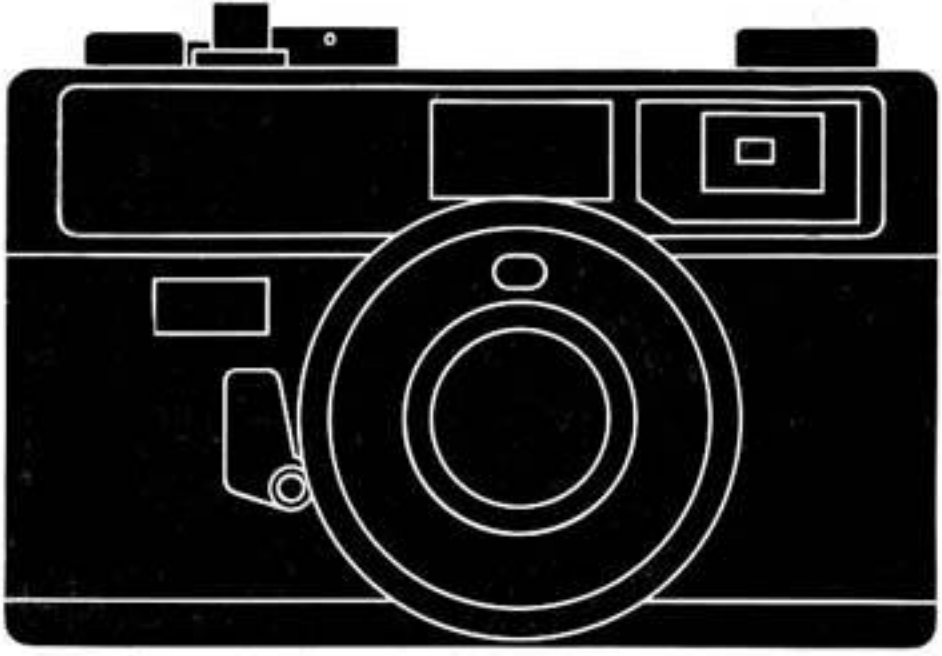
MINOLTA HI-MATIC E



OWNER'S MANUAL

E

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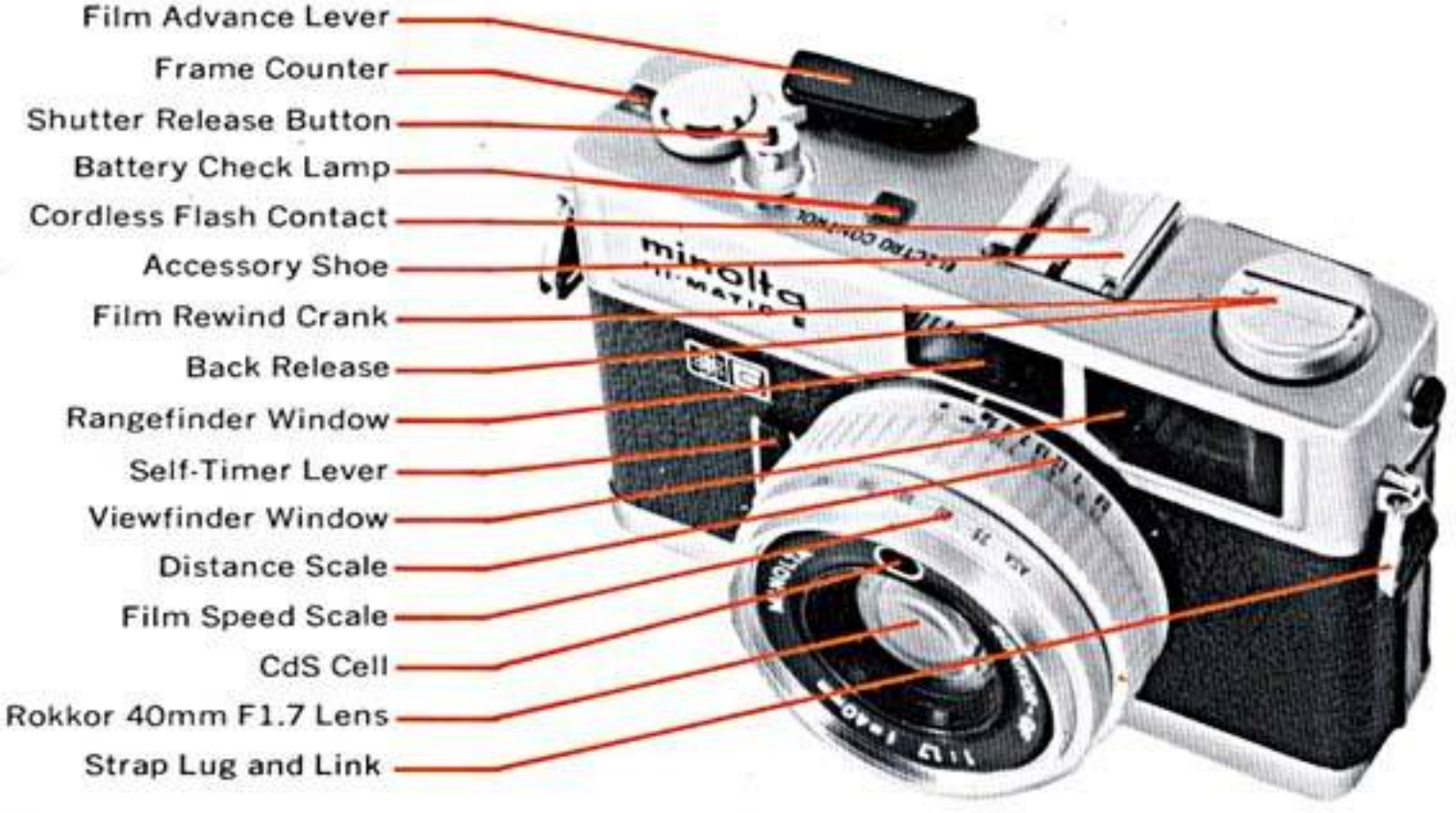
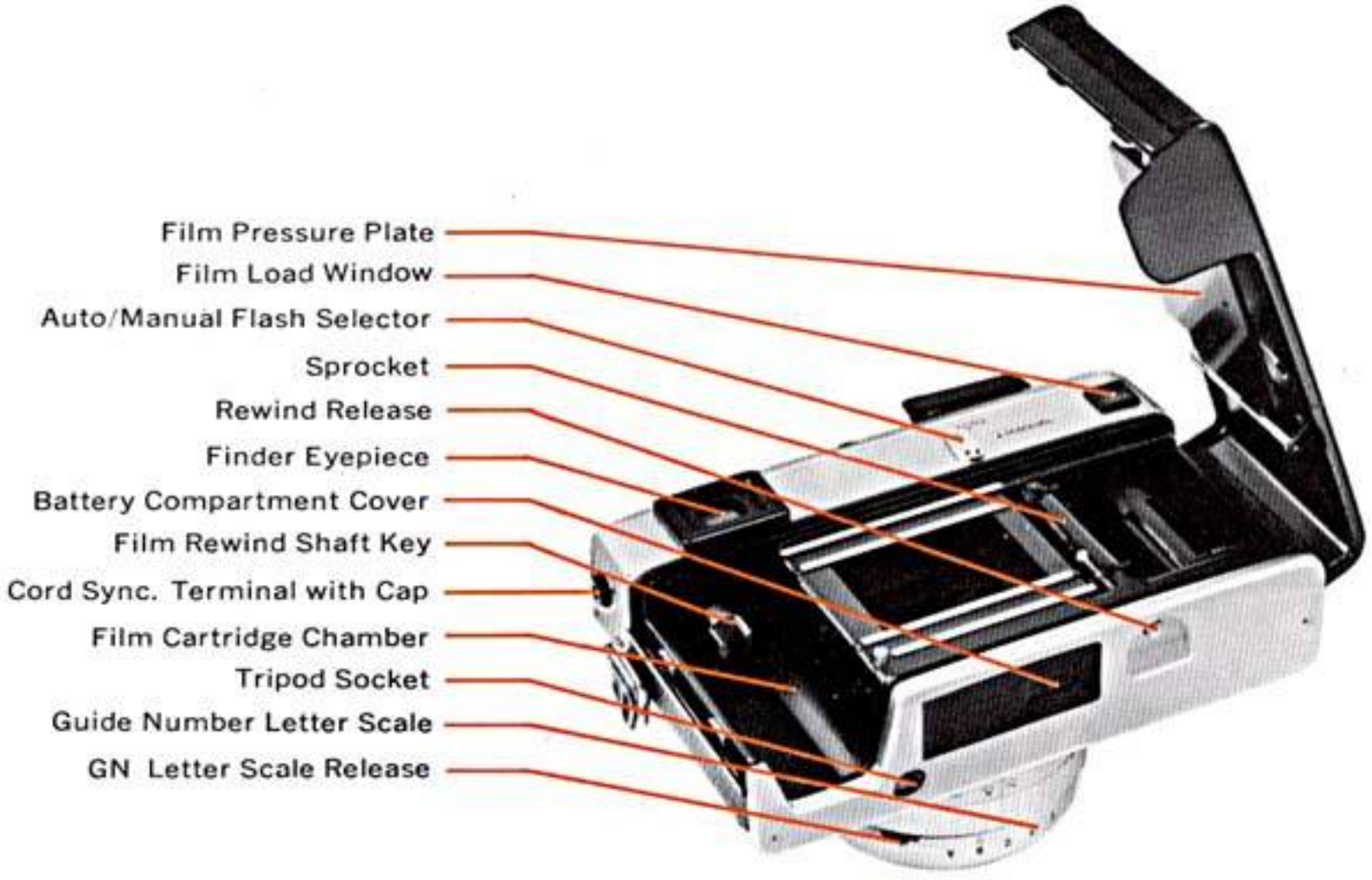
NAMES OF PARTS




Film Pressure Plate
Film Load Window
Auto/Manual Flash Selector
Sprocket
Rewind Release
Finder Eyepiece
Battery Compartment Cover
Film Rewind Shaft Key
Cord Sync. Terminal with Cap
Film Cartridge Chamber
Tripod Socket
Guide Number Letter Scale
GN Letter Scale Release

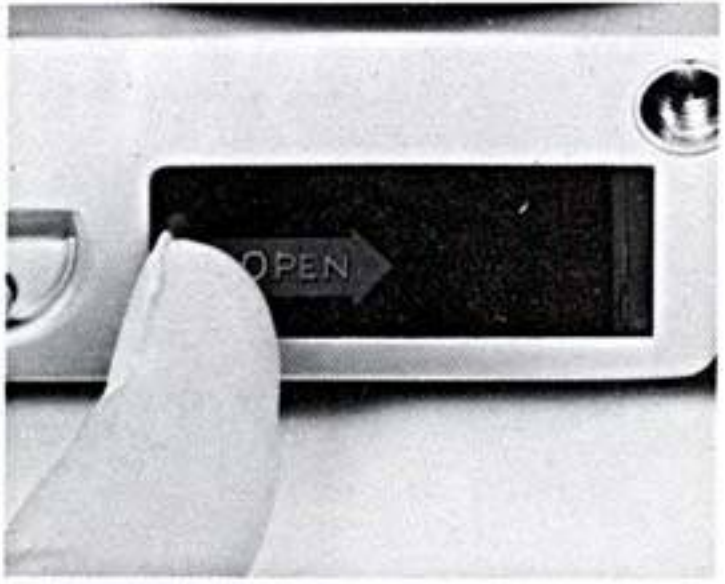
MINOLTA HI-MATIC E SPECIFICATIONS

Lens:	Rokkor 40mm F1.7, 6 elements in 4 groups, 57° angle of view, 49mm screw-in lens-shade and filter mount
Shutter:	Seiko electronic type programmed for EE exposure from 1/1000 sec. at F11 to 2 sec. at F1.7 (i. e., EV 17 to EV 0.5 with a film speed of ASA 100), X-synchronized at 1/20 sec. (when flash circuit on) selftimer for approx. 10 sec. delay
Exposure meter:	CdS type, coupled EE range EV 0.5 to EV 17 with a film speed of ASA 100; film speed range ASA 25 to 500; automatic compensation when filter(s) used; powered by 2 mercury batteries, i.e., Mallory RM-640, Eveready E-640, or equivalent
Auto-flashmatic system:	Flash circuit for X-synchronized exposures at 1/20 sec. automatically switches on at programmed 1/30 sec. at F1.7 (i. e., EV 6.5 with ASA 100) if flash is attached, and aperture couples to focusing and guide-number setting rings, providing automatic exposure adjustment throughout the flash range
Flash connections:	Both cordless "hot-shoe" and standard European-type terminal contacts are provided
Focusing:	Direct helicoid type, with coupled superimposed-image rangefinder; minimum focusing distance 0.8m (2.6 ft.)
Viewfinder:	Tinted bright-frame type with automatic parallax correction, EE indicator lamp and flashmatic signal visible while viewing
Film advance:	Lever type with single 140° stroke after 30° unengaged play
Frame counter:	Automatic resetting type, shows number of frames exposed
Frame size:	24mm x 36mm for 12, 20, or 36 exposures on standard 35mm film
Size and weight:	Height 77mm (3 in.) x width 124mm (4⅞ in.) x 60mm (2⅜ in.) from front of lens barrel to back; weight without batteries 560g (19.7 oz.)
Other:	Battery check lamp located atop camera body, auto/manual flash selection switch, simplified guide-number setting that couples with film speed, automatic shutter lock when battery power insufficient

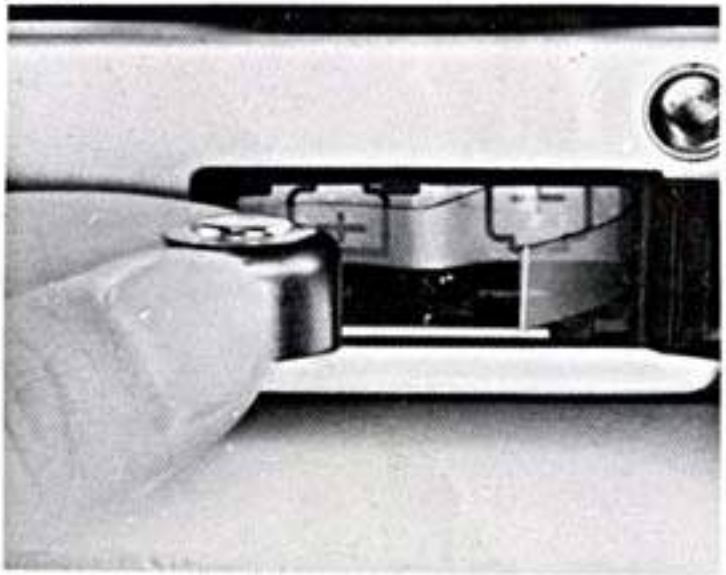
Inserting Mercury Batteries

The automatic exposure system of the Minolta Hi-matic E is powered by two long-life 1.4-volt mercury batteries for photographic applications, such as Mallory RM-640 or equivalent, which must be properly seated in the battery compartment before the camera will operate:

1. Slide the battery compartment cover in the direction of the arrow, and lift it open by means of the recessed lip slot near the square end of the arrow.



2. Making sure the end of the clear vinyl strip is projecting from the end of the compartment near the cover hinge, insert the 2 batteries as indicated by the diagrams in the bottom of the compartment. Then close and latch cover by sliding it in the direction of the arrow and letting it snap back in the opposite direction. .



CAUTION:

- Be sure plus (+) and minus (−) terminals of the batteries are not reversed.
- Battery terminals should never be touched with the hands; before inserting battery their terminals should be cleaned with a clean rough cloth.
- If camera is not to be used for over a month, remove the batteries and store them in a cool, dry place.

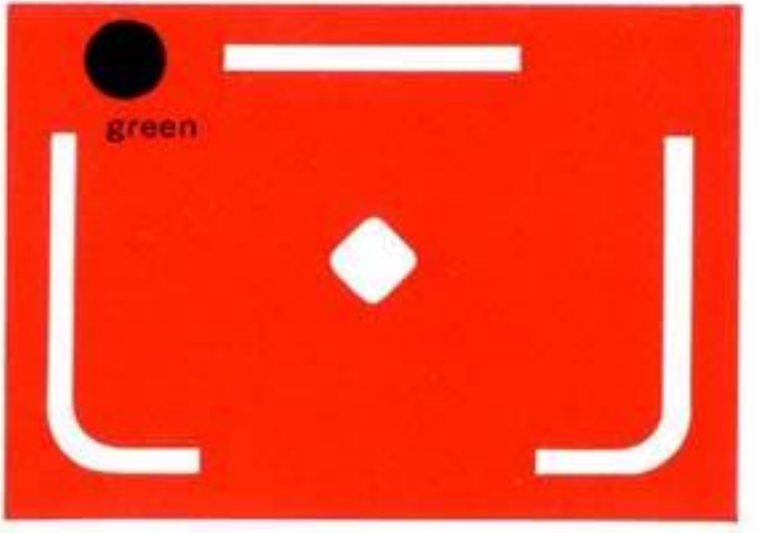
Checking Batteries

The condition of the mercury batteries in your Hi-matic E can be checked at any time by simply depressing the shutter release button slightly, making sure that you never push so far that the white part of the button is not visible. If the battery check lamp on top of camera lights up, batteries can be regarded as functioning properly with adequate power. If the battery check lamp does not light, make sure that two batteries are properly inserted or replace the batteries with fresh ones. (Since battery check lamp operates in parallel with EE indicator lamp in viewfinder, it will either go out or remain on depending upon EE condition as you continue to push shutter release down to take a picture. This is of no consequence for battery checking purposes, but you may wish to use it as a slow shutter speed indication that can be seen without looking through viewfinder. That is, if the lamp does not go out as you continue depressing shutter release, you should observe the precautions applicable for slow shutter speeds. See page 15.)

Since lighting of the EE indicator lamp in the viewfinder is also an indication that there is adequate battery power, your Hi-matic E actually gives you battery check information automatically before every exposure.

By either means, batteries should generally be checked after the camera has been stored for some time or new batteries have been inserted.

Adequate battery power is essential for proper exposure and switchover. To positively prevent unsatisfactory operation, a special device built into your Hi-matic E locks the shutter so that pictures cannot be taken if batteries are too weak or there are none in the camera. Thus if you find it impossible to release the shutter, you should install or change batteries.

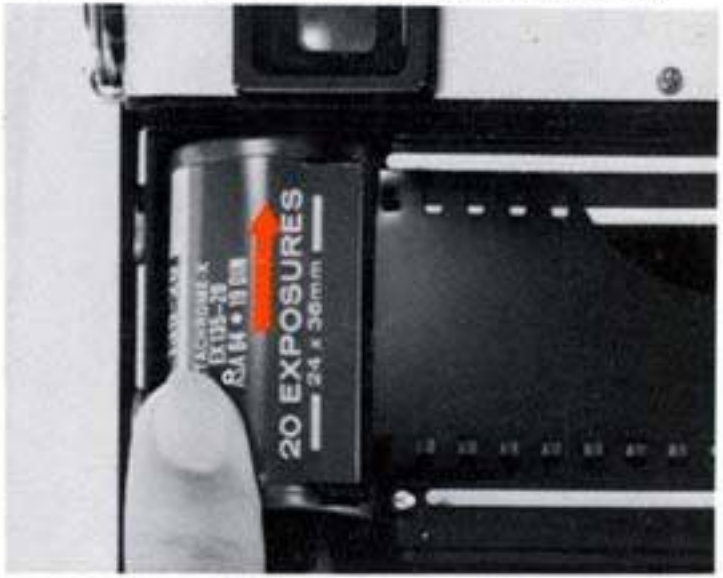


Loading Film

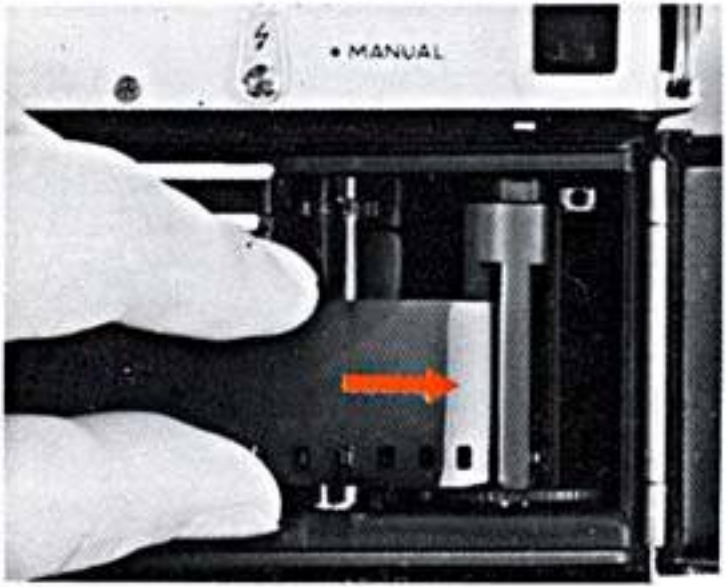
The Minolta Hi-matic E loads in seconds and features the unique SLS (Safe Load Signal), which provides a constant check on film alignment and advancement.

1. Lift the film rewind crank and grasp it to pull up the back release; back cover will automatically spring open.

2. Place film cartridge into the film cartridge chamber. If film rewind key does not engage properly in end of cartridge, rotate film crank in either direction until it does so.

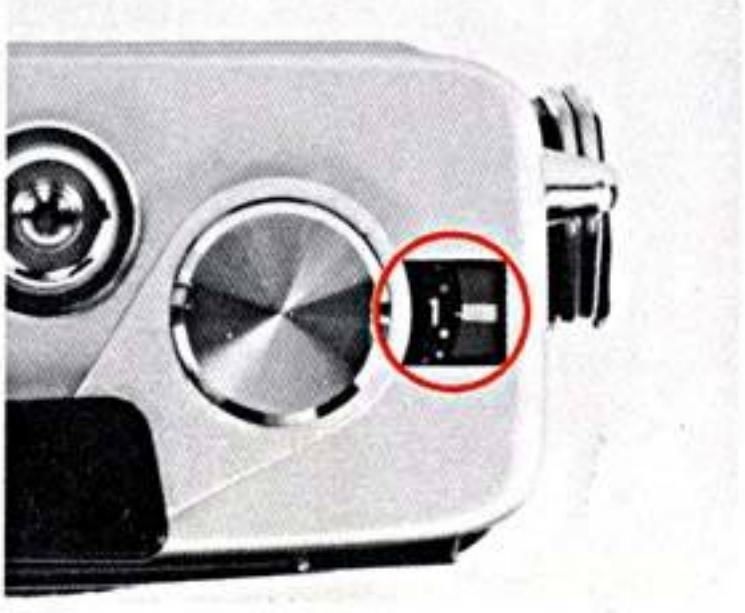


3. Insert leader of film about 1 cm (1/2 in.) into one of the slots in the take-up spool. Be sure that the film perforation is engaged in the tooth of the slot.



4. While pressing film gently against the sprocket, actuate film advance lever slowly until the perforations on both edges of the film are engaged with sprocket teeth. Then close the back cover.

5. A large red dot should now appear opposite the red index in the frame counter window. Actuate the film advance lever until it stops, then press the shutter release button. Repeat this lever actuation and shutter release until the number "1" appears opposite the counter index.



6. An orange signal should now appear at the left in the film load window on the back of the camera. This indicates that the film is loaded and properly engaged with the take-up spool slot. If this Safe Load Signal does not appear, open camera back and ensure that end of film leader is firmly engaged with tooth in spool slot.
   As you continue to take pictures, the edge of the orange area will move gradually toward the right in the window, indicating that film is advancing properly.

12 CAUTION:

- Be sure that the film perforation engaged with the tooth of the take-up spool slot is not the very last one on the end of the leader. The perforation used should be the third or fourth one from the end of the leader.
- Load and unload film in subdued light, never in direct sunlight.

Setting Film Speed (ASA Number)

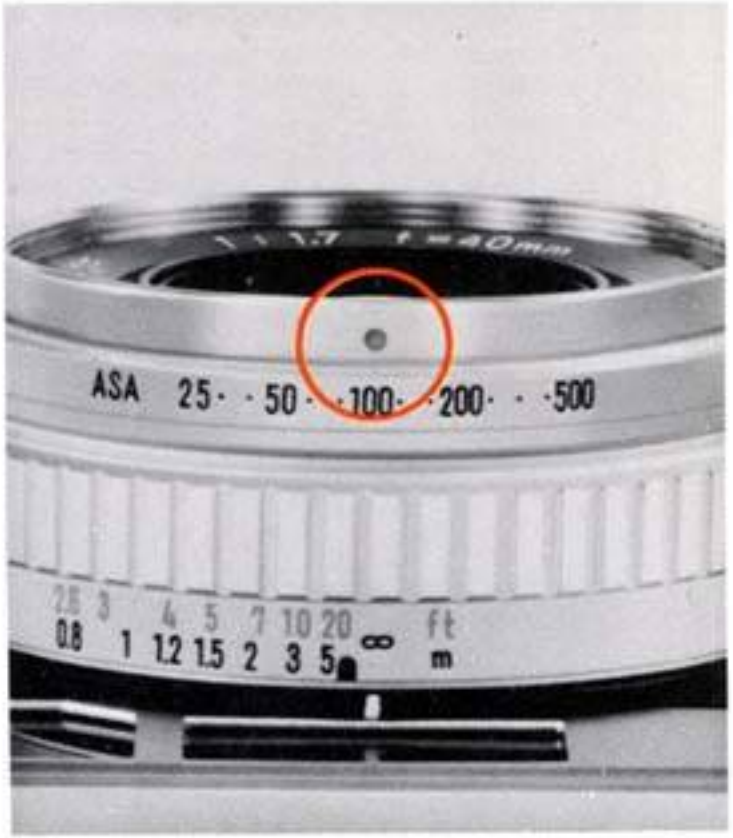
To enable your Hi-matic E to calculate exposure correctly, you must set the scale to the applicable ASA number, which is a rating of film sensitivity to light and is available for each film on the market. To set this, turn the film speed scale to align the ASA rating number of the film you are using with the red dot index on top of outer lens barrel.

The ASA scale engraved on the camera is:
25 ·· 50 ·· 100 ·· 200 ··· 500

Dots denote ASA speeds of 32, 40, 64, 80, 125, 160, 250, 320, and 400, respectively from left to right.

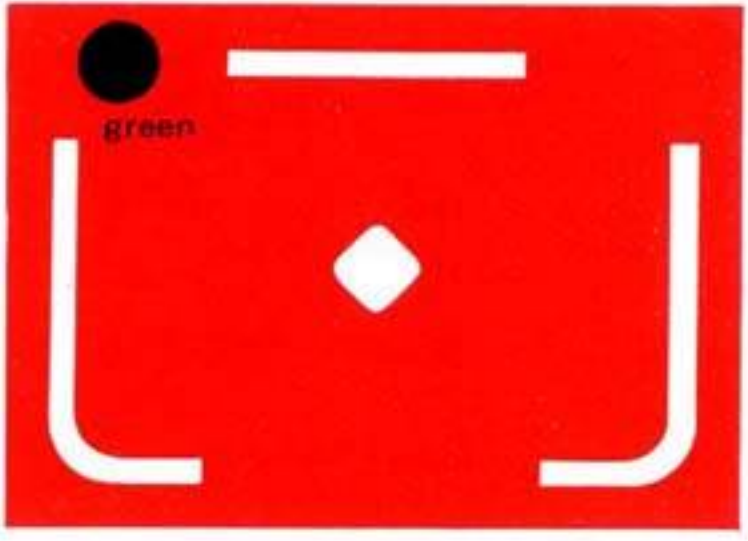
DIN system equivalents for this scale are:

ASA	25	50	100	200	500
DIN	15	18	21	24	28



Fully Automatic Electric-Eye Control

1. Looking through the viewfinder at your subject, push the shutter release button down slightly to determine light level and picture-taking mode.
   A. If the green lamp in the upper left corner of the viewfinder lights up and then goes out as you continue to push shutter release, light is adequate for normal hand-held auto exposure without flash, and you can proceed to take the picture as soon as you have focused and composed your subject.

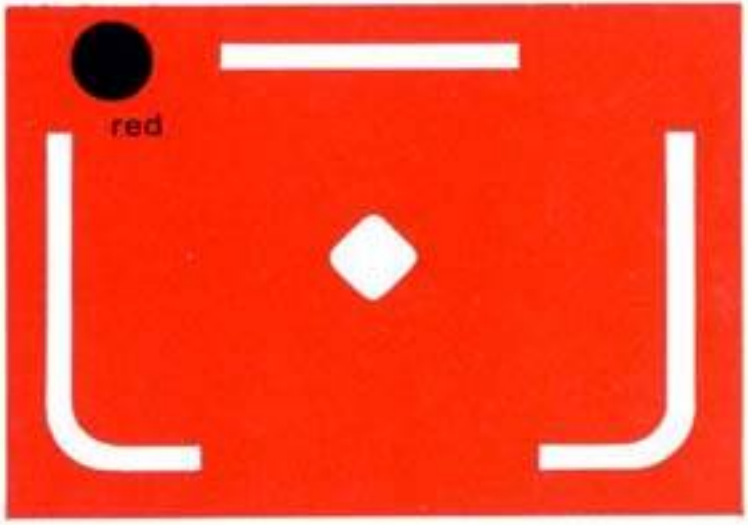


B. If the green lamp does not go out but changes to red as you continue to depress the shutter release button, a shutter speed slower than 1/30 sec. is indicated, and use of a tripod is recommended if you are not using flash. Your Hi-matic E will continue to make accurate auto exposures down to 2 full seconds without flash. Adequate attention should of course be paid to subject movement at slow shutter speeds.

It is important to remember, at these slow shutter speeds, that you MUST HOLD THE SHUTTER RELEASE BUTTON DOWN UNTIL THE RED LAMP GOES OUT. If it is inconvenient to look into viewfinder, as under certain conditions when using a tripod, instead watch the battery check lamp, which lights and goes out in parallel with the viewfinder's EE indicator lamp, and keep the shutter button or cable release plunger depressed until it goes out.

CAUTION:

- For normal EE exposure, be sure the flash selector is set at AUTO. Never set it at MANUAL when you are not using flash.

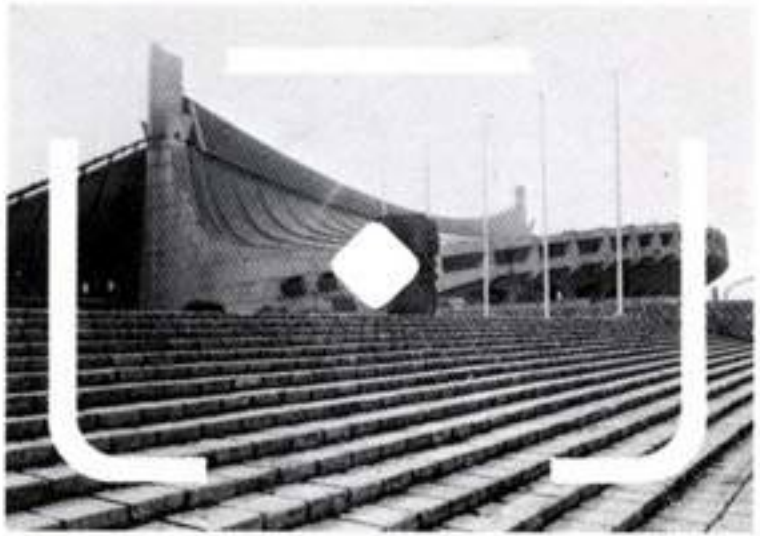


2. Focus by looking through the viewfinder and moving the grooved ring on the lens barrel until the two subject images in the "diamond" at the center of the viewfinder frame come together and appear as one.

Out of Focus
Your subject is not properly focused if a double image of it appears in viewfinder's diamond-shaped area as shown.

In Proper Focus
When the two images merge into one as shown, subject is in sharp focus. Camera-to-subject distance is indicated by the scale and index located on the lens barrel between grooved focusing ring and camera body.

3. Compose your picture by framing your subject as you wish within the bright-frame lines visible in the viewfinder; the area inside this frame is what will appear on the film.

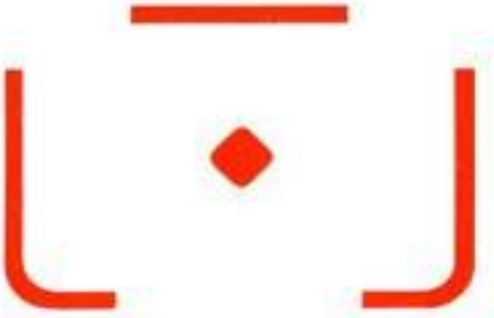


As you focus, you can see this bright frame moving. This provides automatic parallax correction, giving you a field of vision adjusted for the subject distance you are focusing at. You thus avoid getting a composition different from what you see in the viewfinder or unintentionally "cutting off" heads, legs, and so on when shooting at close range.

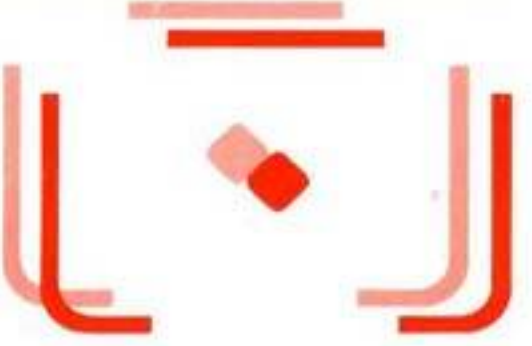
NOTE:

- If you cannot see the bright frame or subject clearly through the viewfinder, use of a Minolta Eyepiece Correction Lens (available separately through your dealer) to suit your vision is recommended.

When focusing at long distances



When focusing at short distances



4. For exposures without a tripod, hold the camera firmly in either vertical or horizontal position with both hands and release the shutter with a slow, steady squeeze to avoid blurred pictures from camera movement.

   Use of a cable release is recommended for exposures with a tripod.

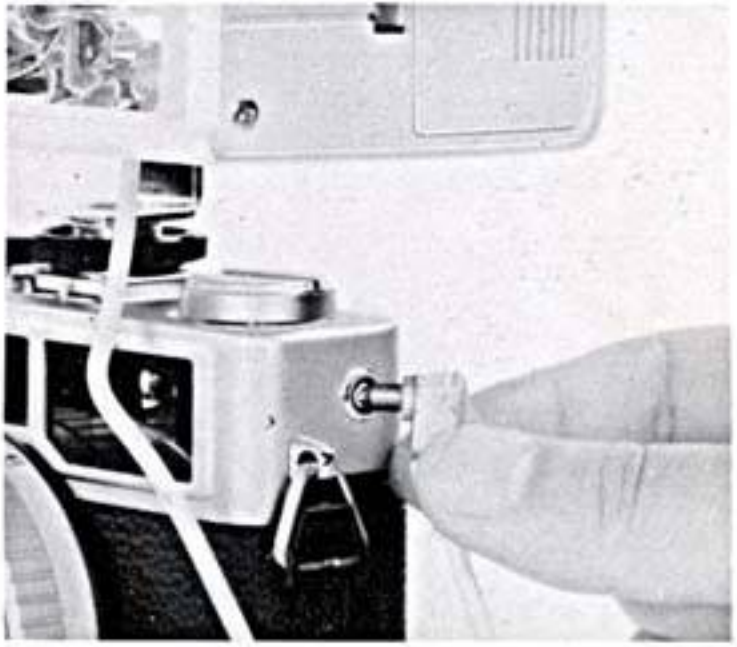
Automatic Flash Photography

When the viewfinder EE indicator lamp changes from green to red as the shutter release is pushed, it indicates you should use flash if slow shutter speeds using a tripod are not desired. It also indicates that the camera will automatically switch itself over to make X-synchronized flash exposures at 1/20 sec. if a flash is attached.

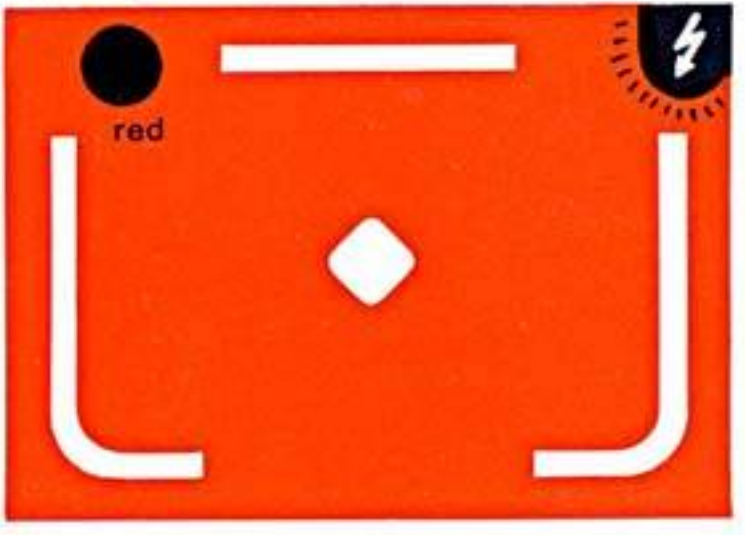
When a flash unit is properly attached to the camera and the flash circuit is connected for X-synchronized exposures at 1/20 sec., the flashmatic symbol (ϟ) will light up in the upper right corner of the viewfinder as the shutter release is pushed and the EE indicator lamp changes to red.

1. Attaching Flash Unit

The Minolta Hi-matic E is equipped with a cordless hot-shoe contact as well as with a standard European-type terminal for flash units having cords. When using a Minolta Electroflash-3 or other cordless flash unit, all you have to do to attach the unit is slide it into camera's accessory shoe. If you use a flash unit, such as the regular Minolta Electroflash, which has a sync. cord, be sure to connect the plug of the flash cord with the sync. terminal of the camera as well.



When you use the cordless Minolta Electro-flash-3 on your Hi-matic E, you can see its pulsating flash-ready lamp without taking your eye from the viewfinder.



CAUTION:

- With flash attachments using standard flash-bulbs, be sure not to insert a bulb until unit has been properly attached to camera.
- Be careful to push flash unit all the way into accessory shoe until it stops.
- When using a cordless flash unit, be sure to insert the cap of the sync. terminal to avoid getting an electric shock.

2. Setting the GN (Guide Number) Letter
The proper GN letter for flash in use is obtained by referring to the table on the back of the camera. (For example, if the guide number of the flash you are using is 20 for calculations in meters with ASA 100 film, its GN letter is C.) Then push the GN letter scale release and use it to turn the scale to set the correct letter opposite the index. To determine GN letters for ASA numbers higher than 100, refer to the accompanying table. If you are using the Minolta Electroflash-3, simply align the yellow arrow symbol on the film speed scale ring with the yellow index at its click stop, and the appropriate guide number is automatically set.

GUIDE NUMBER TABLE

ASA	GN m					GN ft				
	A	B	C	D	E	A	B	C	D	E
25	5	7	10	14	20	16	22	32	45	65
50	7	10	14	20	28	22	32	45	65	90
100	10	14	20	28	40	32	45	65	90	130

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3. Focus your subject with the coupled range-finder, and lens aperture is automatically adjusted for correct exposure within the working range of the flash. Working ranges for various flashes are indicated in the accompanying table. Black mark between highest distance-scale number and infinity symbol (∞) indicates approximate maximum range of flashes having guide number of 14m or more.

If you keep a flash attachment connected to your Hi-matic E, the camera will fire it only when necessary, switching it on or off in accordance with the light level being sensed by the CdS cell. Thus, with a flash properly attached, you can take correctly exposed pictures continuously and automatically from brightest EE throughout the full effective range of the flash. All you need do is focus your subject and press the shutter release; the camera sets exposure and does all switching for you automatically.

Guide number and distance table

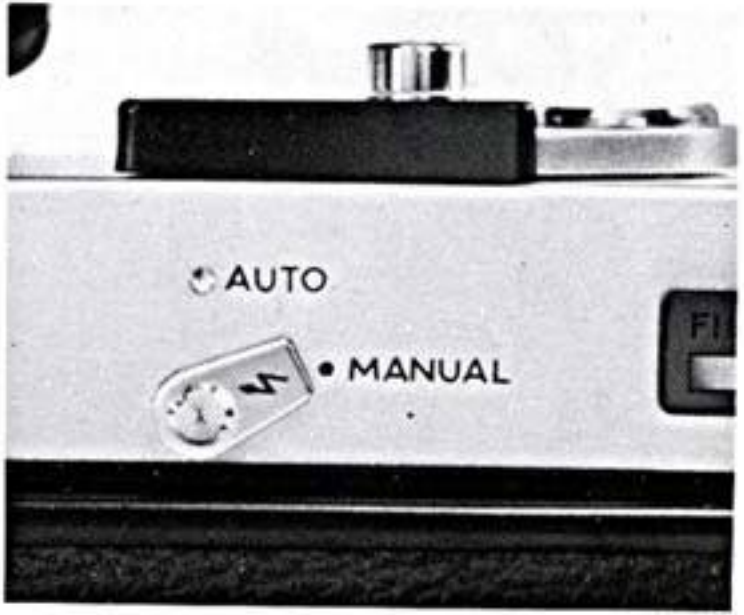
Guide number at ASA100		Guide number letter					Distance to subject	
80	260					E	3.5 ~10	11.5~33
56	180				E	D	2.5 ~10	8~33
40	130			E	D	C	1.8 ~10	6~33
28	90		E	D	C	B	1.25~10	4~33
20	65	E	D	C	B	A	0.8 ~10	2.6~33
14	42	D	C	B	A		0.8 ~8.5	2.6~28
10	32	C	B	A			0.8 ~6.1	2.6~20
7	22	B	A				0.8 ~4.2	2.6~14
5	16	A					0.8 ~3	2.6~10
(m)	(ft.)	ASA 25	50	100	200	400	(m)	(ft.)

Thanks to your Hi-matic E's coupled film-speed and GN-letter dials, it is not necessary to reset the GN dial when the film speed changes, provided you continue to use the same flash: resetting the film-speed dial automatically adjusts the GN-letter setting.

Using Auto/Manual Selector

There may be times that you want to use flash even though the CdS cell is receiving adequate light for hand-held exposures with existing light and has thus not switched on the flash circuit. Examples of such cases would include a subject in front of a window in the daytime being photographed from inside a normally illuminated room or a subject in a dark shadow outdoors in daylight. In either case, subject would be underexposed without flash since the electric eye would tend to set the lens aperture for the brighter view seen in the background or around the subject proper.

To override the automatic switchover system and use flash in such situations, simply set the flash selector to MANUAL. This turns off the EE system and connects the flashmatic system. Then you simply focus on your subject and press the shutter release.



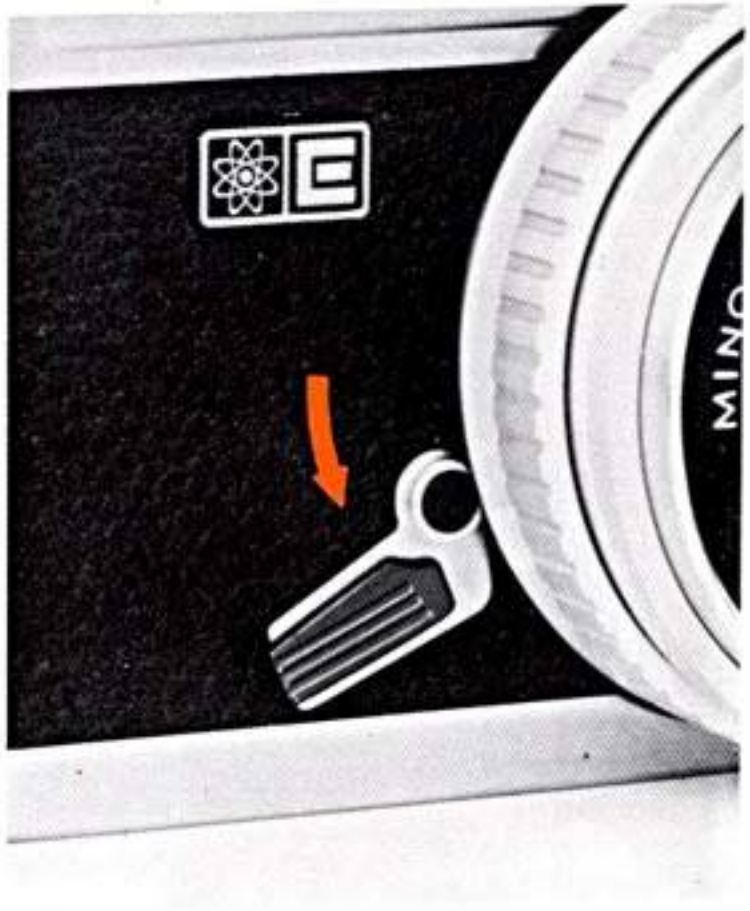
CAUTION:

- Extra care should be taken to avoid camera and subject movement when shooting in daylight at MANUAL setting.
- Don't forget to set the flash selector back to AUTO for normal EE exposures after shooting on MANUAL.

Using The Self-Timer

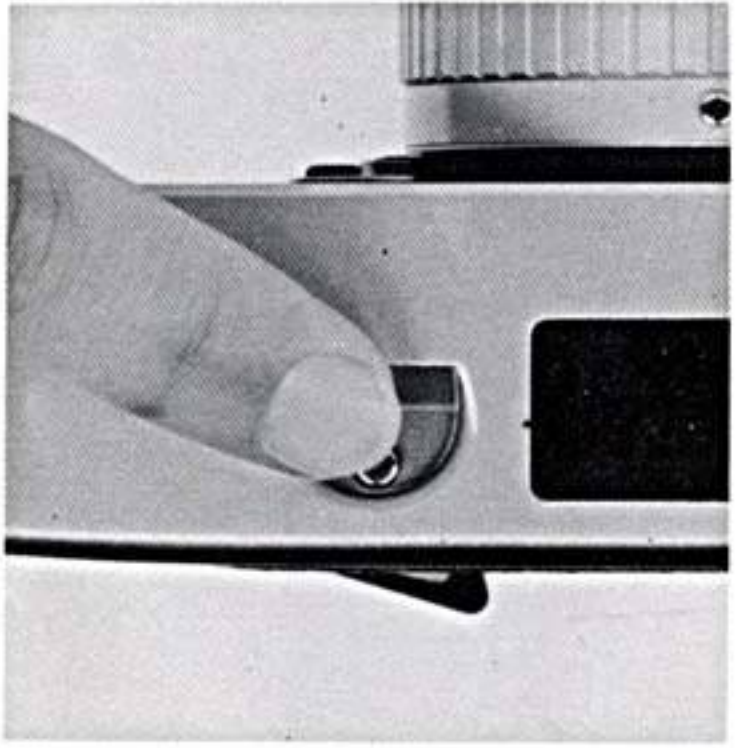
The self-timer delays shutter release for about 10 seconds after the shutter release button is pressed, allowing time for you to get into the picture yourself. To use the self-timer:

1. Advance the film.
2. Rotate the self-timer lever as far as it will go (somewhat over 90°) counterclockwise until it catches.
3. Press the shutter release button. The self-timer operates for about 10 sec., after which the shutter will be released automatically.



Unloading Exposed Film

1. Depress the film rewind release on the bottom of the camera.



2. Lift the film rewind crank and turn it clockwise. This will rewind the film into the film cartridge. 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. As you continue to turn the crank, you will feel a slight resistance. This means that the film leader is leaving the take-up spool. Continue winding a few more turns.
3. When you are sure the film is completely rewound, pull out on the rewind crank to open the camera back and remove the film cartridge.

OPTIONAL ACCESSORIES

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Minolta Electroflash-3

This compact, efficient electronic flash unit specially designed for use on the Minolta Hi-matic E features:

- Cordless, hot-shoe convenience
- Pulsating "flash-ready" monitor lamp visible in Hi-matic E viewfinder
- Constant light output throughout life of batteries

This Electroflash-3 can also be used with any camera having a cordless hot shoe, and its flash-ready lamp can also be seen in viewfinders of the Minolta Hi-matic F and other cameras.

Minolta Lens Shade

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

Minolta Duo-Fit S Flashgun

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

Minolta Deluxe Flash Unit III

This compact and powerful flash unit has a folding type reflector and swivels to any of 5 click-stop positions. It takes regular base, pinless base and AG type flash bulbs, and can be used either with or without a cord. The unit unfolds and installs on the camera body in seconds.

Minolta Cable Release

This very flexible metal release threads directly into the shutter release button. It features a screw type lock which permits long exposures. Essential for steady tripod exposures.

Minolta Eyepiece Corrector

Focusing aid for far- and near-sighted photographers is provided by these special lenses which fit into slots provided in the camera eyepiece. Minolta makes nine different diopter strengths, from −4 to +3.

Slide 300 Projector

This lightweight unit projects both 35mm and 16mm slides with sharp Rokkor Lenses. It has an efficient condenser system and a high-performance sirocco fan for bright, safe projection. Optional accessories include an autochanger, tele/wide conversion lens, strip-film carrier, and projection screens.

Minolta filters

For Black-and-White Film

UV: This filter absorbs excessive ultraviolet ray when shooting mountain, snow, sea and other distant scenes. It may be kept attached to protect the lens.

Yellow: This filter renders red and yellow subjects lighter than the eye sees them. It is often used to darken blue skies and emphasize white clouds.

For Color Film

80B: This filter is used for shooting with daylight-type color film indoors with artificial light of 3400°K color temperature.

For All Film

1A: Use this filter to improve bluish rendition of subjects in shade illuminated by blue sky, of over cast or rainy days, or obscured by atmospheric haze. It can also be used to protect the taking lens.

ND X4: This neutral density filter used to adjust the amount of exposure. It is especially useful when there is a possibility of overexposure (For example, when shooting summer beach or brilliant snow scenes, especially with fast films).

CARE AND STORAGE

Your Minolta Hi-matic E is made for long, carefree service. But there are a few things that you should do.

Never touch the camera lens with fingers. Should lens become dirty, clean it with a blower lens brush or soft, lint-free cloth, using a gentle motion.

If you do not plan to use your camera for a long period of time, it is best to remove the batteries.

Store your camera in a cool, dry place away from dust or chemicals. An airtight container that has drying agent like silica gel in it would be ideal.

Camera should never be placed or left in glove compartment or other place in motor vehicles or elsewhere in which it may be subject to relatively high temperatures.

If you have any questions, ask your Minolta dealer. He is knowledgeable in all aspects of photography, and can help you with all your photographic needs.

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Minolta MINOLTA MEANS BETTER PICTURES

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