



Minolta masters photography

Minolta
MINOLTA CAMERA CO., LTD.



Minolta
Hi-matic 7

OWNER'S MANUAL

Another First From Minolta

With the introduction of the Hi-matic 7 Minolta has taken the popular electric-eye system and added new dimensions.

Hi-matic 7 works three ways:

1. **Automatic Operation** - With this system you simply focus and shoot. Everything is automatic.
2. **Manual Operation** - You are in complete control of the camera. You select the shutter speed and aperture yourself.
3. **Light Meter System** - You read the light meter scale in the viewfinder. It tells you how to set the camera for correct exposure.

Hi-matic 7 is the world's only camera to provide this three-way integrated photographic system. It is the most advanced system yet devised. With it you have an answer to every photographic situation imaginable.

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Specifications 1



How to Load the Film

Use a 35mm film, 24 or 36-exposure roll.

1. Pull the back cover lock up wards and the camera back will open. This action automatically resets the exposure counter to zero.



2. Place the film into the film chamber. Now insert the film leader into the take-up spool. Make sure the sprocket gear teeth are engaged with the film perforations.



3. Advance the film lever so that the film winds around the take-up spool. When the film advance lever stops, press the shutter button so that you can advance the lever again.



4. When you are sure the film is properly threaded, snap the back cover shut. It will lock automatically.



5. Now advance the film lever again and release the shutter release. Repeat this action until "1" appears in the exposure counter window. Now you are ready to shoot.



6. The exposure counter will count the pictures as you take them. When the film is finished the film advance lever will not wind. Then you must rewind the film and reload.

Using the Automatic System

1. The ASA setting lever is located on the bottom of the lens barrel. Set it to correspond with the ASA rating of the film you are using. This action sets the CAS electric-eye to give you correct exposures with film from 25 to 800 ASA.



2. Line up the double AA marks on the lens barrel with the pointer. Both A's must be aligned before the Hi-matic will operate automatically.



3. Look through the viewfinder, focus on the subject and press the shutter release. The light meter scale in the viewfinder will tell you if light is too dim or too bright for correct exposure. If the meter needle is in the red area at the top of the scale, there is too little light. If the needle is in the red area at the bottom of the scale, there is too much light.



How the "Automatic" System Works



The Hi-matic 7 is equipped with a programed shutter operated in conjunction with a CAS electric-eye light meter. The meter calculates the available light. The camera then selects from an optimum combination of shutter speeds and lens apertures to give you a correct exposure under a wide variety of conditions. On the bottom of the lens barrel there are two film speed rating scales, ASA and DIN:

ASA	800	400	200	• 100	• 50	• 25
DIN	30	27	24	• 21	18	15

Note: The dots (•) denote ASA 32, 64 and 100.

Before shooting set the dial at the film speed of the film you are using. You'll find this speed in the instructions that accompany your film. With the ASA dial set you are ready to shoot without fuss or bother. There are no annoying calculations to make. The Hi-matic 7 does all the work for you.

Light Meter Warning Signal

Look through the viewfinder and you will see a light meter scale running along the right edge. This tells you if light is adequate for correct exposure.

If the indicator needle is clear of the upper or lower red marks, you may continue to photograph. The automatic system will give you a correct exposure. If the indicator needle does enter into the red areas, then light is not adequate for exposure.



Note: 57 on the light meter scale means the shutter speed will automatically be 1/15 second (at F 18). At this speed you must keep the camera still (use a tripod or other sturdy support) when taking pictures. 17 on the scale corresponds to 1/250 second at F 22.



The Eye of the Light Meter



You'll notice the light meter eye is smaller than a pea and located just above the lens. This is an important feature. It means the light meter measures precisely the same light as the lens "sees". It also means you can forget about correction factors when you use filters. Since the filter mounts over the meter's eye, the meter will still measure the true light reaching the film.

The extremely sensitive CdS meter covers an extensive range from candlelight to bright outdoors, and is every bit as accurate as the hand-held meters the professional's use. On the Hi-matic 7 the meter operates both the automatic system or when the camera is manually operated.



Operating the Camera Manually

For unusual conditions or special techniques you may want to operate the camera manually. With this system you select the shutter speed and aperture yourself depending on the subject conditions and the effects you want to achieve.

To set the camera for manual operation, push the



Push the "Auto" release button.....

"auto" release button and turn the aperture and shutter rings so that the double AA marks are not aligned with the pointer. Now you are in complete command of the camera and can set any shutter speed or aperture you wish.



And turn the shutter speed and aperture rings

Use the Light Meter Scale as a Guide

The exposure meter works even when the automatic system has been disengaged. It will guide you to perfect exposures when you are operating the camera manually. Here is how it works: Set the shutter speed you want. Now look through the viewfinder at the light meter scale. The indicator needle will point to a number. Set this number in the EV window located on the lens barrel and you are ready to take a perfect picture.



(Set the number indicated on the light meter scale...)



(In the EV window on the lens barrel.)

Setting the Shutter Speed

The shutter ring is marked with figures 4 to 500 plus B. These correspond to $\frac{1}{4}$ to $\frac{1}{500}$ second. The B position enables you to keep the shutter open as long as the shutter release is pressed down. This is for time exposures of more than $\frac{1}{4}$ second.

To set the desired shutter speed, simply turn the ring so that the speed is aligned with the black pointer on the lens barrel. When speeds of less than $\frac{1}{50}$ second are used, it is recommended you use a tripod because camera movements at slow speeds will blur your picture.

Setting the Lens Aperture

The aperture ring has figures from 1.8 to 22. To set the aperture, line up the desired figure with the pointer. The click stops enable you to use intermediate aperture openings between any two f/stops if you wish.

The aperture controls the amount of light reaching the film. The larger the aperture figure, the less light volume is permitted through the lens. At F22, for example, the aperture is closed down to a pin-point opening; at F1.8 it is wide open.



How To Focus on the Subject

Look through the viewfinder and put your subject in the bright diamond shape in the middle of the viewfinder. When the subject is out of focus you will see a double image. Turn the focusing ring and the subject will dissolve into a sharp single image. Now you know you are in perfect focus and ready to shoot.

Out of focus



If you want to check the actual distance after you have focused, look at the red dot on the focusing ring. This will indicate the distance between the camera and the subject.

In focus



How to Compose Your Picture

In the viewfinder you will see a bright frame surrounding the visual field. The area within this frame is what appears on the film. The frame, therefore, is a guide so that you cannot inadvertently chop off areas you want to appear on the photograph.

Automatic Parallax Correction

Parallax is the difference between what the lens "sees" and what you see in the viewfinder. This difference occurs only when the subject is close. In the Hi-matic 7 parallax is automatically corrected. As you focus on a close subject you will notice the bright frame moves in order to give you a corrected field of vision.

Note: The right side of the frame is the light meter scale.



How to Hold the Camera

The camera may be held horizontally or vertically. It is best to press the camera firmly against your face and release the shutter with a slow pressure in order to avoid all movements and insure sharp negatives.

Horizontal position



It is best to focus with the right eye when using the horizontal position to permit free and rapid use of the film advance lever. The lever contains a double-exposure prevention device; the shutter locks after each picture is taken.

Vertical position



Depth of Field

The depth of field of a lens is the range of distance within which all subjects are in relatively sharp focus. This range varies with the aperture opening. It is greatest when the aperture is decreased (F22) and least when the aperture is increased (F1.8).



The photographs below illustrate the relationship in one photo everything is in sharp focus while in the other photo only the dominant subject is in focus.



Depth of Field Chart

When you want to be precise about depth of field for any particular aperture, check this chart. For example, if your aperture is set at F-11 and your focus distance is 10 ft., all subjects from 6.5 ft. to 22 ft. will be in focus.



Reklor 40mm/F1.8

Distance Ft.	F. No.							
	1.8	2.8	4	5.6	8	11	16	22
∞	∞	∞	∞	∞	∞	∞	∞	∞
20	24.4 17.0	27.6 15.7	32.8 14.4	44.6 12.9	61.3 11.3	∞ 9.6	∞ 7.9	∞ 6.3
10	11.8 9.2	11.6 8.8	12.4 8.4	13.7 7.9	16.2 7.3	21.8 6.5	43.3 5.7	∞ 4.9
7	7.45 6.60	7.71 6.41	8.66 6.39	8.60 5.91	9.50 5.55	11.2 5.1	14.9 4.6	28.1 4.1
5	5.22 4.80	5.35 4.79	5.50 4.58	5.74 4.43	6.12 4.23	6.75 3.98	7.92 3.67	10.48 3.31
4	4.14 3.87	4.23 3.83	4.31 3.73	4.45 3.63	4.67 3.50	5.02 3.33	5.62 3.12	6.77 2.86
3	3.07 2.98	3.11 2.89	3.16 2.85	3.24 2.80	3.35 2.72	3.52 2.62	3.79 2.49	4.26 2.33

Using the Self-Timer

To set the self-timer in operation advance the film lever so that the shutter is cocked. Then push the self-timer lever to the V. You are now ready to shoot. Simply press the shutter release button. The timer will automatically give you a 10 second delay before the shutter operates.

Note: The automatic system will not operate when the self-timer is used. You must set the camera manually for correct exposure.



Unloading the Film

When you have finished the film, you will not be able to advance the lever any further. Do not force the advance lever or the film will tear out of the magazine and be impossible to rewind.

You must rewind the film back into the magazine in order to unload the camera.



- 1 When you have finished the roll of film, in the rewind release button on the camera and it will click into place.

- 2 Raise up the rewind crank and rewind in a clockwise direction as the arrow on the knob indicates until you feel the film suddenly slip out of the take-up spool.



- 3 Open the camera by pulling up the door lock. Remove the film magazine.
Note: Loading and unloading should always be done in the shade.

Flash is recommended for night shots, indoors or outdoors for filling in shaded areas. Your Hi-matic 7 is geared for both electronic flash and ordinary flash bulbs.



When using flash bulbs set the shutter speed at 1/30 second (marked in red). To determine the correct aperture, refer to the guide number of the bulbs you are using and the instructions which accompany the bulbs.

For electronic flash it synchronizes with any shutter speed.

Set the shutter speed at 1/30 second when using the flash bulb.



With the guide number known, the correct aperture can be determined by using the following formula:

$$\text{Aperture} = \frac{\text{Guide Number}}{\text{Distance to Subject}}$$

Any standard flash gun will fit into the accessory shoe provided on top of the camera. Be sure to insert the flash gun cord into the sync terminal on the lens barrel.

Replace the Mercury Battery

Unlike conventional batteries, the mercury battery does not lose power gradually. When it dies it dies abruptly. Hence your light meter is always working at maximum accuracy.

The average life of the battery is about two years in normal conditions. When the meter fails to register, the battery is dead and must be replaced.

To replace the battery, remove the cover with a

coin by turning in a counter-clockwise direction. When installing the new battery, (Mallory RM-625R, Eveready E625, G.E. No. 625 type) be sure the plus (+) side is always up towards you.

When the exposure meter is not used, set the film speed setting lever on off position (This switches off the battery power).

When the camera is left unused, it is advisable to remove the battery to insure longer life.



Hi-matic 7 Accessories



Lens shade



Filters

UV filter (Ultra-violet): eliminates haze effects
Y88 filter: deepens sky tones (works only for B & W films)



Minolta BC Deluxe Flash Gun

Fits easily into the accessory shoe of the Hi-matic 7; takes three type of flash bulbs.



Mini 25 II projector

Small, light and compact, the Minolta Mini 25 II comes with carrying case. This handy little projector provides amazing projection power. Automatic slide feed, conversion lens and blower available as accessories.