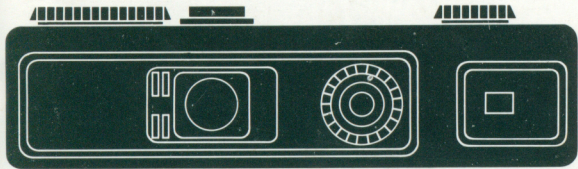


MINOLTA 16 MG-S



OWNER'S MANUAL





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NAMES OF PARTS

2

Auto/Flash Exposure Control

Shutter Speed Dial

Shutter Speed Window

Frame Counter Window

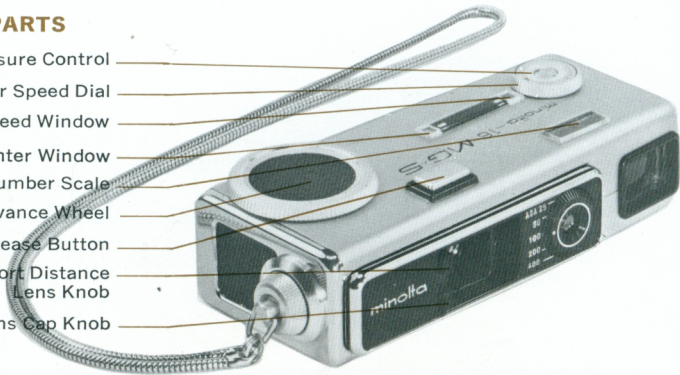
F-number Scale

Film Advance Wheel

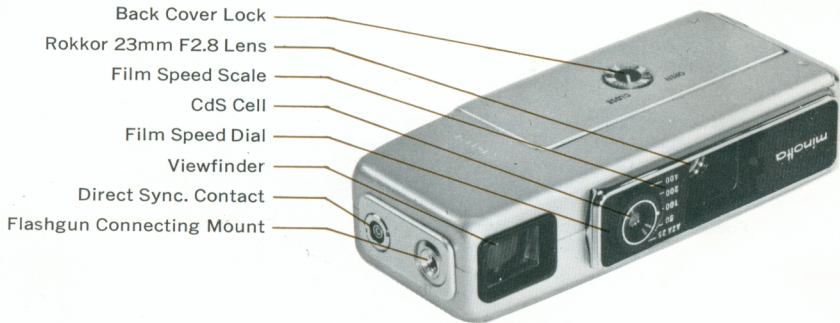
Shutter Release Button

Sliding Type Short Distance
Lens Knob

Sliding Type Lens Cap Knob



IMPORTANT: Before operating camera, see first CAUTION on P. 23.



SPECIFICATIONS

4

- Type: Subminiature camera with a picture size of 12×17mm quarter frame for Minolta 16mm film cartridge.
- Lens: Rokkor 23mm F2.8, 4 elements in 3 groups.
- Shutter: Shutter speed selection with speeds from 1/30 sec. to 1/500 sec. Shutter is locked in the over- and underexposure.
- Sync: X contact (M class bulb synchronizes at 1/30 sec., electronic flash at all speeds.)
- Exposure meter: Automatic diaphragm control by CdS meter coupled to shutter.
- Measuring range: EV 8 to EV 17
- Film speed setting: ASA 25 to ASA 400
DIN 15 to DIN 27
- Focusing: Fixed focus at 3.5m, 10 ft.
Short-distance lens (built-in) for 1.2m, 4 ft.

Viewfinder: Bright-frame viewfinder with parallax correction and warning signal.

Film advance: Wheel type, 135°

Frame counter: Automatic resetting counter showing unexposed frame number.

Optional Accessories: MG-S Flashgun, MG-S Cube-gun

Filters (1A, Y-48, 80B)

Close-up lenses: 80cm (2'7½"), 40 cm (1'3¾"), 25 cm (10")

Distance scales (Chain) for 80 cm (2'7½") and 40 cm (1'3¾")

MG-S Copy Stand

Minolta Dayload 16 (Day light developing tank)

Size: Height: 26.5mm (1⅛"), Width: 107.5mm (4¼"), Depth: 46mm (1¾")

Weight: 210g, 7.4 oz.

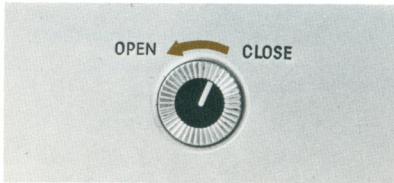
BEFORE TAKING PICTURES

6

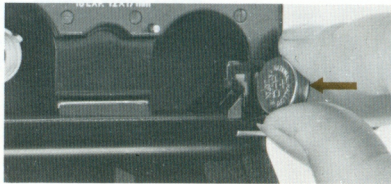
Inserting mercury battery

The CdS exposure meter system in the Minolta 16 MG-S is powered by a longlife mercury battery. The battery must be properly seated in the battery chamber before the camera will operate.

1. Open film chamber door by turning the lock to "open".



2. Place battery on clean vinyl belt at end of film chamber, press it down into battery chamber, and replace the small black battery cover. Be sure (+) side of battery is facing chamber.



NOTE:

- Meter circuit is automatically cut off when lens slide cover is on place.
- When camera is not in use we recommend that you put lens slide cover in place to save the battery as well as to protect lens from damage and also prevent accidental release of shutter.

CAUTION:

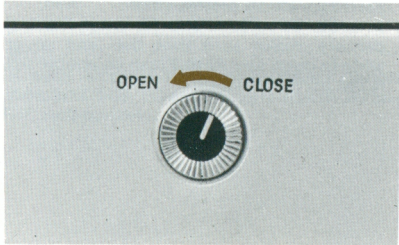
- Be sure that (+) and (−) sides of battery are not reversed.
- Do not touch battery terminals with moist or unclean hands.
- Before inserting battery, clean battery terminals with a piece of clean cloth.
- If camera is not to be used for over a month, remove battery and store it in a dry, cool place.
- Your camera uses a 1.35v mercury battery, Mallory PX-675, Eveready EPX-675 or equivalent for photographic use.



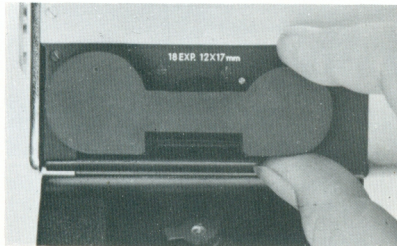
Loading film

Your Minolta 16 MG-S loads in seconds with its unique drop in cartridge system.

1. Open film chamber door.



2. Drop film cartridge in film chamber and give a little push until cartridge sits firmly in chamber then close door of film chamber and turn lock on door to "close" position.



- 10 3. Turn film advance wheel until it stops and release shutter. Repeat until number "18" appears in frame counter window. Now, the film will be in position for the first exposure.



NOTE:

- When cartridge does not seem to sit firmly in film chamber even if a little push is applied to it, turn film advance wheel keeping a little pressure on the cartridge until the cartridge clicks into position.
- In order to release shutter when loading camera make sure that the lens cover slide in open and Auto/Flash selection dial is set at "⚡" position.

Setting film speed

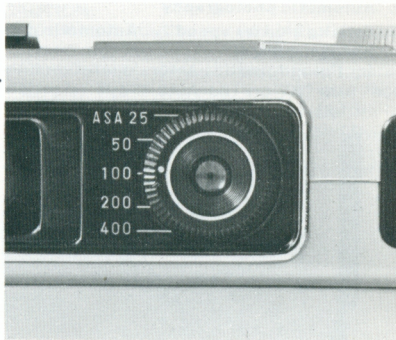
Turn ASA setting dial by your fingertip and align white dot to the ASA number of your film.

ASA and DIN converting table as follows:

ASA	400 · 200 · 100 · 50 · 25
DIN	27 · 24 · 21 · 18 · 15

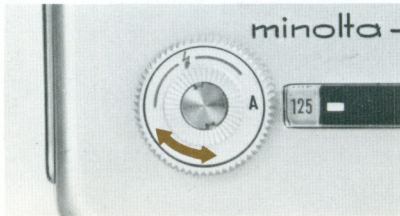
NOTE:

A click stops in between numbers denote ASA 320, 160, 80 and 40, DIN 26, 23, 20 and 17, respectively.

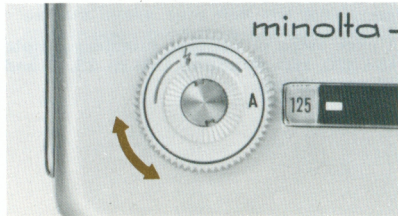


HOW TO TAKE PICTURES

- 12
- I. Automatic photography**
- 1. Setting shutter speed . . . Automatic diaphragm control**
1. For automatic camera operation line up "A" on the Auto/Flash selection dial with shutter speed window.



2. Set shutter speed in shutter speed window by turning the shutter speed ring located around Auto/Flash selection dial.



NOTE:

- The figures 30 through 500 appearing in the shutter speed window indicate shutter speeds from 1/30 to 1/500th of a second.
- For ordinary photography in good weather 1/125 or 1/250th of a second is recommended. In dim light or poor weather conditions, set camera speeds to 1/60 or 1/30th of a second.

CAUTION:

- Do not set shutter speed control dial between numbers.
- Especially at slow shutter speed operation, hold your camera firmly at your face and squeeze the shutter release button to eliminate camera movements, which will cause unsharp picture.
- Don't change shutter speed while depressing the shutter release button.

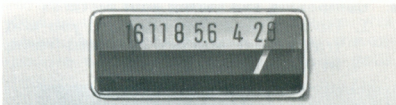


2. Over- and underexposure warnings

If exposure needle stays in red zone at right end of F-number scale when holding camera toward subject, set camera to a lower shutter speed or use flash as described later. If needle stays in left red zone, set camera to higher shutter speed.

NOTE:

- When there is not adequate light for taking picture the shutter is automatically locked and a red warning signal appears at the bottom of the viewfinder when you depress the shutter release button.



16 **3. Composing and taking your pictures**

1. Hold camera firmly against you and frame your subject in bright-frame in the viewfinder.



2. Squeeze shutter release button gently.



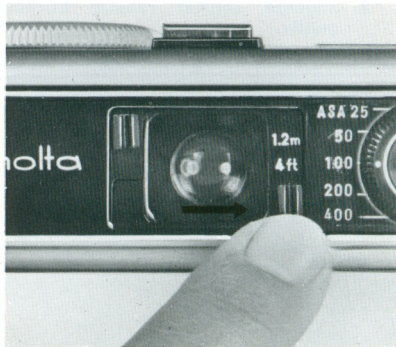
CAUTION:

- Due to the small size of the camera, you should be very careful not to cover the exposure meter window or lens with your fingers.

4. Short-distance lens

Short-distance lens (built-in close-up lens) located behind lens cover should be used for subject at 1.2 m, 4 ft. range. Slide short-distance lens all way in until you see red close-up signal at the left side in viewfinder. For composing with short-distance lens in position use the area marked off by two short vertical lines of the bright-frame in viewfinder.

For ordinary distant shots or group shots, slide short-distance lens out of place completely. If short-distance lens slide is not completely in or out of position the camera will not work.



F No.	2.8	4	5.6	8	11	16
1.2 m	1.34	1.43	1.55	1.76	2.18	3.29
	1.09	1.04	0.98	0.91	0.83	0.73
4 ft.	4'4 $\frac{3}{4}$ "	4'8 $\frac{1}{4}$ "	5'1"	5'9 $\frac{1}{4}$ "	7'1 $\frac{3}{4}$ "	10'9 $\frac{1}{2}$ "
	3'6 $\frac{3}{8}$ "	3'4 $\frac{3}{8}$ "	3'2 $\frac{3}{8}$ "	2'11 $\frac{3}{4}$ "	2'8 $\frac{3}{8}$ "	2'4 $\frac{3}{4}$ "



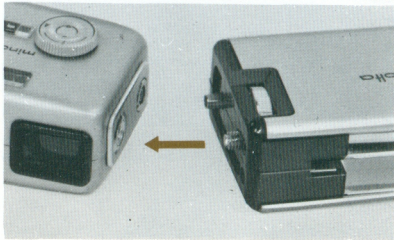
II. Flash photography

MG-S Flashgun or Cube-gun. One for bulb, one for flash-cube. Optionally available.

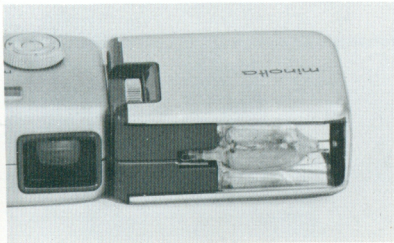
1. To install battery in flashgun, slide flashgun body out of case and place battery in position. Make sure (+) side of battery is to the (+) contact of the flashgun.



2. Attach flashgun to camera by means of screw provided on flashgun. Be sure that the contacts and screw of camera and gun firmly in position.



3. Insert flash bulb or flashcube. When inserting flashcube, observe indications on case, then turn flashcube by hand so that it faces subject.



4. After film is advanced, set shutter speed at 1/30th of a second.

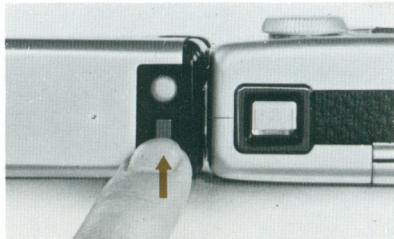


5. Calculate "F-numbers" by dividing the guide number shown in the table by the distance from the camera to subject. Set F-number in F-number scale by turning Auto/Flash selection dial.

GUIDE NUMBER TABLE

FLASH BULB TYPE	ASA	32	50	80	100	160	200	320	400
AG I	m ft	14 46	17 58	22 75	25 80	31 102	35 110	43 142	50 160
AG IB	m ft	10 33	12 40	15 50	17 55	22 75	25 80	31 102	35 110
CUBE	m ft	14 46	17 58	22 75	25 80	31 102	35 110	43 142	50 160

6. Press flash test button on back of flash-gun. When bulb and gun are correct, test lamp will light up.



7. After flash is fired, eject bulb by pushing ejector button. When using cubes, turn cube by hand and take it off at the position indicated on case of flashgun.



CAUTION:

- "F-numbers" are to be set after film has been advanced.
- MG-S Flashgun or Cube-gun uses 15v battery, Mallory M-504, Eveready 504 or equivalent.

ATTACHING FILTER

- 24** To attach filter on camera, slide filter from top of camera down over front panel into position using grooves at each end of the front panel.

NOTE:

- Filter factor is automatically compensated for in the Minolta 16 MG-S system.





UNLOADING FILM

- 26 After taking 18 pictures advance film until "E" (for empty) appears in frame counter window. Then take out cartridge and put it back in cartridge case to protect cartridge from damage in mailing.



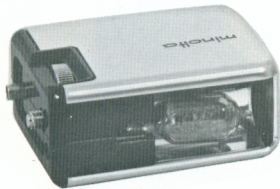
OPTIONAL ACCESSORIES

Buy the 16 MG-S and get a total photographic system. Especially for this new camera, Minolta has created a versatile group of accessories (optional) that make your photography more exciting and more challenging.

The MG-S Flashgun

The versatility of the 16 MG-S extends all the way to flash photography. It takes this direct contact flashgun for AG-1 flashbulbs that also features a built-in circuit checker. This accessory attaches simply and quickly to the camera body.

27



28 The MG-S Cube-Gun

This attachment takes the versatile, popular four-shot flashcube for flash photography. It, too, features a built-in circuit checker.



MG-S Close-Up Lenses

The 16 MG-S features three slide-in type close-up lenses as aids for precise close-up photography. The 25cm (0.8ft) lens is for use with the MG-S Copy Stand. The 40cm (1.3ft) and 80cm (2.6ft) lenses have built-in parallax correction finders.



Three MG-S Filters

For special photographic effects, the 16 MG-Stakes three specially-designed Minolta filters. IA filter; it absorbs excessive ultraviolet rays when shooting mountain, snow, sea and other distant scenes for using any films. Yellow filter (Y-48); it renders red and yellow subjects lighter than the eye sees them. It can also be used to darken sky, emphasize clouds for black-and-white film only. 80B filter; this filter is used for daylight type color film under artificial light.



30

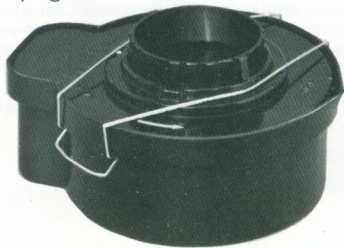
The MG-S Scale Chains

These accessories are recommended for free-hand close-up photos of outdoor subjects like plants and insects. They are available in 40 and 80cm sizes.



Minolta Dayload 16

Film development without a darkroom is possible with this valuable accessory, a strong, lightweight plastic 16mm film developing tank.



The MG-S Copy Stand

This is an easily-assembled aid for ultra-precise close-up photography, is especially recommended for stamp, specimen and map photography. With normal legs, the stand is suitable for 25cm close-ups. With additional leg extension, the stand is suitable for 40cm close-ups.



Minolta Enla-Unit 16

This Leica mount enlarging lens has a 16mm negative film carrier and can be attached to an ordinary Leica mount enlarger.

CARE AND STORAGE

- 32** Your Minolta 16 MG-S is made for long, care-free service. But there are a few things that you should do.

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

If you do not plan on using your camera for a long period of time, it is best to remove the battery from the camera.

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

Minolta Camera Co., Ltd. 18, 4-chome, Shiomachidori, Minami-ku, Osaka, Japan

Minolta Corp. 200 Park Avenue South, New York, N.Y. 10003, U.S.A.

Minolta Camera Handelsgesellschaft m.b.H. 2 Hamburg 1, Spaldingstrasse 1, West Germany



Minolta

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