



Minolta means better pictures

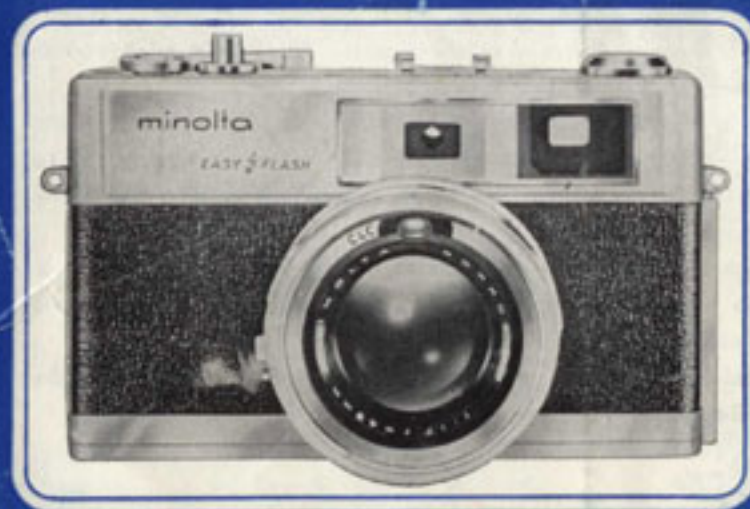
Minolta

Printed in

7081E

Minolta Hi-matic 9

OWNER'S MANUAL



E

electric eye is strategically
exposed in any light

Minolta

MINOLTA HI-MATIC 9

Since its introduction, the Minolta Hi-matic 9 has been hailed as the world's most versatile automatic camera.

With its wide range of automatic features, your new Minolta Hi-matic 9 can make picture taking easier, more foolproof than ever before possible. For example, the automatic electric eye in the Minolta Hi-matic 9 is based on the patented "CLC" system to provide unsurpassed exposure accuracy, even in high contrast situations.

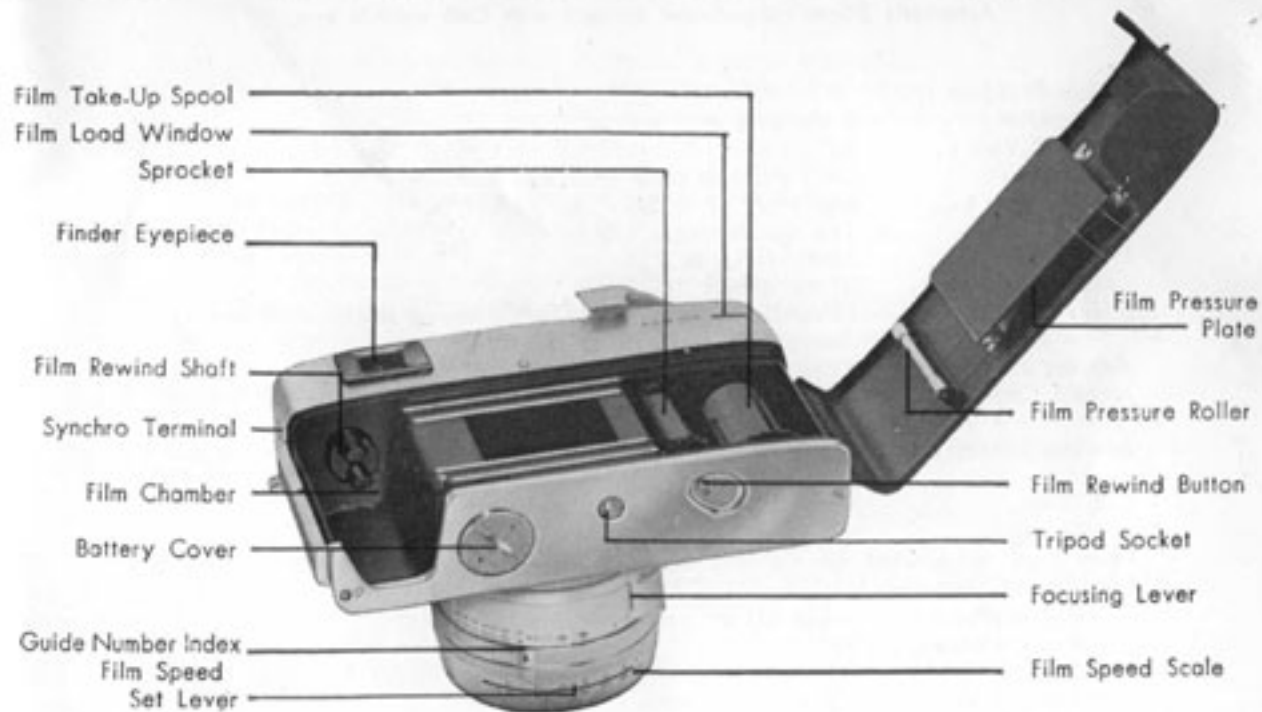
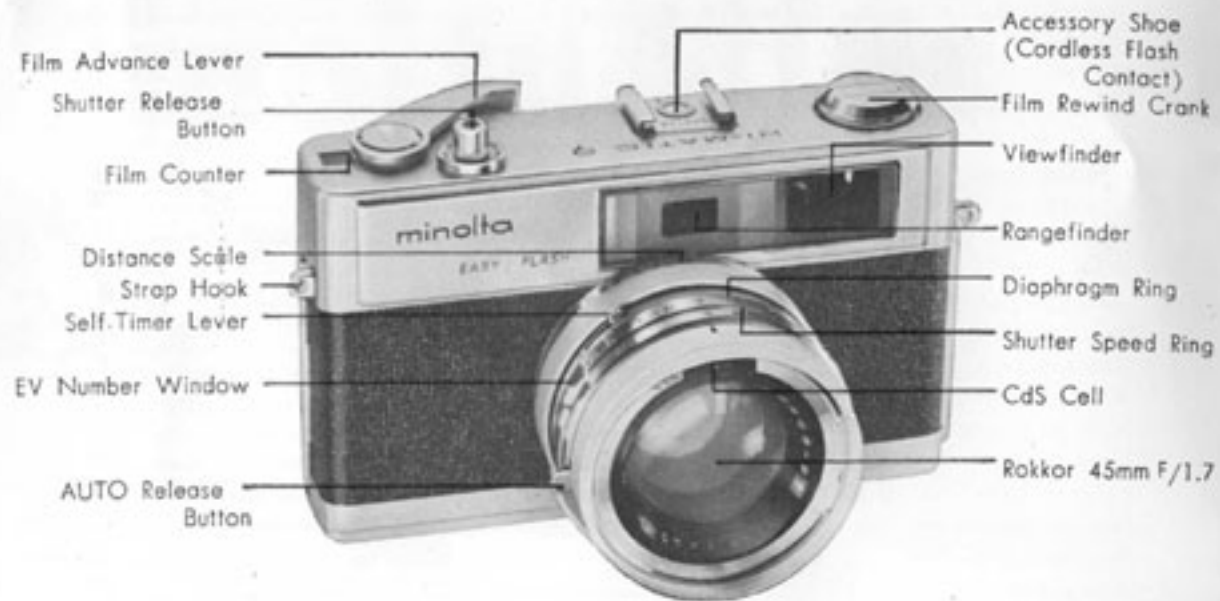
In addition, your new Minolta Hi-matic 9 has many other outstanding features not found on any other 35mm camera—ready to make photography truly "as easy as pressing a button". These include Minolta's "SLS" system for rapid, fumble-free loading and "Easy Flash" for automatic flash photography.

For special photographic techniques, such as deliberate under or over exposure, your new Minolta Hi-matic 9 may also be used semi-automatically or manually. No other camera in the world offers this versatility.

Please read this manual carefully before taking pictures so that you may fully utilize the potential of your Minolta Hi-matic 9.

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Automatic 35mm rangefinder camera with CdS electric eye

Lens :

Rokkor PF 45mm F/1.7

Construction : 6 elements in 5 groups

Angle of View : 52°

Diaphragm : Click stops at each engraved aperture scale : f/1.7, f/2.8, f/4, f/5.6, f/8, f/11, f/16 (on manual operation)

Filter Mount : 55mm, screw-in

Lens Shade Mount : 57mm, slip-on

Shutter :

SEIKO-FLA fully automatic programmed shutter with manual control and "easy flash" system.

Automatic Operation : EV 5.5 (f/1.7 at 1/15 sec.) to EV 17 (f/22 at 1/250 sec.)

Manual Operation : B, 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250 and 1/500 sec. in engraved click stops.

Synchro Contact : X contact (M class bulb synchronizes at 1/30 sec., electronic flash at all speeds)

Self-Timer : About 10 seconds delay on manual control.

Film Winding :

Lever type, quick wind automatically cocks, advances film and film counter and prevents double exposure.

Winding Method : Single full stroke or multiple short strokes.

Winding Distance : 220°

Film Counter : Automatic resetting counter shows number of frames exposed

Film Rewinding : Rapid rewind crank.

Frame Size : 36x24mm

Film : Standard 35mm film, 20 or 36 exposure magazine.

Finder :

Tinted bright frame viewfinder with automatic parallax correction.

Meter Needle : Needle in the viewfinder shows the proper EV number, over/under exposure warning, correct flash exposure signal and battery condition.

Focusing :

Direct helicoid focusing coupled to super-imposed rangefinder

Minimum Focusing Distance : 3 ft. (0.9m)

"Easy Flash" System :

Aperture is automatically controlled by setting number on lens.

Guide Number Setting : Underside of the lens barrel. (ft) 32-260, (m) 10-80

Warning Signal : Warning signal for over/under flash exposure is visible in the finder.

Exposure Meter :

Built in CLC (Contrast Light Compensator) exposure meter in the lens barrel coupled to programmed shutter, automatically compensates for filters or lens attachments.

Film Speed Range : ASA 25-800, DIN 15-30

Working Range : EV 5.5 (f/1.7 at 1/15 sec.) to EV 17 (f/22 at 1/250) with any film.

Battery Checker : Checker is visible in the finder.

Battery : 1.35V, button-shape mercury battery for photographic applications.

Other Features :

SLS (Safety Loading Signal) shows proper film load and transport.

Easy loading with specially designed multiple-slot take-up spool.

Cordless and cord flash contact.

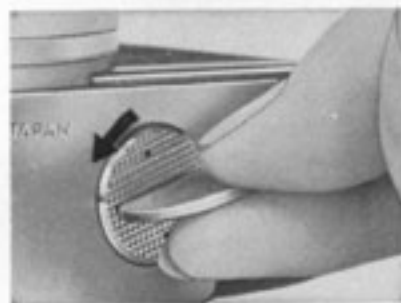
Size :

Height : 3-1/4" (82mm); Width : 5-1/2" (140mm); Front to back including lens : 2-7/8" (74mm)

Weight : 27.4 oz. (760g)

How to Insert the Mercury Battery

The automatic electric eye system in the Minolta Hi-matic 9 is powered by a long-life mercury battery, which must be properly seated in the battery chamber before the camera will operate:



- 1) Remove the battery chamber cover with a coin by turning it counter-clockwise.
- 2) When the cover is removed place the battery in the chamber with its plus (+) side up, as indicated by arrow on the inside of the cover. Then replace the cover.



- 1) Be sure that the plus (+) and minus (-) sides of the battery are not reversed.
- 2) If the camera is not to be used for over a month, remove the battery and store it in a dry place.
- 3) Be sure not to touch the battery terminals with moist or unclean hands. If stained, the battery contacts can deteriorate, making the battery inoperative.

- 4) The average life of the battery is 14-18 months. But, it is always advantageous to check its power output with the battery checker built into the Minolta Hi-matic 9.
- 5) When the camera is not in use, be sure to move the film speed lever to the "OFF" position.
- 6) The Minolta Hi-matic 9 uses a 1.35V, button-shape mercury battery for photographic applications. (For example, Mallory PX-13, PX-625, RM-625R or equivalent.)

The Battery Checker

The battery checker is designed to check the output of the mercury battery. By taking a few seconds to check battery output before starting each new roll of film, and particularly when using the camera after it has been stored for an extended period of time or a new battery has been inserted, you can avoid poor exposure due to insufficient electric power.

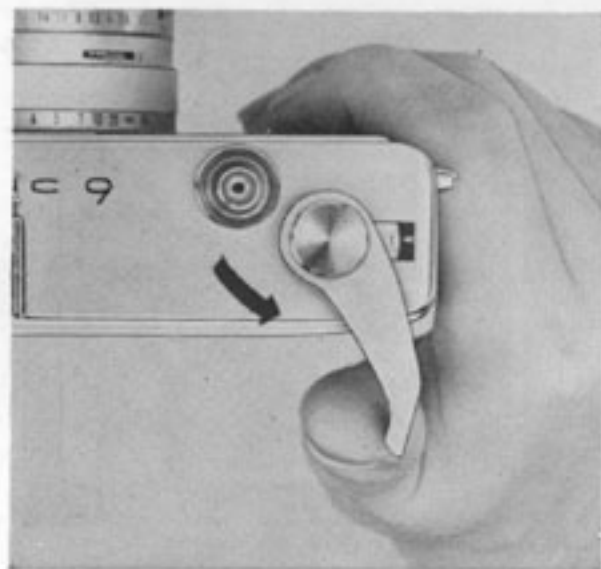


- 1) Line up the green dot on the lens focusing ring with the "check" arrows on the inner lens barrel.
- 2) While pressing the AUTO release button, line up the green dots of both the diaphragm and shutter speed rings with the



same "check" arrows.

- 3) Look through the viewfinder. If the needle remains inside the battery check mark (rectangle), the battery can be regarded as functioning properly.



- 1** Insert the film magazine into the film chamber, close the camera back and work the film advance lever until the number "1" appears in the film counter window.



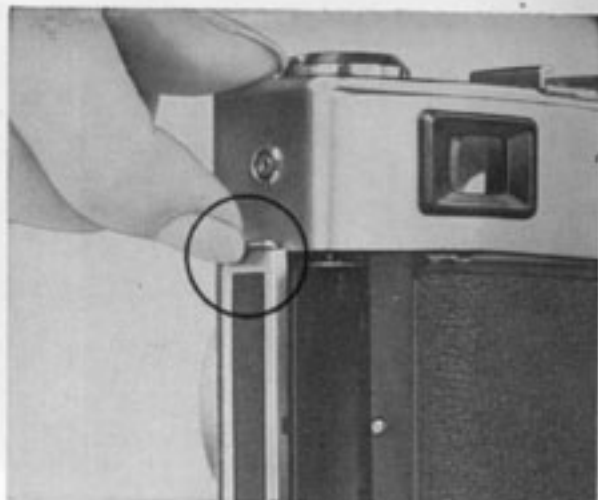
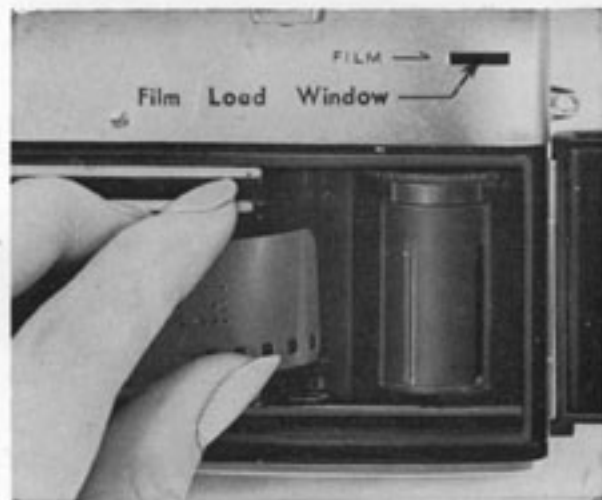
- 2** Set the film speed on the ASA/DIN scale. Then set the "A" marks of both the shutter speed and diaphragm rings to the "arrow" mark on the outer lens barrel.



- 3** Look through the viewfinder and focus on your subject. Check the EV scale and indicator needle while looking through the viewfinder. If the needle is clear of the upper or lower red warning zones, the automatic system can be regarded as functioning properly to give you the optimum exposure.



- 4** Release the shutter.

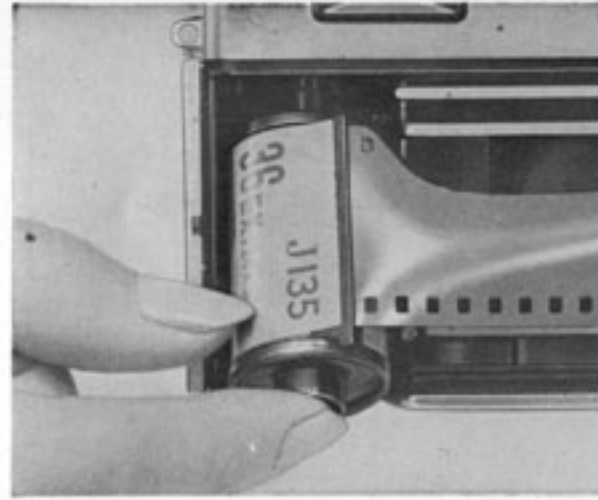


SLS System of Easy Loading

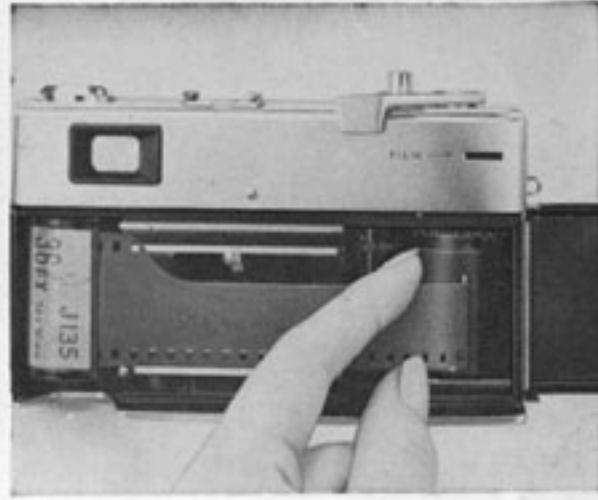
The Minolta Hi-matic 9 loads in seconds with its unique SLS system.

Since the take-up spool has 4 film slots, there is no need to turn it to thread the film. In addition, the red signal in the exclusive Film Load Window provides a constant check on film alignment and advancement.

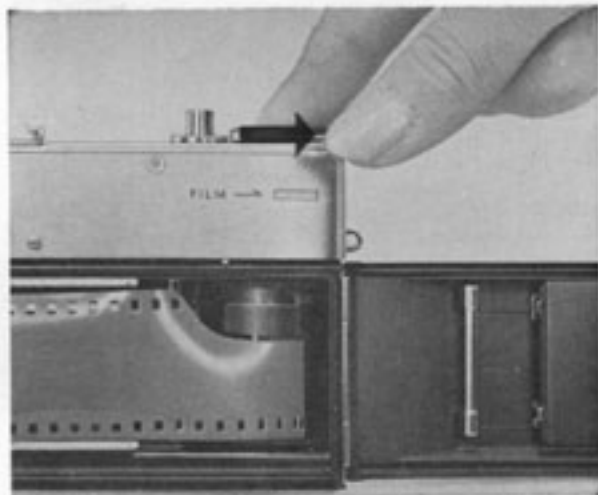
- 1** Pull the back cover lock up about 1/8 inch and the cover will automatically "pop" open.



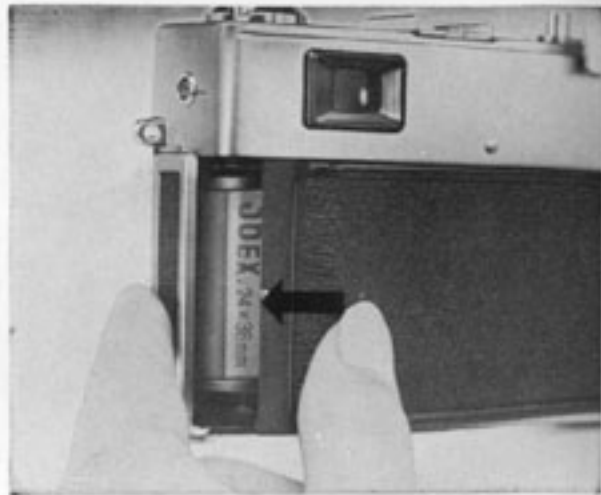
- 2** Place the film magazine into the film chamber. If the magazine axis does not set properly on the rewind shaft, turn the film rewind crank clockwise or counter-clockwise, until the magazine falls into the proper position.



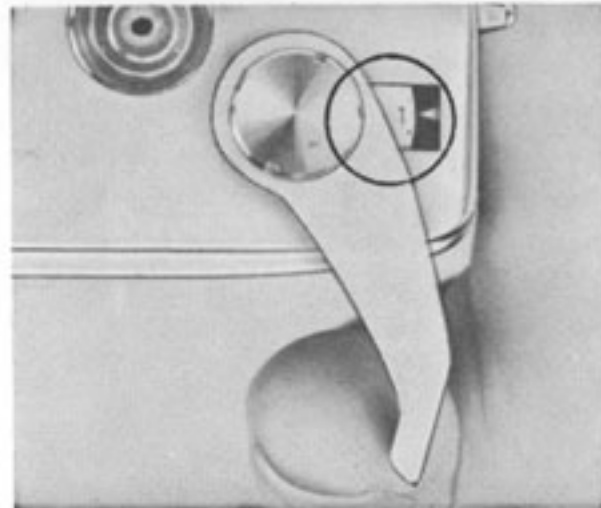
- 3** Insert the film leader about 3/4 inch into one of the slots in the take-up spool. Be sure that a film perforation is engaged with the tooth in the slot.



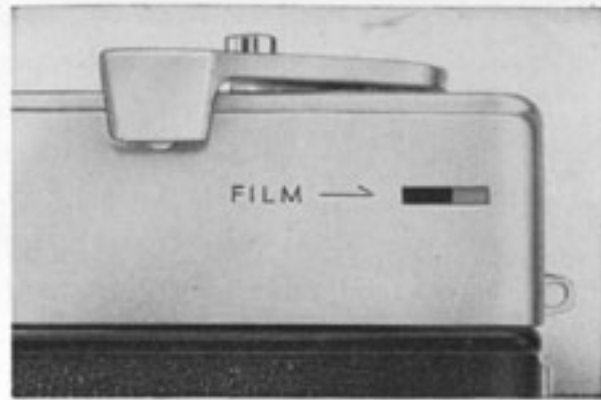
- 4** Engage the sprocket gear teeth with the film perforations. Advance the film advance lever slowly (one full stroke), while pressing the film gently against the sprocket. Then, close the back cover.



- 5** When the back cover is closed, a large red dot appears in the film counter window. Now, advance the film advance lever until it stops and press the shutter release button. Repeat this action until the number "1" appears.



- 6** At the same time the number "1" appears in the film counter window, a red mark will appear in the Film Load Window at the back of the camera. This signals that the film has been loaded and advanced properly. (The red mark appears in the right half of the window.)



A Few Words of Caution

- 1) When inserting the film leader into one of the slots of the take-up spool, be sure to engage the third or fourth film perforation with the tooth in the slot.
- 2) When placing the film magazine into the film chamber, be sure to engage the film perforations with the teeth of the sprocket gear on both sides.
- 3) Be sure to load or unload the film in the shade to prevent it from being damaged from exposure to direct sunlight.

The Minolta Hi-matic 9 is equipped with a programmed shutter and an advanced electric eye system to combine maximum accuracy with the greatest possible operating ease. Once the Minolta Hi-matic 9 is set for automatic operation, you need only focus and press the shutter release button. Not only will the camera automatically set proper aperture and shutter speed, but it will automatically provide the optimum combination of these two settings for any given light situation. With the Minolta Hi-matic 9, even beginners and children can take perfectly exposed pictures as no photographic skill or experience is necessary.

- 1** set the film speed rating by moving the lever of the ASA/DIN* scales at the bottom of the lens barrel to the corresponding number of the film's speed. (This simultaneously turns the meter "on".) Both ASA and DIN scales are engraved.
- | | | | | | | | |
|-----|-----|-----|-----|-----|----|----|-----|
| ASA | 800 | 400 | 200 | 100 | 50 | 25 | OFF |
| DIN | 30 | 27 | 24 | 21 | 18 | 15 | |

NOTE: The dots (.) denote ASA 650, 500, 320, 250, 160, 125, 80, 64, 40 and 32. The interval between two numbers is split into three segments; each with a click stop.

* ASA and DIN indicate units of film sensitive to light.





- 2** Set the camera on automatic by aligning the "A" marks of both the shutter speed and diaphragm rings with the "arrow" mark on the outer lens barrel.

CAUTION...When setting the camera for automatic operation:

For fully automatic exposure, be sure to align both "A" marks with the "arrow". If either the diaphragm or shutter speed rings are not aligned precisely with the "arrow", the automatic mechanism of the Minolta Hi-matic 9 will not function.

Using the Viewfinder Warning Signals

When looking through the viewfinder, an EV scale and indicator needle can be clearly seen on the right side.

If the needle is clear of the upper or lower red warning zones, the automatic exposure system will function to give you proper exposure.

If the needle remains in the top warning zone, you do not have enough light for proper automatic exposure. At such times, use a flash unit to provide additional light or disengage the automatic system to keep shutter open longer than 1/15th second.

If the needle remains in the lower warning zone, you have too much light for proper automatic exposure. At such times, use a filter to reduce light or disengage the automatic system to operate shutter at speeds higher than 1/250th sec.

CAUTION...When viewing warning marks:

- 1) If the needle points to 5.5, the shutter speed is set at 1/15th sec. and there is a possibility of picture blur.
- 2) The automatic system operates over a range from EV 5.5 (f/1.7 at 1/15th sec.) to EV 17 (f/22 at 1/250th sec.)



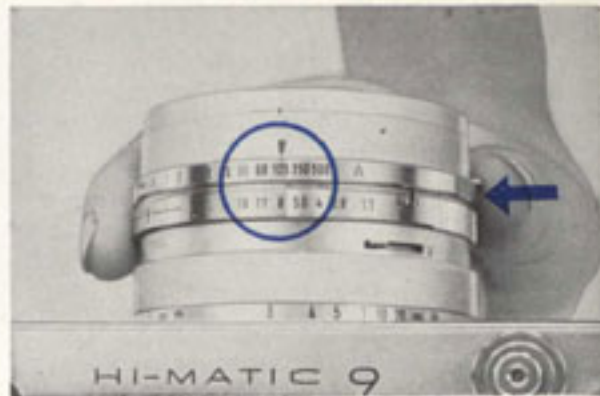
Unproper exposure



Proper exposure



Turn the shutter speed ring, first.



Turn the diaphragm ring.

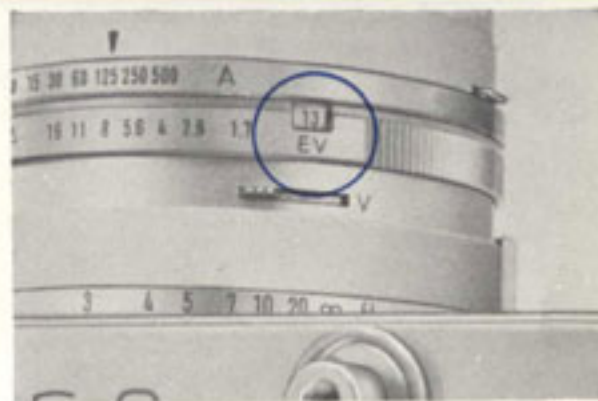
How to Use the Minolta Hi-matic 9 Manually

For unusual conditions or for special effects and techniques, you may want to operate the camera manually selecting the shutter speed and aperture yourself.

- 1) Move the "A" marks away from the "arrow" by pressing the AUTO release button (on the right side of the lens) and turning the shutter speed ring. Then, press the button once again in order to disengage the diaphragm ring.
- 2) You are now in complete command of the camera (just as with any fine 35mm camera) and can set any shutter speed or aperture opening combination you wish.



Even after disengaging the automatic system you can, if you wish, use it as an independent exposure meter. When using the Minolta Hi-matic 9 this way, aim at your subject, and watch the point to which the indicator needle moves on the EV scale. Set this EV number in the EV window on the lens barrel.



- 1) Press the AUTO release button and set any shutter speed you wish.
- 2) Read the EV figure indicated by the needle in the viewfinder. Then set the figure in the EV window, by turning the diaphragm ring.
- 3) You may also set the aperture opening first and then move the shutter speed ring to obtain the correct EV number.

CAUTION...When using the exposure meter:

- 1) When being used semi-automatically, the exposure meter operates over a range from EV 5.5 to 17.
- 2) When using the self-timer utilize this exposure method.
- 3) If you set the aperture opening first, you cannot set the shutter speed ring to an intermediate speed between click-stop positions.

A good picture depends on many factors...one of which is the proper holding of the camera. If your grip is unsteady, the movement of the camera can ruin your photograph. It is a good idea to practice holding the camera (either horizontally or vertically).

Holding the Camera Horizontally

This position assures you of a better grip with less chance of moving the camera as you can hold it firmly with both hands. Press your elbows tight to your body and release the shutter gently in order to avoid movement of the camera.

It is best to focus with the right eye for sequence shooting in order to prevent the film advance lever from coming into contact with your face.



Holding the Camera Vertically

In this position the shutter release button may be pressed with either the thumb or index finger. Use whichever is more convenient for you.

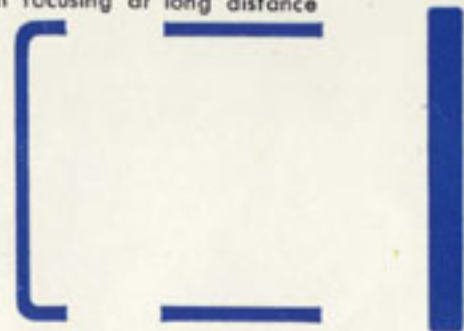
When viewing your subject through the camera's viewfinder, you can see a "bright frame" surrounding the visual field. The area within this frame is what will appear on the film.



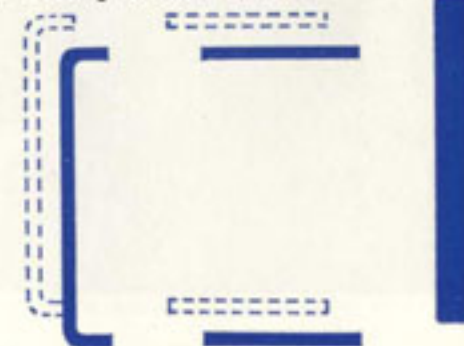
As you focus, you will actually see the bright frame lines moving.

This provides automatic compensation for parallax and gives you a corrected field of vision. The bright frame lines prevent you from inadvertently "cutting off" the head or legs of your subject.

When focusing at long distance



When focusing at short distance





How to Focus

Look through the viewfinder with your eye at the center of the eyepiece. Then, turn the focusing lever until the double image seen in the "diamond" at center of the viewfinder, overlaps into one sharp image.



Out-of-Focus

When the subject is seen as a double image in the "diamond", the camera is not properly focused.



Proper Focus

If your subject dissolves into a single image in the "diamond" as shown in the photo, the subject is in sharp focus. The distance from the camera to the subject is indicated on the distance scale of the focusing ring.

Depth-of-Field

When the lens is accurately focused, there is a certain depth considered to be in focus both in the foreground and the background. This is called "depth-of-field".

Depth-of-field becomes deeper as the aperture opening is made smaller (closing the diaphragm) and shallower as the aperture opening is made larger (opening the diaphragm).

Consequently, it is sometimes necessary to select proper aperture opening depending on your subject. In this case, disengage the automatic system operated the camera manually, utilizing the depth-of-field chart that follows.

At full aperture opening



At smallest aperture opening



How to Read the Depth-Field Chart

Look at the photo below. When the distance from the camera to the subject is approximately 20 feet and the lens aperture is set at $f/8$; according to the chart, everything from approximately 11 feet to 95 feet, both in front and behind the subject, will be in sharp focus.



F No. Dist. (ft)	1.7	2.8	4	5.6	8	11	16
∞	∞	∞	∞	∞	∞	∞	∞
20	11' 4"	7' 0"	8' 50"	35' 5"	25' 1"	17' 9"	12' 7"
10	24' 2"	2' 27"	9' 33"	45' 3"	3' 95"	3'	∞
7	17' 1"	1' 15"	8' 14"	4' 12"	10' 11"	3' 9"	6' 7" 10"
5	10' 11" 11"	7' 12"	5' 13"	9' 16"	4' 22"	2' 45"	
4	9' 3" 8' 10"	8' 8"	5' 7"	10' 7"	3' 6"	6' 5"	8"
3	7' 5 1/2"	7' 8 1/2"	8' 7 1/2"	8' 7 1/4"	9' 6 1/2"	11' 3" 15"	1"
2.8	6' 7 1/2"	6' 4 1/2"	6' 2 1/2"	5' 10 1/2"	5' 6 1/2"	5' 1" 4"	7"
2	5' 2 1/2"	5' 4 1/2"	5' 6 1/2"	5' 9 1/2"	6' 1 1/2"	6' 9 1/2"	7' 11 1/2"
1.7	4' 9 1/2"	4' 8 1/2"	4' 7"	4' 5 1/2"	4' 2 1/2"	3' 4" 3"	8"
1.4	4' 1 1/2"	4' 2 1/2"	4' 3/4"	4' 5 1/2"	4' 8 1/4"	5' 3/4"	5' 7 1/4"
1.2	3' 10 1/2"	3' 9 1/2"	3' 8 1/2"	3' 7 1/2"	3' 5"	3' 4" 3" 1 1/4"	
1.1	3' 5"	3' 1 1/2"	3' 2"	3' 2 1/2"	3' 4 1/4"	3' 6 1/4"	3' 9 1/4"
1	2' 11 1/2"	2' 10 1/2"	2' 10 1/2"	2' 9 1/2"	2' 8 1/2"	2' 7 1/2"	2' 5 1/2"

How to Use the Self-Timer

The self-timer delays shutter release for about 10 seconds after you press the button, thus allowing time for you to get into the picture yourself.

- 1) Disengage the automatic system and determine proper settings.
- 2) Advance the winding lever.
- 3) Move the self-timer lever to the "V" mark.
- 4) Press the shutter release button. The self-timer operates for about 10 sec. At this time the shutter will automatically be released.

Note: To disengage the automatic exposure system see page 18.

The self-timer will not operate if the camera is set for automatic exposure.



How to Use "Easy Flash" for Flash Photography

Flash bulbs and electronic flash units are used for indoor and night photography or for shooting in shaded areas.

Your Minolta Hi-matic 9 is equipped with the "Easy Flash" system, for simplified flash photography. In addition, this system assures you of perfect exposures when shooting with flash.

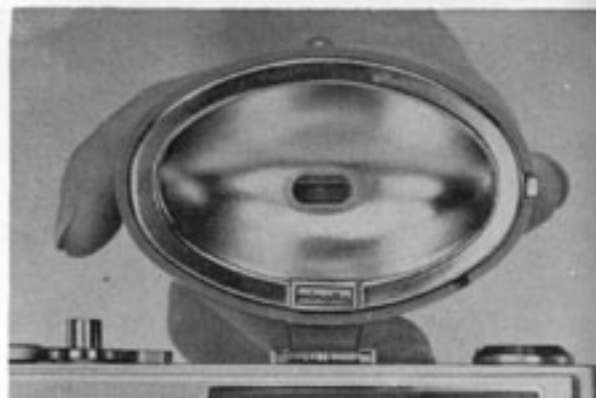


1 Attach the flash unit.

The Minolta Hi-matic 9 is equipped with a cordless (and cord) flash contact. When using Minolta Duo-Fit Flashgun or Minolta Flashcube Gun all you must do is to slide the unit into the accessory shoe.

If you use a flash unit which has a cord contact be sure to attach the terminal of the cord to the synchro terminal of the camera.

NOTE: Be sure not to insert a bulb into the flashgun until it has been properly attached to the camera.



2 Set the guide number.

Set the guide number on the camera. Use the guide number which is shown on the flash unit or its instructions.

When using a M class flash bulb, set the shutter speed to 1/30th second.

When using an electronic flash unit you may set any shutter speed.



3 Focus on the subject.

Look through the viewfinder and focus on your subject. If the indicator needle remains in flash indicator rectangle, the easy flash system is functioning and will provide the proper focusing range and "f" stop number.



4 You are now ready to shoot your picture.

CAUTION:

If the indicator needle moves from the rectangular area (by swinging upward), change the distance of the camera to the subject or use a higher or lower output flash source.



How to Select the Guide Numbers

- When using the Minolta Duo-Fit Flashgun or Minolta flashcube Gun, select a guide number from the table shown on its back.
- When using other flashguns, check their guide number table or instructions.
- The guide number shown on the box of flash bulbs is based on its use with a highly polished reflector. If these guide numbers are used with dull reflectors, pictures will tend to be under-exposed.

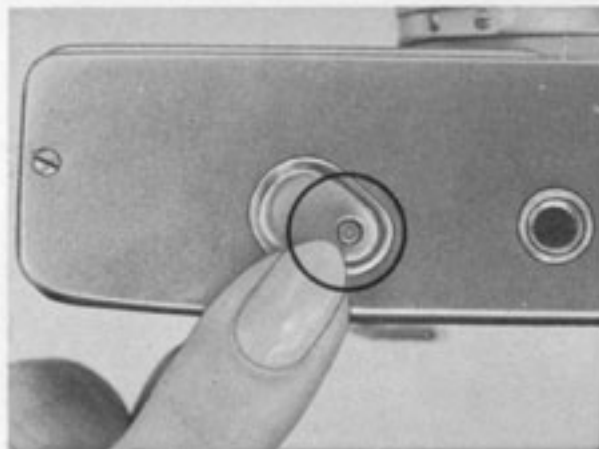
Guide number and distance

GN.	(m)	Distance to subject (m)
10		0.9 ~ 5.9
14		0.9 ~ 8.3
20		0.9 ~ 10.0
28		1.3 ~ 10.0
40		1.8 ~ 10.0
56		2.5 ~ 10.0
80		3.5 ~ 10.0
GN.	(ft)	Distance to subject (ft)
32		3.0 ~ 19.5
45		3.0 ~ 27
65		3.0 ~ 33
90		4.1 ~ 33
130		5.8 ~ 33
180		8.2 ~ 33
260		11.6 ~ 33

CAUTION...High guide numbers

A guide number can be used for an intermediate position between any two click stops. When using a high output flash bulb at a guide number exceeding 260 (80), be sure to use it as a bounce flash.

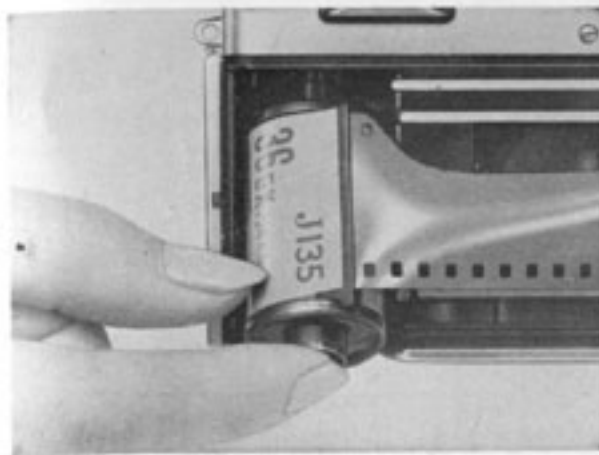




1) To unload the film, depress the rewind button on the bottom of the camera. The button will remain depressed if you remove your finger. If, however, it returns to its regular position, rewind the film for approximately 2 revolutions while depressing the button. Then turn the film advance lever completely without depressing the button. And depress it again. This should lock it into the depressed position.



2) Lift the rewind crank and turn it clockwise. This will rewind the film into the magazine. When all but the film leader is completely rewound and off the camera's spool, the red signal in the Film Load Window will disappear. After one or two more turns, you will feel a slight resistance. This means that the film, including leader, has left the spool and is completely rewound.



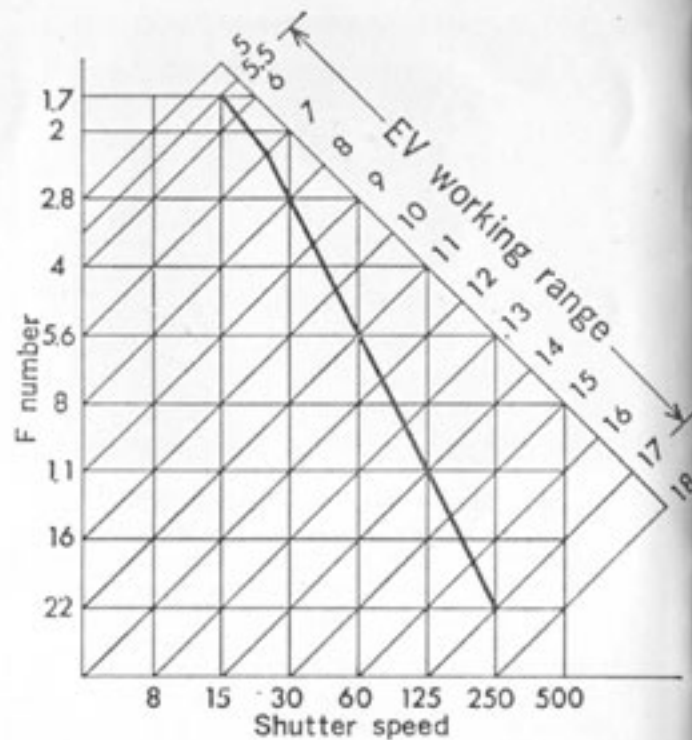
3) Once the film has been rewound, open the back cover and remove the film magazine.

CAUTION...When rewinding film:

When the red symbol in the Film Load Window disappears, turn the rewind crank for one or two more revolutions before opening the camera.

Programmed Shutter

The programmed shutter in the Minolta Hi-matic 9 is designed to select the optimum shutter speed/aperture combination automatically... depending on the brightness of the subject. All you do is to aim, focus and shoot. The programmed shutter works over a range from EV 5.5 to 17. The right diagram indicates the relations between shutter speeds and aperture openings.



Accessories

Filters

UV: This filter absorbs excessive ultraviolet light when shooting mountain, snow, sea and other distant scenes.

Y-48 (Yellow): For black & white photography. This filter renders red and yellow objects lighter than the eye sees them. It can also be used to darken skies; emphasize clouds.

R-59 (Red): Used for panchromatic as well as infrared films. Darkens blue subjects and lightens red and green objects. Yields unusual nighttime effect in daylight photography.

G-O (Green): For black & white films. Ideal outdoor filter where more pleasing fresh tones are desired in portraits against the sky. Also renders beautiful black & white photos of landscapes, blossoms, and natural sky appearance.

O-54 (Orange): For black & white films. Absorbs ultra-violet and blue light, thereby making blue tones appear darker. Excellent for marine scenes and aerial photography.





Minolta Lens Shade

The lens shade prevents extraneous harmful light from entering the lens, and is recommended for all outdoor photography.



Minolta De Luxe Flash Gun

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



Minolta Duo-Fit Flashgun

This compact flashgun has a unique design for extremely efficient operation. When used with the Minolta Hi-matic 9, it operates without cord. It is also equipped with a self-stored cord for use with cord terminal cameras.



Minolta Mini 35 II Projector

Small, light and compact, the Minolta Mini 35 II projector comes with carrying case. This handy little projector provides amazing projection power. Automatic slide changer, blower and conversion lens are available as optional accessories.