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Minolta AL

Instruction



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Minolta AL means

The camera, provided with extremely fast lens, F 2, with brilliant view finder, cross coupled exposure meter with shutter speed and diaphragm, Minolta AL has many other advanced features which modern camera should have.

Lens : World famous coated Rokkor F:2 lens delivers the needle sharp professional performance.

Shutter : Optiper-Citizen MLT shutter provides 11 speeds from a full second and bulb to a fast 1/1000 second... plus a light value scale and built in self-timer.

View Finder : Parallax compensated, three window type bright lumi-frame finder promises you quick and accurate focussing and composing.

Exposure Meter : Built in exposure meter cross coupled with the shutter is available from ASA 10 to 800, wide enough range for practical all picture fields.

Winding Lever : Winding lever advances film and cocks the shutter automatically.

Rewinding : Easy rewinding handle is very smooth, and quick rewinding is possible.

Film Counter : Film counter automatically returns to the starting point as the camera is opened.

still.....

Very well designed camera body in compact size and weight enables the photographer work on this camera at ease.

Camera Parts

Match Needle Window

Film Advance and
Shutter-Cock Lever

Shutter Release Button

Range Finder

Photo Electric Cell

Distance Scale

Lens Diaphragm Setting
Ring

synchro M-X Selector

Focusing Lever

Accessory Shoe

Film Rewind Crank

Finder

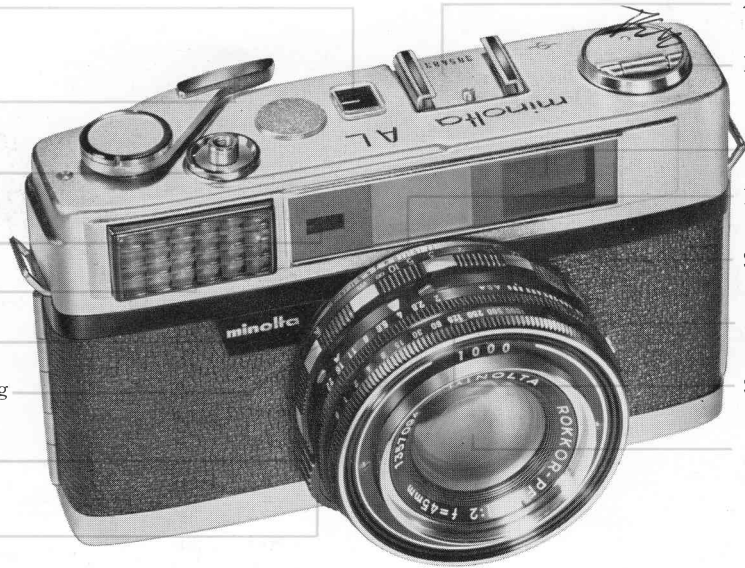
Depth of Field Scale

Self-timer

Film-Speed Adjustment

Shutter Speed Dial

Rokkor PF F2-45mm



Range Viewfinder
Eyepiece

Rewinding Shaft

Back Locking Tab

Tripod Socket

Synchro Contact Socket

Film Winding Sprocket

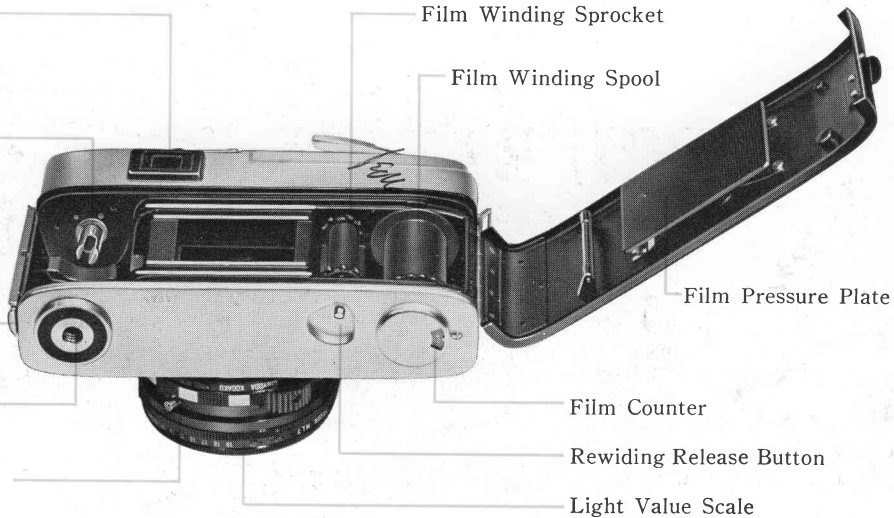
Film Winding Spool

Film Pressure Plate

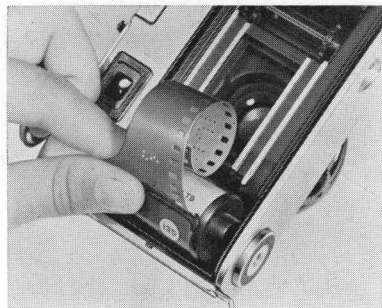
Film Counter

Rewinding Release Button

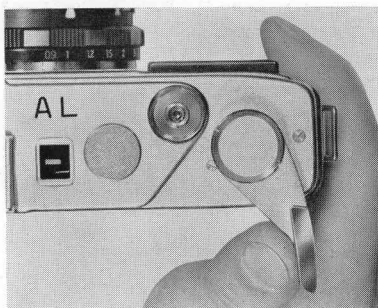
Light Value Scale



Six steps to Taking Perfect pictures



1 Load the film.



2 Wind the film

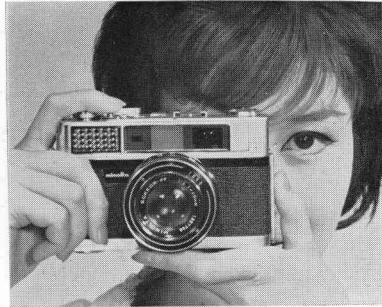


3 Set the film speed

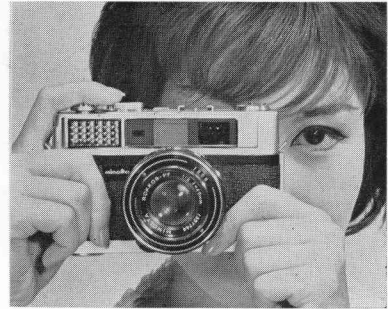
Each step is explained in detail on the following pages.



4 Set either shutter speed or diaphragm (Generally, shutter speed is selected as the first choice, and corresponding diaphragm is automatically set by means of cross coupled exposure meter).

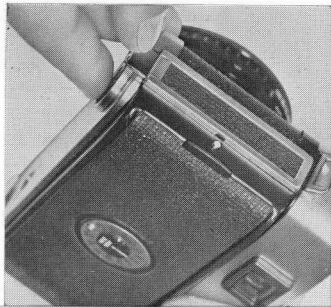


5 Focus

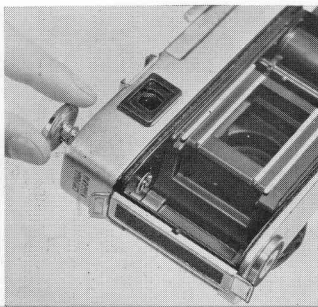


6 Compose picture frame through view finder, and press the shutter button.

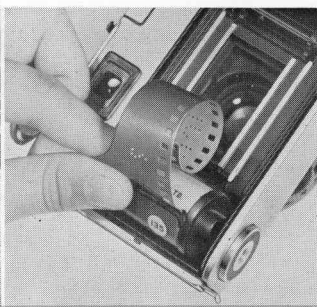
1. Loading films



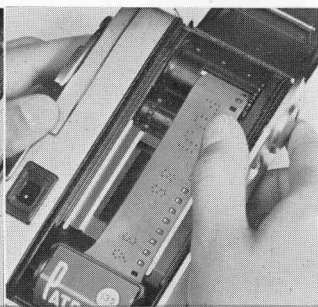
1 Pull out back locking tab and swing camera back wide open.



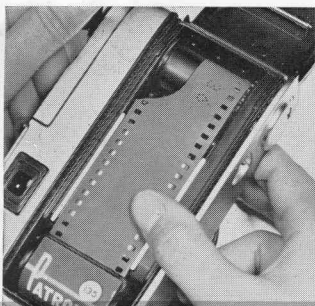
2 Pull up rewind knob as far as it goes.



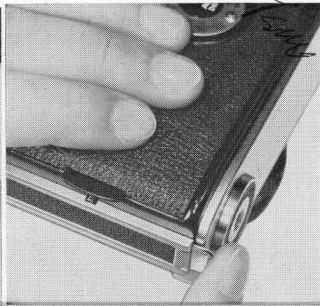
3 Insert a roll of film, then push back rewind knob.



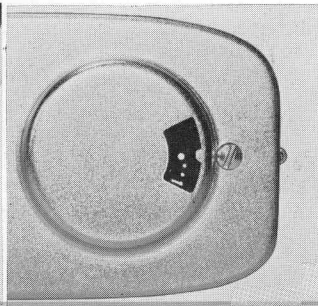
4 Pull out enough film to insert it in slit.



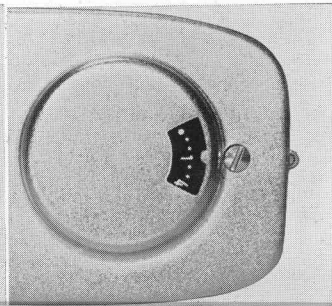
5 Advance film lever two complete turns (Pressing shutter release each time). Make sure sprockets project through film slits.



6 Close back cover, then push back locking tab.



7 You will see the exposure counter to the start mark.

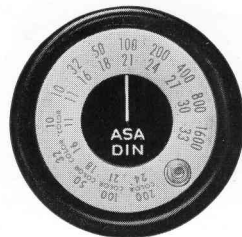


8 Advance film lever three times pressing shutter release each time. You will see exposure counter is set to No. 1.

● Film Speed Indicator

■ Setting Film Speed (ASA or DIN ratings)

Set the film speed indicator on the camera back to the film speed of the film you have just loaded in your AL. For example, if the film speed is ASA 100 (DIN 21), you simply set the indicator to the figure 100. In case the film speed is ASA 80, which is not listed on the dial, you set the indicator pointer to a spot between 100 and 50.



■ What are Film Speeds and ASA or DIN Ratings ?

Film speeds or ASA (American Standards Association) or DIN ratings are a means of classifying film according to their light sensitivity. The higher the numerical rating, the more sensitive the film is to light. A film with an ASA of 200 is more sensitive to light than a film rated ASA 80. You need less light to take a picture with a film rated at 200 than you would with a film rated at 80.

■ Where to find the ASA or DIN rating of the film you're using.

Inside every box of film you buy is a sheet giving information about the film. On this sheet you'll find the ASA or DIN rating.

**Photo by
Minolta AL**



2. How to use the coupled exposure meter

The actual exposure is depending on the three factors (film speed, shutter speed and diaphragm opening), as you know, in the basic photographic theory.

In Minolta AL, all these factors are cross coupled, giving always correct exposure. All you have to do is to select either shutter speed or F stop as the first choice, and these two factors are automatically cross coupled to each other on the pre-set film speed at any time. This advanced mechanic might be unfamiliar to the photographer who is not well acquainted with cross coupled exposure system. For example, even though the camera is set at the right exposure value, you cannot take picture, practically, at F 16:1 second, in handheld position. This is the reason why the shutter speed is to be the first choice. But, when you are taking pictures of large group of people, focus should be deep enough for all people in the frame, thus iris stop is become the first choice.

General Information

1. Set the ASA (DIN) speed of the film used.

Turn adjusting lever for the film speed, finding the right ASA speed in the film speed window. The camera is designed for ASA 10, 25, 50, 100, 200, 400 and 800 films. The mid points between ASA 10 and 25 is considered to be 16, between 25 and 50 is ASA 32 and ASA 160 falls between 100 and 200. For DIN emulsion, consult the conversion table found on the back of the camera at the film indicator.



2. Set the shutter speed.

Turn the shutter speed ring to the adequate shutter speed for the object. For general purpose, 1/250 at fine weather and 1/125 in cloudy days at ASA 100 emulsion, while 1/60 is recommended in the bright indoor pictures. For fast moving object, 1/500~1/1000 is better.

3. Set the light meter needle to the index.

Holding the camera in front of the object, read the meter and turn the diaphragm ring. When the needle of the meter match the yellow index, the camera is set at the right exposure value. All you have to think about is to press the shutter release.



Notice :

If the needle of the light meter does not match the yellow index either in right or left turning of the diaphragm ring, the shutter speed set first is not the right one for the brightness of the object. You should then read just the shutter speed faster or slower depending on the brightness of the object. If you would still cannot set the needle of the meter to the index, you had loaded the camera with the wrong film, or the lighting condition is not suitable for taking picture at all.

Attention

Exposure meter of AL camera works within the following LV operation range, and it will not give the correct reading if it is used at lower LV value than specified range.

Film speed	Operation range
ASA 200	LV 8~18
100	7~17
25	5~15
10	4~14

3. Hints on the handling of exposure meter

For the front lighted object, no readjustment of the light meter reading is required, but when the light source is not behind the camera, the meter reading is to be readjusted following the next hints.

1. Read the meter at as close as possible to the object.

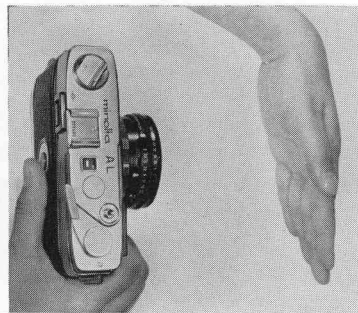
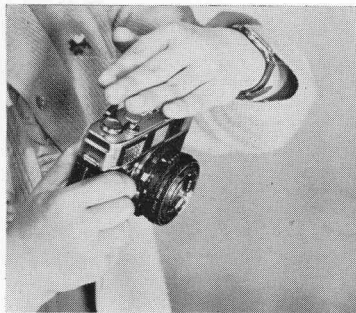
The light meter installed in Minolta AL camera is an reflective light meter, and you must always measure the reflected light from the object. When taking portraits, move camera toward the face at about one foot as close.

For contrasty scene, measure both light and dark parts seperately and determine correct exposure average.

For backlighted object, move close to the object and measure it, otherwise the result would be silhouette. Pay attention to the strong light beam, which strikes the photo electric cell of the camera.

2. For open scene measuring.

When the scene includes very bright sky as the background, you cannot obtain a correct exposure, if you hold the camera straight ahead. Hold the camera tilting it downward for measurement, which avoids the bright sky light coming into photo cell.



4. Advancing film

3. When you cannot approach the object.

When you are trying to take animals in a cage, for example, you cannot move close to the object. Take measuring of your palm, which represents the brightness of the animal.

4. Filter factor adjustment.

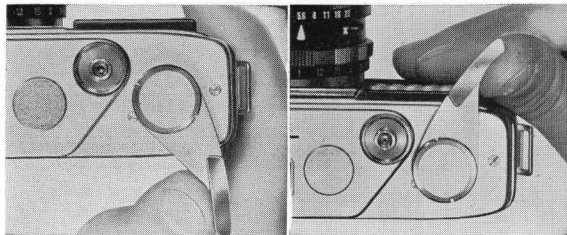
Read the following three hints on filter compensations:-

- (1) Apply used filter over the photo electric cell, for filter factor correction.
- (2) Apply filter factor value onto the diaphragm opening or shutter speed adjustment.
- (3) If you use certain filter, light yellow for example, constantly, take this filter factor into ASA speed setting as you load the camera with film.

Light Value Index

Light value is always shown equal even though you select the free combination of shutter speed and diaphragm in case that transmission is equal. One light value means always same shutter speed and diaphragm is separately exposure value, no matter what the shutter speed and diaphragm opening combination. Twice the exposure value is shown in one number more light value index. When you use light meter with light value index, apply the light value index to the camera light value setting.

This single stroke film advance action automatically advances the film, cocks the shutter and counts the exposure, all at the same time.



You can turn the lever either at one full stroke (right) or in several strokes (left). You may, if you wish, advance the film before setting the exposure.

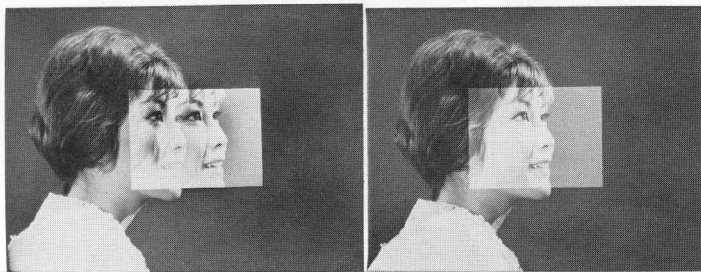
You will not experience any hard turning when setting the shutter at high speeds after the shutter is cocked.

5. Focusing and Composing

In the center of the frame is a rectangular color area. You will notice the part of your subject which appears in this color area is double. As you turn the focusing lever you will note the double image will become one and then double again. When your subject becomes one in this color area, you are properly focused.

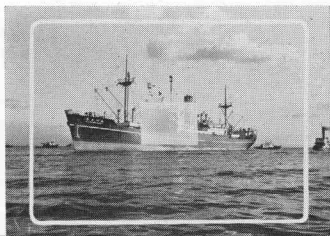
Out of focus

In focus



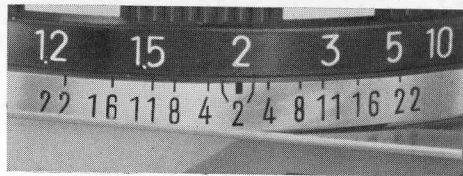
As you look through the combination range-viewfinder window you will note a yellow lumi-frame near the outer edge. The actual picture you take will be inside this frame. Make sure your picture will be composed inside the lumi-frame.

The Minolta AL finder is specially designed to correct automatically parallax so that the lens takes what you see through the lumi-frame at all distances. Parallax is the difference between what the viewfinder "see" and what the lens "see" at close distances.



● This Should be "Depth of Field"

Take a glance at the depth of field scale when you have focused on your subject. The indicating line in the center of the scale shows the camera to object distance. Then read the F stop lines for the F stop you are using on each side of the indicating line and they will show you on the distance scale, the distance in front and behind your object which is also in sharp focus. The (2) indicates that you can get sharp pictures in the distance which is shown or formed by (2).





At large aperture, only the subject (girl in front) is in sharp focus. (f 2 1/100 sec)



At small aperture, overall picture is comparatively sharp focus. (f 22, 1 sec.)

Depth of Field Table

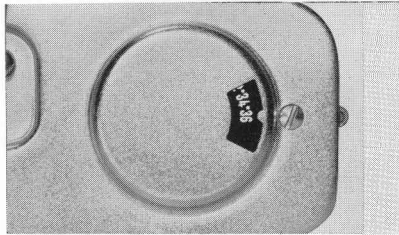
FNo. Dis. (ft.)	2	2.8	4	5.6	8	11	16	22
∞	∞	∞	∞	∞	∞	∞	∞	∞
60	110.7	79.1	55.4	39.6	27.68	20.13	13.84	10.07
30	130.1 39.0	244.6 34.2	28.93	∞	∞	∞	∞	∞
20	41.0 23.68	48.0 21.84	64.6 19.57	120.4 17.18	∞	∞	∞	∞
15	24.31 17.00	26.60 16.03	31.0 14.78	39.8 13.39	69.2 11.73	973 10.17	∞	∞
12	17.28 13.26	18.40 12.67	20.39 11.88	23.82 10.97	31.9 9.84	55.5 8.72	∞	∞
10	13.41 10.86	14.07 10.47	15.19 9.93	17.00 9.29	20.72 8.47	28.54 7.63	77.6 6.56	∞
8	10.95 9.20	11.38 8.92	12.10 8.53	13.22 8.05	15.34 7.44	19.21 6.79	33.3 5.93	287.6 5.15
7	8.59 7.49	8.85 7.30	9.28 7.04	9.91 6.72	11.04 6.28	12.89 5.82	17.92 5.18	33.9 4.59
6	7.44 6.61	7.64 6.46	7.95 6.26	8.41 6.00	9.20 5.66	10.44 5.28	13.48 4.76	20.79 4.25
5	6.32 4.80	6.46 5.61	6.68 5.45	6.99 4.48	7.53 4.29	8.33 4.08	10.13 3.76	13.72 3.45
4.5	5.22 4.34	5.31 4.73	5.45 4.62	5.66 4.48	6.00 3.92	6.49 3.74	7.52 3.48	9.29 3.21
4	4.67 3.87	4.75 3.83	4.86 3.76	5.02 3.67	5.29 3.54	5.66 3.40	6.41 3.18	7.65 2.959
3.5	4.13 3.41	4.19 3.37	4.28 3.32	4.40 3.25	4.60 3.15	4.88 3.04	5.42 2.866	6.26 2.686
3	3.60 2.932	3.64 2.905	3.71 2.866	3.80 2.816	3.94 2.744	4.14 2.660	4.52 2.531	5.08 2.392

6. Pressing Shutter Release

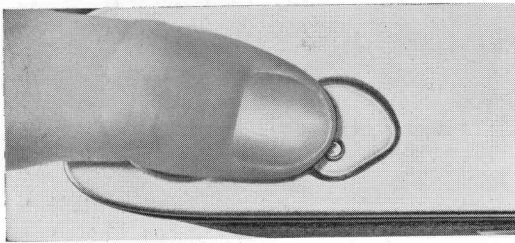
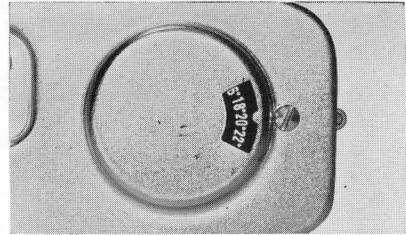


There are basically two ways to hold your AL while taking pictures: Vertical and horizontal. As long as you anchor the camera to your forehead and squeeze the trigger, not jerk it, you can use whichever grip or format is a most comfortable for you. It's always a good idea to brace your camera if you can. Even when you are shooting at faster than $1/30$ of a second where you can safely handhold a camera, make use of any available support. It is advisable that you use a tripod when you shoot with the shutter speed less than $1/30$ of a sec. At such slow speeds there is almost always some camera movement while the shutter is open which blurs your picture.

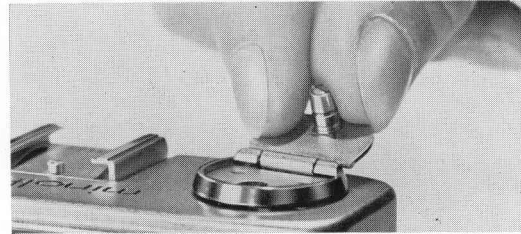
Unloading film



After you have taken your last picture, the film exposure counter will point to 20 or 36 depending on whether you are using a 20 or 36 exposure roll.



Depress the rewind release button. Keep depressing it until you have completely rewound the film.



Lift the crank on the rewind knob and turn crank clockwise until you feel all resistance gone and it turns freely. Open the camera back and take the film magazine out the camera.

Open the camera back and take the film magazine out of the camera.

Using the self-timer

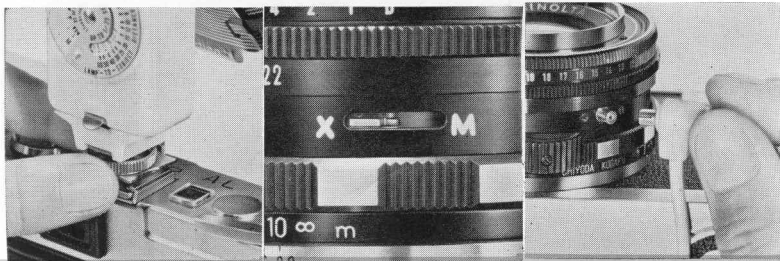
Using the self-timer, you can take your own picture. First push the self-timer lever toward the V mark, and you will be able to delay the shutter operation approximately 9 seconds from the time you press the shutter release to the time the shutter is tripped. You can also arrange the length of delay according to the position that you position the lever.



Taking flash Pictures

Your Minolta AL is internally synchronized for use with electronic flash and flash bulbs.

1. Insert a Minolta BC flash gun or electronic flash unit in the accessory shoe.
2. Insert the plug of the flash gun's cord in the terminal.
3. For Class M (foil filled) flash bulbs, slide the selector to the "M". For electronic flash, slide the selector to the "X".



Accessories

Minolta B.C. Flash

Extremely compact, pocket size unit with collapsible aluminum reflector, Folds neatly into a small vinyl zippered case for easy portability. Also features a BC capacitor that stores energy to greatly extend the life of your batteries. Works on regular flash light batteries.

Minolta Lens Shade

This is a particularly useful device to prevent extraneous light from entering the lens during exposure. This extraneous light from the sun or flash bulbs can cause glare spots or "light flare" and ruin your picture.

Minolta Filters

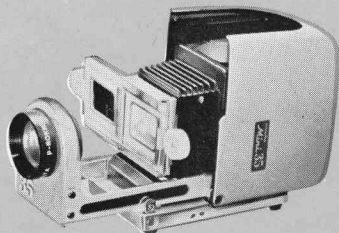
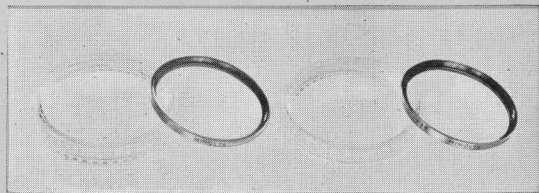
Filters are used to control color and haze to make sure you get the picture you actually see outdoor color film to indoor use.

Yellow Filter: Increases outdoor scenes contrast. Renders "blues" slightly darker-brings out blue-skies, water, clouds.

Other Filter: Haze filter for haze cut.

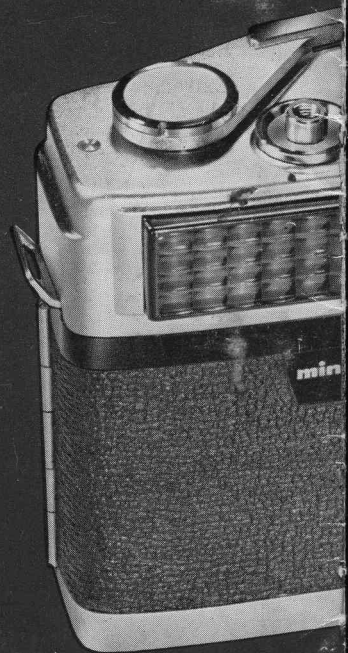
Minolta Mini 35

For color slide projection (35 mm, 16 mm)





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