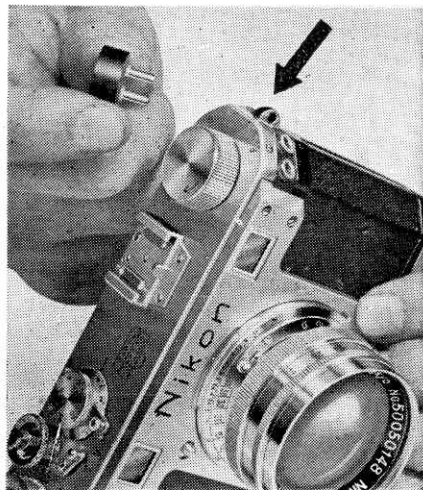


Fig 21

shutter speed, a flash bulb for focal plane shutter (Say : GE-No. 6, Syl-No. 2A etc.) and for slow shutter speed, an open flash bulb (Say : GE-No. 5, 11, Syl-Press 25, 40, etc.) must be used.

| Shutter speed                    | Fast 1/20-1/500                            | Slow 1-1/8                                     |
|----------------------------------|--|--|
| Sockets on the camera to be used | "F"  | "S"  |
| Flash bulb to be used            | GE-No. 6, No. 31<br>Syl-FP 26, No. 2A etc. | GE-SM, No. 5, 11,<br>Syl-SF, Press 25, 40 etc. |

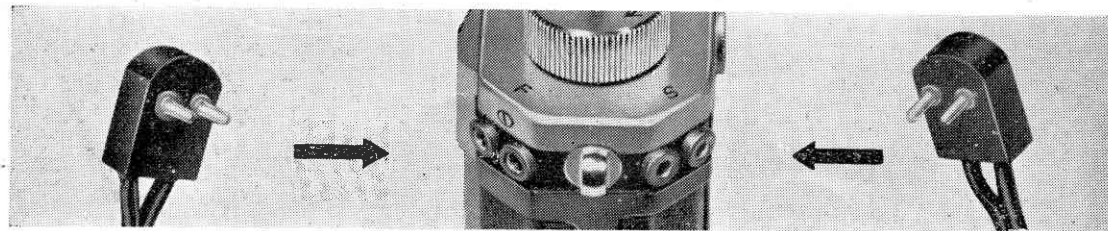


Fig 22

## Important !

1. The flash bulb should not be attached, until the cord plugs are inserted into the sockets on the camera.
2. Marketed flash guns are sometimes not insulated between the gun and the holder. It is important that the insulation be inserted, if it is lacking.
3. For a shutter speed of  $1/500$  of a second or when more than two flash bulbs are consumed on the circuit, increase the battery voltage to not less than 4.5 volts.
4. For shutter speeds of  $1/20$ —1 sec, a strobo flash may alternatively be used with the smaller cord plugs in sockets "S" on the camera. It is essential to see that the synchro-time adjuster be correctly set prior to use of the strobo apparatus.

## VARIFOCAI VIEW FINDER or UNIVERSAL VIEW FINDER

To use the Varifocal or Universal View Finder, slip it in the clip (h, Fig 1). When focus has been obtained, set the parallax adjustment scale in conformity with the distance range on the barrel of the lens. The exact size of the field of view is obtained with 35mm, 50mm, 85mm and 135mm, by setting the indicator to the scale shown on the body of the finder. Use the red indicator for distances of 5 feet or less and the other indicator for distances above 5 feet.

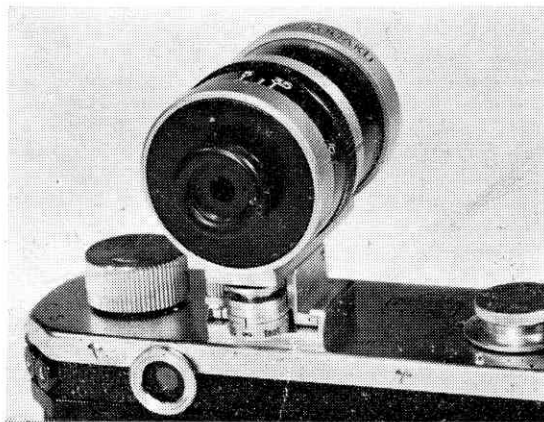


Fig 23

# NIKKOR Lenses for Nikon

|        |      |
|--------|------|
| 5cm    | f1.4 |
| 5cm    | f2   |
| 2.8cm  | f3.5 |
| 3.5cm  | f2.5 |
| 3.5cm  | f3.5 |
| 8.5cm  | f1.5 |
| 8.5cm  | f2   |
| 13.5cm | f3.5 |

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