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KONICA

FS



INSTRUCTION BOOKLET

KONISHIROKU PHOTO INDUSTRY COMPANY, LTD. appreciates your choice of one of its finest products. The **KONICA FS** single-lens reflex, incorporating a pentaprism for parallax-free, full-picture-size viewfinding and focusing, is a superbly designed and engineered camera guaranteed to give impressive performance and enduring pleasure. In conjunction with the fast, sharp and brilliant **HEXANON lens**, there is provided **KONISHIROKU's** unique **HIGHSYNCHRO** metallic focal plane shutter which permits full synchronization at all shutter speeds with class M flashbulbs, and up to 1/125 second exposures with electronic flash equipment. Also provided is the automatic aperture, which in conjunction with the quick return mirror, gives a clear, brilliant image of the subject in the viewfinder without any prolonged blackout. Interchangeable **HEXANON lenses**, both wide-angle and telephoto are available for instantaneous changes by means of the handy **KONICAMOUNT**.

CAUTIONS

- When mounting lens, do not hold manual aperture lever.
- Never touch the reflex mirror. Remove particles of dust with soft-hair brush or a small feather.
- Never touch the shutter. It is of extremely thin construction, and is precisely adjusted.
- Never operate cocking lever while shutter is in action at "B" setting or any of the slower shutter speeds.

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GENERAL DESCRIPTION of the KONICA ES

Negative Size	24 × 36 mm
Film	35 mm in safety cartridge
Standard Lens	HEXANON f/2, f = 50 mm, improved amber-coated anastigmat of 6-element, 5-group construction; minimum distance range, 0.6 meter.
Lens Mount	Bayonet flange KONICAMOUNT (40 mm diameter, flange 40.5 mm)
Aperture Mechanism	Full automatic closing to pre-selected setting, manual closing for depth of field check.
Viewfinder	Pentaprism reflex type, correct picture-size image, at eyelevel.
Reflex Mirror	Full - automatic, quick - return, perpendicular action mirror.
Shutter	HIGHSYNCHRO all-metal, focal-plane type, equidistantly scaled in multiples of 2, single axis non-rotating shutterspeed dial. Settings: B, 1, 2, 4, 8, 15, 30, 60, 125, 250, 500, and 1000
Selftimer	Selfcontained in camera body. Setting angle, 70°. Full delay

Synchroflash Settings duration, approximately 10 seconds.

M and X settings. M settings gives full flash synchronization at all shutter speeds (automatic time-lag adjustment) with class M flashbulbs.

Synchronization accurate up to and including 1/125 second With electronic flash(strobe).

Flashgun connection, JIS Type B

Cocking Lever Single-stroke thumb operated type(180° swing).

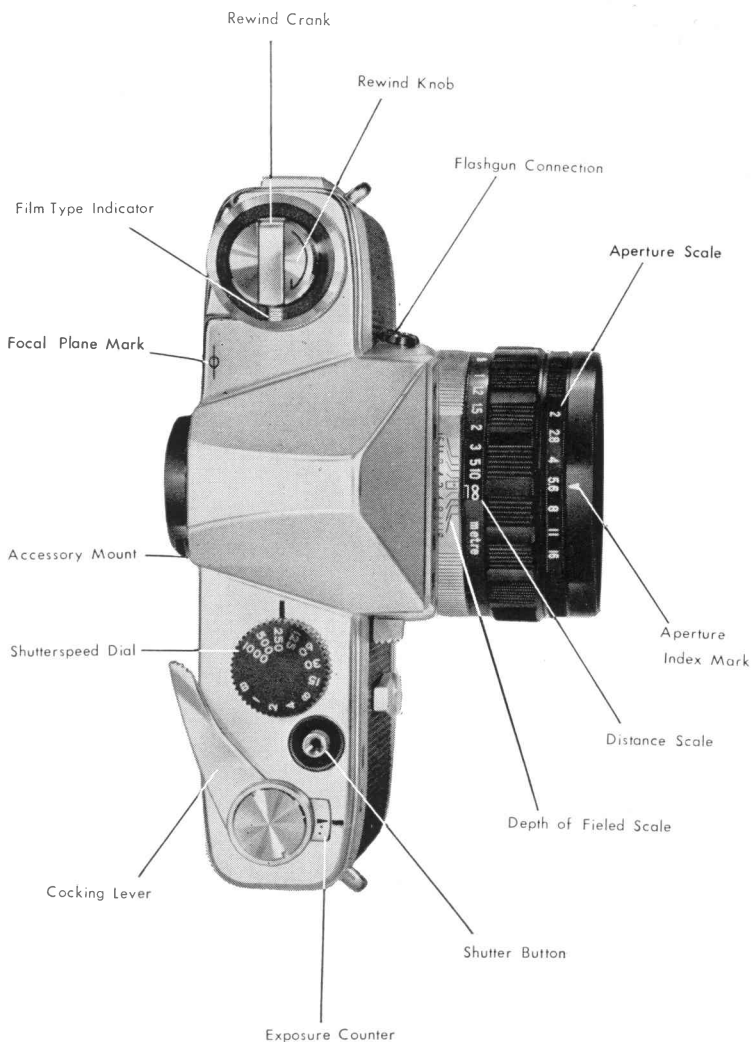
Simultaneous film advance and shutter cocking; positive double exposure prevention.

Other Features Automatic exposure counter (self-resetting). Crank film rewind. Self-resetting rewind button.

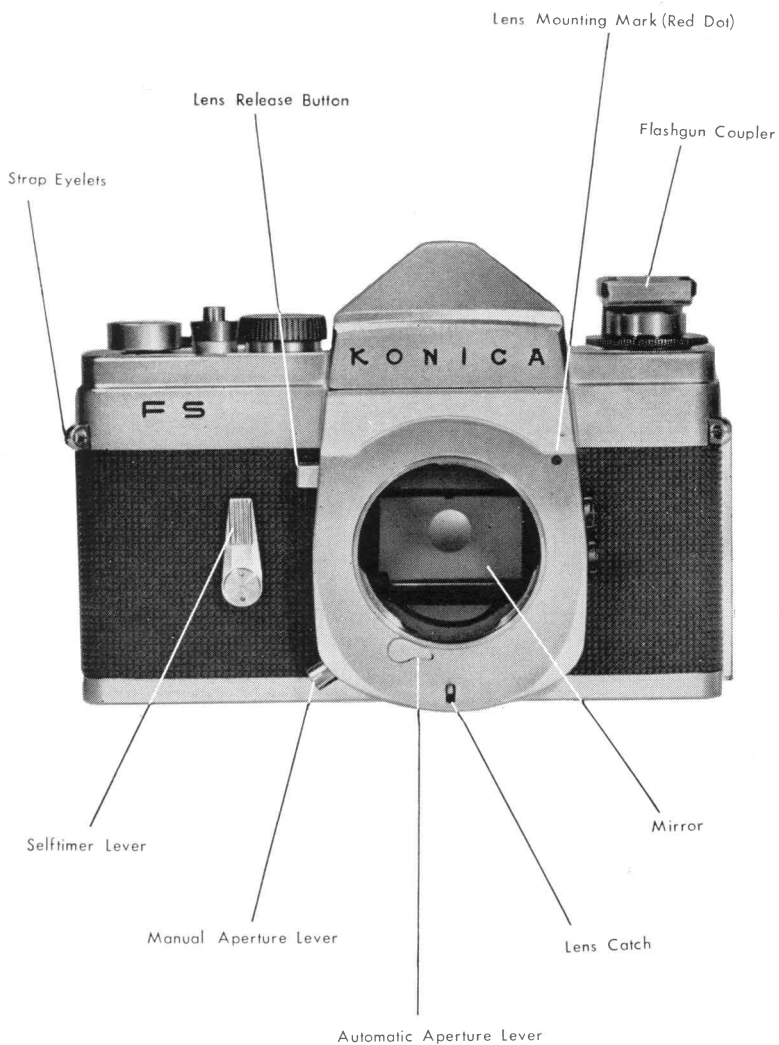
Lens Hood Slip-over type, 57 mm diameter.
Filters Screw-in type, 55 mm diameter. 0.75 mm screw pitch.

Dimensions & Weight 145 × 102.5 × 80 mm
940 grams(with standard lens)

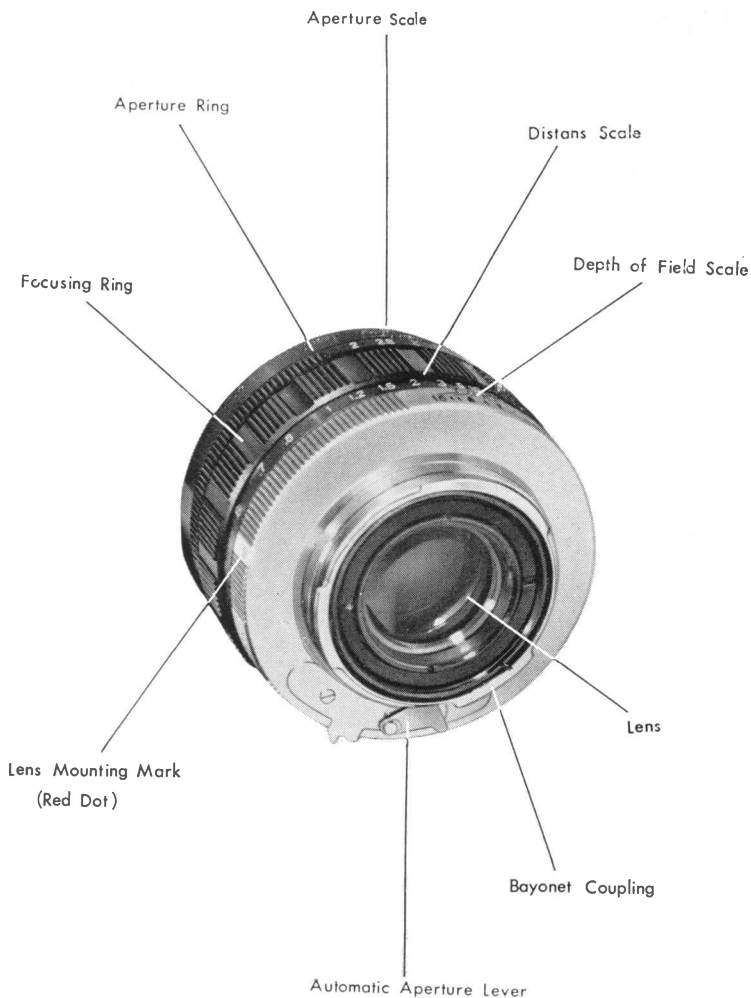
NOMENCLATURE—I



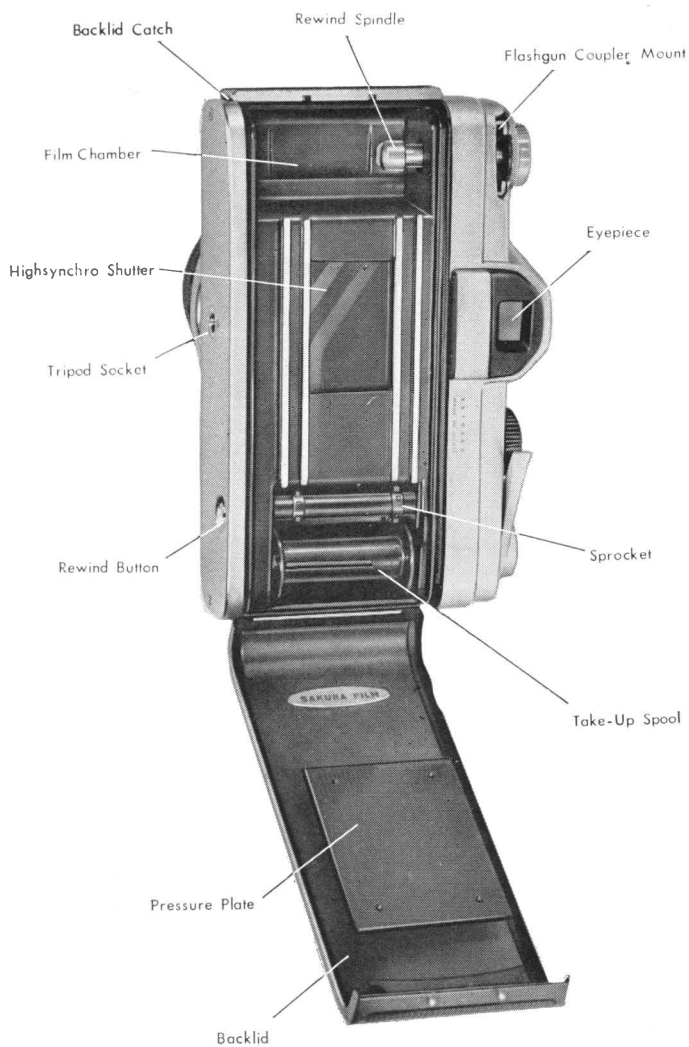
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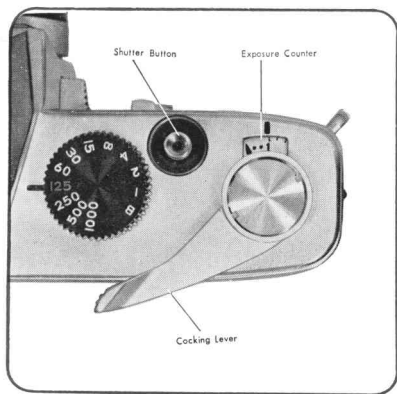
NOMENCLATURE — 3



NOMENCLATURE—4



OPERATING THE COCKING LEVER



- Push cocking lever through its stroke until it stops. Film will be advanced one frame, while the shutter mechanism will be cocked.
- The exposure counter will move one step for each action of the cocking lever. After indicating “36” the exposure counter is disengaged.
- When after picture-taking the exposed film is rewound back into its safety cartridge, and the backlid is opened, the exposure counter automatically resets itself and points at triangular start mark.

- Cultivate the habit of operating the cocking lever just before shooting a picture. It is not good to leave the shutter mechanism cocked for any length of time; and besides there is the risk of wasting film through accidental release of the shutter.
- Shutterspeed setting changes can be effected either before or after cocking.
- If the cocking lever jams part way through its stroke at the end of a roll of film, do not force. Keep rewind button depressed and complete stroke of the cocking lever. It will then spring back to its original position.

FOR BEST RESULTS USE SAKURA FILMS

	ASA Rating	
	Daylight	Tungsten
KONIPAN S	50	40
KONIPAN SS	100	80
KONIPAN SSS	200	160
KONICOLOR NEGATIVE	50	
SAKURA COLOR REVERSAL	10	
KONIPAN REVERSAL	40	32
SAKURA INFRARED 750	peak Sensitivity	
	750 m μ	
	Sensitivity range, 640 to 820 m μ	

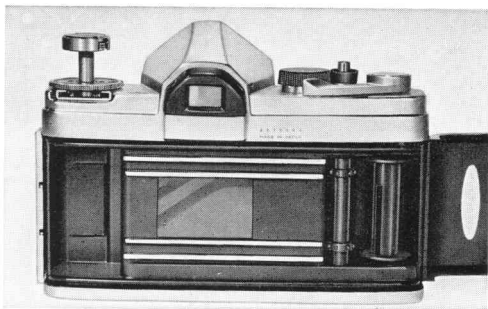


KONISHIROKU PHOTO IND. CO., LTD.

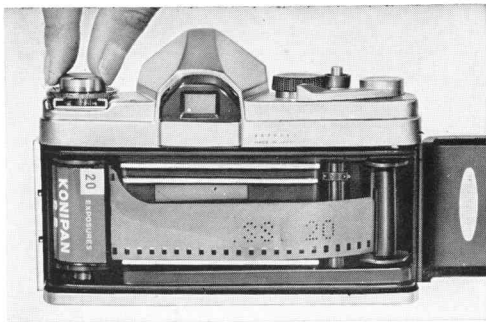
LOADING FILM

- The **KONICA FS** uses 35-millimeter miniature camera film, either monochrome or color, preloaded in safety cartridges.
- When loading or unloading film, always avoid direct light. Work under subdued illumination. When no other shade is available, use your own body to block direct sunlight.
- The flashgun coupler can be removed by pulling toward rear.

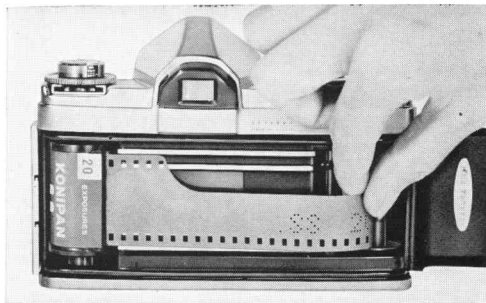
- 1 Pull backlid catch and open backlid. Keep rewind spindle pulled out.



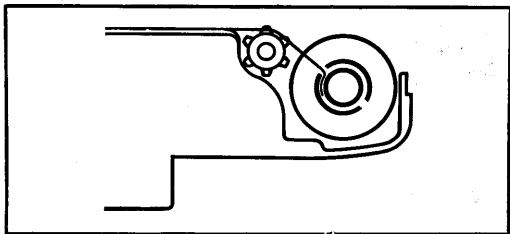
- 2 Insert safety cartridge containing unexposed film in the film chamber, and push rewind spindle back into original position, turning it a little to engage spool of safety cartridge.



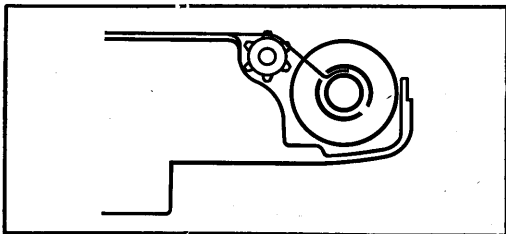
- 3 pull out enough film to reach across the film gate. Matching the edge of the film to the flange of the take-up spool, insert film end in the slit of the spool core (take-up spool turn freely, so bring slit into position for easy insertion of film end).



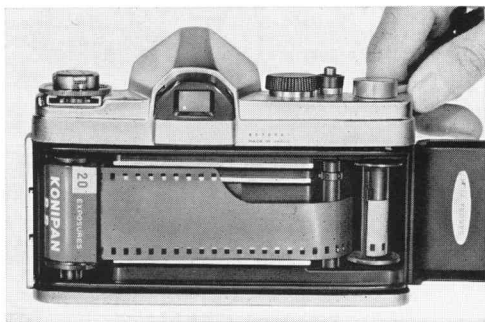
- If film end is inserted in the take-up spool slit in the manner shown here, it will easily detach at the end of rewind action.



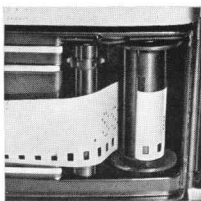
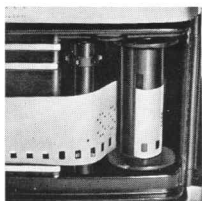
- If film end happens to be inserted in take-up spool in the manner shown here, it will not slip out of slit at completion of rewind into safety cartridge. In this case, do not force. Open backlid and release film by gently tugging with fingertips.



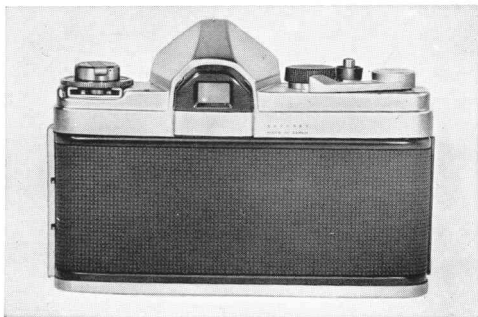
- 4 Operating the cocking lever while guiding the film perforations onto the sprocket teeth will cause the film to be taken up on the take-up spool.



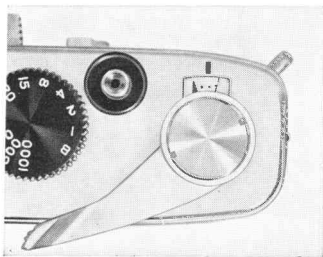
Perforations are fitted onto sprocket teeth



- 5 Close backlid, and press shutter button. Turn rewind knob in direction of arrow to take up slack of film.



- 6 Operate cocking lever, then press shutter button. Repeat these actions. Then the exposure counter will indicate the black dot one step ahead of "1."

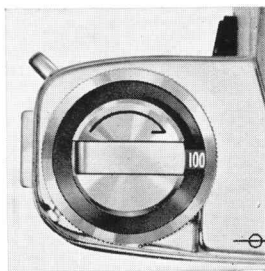


The camera is now ready for picture-taking.

- If, when going through the actions of [6] above, the film is being advanced and taken up properly, the rewind knob will turn counterclockwise against the arrow indication. If the rewind knob does not turn, then the film is not being taken up. Open backlid and secure film end to take-up spool, repeating the steps described above.

FILM TYPE INDICATOR

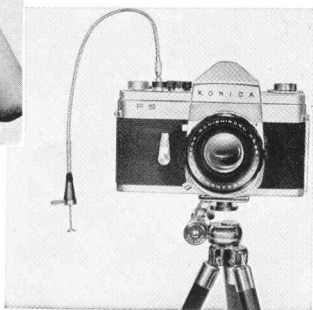
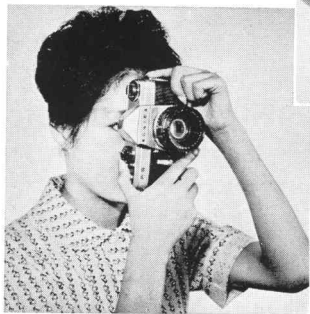
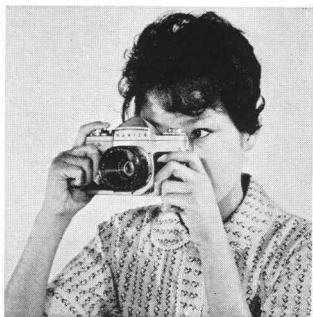
After loading camera with film, always set film type indicator to type of film in use. The numerals correspond to the ASA rating (filmspeed), while the blue section is for monochrome (black and white), and the red for color.



KONIFILTERS FOR THE KONICA FS

JIS CODE	Type	Color	Exposure Factor		Principal Uses
			Daylight	Tungsten	
SL 39	U V	nil	1.0	1.0	For absorption of ultraviolet rays, or for permanent use for protection of lens
SY 48	Y 1	yellow	1.5	1.2	General color correction for pictures of people, scenery, &c.
SY 52	Y 2	yellow	2.5	1.3	
SO 56	R 1	orange	4.0	2.0	For emphasis of sky and contrasts in mountain and distant scenes, or for infra-red film

PICTURE-TAKING



First, make sure that there is film in the camera. Examine your subject, note how the light plays on it, and judge the brightness (preferably with an electric exposure meter); then choose the appropriate shutter-speed and aperture settings to obtain correct exposure. Next sight the subject through the viewfinder. Turn the focusing ring to bring the image of the subject in the viewfinder into sharp focus. Operate cocking lever.

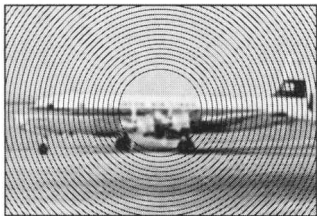
Holding the camera lightly but firmly with both hands, obtain additional steadiness by holding camera against cheek, forehead, or nose. Compose your picture on the viewfinder screen, then gently bear down on the shutter button, carefully avoiding any jerk that might spoil the negative through blurring. The subject of your choice is now imprinted on the film.

Before taking your next picture, be sure to operate the cocking lever to move the film to the next frame, and to set the shutter mechanism. When the available number of exposures on the film had been completed, rewind film into its safety cartridge, open backlid and unload.

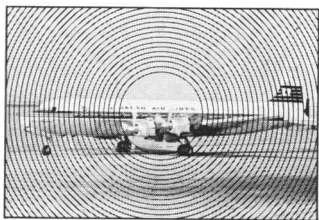
When using a tripod, attach camera by means of tripod socket at bottom of the body. Cable release can be attached by screwing into socket at center the shutter button.

FOCUSING AND VIEWFINDING

Focusing can be done either before or after cocking because the mirror of the **KONICA FS** is always correctly positioned for accurate register of the focusing and viewing image.



Focus is incorrect when the image of the subject is fuzzy.



Focus is correct when the viewfinder image is clearly and sharply delineated.

Focusing

Is effected by sighting the subject through the eye-piece(viewfinder)and by turning the focusing ring.When the image of the subject is clearly and sharply projected on the focusing screen, the camera is focused correctly.

Viewfinder

The image seen in the viewfinder is that of the subject. caught by the camera lens and projected right side up onto the focusing (viewing)screen by the pentaprism. Since there is no shifting of the viewing axis there can be no parallax(sighting error due to displacement of line of sighting from line of picture taking). No matter at what distance or angle, and regardless of the focal length of the lens in use, the image rendered on the viewing screen is exactly the same as that projected on the film.

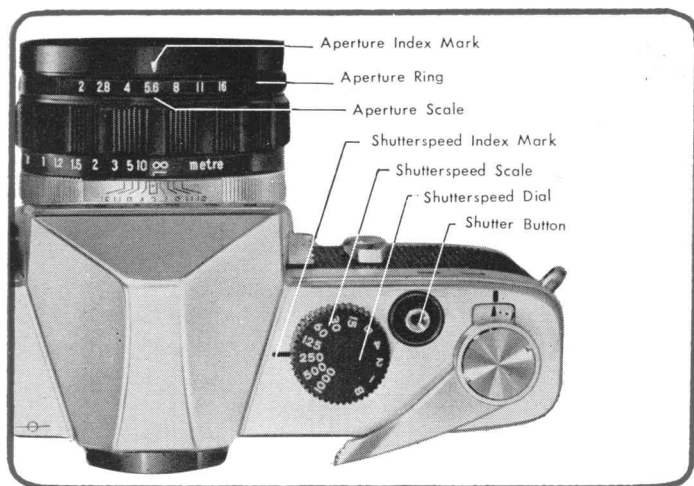
Quick-Return Mirror and Automatic Aperture

The full-automatic aperture mechanism closes down the aperture to pre-selected setting instantaneously upon pressing the shutter button. Simultaneously, the reflex mirror springs up and out of the way, and the shutter opens to register the image of the subject on the film. As soon as shutter action is completed, the mirror drops back to its original position, while the aperture automatically returns to full-open position. Consequently, the viewfinder is blacked out for a fraction of a second, only during actual exposure of film. The subject is in full view in full brightness both before and after picture-taking.

Focal Plane Mark

indicated the position of the film, and distances to the subject are measured from this plane.

SHUTTER AND APERTURE



HIGHSYNCHRO SHUTTER

The metallic focal plane shutter of the **KONICA FS** is a new development which gives superior performance in all respects. Metallic construction makes it proof against cold, heat and wear; while extremely rapid transit across the shorter length of the negative (in about 7.5 milliseconds) permits the use of a wide slit at the highest shutterspeed.

This not only results in high stability of exposure durations, with reduction of distortion in reproductions of subject in rapid motion, but permits accurate synchronization with class M flashbulbs at all shutter-speeds, as well as matching, up to 1/125 second, with the instantaneous flash of electronic flash(strobe) equipment.

Shutterspeed Dial may be turned to give shutterspeed settings ranging from "B" (bulb—manual timing of shutter action) to 1/1000 second. The colored setting "125" indicates the correct speed for synchronization of electronic flash.

Function of the Shutter

- 1 Stopping (freezing) of Subjects in Motion** Unless fast shutterspeeds are used in shooting things in rapid motion, blurring of their photographed image cannot be avoided. The closer the moving object to the camera, the faster must be the shutterspeed.
- 2 Regulation of the Amount of Light Striking the Film** The shutter can be used, like the aperture, to regulate the amount of light reaching the surface of the film. For the same aperture setting, each step up for faster shutterspeed will result in a halving of the amount of exposure. Each step down will double the exposure.

SHUTTERSPEED — RANGE											
B	1	2	4	8	15	30	60	125	250	500	1000

The **KONICA FS** is equipped with an automatic aperture which normally remains fully open for viewing and focusing, and closes down to any preselected position only during the action of the shutter.

Function of Aperture

- 1 The Aperture Regulates the Intensity of the Light Passing through the Lens.** The size of aperture is controlled by the aperture ring, and with each step on the aperture dial, the intensity of light is either doubled or halved. At $f/2.8$, the intensity of light passing through the lens is half that at $f/2$, while at $f/2.8$ double the strength at $f/4$ is provided. Since aperture size can be changed without interruption, any setting along the scale can be used to provide fine adjustment of exposure.
- 2 The Aperture also Regulates the Depth of Field** When the camera is focused on a certain subject, objects in front of and behind it remain sharply defined only within certain definite limits. This focusing tolerance is known as "depth of field," and varies with the size of aperture. The smaller the aperture, the greater the depth of field.

APERTURE RANGE (F /)						
2	2.8	4	5.6	8	11	16

Relationship Between Shutterspeed and Aperture

When taking pictures, the correct exposure is obtained by choice of a suitable combination of shutterspeed and aperture size. Correct exposure is meant the right density of the negative image imprinted on the film by action of light. Consequently, the intensity of the light reflected by the subject and its surroundings must be known. This is possible by using an electric exposure meter. However, when using monochrome (black and white) film which has considerable latitude, it is possible to obtain good results, without going too far wrong, by figuring out the shutterspeed and aperture settings by the exposure guide given elsewhere in this booklet. The conditions which one must bear in mind in deciding exposure are: filmspeed (ASA rating, indicating sensitivity of the film); time of year; weather; time of day; and the nature of the subject.

Since the shutterspeed scale and aperture scale are both equidistantly graduated in multiples of two, once one correct combination is found, other equally valid combinations are easily obtained. If the shutterspeed is reduced a step, then aperture is closed one step; and so on. For instance, if you wish to obtain double the exposure you would be getting with $1/125$ at $f/11$, then you must either reduce shutterspeed to $1/60$, or increase aperture to $f/8$. The same exposure is provided by: $1/60$ at $f/16$, $1/125$ at $f/11$, and $1/250$ at $f/8$.

LENS REMOVAL AND ATTACHMENT

- The interchangeable lenses of the **KONICA FS** are easily slipped on or off by a 55-degree twist of the lens barrel in the bayonet flange **KONICAMOUNT**.

To Detach Lens While keeping lens catch depressed, turn lens barrel counterclockwise until the red dots on the lens barrel and camera body are in alignment. The lens barrel then will easily slip out of the mount.



To Attach Lens Match red dots of the lens barrel and camera body, then insert lens barrel squarely in the mount. Turn clockwise until the lens catch engages with a click.



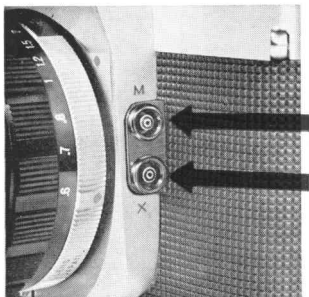
- When the lens is fitted to the camera body, the automatic aperture levers on the body and the lens are automatically coupled.
- When attaching lens, keep fingertips away from manual aperture lever. Do not touch or hold.

INTERCHANGEABLE LENSES FOR KONICA FS (KONICA Mount)

HEXANON $f/2$ $f = 35\text{mm}$ Automatic aperture
 HEXANON $f/2.8$ $f = 35\text{mm}$ Automatic aperture
 HEXANON $f/1.8$ $f = 85\text{mm}$ Automatic aperture
 HEXANON $f/2.8$ $f = 100\text{mm}$ Automatic aperture
 HEXANON $f/2.8$ $f = 135\text{mm}$ Manual control aperture
 HEXANON $f/3.5$ $f = 135\text{mm}$ Automatic aperture
 HEXANON $f/3.5$ $f = 200\text{mm}$ Manual pre-set aperture
 HEXANON $f/4.5$ $f = 400\text{mm}$ Manual pre-set aperture
 HEXANON $f/8$ $f = 800\text{mm}$ Manual pre-set aperture

SYNCHROFLASH PHOTOGRAPHY

With the flashgun coupler in position, it is possible to mount **KONIFLASH III** and **III M** and other pocket type flash attachments directly on your **KONICA FS**.



When using class M flashbulbs, plug cord connector in "M" setting connection.

When using electronic flash (strobe), use "X" setting connection.

FLASH SYNCHRONIZATION CHART

Shutterspeed Flashbulb Setting		1	2	4	8	15	30	60	125	250	500	1000
M	Class M	○	○	○	○	○	○	○	○	○	○	○
	Class FP	○	○	○	○	○	○	○	○	○	○	○
	Class F	○	○	○	○	○	×	×	×	×	×	×
X	STROBE	○	○	○	○	○	○	○	○	×	×	×
	Class F	○	○	○	○	○	○	×	×	×	×	×

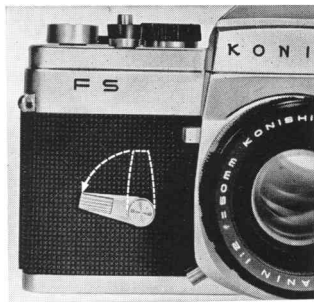
○ mark proper synchronization.

× mark non-synchronization.

In synchroflash or flashlight photography, exposure is determined by the intensity of the flash, and the distance between the source of light and the subject. The instructions accompanying the flashbulb or electronic flash equipment will show a "guide number." By dividing the guide number with the distance between flash and subject, the correct $f/$ value can be obtained for proper exposure.

For example: When using **KONIPAN SS** film at shutterspeeds of $1/50$ or slower, the guide number for **TOSHIBA SUPER ZERO** flashbulb is 42. If the distance to the subject (from the flashbulb) is 5 meters, then the correct aperture size is $42 \div 5 \doteq 8$. The aperture, in this case, should be set at $f/8$.

SELFTIMER



The selftimer mechanism is set by turning the selftimer lever about 70 degrees, either before or after cocking the camera. With the selftimer set, pressing the shutter button will not immediately release the shutter, but will trigger off the selftimer mechanism which, after a delay of about 10 seconds, will actuate the shutter.

- The selftimer can be used at all shutterspeed settings except "B"
- For delays shorter than normal, turn selftimer lever through arc smaller than maximum.
- Shutterspeeds can be changed at will after selftimer is set.
- Besides self-photography, the selftimer is useful for completely jerkfree operation of the shutter in microphotography, copying work, and other picture-taking requiring utmost precision.

DEPTH OF FIELD

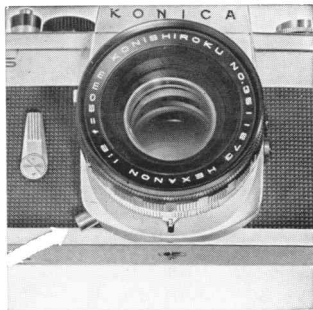
When a subject is brought into sharp focus, there is always a certain range, in front of and behind the subject, in which sharp register of objects can be obtained. This range is called "depth of field."

- At a given distance, the smaller the aperture the greater the depth of field.
- At a given aperture setting, the farther away the subject the greater the depth of field. Depth of field decreases as the distance becomes closer.
- More depth is available beyond the subject in exact focus than in front.
- If the distance and the aperture setting are the same, a lens of shorter focal length will have greater depth of field than a lens of long focal length.

The available depth of field (focusing tolerance) can be ascertained, with the **KONICA FS**, in the following ways:

- 1 Visual check by use of the manual aperture control.
- 2 Scale indication on the depth of field scale.

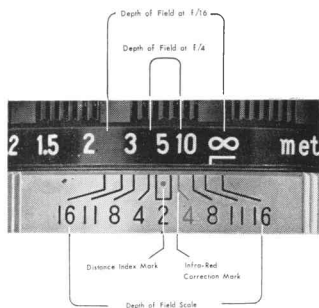
Visual Check of Depth of Field



The automatic aperture of the **KONICA FS** lenses remains at full opening for focusing and sighting, regardless of the pre-selected setting for picturetaking. However, the pre-selected setting can be obtained by pushing the manual aperture lever, so it is possible to see on the focusing screen the degree of sharpness lost in front of and behind the main subject at the aperture size selected for actual exposure.

- By holding down the manual aperture lever when turning the aperture ring, it is possible to set aperture at the right point for any desired depth of field as judged by sight.

Depth of Field Indication on Depth of Field Scale



The depth of field scale is on the index mark side of the distance scale, and gives ranges, which can be read off the distance scale on both sides of the focused distance, for various aperture settings. For example: with aperture set at $f/4$, and with the main subject in focus at a distance of 5 meters, it is possible to obtain sharp register of all objects within the range bracketed by imaginary spheres 4 meters and 7 meters away from the camera (a meter in front of, and 2 meters behind the subject). At $f/16$, it is possible to obtain sharp images from a distance of 2.5 meters to almost infinity (∞).

Infra-Red Correction Mark

When using infra-red film in conjunction with a red filter for infra-red photography, the focus must be corrected for the shorter wavelengths of the rays involved. First focus in the usual manner. Note the distance indicated on the distance scale, then shift this distance reading to the infra-red correction mark (red figure "4").

FILM REWIND

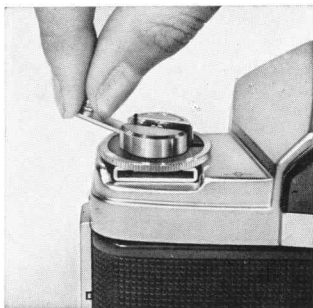
- When the roll of film contained in the safety cartridge comes to the end, the cocking lever will cease to move. Do not apply force in an attempt to complete its stroke. Leave cocking lever as it is, and rewind film back into safety magazine.
- If, at end of film, the cocking lever jams part way through its stroke, it can be released by keeping the rewind button depressed while completing cocking action. Rewind of film, however, can be done with the cocking lever in any position.

- 1 Push rewind button (a single push will release sprocket for rewind).

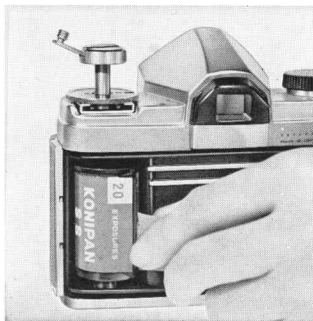


- ② Erect rewind crank and turn in direction of arrow (clockwise).

Exposed film will be taken up into the safety cartridge.

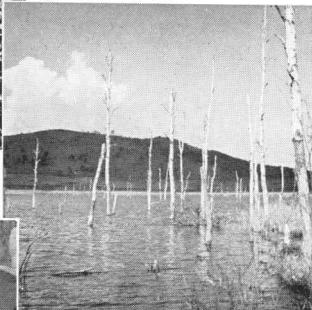
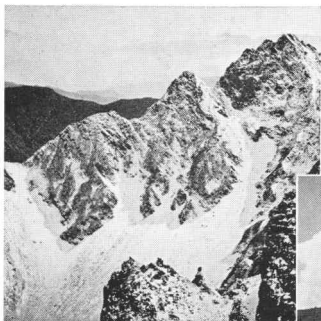


- ③ Open backlid, and pull out rewind crank and knob to release safety cartridge for removal.



- Toward end of rewind operation, resistance will be felt when end of film is detached from the take-up spool, then the load will suddenly be lightened. Stop rewind at this point in order to leave end of film protruding from safety cartridge.
- When removing safety cartridge from camera, always avoid direct lighting. Work in the shade.

EXPOSURE GUIDE



The most important thing in picture-taking is to obtain correct exposure of the film. The shutterspeed and aperture settings for correct exposure depend on such factors as: sensitivity of film (ASA rating), season, weather, time of day, lighting conditions, and nature of the subject. The tabulation given below is a simplified exposure guide taking into account these factors.

SEASONAL EXPOSURE GUIDE

(Clear sky, frontal lighting, no filter)

Season Subject-Matter	Spring	Summer	Autumn	Winter
Scenes with sky, distant mountains, seaside	f /16	f /22	f /16	f /11
Wide vistas, bright medium range scenes	f /11	f /16	f /11	f /8
Outdoors shots of people, street scenes	f /8	f /11	f /8	f /5.6
Close-ups of people, animals, still life	f /4	f /5.6	f /4	f /2.8

- **KONIPAN SS** film (ASA 100)
- Shutterspeed, **1/250 second**
- Time of Day: between 2 hours after sunrise to 2 hours before sunset
- Double exposure in mornings and evenings; give 4 to 8 times indicated exposure when picturetaking in shade.
- Double indicated exposure when using **KONIPAN S** (ASA 50), halve exposure when using **KONIPAN SSS** (ASA 200)

KONICA FS ACCESSORIES

(not furnished with camera)

KONIHOOD lens hood, slip-over type, 57mm diameter

KONIFILTERS screw-in type, 55mm diameter, 0.75 mm
screw pitch.

SL 39(Ultraviolet)

SY 48(Yellow #1)

SY 52(Yellow #2),

SO 56(Red #1)

ANGLE FINDER

This attachment permits viewing and focusing from above. Convenient for low angle pictures, close range photography, copying work, and microphotography.

EXTENSION RING SET, COPYING ATTACHMENT LENS

For ultraclose-range and copying work.

M E M O	
LENS No.	
BODY No.	

DEPTH OF FIELD TABLE

HEXANON F/2 $f=50\text{mm}$

circle of confusion = $3/100\text{mm}$ (in feet)

Feet F No	2.0	2.5	3.0	3.5	4.0	5.0	7.0	10.0	15.0	30.0	∞
2	2'00" 2'01"	2'06" 2'06"	2'11" 3'01"	3'05" 3'07"	3'11" 4'01"	4'10" 5'02"	6'09" 7'04"	9'05" 10'08"	13'08" 16'07"	25'00" 37'05"	148'02" ∞
2.8	2'00" 2'01"	2'05" 2'07"	2'11" 3'01"	3'05" 3'07"	3'11" 4'02"	4'10" 5'03"	6'07" 7'05"	9'02" 11'00"	13'03" 17'04"	23'06" 41'07"	105'11" ∞
4	2'00" 2'01"	2'05" 2'07"	2'11" 3'01"	3'04" 3'08"	3'10" 4'02"	4'09" 5'04"	6'05" 7'08"	8'11" 11'05"	12'07" 18'08"	21'06" 49'11"	74'03" ∞
5.6	1'11" 2'01"	2'05" 2'07"	2'10" 3'02"	3'04" 3'08"	3'09" 4'03"	4'07" 5'05"	6'03" 8'00"	8'06" 12'02"	11'10" 20'08"	19'04" 68'01"	53'01" ∞
8	1'11" 2'01"	2'05" 2'08"	2'10" 3'02"	3'03" 3'10"	3'08" 4'05"	4'06" 5'08"	6'00" 8'06"	8'00" 13'05"	10'10" 24'08"	16'09" 150'10"	37'03" ∞
11	1'11" 2'01"	2'04" 2'08"	2'09" 3'04"	3'02" 3'11"	3'07" 4'06"	4'04" 6'00"	5'08" 9'02"	7'05" 15'05"	9'10" 32'07"	14'05" ∞	27'02" ∞
16	1'10" 2'02"	2'03" 2'09"	2'08" 3'05"	3'00" 4'02"	3'05" 4'11"	4'01" 6'07"	5'03" 10'09"	6'08" 20'07"	8'06" 71'06"	11'09" ∞	18'10" ∞

(F 2 50)

(in meters)

Meter F No	0.6	0.7	0.8	1.0	1.2	1.5	2.0	3.0	5.0	10.0	∞
2	0.59 0.61	0.69 0.71	0.79 0.81	0.98 1.02	1.17 1.23	1.46 1.54	1.92 2.08	2.82 3.20	4.52 5.60	8.22 12.79	45.16 ∞
2.8	0.59 0.61	0.69 0.71	0.79 0.82	0.98 1.03	1.16 1.24	1.44 1.56	1.89 2.12	2.76 3.29	4.35 5.88	7.67 14.40	32.28 ∞
4	0.59 0.61	0.68 0.72	0.78 0.82	0.97 1.04	1.15 1.26	1.42 1.59	1.85 2.17	2.67 3.43	4.12 6.36	6.98 17.76	22.63 ∞
5.6	0.59 0.62	0.68 0.72	0.77 0.83	0.95 1.05	1.13 1.28	1.39 1.63	1.80 2.25	2.56 3.64	3.86 7.14	6.23 25.82	16.19 ∞
8	0.58 0.62	0.67 0.73	0.76 0.85	0.93 1.08	1.10 1.32	1.35 1.70	1.73 2.38	2.41 4.00	3.52 8.77	5.37 81.80	11.36 ∞
11	0.57 0.63	0.66 0.75	0.75 0.86	0.91 1.11	1.07 1.37	1.30 1.79	1.64 2.75	2.24 4.59	3.17 12.29	4.58 ∞	8.29 ∞
16	0.56 0.65	0.64 0.77	0.72 0.90	0.88 1.17	1.02 1.47	1.22 1.96	1.52 2.96	2.02 6.07	2.72 37.73	3.69 ∞	5.73 ∞

(F 2 50)

KONICA



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