

Minoltina AL-S

Owner's Manual



Minolta

Minoltina AL-S



We thank you for your purchasing Minoltina AL S
Of many cameras, the Minoltina AL-S is a
genuine 35 mm. camera—the most compact preci-
sion 35 mm. camera in the world equipped with an
exposure meter and a range-finder. It enables even
beginners to take good pictures with the very
first role of film. It also enables experts who are
not satisfied with EE cameras to create excellent
photographs, using their own inventiveness.

For proper operation of this camera we suggest
that you carefully read this manual prior to use

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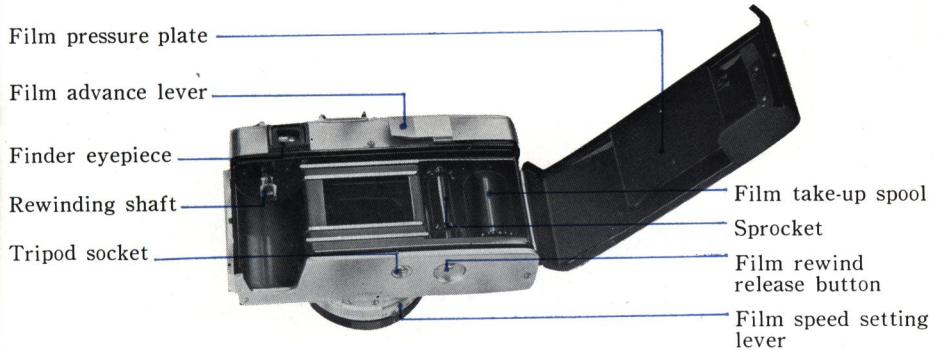
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Specification

Type:	Picture size 24×36 mm (standard size) on 35 mm film. Cross-coupled built-in exposure meter.
Lens:	Rokkor QF f 1.8-40 mm, 6 elements in 4 groups.
Shutter:	Seiko SLV, B, 1-1/500 and built-in self-timer.
Flash	
Syncaronization:	M and X contact point.
Exposure Meter:	Zero method, cross-coupled with shutter speed and diaphragm. Meter working range is EV 6.7-17 (on ASA 100).
Range of	
Usable Films:	ASA 25 - 800, DIN 15 - 30.
Viewfinder:	Lumi-framed viewfinder with coupled range-finder and parallax correction marks.
Minimum	
Focus Distance:	0.8 m (2.6 feet)
Winding of Film:	Lever-type winding, automatic shutter cocking, and rotary angle-140°. Double exposure prevention. Crank type film rewinding.
Counter:	Automatic zero return.
Accessories:	Lens shade (42 ϕ). Screwed-in filter (40.5 ϕ).
Size and Weight:	128 (height)×74 (depth)×60 (width) mm. 540 g.

Camera Parts

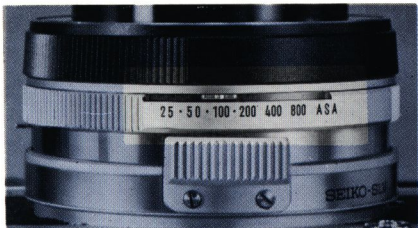




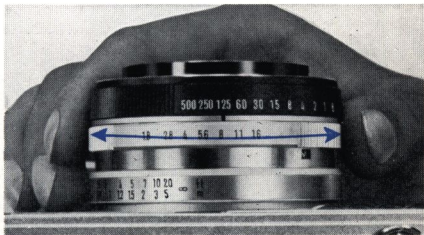


How to prepare your camera for use.

1. Load the film.
(Detailed explanation for loading film is given on page 10.)
2. Set film speed.
(Set the film speed using the film speed set lever. See page 16.)



3. Decide shutter speed according to the amount of light on the object photographed. Set the needle of the exposure indicator to the fixed pointer of the black line by turning the diaphragm ring. (This can also be done by turning the shutter speed ring, after the diaphragm is set.)





4. Focus.

When the object is seen through the viewer as a single image (rather than a double image), it is in focus.

5. Compose picture frame, and press the shutter release button.

The picture frame is the area within the bright frame inside the viewfinder.

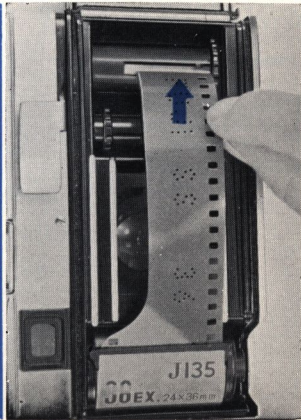
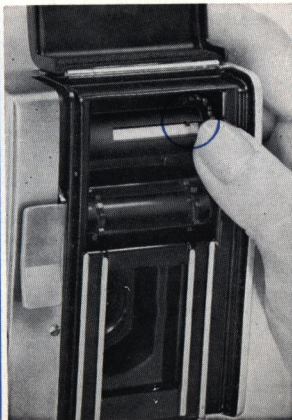
- Before taking pictures, make it sure if M or X is seen in the MXV window. For general purpose photography, use the X mark. If V appears, the self timer is in operation.

How to load film

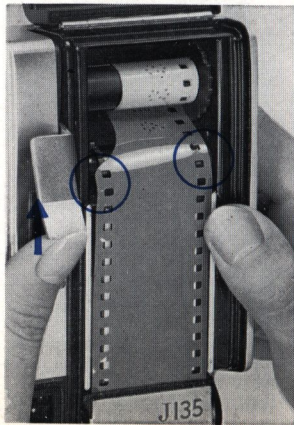
1. Pull up the back locking tab in the direction of the arrow, and the back cover opens automatically.
2. Put in film by fitting the axis of the magazine to the rewinding shaft.
3. Hold the groove of the take-up spool up, turning the gear at its end with your finger tip until the white groove is showing.
4. Pull the tip of the film out of the magazine and then insert it into the

groove of the film take-up spool.

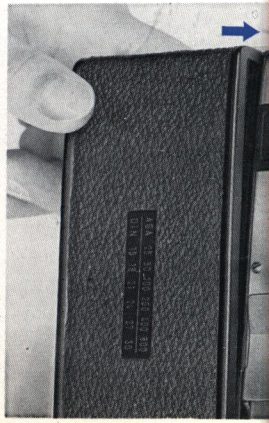
NOTE : Load and unload in subdued light area.



5. Wind the film until its perforations are engaged with the gears of the sprocket. If the winding lever stops on the way, press the shutter release button in order to continue winding.



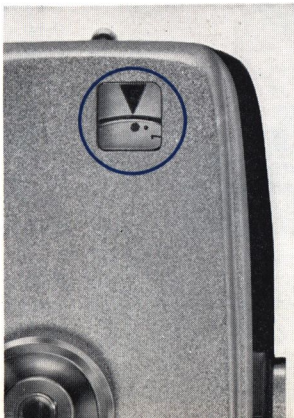
6. Shut the back cover after confirming proper advancing of the film. When pressed slightly, the back cover shuts automatically.



7. Raise up the rewinding crank and turn it in the direction of the arrow to take off the slack left in the film. Return the crank to its normal position.



8. When the back cover is closed, a red dot (start mark) appears in the film counter window. Keep turning lever until "1" appears. (To do this you must press the shutter release after each advance of the winding lever.) It is advisable to keep the lens cap on during this operation.
(Since the film counter is automatic, it returns to the start mark when the back cover is opened.)



9. Now, as you photograph, the number of pictures exposed will be shown in the film counter window. Notice that the rewinding crank rotates as the film is advanced. This indicates proper advancement of the film.



Shutter speed and diaphragm

Shutter

The shutter speed determines the amount of light that will strike the film. When the shutter speed is raised one step at the same diaphragm, light volume is halved. The shutter speed of this camera ranges from 1 second to 1/500 second. Use B (bulb) for giving exposures more than 1 second.

The B position, or bulb, enables you to keep the shutter open as long as the shutter release button is pressed down. At speeds slower than $\frac{1}{30}$ second or in the B position, it is advisable to use a tripod and cable release.

Fast-moving object requires fast shutter speeds so there will be no blur— $\frac{1}{500}$ second is recommended for general photography.

Diaphragm

1.8



Light volume

2.4

2.8



1

4



$1/2$

5.6



$1/4$

8



$1/8$

11



$1/16$

16



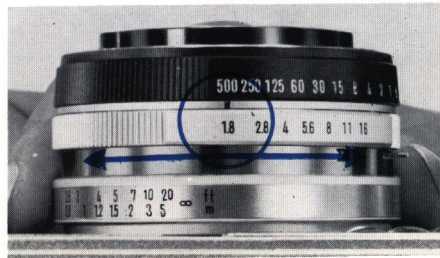
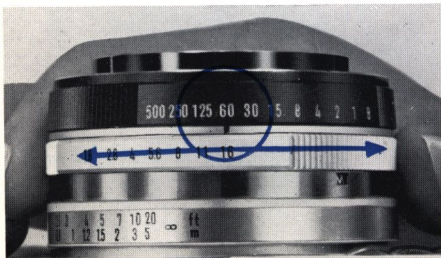
$1/32$

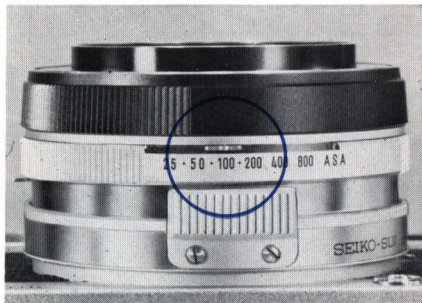
Diaphragm

The diaphragm as well as the shutter determines the amount of light which will strike to the film. However, the diaphragm also affects focus. The indicator of the diaphragm is shown as F.

The smaller the F value, the larger the aperture opening and vice versa. Each F stop higher increased the amount of exposure time necessary by 2. Each F stop lower, decreases the exposure time necessary by $1/2$. The diaphragm indicator of this camera ranges from 1.8 to 16, and their relationship is shown left based on F 2.8.

When taking pictures outdoors, the aperture opening should be small (large in F value), while on cloudy day or in a dark place it should be large (small in F value).





How to decide exposure

1. To set the ASA speed, move the film speed set lever to the speed of the film being used.

For DIN emulsion, convert into ASA according to the ASA-DIN conversion table attached to the back of the camera.

The dot on the ASA dial represents ASA 32, 64, 125 respectively.



2. When the camera is pointed at the object to be photographed, you will see the green needle moves in the exposure indicator window on top of the camera.

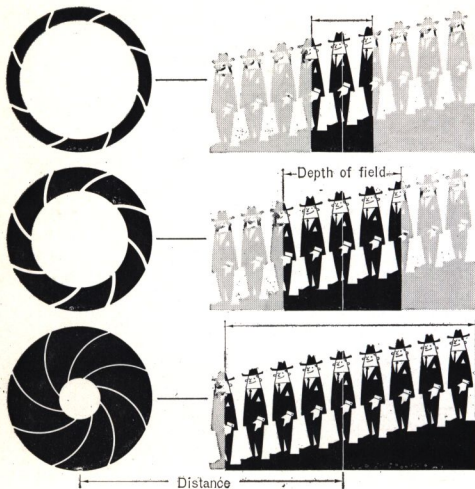
Turn the shutter speed ring or diaphragm ring so that the needle lines up on the golden index.

Then for further shutter speed adjustments, use the diaphragm setting control. It is suggested that you do this because the diaphragm ring has intermediate stops while the shutter speed has not.



3. Hints on measuring

- A. When taking pictures of fast moving objects, first set the shutter to the fastest position, turning the diaphragm control.
- B. If you want to focus on large group people or on things of deep depth, small the aperture opening (refer to Depth of Field on P. 19) and adjust the exposure meter, turning the shutter speed ring. When the shutter speed ring comes to the center, set it to the stop on either side, then adjust the needle turning the diaphragm ring. Be careful to hold the camera steady when the shutter speed is slower than $1/30$ second.
- C. While taking pictures of people, stand as close as possible.
When shooting a landscape, be careful that no reflection of the sky light enters.
- D. The adjustable range of the film speed is ASA 25—800 (DIN 15—30).
- E. When using ASA 100 film, the working range of exposure meter is EV 6.7 (F 1.8, $1/30$)—EV 17 (F 22, $1/500$).
- F. The exposure meter will not function if the light is less than EV 6.7
- G. If the green needle cannot be made to move by turning the diaphragm ring, adjust it by turning the shutter speed ring.
- H. When using a filter, exposure must be increased by the same extent as the light multiple of the filter. In this case, all you have to do is apply onto the camera the value obtained through division of ASA speed value by the light multiple of the filter used.
(For instance, when using a filter of "2 times" light multiple for ASA 100 film, 50 ($ASA\ 100 \div 2 = 50$) is set to the camera.)

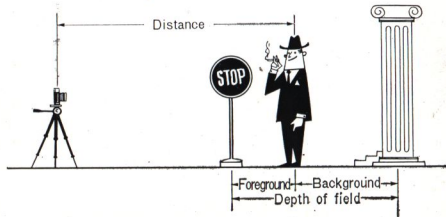


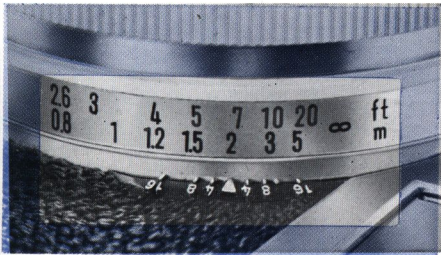
Depth of Field

When a lens is accurately focussed on an object, there exists a certain depth considered to be in focus both in the foreground and the background of the object. This is called depth of field. This becomes greater as the aperture opening is made smaller (closing diaphragm), and smaller as the aperture opening is made larger (opening diaphragm).

Thus, appropriate diaphragm size is necessary in order to achieve depth in a photograph.

The pictures show the relationship.





As shown in the picture, this camera has a scale of depth of field and when the camera is focussed on an object it indicates the depth of the photograph that will be in focus.

The picture gives an example of depth of field. When focussed at 2 m. (6.6 ft.) distance with F8—approximately 1.5–3 m. (5–10 ft.) will be in focus and with F16—approximately 1.2–5 m. (4–17 ft.) will be in focus.

See details in table of depth of field on the next page.

Table of Depth of Field (3.3 feet=1m, 1 foot=0.3m)

F No. Dist. (ft.)	1.8	2.8	4	5.6	8	11	16
∞	87.4 ∞	56.3 ∞	39.8 ∞	28.1 ∞	19.9 ∞	14.1 ∞	9.9 ∞
20	16.3 25.8	14.8 30.8	13.6 39.6	11.8 66.9	10.1 ∞	8.4 ∞	6.8 ∞
10	9.0 11.2	8.5 12.1	8.1 13.2	7.4 15.2	6.8 19.5	5.9 32.3	5.1 ∞
7	6.50 7.58	6.25 7.92	6.00 8.42	5.67 9.17	5.25 10.50	4.8 13.3	4.3 21.5
5	4.74 5.25	4.58 5.42	4.50 5.67	4.33 6.00	4.08 6.50	3.75 7.50	3.42 9.42
4	3.83 4.17	3.75 4.25	3.67 4.42	3.58 4.58	3.42 4.92	3.17 5.42	2.92 6.33
3	2.92 3.08	2.83 3.17	2.83 3.25	2.75 3.33	2.67 3.50	2.50 3.67	2.38 4.08
2.6	2.50 2.67	2.50 2.67	2.50 2.75	2.42 2.83	2.33 2.92	2.25 3.08	2.17 3.33



How to focus

Look through the viewfinder, keeping your eye at the center of the eyepiece.

For focussing, turn the focussing ring until the double image seen in the diamond at the center of the bright frame overlaps.



When out of focus

When the subject is seen double in the diamond, the camera is not properly focused.



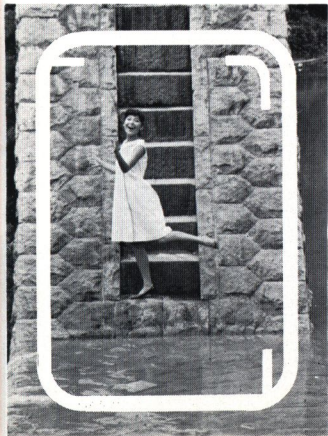
When in focus

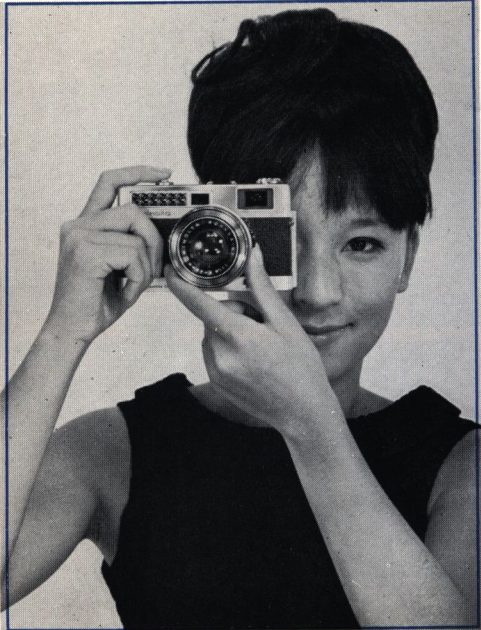
As shown in the picture, the object has overlapped in the diamond and is already in focus.

The distance of the camera to the subject is indicated on the focusing dial.

Viewfinder

As you look through the viewfinder you will note a white bright frame near the outer edge. The actual picture you take will be inside this frame. Make sure your picture is composed inside the bright frame. When taking a close-up picture, because of parallax (the difference between what the viewfinder 'sees' and what the lens 'sees,') you have to compose your picture inside of the lumi-mark, using as the edges the hook mark seen on the upper left, the short line on the upper right and the vertical line on the lower left.







How to hold the camera

There are two basic ways to hold your camera while taking pictures; vertical and horizontal. Press the shutter release button gently, supporting the camera rigidly against your face so it does not move.

Note: If the number 36 or 20 appears in the film counter window and the film winding lever feels stiff, it means you have come to the end of the film. Forceful winding may cut the film or cause it to be pulled off the magazine, making rewinding impossible.





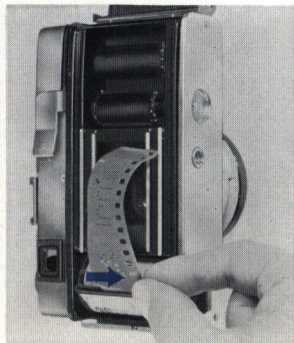
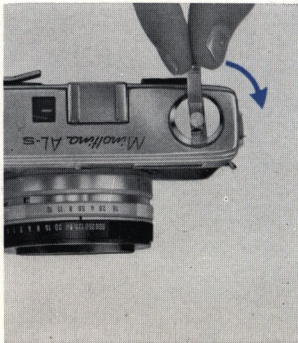
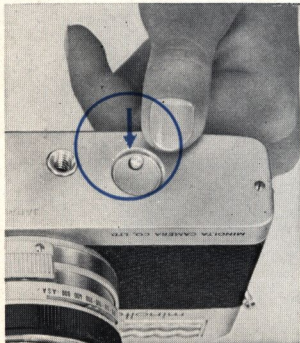
Unloading film

Before removing the magazine the exposed film must be rewound into the magazine.

To do this, simply depress the rewinding button on the bottom of the camera. It is not necessary to keep the button depressed while rewinding - it will return to its regular position when winding the lever.

Lift the rewinding crank and turn it to the direction of the arrow. As the film comes off the spool, a slight resistance is felt. When you feel resistance, the rewinding is nearly done.

When all resistance is gone, open the camera back and take out the magazine.







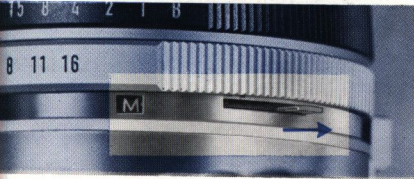
Taking flash pictures

When taking pictures at night or indoors where light is dim, it is advisable to use a flash bulb or a speed-light (electronic flash).

Insert the plug of the flash gun's cord in the synchro-terminal. Set the MXV changing lever to the "X" for speed-light, and to the "M" for M bulbs.

For taking flash pictures, exposure is decided according to the guide number of the flash bulb or the speed-light.

This camera synchronizes with all speeds of both "M" and "X".



- When setting the MXV changing lever to the "M".

Setting exposure

1. When using flash bulb or speed-light, read the corresponding guide number according to the film used and the shutter speed. (The guide numbers are given in the explanation for flash bulbs or speed-lights.)
2. When the guide number is found, diaphragm or distance to the object is obtained by the following formula:

$$\text{Diaphragm} = \frac{\text{Guide number}}{\text{Distance to the object}}$$

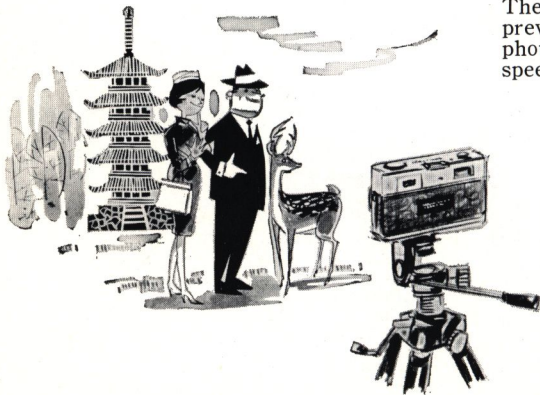
$$\text{Distance to the object} = \frac{\text{Guide number}}{\text{Diaphragm}}$$

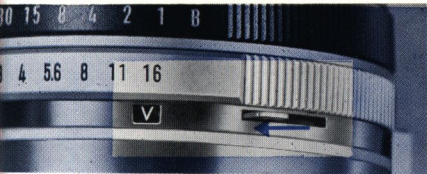
How to use the self-timer

If you want to take your own picture, use the self-timer.

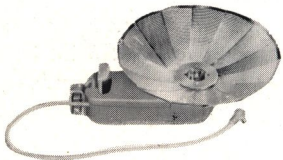
When the MXV changing lever is set to the V mark, the self-timer releases the shutter about after a 10 seconds delay.

The self-timer may also be used to prevent camera movement when photographing at a very slow shutter speed.





1. Move the MXV changing lever toward the direction of the arrow, and you will see the "V" appear. This sets the self-timer.
 2. After deciding the diaphragm and the shutter speed, push the shutter release button.
 3. The shutter will be released approximately 10 seconds later.
- ⊙ When the MXV changing lever is set to "V", the synchro contact point becomes "X". When you use a flash-bulb, set the shutter speed at 1/30 second.



Accessories

- **Minolta Lens Hood**

When taking flash pictures, it is recommended that you use a lens hood, thus preventing extraneous harmful light from entering the lens during exposure.

- **Minolta Filters**

UV This filter allows penetration of ultraviolet rays only, and is useful for taking pictures at the seashore and on high mountains.

Since no needs on exposure multiple, it can be kept on the lens as a lens protector all the time. It also is convenient as a filter for taking color pictures.

Y-48 When using black and white film and taking pictures of the seashore or scenes with clouds in the background, this filter emphasizes white by reducing the blue tone.

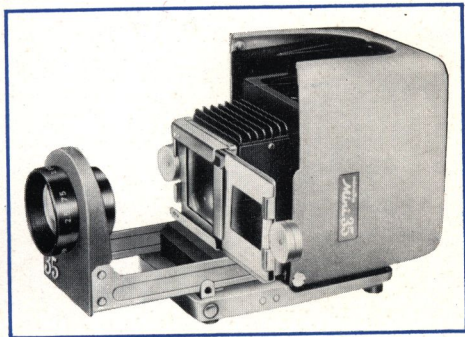
- **Minolta Flash Gun**

The powerful Minolta De Luxe II Gun enables you to take photographs at any time and in any place.



For enjoying color pictures, we recommend the Minolta Mini 35 Slide Projector.

It projects slides on a large screen even in a small room and will give you many hours of enjoyment.



Other cameras by Minolta

MINOLTA SR-7 — World's first still camera with built-in CdS light meter. Brilliant pentaprism viewfinder, automatic pre-set diaphragm, instant return mirror and many other professional features. Rokkor lens F1.4/58 mm (or F1.8/55 mm), speeds 1 to 1/1000.



MINOLTA AUTO ZOOM 8—You sight and shoot. A powerful CdS light meter automatically calculates correct exposure for you. Power zooming from wide angle to tight telephoto, pan or zoom from dark shadows to bright light. Rokkor lens F1.4/8.5—34 mm, speeds 12, 16, 24 FPS, and single frame.





Minolta means better picture

Minolta

TS-312IA

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