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Minolta SR-3

Owner's Manual



All About Your Best Companion, The Minolta SR-3

Your Minolta SR-3 is the latest and the most de-luxe model of Minolta SR (Single lens Reflex) camera series, manufactured by Chiyoda Kogaku Seiko K. K. leading camera manufacturer since 1928.

It features the coupled exposure meter, built-in split image range finder, and many other latest developments.

Famous Rokkor F:1.8-55mm lens with the exclusive Achromatic coating will give you the hi-fidelity effects specially in color photography.

With the wide variety of accessories, it can boast the versatility as the universal use photographic equipment.

Minolta SR-3

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Be sure to read this booklet through before taking shots.

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On-line camera manual library

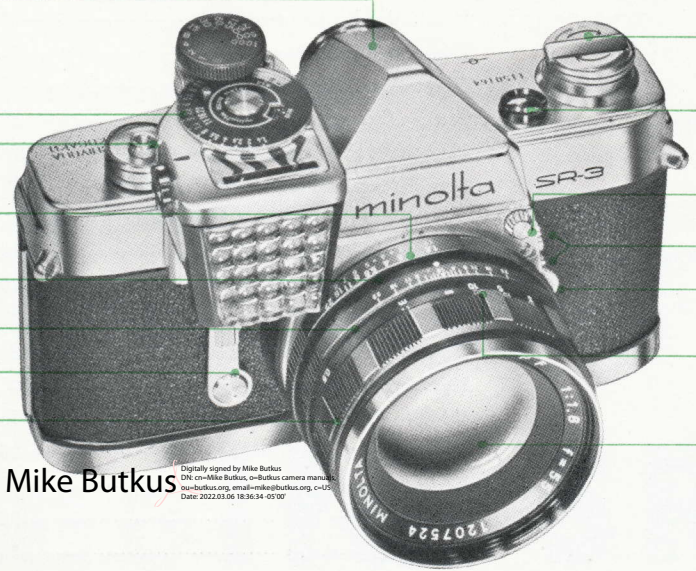
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Mechanism of MINOLTA SR-3



Pentagonal Prism

Minolta SR meter

Shutter Release Button

Light Value Scale

Aperture Setting Ring

Depth of Field Scale

Self-timer

Focusing Ring

Rewinding Crank and Back Opening Knob

Exposure Counter

Lens Change Button

Synchronization Terminal

Aperture Click Stop Button

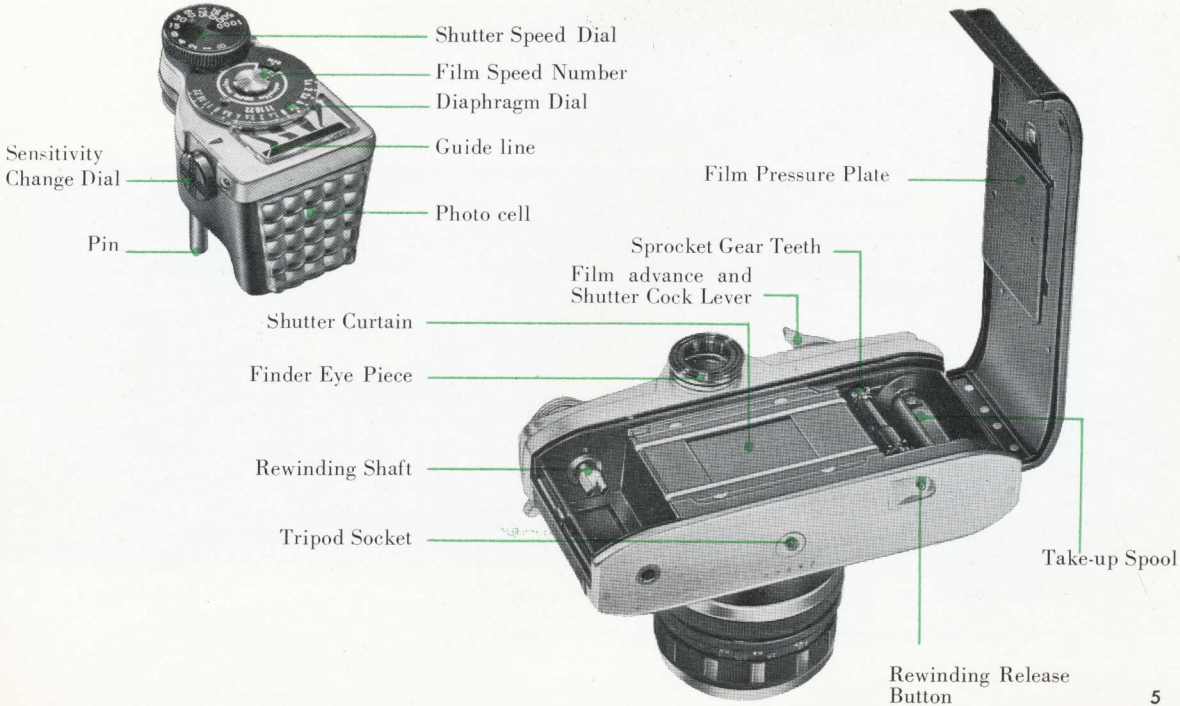
Distance Scale

Standard Lens

Mike Butkus
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Date: 2022.03.06 18:36:34 -05'00'

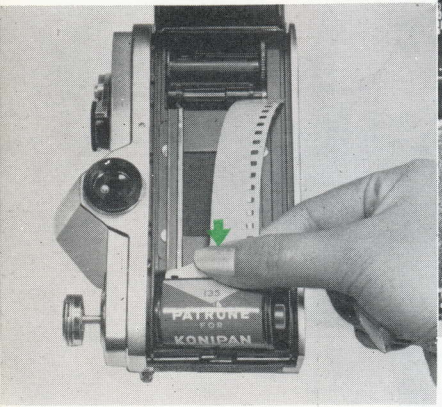
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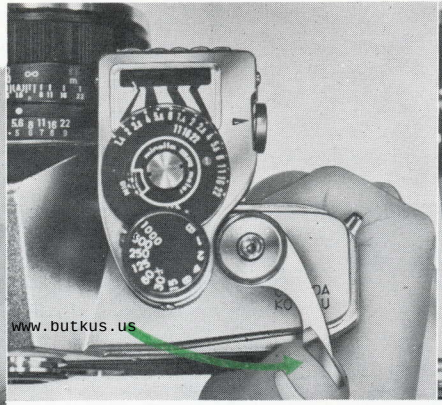
Minolta SR meter



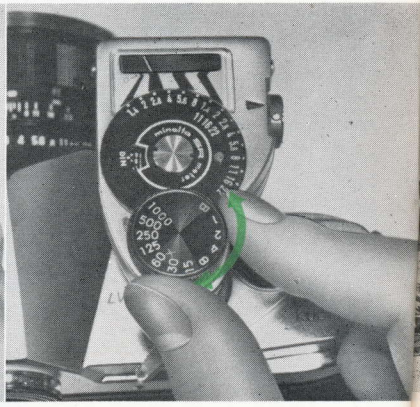
From loading to taking shots

Load film



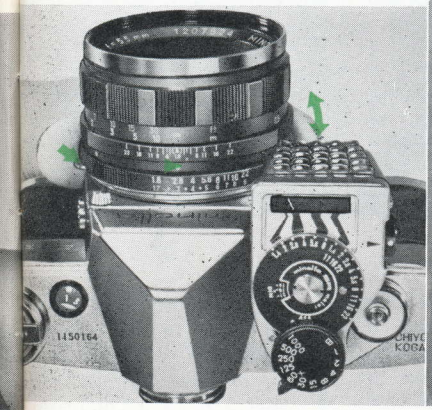


Advance lever

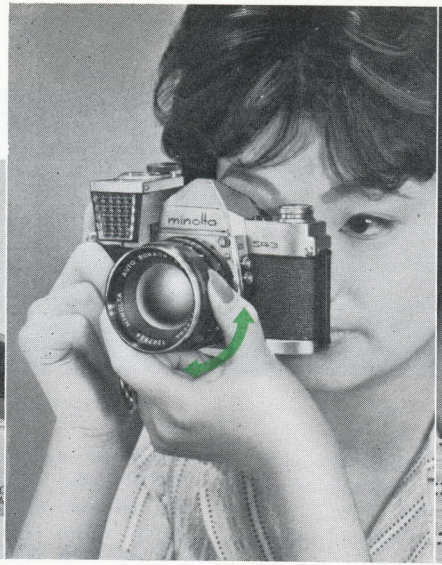


Set shutter speed

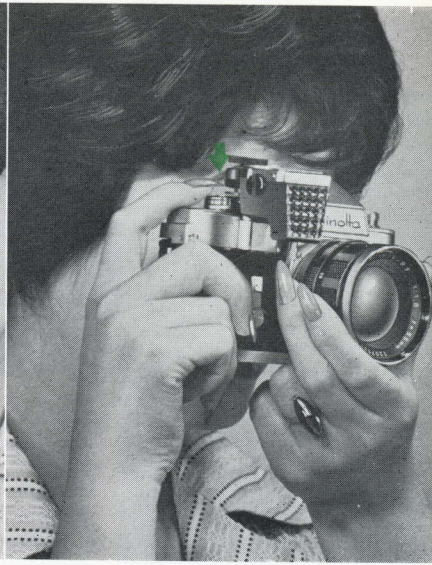
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Set F stop



Composing and focusing

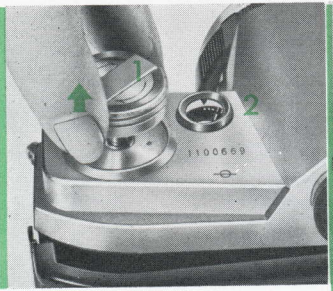


Click shutter

Detailed explanation of each operation on following pages

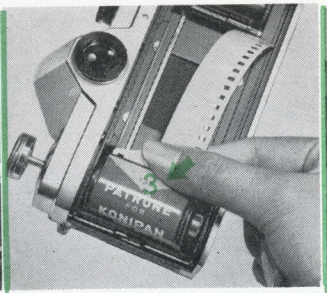
How to Load Your Camera

Use 20 or 36 exposure 35 mm film.



1

To open the camera back, pull out rewinding knob (1) until it stops. Then, put a slight extra pull and camera back will open. Film counter (2) will return automatically to starting position.



2

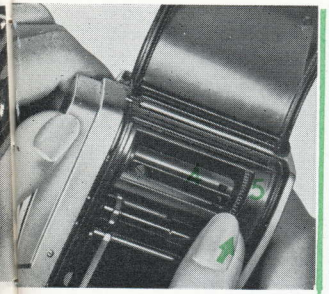
Insert film magazine (3) into film chamber so that the film axis knob of the magazine is placed on the bottom side of the chamber.



3

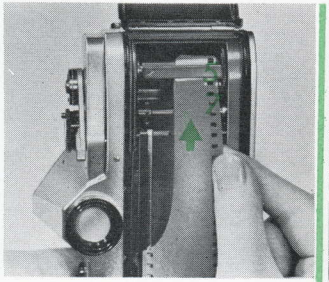
Push the rewidning knob (1) down to its original position. If you should have any difficulty, turn the knob slightly to the left and right and push down.

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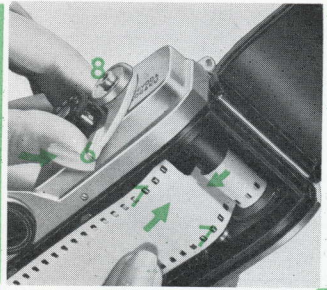
4

Turn take-up spool (5) on end of rewind axis (4) until film catching clip faces upper side.



5

Insert the film leader into the take-up spool as shown in the picture along the bottom side of the take-up spool. Make sure the film sprocket gear teeth are engaged with the film perforations.



6

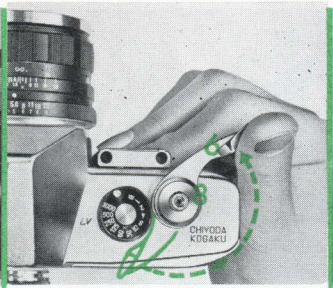
Advance the film lever (6) by making several short turns until both sides of the film perforations are engaged properly in the film sprocket gear teeth (7). When the film advance lever stops, release the shutter (8) and film advance lever can be advanced further.

When loading film, be sure not to touch shutter curtain.



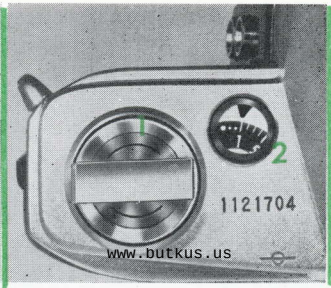
7

Before closing the camera back make sure that the film is placed parallel to the camera body.



8

Advance lever until it stops and release shutter.
Repeat this action twice and advance the lever. The section of the film that has been exposed to daylight during loading has been wound and you are now ready to take pictures.



9

Look into the film counter window. A red arrow indicates the first film frame is in position to be exposed. The red arrow will indicate the next film number each time you wind the lever.

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Film Emulsion speed Indicator

Your MINOLTA SR-Meter and the back cover of your camera have a film emulsion speed indicator. When using the MINOLTA SR Meter, adjust correctly with the film emulsion indicator window of the meter.

To set the indicator, turn the dial as shown in the picture. For example, if your film speed is ASA 200, (DIN 24) set it as shown in this picture.



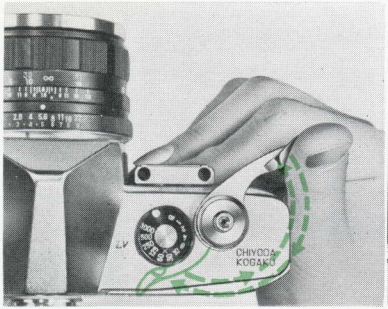
Emulsion Speed Numbers

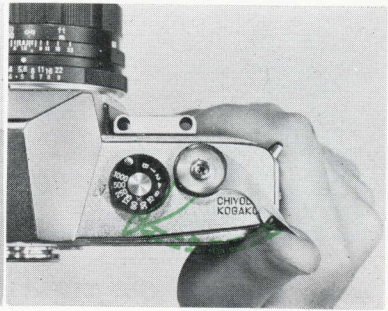
Films	A S A
ILFORD HPS	400
Ansco Super Hypan	500
ADOX KB 14	(DIN) 14
ADOX KB 17	(DIN) 17
ADOX KB 21	(DIN) 21
Kodak Panatomic X	40
Kodak Plus X	160
Kodak Tri X	400
Kodacolor	32
Ektachrome (daylight type)	32
Kodachrome (daylight type)	10
Super Anscochrome (daylight type)	100
Anscochrome	32

How to Use Film Advancing Lever

When clicking shutter at slow speeds such as 1 second and ½ second, do not advance film while shutter is in motion.
When advancing film, if it is advancing satisfactorily inside the camera, the rewind knob will turn in the direction opposite to the arrow sign.
When film is loose inside the magazine, the knob will not turn until it becomes tightly rolled.

Note : Unless the film advancing lever is completely winded, the shutter can not be released.
Remark : While winding the film advancing lever, you will feel some resistance just before the end of winding, this is normal mechanical resistance. Keep winding until it stops completely.





The film advancing lever performs the following five actions simultaneously

1. Advances the film one picture frame.
2. Advances the film counter to the next number.
3. Cocks the shutter mechanism.
4. Sets the quick-return mirror mechanism.
5. Opens the diaphragm fully.

You can turn the lever either by making several short strokes or by one 180 degree stroke until it stops as it is illustrated in the pictures.

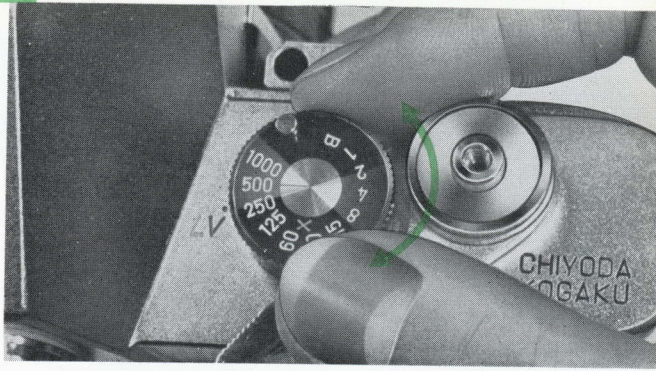
Setting Shutter Speed

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The shutter dial is marked with figures B and 1 to 1,000. The figures 1, 2, 4, 8, 15 ..... 1000 indicate shutter speeds of 1 second, ½second, ¼second, ⅛second, $\frac{1}{15}$ second..... $\frac{1}{1000}$ second respectively.

The B position, or bulb, enables you to keep the shutter open as long as the shutter button is pressed down. This position is used when exposures of 2 second or more are required.

The red letter X is the X contact point and is used with strobes or electronic flash equipment. It corresponds to about $\frac{1}{30}$ second speed.



Do not pull up shutter dial. Turn the dial to the desired shutter speed figure to the center red line. When shutter dial is turned to any place between two figures, the intermediate speed between these figures can be obtained. Dial can be turned in either direction. Also, shutter speed can be set either before or after advancing the lever.

Refer to page 16 when using MINOLTA SR meter

How to Set the Diaphragm



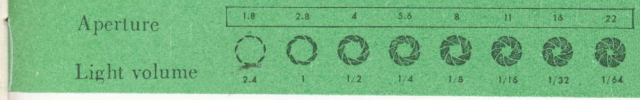
The diaphragm ring has aperture figures from 1.8 to 22 (F value) in white on outer side. Turn the diaphragm ring while pressing on the click stop button to desire aperture figure and release button when it coincides with white dot.

The click-stop will enable the user to use intermediate aperture openings between F1.8 and F5.6.

The larger the figure becomes the less light volume is permitted through the lens. (For example, if volume of light permitted through the lens when aperture is set at F2.8 is 1, the relation-ship between aperture and light volume from F1.8 to F22 is shown on next page.) When intermediate aperture opening is used, volume of light, also, will be intermediate.

Yellow figures show light value. This will be explained on the page 18.

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Diaphragm can be set either before or after advancing film lever. When diaphragm is adjusted before advancing film, the effect of adjustment of diaphragm can be noted through finder.

When diaphragm is adjusted after film is advanced, the view is always bright but the effect cannot be noted. The aperture will automatically close down to the pre-set aperture stop immediately before the shutter is released.

Complete Auto-Preset Diaphragm

In the MINOLTA SR-3, when the lever is advanced, the lens automatically opens to its maximum aperture and affords a very bright view so that it is very easy to focus and compose the subject. When the shutter is released, the aperture will automatically close down to the pre-set aperture stop. This is the advanced feature of the MINOLTA SR series of which the makers are very proud of.

This automatic pre-set mechanism is also contained in the wide-angle 35mm lens, 100mm lens and 135mm lens. Even when lens are interchanged after advancing film (automatic opening of aperture), the aperture of the lens will remain automatically open.

The aperture stops control exposure on the film and also control the depth of field.

How to Use MINOLTA SR Meter

Attach Meter to Camera

Insert pin of meter into shoe placed in front of camera body and join coupler at bottom of meter to shutter dial stop screw on camera body. (After meter is fixed on the shoe, turn the shutter speed dial of meter, then the shutter speed dial of camera automatically engage with the meter.)
Set the emulsion speed number of film you just loaded into the camera to the window of meter (B) by turning the pin (A) on the meter dial. (Picture shows position when ASA is 100) (C) shows DIN indication.

To determine Exposure

Exposure can be determined by volume of light entering the film or by volume of light reflected. In the former, the volume of light on the subject is measured. In the latter, the volume of light reflected by the subject is measured.
When shutter speed dial is set at desired speed and set to correspond with red dot, read the aperture value indicated on meter and adjust value of aperture ring.



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In the latter system, insert white plate (incident light attachment) and measure as shown in picture. In the reflector system, place meter near subject to about 10cm and measure light by placing palms before lens.

When subject is dark so that meter needles will not move, adjust yellow dot on ASA switch knob (sensitivity change dial) and measure. In this instance, read figures in yellow. Ordinarily, adjust with white dot on switch knob.

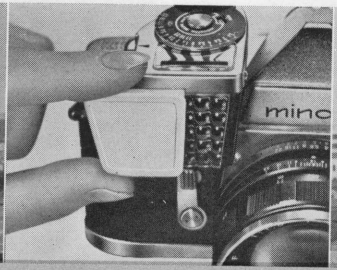
Note. 1. The shutter speed dial will not move where there are no figures. It will move only between B ⟺ 1000.

2. When speed on meter and speed on camera do not couple, turn meter speed ring and it will correspond with camera speed.

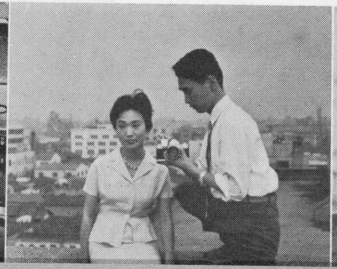
3. Read off aperture value along guide line.



Measuring the reflection light



Setting of the Incident light attachment



Measuring the incident light



Measuring the subject in far distance

Light Value Scale

Relation between aperture and shutter speed

As in the chart below, the figures on the aperture dial and shutter speed dial are arranged in multiple series (double or one half the next figure). In other words, by combining the aperture and shutter speed shown in the chart below, the same volume of light can be obtained.

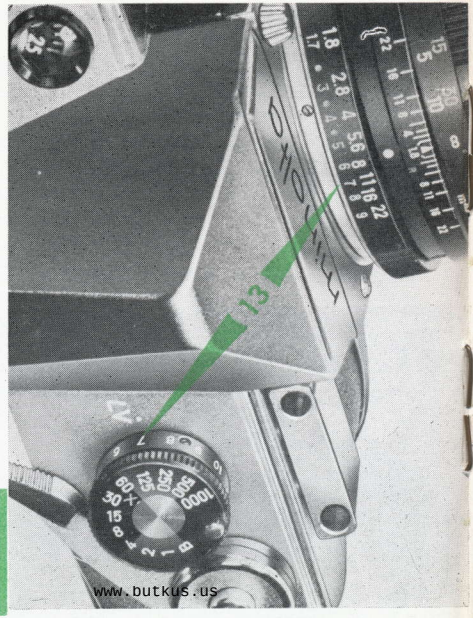
How to use the light value scale

The lower part of the shutter speed dial and diaphragm setting ring are marked with small yellow figures that are the divided light values.

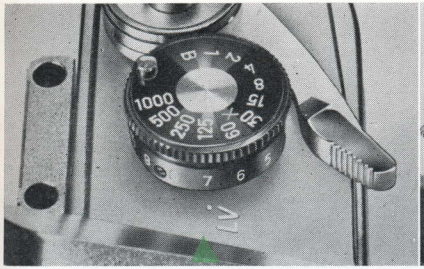
If you have an exposure meter with light value scale, the proper exposure setting can be obtained by using yellow figures marked on the shutter dial.

Aperture (F :)	2	2.8	4	5.6	8	11	16	22			
Shutter Speed (sec.)	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1

F2=the middle point of F 1.8 and F 2.8



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To set light value scale, adjust so that figure on dial will correspond with white dot on aperture ring.
Shutter speed is set by setting light value figure to correspond with LV mark (yellow dot) on side of dial.

For example, if light value number is 13, it may be divided into 7 on shutter side and 6 on aperture side. Or, it may be divided into 9 on shutter side and 4 on aperture side ; or, 8 on aperture and 5 on shutter side. All that is required is to make the sum come to the 13 and you will always have the correct exposure.

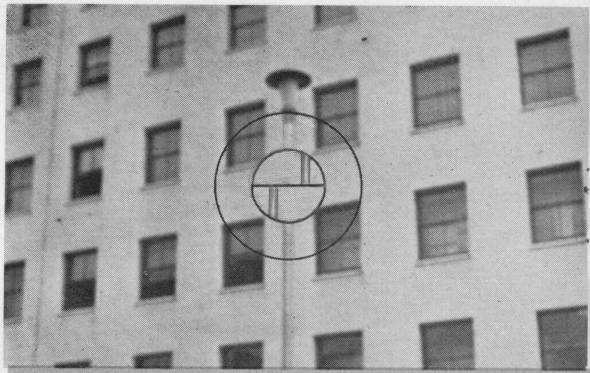
When shooting a moving subject, it is necessary to use a fast shutter speed, priority in combination must be given to shutter speed and light value must be adjusted to correspond. The opposite will apply when taking portraits. That is, priority will be given to aperture.

Focusing and Split Image

Our specially designed fresnel lens is used in the view finder. This affords a bright image. Especially, the split image range finder in center of finder affords a accurate and quick focusing.

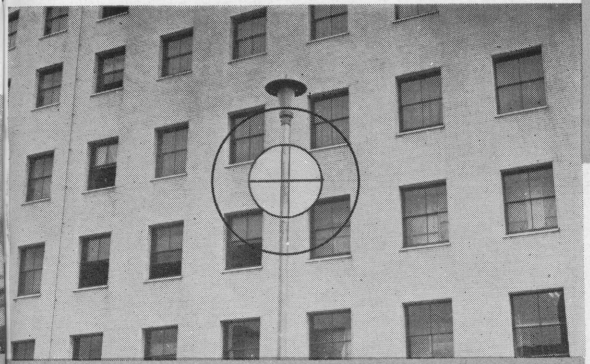
By turning lens barrel either to the right or left, a sharp and clear image can be obtained. When shutter is released, the same clear image will be caught on the film.

The outer edges of view finder are designed in mat glass so focusing can be made by using this section also.

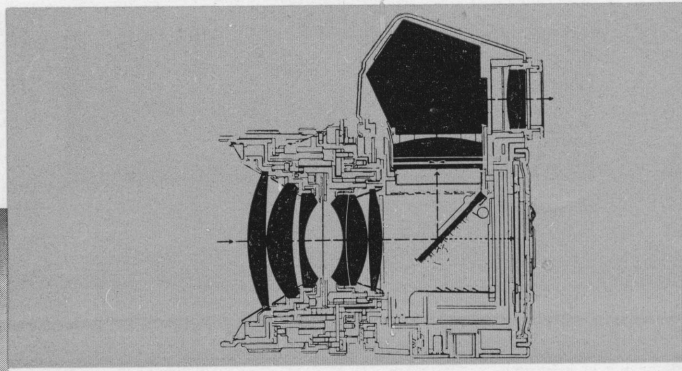


Out of focus
(Note : Vertical line in center is not in one line)

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In focus



Note : The split image view-finder can be used after film has been advanced ; however, when lens without automatic pre-set mechanism is used, the split image view-finder will not operate when aperture opening is set at f 5.6 and over.

Depth of Field

The depth of field of a lens is the range of distance in which all subjects are in relatively sharp focus when lens is set for a specific distance.

The pictures are of a car in which the focus has been set at two different aperture openings.

Depth of field varies when :

1. The depth of field becomes greater when aperture is smaller (when figure becomes larger).
2. Depth of field increases when range of focus becomes longer.
3. The depth extends deeper into the background than to the foreground.

   (The above applies to instances in which same lens is used.)
4. With lens of difierent focal lengths, the depth of field is shorter with longer focal length lens.
5. When you wish to have clear images of both the figure in the foreground and background scenery, increase depth of field. Reversely, if you wish to soften background, lessen depth of field.



The depth of field and condition of background can be viewed by looking through viewfinder by turning exposure ring before film is advanced.
After film is advanced, depth of field can be adjusted by using depth of field scale found near lens barrel.
The arrow mark on ring indicates the distance between camera and focused subject.

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Refer to Explanation about Depth of Field Table on page 33



f 1.8 1/500 sec.
The pictures are of a car in which the focus has been set at two different aperture openings.
At large aperture, only the subject (Car) is in sharp focus.



f 22 1/4 sec.
At small aperture, overall picture is in comparatively sharp focus.
This is an example of great depth of field.

The two sets of figures on both sides of the arrow show the aperture stops and the distance framed by the two same figures shows the depth of field. For instance, if the subject focused is 5 meters away and aperture is F11, the clearest images can be obtained between 3 meters and about 14 meters. (Picture on page 22)

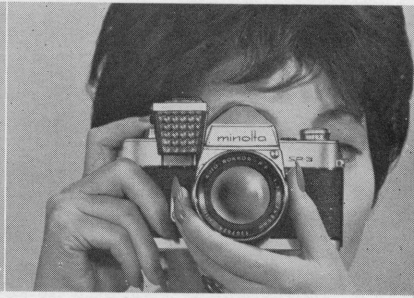
The R Mark

There is R mark (in red) on the aperture ring. Use this mark when using infrared film.
When using infrared film, adjust focus and read range indicated by arrow (△) mark and move R mark to correspond with this value. (use infrared filter on lens).

How to Hold Your Camera

When slow shutter speeds of ½ second and 1 second are used, be sure to advance film after shutter has stopped all motion. Keep this in mind even when film is not loaded.





The camera can be held either in horizontal or vertical position. The important thing is to hold your camera so that it will not move. (For example, hold it against your cheek.) Press down on shutter slowly. It is recommended to hold the viewfinder against the right eye to permit free use of the winding lever.
An angle finder can be attached to the eye-piece of the view-finder so that camera can be held in lower position.

How to Release Shutter

It is best to use tripod when using shutter speeds of $\frac{1}{30}$ second and slower. When there is no tripod handly, place camera on something solid so that it will not move. Best results will be obtained if cable release is used together with tripod.

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Releasing the shutter



Attention :

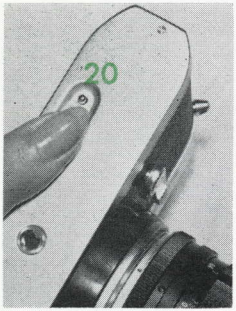
When using shutter speeds of 1/15 sec. and slower it is best to use a tripod to avoid camera movement. If a tripod is not available, set the camera on something or hold the camera against something steady.

A cable release may be screwed into the shutter release button. It is best to use a cable release (19) when using a tripod.

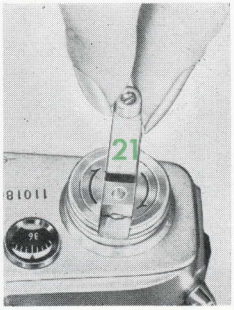
When using slow shutter speeds such as ½ of sec. or 1 second, please be careful not to advance film while the shutter mechanism is still in motion.

What to do When You Have Finished Taking Pictures

When you have finished taking all pictures, (20 or 36 exposures) the advance lever will not move any further. Do not force the lever as this will release film from magazine and make it impossible for you to rewind the film.

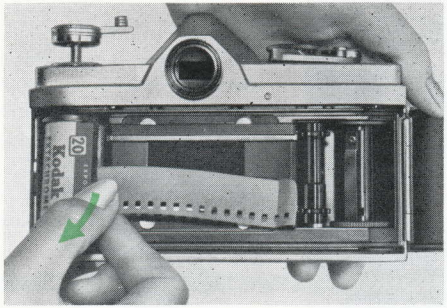


1. Push in the rewinding release button. If button springs back when pressure is lifted, wind advance lever while pressing on button.



2. Lift up crank and turn in direction of arrow and film will be rewound of original magazin. Rewinding is completed when crank becomes light.

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3. Pull out rewind knob; open camera back and remove film. It is best to do this in shade. Be careful not to touch shutter curtain.

Note :

When rewinding, do not lift up the knob.

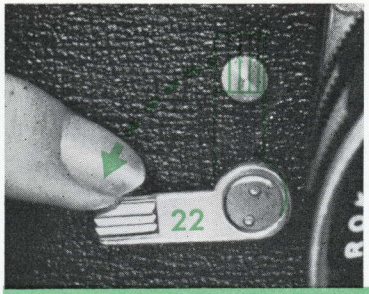
It is best to leave a short end of the film out of the magazine since light may seep in if the whole film is wound into the magazine.

How to Use the Self Timer

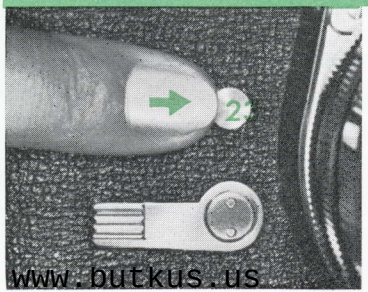
The self timer is handy when you want to put yourself in the picture. Also, it will prevent movement of the camera when using slow shutter speeds.
The self timer can be charged either before or after advancing the film.
Use tripod when usiug self timer.

Note :

When shutter dial speed is set at B and self-timer is charged, an exposure of 2 second is obtained. When shutter is released instead of pressing on self-timer button, the self-timer will not operate and the shutter only is released.



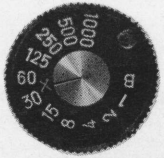
1. The self timer is charged when lever is push down.
   Time lap is set according to the angle the lever is pressed down. (The shutter will not work unless lever is pressed down to an angle of 45 degrees.)
   When lever is pressed down completely, there is a time lap of about 10 seconds.

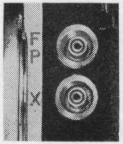


2. To start self timer, push button toward lens barrel (toward arrow.) Be careful not to move camera when pressing button.

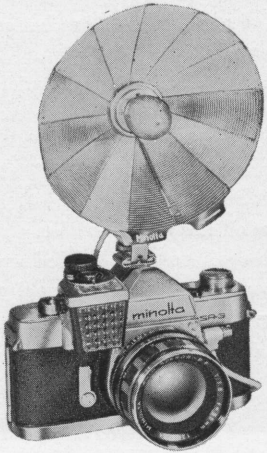
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Use flash for taking pictures at night or in dark places. The flash can also be used when taking pictures in shade.
The synchro-terminal is marked for FP and X. The FP terminal is used for FP flash bulb and X terminal is used for electronic flash unit.

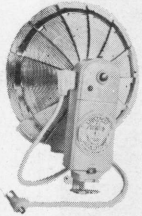


Flash

Use FP flash for focal plane shutter. Insert flash gun's plug into FP terminal and FP flash will synchronize at all shutter speeds. When taking pictures of moving objects in shade, use speed of $\frac{1}{60}$ second and faster.
For F class flash bulb, use X terminal aud synchronize with speed of $\frac{1}{30}$ second and slower.

Strobe Light or Electronic Flash Unit

Use X terminal and adjust with X mark ($\frac{1}{50}$ second) or slower speed. In dark places, flash time of the strobe light becomes the exposure time ; therefore, the highest speed of X must be used.



Setting exposure for flash photography

Guide numbers corresponding to light volume are given in all instruction sheet attached to flash equipment. This guide is used for setting exposure and shutter speed. The following formula is used in determining aperture.

Distance from subject to source of light × aperture = guide number

Aperture opening = guide number ÷ distance from subject to source of light

It is not necessary to consider shutter speed when using strobe light.

Set shutter speed according to main source of light when using flash as supplementary source of light.

The mirror will be raised the moment the flash goes off ; therefore you can't see the flash goes off through the finder.

The flash equipment can be used separated from the camera. Use accessory clip when attaching to camera.

Shutter speed to be used for flash photography

(The speeds showed by oblique lines are the speeds you can use)

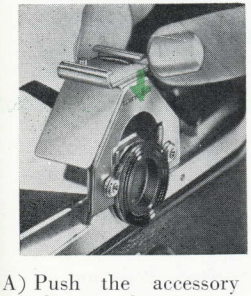
Contact	Shutter Speeds (sec.) / Flash / Bulbs	B	1sec.	½	¼	⅛	1/15	1/30	X	1/60	1/125	1/250	1/500	1/1000
FP Contact	FP class bulbs (large size)													
	FP class bulbs (small size)													
X Contact	F class bulbs													
	M class bulbs													
	Speed light													

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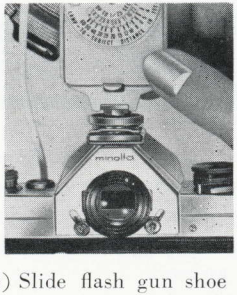
How to connect flash gun

If you wish to attach a flash gun on the camera, you can do so by using the SR-3 accessory clip (which is available separately)

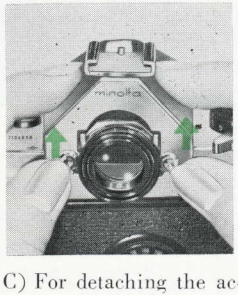
How to attach the SR-3 accessory clip



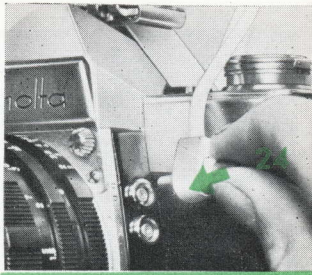
A) Push the accessory clip onto the eyepiece as picture. The Spring on the accessory clip will fix the clip on the penta-prism cover.



B) Slide flash gun shoe into the accessory clip.

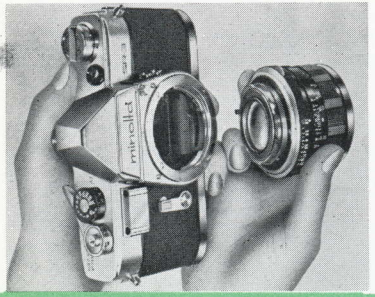


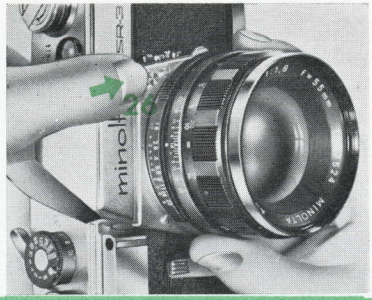
C) For detaching the accessory clip, push up the two buttons of clip, it will come off easily.



Insert the flash connection plug into synchronization terminal (24). Please make sure the plug is inserted into the proper terminal. When using a regular flash gun, insert plug into the terminal marked with blue FP and when using a strobe light unit insert plug into the terminal marked with red X.

Interchanging the lenses







Automatic pre-set lenses can be changed even after advancing the lever and still maintain the fullest aperture opening.

To remove lens

While pushing down the lens change-button ㉖ turn the lens barrel counter-clockwise until it stops (⅛of a turn) and still holding unto the lens barrel lift up carefully.

To attach lens

Insert the lens into the bayonet mount by lining up the red dot on the lens barrel with the red dot on the camera body and turn the lens clockwise until it stops (⅛ of a turn)

Attention ! "Cleaning the mirror in SR camera" Do not use any kind of textile, tissue paper or chamois skin, they may cause the scrach on the mirror. It is recommended to use the blower for clening the mirror.

Depth of Field Table
AUTO ROKKOR F1.8 55mm.

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(ft.) Distance / FNo.	∞	60	30	20	15	12	10	8	7	6	5	4.5	4	3.5	3	2.5	2.25	2
1.8	∞	99.4	37.3	22.98	16.60	13.00	10.68	8.42	7.32	6.22	5.15	4.62	4.10	3.57	3.06	2.533	2.277	2.021
	150.5	43.0	25.09	17.70	13.69	11.15	9.41	7.62	6.71	5.79	4.86	4.38	3.90	3.43	2.946	2.464	2.228	1.982
2.8	∞	156.5	43.2	25.07	17.66	13.63	11.10	8.68	7.50	6.37	5.24	4.70	4.15	3.61	3.07	2.553	2.297	2.031
	96.8	37.2	22.99	16.64	13.05	10.73	9.11	7.43	6.56	5.70	4.78	4.32	3.86	3.39	2.927	2.454	2.208	1.972
4	∞	506.4	53.3	28.12	19.11	14.47	11.64	9.00	7.74	6.53	5.35	4.79	4.22	3.66	3.11	2.572	2.306	2.041
	67.8	32.0	20.91	15.53	12.36	10.26	8.77	7.21	6.38	5.55	4.69	4.25	3.81	3.35	2.897	2.434	2.198	1.962
5.6	∞	∞	77.4	33.6	21.47	15.77	12.45	9.48	8.09	6.77	5.51	4.91	4.31	3.73	3.17	2.612	2.336	2.060
	48.5	26.94	18.65	14.26	11.54	9.70	8.36	6.93	6.18	5.39	4.58	4.15	3.73	3.29	2.858	2.405	2.169	1.942
8	∞	∞	242.4	47.5	26.35	18.23	13.93	10.29	8.68	7.18	5.77	5.11	4.46	3.85	3.25	2.661	2.375	2.090
	34.0	21.81	16.06	12.70	10.51	8.96	7.81	6.55	5.88	5.16	4.41	4.02	3.63	3.21	2.799	2.362	2.136	1.913
11	∞	∞	∞	99.0	36.9	22.67	16.37	11.54	9.54	7.74	6.13	5.38	4.67	3.99	3.34	2.720	2.425	2.129
	24.76	17.63	13.69	11.19	9.46	8.20	7.23	6.14	5.54	4.91	4.23	3.88	3.51	3.12	2.726	2.313	2.096	1.883
16	∞	∞	∞	∞	111.6	38.3	23.10	14.49	11.44	8.93	6.84	5.91	5.06	4.27	3.52	2.841	2.513	2.198
	17.07	13.38	10.99	9.34	8.11	7.17	6.42	5.56	5.07	4.54	3.95	3.65	3.32	2.976	2.618	2.234	2.037	1.844
22	∞	∞	∞	∞	∞	227.5	46.0	20.94	15.08	10.97	7.94	6.71	5.62	4.65	3.78	2.989	2.635	2.280
	12.46	10.39	8.91	7.79	6.93	6.24	5.67	4.99	4.60	4.16	3.68	3.41	3.12	2.815	2.500	2.156	1.969	1.782

Chose the world famous Rokkor lenses for your SR.



Completely Automatic Rokkor lenses.
(Diaphragm opens and closes to pre-selected f stop automatically.)

② f2.8-35mm Wide Angle lens.
③ f2-55mm, f1.8-55mm Standard lens.
⑤ f3.5-100mm Telephoto lens.
⑦ f2.8-135mm Telephoto lens.

Automatic Rokkor lens.
(Diaphragm closes to pre-selected f stop automatically.)

⑧ f3.5-200mm Telephoto lens.

Manual Pre-set Rokkor lenses.

① f4-35mm Wide Angle lens.
④ f4-100mm Telephoto lens.
⑥ f4-135mm Telephoto lens.
⑨ f4.5-300mm Telephoto lens.
⑩ f5.6-600mm Telephoto lens.

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Accessories

A wide variety of accessories have been prepared for MINOLTA SR fans to afford greater photographing pleasure. By using various accessories, the best results can be obtained.

1. MINOLTA Lens Hood

The use of the right lens hood will prevent the entry of harmful light rays. Better pictures can be obtained if the right lens hood is selected. It is especially desirable to use lens hood for synchronized photography. There is a complete range of MINOLTA lens hood.

2. MINOLTA Filter

Special filters are made for every type interchangeable and standard lens. Filters will nake it possible to get clearer and sharper images.

3. Accessory Clip II

Use to attach flash gun.

4. Flash Gun

Other accessories are :

1. Extension tubes, Extension bellows. Extension bellows II with slide copying attachment for close-up shotts.
2. Angle finder for taking pictures at chest height.
3. Magnifier II for accurate focus adjustment.
4. Eyepiece correction lens for hyperopic people.
5. A wide range of adapters and microscope equipment for scientific photography. Copying stands MINOLTA remote control unit, MINOLTA Photo-Osillo-scope Unit and others.
6. Various polarizing filters. Leica mounts and Exacta mount adapters.

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