

*you get all this*

IN YOUR COMPLETE  
**LINEX OUTFIT:**

**LINEX** Stereo Camera,  
shoulder strap and  
carrying case.

**LINEX** Battery illumin-  
ated Stereo Viewer.\*

One **LINEX** magazine  
of 8 pairs of color stereo  
film. Two plastic  
viewing frames.

\*Batteries are not included.



*brings the thrill of* **3-D** *reality*

Your new LINEX Stereo Camera will speak the truth... tell your real-life story in bright, full color, in three dimensions... capture vivid moments exactly as you treasure them in memory. Perhaps your friends used to glance at your ordinary snapshots and grunt, "Uh-huh. Nice." Now just show them your LINEX color 3-D shots and they'll rave, "It's the real thing! You could shake hands with those people, pick those flowers!" That third dimension is pure magic. No trick to using the LINEX, either. First, try a practice run. With no film in camera, go through the motions of shooting, until you have it all down pat. Everything easy and natural in your two hands. Then, make the best photographs ever!

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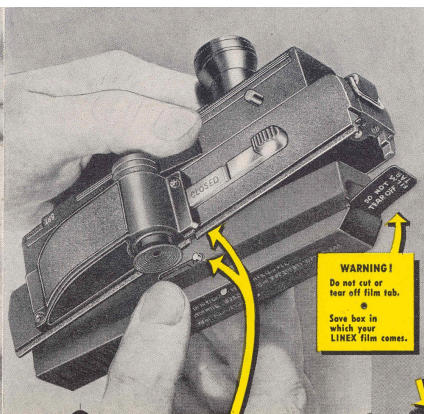
# the LINEX stereo VIEWER



Always push viewing slide through slot in viewer until you see the same picture in each eye-piece. Pictures are then in stereo-register.

*just look*

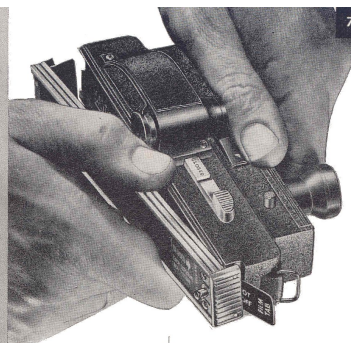
at those glowing, round-and-real photographs in your LINEX Stereo Viewer! Slip a film slide into the viewer, press illuminating button on the bottom, peek through eyepieces. Great day!



**WARNING!**  
Do not cut or tear off film tab.  
• Save box in which your LINEX film comes.

4

Place film magazine in camera. Make sure that viewfinder release is at **CLOSED**. Pin on top (see arrow) fits into slot in camera. **Don't remove film tab.**



5

Replace back on camera, leaving film **tab** sticking out from end of magazine and camera.

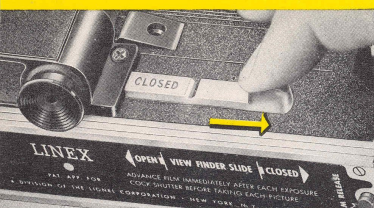


6

Lock back on camera by pushing camera lock downward to closed position.

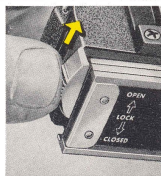


## How to load your **LINEX** stereo camera

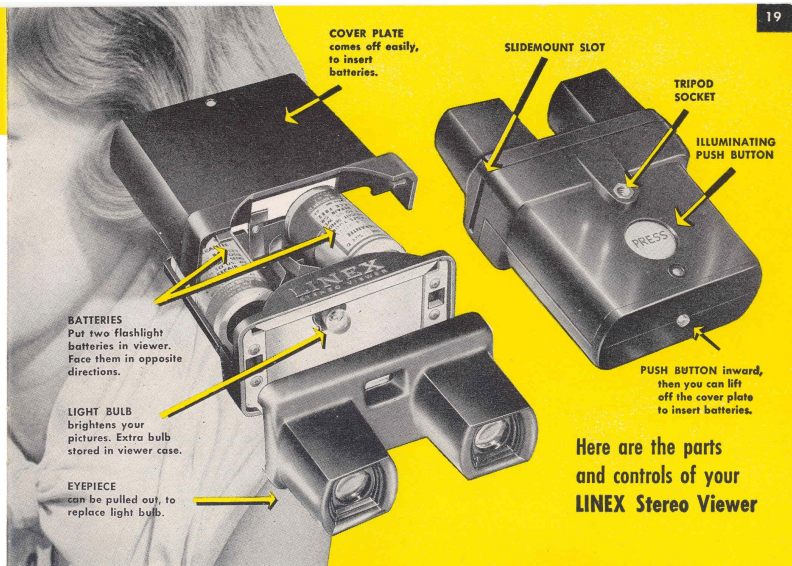


Move viewfinder release away from viewfinder to closed position.

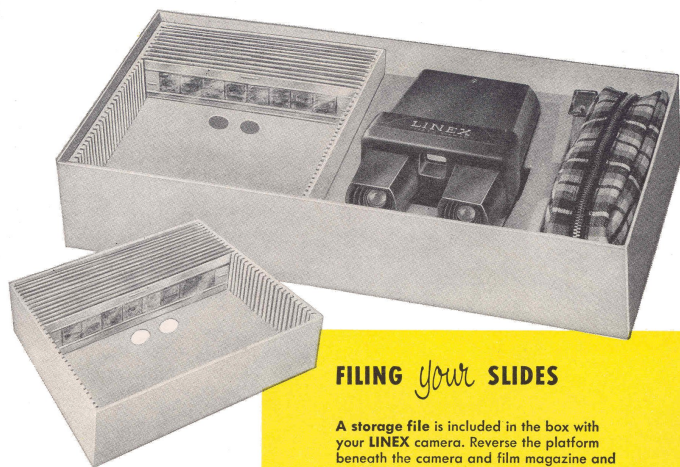
Push camera lock upward to open position.



Remove back of camera. You are now ready to put in your LINEX color film magazine.



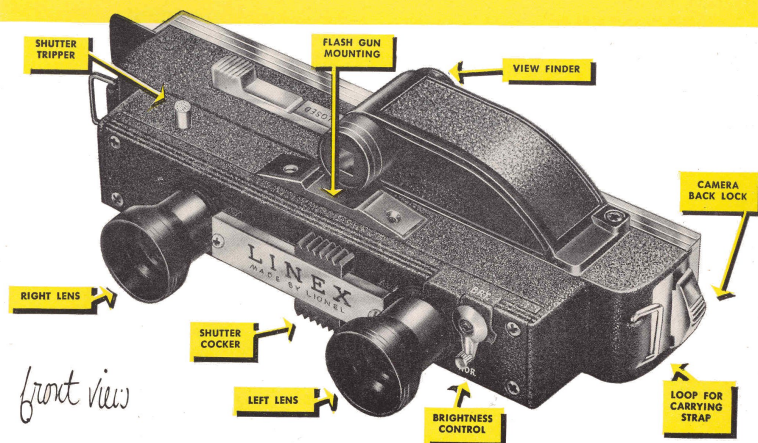
Here are the parts and controls of your **LINEX** Stereo Viewer



### FILING your SLIDES

A storage file is included in the box with your LINEX camera. Reverse the platform beneath the camera and film magazine and you find the storage file. Thus you keep camera in case, viewer and slides safe and handy at all times.

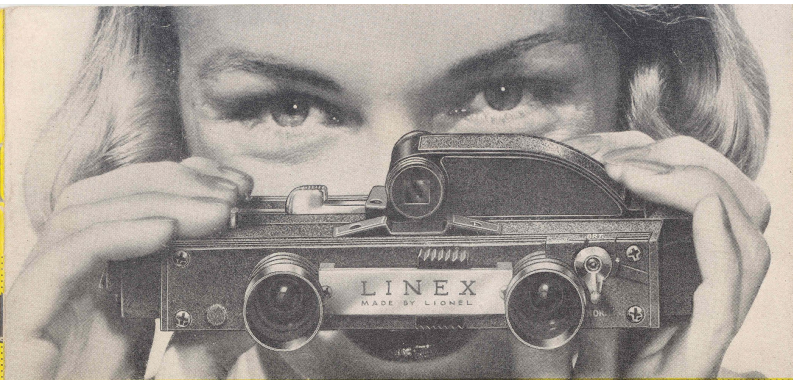
so easy to operate! step by step instructions on following pages.





**LINEX** stereo camera

MADE AND  
GUARANTEED BY  
LIONEL

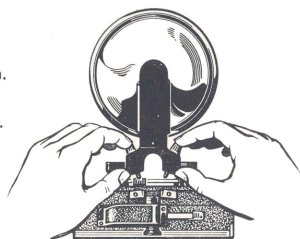


Here's how to use your new **LINEX** stereo camera

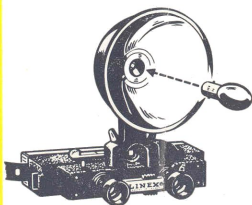
don't lose this  
book - price \$1.00

## ATTACH TO CAMERA

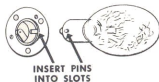
Set flash on top of camera.  
Push thumb screws down.  
Screw them into the sockets.



Push bulb straight in until it snaps in place. Do not turn it.



Use No. 5B (blue-coated) flash bulbs, or  
No. 5 (clear) bulbs plus the blue side of  
the shield.



To avoid accidents FIRST insert the bulb, THEN cock the shutter.

© 1954

## LIGHT UP THE SHADOWS

Early morning sunlight or late afternoon  
sunshine filtering through the leaves may  
give your subject a pale green complexion.  
Again this is the time you should use your  
Linex flash.



For those arty shadows. Your subject is  
lolling on the beach under a parasol or  
a picture hat. To you she looks good. To  
the color camera she is The Shadow. The  
flash, a little dimmer than the sun, will  
light up the face and save some of that  
romantic shadow too.

For rain, fog or gloom of night. You are  
determined to make a record of that fish  
that didn't get away, but up comes a  
shower. Get out the flash gun. Not only  
will it show up the fish in all its glorious  
natural color but it will put a sparkle into  
the rain drops so that you'll get "Fish in  
Rain" instead of "Something Under-  
exposed."





## QUICK, HENRY, THE FLASH!

To most amateur photographers flash means taking pictures indoors. Most professionals take very few pictures without one even in full daylight. Experts say that 75% of all daytime pictures can be improved by using a flash. Here's how.

When the sun shines from a direction that gives you awkward shadows on your subject, this is the time to use your flash to diminish these shadows, and lighten the dark portions of the subject.

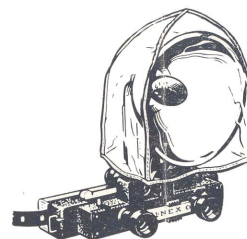


When your model is under a tree and the leaves and branches give you a mottled effect on the subject, this is the time to use your flash to eliminate what otherwise might be an unpleasing effect.



## COVER REFLECTOR WITH SHIELD

## BE SURE DRY CELLS ARE FRESH



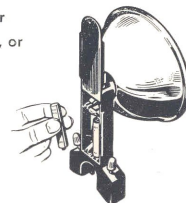
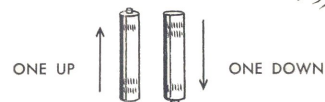
With 5B bulbs use clear side of shield for safety. (Flash bulbs have been known to shatter).

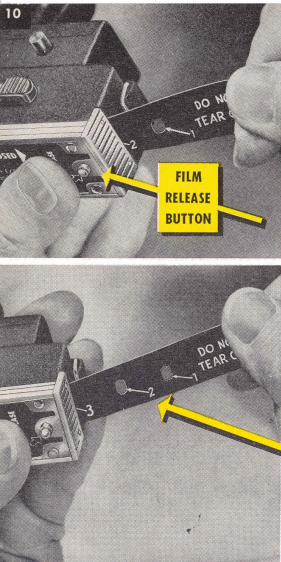
Blue side of shield is for economy. (Clear bulbs — No. 5's — are cheaper).

M-2 bulbs may be used with an adapter.

Replace them after 50-100 flashes, or After more than two months' storage, or After any combination of the two.

Slide back cover of flash UP  
Insert two "AA" dry cells.





And then—move film  
for next picture

**FIRST** press down film release button. (Don't hold it down.) Now pull out film tab slowly and firmly until it clicks to a stop. The number **2** will indicate that you are ready for your second shot (and so on).

Repeat as above after each picture until all 8 pairs are exposed.

**NOTE!** Film tab is **NOT** the film. It is only the leader which enables you to advance the film from picture to picture within the light-tight magazine.



Always advance film to next exposure immediately after shooting to avoid double exposure. Be sure to **cock shutter** before taking each picture.

After exposing the 8th pair of pictures **STOP**. Remove magazine from camera, and insert a fresh magazine. Don't try to pull leader past No. 8 exposure.

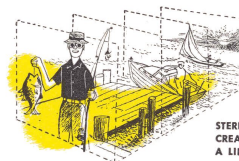
## HINTS on making fine color stereo pictures

Have something doing in the foreground, don't get too far away from your center of interest. That is the advice often dinned into the ears of snapshooters with ordinary cameras. If it is wise counsel for them, it is imperative for the maker of stereo shots. Your LINEX Stereo Camera is designed for photographing subjects from 6 to 10 feet distant from the camera.

**DON'T GET TOO FAR AWAY FROM YOUR CENTER OF INTEREST**



The farther away you retreat from your material, the less striking is the stereo or three-dimensional effect. In fact, mountains in the far distance, miles away, do not look three-dimensional at all, but just stand there like a stage backdrop. It is a matter of physical and optical law, and no camera can change this state of affairs.



**STEREO EFFECT CREATES DEPTH, A LIFE LIKE IMAGE**

Since foreground objects get the big play in stereo, there is another matter to keep in mind. Some insignificant item, such as a weed, or rock, or old tin can, which you didn't notice, lying there in the foreground, will loom right up in a stereo photograph. So you soon learn to watch out for and avoid unwanted foreground material.

You will be shooting with color film. In some ways this is easier than making black-and-white pictures. You don't have to worry whether somebody's brown hair is going to merge with a green bush in the background. The stereo effect also helps to separate planes, keep objects from running together into one image.



## Tips about color

But there are certain facts to remember about color film. It is not as fast as black-and-white film, and it does not tolerate as great brightness range. Let's see what all this means, to a camera fan out shooting pictures.

First, about speed. Very fast action is something you avoid, in color. That does not mean you must have a posed, lifeless effect merely to prevent blurs.

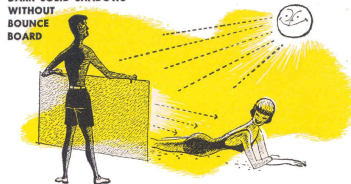


You simply watch for "the peak of action." Let's say a child is swinging back and forth in a swing. As the swing comes to the end of a forward movement, there is an instant of comparative stillness before it starts to swing back. Quite a long instant, in fact. Click the shutter at that peak-of-action moment and you get a good color shot which looks like a fast stop-action picture.

Now for brightness range. Suppose you have some green foliage, blue sky, a girl in a dark blue skirt and white blouse, all in one picture. There is a great brightness range between the white and dark blue.

The medium tones, neither very dark nor very light, will come out best. Of course, you can't

**DARK SOLID SHADOWS  
WITHOUT  
BOUNCE  
BOARD**



always manage to control colors in subject matter. Well, loss of detail in dark areas is usually not too serious. Just don't blame the film, camera, or your own inexperience for rather suppressed darks.

On the other hand, supposing you are photographing that lovely blond, in a pale green dress, against a light blue sky, in strong sunlight. No great brightness range, but everything extremely light in color. It might pay, for such a shot, to turn up that Brightness Control lever on your LINEX. (See page 8.)

Of course, you don't use this lever for sunlight on average subjects, not limited to light colors. This lever is intended for brilliant light at the seashore, in snow scenes, etc.

You do want plenty of sunlight for average subjects. A dull, overcast day is not for the color fan. If there is only a thin cloud veiling the sun from time to time, on a sunny day, that veiling

**5**

Hold camera level and steady as you look through viewfinder. Have nearest subject approximately 6 feet from camera. Press shutter tripper gently. And that's all!

**RIGHT WAY**  
to hold camera, exactly level, horizontally.

**WRONG WAYS** to hold stereo camera, tilted off the horizontal. Makes imperfect stereo pairs.

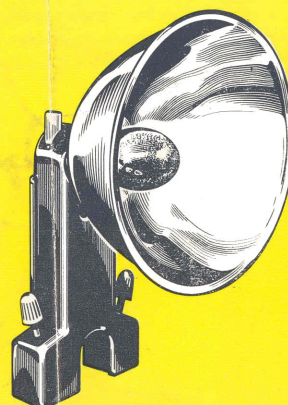


**COMPLETE LINEX CAMERA  
OUTFIT \$44<sup>50</sup>**

*Includes:*  
3-dimension color camera, Battery  
illuminated Viewer, Carrying Case,  
Carrying Strap, One magazine load  
of Linex color film, and one Slide File  
Compartment.

*Extra Magazines of Linex Color  
Film \$1.25 — includes complete  
processing, and clear plastic  
slide mounts.*

*How to use* **LINEX FLASH**



**MADE BY THE LINEX CORPORATION  
NEW YORK, N. Y.**

**A DIVISION OF THE LIONEL CORPORATION**

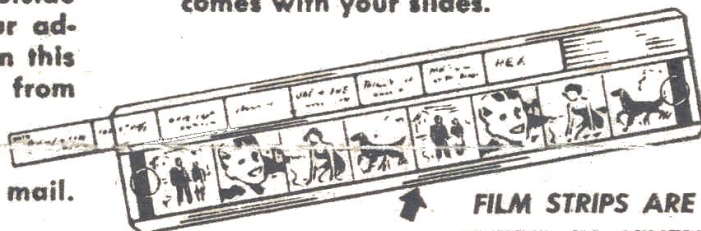




## RETURN YOUR EXPOSED MAGAZINE IN IT FOR DEVELOPING

The price you paid for this LINEX film includes the developing without extra charge. Follow these simple directions for sending your exposed magazine to the laboratory below:—

- 1 Use this box to return your exposed film magazine to the Laboratory.
- 2 Address the outside of this carton to  
**FILM PROCESSING LABORATORY  
BOX #263  
ROCKVILLE CENTRE, L. I., N. Y.**
- 3 Print your return address on the outside of this carton and also print your address on the label you will find in this carton — do not detach this label from the carton.
- 4 Place proper postage on box, and mail.
- 5 Processed stereo transparencies will be returned to you promptly in the form of two pairs of film strips.
- 6 When you receive them, insert a matching pair of strips into each of the two viewing slides which were attached to this carton. The strips should butt in the center of the slide with the black margins toward the outside.
- 7 Top of viewing slide provides space for you to insert an index titling strip which comes with your slides.



**LINEX cannot assume responsibility if this film is developed or processed elsewhere.**

### HERE ARE SUGGESTIONS TO CORRECT COMMON PICTURE FAULTS

#### FAULTS

PICTURE  
TOO DARK



PICTURE TOO  
LIGHT, COLOR  
WASHED OUT  
LOOKING



PICTURE  
BLURRED  
ALL OVER



DOUBLE  
EXPOSURE



#### CAUSES AND CORRECTION

Not sufficient light. Avoid taking pictures on dull days or in the shade, or early in the morning or late in the afternoon. The lens opening lever for general use should be set to "normal" or "NOR."

When light conditions are unfavorable use the LINEX flash.

Too much light. Set the lens opening lever at "brilliant" or "BRT" to decrease amount of light.

The camera moved during exposure. Hold camera steady and level, then squeeze shutter-release button gently.

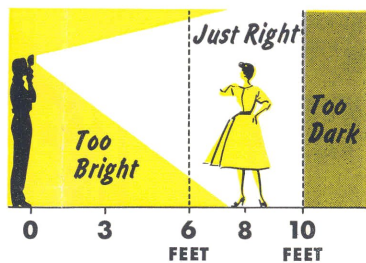
Failure to advance film properly. Be sure to transport film to next exposure setting immediately after each shot.

#### CAUTION

- 1 KEEP UNEXPOSED COLOR FILM AND YOUR LOADED CAMERA IN A COOL PLACE. DON'T LEAVE IT IN THE GLOVE COMPARTMENT OF YOUR CAR IN THE SUMMER TIME.
- 2 FINGER PRINTS AND SCRATCHES CAN BE AVOIDED BY HANDLING LINEX FILM TRANSPARENCIES BY THE EDGES.



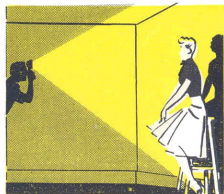
## HOW FAR?



Linex Flash and No. 5B bulbs give correct illumination at about 6 to 10 feet. Closer than six feet is too bright. If your subject is around six feet away (two paces) use the smaller lens opening marked "BRT" or "B" on your camera. Further than ten feet the pictures get a little on the dark side.

## YOU'LL HAVE TO USE JUDGMENT

If walls and ceiling are light and close to your subject you can get good pictures two or three feet further away and can set the lens opening to "BRT" at 6 or 7 feet. If background is dark come a little closer.



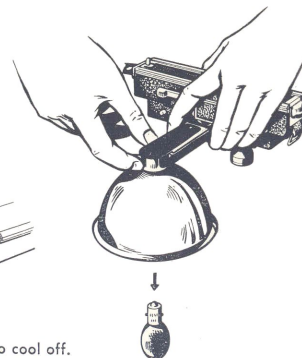
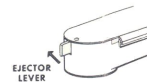
## IF THE FLASH MISSES FIRE!

## TO EJECT USED FLASH

## CAREFUL!

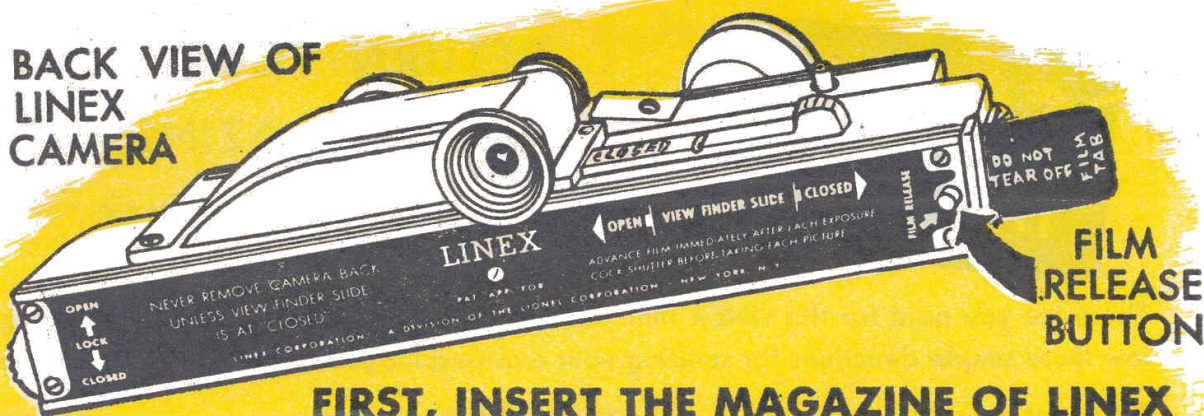
When taking indoor pictures if flash fails to go off don't worry. You haven't spoiled the picture. Normal inside illumination is never bright enough to spoil the film. Just reset the shutter and shoot again.

Tilt flash down.  
Pull lever to side.  
This ejects bulb.



The lamp gets HOT.  
Give it 15-30 seconds to cool off.

# BACK VIEW OF LINEX CAMERA

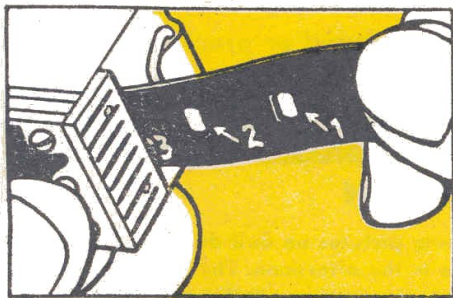


**FIRST, INSERT THE MAGAZINE OF LINEX COLOR FILM IN THE CAMERA, WITH THE FILM TAB EXTENDING BEYOND CAMERA.**

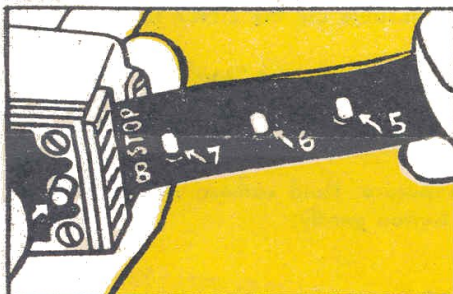
## HOW TO MOVE FILM FROM ONE EXPOSURE TO THE NEXT



**FIRST PICTURE** — Pull film tab out gently until it clicks to a stop for stereo picture No. 1.



**EACH SUCCEEDING PICTURE** — Press film release button once! (Don't hold it down.) Now pull film tab out slowly and firmly. Film will click to a stop for next exposure number.



**REPEAT AS ABOVE** for each succeeding picture until all eight exposures have been snapped.



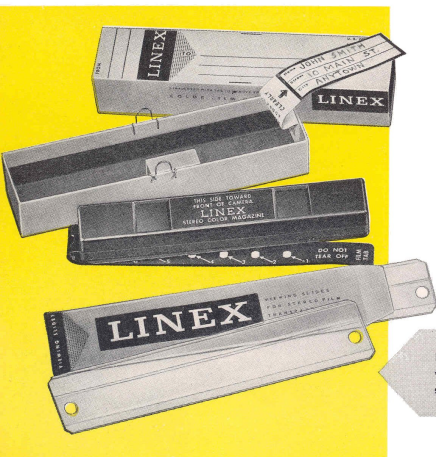
**BE SURE TO ADVANCE FILM AFTER EACH PICTURE TO AVOID DOUBLE EXPOSURE.**

## LINEX CORPORATION

15 E. 26th St. New York 10, N. Y.  
A DIVISION OF THE LIONEL CORPORATION



## mail film to processing laboratory



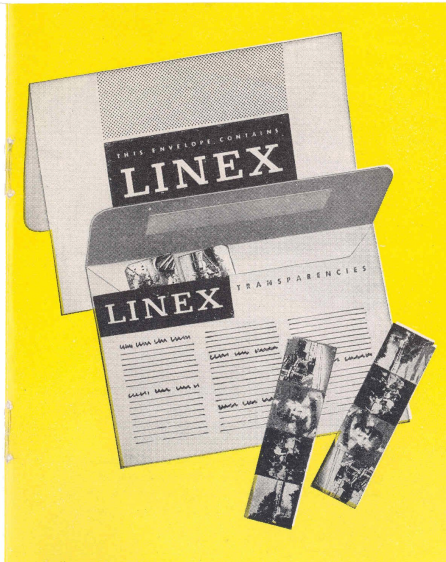
DON'T FORGET to print your name and address clearly

### IMPORTANT!

You saved the box in which your LINEX film came, of course. Place exposed film magazine in same box, and mail to nearest processing laboratory. Name is listed inside box.

Print your name and address on label. **Do not** tear off label. Close box with wire clamps. On face of box, write name and address of processing laboratory, also your own name and address. Stick on stamps, and mail. Processed film is returned without charge.

KEEP THE TWO PLASTIC VIEWING FRAMES which came with film. Use them to mount your 8 stereo pairs when you receive processed film.



## how your PROCESSED FILM is returned to you

In this envelope you will find your processed color stereo film, in four pockets, each holding a strip of film.

Insert these four strips into the two plastic viewing frames which came with unexposed film.

There are right hand and left hand pairs. To match up pairs, see simple instructions on next page.

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putting film strips into  
VIEWING FRAMES

Slide processed color film strips into the two viewing frames, making sure that **black edges** are on the outside as shown.

Match up the pairs in each viewing frame. Butt them close together as shown in lower frame. Now view your pictures in the LINEX Stereo Viewer.

If pairs are not in perfect **3-dimension** register in the viewing frame, adjust them by moving film strip to right or left until **perfect** stereo pictures appear.

AVOID FINGERPRINTS HOLD FILM ON EDGES

Top of viewing slide provides space for you to insert the titling strip which comes with magazine.

1 After taking last picture (No. 8) move viewfinder slide to **closed** position. Never remove magazine from camera unless slide is **CLOSED**.

How to remove film magazine

2 To open camera back push lock to **OPEN** position. (Be sure viewfinder slide is in closed position.)

3 Now remove camera back. Take out exposed magazine, and put in a fresh one. Now replace back and lock to **CLOSED** position.





QUANTUM CERTIFICATE

Form No. 15256

|                   |  |
|-------------------|--|
| Name of Stock     |  |
| Serial No.        |  |
| Date Recd.        |  |
| Place of Purchase |  |
| Name of Purchaser |  |
| Amount            |  |

Value

Notes

The above goods are guaranteed for a period of one year beginning from the date of purchase and repairable. The Government has no liability for damages to property not covered by this.

**QUANTUM TRADING CO., LTD.**

and others

House 2, B. No. 441

Calcutta, India

(Please send this card to the)

QUANTUM CERTIFICATE

Form No. 15256

|                   |  |
|-------------------|--|
| Name of Stock     |  |
| Serial No.        |  |
| Date Recd.        |  |
| Place of Purchase |  |
| Name of Purchaser |  |
| Amount            |  |

The above goods are guaranteed for a period of one year beginning from the date of purchase and repairable.

**QUANTUM TRADING CO., LTD.**

and others

House 2, B. No. 441

Calcutta, India



## 16mm FILM

**Keywords:** Police officers, Police, Psychological health, Stress, Coping, Police officers, Police, Psychological health, Stress, Coping

<sup>1</sup> The authors would like to acknowledge all participating firms. The authors are also grateful to the referees for their comments and suggestions.

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1. *Journal of the American Medical Association*, 2000; 284: 2689-2695.

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**Figure 1**

|   | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1 | 1 | 2 | 3 | 4 | 5 |
| 2 | 2 | 3 | 4 | 5 | 6 |
| 3 | 3 | 4 | 5 | 6 | 7 |
| 4 | 4 | 5 | 6 | 7 | 8 |
| 5 | 5 | 6 | 7 | 8 | 9 |

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**MAMIYA**

*automatic*





## NAVY EXCHANGE SALES SLIP

EXCHANGE LOCATION

EXCHANGE NO.

DEPT.

DATE

SALESCLERK

QUAN.

DESCRIPTION

AMOUNT

FEDERAL RETAIL EXCISE TAX

TOTAL AMOUNT THIS SALES SLIP

I CERTIFY THAT THE ABOVE MERCHANDISE IS NOT FOR RESALE  
AND IS PURCHASED FOR,



MY OWN USE

MY DEPENDENT'S  
USEBONAFIDE  
GIFT

CUSTOMER'S SIGNATURE

SERIAL/EXCH. PERMIT NO.

No. Q

335424

THIS RECEIPT SHOULD BE  
PRESENTED WHEN RETURNING  
MERCHANDISE FOR EXCHANGE  
OR REFUND.



**MAMIYA CAMERA CO., LTD.**

No. 7, 1-CHOME, HONGO, BUNKYO-KU, TOKYO, JAPAN

**MAMIYA**

*automatic*



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## FILM LOADING

The MAMIYA 16 Automatic is capable of using any type of 16 millimeter film—perforated, non-perforated, monochrome, color—provided it is cut in 1½-foot lengths and loaded in MAMIYA 16 cassettes or magazines.

When loading or removing cassettes or magazines, always avoid direct sunlight; work in the shade or under subdued light.

Before loading, unlock safety lock (1), and repeat filmwind and shutter release action until numeral 18 (red) appears in the exposure counter (5). Filmwind is done by turning filmwind wheel (4) until it stops; and shutter release is effected by pressing shutter button (3).

Shift safety lock (1) to “lock” position, then remove backlid by depressing backlid catch (6) with thumbnail.

### A. When using film loaded in MAMIYA 16 double magazine

1. Into empty film magazine chamber (7) insert magazine

## SHUTTER OPERATION

1. Intermediate settings of the shutterspeed dial (10) will not give intermediate shutterspeeds. Always use click-stop positions to avoid error.

2. Aperture settings, though indicated in steps (each step doubling or halving the intensity of light), need not be at the graduations.

3. Shutterspeed changes may be effected at any time, either before or after cocking (filmwind).

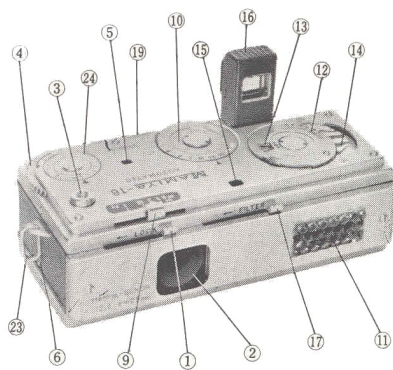
4. The screw socket at center of shutter button (3) is for cable release or self-timer.

5. When using flash, shutterspeed and aperture settings are obtained, without the use of the exposure meter, on the basis of flash intensity and distance to the subject (see instructions accompanying flashbulb).

## CAMERA GRIP

After focus and exposure adjustments have been completed,

## NOMENCLATURE



1. Safety Lock and Lens Cover
2. Lens Window
3. Shutter Button
4. Filmwind Wheel
5. Exposure Counter
6. Backlid Catch
7. Film Magazine Chamber
8. Filmwind Indication
9. Focusing Lever
10. Shutter speed Dial
11. Photocell Window
12. Viewfinder
13. Rangefinder
14. Rangefinder Window
15. Rangefinder Lens
16. Rangefinder Cover
17. Rangefinder Window
18. Rangefinder Window
19. Rangefinder Window
20. Rangefinder Window
21. Rangefinder Window
22. Rangefinder Window
23. Rangefinder Window
24. Rangefinder Window

## SYNCHROFLASH PHOTOGRAPHY

When mounting camera on grip-holder, interpose accessory bracket. Position flashgun on accessory bracket, and secure connector cord to synchroflash terminal (21). Accurate synchronization is available at shutter speed of 1/25 and below.

## LOADING MAGAZINE OR CASSETTE WITH FILM

This operation must be done in complete darkness by feel, or under a dark green light. Cut 18 inches of 16 millimeter film from stock. On empty spool, secure end of film, emulsion side downward, with small piece of Scotch tape, and wind on to spool. Place spool-wound film in cassette, with about an inch of the film protruding through the slit. When loading the double-magazine, next secure free end of film, emulsion side downward, to take-up spool, again using Scotch tape, and insert spool in take-up side of magazine. See that there is no slack. Replace magazine covers, and secure with bits of Scotch tape.

When loading cassette, using spool provided with spring clip, do not secure end of film by means of pip on clip and groove cut on spool. Merely slip end of film, emulsion side downward, under clip, then wind. Place in cassette replace cover, and secure with Scotch tape.

Magazine loading should be practised beforehand out in the light, with a piece of discarded film. When loading unexposed film, keep emulsion side (dull, coated, non-glossy side) free of fingermarks.



# INSTRUCTIONS

for use of

The

## MAMIYA SUPER-16

THE GREAT MIDGET CAMERA

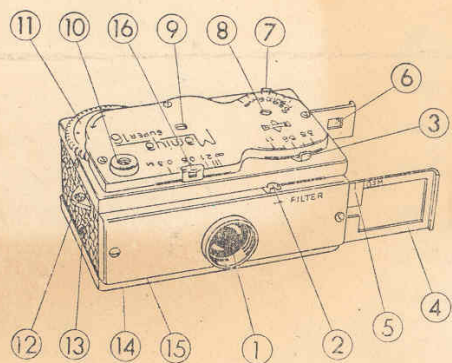
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TEL: (20) 3481-6.

### Construction of the MAMIYA SUPER-16



1. Lens opening (closes when finder frame is retracted)
2. Filter lever (filter in position when pushed fully towards finder frame)
3. Lens stop lever (adjusts lens speed from f:3.5 to f:11)
4. Frame-type view finder (locks shutter button when retracted)
5. Finder parallax correction (partly retract finder frame for close-up shots at 1 foot or 1½ feet)
6. View finder eye-piece (pull fully out for use)
7. Shutter speed control lever (bulb and from 1/2 to 1/200 sec.)

8. Film advance indicator
9. Picture number indicator
10. Shutter button and cable release screw
11. Film-wind and shutter-cock thumb wheel
12. Eyelet for neck cord
13. Bottom cover release button
14. Syncro-flash connection and tripod socket-screw combined
15. Filter change lever (push towards lens opening, filter drops out)
16. Focusing lever (adjusts from 1 foot to infinity)

### Loading the MAMIYA SUPER-16 with film

When loading or unloading the MAMIYA SUPER-16, it is advisable to avoid direct sunlight or other bright lights.

The unloaded MAMIYA SUPER-16 is prepared for loading by cocking and releasing the shutter until number 19 (red) shows on the picture number indicator (9). Remove bottom cover by pressing bottom cover release button (13) with thumbnail and pulling upward. Place camera in position shown in Fig. 4 after removing empty film cartridge. Remove empty cartridge cover and take out empty spool. Draw out about two inches of unexposed film from loaded cartridge. Fasten end securely to empty spool (A) by means of the spring clip and its nail (B) provided. (Fig.1) Replace spool and cartridge cover. (Fig.2)

Then as shown in Fig. 3 and 4, the cartridge are dropped into position with the loaded cartridge to the right and the take-up cartridge to the left. If the take-up spool does not catch properly

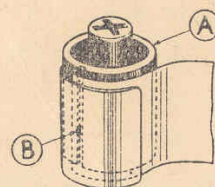


Fig. 1

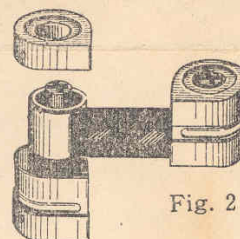


Fig. 2

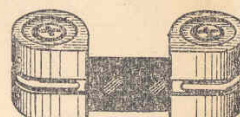


Fig. 3

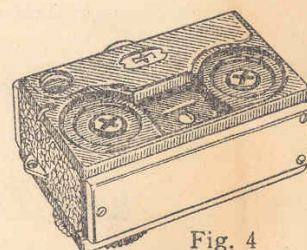


Fig. 4

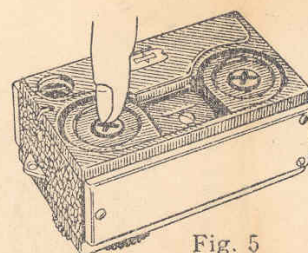


Fig. 5



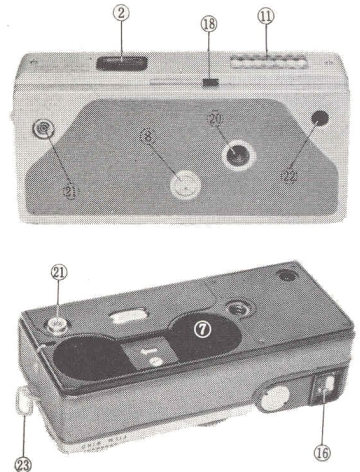
sight subject through the viewfinder, then gently squeeze down on the shutter button (3). The MAMIYA 16 Auto-

matic may be held in any way, so long as the lens window (2) is kept free of obstructions.

Since, with subminiature cameras, even slight unsteadiness of grip or stance can spoil a picture, take every precaution to prevent jerky movement when pressing the shutter button. The illustrations show methods of holding the camera for horizontal and vertical positions.

The special MAMIYA 16 Automatic grip-holder, used for making one unit out of camera and flashgun, will be of particular aid in obtaining maximum steadiness. Keep elbows close to body, and hold breath momentarily when taking shots.

12. Exposure Meter Dial
13. ASA Window
14. Guide Lines
15. Aperture Indication
16. Viewfinder (swivel mount)
17. Filter Lever
18. Filter Slot Cover
19. Focal Plane Mark
20. Tripod Socket
21. Synchroflash Terminal
22. Gripholder Peg Socket
23. Strap Eyelet
24. Film Type Reminder





filmwind indication (8) does not revolve, film is not being taken up properly. Open backlid to find cause of trouble. End of film may have become detached from the take-up spool.

3. When not taking picture, keep safety lock (1) in safety position to lock shutter button (3), with lens protected by cover.

#### **B. When using individual MAMIYA 16 cassettes**

1. Have on hand an empty cassette for use on the take-up side. Open empty cassette and remove spool. Draw out about two inches of film from loaded cassette and secure end to empty spool (A) by means of spring clip (B), utilizing pip on clip and groove on spool to prevent slippage. Wind a turn or so on spool, then fit in empty cassette. (Fig. 2)

2. Replace cover half of cassette and secure with small pieces of Scotch tape.

3. Open camera, and insert cassettes in magazine chamber (7), the take-up cassette in chamber with filmwind spindle. (Fig. 3) Procedures after this point are the same as with the

will be automatically adjusted to give correct exposure in conjunction with the pre-set shutterspeed.

#### **2. Pre-setting the aperture size for determination of proper shutterspeed by means of the exposure meter**

1) Turn meter dial (12) to obtain desired aperture setting, visible in aperture indication (15).

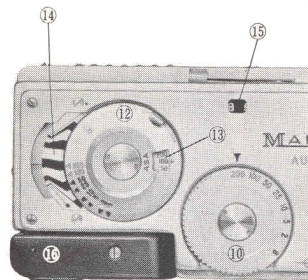
2) Point camera at subject, and follow guide line in alignment with meter needle to meter dial (12) shutterspeed scale.

3) Transfer shutterspeed thus obtained to shutterspeed dial (10).

If guide line indicates shutterspeed higher than 1/200, the aperture must be reduced. If shutterspeed indicated is too slow for good results, increase aperture size.

#### **Using the Built-In Filter**

The MAMIYA 16 Automatic has a built-in filter which can





with the film-wind spindle, the take-up cartridge will not sink flush with the camera bottom. In this event turn take-up spool with finger-tip as shown in Fig. 5, until spool catches and the cartridge falls into position with a distinct click.

Replace bottom cover by hooking round hole on positioning screw and snapping shut. Make two blank exposures to take up exposed portion of film, watching picture number indicator until No. 1 appears.

### Taking pictures with the MAMIYA SUPER-16

Pull out view finder (4) and eye-piece (6). Set lens stop (3) and shutter speed (7). Determine distance between camera and subject, and set focusing lever (16) accordingly. Aim at subject through eye-piece and view finder. Press shutter button gently but firmly. For quick picture taking at distances of over 6 feet, set focusing lever beforehand at mark between 6 and  $\infty$ . Stopping down the lens as much as permissible sharpens the picture and gives greater depth of focus.

The MAMIYA SUPER-16 is fitted with an extra high quality hard-coated anastigmat lens with a speed of F 3.5 and a focal length of 25mm. It has high resolving power and considerable depth of focus, so focusing is not critical at distances of over 6 feet. At distances less than 3 feet care must be exercised to focus accurately. More over, at close range the view finder must be corrected for parallax by setting at suitable position as indicated by the notches cut on finder frame (5). It is better to set shutter speed before winding film. To use filter, push filter lever towards finder frame. Retracting view finder automatically clears lens of filter. The MAMIYA SUPER-16 is furnished with a Y-2 (yellow, double exposure time) filter. For cleaning or changing filter, first pull out view finder then push filter change lever toward lens opening, filter will drop out when camera is set right side up.

### Holding the MAMIYA SUPUPR-16 (Fig. 6)

Fig. 6 shows two ways of holding the MAMIYA-16 when taking pictures. Any other comfortable way of holding the camera may be used, but care must be taken not to let any finger cover the lens aperture. The shutter release button should be pressed slowly but firmly.

The camera must not be jarred while a picture is being taken.

### Film of the MAMIYA SUPER-16

1.5 ft 16mm or Dbl 8 mm movie film available for reloading cartridge.

### Depth of field table for MAMIYA SUPER-16 (Circle of confusion $\frac{1}{40}$ mm)

| Distance     |     | $\infty$         | 12'             | 6'            | 3'             | 1.5'              | 1'                |
|--------------|-----|------------------|-----------------|---------------|----------------|-------------------|-------------------|
| Lens opening | 3.5 | $\infty \sim 28$ | 21 $\sim$ 9     | 7 $\sim$ 5    | 3.3 $\sim$ 2.7 | +0.8" $\sim$ -0.7 | +0.3" $\sim$ -0.3 |
|              | 5.6 | $\infty \sim 18$ | 36 $\sim$ 7     | 9 $\sim$ 4.5  | 3.5 $\sim$ 2.6 | +1.3 $\sim$ -1.1  | +0.5 $\sim$ -0.5  |
|              | 8   | $\infty \sim 13$ | $\infty \sim 6$ | 11 $\sim$ 4.1 | 3.8 $\sim$ 2.5 | +2.0 $\sim$ -1.5  | +0.7 $\sim$ -0.6  |
|              | 11  | $\infty \sim 9$  | $\infty \sim 5$ | 17 $\sim$ 3.7 | 4.3 $\sim$ 2.3 | +2.8 $\sim$ -2.1  | +1.0 $\sim$ -0.8  |

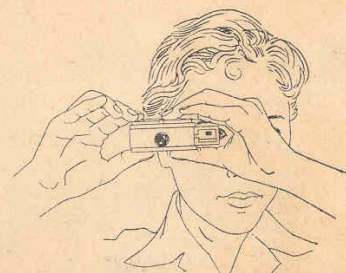
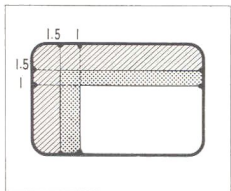


Fig. 6

combines extremely high resolving power with great depth of field, sharp pictures can be obtained with considerable leeway in focusing when the subject is more than six feet from the camera.

In addition to careful measurement of distances at close ranges, particularly under two feet, proper caution must be exercised to compensate for parallax by using the guide marks on the sides of the bright optical frame of the viewfinder. Otherwise portions at the top and right sides of the subject may be lopped off in the picture. At 1.5 feet, the hatched portion of the viewfinder frame, as shown in the diagram, will be out of the picture. At 1 foot, still less of the viewfinder image will be in the picture. Bear this in mind when sighting subjects at extremely close range.



DEPTH OF FIELD TABLE (circle of confusion 1/1,000 inch)

| DISTANCE     | ∞   | 12'        | 6'         | 3'         | 2'        | 1.5'       | 1'        |
|--------------|-----|------------|------------|------------|-----------|------------|-----------|
| LENS OPENING | 2.8 | 32' 3/4"   | 8' 9 3/4"  | 5' 1"      | 2' 9"     | 1' 10 3/4" | 1' 5 3/4" |
|              |     | ∞          | 19' 1/4"   | 7' 4"      | 3' 3 1/2" | 2' 1 1/2"  | 1' 6 3/4" |
|              | 4   | 22' 5 1/2" | 7' 10 3/4" | 4' 9 3/4"  | 2' 8"     | 1' 10 3/4" | 1' 5"     |
|              |     | ∞          | 25' 5 1/4" | 8' 1 1/4"  | 3' 5 1/4" | 2' 2"      | 1' 7"     |
|              | 5.6 | 16' 3/4"   | 6' 11"     | 4' 5"      | 2' 6 3/4" | 1' 6 3/4"  | 1' 4 3/4" |
| LENS OPENING |     | ∞          | 46' 3"     | 9' 5"      | 3' 7 3/4" | 2' 3"      | 1' 7 1/2" |
|              | 8   | 11' 3 1/4" | 5' 10 3/4" | 3' 11 1/2" | 2' 4 3/4" | 1' 8 3/4"  | 1' 4 3/4" |
|              |     | ∞          | 12' 6"     | 12' 6"     | 4'        | 2' 4 1/2"  | 1' 8 1/4" |
|              | 11  | 8' 2 1/2"  | 3' 11 1/4" | 3' 6 3/4"  | 2' 3"     | 1' 7 3/4"  | 1' 3 1/2" |
|              |     | ∞          | ∞          | 21' 2 1/2" | 4' 7"     | 2' 6 3/4"  | 1' 9 1/2" |

When measuring distances at ranges closer than 1.5 feet, use the focal plane mark (19) as the starting point, and whenever possible use a tape measure.

The o mark on the focusing scale, between 6 and ∞, is the standard focus point (12 feet), at which, with aperture set at f/8 everything from 6 feet to infinity will be sharp register in the finished picture.



be used whenever needed. Assuming that a Y 2 filter (yellow, exposure factor  $\times 2$ ) is in the filter slot, and it has been shifted into working position in front of the lens, compensation must be made for its absorption. This is done in either of three ways:

1. Obtain exposure settings; then, a) open up aperture by one step, or b) reduce shutterspeed by one step.
2. If filter is in constant use, reduce ASA setting on exposure meter dial (12) by one step (e.g. from 100 to 50, or from 50 to 25), and dispense with aperture or shutterspeed correction.

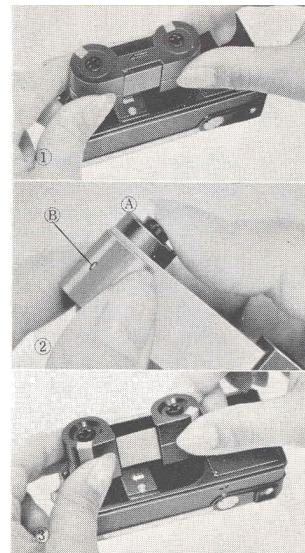
Note— 
$$\frac{\text{Filmspeed (Shutterspeed)}}{\text{Exposure Factor of Filter}} = \text{Corrected Filmspeed (Shutterspeed)}$$

Example: 
$$\frac{\text{ASA 100}}{1.5} = 66$$

The built-in filter can be changed simply by allowing the glass to fall out of its slot. Push filter slot cover (18) aside when filter is in retracted position.

with arrowmarks on magazine tie piece and camera pointing in same direction. (Fig. 1) If the take-up side does not sink flush snugly, turn spool slightly by hooking fingernail in shaped recess at end of core. Secure fit will result as soon as filmwind spindle engages other end. Replace backlid. If backlid does not fit snugly, turn filmwind indication so that it catches on spool.

2. Release safety lock (1), then while covering lens window, release shutter and wind three times. Numeral 1 will appear in exposure counter (5) window, and the camera is ready for picture-taking. If, while operating the filmwind wheel (4) the





## **DETERMINATION OF EXPOSURE SETTINGS**

First set the ASA (filmspeed or sensitivity) rating of the film in use in the ASA window (13) of the exposure meter dial (12). This is accomplished by holding the dial lever still and shifting the dial itself by means of the protruding pip.

### **1. Pre-setting the shutter speed dial (10) for determination of proper aperture setting by means of the exposure meter**

1) Depending on the type of subject (still subject can be photographed at low shutter speeds, moving objects call for high shutter speed if action is to be frozen) and on depth of field requirements, choose an appropriate shutter speed and turn shutter speed dial (10) to that setting.

2) Train camera on subject, so that light reflected by the subject strikes photocell window (11) and excites photocell. The meter needle will move and stop at a certain point. Adjust meter dial (12) so that black or white guide line in alignment with meter needle meets pre-selected shutter speed index mark on the meter dial (12). Then the aperture

double magazine.

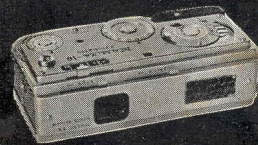
## **FOCUSING**

When picture-taking, gauge distance to subject with a rangefinder or by eye, then set focusing lever (9) accordingly on the focusing scale. Focus becomes increasingly critical as the range narrows down below 10 feet, but judging by eye also becomes easier. In case of doubt, use a pocket rangefinder or tape measure, particularly when large apertures must be used. Next, with the aid of the built-in exposure meter, determine the aperture and shutter speed settings. This is extremely simple because the meter dial (12) is mechanically coupled to the aperture control and to the shutter speed dial (10).

Erect the viewfinder (16) on its swivel mount, and sight subject through the eyepiece.

The lens of the MAMIYA 16 Automatic is a newly designed MAMIYA-SEKOR super-anastigmat with a speed of F 2.8, and focal length of 25 millimeters. Since this super-lens

**MAMIYA** 16  
*automatic*



**MAMIYA CAMERA CO., LTD.**

No. 7, 1-CHOME, HONGO, BUNKYO-KU, TOKYO, JAPAN

PRINTED IN JAPAN

**USER'S MANUAL**

MAMIYA 16 Automatic, soft leather carrying case, special synchroflash attachment (with two penlight batteries), three flashbulbs, three rolls of daylight loading film, and a synchroflash test lamp. These are packed in an elegant gift box.

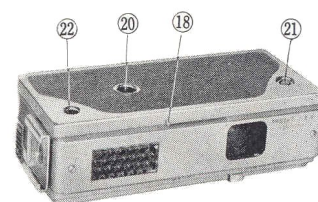
**MAMIYA 16 GRIP HANDLE...** Grip handle facilitates steady holding of the camera for elimination of blurring at slow shutterspeeds. Particularly handy when using standard flash-guns.

The grip handle also serves as a container for a double magazine.

#### LOADING MAGAZINE OR CASSETTE WITH FILM

This operation must be done in complete darkness by feel, or under a dark green light. Cut 18 inches of 16 millimeter film from stock. On empty spool, secure end of film, emulsion side downward, with small piece of Scotch tape, and wind

12. Exposure Meter Dial
13. ASA Window
14. Guide Lines
15. Aperture Indication
16. Viewfinder (swivel mount)
17. Filter Lever
18. Filter Slot Cover
19. Focal Plane Mark
20. Tripod Socket
21. Synchroflash Terminal
22. Gripholder Peg Socket
23. Film Type Reminder
24. Accessory Clip





## FILM LOADING

The MAMIYA 16 Automatic is capable of using any type of 16 millimeter film—perforated, non-perforated, monochrome, color—provided it is cut in 1½-foot lengths and loaded in MAMIYA 16 cassettes or magazines.

When loading or removing cassettes or magazines, always avoid direct sunlight; work in the shade or under subdued light.

Before loading, unlock safety lock (1), and repeat filmwind and shutter release action until numeral 18 (red) appears in the exposure counter (5). Filmwind is done by turning filmwind wheel (4) until it stops; and shutter release is effected by pressing shutter button (3).

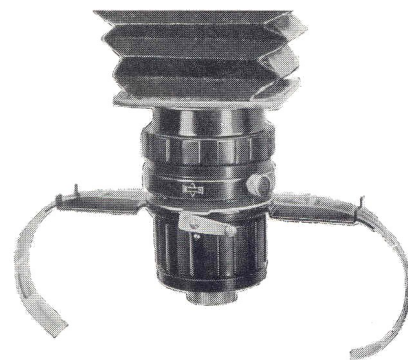
Shift safety lock (1) to “lock” position, then remove backlid by pushing backlid catch lock (7) toward the top and depressing

fyling power of the ENLAHEAD, miniature films in ordinary enlargers would require the lamphouse assembly to be positioned at excessive distances from the picture platform.

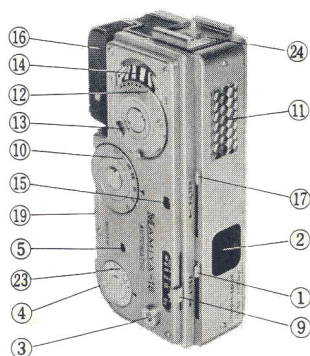
**MAMIYA BC FLASH-GUN . . . .** This battery-capacitor type collapsible flashgun

is compact and efficient. Connector is contained in body when not in use.

**MAMIYA 16 AUTOMATIC KIT . . .** Complete set include the



## NOMENCLATURE



1. Safety Lock and Lens Cover
2. Lens Window
3. Shutter Button
4. Filmwind Wheel
5. Exposure Counter
6. Backlid Catch
7. Backlid Catch Lock
8. Film Magazine Chamber
9. Focusing Lever
10. Shutter speed Dial
11. Photocell Window

on to spool. Place spool-wound film in cassette, with about an inch of the film protruding through the slit. When loading the double magazine, next secure free end of film emulsion side downward, to take-up spool, again using Scotch tape, and insert spool in take-up side of magazine. See that there is no slack. Replace magazine covers, and secure with bits of Scotch tape.

When loading cassette, using spool provided with spring clip, do not secure end of film by means of pip on clip and groove cut on spool. Merely slip end of film, emulsion side downward, under clip, then wind. Place in cassette, replace cover, and secure with Scotch tape.

Magazine loading should be practised beforehand out in the light, with a piece of discarded film. When loading unexposed film, keep emulsion side (dull, coated, non-glossy side) free of fingermarks.

handle.

When using the flash unit specially designed for the MAMIYA 16 series of subminiature cameras, first remove the adaptor for the JIS Type B connector plug, which is inserted in the synchroflash terminal (21). Otherwise, the screw terminal of the flash unit cannot be inserted. This adaptor can be taken out by unscrewing with a small screwdriver.

At shutterspeeds of less than 1/25 you will obtain perfect synchronization between flash and shutter action, and picture-taking will be same as when no flash is used. Be sure to adjust aperture according to distance as indicated by the instructions accompanying flashbulbs.

### **SPECIAL ACCESSORIES**

**MAMIYA 16 FILM MAGAZINE** . . . Available in two types—single

empty spool (A) by means of spring clip (B), utilizing pip on clip and groove on spool to prevent slippage. Wind a turn or so on spool, then fit in empty cassette. (Fig. 3)

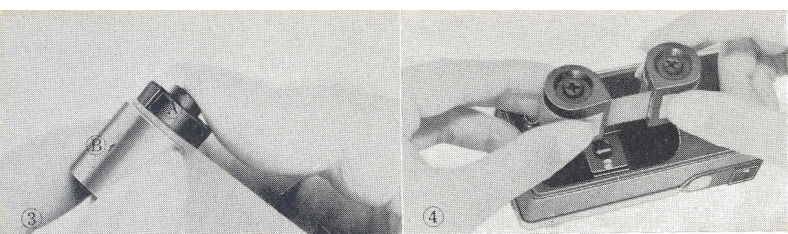
2. Replace cover half of cassette and secure with small pieces of Scotch tape.

3. Open camera, and insert cassettes in film magazine chamber (8), the take-up cassette in chamber with filmwind spindle. (Fig. 4) Procedures after this point are the same as with the double magazine.

### **FOCUSING**

When picture-taking, gauge distance to subject with a rangefinder or by eye, then set focusing lever (9) accordingly on the focusing scale. Focus becomes increasingly critical as the range narrows down below 10 feet, but judging by eye also becomes easier. In case of doubt, use a pocket rangefinder





release shutter and wind three times. Numeral 1 will appear in exposure counter (5) window, and the camera is ready for picture-taking.

3. When not taking picture, keep safety lock (1) in safety position to lock shutter button (3), with lens protected by cover.

**B. When using individual MAMIYA 16 cassettes**

1. Have on hand an empty cassette for use on the take-up side. Open empty cassette and remove spool. Draw out about two inches of film from loaded cassette and secure end to

or double. For full enjoyment of the versatile performance afforded by the MAMIYA 16, have on hand several sets of magazines containing film. These magazines are reloadable, and should last for quite some time. Use any cine film (16 mm negative type) for reloading (in complete darkness). Film should be cut in lengths of  $1\frac{1}{2}$  feet.

**MAMIYA 16 DAYLIGHT LOADING FILM** . . . MAMIYA 16 film is available preloaded in MAMIYA 16 magazines for immediate use.

**MAMIYA 16 FILM FOR RELOADING** . . . Three rolls per package, cut to length, ready for darkroom loading into special MAMIYA 16 magazines. This special fine-grain, panchromatic film of high sensitivity is of extra quality for good results with subminiature cameras.

**MAMIYA 16 FILTERS** . . . For color correction, contrast intensification, and filmspeed reduction.

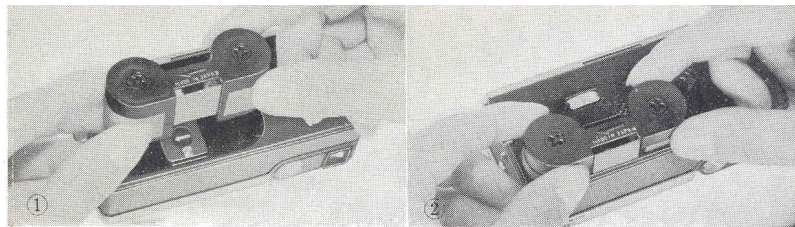
**Yellow filters** are used for absorbing ultraviolet and blue

light to which photographic film is extra-sensitive. In reproduction, the sky is slightly darkened, and clouds appear distinctly.

**Skylight filters** are used in color photography for obtaining better color balance, and further instead of UV filters (absorb only ultraviolet light, are used for distant shots, and for protecting the lens against dust and scratches).

**ND (neutral density) filters** are used when photographing extremely bright subjects without stopping down the aperture, or when extremely fast film is used.

**ENLAHEAD ENLARGER ATTACHMENT**... The ENLAHEAD is an attachment designed for making enlargements of all sizes, up to 10"×12", from MAMIYA 16 and other 10 mm.×14 mm. miniature negatives. The ENLAHEAD replaces the regular lens fitted to "Fuji", "Balloy", "Focamat" and other enlargers available on the market. Without the high magni-



backlid catch (6) with thumbnail.

**A. When using film loaded in MAMIYA 16 double magazine**

1. Into empty film magazine chamber (8) insert magazine with arrowmarks on magazine tie piece and camera pointing in same direction. If the take-up side does not sink flush snugly, turn spool slightly by hooking fingernail in + shaped recess at end of core. Secure fit will result as soon as filmwind spindle engages other end. (Figs. 1 & 2) Replace backlid.

2. Release safety lock (1), then while covering lens window,

DEPTH OF FIELD TABLE (circle of confusion 1/1,000 inch)

| DISTANCE     | ∞   | 12'        | 6'         | 3'         | 2'        | 1.5'       | 1'         |
|--------------|-----|------------|------------|------------|-----------|------------|------------|
| LENS OPENING | 2.8 | 32' 3/4"   | 8' 9 1/4"  | 5' 1'      | 2' 9"     | 1' 10 1/4" | 1' 5 1/4"  |
|              |     | ∞          | 19' 1 1/4" | 7' 4"      | 3' 3 1/2" | 2' 1 1/2"  | 1' 6 1/4"  |
|              | 4   | 22' 5 1/2" | 7' 10 1/2" | 4' 9 1/4"  | 2' 8"     | 1' 10 1/4" | 1' 5"      |
|              |     | ∞          | 25' 5 1/4" | 8' 1 1/4"  | 3' 5 1/4" | 2' 2"      | 1' 7"      |
|              | 5.6 | 16' 3/4"   | 6' 11"     | 4' 5"      | 2' 6 1/4" | 1' 9 1/2"  | 1' 4 1/4"  |
|              |     | ∞          | 46' 3"     | 9' 5"      | 3' 7 1/4" | 2' 3"      | 1' 7 1/2"  |
| LENS OPENING | 8   | 11' 3 1/4" | 5' 10 1/2" | 3' 11 1/2" | 2' 4 1/4" | 1' 8 3/4"  | 1' 4 1/4"  |
|              |     | ∞          | ∞          | 12' 6"     | 4'        | 2' 4 1/2"  | 1' 8 1/4"  |
|              | 11  | 8' 2 1/2"  | 4' 11 1/4" | 3' 6 1/4"  | 2' 3"     | 1' 7 1/4"  | 1' 3 1/2"  |
|              |     | ∞          | ∞          | 21' 2 1/2" | 4' 7"     | 2' 6 1/4"  | 1' 9 1/2"  |
|              | 16  | 5' 8"      | 3' 10 3/4" | 2' 11 3/4" | 2' 1 3/4" | 1' 6 1/4"  | 1' 2 1/4"  |
|              |     | ∞          | ∞          | ∞          | 6'        | 2' 11 1/4" | 1' 11 1/2" |

The ∅ mark on the focusing scale, between 6 and ∞, is the standard focus point (12 feet), at which, with aperture set at f/8 everything from 6 feet to infinity will be in sharp register in the finished picture.

3. Shutter speed changes may be effected at any time, either before or after cocking (filmwind).

4. The screw socket at center of shutter button (3) is for cable release or self-timer.

5. When using flash, shutter speed and aperture settings are obtained, without the use of the exposure meter, on the basis of flash intensity and distance to the subject (see instructions accompanying flashbulb).

## CAMERA GRIP

After focus and exposure adjustments have been completed, sight subject through the viewfinder, then gently squeeze down on the shutter button (3). The MAMIYA 16 Automatic may be held in any way, so long as the lens window (2) is kept free of obstructions.

Since, with subminiature cameras, even slight unsteadiness



or a tape measure, particularly when large apertures must be used. Next, with the aid of the built-in exposure meter, determine the aperture and shutter speed settings. This is extremely simple because the meter dial (12) is mechanically coupled to the aperture control and to the shutter speed dial (10).

Erect the viewfinder (16) on its swivel mount, and sight subject through the eyepiece.

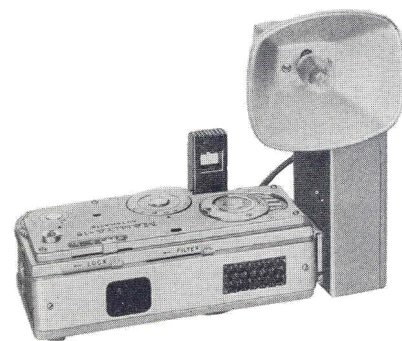
The lens of the MAMIYA 16 Automatic is a newly designed MAMIYA-SEKOR super-anastigmat with a speed of F2.8, and focal length of 25 millimeters. Since this super-lens combines extremely high resolving power with great depth of field, sharp pictures can be obtained with considerable leeway in focusing when the subject is more than six feet from the camera.

In addition to careful measurement of distances at close

## SYNCHROFLASH PHOTOGRAPHY

For synchroflash picture taking with your MAMIYA 16 Automatic, mount the special MAMIYA BC flash unit on the accessory clip (24) and plug connector cord into the synchroflash terminal (21).

When you are using the special grip handle, any make of flashgun can be mounted on the accessory clip of the flashgun holder interposed between the camera and the grip



correction.

Note,— 
$$\frac{\text{Filmspeed (Shutterspeed)}}{\text{Exposure Factor of Filter}} = \text{Corrected Filmspeed (Shutterspeed)}$$

Example: 
$$\frac{\text{ASA 100}}{1.5} = 66$$

The built-in filter can be changed simply by allowing the glass to fall out of its slot. Push filter slot cover (18) aside when filter is in retracted position.

### SHUTTER OPERATION

1. Intermediate settings of the shutterspeed dial (10) will not give intermediate shutterspeeds. Always use click-stop positions to avoid error.

2. Aperture settings, though indicated in steps (each step doubling or halving the intensity of light), need not be at the graduations.

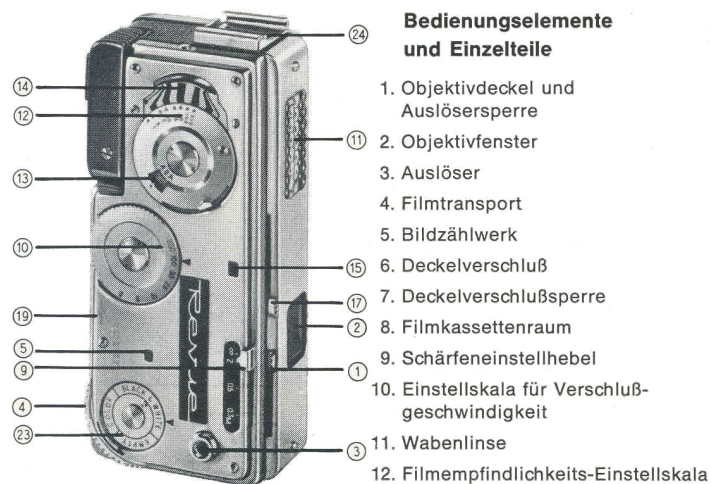
### DETERMINATION OF EXPOSURE SETTINGS

First set the ASA (filmspeed or sensitivity) rating of the film in use in the ASA window (13) of the exposure meter dial (12). This is accomplished by holding the dial lever still and shifting the dial itself by means of the protruding pip.

#### 1. Pre-setting the shutterspeed dial (10) for determination of proper aperture setting by means of the exposure meter

1) Depending on the type of subject (still subject can be photographed at low shutterspeeds, moving objects call for high shutterspeed if action is to be frozen) and on depth of field requirements, choose an appropriate shutterspeed and turn shutterspeed dial (10) to that setting.

2) Train camera on subject, so that light reflected by the subject strikes photocell window (11) and excites photocell. The meter needle will move and stop at a certain point.



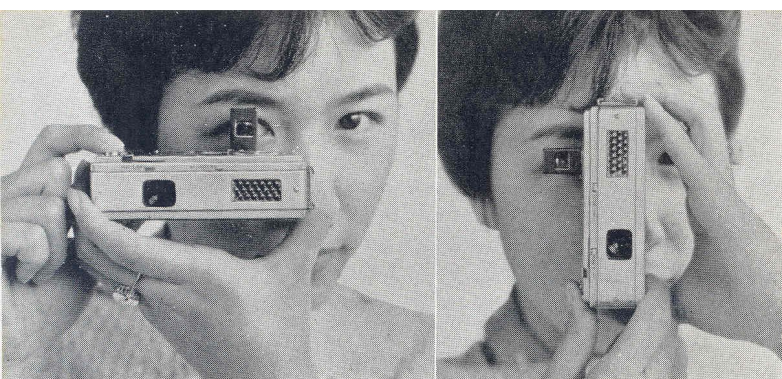
### Die Anwendung des Belichtungsmessers

Zuerst wird die Filmempfindlichkeit eingestellt. Dies geschieht mit Hilfe der Filmempfindlichkeitsskala (12). Diese wird gedreht, bis die Filmempfindlichkeitsanzeige (13) gegenüber der Zahl steht, welche auf der Filmpackung angegeben ist. Da die Filmempfindlichkeitswerte auf der Revue 16 Automat nur in ASA angegeben sind, bringen wir nachstehend eine Umrechnungstabelle:

| ASA  | DIN |
|------|-----|
| 10   | 12  |
| 16   | 14  |
| 25   | 16  |
| 32   | 17  |
| 50   | 19  |
| 80   | 21  |
| 100  | 22  |
| 200  | 25  |
| 400  | 28  |
| 800  | 31  |
| 1600 | 33  |

Die Einstellung der Verschußgeschwindigkeit richtet sich nach dem Bewegungstempo des aufzunehmenden Objektes. Drehen Sie die Einstellskala für die Verschußgeschwindigkeiten (10) auf den von Ihnen gewünschten Wert. Richten Sie nun die Kamera auf das Aufnahmeobjekt. Die Wabenlinse (11) gibt die eindringende Lichtmenge an die Fotozelle weiter und diese wiederum bringt die rote Meßnadel zum Ausschlagen. Drehen Sie die Filmempfindlichkeitsskala so, daß der vorgewählte Verschußwert gegenüber dem weißen oder schwarzen Übertragungsfeld (14) zu liegen kommt, welches auch von der roten Meßnadel berührt wird. Dadurch paßt sich die Blende automatisch der vorgewählten Verschußzeit an und Sie können nun die gewünschten Aufnahmen machen. Umgekehrt können Sie zuerst auch die Blende einstellen und danach die entsprechende Verschußgeschwindigkeit ermitteln.

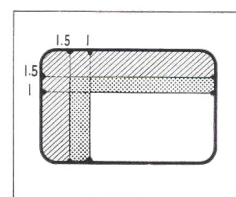




of grip or stance can spoil a picture, take every precaution to prevent jerky movement when pressing the shutter button. The illustrations show methods of holding the camera for horizontal and vertical positions.

ranges, particularly under two feet, proper caution must be exercised to compensate for parallax by using the guide marks on the sides of the bright optical frame of the viewfinder. Otherwise portions at the top and right side of the subject may be lopped off in the picture. At 1.5 feet, the hatched portion of the viewfinder frame, as shown in the diagram, will be out of the picture. At 1 foot, still less of the viewfinder image will be in the picture. Bear this in mind when sighting subjects at extremely close range.

When measuring distances at ranges closer than 1.5 feet, use the focal plane mark (19) as the starting point, and whenever possible use a tape measure.



## NOMENCLATURE

1. Lens
2. Filter lever
3. Aperture control
4. Frame finder
5. Parallax correction scale
6. Finder peephole
7. Shutter speed control
8. Film advance indicator
9. Exposure counter
10. Shutter button, with screw socket for cable release or self timer
11. Filmwind wheel
12. Strap eyelet
13. Backlid catch
14. Tripod socket (synchro-flash contact)
15. Filter glass change lever
16. Focus adjustment lever
17. Film rating indicator

## LOADING THE MAMIYA SUPER-16 WITH FILM

1. Open up an empty cartridge, and remove spool (A). Pull out a short length of film from loaded cartridge and attach end to spool by means of the spring clip provided. Secure film to spool by fitting protuberance (B) of the spring clip in the groove of the spool. Insert spool into the cartridge, and close. (Cf. figure 1 and figure 3)

2. Next pull out frame finder, and operate filmwind wheel and shutter button until the red numeral 19 appears on the exposure counter. Close finder, open backlid, and load cartridges as shown in figure 4, with the take-up cartridge in the chamber under the filmwind wheel.

3. If the slots at the end of the spools do not sink fully into the chambers. In this case turn

spools slightly with fingertip as shown in figure 5 until magazine snaps home.

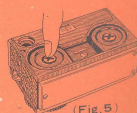
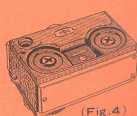
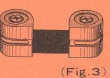
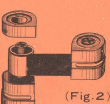
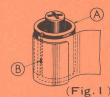
4. Close backlid, pull out frame finder, and expose two frames of film. The camera is now ready for taking twenty pictures, with the exposure counter indicating "1." When advancing film, watch film advance indicator. If it does not move, take-up is not functioning properly. Check spool, and secure film end if it has worked loose.

Loading and unloading should not be done under direct sunlight.

## PICTURE-TAKING WITH THE MAMIYA SUPER-16

1. Pull out frame finder and peephole, then set shutter speed (7), aperture (3) and focus (16) controls to suit the subject-matter. Sight through the peephole, hold camera steady, and press the shutter button.

2. Because the lens of the MAMIYA SUPER-16 has considerable depth of field, even



when fully opened up, some error in judging distances is permissible at more than 6 feet. When the range is less than 6 feet, care should be exercised to obtain the right distance and to set the focus adjustment at the correct reading. At ranges of less than 1.5 feet correction must be made for parallax. At 1.5 feet, use the first line on the parallax correction scale (5), and the 0.3 meter line when the distance is one foot.

The small circle on the focusing scale, between  $\infty$  and 6 indicates the normal focus point (12 feet) which will give good results over a maximum range of distances.

3. Shutter speed adjustment may be done either before or after film advance and shutter cocking.

## DEPTH OF FIELD TABLE FOR MAMIYA SUPER-16 (Circle of confusion 1/40 mm)

| DISTANCE | $\infty$ | 12'      | 6'  | 3'  | 1.5'  | 1'    |
|----------|----------|----------|-----|-----|-------|-------|
| 3.5      | 28       | 9        | 5   | 2.7 | -0.7" | -0.3" |
|          | $\infty$ | 12       | 7   | 3.3 | +0.8  | +0.3  |
| 5.6      | 18       | 7        | 4.5 | 2.6 | -1.1  | -0.5  |
|          | $\infty$ | 36       | 9   | 3.5 | +1.3  | +0.5  |
| 8        | 13       | 6        | 4.1 | 2.5 | -1.5  | -0.6  |
|          | $\infty$ | $\infty$ | 11  | 3.8 | +2.0  | +0.7  |
| 11       | 9        | 5        | 3.7 | 2.3 | -2.1  | -0.8  |
|          | $\infty$ | $\infty$ | 17  | 4.3 | +2.8  | +1.0  |

4. The built-in filter can be brought into play by moving the filter lever after the frame finder has been pulled out. A Y-2 filter (exposure factor,  $\times 2$ ) is provided. This glass may be removed for cleaning or changing by shifting lever (15) and allowing the filter to drop out.

## HOLDING THE MAMIYA SUPER-16

Fig. 6 shows two ways of holding the SUPER-16 when taking pictures. Any other comfortable way of holding the camera may be used, but care must be taken not to let any finger cover the lens aperture. The shutter button should be pressed slowly but firmly.

The camera must not be jarred while a picture is being taken.

## TO USE SPECIAL FLASH ATTACHMENT

Insert two penlight batteries, head first, into the battery case, and close. Next, pull out camera frame finder; then with the screw coupling attached to the "L" member of the flashgun secure camera by screwing into tripod socket (14).

To test synchroflash circuit, keep camera unloaded or waste one frame of film. Insert test lamp, then press shutter button. If lamp emits a bright flash, the flashgun and synchronizing circuit are in working order.

When putting away the flashgun, always remove batteries from case to prevent corrosion from leaking batteries.

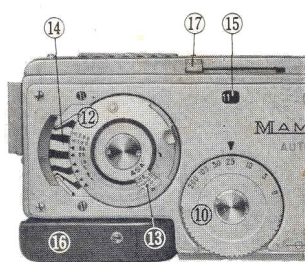
For perfect synchronization, use shutter speeds of not more than 1/25 second.



Adjust exposure meter dial (12) so that black or white guide line in alignment with meter needle meets pre-selected shutter speed index mark on the meter dial (12). Then the aperture will be automatically adjusted to give correct exposure in conjunction with the pre-set shutter speed.

**2. Pre-setting the aperture size for determination of proper shutter speed by means of the exposure meter**

- 1) Turn meter dial (12) to obtain desired aperture setting, visible in aperture indication (15).
- 2) Point camera at subject, and follow guide line in alignment with meter needle to meter dial (12) shutter speed scale.
- 3) Transfer shutter speed thus obtained to shutter speed



dial (10).

If guide line indicates shutter speed higher than 1/200, the aperture must be reduced. If shutter speed indicated is too slow for good results, increase aperture size.

**Using the Built-in Filter**

The MAMIYA 16 Automatic has a built-in filter which can be used whenever needed. Assuming that a Y2 filter (yellow, exposure factor  $\times 2$ ) is in the filter slot, and it has been shifted into working position in front of the lens, compensation must be made for its absorption. This is done in either of three ways:

1. Obtain exposure settings; then, a) open up aperture by one step, or b) reduce shutter speed by one step.
2. If filter is in constant use, reduce ASA setting on exposure meter dial (12) by one step (e. g. from 100 to 50, or from 50 to 25), and dispense with aperture or shutter speed



Frage kommende Zahl. Wenn größte Genauigkeit bei der Entfernungseinstellung verlangt wird (große Blende, kurze Entfernung), dann benutzen Sie am besten ein Meterband. Die Markierungslinie (19) auf der Kamera gibt die genaue Filmebene an.

Mit Hilfe des eingebauten Belichtungsmessers bestimmen Sie die Einstellung der Blende und die Verschußgeschwindigkeit. Dies ist bei der Revue 16 Automat besonders einfach, da die Meßscheibe mechanisch mit der Blende gekoppelt ist.

Klappen Sie den Sucher (16) hoch bis zum Anschlag und visieren Sie Ihr Motiv an.

Das Objektiv Sekor 2,8/25 mm der Revue 16 Automat ist ein neuentwickelter Vierlinser.

Bei Nahaufnahmen von 50 cm und 30 cm ist die zwischen Sucher und Objektiv auftretende Parallaxe zu berücksichtigen. Beachten Sie bitte bei Nahaufnahmen unter 50 cm, daß das von den äußeren Markierungsstrichen im Sucher begrenzte Feld vom Objektiv nicht mehr erfaßt wird. Demzufolge muß die Kamera etwas verschoben werden. Bei Nahaufnahmen unter 30 cm wird auch das von den inneren Markierungsstrichen begrenzte Feld nicht mehr aufgenommen. Sie müssen also wiederum Ihre Kamerahaltung etwas korrigieren. Im Leuchtrahmensucher sind die Parallaxenmarkierungen eingezeichnet.

Das Zeichen  $\bigcirc$  auf der Meterskala bedeutet Standardentfernungseinstellung. Bei dieser Einstellung und Blende f: 8 werden alle Gegenstände von 2 m bis unendlich scharf abgebildet.

13. Filmempfindlichkeits-  
anzeige

14. Übertragungsfelder

15. Blendenanzeige

16. Sucher

17. Filterhebel

18. Filterdeckel

19. Markierungslinie

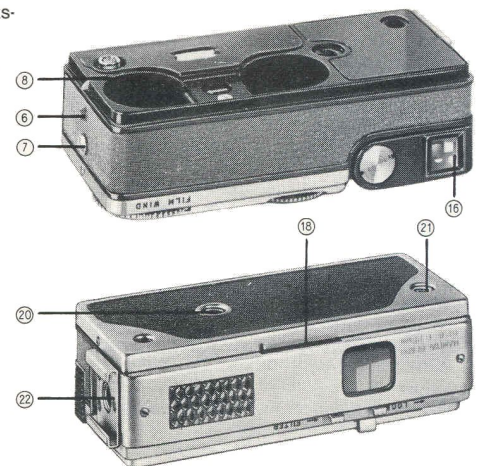
20. Stativgewinde

21. Blitzlichtanschluß

22. Tragschlaufen-  
Befestigung

23. Filmmerscheibe

24. Aufsteckschuh



## 2. Superior Lens

The CUTE F3.5, 25 mm focal length lens is a precision-ground, hard-coated color-corrected anastigmat of extremely high resolving power. This lens will record on readily available 16-millimeter cine film minute details that cannot be discerned by the naked eye. 20-frame lengths of 16-millimeter film, either black-and-white or color, are loaded in special MAMIYA-16 safety cartridges to permit daylight reloading of film.

## 3. Wide Range of Shutter-Speeds, and Built-In Synchroflash Contact

With sub-miniature negatives, correct exposure is of paramount importance. Though small in size, the MAMIYA SUPER-16 is provided with an 8-step range of shutter-speeds: B, and 1/2, 1/8, 1/18, 1/25, 1/50, 1/100, and 1/200 second. In addition, shutter action is designed to close the circuit for synchroflash photography.

## 4. Rapid-Fire Snap-Shots

More than 15 successive frames can be exposed in 10 seconds because of the automatic filmwind, shutter-cocking mechanism actuated by a single cocking wheel. Double exposures are positively prevented.

The controls are so arranged that no change in position or grip is necessary, while the extra-sensitive shutter button responds to the lightest pressure to prevent camera movement, the bugbear of miniature camera work.

## 5. Scale Indications Visible at a Glance

All controls and scales are located on the top surface of the camera. These are: shutter speed, aperture, filmwind indicator, distance (focusing) scale, exposure counter, and film rating indicator.

## 6. "Sports" Type Viewfinder

The viewfinder of the SUPER-16 is an easy-to-sight, frame-type arrangement with pull-out frame and peephole. The pull-out frame is adjustable for parallax corrections at close range. Both frame and peephole members are easily retracted.

## 7. Easy Loading and Unloading

Because the backlid is easily removed to reveal the film chambers, the loading of the SUPER-16 with safety cartridge is a simple, quick operation.

## 8. Filmwind Indicator

To prevent malfunctioning of the take-up of film, visual indication is provided to indicate actual movement of film from film cartridge to take-up cartridge.

## 9. Built-In Color Filter

The MAMIYA SUPER-16 has a built-in filter frame which can be slid into position when needed. Retracting the finder frame automatically removes the filter. Filter glasses can be readily changed.

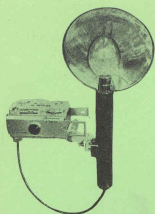
## 10. Safety Catch

With the finder frame retracted, the shutter button is locked. This prevents accidental release of the shutter mechanism. The lens is also covered for protection when finder is not in use.

## 11. Clip-On Leather Thong

A convenient leather carrying strap which clips on to the eyelet provided on the camera is available.

## Accessories

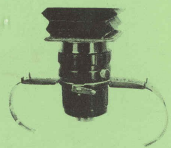


Soft leather carrying case  
Special film cartridge  
Daylight loading film  
Spare film, packed three rolls to a box  
Extra filter (with lens hood)  
"Enlahead" enlargement projection attachment  
Synchroflash attachment  
Synchroflash tip adaptor

Ordinary 16 mm cine film available on the market may be used. Cut into 15 feet lengths in darkroom, and load into magazines (cartridges). In this case, do not position spring clip on spool slot so that end of film cannot slip off.

The ENLAHEAD enlargement attachment for making enlargements from 16 mm film replaces the usual lens on the enlarger for efficient work at shorter projection distances.

When using standard synchroflash attachments fitted with JIS Type B connector terminal, screw synchroflash tip adaptor into tripod socket (14).



# MAMIYA Super-16 MODEL III

MAMIYA CAMERA CO., LTD.  
NO. 7, 1-CHOME, HONGO, BUNKYO-KU, TOKYO

MAMIYA Super-16 MODEL III

THE MAMIYA SUPER-16 is no ordinary subminiature camera. It is a superbly designed precision instrument capable of performance matching that of cameras many times its size and weight. So versatile is it that besides ordinary black-and-white and color photography of people, groups, scenery, buildings, animals, or still life, there are innumerable applications in scientific and industrial fields for recording and copying work.

Some of the outstanding features of the MAMIYA SUPER-16 will be enumerated below.

## 1. Focusing Scale for Sharp Negatives

Although sub-miniature cameras with short focal length lenses are endowed with considerable inherent depth of field, the tremendous magnification necessary to produce enlargements of fair size from the diminutive 10x14 mm negatives calls for maximum sharpness of register at all distances. To this end, the MAMIYA SUPER-16 is provided with adjustable focus so that subjects at from 3 feet to infinity may be accurately photographed with maximum detail.



### Filmeinlegen

Für die Revue 16 Automat ist jeder 16-mm-Film geeignet. Dabei spielt es keine Rolle, ob dieser perforiert oder unperforiert ist.

Vermeiden Sie beim Filmladen zu helles Licht.

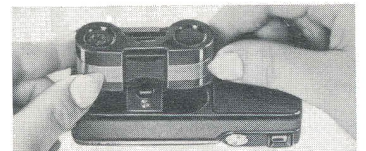
Bevor Sie den Film einlegen, schieben Sie die Auslösesperre entgegen der Pfeilrichtung „Lock“ (1). Dann drehen Sie das Filmtransportrad (4) und betätigen Sie den Auslöser (3) solange, bis im Fenster des Bildzählwerkes (5) die Zahl 18 erscheint.

Schließen Sie nun die Auslösesperre (1) wieder, indem Sie den Hebel in Richtung „Lock“ schieben. Danach schieben Sie die Deckelverschlußsperre (7) nach unten und drücken den Deckelverschluß (6) mit dem Daumnagel nach innen. Der Kameradeckel läßt sich jetzt abheben.

### Einlegen einer Revue-Doppelkassette

1. In den leeren Kassettenraum (8) legen Sie die Kassette so ein, daß der Pfeil auf dem Mittelstück derselben und der Pfeil in der Kamera in die gleiche Richtung zeigen. Läßt sich der linke Kassettenteil nicht ganz einschieben, dann drehen Sie bitte das Filmtransportrad (4) ein wenig, bis der Aufwickeldorn in den Spulenkern einrastet.
2. Schieben Sie den Hebel der Auslösesperre (1) nach rechts und betätigen Sie das Filmtransportrad und den Auslöser (3) abwechselnd bis im Fenster des Bildzählwerkes (5) die Zahl 1 erscheint. Die Kamera ist nun aufnahmebereit.

3. Wenn Sie keine Aufnahmen machen, schieben Sie bitte den Hebel der Auslösesperre (1) immer in Pfeilrichtung „Lock“. So ist das Objektiv vor Staub geschützt und der Auslöser (3) gegen unbeabsichtigte Aufnahmen gesichert.



### Der Gebrauch von individuellen Revue-Kassetten

1. Legen Sie eine Leerkassette für die Aufwickelseite (linker Kassettenraum) bereit. Öffnen Sie diese Kassette und entfernen Sie den Spulenkern. Ziehen Sie ungefähr 5 cm Film aus der vollen Kassette und befestigen Sie den Filmanfang am leeren Spulenkern, indem Sie ihn in den Federklip stecken. Ein Stückchen Tesafilm auf den Federklip und den Filmanfang geklebt, verhindert dessen Ausschlüpfen. Schließen Sie nun die Kassette und sichern Sie diese mit Tesafilm ab.
2. Öffnen Sie die Kamera und legen Sie die Kassetten in den Kassettenraum (8) ein. Die Leerkassette muß in die linke Vertiefung eingesetzt werden. Die weiteren Handgriffe sind die gleichen wie bei der Revue-Doppelkassette.

### Entfernungseinstellung

Schätzen Sie die Entfernung oder messen Sie diese mit Hilfe eines Entfernungsmessers. Schieben Sie den Schärfeneinstellhebel (9) auf die in





**MAMIYA CAMERA CO., LTD.**

No. 7, 1-CHOME, HONGO, BUNKYO-KU, TOKYO, JAPAN

PRINTED IN JAPAN



# **MAMIYA 16**

## **De Luxe**

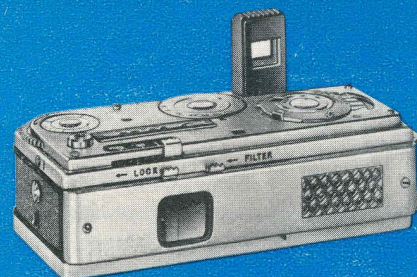
**USER'S MANUAL**

Dazu verfahren Sie wie folgt: Wählen Sie die gewünschte Blende durch Drehen am Hebel der Filmempfindlichkeitsskala (12). Danach richten Sie die Kamera auf das Aufnahmeobjekt und beobachten, gegenüber welchem Übertragungsfeld (14) die rote Meßnadel stehen bleibt. Ausgehend von diesem Übertragungsfeld ermitteln Sie die angrenzende Verschußgeschwindigkeit und stellen diese auf der Verschußgeschwindigkeitsskala (10) ein.

#### Filterbenutzung

In die Revue 16 Automat ist ein Gelbfilter eingebaut. Es wird in der Hauptsache für Aufnahmen mit Wolkenstimmungen benutzt, um diese kontrastreicher zu gestalten. Der Verlängerungsfaktor dieses Gelbfilters beträgt 2 Stufen, d. h. bei Aufnahmen mit diesem Filter muß die ermittelte Blende um einen ganzen Blendenwert vergrößert werden (z. B. von  $f:8$  auf  $f:5,6$ ) oder die Verschußgeschwindigkeit muß auf den nächstniedrigeren Wert eingestellt werden (z. B. von  $1/100$  auf  $1/50$  Sek.).

Bei Gebrauch des Filters schieben Sie den Filterhebel (17) in Pfeilrichtung vor. Zum Austausch gegen ein anderes Filter schieben Sie den Filterdeckel (18), zurück, das Filter kann nun leicht entnommen werden.

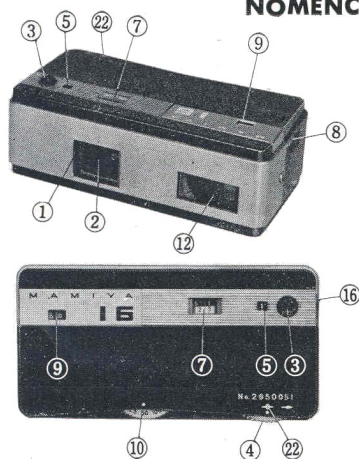


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85 Nürnberg · Dieselstraße 75 · Tel. 66 1451



**REVUE 16 Automat**  
Bedienungsanleitung





## NOMENCLATURE

1. Lens Cover (Shutter Safety Catch)
2. Lens Window
3. Shutter Button
4. Cocking Wheel
5. Exposure Counter
6. Focusing Knob
7. Distance Scale Window
8. Aperture Control
9. Aperture Scale Window
10. Shutter speed Dial

## LOADING SAFETY CARTRIDGE WITH FILM

This operation must be done in complete darkness by feel, or under a dark green light. On empty spool, secure end of film, emulsion side downward, with small piece of Scotch tape, and wind on to spool. Place spool-wound film in cassette, with about an inch of the film protruding through the slit. When loading the double cartridge, next secure free end of film, emulsion side downward, to take-up spool, again using Scotch tape, and insert spool in take-up side of cartridge. Replace cartridge covers, and secure with bits of Scotch tape.

When loading single cartridge, using spool provided with spring clip, do not secure end of film by means of pip on clip and groove cut on spool. Merely slip end of film, emulsion side downward, under clip, then wind. Place in cartridge, replace cover, and secure with Scotch tape.



| DEPTH OF FIELD TABLE (circle of confusion 1/1,000 inch) |     |                         |                                            |                                          |                                          |                                           |                                           |                                        |
|---------------------------------------------------------|-----|-------------------------|--------------------------------------------|------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------|----------------------------------------|
| DISTANCE                                                |     | ∞                       | 12'                                        | 6'                                       | 3'                                       | 2'                                        | 1.5'                                      | 1'                                     |
| LENS OPENING                                            | 2.8 | 32' $\frac{3}{4}"$<br>∞ | 8' $\frac{9}{16}"$<br>19' $\frac{1}{4}"$   | 5' 1"<br>7' 4"                           | 2' 9"<br>3' $\frac{3}{2}"$               | 1' $\frac{10}{16}"$<br>2' $\frac{1}{2}"$  | 1' $\frac{5}{16}"$<br>1' $\frac{6}{16}"$  | 11 $\frac{3}{4}"$<br>1' $\frac{1}{4}"$ |
|                                                         | 4   | 22' $\frac{5}{2}"$<br>∞ | 7' $\frac{10}{16}"$<br>25' $\frac{5}{16}"$ | 4' $\frac{9}{16}"$<br>8' $\frac{1}{4}"$  | 2' 8"<br>3' $\frac{5}{16}"$              | 1' $\frac{10}{16}"$<br>2' 2"              | 1' 5"<br>1' 7"                            | 11 $\frac{1}{2}"$<br>1' $\frac{1}{2}"$ |
|                                                         | 5.6 | 16' $\frac{3}{4}"$<br>∞ | 6' 11"<br>46' 3"                           | 4' 5"<br>9' 5"                           | 2' $\frac{6}{16}"$<br>3' $\frac{7}{16}"$ | 1' $\frac{9}{16}"$<br>2' 3"               | 1' $\frac{4}{16}"$<br>1' $\frac{7}{16}"$  | 11 $\frac{1}{2}"$<br>1' $\frac{3}{4}"$ |
|                                                         | 8   | 11' $\frac{3}{4}"$<br>∞ | 5' $\frac{10}{16}"$<br>∞                   | 3' $\frac{11}{16}"$<br>12' 6"            | 2' $\frac{4}{16}"$<br>4'                 | 1' $\frac{8}{16}"$<br>2' $\frac{4}{16}"$  | 1' $\frac{4}{16}"$<br>1' $\frac{8}{16}"$  | 11 $\frac{1}{4}"$<br>1' 1"             |
|                                                         | 11  | 8' $\frac{2}{2}"$<br>∞  | 4' $\frac{11}{16}"$<br>∞                   | 3' $\frac{6}{16}"$<br>21' $\frac{2}{2}"$ | 2' 3"<br>4' 7"                           | 1' $\frac{7}{16}"$<br>2' $\frac{6}{16}"$  | 1' $\frac{3}{16}"$<br>1' $\frac{9}{16}"$  | 11"<br>1' $\frac{1}{4}"$               |
|                                                         | 16  | 5' 8"<br>∞              | 3' $\frac{10}{16}"$<br>∞                   | 2' $\frac{11}{16}"$<br>∞                 | 2' $\frac{1}{16}"$<br>6' $\frac{3}{16}"$ | 1' $\frac{6}{16}"$<br>2' $\frac{11}{16}"$ | 1' $\frac{2}{16}"$<br>1' $\frac{11}{16}"$ | 10 $\frac{1}{2}"$<br>1' 2"             |

focus set at this point, and with aperture at f/8, everything more than 5 feet away from the camera will register sharply.

The viewfinder of the MAMIYA 16 De Luxe is automatically compensated for parallax by means of the focusing adjustment.

sure is reduced.

Note 2. If, after the camera is readied for picture-taking, there is an interval before the first shot, close lens cover (1) to lock shutter button (3).

Note 3. After setting exposure counter upon reloading, do not touch exposure counter reset wheel (16). Also make sure that the cocking wheel (4) is always turned fully until it comes to a stop. Make it a habit to close lens cover (1) when not shooting.

**Loading Single Safety Cartridges**

1. Have on hand an empty single-type safety cartridge. Open up and take out the spool. Pull out a short length (about two inches) of film from the preloaded safety cartridge, and secure end of film to spool of the take-up cartridge by means of the spring clip provided, seeing that nib (B) presses film into slot (A) of the spool. (Fig. 3)

## FILM LOADING

The MAMIYA 16 De Luxe is designed to take any type of 16-millimeter negative film, monochrome or color, perforated or non-perforated. Film, cut to a length of .5 meter (approximately 20 inches), is darkroom preloaded in the special safety cartridge, of either the single or double type. Loaded single or double cartridges are available.

When loading safety cartridge in your MAMIYA 16 De Luxe, do so in subdued light, carefully avoiding direct sunlight.

When first loading empty MAMIYA 16 De Luxe, open lens cover (1), and turn cocking wheel (4) in direction indicated by arrow. If cocking wheel will not move, press shutter button (3) to release shutter. Next turn cocking wheel slowly, and bring red dot on wheel into alignment with red dot on camera body. In this position, the exposure counter reset wheel

for fitting self-timer or cable release.

## CAMERA GRIP

The camera may be held in any steady, comfortable way. Be sure that fingers do not obstruct lens.

After focusing and setting the shutter speed dial and aperture control, sight subject through viewfinder, compose picture, and gently press down upon the shutter button (3). Camera jerk must be avoided at all cost. When pressing shutter button, grip camera firmly, with elbows propped up against your body. Hold breath momentarily for added steadiness.

The illustrations show suitable ways of holding the camera for horizontal and vertical picture positions.

Utmost steadiness of grip can be achieved by using the special grip holder. This accessory is essential for synchro-flash photography, while the grip handle is a convenient

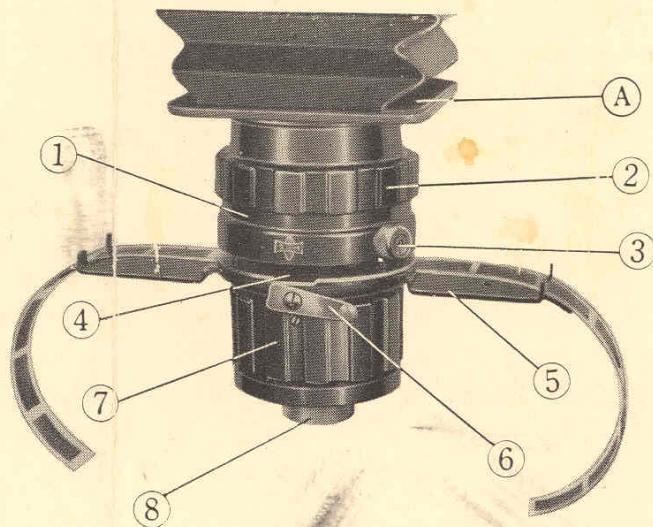
# ENLAHEAD

## Enlarger attachment for MAMIYA SUPER-16 negatives

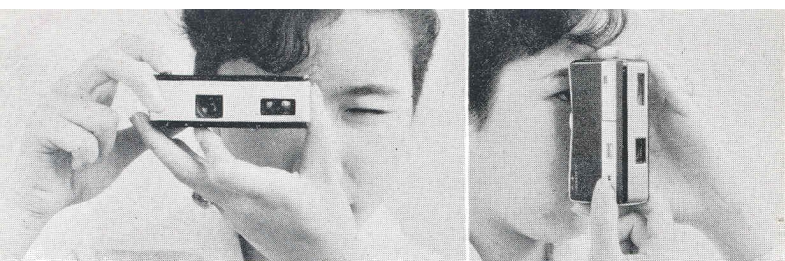
The ENLAHEAD is an attachment designed for making enlargements of all sizes, up to 10" x 12", from MAMIYA SUPER-16 and other 10mm. x 14mm. miniature negatives. The ENLAHEAD replaces the regular lens fitted to "Lucky," "Balloy," "Focomat" and other enlargers available on the market. Without the high magnifying power of the ENLAHEAD, miniature films in ordinary enlargers would require the lamphouse assembly to be positioned at excessive distances from the picture platform.

### CONSTRUCTION

- ① Body
- ② Attaching screw  
(fits into lens socket)
- ③ Locking screw
- ④ Film holder slot
- ⑤ Film holder and gate
- ⑥ Film gate lock lever
- ⑦ Focusing tube
- ⑧ Lens stop adjustment





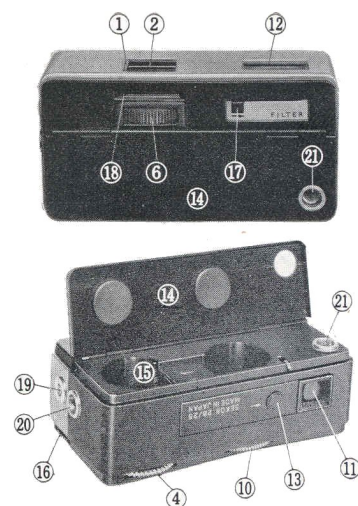


receptacle for spare double safety cartridge.

### SYNCHROFLASH PHOTOGRAPHY

When attaching the grip holder, interpose the special flashgun bracket. Mount flashgun on accessory clip of the bracket, then connect cord of flashgun to synchroflash terminal (19). Complete synchronization of shutter action and flash can be achieved at all shutterspeeds not in excess of 1/25 second.

11. Eyepiece
12. Viewfinder Window
13. Backlid Catch Button
14. Backlid
15. Film Cartridge Chamber
16. Exposure Counter Reset Wheel
17. Filter Positioner
18. Filter Change Slit
19. Synchroflash Terminal
20. Wristband Socket
21. Tripod Socket
22. Focal Plane Mark



# マミヤ16用引伸補助装置 ENLAHEAD

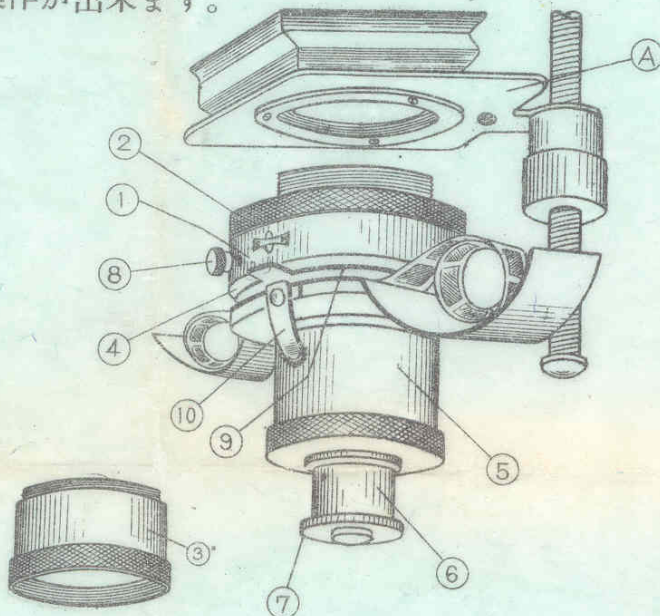
## 使用書

エンラヘッド“ENLAHEAD”は、マミヤ16その他10×14mm判小型カメラによる原板から名刺判乃至四切判の引伸印画を作成するため特別に設計された引伸用補助装置でありまして、既成のラッキー、パロイ、フオコマート等内外の引伸機のレンズの代りに螺着して使用するものであります。

本装置を引伸機に取付けますと、拡大率が大きくともランプハウスを高く上げる必要がなく簡単に能率良く引伸操作が出来ます。

### 要部の説明

- (1) 本体
- (2) 取附ネジ筒
- (3) 補助接筒
- (4) 挿入溝
- (5) ヘリコイド
- (6) レンズ筒
- (7) 絞り環
- (8) 締付ネジ
- (9) フィルム挟み
- (10) 浮かしレバー



### 引伸機への取付け方

引伸機のレンズ取附枠 (A) をなるべく上に上げ、レンズを取外してその代りに本装置の取附ネジ筒 (2) を捻じ込みます。パロイ引伸機、フオコマート引伸機の場合には前記取附ネジ筒に補助接筒 (3) を取付けてからレンズ座金に捻じ込んで下さい。

### 引伸法

先ずフィルム挟み (9) を取出してこれにネガを挟み、浮かしレバー (10) を横にして挿入溝 (4) に押し込みます。かくして通常の引伸操作と同様にランプハウスを上下に移動し又ヘリコイド (5) を回して台上で焦点を合せて所望の大いさにします。

又このまゝで引続き他のネガから引伸そうとするには浮かしレバー (10) を縦にしてフィルム挟み (9) を開きますとフィルムに傷をつけずに移動することが出来、浮かしレバーを横に戻せばネガは正しく圧着されます。

このエンラヘッドに装備されている引伸用レンズは解像力のすぐれたF 3.5 25mm ですから10×14mm判の小型ネガから拡大率の大きい引伸印画が得られます。

### 調整法

挿入溝 (4) の向きが悪い時は締付ネジ (8) を弛めて本体 (1) を回し、正しい向きになりましたら締付ネジ (8) を締めて下さい。又画面が均等の明るさでない時には引伸機のランプハウスの光源を調整して下さい。

本装置には別に優秀な集光レンズが装備してありますから此の調整は簡単に行えます。画面の明るさを調節するには普通のように絞り (7) を回して下さい。



### TO ATTACH ENLAHEAD TO ENLARGER

Retract enlarger lens holder (A) as far as possible, unscrew lens and remove. Screw in ENLAHEAD in place of lens.

### TO MAKE ENLARGEMENTS WITH THE ENLAHEAD

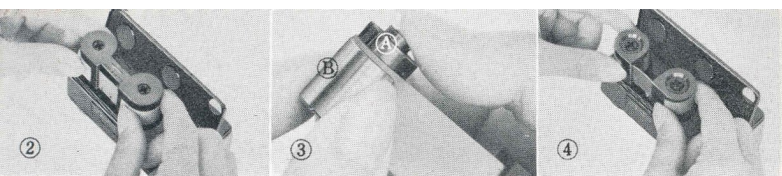
Remove film holder (5), place negative film in positioning slot, turn film lock lever (6) to horizontal position, then reinsert film holder (5) in film holder slot (4). By raising or lowering the lamphouse assembly and by adjusting the focus (7) the desired size of picture, in sharp focus, is obtained. If another frame on the same strip of film is to be enlarged to the same size, turn film lock lever (6) to vertical position, slightly open up film holder (5) and draw out film to desired frame. Lock film by returning film gate lock lever (6) to horizontal position.

The ENLAHEAD lens is a high quality anastigmat of f/3.5 speed with a focal length of 25mm. Since it has extremely high resolving power, large enlargements from 10mm.  $\times$  14mm. negatives can be made.

### ADJUSTMENTS

If film holder slot (4) is in an awkward position, loosen locking screw (3) and twist the body (1) until correct position is obtained. Re-lock by tightening locking screw (3). If the projected image is not uniformly lit, adjust position of the light in the enlarger lamphouse. This can be done readily because the ENLAHEAD itself contains a built-in condenser. To adjust brightness of projected image, turn lens stop adjustment (8) to desired opening.





snugly, turn the spool of the take-up side (cocking wheel side) slightly with fingertip. When spool catches take-up spindle, the safety cartridge will sink flush with a distinct click. (Fig. 2)

2. Close backlid (14) and snap shut. Open lens cover (1), and take three blank shots while keeping the lens window (2) covered with thumb. Exposure counter (5) will indicate "1", and the camera is ready for the first shot.

Note 1. If, when loading double cartridge, the backlid catch button (13) is kept depressed, insertion of the film between the gate and pressure plate is facilitated because spring pres-

**DEPTH OF FIELD TABLE** (circle of confusion 2.5/1,000 cm)

| DISTANCE     |     | $\infty$         | 4                | 2                | 1            | 0.5            | 0.3 m          |
|--------------|-----|------------------|------------------|------------------|--------------|----------------|----------------|
| LENS OPENING | 2.8 | 9.77<br>$\infty$ | 2.85<br>6.72     | 1.67<br>2.50     | 0.91<br>1.11 | 0.479<br>0.523 | 0.293<br>0.307 |
|              | 4   | 6.85<br>$\infty$ | 2.54<br>9.49     | 1.56<br>2.79     | 0.88<br>1.16 | 0.470<br>0.534 | 0.290<br>0.311 |
|              | 5.6 | 4.90<br>$\infty$ | 2.22<br>21.17    | 1.43<br>3.33     | 0.84<br>1.24 | 0.459<br>0.549 | 0.286<br>0.315 |
|              | 8   | 3.44<br>$\infty$ | 1.86<br>$\infty$ | 1.28<br>4.66     | 0.79<br>1.38 | 0.444<br>0.574 | 0.281<br>0.323 |
|              | 11  | 2.50<br>$\infty$ | 1.56<br>$\infty$ | 1.13<br>9.38     | 0.73<br>1.61 | 0.426<br>0.608 | 0.274<br>0.332 |
|              | 16  | 1.73<br>$\infty$ | 0.95<br>$\infty$ | 0.94<br>$\infty$ | 0.65<br>2.25 | 0.399<br>0.674 | 0.264<br>0.349 |

Consequently, so long as the correct distance, especially at close ranges, is indicated in the distance scale window (7), there is no worry about parallax and the lopping off of some portion of the subject.

2. Insert spool and film into casing of take-up cartridge, fit cover piece, and secure by means of a small piece of cellotape.

3. Open backlid of the camera. Place single safety cartridges, now joined by film, in the film cartridge chambers (15), the take-up cartridge going into the chamber on the cocking ring (4) side. (Fig. 4)

4. See that take-up cartridge fits snugly, turning spool slightly if necessary to obtain proper coupling with the take-up spindle, then snap backlid (14) shut.

5. Proceed from this step on in the same way as when using preloaded double safety cartridge.

### FOCUSING

When picture-taking, judge or measure distance to subject, and turn focusing knob (6) so that this distance is indicated

in the distance scale window (7). After setting the shutter-speed dial (10) and the aperture control (8), sight subject through eyepiece (11) and compose picture.

The lens of the MAMIYA 16 De Luxe is a newly designed MAMIYA-SEKOR anastigmat of F 2.8,  $f=25$  mm rating, giving extreme speed and resolving power in conjunction with great depth of field (focusing tolerance). Therefore, when photographing at distances of more than six feet, errors in judging distance are relatively unimportant. At closer distances, however, it is desirable to obtain the range as precisely as is practicable.

When the subject is less than  $1\frac{1}{2}$  foot from the camera, use tape measure to find distance, using the focal plane mark (22) as the starting point.

The circled dot mark on the distance scale between 2 m and  $\infty$  is the fixed focus point (about 12 feet). With the

**INSTRUCTIONS FOR KODAK ULTRA FINE GRAIN PAN FILM 7234**  
An ultra fine grain panchromatic film of slow speed, ideal for large enlargements.

**FILM SPEED INDEX:** Daylight: 50

**OUTDOOR EXPOSURE TABLE:** This exposure table is for average subjects using a shutter speed of 1/50 second.

|            |          |               |                          |
|------------|----------|---------------|--------------------------|
| Bright Sun | Very Sun | Cloudy Bright | Open Shade<br>Bright Day |
| f/8        | f/5.6    | f/4           | f/2.8                    |

**INSTRUCTIONS FOR KODAK EKTACOLOR FILM**  
A film designed for making color negatives at exposure times of 1/30 second or less. It can be exposed by clear flash, by daylight or electric flash illumination.

**FILM SPEED INDEX:** Daylight: 25 Tungsten: 20

**DAYLIGHT EXPOSURE TABLE:** This exposure table is for average subjects using a shutter speed of 1/100 second. If different light sources are used consult your dealer for recommended filter.

|                                     |                                  |                          |                             |                              |
|-------------------------------------|----------------------------------|--------------------------|-----------------------------|------------------------------|
| Bright Sun or<br>Light Sand or Snow | Bright Sun or<br>Direct Sunlight | Very Sun<br>Soft Shading | Cloudy Bright<br>No Shading | Open Shade<br>Clear Blue Sky |
| f/11                                | f/8                              | f/5.6                    | f/4                         | f/2.8                        |

1—For close-ups in light sand or snow surroundings, set lens between f/8 and f/11.  
2—For heavy side- or back-lighted subjects in bright sunlight or in scenes which have important shadow detail, increase the recommended exposure 1 full stop.  
3—Subject shaded from sun but lighted by large area of clear, unobstructed sky.

**MAMIYA ENLAHEAD**  
Converts any standard enlarger to a 16mm enlarger. Self-contained optical system. Makes blow-ups up to 20x possible. **\$15.95**

**MAMIYA 16 FLASH GUNS**  
Accept miniature flash bulbs. Model A, For Mamiya 16 Model B, For Mamiya Auto 16 Model C, For Mamiya Deluxe 16

**MAMIYA 16 FILTERS**  
The following filters are available for Mamiya 16 cameras: yellow 2; green 1; red 1; skylight; 85B; neutral density. The Super 16 accepts a round filter disc; the Deluxe 16, a small rectangular shaped filter; the Auto 16, a large rectangular shaped filter.



**MAMIYA DELUXE 16**  
New sub-miniature fits in the palm of your hand. Eye level shooting; parallax-corrected optical viewing; ultra sharp f2.8 lens; drop-in loading; with case and handstrap **\$39.95**

**MAMIYA AUTOMATIC 16**  
Sleek new subminiature with coupled exposure meter, ultra-sharp, color-corrected f/2.8 lens, and easy drop-in loading. **\$69.95**

**GETTING YOUR FILM PROCESSED**  
Film price does not include processing.

Place magazine in container, then into cloth bag; tie securely. Film will be replaced with unexposed film if defective in manufacture, labeling, or packaging, or if damaged or lost by us. Except for such replacement, the sale or subsequent handling of this film for any purpose is without warranty, guarantee, or other liability of any kind.

**NOTICE:** The dyes used in Kodachrome film, like other dyes, may change in time. This product therefore will not be warranted against any change in color.

Printed in U.S.A. C1930-68125

Film in this package is Factory-Fresh re-spooled Kodak or Ansco film, as indicated

•

**MAMIYA DIVISION**

•

**CAPROD LTD.**

111 Fifth Ave., New York 3

**FILM**

for Mamiya subminiature cameras

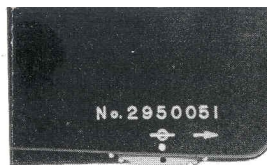
**INSTRUCTIONS**



The use of a filter is called for by some subjects. When the filter (self-contained) must be brought into position in front of the lens, merely push the filter positioner (17) in the direction indicated by the arrow. Reverse this procedure to clear lens of filter. To remove filter for changing or cleaning, open filter change slit (18) and shake out.

### SHUTTER OPERATION

1. The shutterspeed dial (10), when set at intermediate positions will not give intermediate shutterspeeds. Always use click stop position.
2. Shutterspeed changes may be effected at any time, either before or after cocking (filmwind).
3. The aperture control, on the other hand, regulates lens opening continuously. Intermediate steps can be used.
4. The screw socket at center of the shutter button (3) is



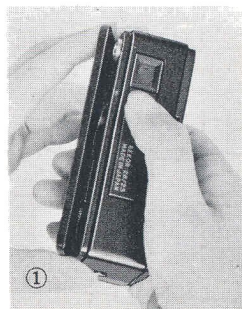
button (3).

Next, open backlid (14) by pushing backlid catch button (13) in direction indicated by arrow, and pressing down to release backlid catch. Backlid (14) can then be swung open on its hinges. (Fig. 1)

#### Loading Double Safety Cartridge

1. Insert preloaded double safety cartridge in film cartridge chamber (15), with direction of arrows on cartridge and camera matched. If the double cartridge does not sink down

(16) is free to turn in clockwise direction. Turn this wheel until exposure counter (5) indicates "S" (start), then turn cocking wheel (4) fully to the right. Close lens cover (1) to lock shutter



## **FLASH PHOTOGRAPHY**

Use blue bulbs or electronic flash with all films. Follow manufacturer's instructions on bulb sleeve or flash manual for correct exposures.

## **PHOTOFLOODS**

Ektacolor-S and Ektachrome MS may be used with blue photofloods, or with 80B filter placed over the camera's lens. Under these conditions, ASA sensitivities are altered:

Ektacolor-S ASA 40  
Ektachrome MS ASA 25

## **PROCESSING**

As soon as possible, after the entire film cartridge has been exposed, remove the cartridge from your camera and take it to your Ultima dealer for processing.

It is unwise to leave the film in the camera for any extended time, or to leave it for any time in an excessively hot or damp place. This may alter the "latent image" contained on the film after exposure, changing color values or degrading the detail of the black-and-white image.

## **NOTICE**

Ultima film is guaranteed to be factory-fresh and in perfect condition when sold to you. If, in our opinion, the film or film cartridge is imperfect in any way, it will be replaced. No other warranty, guarantee or liability is implied, stated or contained in the purchase of Ultima film.

The dyes used in color films, prints and enlargements may change in time, like all other dyes. These products, therefore, cannot be warranted against color changes.

# **ULTIMA**

**EPOI INTERNATIONAL LTD. DIVISION OF  
EHRENREICH PHOTO-OPTICAL INDUSTRIES, INC.  
623 STEWART AVENUE, GARDEN CITY, N.Y. 11533**

Film and film cartridge manufactured in USA  
Film re-spoiled in USA



**MAMIYA CAMERA CO., LTD.**

No. 7, 1-CHOME, HONGO, BUNKYO-KU, TOKYO, JAPAN

PRINTED IN JAPAN

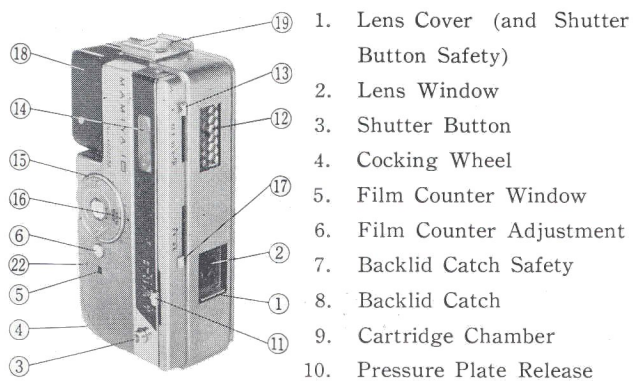
**USER'S  
MANUAL**



**MAMIYA 16 EE de luxe**



## NOMENCLATURE



accompanying your flashbulb to obtain the "guide number" which is used together with the distance from flash to subject to obtain the correct aperture size.

## MANUAL OPERATION

As in the case of synchroflash photography, the electric-eye automatic control can be cut out by moving the EE lever (13) away from position "A" to obtain manual setting of aperture size. In this case, intentional over-or underexposures can be made. Shutter speed can be varied by referring to the film-speed (ASA) - shutter speed table; or, by setting the shutter speed control red mark at "FL", the scale mark against which the filmspeed (ASA) dial (16) window is aligned is the  $\frac{1}{25}$  second position, and the scale markings to the left (counter-clockwise) are respectively  $\frac{1}{10}$ ,  $\frac{1}{5}$ , and B, while the markings to the right are respectively  $\frac{1}{50}$ ,  $\frac{1}{100}$ , and  $\frac{1}{200}$  second.

GENERAL INSTRUCTIONS

HANDLING: Always load or unload your camera in subdued light.

BLACK AND WHITE FILM: The film speed index settings are for exposure meters marked for ASA indexes. If these settings lead consistently to denser negatives than are desired (not the result of over-development) the exposure should be cut in half, in some cases even more.

FILTERS: Increase the normal exposure by filter factor given below:

| MAGENTA FILTERS |               |             |            |                         |
|-----------------|---------------|-------------|------------|-------------------------|
|                 | Medium Yellow | Light Green | Medium Red | Skylight                |
| Sunlight .....  | 2             | 4           | 8          | no increase in exposure |
| Tungsten .....  | 1.5           | 4           | 5          |                         |

INSTRUCTIONS FOR KODAK PANATOMIC-X FILM

A fine-grain panchromatic film of moderate speed and contrast for use whenever a considerable degree of enlargement is necessary.

FILM SPEED INDEX: Daylight: 50 Tungsten: 40  
OUTDOOR EXPOSURE GUIDE: This exposure table is for average subjects using a shutter speed of 1/100 second.

| Bright Sun | Hazy Sun | Cloudy Bright | Open Shade Bright Day |
|------------|----------|---------------|-----------------------|
| f/11       | f/8      | f/5.6         | f/4                   |

INSTRUCTIONS FOR KODAK PLUS-X PAN FILM

FILM SPEED INDEX: Daylight: 100 Tungsten: 64  
OUTDOOR EXPOSURE GUIDE: This exposure table is for average subjects using a shutter speed of 1/100 second.

| Bright Sun    | Hazy Sun      | Cloudy Bright | Open Shade Bright Day |
|---------------|---------------|---------------|-----------------------|
| f/16 at 1/200 | f/16 at 1/100 | f/11          | f/8                   |

INSTRUCTIONS FOR KODAK TRI-X PAN FILM

A very fast, panchromatic film of moderate contrast, graininess, wide latitude, and color sensitivity suitable for all types of illumination. It is ideal for all kinds of photography where high speed is needed.

FILM SPEED INDEX: Daylight: 400 Tungsten: 250  
OUTDOOR EXPOSURE TABLE: This exposure table is for average subjects using a shutter speed of 1/100 second.

| Bright Sun (use yellow filter) | Hazy Sun      | Cloudy Bright | Open Shade Bright Day |
|--------------------------------|---------------|---------------|-----------------------|
| f/16 at 1/200                  | f/16 at 1/200 | f/16          | f/11                  |

INSTRUCTIONS FOR KODACHROME FILM DAYLIGHT TYPE

This is a reversal-type color film and is balanced for exposure in sunlight. The processed color transparencies can be projected or used as originals for color printing.

HANDLING THE FILM: Exposed and unexposed film as well as the finished transparencies should be stored in a cool dry place. For best results, film should be processed as soon as possible after exposure.

FILM SPEED INDEX: Daylight: 16  
DAYLIGHT EXPOSURE TABLE: For average subjects in daylight from 2 hours after sunrise to 2 hours before sunset SET SHUTTER AT 1/50 SEC.

| Bright Sun on Light Sand or Snow | Bright Sun Strong Shadows | Hazy Sun Weak Shadows | Cloudy Bright No Shadows | Open Shade Clear Blue Sky |
|----------------------------------|---------------------------|-----------------------|--------------------------|---------------------------|
| Between f/8 & f/11               | Between f/5.6 & f/8       | Between f/4 & f/5.6   | Between f/3.5 & f/4      | f2.8                      |

For side or back-lighted close-ups in bright sunlight, with important shadow detail, give 1/2 to 1 stop more exposure.

\*With light colored subjects, use 1/2 stop smaller.  
\*Use a skylight filter to minimize the bluishness of pictures made in open shade, or for distant landscapes—snow scenes.

INSTRUCTIONS FOR SUPER ANSCOCROME FILM

DAYLIGHT TYPE: Super Anscochrome, Daylight Type, is a super speed color film and is balanced for exposure in average sunlight. Excellent results can also be obtained with other illumination sources, such as electronic flash or blue flash bulbs.

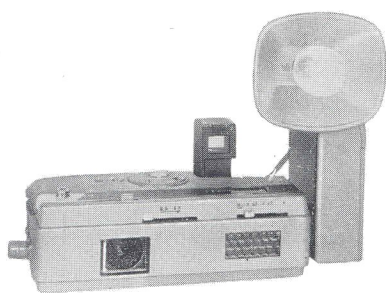
HANDLING THE FILM: Same as Kodachrome.

FILM SPEED INDEX: Daylight: 100 Tungsten: 40 (with 80B filter)  
DAYLIGHT EXPOSURE TABLE: For average subjects under average summer conditions using a shutter speed of 1/100 second.

| Bright Sun    |              | Hazy Sun |     | Bright Overcast | Bull Overcast |
|---------------|--------------|----------|-----|-----------------|---------------|
| Front Lighted | Back Lighted |          |     |                 |               |
| f/16          | f/11         | f/11     | f/8 | f/5.6           |               |

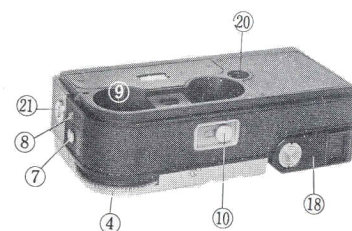
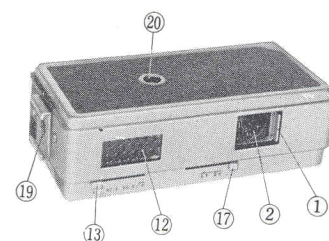
TUNGSTEN TYPE: Super Anscochrome, Tungsten Type, is balanced for 3200K illumination. With correct filtration it may be used with photoflood (3400K) and photoflash (3800K) illumination.

FILM SPEED INDEX: Tungsten: 100 (3200K) Daylight: 80 (with 85B filter)  
Electronic Flash illumination approximates daylight quality and therefore the use of Super Anscochrome Daylight type film is recommended.



the connector cord into the synchroflash socket (21). Turn the shutterspeed control (15) so that the red mark on the dial matches the red "FL" on the scale. Shutterspeed will then be  $\frac{1}{25}$  second to provide full flash synchronization regardless of filmspeed. (Actual duration of the flash determines subject stopping ability.) Next, move the EE lever (13) away from position "A" and set at proper aperture value. Aperture value is determined by referring to the instructions

11. Focusing Lever
12. Photocell Window
13. EE Lever (Aperture Control)
14. Exposure Indication
15. Shutter speed Control
16. Filmspeed (ASA) Dial
17. ND Filter Lever
18. Viewfinder (erect for use)
19. Accessory Clip
20. Tripod Socket
21. Synchroflash Socket
22. Focal Plane Mark





## FILM LOADING

Your MAMIYA 16 EE De Luxe uses all types of 16-millimeter film, monochrome or color, perforated or non-perforated, preloaded in the special MAMIYA 16 safety cartridge (single or double) in lengths of about 19 inches to give twenty exposures.

When loading film (preloaded in safety cartridge) in your MAMIYA 16 EE, or when unloading, *always* avoid direct lighting. Work in the shade to prevent fogging of film. If no shade is available when in the open, use your own body to shield your camera and film.

1. To open and remove backlid, push backlid catch safety (7) to "O" (open) position, then press down backlid catch (8).
2. Insert safety cartridge containing unexposed film in cartridge chamber (9). When using double cartridge, match the arrow marks. If single cartridges are used, insert empty (take-

indication (14) for automatic control range, be sure that the camera is pointed toward the subject as when shooting.

Illustrated are examples of methods of holding your camera. The most important thing is to prevent the slightest jerking when the shutter button is pressed. Apply finger pressure firmly but gently.

The use of film of high speed ratings is recommended for the best results.

## SYNCHROFLASH PHOTOGRAPHY

When the brightness of the subject is insufficient for good register, that is to say when the red needle of the exposure indication (14) fails to swing and point to any of the three segments below automatic operation range, the use of synchroflash is recommended.

Mount your flashgun on the accessory clip (19), and plug

# ULTIMA 16mm FILM

## Ultima 16mm Film Cartridges for Mamiya 16 Cameras

### LOADING

This cartridge contains 20 exposures of factory-fresh Kodak film, packed in a precision-molded cassette that protects both the film and your camera against damage of any kind.

To Load Your Camera, simply open the camera, drop in the cartridge, close the camera and you're ready to shoot.

### EXPOSURE

The ASA sensitivity ratings for each film, as given below, have been found to be best with subminiature films. They differ, in some instances, from the manufacturer's specifications for the general use of these film emulsions, but they work better with subminiature formats where reduced contrast is desirable. Set these ASA numbers in your exposure meter, or, if your camera has automatic exposure provision, in the ASA scale of the camera.

NOTE: — If consistently overexposed results are obtained from the use of these ASA numbers, rate the film 50% higher, as: DOUBLE-X Pan ASA 200 Daylight to ASA 300 Daylight. Do not use shutter speeds slower than 1/10th sec., for Ektacolor-S film, or substantial color change will occur.

### EXPOSURE TABLES

The following tables give average exposures for frontlighted subjects, with the camera's shutter speed set at 1/125 sec. unless otherwise indicated, between two hours after sunrise and two hours before sunset.

### FILM TYPE

| LIGHTING CONDITIONS                             | XT-PAN<br>B/W Neg.<br>ASA 25 (D)<br>ASA 16 (T) | EKTA-CHROME MS<br>Color<br>Transparency<br>ASA 64 (D)<br>ASA 25 (T)<br>w/80B filter | PLUS-X<br>B/W Neg.<br>ASA 100 (D)<br>ASA 80 (T) | EKTA-COLOR-S<br>Color Neg.<br>ASA 100 (D)<br>ASA 80 (T)<br>w/80B filter | DOUBLE-X<br>PAN<br>B/W Neg.<br>ASA 250 (D)<br>ASA 200 (T)<br>(set shutter at 1/250) |
|-------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Bright sun, or hazy sun on white sand or snow   | f/8**<br>LV13                                  | f/11**<br>LV4                                                                       | f/16**<br>LV15                                  | f/16**<br>LV15                                                          | f/22**<br>LV17                                                                      |
| Slight overcast; hazy sun with distinct shadows | f/5.6**<br>LV12                                | f/8**<br>LV13                                                                       | f/11**<br>LV14                                  | f/11**<br>LV14                                                          | f/16**<br>LV16                                                                      |
| Cloudy, no shadows                              | f/4<br>LV11                                    | f/5.6<br>LV12                                                                       | f/8<br>LV13                                     | f/8<br>LV13                                                             | f/11<br>LV15                                                                        |
| Heavy overcast                                  | f/2.8<br>LV10                                  | f/4<br>LV11                                                                         | f/5.6<br>LV12                                   | f/5.6<br>LV12                                                           | f/8<br>LV14                                                                         |
| Open shade#                                     | f/2.8<br>LV10                                  | f/2.8<br>LV10                                                                       | f/4<br>LV11                                     | f/4<br>LV11                                                             | f/5.6<br>LV13                                                                       |

Explanation of Symbols:

\*\*with sun directly behind the subject (backlit), when shooting close-ups, open lens two additional f/stops, as, f/8 to f/4

† set shutter speed at 1/60

# subject in the shade, but lit by large expanse of clear, blue sky

(lock) position.

4. Open lens cover (1) which also serve as shutter button safety. With your fingertip turn film counter adjustment (6) so that orange colored "S" (start) appears in film counter window (5). Keeping lens window (2) covered, press shutter button (3), then turn cocking wheel (4) until it comes to a stop. Repeat this operation until numeral 1 appears in film counter window (5).

5. The first frame is now in position for exposure. If you are not ready for picture-taking, close lens cover (1) to lock shutter button.

## **PREPARATIONS FOR PICTURE-TAKING**

### **Setting the filmspeed (ASA) Dial**

By turning the filmspeed (ASA) dial (16) at top center of the camera the filmspeed (ASA) rating of the film in use is made

speed adjustment is necessary.

When the red needle is on broad segment 1 (see illustration), turn the shutterspeed control (15) counterclockwise, and set dial against 1st dot to the left of the triangular index mark.

When the red needle is on white segment 2 (see illustration), use 2nd black dot to the left of the triangular index mark.

When the red needle is on the black line 3 (see illustration), use 3rd black dot.

With the camera set in these ways, the light value range, with filmspeed at ASA 100, is extended to cover from LV 7 to LV 17.

**ATTENTION** *Exposure indication (14) is in operation only after the cocking wheel (4) has been turned to ready the camera for the next shot. Also, when noting red needle position, keep finger*



|                 |            |       |           |      |      |      |     |   |
|-----------------|------------|-------|-----------|------|------|------|-----|---|
| ASA (filmspeed) | (100)<br>• | 80    | (50)<br>• | 32   | 10   | •    | •   | B |
| Shutterspeed    | 1/200      | 1/200 | 1/100     | 1/50 | 1/25 | 1/10 | 1/5 | B |

aperture control (overriding automatic control by means of the electric eye) is in use.

**Set the EE lever at position “A”**

Move the EE lever (13) to “A” (automatic), and check the ND filter lever (17) to see that it is at the extreme left (as seen from the front of the camera), with both filter and photocell mask fully retracted.

Erect viewfinder (18). Now you are ready for picture-taking by automatic exposure control.

Estimate the distance to your subject, and move the focusing lever (11) along the distance scale, and set at the estimated distance. Sight subject through the viewfinder, compose your

measured by the photocell (electric eye operation). Consequently, when the brightness of the subject is such that the aperture size range is exceeded (too bright at minimum opening, or too dark at maximum) you will not obtain correct exposure without adjustments for compensation. *Therefore, before pressing the shutter for picture-taking, you must make sure that the brightness of your subject-matter is within the range of automatic control.* This is done by noting the position of the red needle of the exposure indication (14).

Automatic control of exposure is available so long as the red needle is between the inner edges of the thin black line at the extreme right of the scale and of the broad black segment at the left (range A in the illustration). When film with a speed rating of ASA 100 is in use, the automatic range is from light value 10.5 to 15.5.

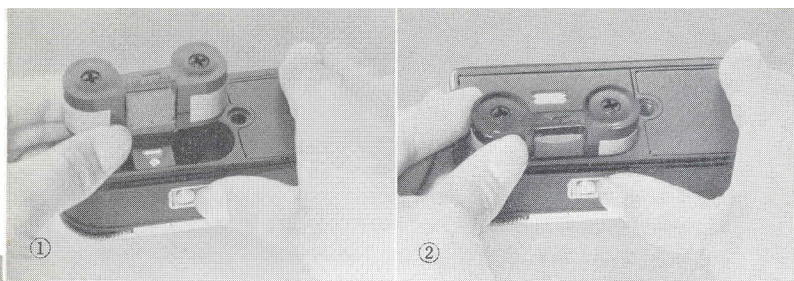
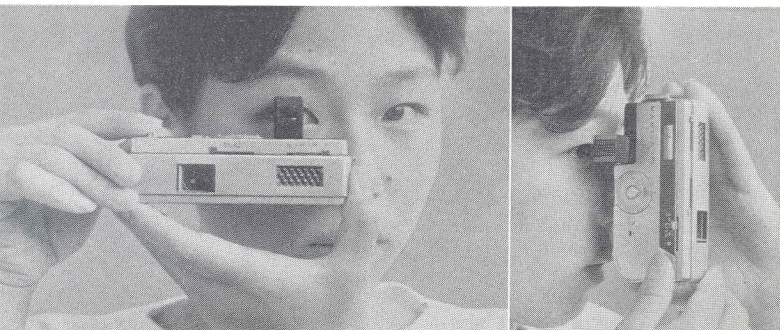
**When red needle is on line N**



away from the shutter button (3).

### **CAMERA GRIP**

Your MAMIYA 16 EE De Luxe may be held in any comfortable way. Be sure, however, that your fingers do not obstruct the lens or the photocell. When checking exposure



up) cartridge in chamber pointed out by arrow mark. Insertion will be eased if pressure plate release (10) is kept pushed against spring tension (this operation, however, is not absolutely essential). If safety cartridge does not sink snugly into the chamber, turn the take-up spool (pointed out by arrow mark) slightly with your fingertip. Spool will engage spindle with a distinct click, and the cartridge be seated accurately (See Figs. 1 and 2.).

3. Replace backlid, and set backlid catch safety (7) at "L"

**DEPTH OF FIELD TABLE** (circle of confusion 2.5/1,000 cm)

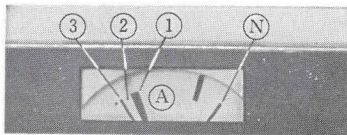
| DISTANCE     |     | $\infty$         | 4                | 2                | 1            | 0.5            | 0.3 m          |
|--------------|-----|------------------|------------------|------------------|--------------|----------------|----------------|
| LENS OPENING | 2.8 | 9.77<br>$\infty$ | 2.85<br>6.72     | 1.67<br>2.50     | 0.91<br>1.11 | 0.479<br>0.523 | 0.293<br>0.307 |
|              | 4   | 6.85<br>$\infty$ | 2.54<br>9.49     | 1.56<br>2.79     | 0.88<br>1.16 | 0.470<br>0.534 | 0.290<br>0.311 |
|              | 5.6 | 4.90<br>$\infty$ | 2.22<br>21.17    | 1.43<br>3.33     | 0.84<br>1.24 | 0.459<br>0.549 | 0.286<br>0.315 |
|              | 8   | 3.44<br>$\infty$ | 1.86<br>$\infty$ | 1.28<br>4.66     | 0.79<br>1.38 | 0.444<br>0.574 | 0.281<br>0.323 |
|              | 11  | 2.50<br>$\infty$ | 1.56<br>$\infty$ | 1.13<br>9.38     | 0.73<br>1.61 | 0.426<br>0.608 | 0.274<br>0.332 |
|              | 16  | 1.73<br>$\infty$ | 0.95<br>$\infty$ | 0.94<br>$\infty$ | 0.65<br>2.25 | 0.399<br>0.674 | 0.264<br>0.349 |

distance and adjustment of the focusing lever (11). Further, at distances of less than  $1\frac{1}{2}$  feet the effect of parallax comes into play. Make use of the parallax correction marks on the bright frame in the viewfinder field. At  $1\frac{1}{2}$  feet, the hatched portion

**DEPTH OF FIELD TABLE** (circle of confusion 1/1,000 inch)

| DISTANCE     |     | $\infty$                         | 12'                                          | 6'                                          | 3'                                         | 2'                                          | 1.5'                                        | 1'                                          |
|--------------|-----|----------------------------------|----------------------------------------------|---------------------------------------------|--------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
| LENS OPENING | 2.8 | 32' $\frac{3}{4}$ "<br>$\infty$  | 8' $9\frac{1}{4}$ "<br>19' $\frac{1}{4}$ "   | 5' 1'<br>7' 4"                              | 2' 9"<br>3' $3\frac{1}{2}$ "               | 1' $10\frac{3}{4}$ "<br>2' $1\frac{1}{2}$ " | 1' $5\frac{1}{4}$ "<br>1' $6\frac{1}{4}$ "  | 1' $11\frac{1}{4}$ "<br>1' $1\frac{1}{4}$ " |
|              | 4   | 22' $5\frac{1}{2}$ "<br>$\infty$ | 7' $10\frac{1}{2}$ "<br>25' $5\frac{1}{4}$ " | 4' $9\frac{1}{4}$ "<br>8' $1\frac{1}{4}$ "  | 2' 8"<br>3' $5\frac{1}{4}$ "               | 1' $10\frac{1}{4}$ "<br>2' 2"               | 1' 5"<br>1' 7"                              | 1' $11\frac{1}{2}$ "<br>1' $1\frac{1}{2}$ " |
|              | 5.6 | 16' $\frac{3}{4}$ "<br>$\infty$  | 6' 11"<br>46' 3"                             | 4' 5"<br>9' 5"                              | 2' $6\frac{3}{4}$ "<br>3' $7\frac{3}{4}$ " | 1' $9\frac{1}{2}$ "<br>2' 3"                | 1' $4\frac{3}{4}$ "<br>1' $7\frac{1}{2}$ "  | 1' $11\frac{1}{4}$ "<br>1' $\frac{3}{4}$ "  |
|              | 8   | 11' $3\frac{1}{4}$ "<br>$\infty$ | 5' $10\frac{1}{2}$ "<br>$\infty$             | 3' $11\frac{1}{2}$ "<br>12' 6"              | 2' $4\frac{3}{4}$ "<br>4'                  | 1' $8\frac{3}{4}$ "<br>2' $4\frac{1}{2}$ "  | 1' $4\frac{1}{4}$ "<br>1' $8\frac{1}{4}$ "  | 1' $11\frac{1}{4}$ "<br>1' 1"               |
|              | 11  | 8' $2\frac{1}{2}$ "<br>$\infty$  | 4' $11\frac{1}{4}$ "<br>$\infty$             | 3' $6\frac{1}{4}$ "<br>21' $2\frac{1}{2}$ " | 2' 3"<br>4' 7"                             | 1' $7\frac{3}{4}$ "<br>2' $6\frac{3}{4}$ "  | 1' $3\frac{1}{2}$ "<br>1' $9\frac{1}{2}$ "  | 1' 11"<br>1' $1\frac{1}{4}$ "               |
|              | 16  | 5' 8"<br>$\infty$                | 3' $10\frac{3}{4}$ "<br>$\infty$             | 2' $11\frac{3}{4}$ "<br>$\infty$            | 2' $\frac{1}{4}$ "<br>6' $\frac{3}{4}$ "   | 1' $6\frac{1}{4}$ "<br>2' $11\frac{1}{4}$ " | 1' $2\frac{3}{4}$ "<br>1' $11\frac{1}{2}$ " | 1' $10\frac{1}{2}$ "<br>1' 2"               |

will not register on your film. Compose your picture so that all essential portions do not protrude into the single hatched area (see illustration). At 1 foot, use the innermost correction marks. In these cases, it can be considered that the whole

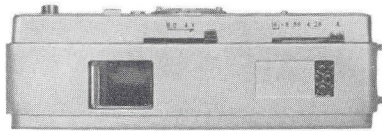


This means that your subject is too bright, and minimum aperture size is not enough to prevent overexposure. In this case,

move the ND filter lever (17) fully in the direction indicated by the arrow mark. The lens will be covered by a neutral density filter with a factor of  $\times 4$ , while the photocell window area will be reduced to  $\frac{1}{4}$  by means of the mask.

**When red needle fails to move into range A**

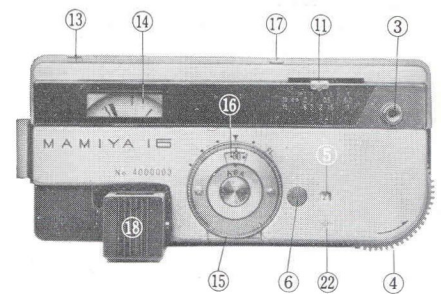
This means that your subject is not bright enough, and that exposure will be inadequate even at full aperture. Compensation by means of shutter-



to appear in the window in alignment with the index mark. Next, turn the shutter speed control (15) together with the filmspeed (ASA) dial (16) so that the index mark at the top center of the film-speed dial window

is set against the triangular index mark. When this is done, the appropriate shutter speed for the film in use has been selected. The relationship between filmspeed (ASA) and shutter speed is as shown below.

Refer to this scale for selecting shutter speed when manual





#### **IF YOU WISH TO ADJUST EXPOSURE**

Because the shutter speed dial is independent of the exposure meter, it is possible to obtain overexposure by setting the shutter speed dial at a slower setting even when the EE lever (13) is set at "A". All you need to do is to turn the shutter speed dial counterclockwise by one step from the correct exposure position. If you desire an underexposed picture, turn the shutter speed dial clockwise one step from the proper setting. However, such adjustment cannot be made when the subject is so bright or so dark that the exposure meter needle scales out or fails to respond.

#### **MANUAL CONTROL OF APERTURE**

Even when the EE lever (13) is shifted away from "A" the aperture continues to be controlled by the exposure meter, so it is not possible to set the aperture at any desired value. For

instance, if the brightness of the subject calls for  $f/5.6$  aperture, releasing the shutter after manually setting the EE lever at  $f/4$ , will not result in increased exposure. The aperture will automatically close down to  $f/5.6$  through the action of the exposure meter. It is possible, however, to obtain underexposure by manual shifting of the EE lever to values less than that determined by the exposure meter. So if  $f/8$  is manually set, the shutter when released will open up only to  $f/8$ , and underexposure will result.

The above is true only when the exposure meter is functioning. If the photocell window (12) of the exposure meter is completely covered so that no light is received, then the shutter will open up to the aperture setting selected by means of the EE lever (13).

Consequently, when full manual operation of exposure controls is desired, set the aperture by means of the EE lever, and

operate the shutter with the exposure meter photocell window covered. The shutter speed is selected as follows:

Choice of shutter speed depends on the relationship between the ASA value of the film, subject brightness, and aperture size. If the shutter speed dial (15) is turned so that the red mark on its serrations matches "FL" in red, the shutter speed is set at 1/25. With this position as the reference point, each step of the counterclockwise turn of the dial corresponds to 1/10, 1/5, and B, in that order. Clockwise, the steps are 1/50, 1/100 and 1/200.

Manual control of exposure is bothersome and inaccurate, while its applications are limited. Consequently, the automatic features of the MAMIYA 16 EE de luxe should be given full play, and the manual method should be used only for synchro-flash photography.

PRINTED IN JAPAN

## **MAMIYA 16 EE DE LUXE**

### **USER'S MANUAL CORRECTION**

In your "USER'S MANUAL" an error was made in describing operation of your MAMIYA 16 EE De Luxe as a conventional camera by shifting the EE lever (13) from position A to the aperture scale.

The correct version is as follows:

#### **AUTOMATIC EXPOSURE CONTROL RANGE**

As explained elsewhere, the automatic control range of your MAMIYA 16 EE De Luxe, with the built-in ND (neutral density) filter in use, is from LV (light value) 12 to LV 17. At the other end of the automatic control range, it is possible to photograph subjects of brightness down to the order of LV 7 by shifting the shutter speed control to the three black dot marks.

area of the frame has shifted diagonally downward toward the right. When measuring distances at these close ranges, use the focal plane mark (22) as the starting point.

The round mark between 6 Ft and  $\infty$  on the distance scale indicates approximately 12 feet (fixed focus setting), at which with aperture at f/8 all objects lying more than 5 feet away from the camera will register sharply without any further adjustment. For details refer to the depth of field table.

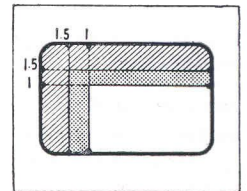
### PICTURE-TAKING CAUTIONS

With your MAMIYA 16 EE De Luxe, automatic picture-taking with accurate exposure control is accomplished by pre-setting of the shutter speed according to the filmspeed (ASA) rating of the film in use, and by automatic adjustment of aperture size by the brightness (light value) of the subject as

picture, and at the right instant press gently but firmly on the shutter button (3) without jerking your camera. The shutter will operate at the correct aperture size for the brightness (light value) of the subject.

### FOCUSING

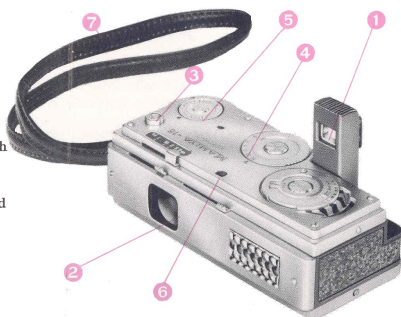
Because your MAMIYA 16 EE De Luxe is equipped with a fast lens of extremely high resolving power, giving ample depth of field, focusing is not critical; and when shooting subjects more than six feet away some error in judging distance is permissible. Sharpness of register is not badly impaired. However, at distances of less than six feet more care must be given to accuracy in measuring



## ... plus these exciting 'fine camera'

# FEATURES

- 1 Swing-up bright-frame viewfinder, with self-contained optical system and parallax-correction indicators. Folds flush when not in use
  - 2 Interchangeable built-in filter
  - 3 Shutter release with standard cable-release socket
  - 4 7 shutter speeds from 1/2 second to 1/200th and 'B'
  - 5 Indicator for film-type and 'empty'
  - 6 Aperture-setting indicator window, coupled to Exposure Meter
  - 7 Convenient wrist strap, for safety and added steadiness
- Synchronized flash, accepts standard flash attachments  
Standard tripod socket



The new Mamiya Automatic 16 contains everything you'd expect in a fine camera, yet is small enough to fit in the palm of your hand.

Its sleek, modern appearance reflects the spirit of people-on-the-go. Beautifully proportioned and trimmed in gray leatherette, it's the camera you'll take with you, even when you have left other cameras behind.

The Automatic 16 features easy, automatic operation to add to your photo fun. And, its fast, color-corrected f/2.8 lens delivers crisp, sparkling natural-color slides and prints with fine detail and color rendition, even in life-size projected transparencies. And, you'll get sharper blow-ups in black-and-white—wallet-size or larger—than you ever thought possible.

Imagine the fun! Your own personal, pocket-size camera, ready to go anywhere you go; ready to snap intimate, candid pictures, scenics, portraits... pictures you'll treasure for years to come.

## things come in small packages"

### EASY, DROP-IN CARTRIDGE LOADING

Film for the Automatic 16 comes in ingeniously designed cartridges for faster, easier, more positive loading. Open the camera, drop the cartridge into position, close the camera, and you're ready to shoot—the film flat and in the precise focal plane.

Six film types are available: For indoor shooting under 'available light', or for striking night shots, Tri-X film; for well-lighted indoor or outdoor shots, there's Plus-X film; and for extreme enlargements, Panatomic X. For full-color transparencies or prints, there's Kodachrome or Super Anscochrome, daylight and tungsten.

### accessories for added versatility

#### MAMIYA ENLAHEAD

Adapts standard enlarger to accept Mamiya 16 negatives. Fits Leica-thread flange in lens board, replacing enlarging lens. Has its own self-contained optical system and negative carrier. Makes blow-ups to 20 times.

\$15.95

#### MAMIYA FLASHGUN

Compact, pocket size unit is the perfect companion for Mamiya subminiature cameras. Accepts miniature flashbulbs. Comes complete with mounting bracket and reflector.

\$5.95

#### MAMIYA FILTERS

Interchangeable filters to fit camera are available in: red, green, yellow, neutral density, Type A and skylight.

each \$2.00



thumbnail-size negatives  
to sparkling enlargements—  
black & white & color prints



new ease,  
new convenience  
new adventures

# MAMIYA 16

*Super*

Picture taking couldn't be easier or faster. Just flip the "Action Wheel"—film advances and shutter sets itself for the next exposure. Works so smoothly that you can take 20 pictures in less than 20 seconds; and there's never a risk of double exposures.

What's more, the Mamiya 16 has big-camera features, and then some. You can take action shots—up to 1/200 second; close-ups right down to 12"—without attachments; flash pictures with built-in synchronization (flash unit available); filter shots with the built-in yellow filter. In short, with a Mamiya 16 you can take any type of pic-

ture that you could get with a larger camera, easier, faster and with less fuss.

Mamiya Super 16 delivers 20 wallet size prints on a black and white roll—and with color film, 20 color slides, which can be shown on a standard 35mm projector or made into full color prints.

First chance you get, see the Mamiya Super 16. See how easy it is to tote this handful of precision wherever you go. See what it's like to take pictures with a camera so small that the subject hardly ever knows you've taken a picture.

from thumbnail -  
size negatives

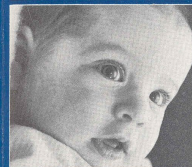


to sparkling  
wallet-size prints

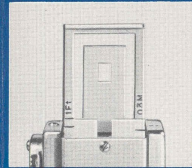
and enlargements up to exhibition size  
—in black and white or full color!



**AUTOMATIC "ACTION WHEEL"**  
A flip of the "Action Wheel" advances film and sets shutter for next exposure. And you can do all this without moving your eye from the viewfinder.



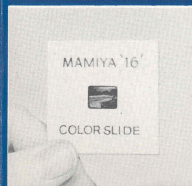
**CLOSE-UPS TO 12"**  
Dramatic close-ups—down to 12"—no need for attachments or accessories. Sports finder features built-in parallax compensation.



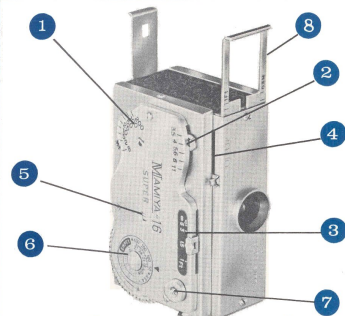
**SPORTS-TYPE VIEWFINDER**  
Makes it easy to follow moving subjects. When closed, it protects lens and locks shutter release, to prevent accidental exposure.



**VARIETY OF FILM TYPES**  
20 exposure loads of Mamiya 16 film available in fine-grain or high-speed black and white, and full color (Kodachrome).



**IDEAL COLOR CAMERA**  
Probably the most economical and most exciting way to shoot color. Slides can be shown on 35mm projector or made into full-color prints.



## feature panel

All settings and controls conveniently grouped on one side of camera. Easy to see, set and use.

1. SHUTTER SETTINGS—1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/200 second and Bulb.
2. LENS OPENINGS—from f/3.5 to f/11, for variety of lighting conditions.
3. FOCUSING SCALE—from 1 foot to infinity.
4. FILTER LEVER—slides built-in yellow filter over lens for cloud effects (other filters can be interchanged).
5. EXPOSURE COUNTER—indicates number of pictures that have been taken.
6. ASA RATING REMINDER—shows film type loaded in camera.
7. SHUTTER RELEASE BUTTON—with provision for cable release.
8. SPORTS FINDER—with parallax adjustment.

**\$39.95**

with leather case and hand strap

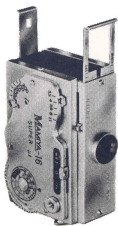
## accessories

FLASH ATTACHMENT—complete with reflector and connecting cord.

ENLARGEMENT ATTACHMENT—for making enlargements from 16mm negatives. Replaces the usual lens on the enlarger for efficient work at shorter projection distances.

FILM—Film for the Mamiya 16 is supplied in a convenient drop-in cartridge. Cartridges are packaged 2-20 exposure rolls per box. Film types available include: Plus-X, Tri-X, Kodachrome.

THIS HANDFUL OF CAMERA  
DOES A MAN-SIZE JOB



## MAMIYA 16

So small it's rarely noticed. The Mamiya 16 goes with you wherever you go, whatever you do. And it turns out snappy wallet-size black-and-whites—color slides—full color prints.

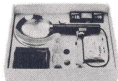
Man-size features, too!

- Sports-type finder with engraved parallax-correction indicators. Also prevents accidental exposure; covers lens when camera is not in use.
- 'Action Wheel' advances the film, sets the shutter, counts exposures.
- 7 shutter speeds from 1/2 second to 1/200th and 'B'.
- f/3.5 lens focuses down to 12".
- Built-in flash synchronization.
- Built-in interchangeable filter.
- Drop-in cartridge film loading.
- Standard tripod socket.
- Film-type indicator.

with case and handstrap...only \$39.95

### MAMIYA 16 ACCESSORIES

FLASH UNIT . . . . . \$5.95  
FILTERS: red, yellow, green, neutral density,  
Type A and skylight . . . . . each \$1.75



### MAMIYA 16 GIFT KIT

The gift that's guaranteed to delight everybody! Camera, case, handstrap, 3 rolls of black-and-white film, flashgun, flashbulbs, all handsomely gift-boxed.

Only \$49.50

MAMIYA • A Division of Caprod Ltd.

111 Fifth Avenue, New York 3, N. Y.

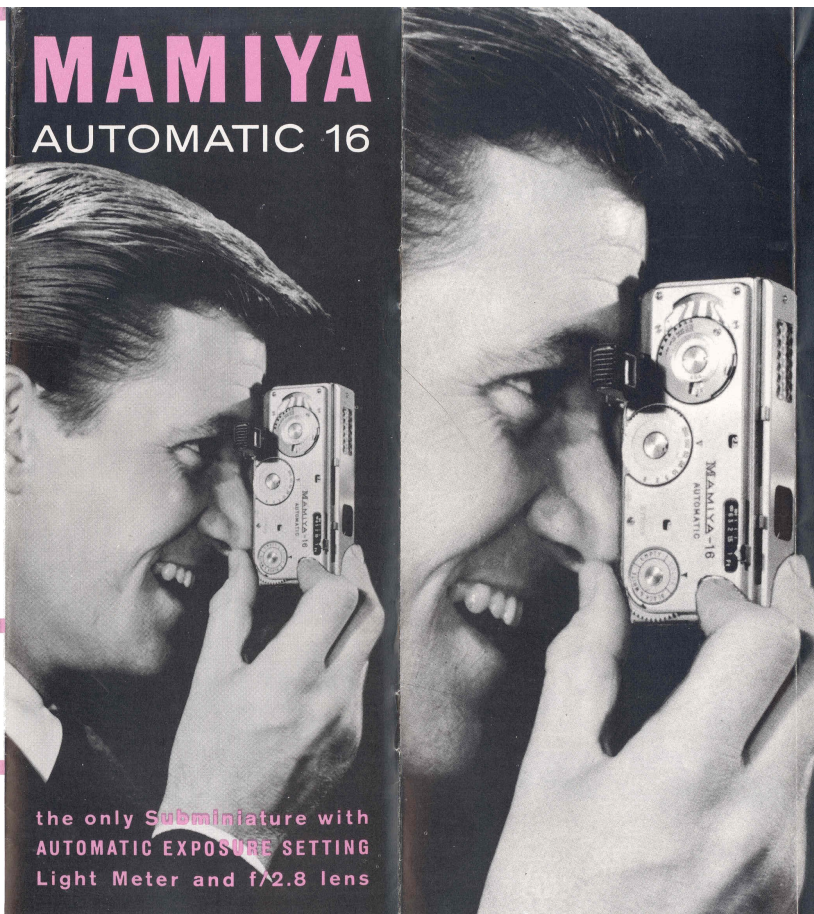
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Printed in U.S.A.

C1048-85960

# MAMIYA

## AUTOMATIC 16



the only Subminiature with  
AUTOMATIC EXPOSURE SETTING  
Light Meter and f/2.8 lens

*all  
over  
the world,  
the New*  
**MAMIYA**  
AUTOMATIC 16  
*travels  
first class  
for only \$69<sup>95</sup>*



**this handful of camera  
does a  
man-size**

**job**

So small it's rarely noticed, the Mamiya Super 16 is with you wherever you go, whatever you do. And it turns out snappy wallet-size black and whites — color slides — full color prints. Man-size features too... a flip of the "action wheel" advances film, sets shutter, ... a full range of shutter speeds and lens openings... built-in flash synch... close-ups to 12"... and a built-in yellow filter. Looking for fun, surprises, adventure — get the Mamiya idea.

**\$39.95**

*with deluxe leather case.*

**MAMIYA** *Super* **16**

Illustrated brochure at your dealer or: Dpt. MP-5  
Mamiya Division, Caprod, Ltd., 251 Fourth Avenue, New York, N. Y.  
In Canada: Precision Cameras, Ltd., 77 Vitre St. W., Montreal, PQ



this  
handful  
of camera  
does  
a man-size  
job



**MAMIYA16**  
*Super*

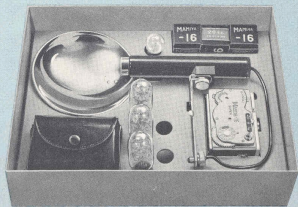
perfect  
companion  
for  
the man  
(or woman)  
of action

**MAMIYA16**  
*Super*

So small that it's never noticed, the Mamiya 16 is always with you — wherever you go — whatever you do. Just slip it into your pocket, no coddling needed!

And the Mamiya 16 does a man-size job of taking pictures. Starting with negatives no larger than a thumbnail, you get sharp, clear wallet-size prints, or enlargements up to exhibition size—in black and white or color.

It takes a lot of lens to pack detail into so small a negative and Mamiya has it. The superb f/3.5 lens is fully color corrected and coated, has remarkable definition, and ample "lens speed" for dim-light picture taking.



**MAMIYA 16 GIFT KIT \$49.50**

Includes Mamiya Super 16, leather case, hand strap, 3 rolls of film (20 exposures each), flash attachment, flash bulbs—all in a handsome gift box.

**OTHER MAMIYA CAMERAS:**

Executive-35 • Magazine-35  
Reflex C2 Professional • Automatic-6

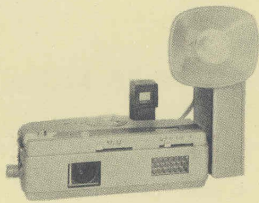
**PRODUCTS OF MAMIYA  
TOKYO, JAPAN**

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77 Vitre Street W., Montreal, P. Q.



## GENERAL DESCRIPTION



**MAMIYA FOR  
ORIGINALITY  
AND  
DEPENDABILITY**

**Lens** . . . MAMIYA-SEKOR F2.8,  $f=25$  mm, a fast ultra-sharp anastigmat of new design

**Shutter** . . . Special MAMIYA shutter, B and 1/5 to 1/200 second, shutter speed selection by filmspeed setting, built-in synchroflash (F setting)

**Focusing** . . . Adjustable from 1 foot to infinity ( $\infty$ )

**Picture Size** . . .  $10 \times 14$  mm on 16-millimeter film, 20 exposures per roll in special MAMIYA 16 cassette

**Exposure Control System** . . . Built-in photocell-controlled mechanism sets aperture at correct size upon operation of the shutter button prior to shutter action. Automatic exposure control filmspeed range . . . ASA 10 to 100. Subject brightness range . . . light value (LV) 7 to 17 with use of built-in density filter and threestep shutter speed selection

**Built-In Filter** . . . Absorption factor  $\times 4$ , mechanically coupled to photocell mask for extension of EE automatic exposure control range (above LV 10.5 to 15.5 at ASA 100)

**Viewfinder** . . . Hinged retractable type. Life-size image in bright optical frame. Parallax correction marks provided

**Cocking Mechanism** . . . Thumb-operated cocking wheel, simultaneous filmwind and shutter cocking, automatic film stop and double exposure prevention

**Film Counter** . . . Normal sequential type, quick reset mechanism

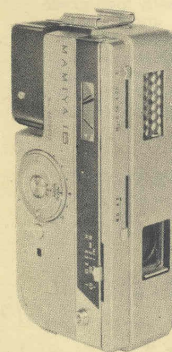
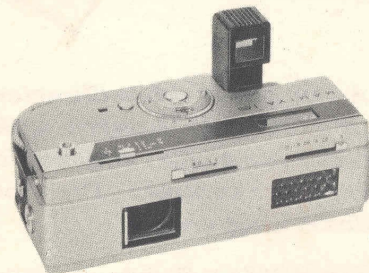
**Film Loading** . . . Detachable backlid with double lock. Insertion of special MAMIYA 16 film cassette (single or double)

**Other Features** . . . Pressure plate release; accessory clip; tripod socket; lens cover (shutter button safety); cable release socket; focal plane mark

**Dimensions, Weight** . . .  $4\frac{1}{2}'' \times 1\frac{11}{32}'' \times 2\frac{1}{8}''$ ,  $\frac{7}{8}$  lbs.

**Special Accessories** . . . MAMIYA 16 Film Cassette  
Daylight Loading Film (in special cassette)  
ENLAHEAD enlarger attachment Special Flashgun (B-C type)

# MAMIYA 16 EE De Luxe



**MAMIYA CAMERA CO., LTD.**

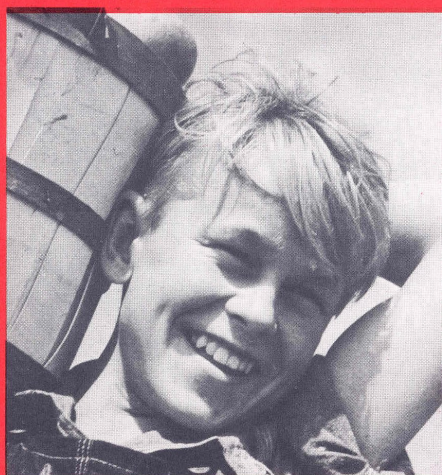
No. 7, 1-chome, Hongo, Bunkyo-ku, Tokyo, Japan

Printed in Japan

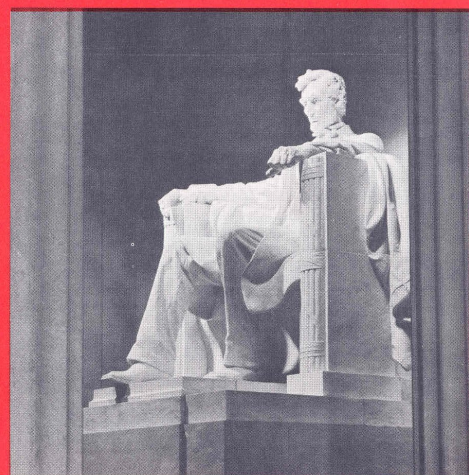


*The Big Picture in glorious color or superb black and white*

with the  
camera  
that hides  
in the  
palm of  
your hand



Full range of  
easy-to-operate  
precision controls



Incredibly sharp  
color transparencies  
or black and whites

**The NEW**  
**MAMIYA**  
Sub-miniature 16  
Pocket Size Camera

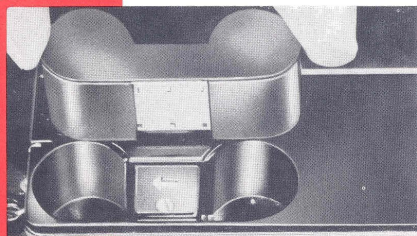
*The only sub-miniature  
you do not have to remove  
from your eye-level  
shooting position to  
advance the film and  
cock the shutter. Most  
convenient for rapid-fire  
sequence shots.*

At eye-level shooting position, a quick flick of the film advance wheel automatically winds the shutter, counts exposures and sets you up for the next shot. Built-in optical viewfinder shows you what you're getting and corrects parallax automatically. The extra fast f/2.8 lens focuses sharply down to 12" closeups. Shutter speeds from 1/8 second to 1/200th second take care of practically every action or light situation. Sliding lens cover prevents accidental exposures. Other built-in convenience features include flash synch., interchangeable filter, two tripod sockets. Film loading is easiest of all . . . just drop in a pre-packed cartridge.

The big camera quality of every picture taken with the Mamiya sub-miniature 16, is the result of its extraordinary f/2.8 lens coupled with a built-in optical viewfinder . . . especially ground for maximum clarity. You get color transparencies that can be projected larger than life with all the glorious natural color tones and detail fidelity of the original scene. Crisp black and whites are faithfully enlarged wallet size or larger. Indoor, available light "candid" that would normally require the most expensive cameras are easily yours with the Mamiya 16. In short, Mamiya's the camera that you'll never be without . . . wherever you go, whatever you do.



You have the  
widest choice  
of films  
with the  
**New**  
**MAMIYA**  
Sub-miniature 16

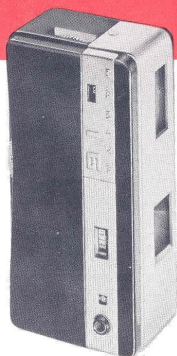


#### Drop-in cartridge film loading

Just drop in the loaded film cartridge and you're ready to go. No complicated winding or threading. Hinged back further simplifies loading. 6 films to choose from: For color you have *Kodachrome* to give you virtually grain-free, beautifully color-saturated prints and slides; *Anscochrome*, daylight, for delicate color values outdoors; *Anscochrome*, tungsten, for available-light color shooting. For black and white: *Kodak Panatomic-X* for extra fine detail; *Kodak Plus-X* for fine-grain, medium speed all-around shooting; *Kodak Tri-X* for candid shoot-anywhere, shoot-anytime photography.



## The NEW MAMIYA De luxe Sub-miniature 16



Complete with  
case and strap  
**\$39<sup>95</sup>**

**Lens:** Ultra-sharp f/2.8  
**Shutter:** 1/5, 1/10, 1/25, 1/50, 1/100, 1/200th plus bulb  
**Apertures:** f/2.8, 4, 5.6, 8, 11, 16  
**Focusing:** From 12" to infinity  
**Viewfinder:** Built-in coupled with lens, automatic parallax correction.  
**Exposure Button:** Locks with sliding lens cover, prevents accidental exposures.  
**Film Advance:** Conveniently located knurled wheel advances film, winds shutter, counts exposures.  
**Film Loading:** Drop-in cartridge. Hinged back.  
**Also:** Built-in flash synchronization, interchangeable filter. 2 tripod sockets.

## Be sure to see the New MAMIYA

Automatic  
Sub-miniature 16  
with  
automatic exposure-  
setting light meter and  
superfast f/2.8 lens.  
Complete with case  
and carrying strap.

**\$69<sup>95</sup>**

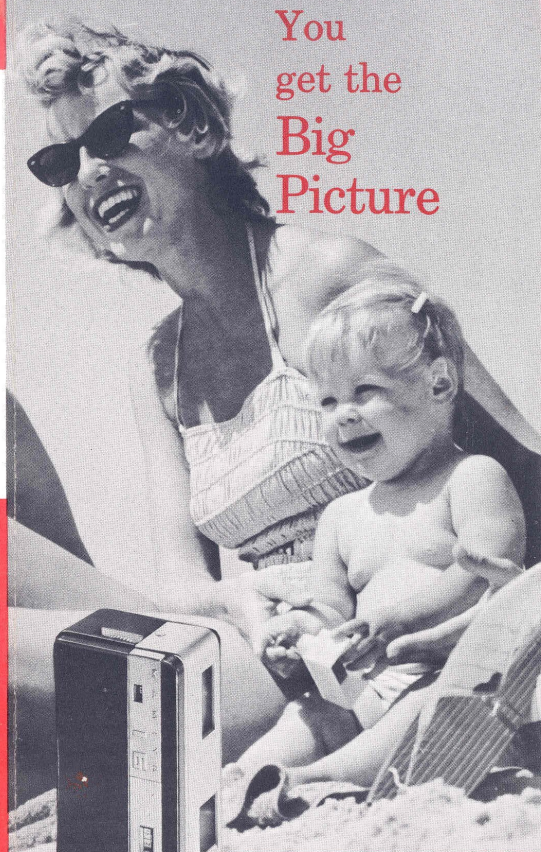


**MAMIYA** • A division of Caprod Ltd.  
111 Fifth Avenue, New York 3, New York  
IN CANADA: Precision Cameras of Canada, Ltd., 5385 Pare St., Montreal, P. Q.

C-1054

Printed in U.S.A.

You  
get the  
**Big  
Picture**



with the new  
precision  
**MAMIYA**  
Sub-miniature 16  
Pocket Size Camera





***A top grade 16-millimeter subminiature camera with electric-eye (EE) automatic exposure control! Proof of discerning choice!***

The MAMIYA 16 EE De Luxe is the latest development announced by MAMIYA CAMERA COMPANY, the first in Japan with high-grade subminiature cameras of which more than a quarter of a million have been sold. This new automatic camera is equipped with a wide-range electric-eye exposure control device, supplemented by a  $\times 4$  neutral density filter. Own this superb candid camera, the best in its class. You are sure to be envied!



## ELEVEN MAJOR FEATURES OF THE MAMIYA 16 EE De Luxe

### **\*\*High Performance Automatic Exposure Control**

Automatic control of exposure (by proper combination of shutter speed and aperture to go with filmspeed (ASA rating) and subject brightness (LV)) is precisely and effectively provided by the subject brightness controlling aperture size through the photocell, the shutter speed being set by the filmspeed adjustment. Consequently, throughout a certain range perfect exposure may be obtained merely by pointing the camera at the subject and pressing the shutter button. If the subject is too dark or too bright, simple compensation adjustments are made in accordance with the LV indications. When the subject is too dark, the shutter speed is reduced as indicated. If too bright, the built-in density filter is brought into play.

Manual over-ride of the automatic control is possible, and your MAMIYA 16 EE de luxe can be operated as an ordinary camera.

### **\*\*Focusing adjustment for sharpness and enlargeability**

While it is normally recognized that 16-millimeter cameras have great depth of field, the 25-millimeter focal length lens of the MAMIYA 16 is the equivalent of a 65-mm lens in the 35-mm camera. Therefore, to obtain big enlargements from the small  $10 \times 14$  mm negatives, the images must be sharp and free from blur. Your MAMIYA 16 EE De Luxe may be focussed accurately from 1 foot to infinity, while if you wish to use it as a fixed focus camera all you have to do is to set the focusing adjustment at 12 feet.

### **\*\*Ultra-Sharp Lens of Great Speed**

The MAMIYA-SEKOR lens of your MAMIYA 16 EE De Luxe is a MAMIYA-SEKOR rated at F2.8, some 60 per cent faster than the F3.5 lens normally used in 16-millimeter cameras. Extremely high resolving power is engineered into this superb lens, so incredible detail can be registered on a negative of postage stamp size.

### **\*\*Full Range of Shutter speed and Built-In Synchroflash**

While the shutter speeds are not shown on the scale to prevent confusion when using automatic exposure control, the following shutter speeds are provided: B (bulb, manual control), 1/5, 1/10, 1/25, 1/50, 1/100, and 1/200. The most suitable

shutter speed is selected to match your filmspeed rating. A built-in flash contact is provided for accurate synchronization of shutter action with flash ignition.

### **\*\*Sequence Shots at up to 15 Shots in 10 Seconds**

Because the cocking wheel and shutter button can be rapidly operated in repetition, it is possible to make a quick sequence of shots, indicating changes in the subject-matter. Moreover, good design keeps camera jerk, the bane of subminiature cameras, to the absolute minimum.

### **\*\*Brilliant, Easy-To-See Viewfinder**

The fold-away optical finder gives a brilliant life-size image of the subject enclosed in a bright translucent frame. Parallax correction marks are provided to permit accurate sighting at close ranges.

### **\*\*Simple and Easy Loading and Unloading**

Removable backlid and pressure plate release permits easy insertion and removal of the film cassette (special MAMIYA 16 safety container). The quick re-set mechanism of the film counter provides for quick readying of your camera for shooting. Any negative type 16-millimeter film, either color or monochrome, that is available on the market can be used in your MAMIYA 16 EE De Luxe.

### **\*\*Positive Safety Features**

The lens cover locks the shutter button, while a safety catch prevents the backlid from being opened by accident.

### **\*\*Built-In Density Filter**

The built-in neutral density filter provides for extension of the range of full automatic exposure control.

### **\*\*Wrist Strap for Handy Carrying**

Your lightweight MAMIYA 16 EE De Luxe can be looped to your wrist for convenience and safety by means of a handy wrist band.

### **\*\*Elegant and Functional Design**

The striking design of your new MAMIYA 16 EE De Luxe is so advanced that it will surely attract attention. Ownership of the MAMIYA 16 EE De Luxe is the mark of good taste and discerning choice.



## perfect exposure ...everytime!

It's a fact that more pictures are ruined by incorrect exposure than by any other cause. The new Mamiya Automatic 16 has a coupled exposure meter that assures you on-the-button exposure every time you snap a picture...indoors under photofloods or "available light", outdoors in bright sunlight or on the haziest, dulldest days...even in rain or snow. Just select the shutter speed, align the shutter speed indicator with the meter needle and shoot. Or, if you prefer, you can pre-select your lens aperture and the meter will tell you what shutter speed to use. Settings from ASA 12 to 400 for all kinds of color and black-and-white film.



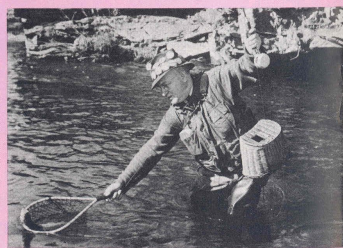
## get startling, dramatic pictures ...anywhere!

Ultra-fast, ultra-sharp 25mm Mamiya-Sekor f/2.8 lens lets you shoot anywhere, under virtually all lighting conditions. Get wonderful, conversation-piece photographs like these...striking night shots, in black-and-white and color...candid, by "available light"...flattering, backlit portraits.



## focusing lens means sharper pictures

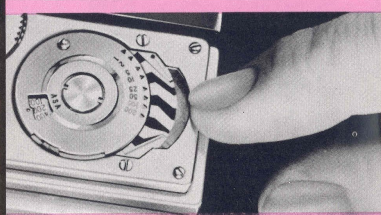
Unlike so-called 'fixed-focus' lenses which depend on depth-of-field and are never critically sharp, the Automatic 16 has a lens of special design which focuses critically from 12" to infinity. You'll get dramatic close-ups and lovely soft-focus background shots...the kind of pictures you've always wanted to take.



# MAMIYA

## puts fun in photography with the AUTOMATIC 16

Automatic features add to your enjoyment by taking the guess work and calculation out of photography—assuring you perfect results, every time you shoot!

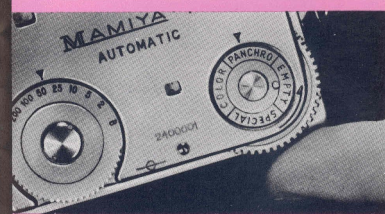


### AUTOMATIC I

Knurled 'Action Wheel' automatically advances the film, sets the shutter and counts exposures with a flick of your thumb. Automatically stops when film is in position for next exposure.

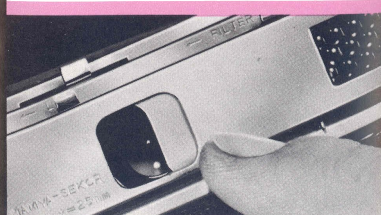
### AUTOMATIC I

Built-in diaphragm-coupled Exposure Meter. Aligning the shutter speed indicator with the meter needle automatically sets the lens-aperture for proper exposure. Or, preselect the lens aperture, and the meter will indicate the correct shutter speed.



### AUTOMATIC I

Slide-away lens cover automatically prevents accidental exposure. Camera will not fire unless lens cover is withdrawn. Also protect the lens against dust and lint while the camera is being carried.





**A TRULY FINE SUBMINIATURE—AT AN AMAZINGLY LOW PRICE!**

# **MAMIYA AUTOMATIC 16**

**with built-in diaphragm-coupled exposure meter**

**only \$69.95**

A mere handful in size, the new Mamiya Automatic 16 promises you top quality pictures — every time! Just line up the indicator with the meter needle and shoot. You know your exposure is perfect.

Light, compact, unobtrusive, it's the camera you'll take with you everywhere, even when you leave other cameras behind. And, you'll get sharper blow-ups in color and black-and-white, and lovelier true-to-life transparencies than you ever thought possible from 16mm film!

*Here are some of the remarkable features  
of the new Mamiya Automatic 16:*

#### **BUILT-IN, DIAPHRAGM-COUPLED EXPOSURE METER**

Assures correct exposure. Gives direct readings of shutter speed for pre-selected lens aperture, or automatically sets diaphragm for correct aperture at pre-selected shutter speed.

#### **FOCUSING, COLOR-CORRECTED f/2.8 LENS**

Ultra-fast, ultra-sharp for best results, even under poor lighting conditions. Critical focusing for hairline sharp exposures at all distances from 12" to infinity. Assures you full definition, even in large prints and projected transparencies. (Fixed-focus lenses depend on depth-of-field, and never achieve critical sharpness.)

#### **SWING-UP OPTICAL FINDER**

A Mamiya exclusive! The swing-up optical finder pivots into the camera body when not in use. It shows a brilliant image in a bright-frame, with parallax-correction indicators.

#### **EASY DROP-IN CARTRIDGE LOADING**

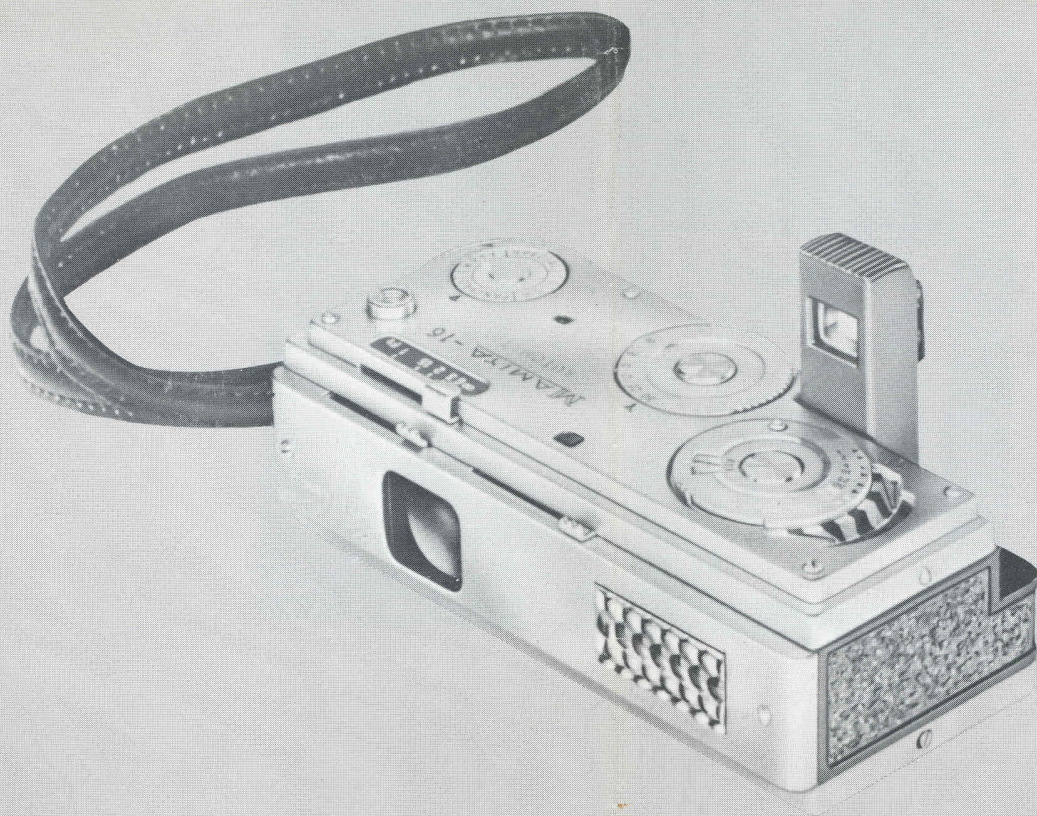
Cartridge drops into place in a jiffy! Just close the cover, and you're ready to shoot. Impossible to load incorrectly.

#### **... PLUS THESE EXCITING BIG-CAMERA FEATURES**

• Interchangeable built-in yellow filter • Cable release socket • 7 shutter speeds, from ½ sec. to 1/200 sec., plus 'B' • Synchronized flash, accepts standard flash attachments • Indicator for film-type and 'empty' • Aperture-setting indicator window, coupled to Exposure Meter • Standard tripod socket • Convenient wrist-strap, for safety and added steadiness.

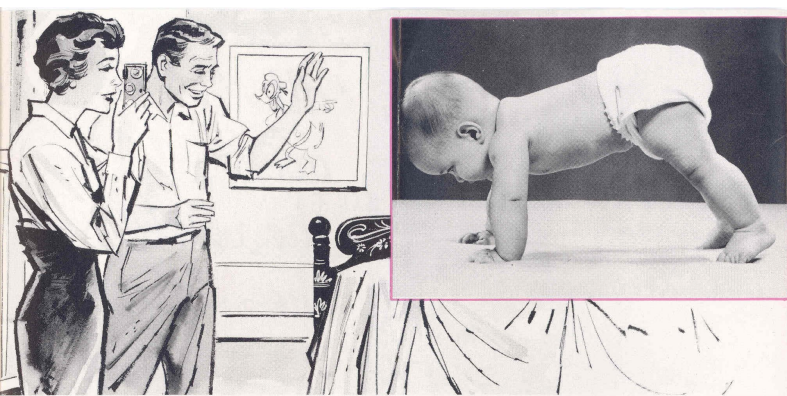
#### **THREE FILM-TYPES AVAILABLE!**

For indoor shooting under 'available light', you'll use fast Tri-X film. For well-lighted or outdoor shots, Plus-X film is available. For beautiful, natural-color slides, transparencies and prints, there's Kodachrome film. All in convenient, drop-in cartridges.

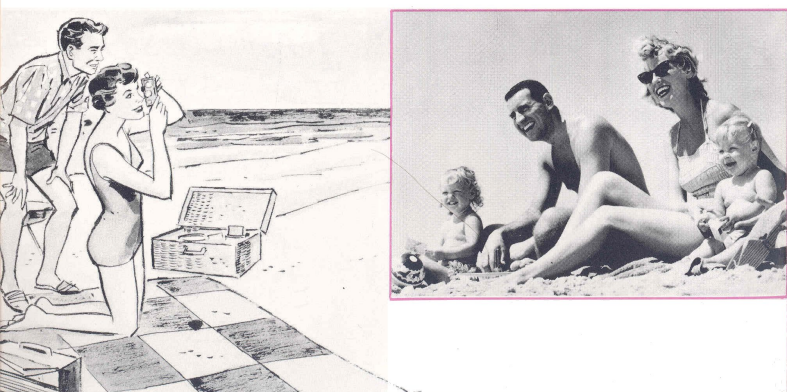


**MAMIYA**—A DIVISION OF CAPROD, LTD., 111 FIFTH AVENUE, NEW YORK 3, N.Y.





here's living proof that "good



**Twitter de**

ПРГ-6

die deutschen

### 16-jähr-Präsidentenwahl



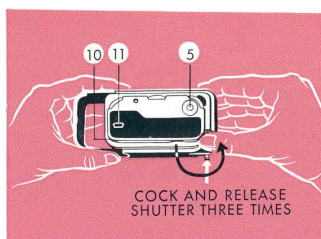
Proble 173. — 3.49

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## Der neue Komaroff

- [illegible]

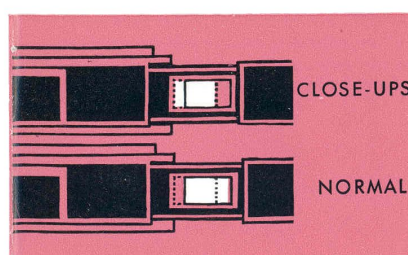
© 2004 Blackwell Publishing Ltd, *Journal of Internal Medicine* 255: 111–118



#### How to prepare for Exposure

A. The Transport Lever (13) is advanced with the thumb until a resistance is felt. The Film is now transported for the first time, the Shutter cocked and the Double Exposure Prevention in operation.

After 3 "blind" exposures the unexposed film is behind the Lens and the Camera is ready for the first exposure.

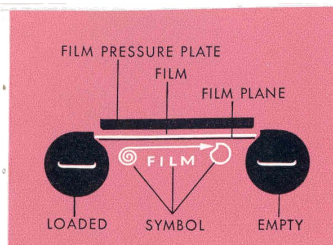


top). When pointing the Camera towards the subject please note that the rectangular Frame in the Viewfinder indicates exposure from approx. 4 ft. 6" to infinity, whereas the dotted rectangular Frame indicates the area for close-ups.



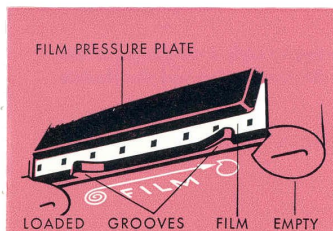
### How to remove the Film

When 24 exposures have been taken with the Camera, the Exposure Counter (11) will show "0". The Film Transport is now automatically locked in case the Film Counter has not been watched. To release this locking turn the small Wheel (10) one or two stops and take two more "blind" exposures to ensure that the exposed film is safely inside the Cassette. The film can now be taken out in daylight. It is, however, important **not to remove or insert the film in bright sunlight, and to store films in a dustfree place.**



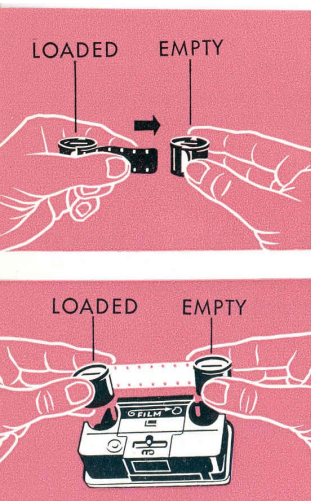
When the cassettes are placed correctly the embossed lines on the cassette should be parallel to the Film Plane. There are two small grooves at the beginning of the film plane, please ensure that the film is placed behind these grooves and not on them. The Camera is now closed and correct transport is assured by the Sprockets.

Set Film Memorizer (17) as follows:



When using colour film set on red/yellow, and when using black/white film set on black/white.

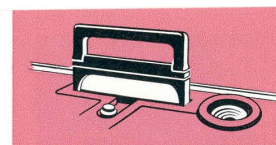
The Camera Body is now placed back into the Housing, and it is very important that the two clips (14 and 21) at each side of the Housing slide into the grooves of the Camera Body.



#### Inserting the Film

Remove the empty Take-up Cassette from the Camera. Insert Film from the loaded cassette (16 mm cine film perforated both sides) approximately one inch into the take-up cassette. This must be done in the shade. Pull out a little extra film from the loaded cassette (approximately  $2\frac{1}{4}''$ ) to enable both cassettes to be inserted into their respective Film Chambers. The insertion of the film is made easier by the fact that the Pressure Plate – after the Camera Body has been taken out of the Housing – is slightly raised from the Film Plane. It is important that the loaded cassette is placed in the correct Chamber. Please note the embossed symbol between the two film chambers which indicates the correct seating of the cassettes and the direction of the film.

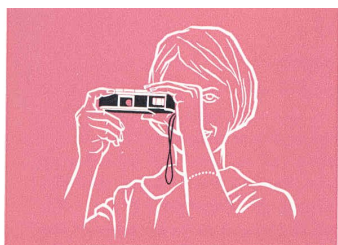
6



#### Using Filters

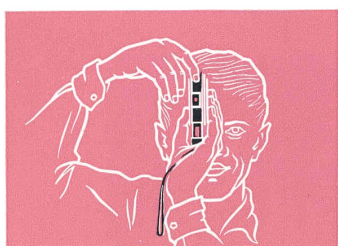
It is a further advantage of the new camera that no increased Exposure Time is required when using filters. As the light is measured from behind the lens the MEC 16 SB automatically takes these factors into account. A slide at the bottom of the camera (16) allows easy insertion of the filters into the Channel. The filters should be absolutely clean and dust free to ensure pinsharp exposures. Pull out slide to insert filters and ensure that the filter is pushed well in. The slide should click into the groove of the filter. The small handle on the filter facilitates the insertion and also indicates that a filter is being used.

19



Quick Transport Lever is situated. When taking a photograph this finger should touch the forehead.

Hold right hand so that the thumb can easily operate the Body Release, whilst the index finger rests on the front of the Camera to give balance. The remaining fingers support the Camera from the base.



When taking vertical photographs Camera and hands should be turned 90° (Viewfinder underneath and Body Release on

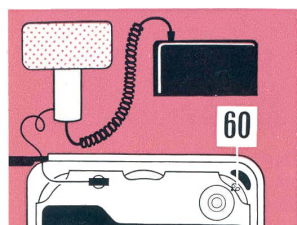
Make sure in the Window (19) at the back of the Camera that the film is transporting correctly. "Black" means that the insertion and transport of the film are correct, "Red" means that the Camera is not loaded, or that the film insertion and transport are incorrect. This is also a reminder whether or not the camera is loaded.

B. Set Exposure Counter (11) with the Setting Wheel (10) on No. 24. The Counter indicates how many exposures are still left on the film.

**Please Note:** – When the Exposure Counter shows "0" the transport is automatically locked to indicate the end of the film. The locking can be released by turning the small Wheel (10) one or two more stops. See also page 18.

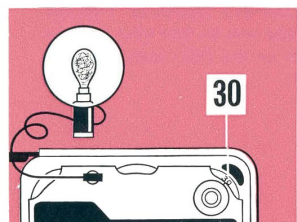
C. Of special importance is the Film Speed Setting, DIN or ASA. The correct Exposure depends on this setting, as the Exposure Meter is coupled with this.





#### Exposures against the Sun

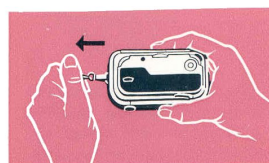
On account of its deeply recessed Interior Lens exposures against the sun can be made without using a lens hood. This construction allows the maximum protection against infiltration of light.



#### How to use Flash with MEC 16 SB

The shutter is synchronised for all standard bulbs on 1/30th and for electronic flashguns on 1/60th. A flashgun can be fitted to the Tripod Bush on the camera base, or a Bracket can be used.

20



#### Opening the Camera

Pull out Carrying Chain (22) with the Viewfinder Bracket (8) as far as it will go.

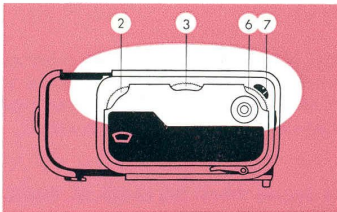


Hold Camera in your left hand, as shown on the illustration, depress the Locking Button (20) with your thumb, at the same time pushing the Camera Body slightly upwards.



Lift Camera Body with right hand.

5



#### Quick and Easy, Correct and Accurate

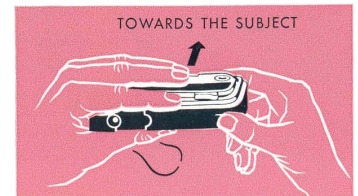
All settings (2, 3, 6, 7) can be seen "At a Glance" which makes taking photographs with this ideal and unique camera a mere pleasure.

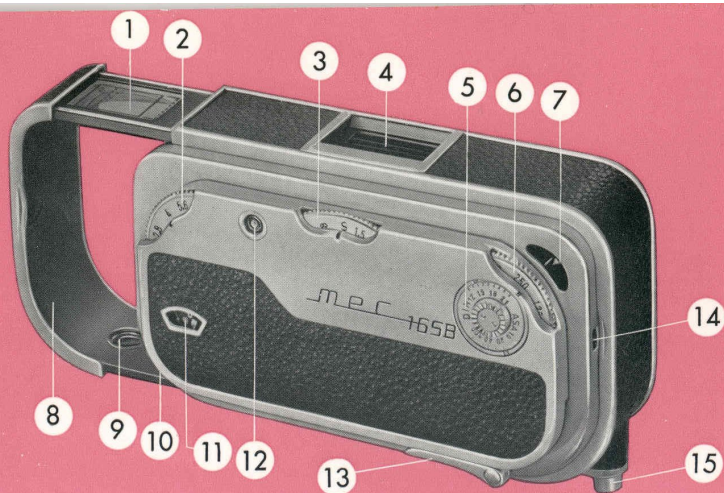
#### Distance Setting

Most subjects are taken from between 7 ft to 70 ft. For this purpose the Setting Wheel (3) is set on "S" for Snapshot, which is in fact an Ever Ready Setting. The short focal length of this excellent Rodenstock Heligon Lens and its large Depth of Focus guarantee sharp pictures at Aperture 5.6 from approx. 4 ft 6' to

#### How to hold the Camera when taking a Photograph.

A newly designed Camera requires a new method of handling, which should be practised before inserting a film. The basic fact is, that the smaller the camera the steadier it should be held. Hold the Camera tight and ensure that the lens is not accidentally covered by your fingers. After a while you will find the best way of holding the Camera. In the beginning we would recommend the following method: For horizontal photographs the left hand should grip the Viewfinder Bracket (8), so that the fingers rest on top of the Camera and the thumb presses towards the Camera Base. The index finger of the left hand should rest on the rim where the





- 1 Optical Viewfinder with Parallax Compensation.
- 2 Setting for Automatic Exposure Meter and Apertures f. 2 to f. 16.
- 3 Distance Setting from 1 ft. to Infinity.
- 4 Built-In Lens Hood in front of Interior Lens Rodenstock Heligon 1:2 (6-elements) 22 mm focal length, coated and colour corrected.
- 5 Film Speed Setting, DIN or ASA.
- 6 Shutter Setting (Metal Focal Plane Shutter) from 1/30th to 1/1000th and "B".
- 7 Exposure Meter Indicator. Gossen Photo-Electric exposure meter reads the light from behind the Lens.
- 8 Retractable Viewfinder Bracket.
- 9 Viewfinder Window.
- 10 Setting Wheel for Film Counter with automatic stop indicating the end of the film.
- 11 Film Counter.

- 12 Synchro Socket for Flashgun Cable.
- 13 Quick Film Transport Lever, which also cocks the shutter. Double Exposure Prevention Device.
- 14 Clip for holding Camera Body in Housing.
- 15 Body Release with thread for Cable Release.

**Should you not have done so by now the back cover should be unfolded.**

- 16 Channel for Filters.
- 17 Film Memorizer for black/white and colour.
- 18 Tripod Bush.
- 19 Film Indicator  
red – not loaded  
black – loaded.
- 20 Locking Button to open and close Camera.
- 21 Clip for holding Camera Body in Housing.
- 22 Carrying Chain.



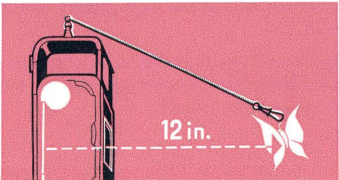
Depth of Focus Scale

| Diaphragm | $\infty$      | S            | 5            | 3       | 2       | 1         |
|-----------|---------------|--------------|--------------|---------|---------|-----------|
| 1:2,0     | 30 - $\infty$ | 9-20         | 4,5-5,5      | 2,7-3,3 | 1,9-2,1 | 0,97-1,03 |
| 1:2,8     | 20 - $\infty$ | 8-30         | 4-6          | 2,6-3,5 | 1,8-2,2 | 0,95-1,05 |
| 1:4       | 13 - $\infty$ | 7-70         | 3,5-7        | 2,4-3,8 | 1,7-2,4 | 0,9-1,1   |
| 1:5,6     | 10 - $\infty$ | 6 - $\infty$ | 3,3-9        | 2,2-4,2 | 1,6-2,5 | 0,87-1,15 |
| 1:8       | 8 - $\infty$  | 5 - $\infty$ | 3-13         | 2,5-5,2 | 1,5-2,8 | 0,83-1,2  |
| 1:11      | 5 - $\infty$  | 4 - $\infty$ | 2,3-33       | 1,8-6,7 | 1,4-3,3 | 0,8-1,3   |
| 1:16      | 4 - $\infty$  | 3 - $\infty$ | 2 - $\infty$ | 1,5-17  | 1,2-5,0 | 0,73-1,5  |

infinity. For landscape photography over 70 ft. turn Distance Wheel on infinity. Only for near Close-ups it is necessary to use the Setting 1 ft to 5 ft. You will find great pleasure in using all these settings and there are just 2 Tips here:

- The best setting for Portraits is approx. 2 ft. 6"
- For the shortest distance, i. e. 1 ft. you can use the Carrying Chain for measuring the distance as illustrated.

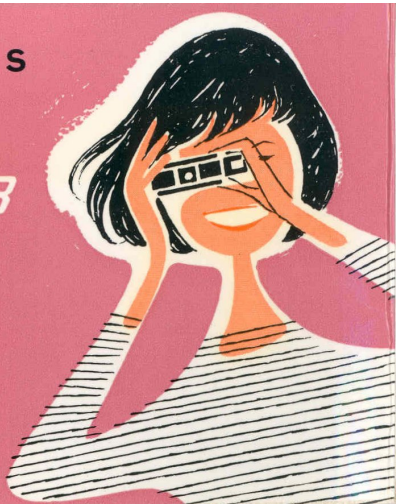
The Depth of Focus can be seen from the Depth of Focus Scale on page 14.



# INSTRUCTIONS

## MEC 16 SB

*For  
Happy  
Owners!*



### You have bought well

when you purchased a MEC 16 SB camera. This very fine achievement of German craftsmanship is fitted with a unique Exposure Meter Automatic which eliminates all incorrect exposures and makes taking photographs child's play. It is sufficient to read these instructions thoroughly and to experiment a little with the Camera. To do this unfold the front and back covers of this booklet. You will enjoy taking photographs from the beginning, and your MEC 16 SB will be your constant companion.

We wish you every success and enjoyment with your MEC 16 SB.



FEINWERKTECHNIK GMBH. · LAHR / GERMANY