

# MAMIYA PRESS

## SUPER 23





# Prior to using MAMIYA PRESS SUPER 23

1.

The 100mm f/3.5 lens is a retracting type. When the lens has been retracted, focus cannot be adjusted although the two images on the rangefinder coincide.

Refer to page **13**  
for further details.

2.

When the back mount has been pulled out, focus cannot be adjusted although the two images on the rangefinder are coincided.

See page **28**

3.

Always pull out the press focus lever after cocking the shutter. Push it in after adjusting the focus.

See page **18**

4.

When framing a composition with the finder's brilliant frame, compose it within the inner edge of the frame width for short distances; for long distances, use the outer edge as a guide.

See page **16**

5.

When taking a photograph with the vertical camera position on a tripod, use a tripod adapter on the hand grip socket for vertical photography.

See page **36**

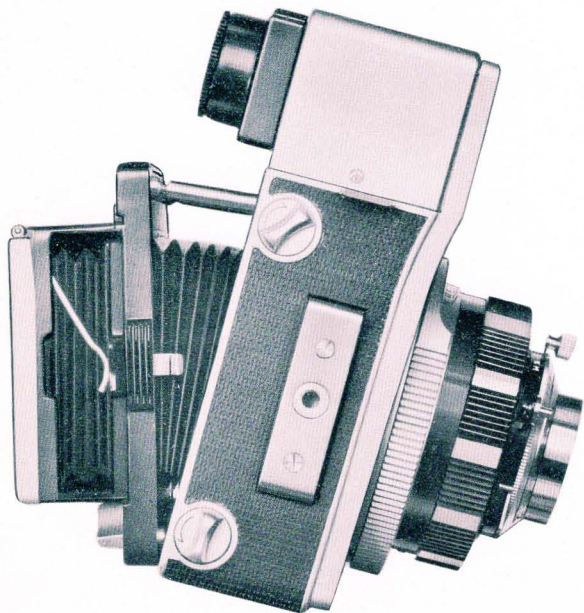
6.

When using a roll holder

Set the figure in the film indicator window and adjust installation of the pressure plate to the film to be used (120 or 220).

See page **22**

## MAIN FEATURES



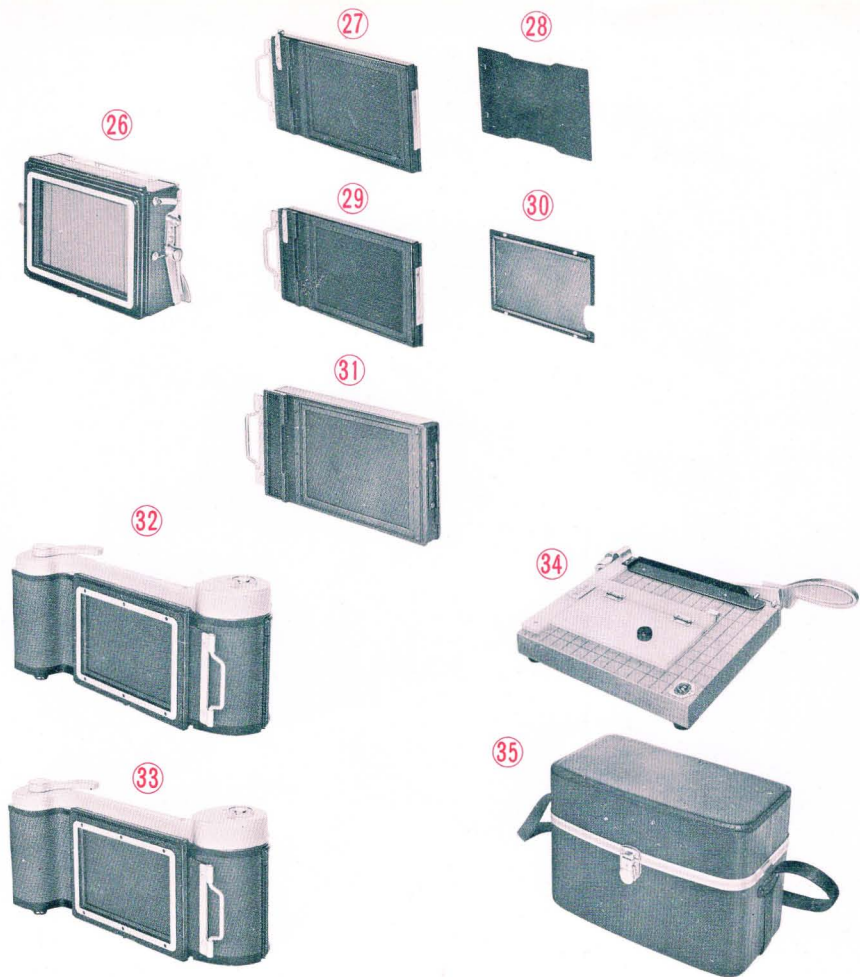
The Mamiya Press Super 23, offering the distinct advantage of its large film size while maintaining extremely facile operational features, is amazingly versatile for news photography, commercial work, scientific and industrial applications, or as a camera lover's personal choice.

- \* Large size film presents sharp, fine rendition of every detail
- \* Variety of interchangeable lenses ranging from 65 mm wide angle to 250 mm telephoto.
- \* Quick interchange of lenses through bayonet ring mounting
- \* Focusing by coupled rangefinder
- \* Direct focusing through focusing screen possible.
- \* Brilliant frame finder with switch-over frame masks.
- \* Viewfinder features automatic parallax correction.
- \* Hand grip makes camera easy to carry about
- \* Roll holder with film advance lever enables quick snapshots.
- \* Accepts both No. 120 and No. 220 roll films.
- \* Also accepts dry plates, cut films, and film packs by using exclusive holders.
- \* Wonderful close-up photography by extending back mount
- \* Advanced close-up photography by using extension rings.
- \* Back mount swings to achieve control of perspective, depth of field, distortion, or special effects.

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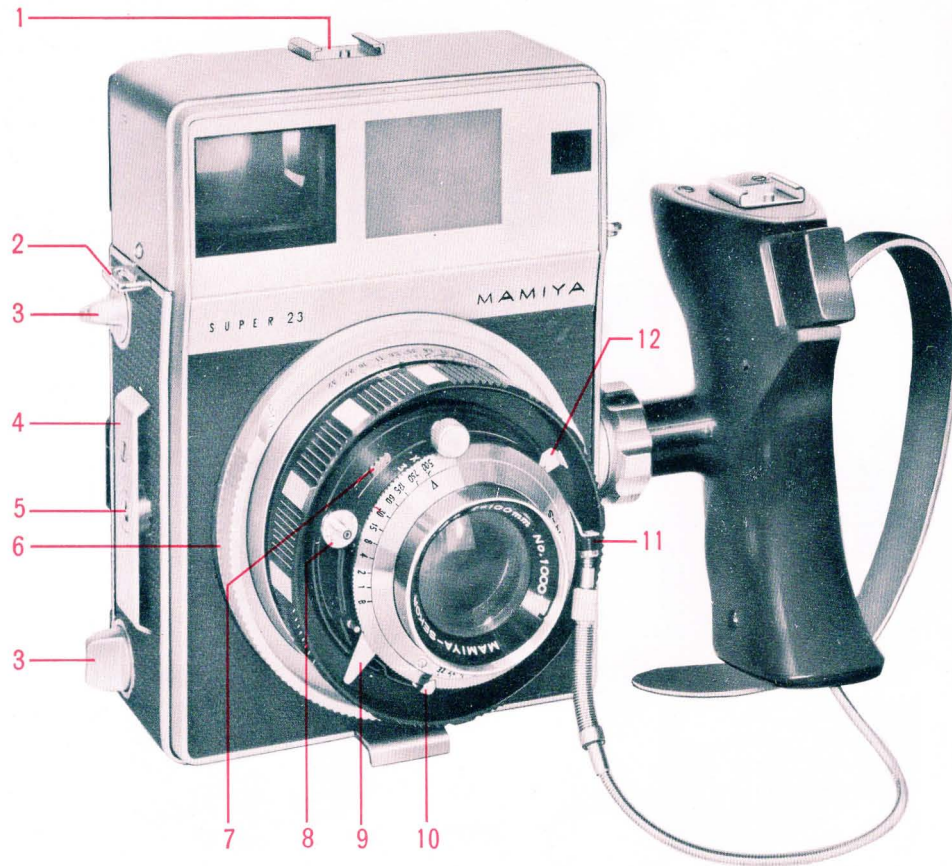




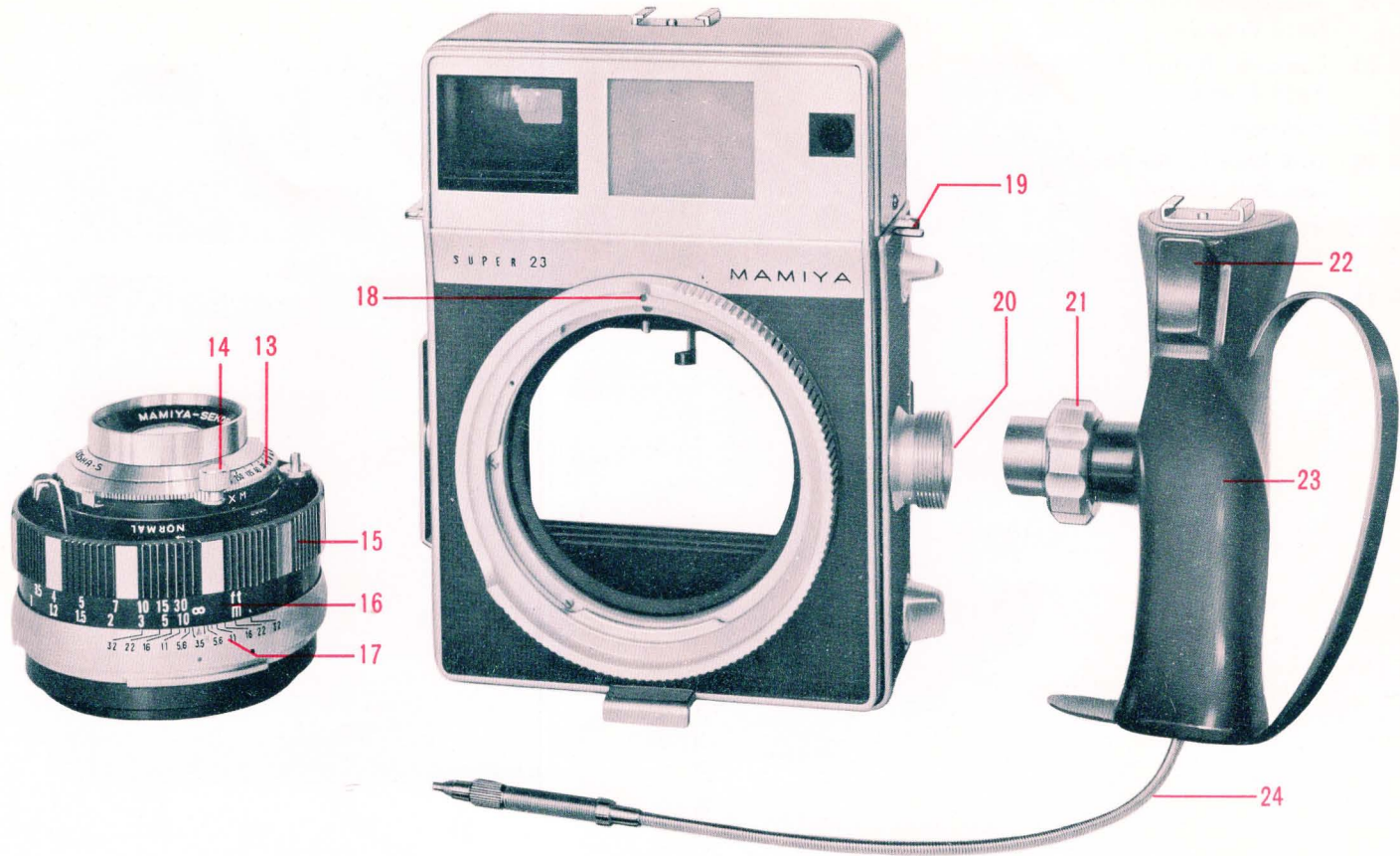
1. 65mm f/6.3 lens
2. Lens hood for 100mm f/3.5 lens
3. 100mm f/3.5 lens
4. Lens hood for 100mm f/2.8 lens
5. 100mm f/2.8 lens
6. Lens hood for 150mm f/5.6 lens
7. 150mm f/5.6 lens
8. Lens hood for 250mm f/5 lens
9. 250mm f/5 lens (exclusively for Super 23)
10. Flashgun for Mamiya Press
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12. Mounting bracket for Heiland flashgun
13. Mounting bracket for Graflex flashgun
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30. Cut film adapter frame for 2<sup>1</sup>/<sub>4</sub> × 3<sup>1</sup>/<sub>4</sub> in.
31. Film pack adapter
32. 6×9 cm roll holder
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34. Mamiya cutter
35. Super 23 carrying bag

# NOMENCLATURE-1

- # 1 Accessory Shoe
- # 2 Strap Eyelet (2)
- # 3 Lock Knob (4) for Swing Back Mount
- # 4 Flashgun Mount
- # 5 Flashgun Mounting Socket
- # 6 Bayonet Ring
- # 7 M-X Selector
- # 8 Synchroflash Terminal
- # 9 Shutter Release Lever
- # 10 Aperture Control Lever
- # 11 Cable Release Socket
- # 12 Press Focus Lever (Blade Arrester)
- # 13 Shutter Speed Dial
- # 14 Shutter Cocking Lever
- # 15 Focusing Ring
- # 16 Distance Scale
- # 17 Depth of Field Scale
- # 18 Lens Coupling Mark
- # 19 Cable Release Holder
- # 20 Hand Grip Socket
- # 21 Hand Grip Lock Ring
- # 22 Shutter Release Trigger
- # 23 Hand Grip
- # 24 Cable Release

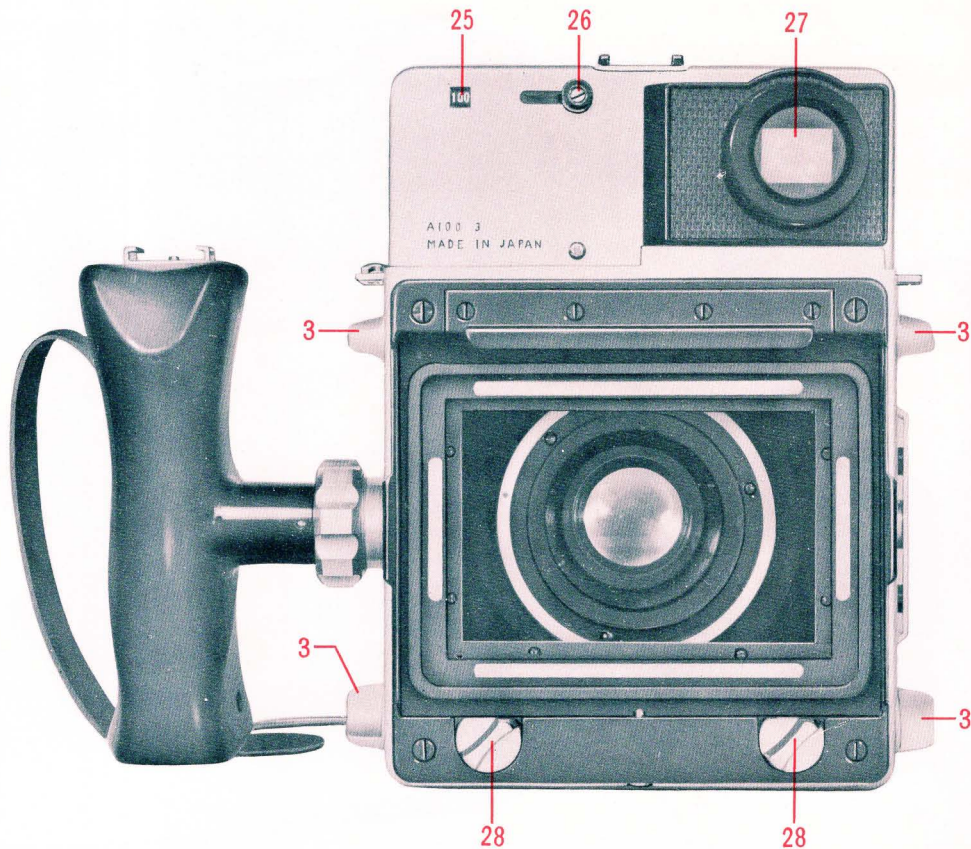


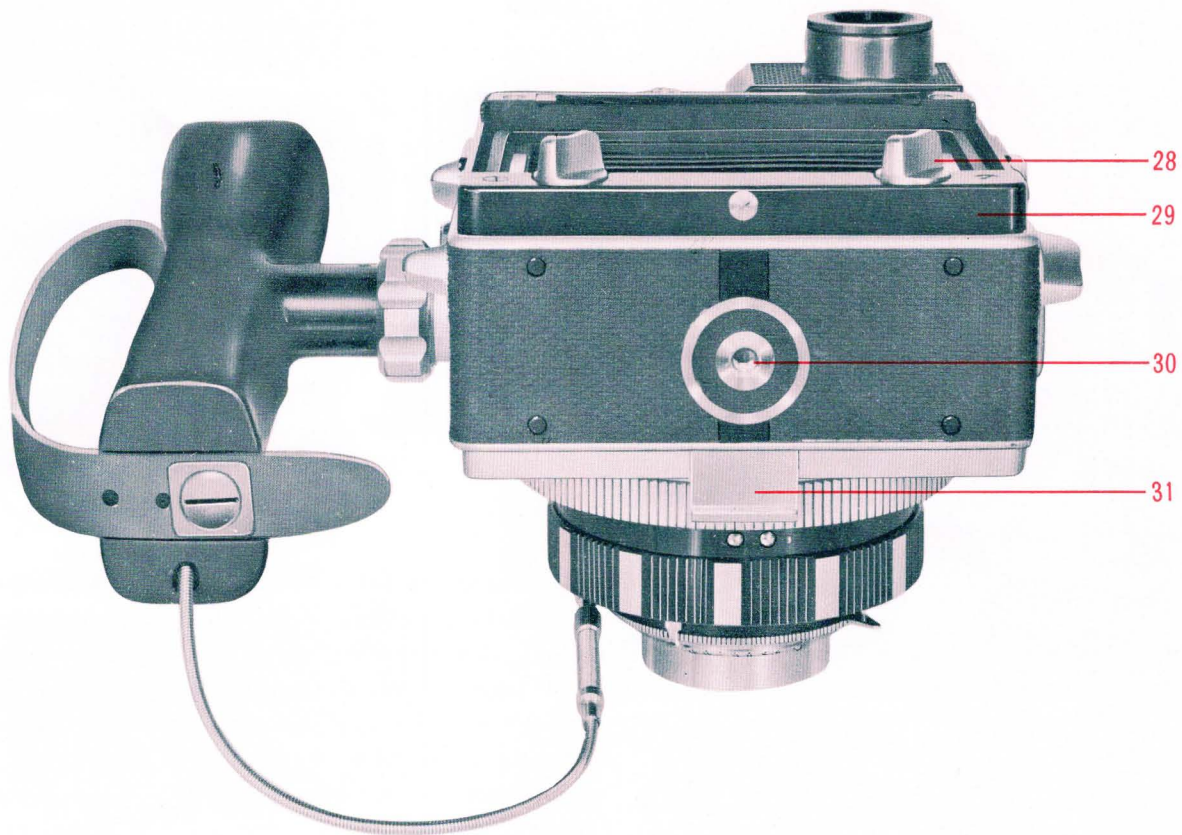




## NOMENCLATURE-2

- # 25 Indicator Window for Viewfinder Field Frame
- # 26 Flip-over Button for Viewfinder Field Frame
- # 27 Eyepiece
- # 28 Lock Knob (2) for Focusing Screen and Roll Holders
- # 29 Swinging Back Mount
- # 30 Tripod Socket
- # 31 Stabilizing Plate



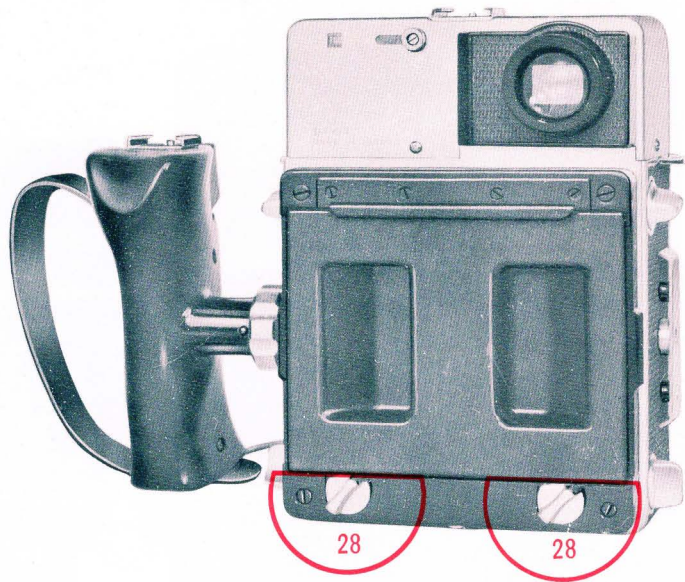


## ■ Stabilizing Plate

Pull out stabilizing plate (#31 at bottom of the camera body when resting the camera on a desk, table, or other surface.



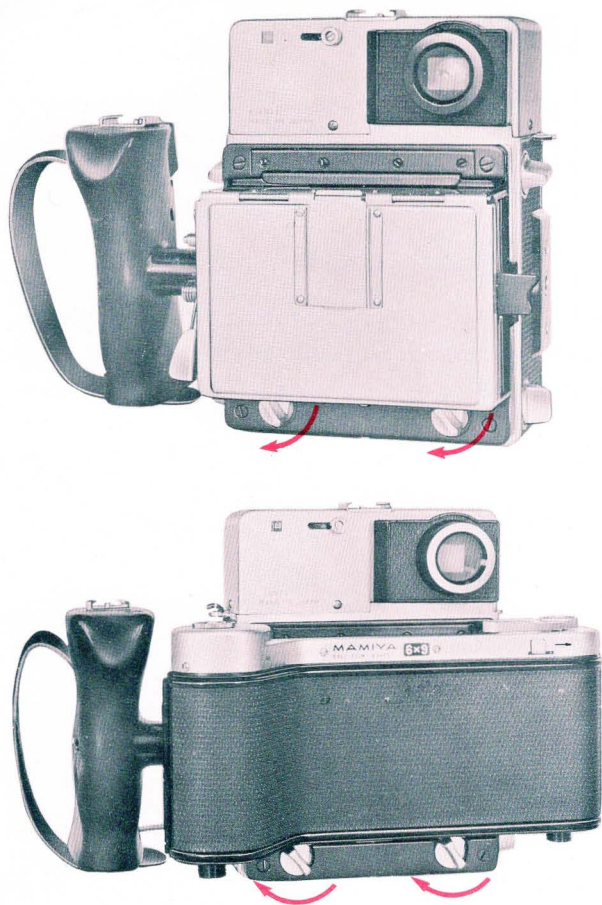
## Attaching Focusing Screen Holder



Before attaching either the focusing screen holder or roll holder, turn both lock knobs (#28) to align their flattened sides horizontally, then remove plate on rear of the camera body. Insert upper edge of the holder into upper groove of camera body, and press down the lower side of the holder. Fasten the holder by turning both lock knobs (#28) over 90 degrees.

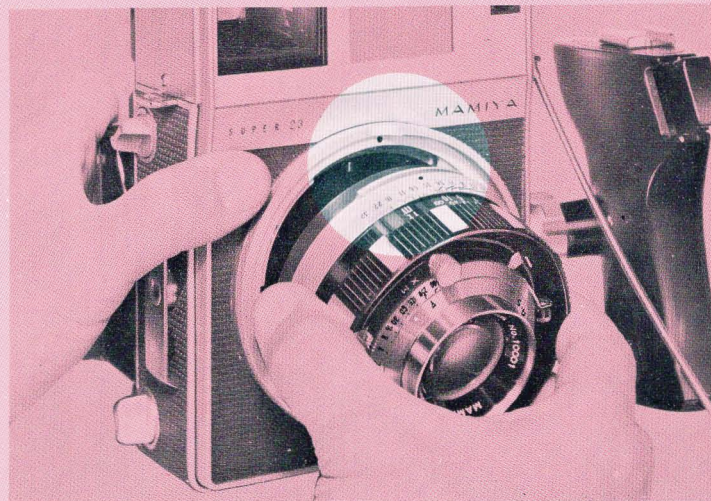
To detach the holder, turn both lock knobs to align their flattened sides horizontally, then pull out bottom of the holder.

## or Roll Holder



## Interchanging Lenses

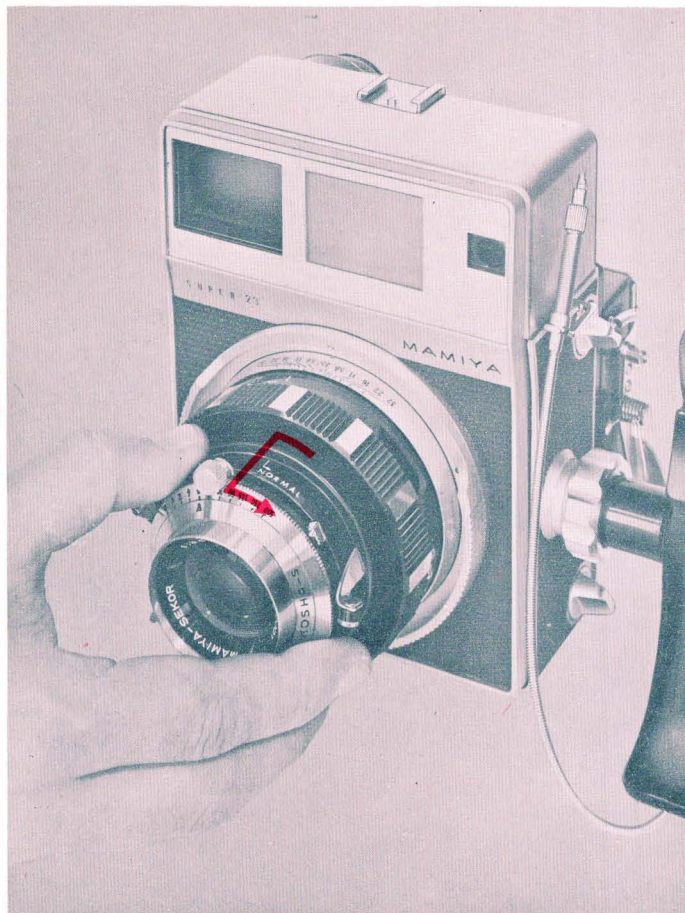
While holding the lens, rotate the bayonet ring (#6) counterclockwise, as seen from the front, until it stops; then remove the lens. When mounting the lens, turn bayonet ring until the red mark (#18) on the ring is at the top, insert the lens while keeping red mark on the lens close to red mark on bayonet ring; then turn the bayonet ring clockwise, gripping the lens to prevent it from moving.



### PRECAUTION!

Be sure to insert a dark slide into the holder, if the lens is interchanged while a loaded holder is attached to the camera.

## ■ Range-Viewfinder



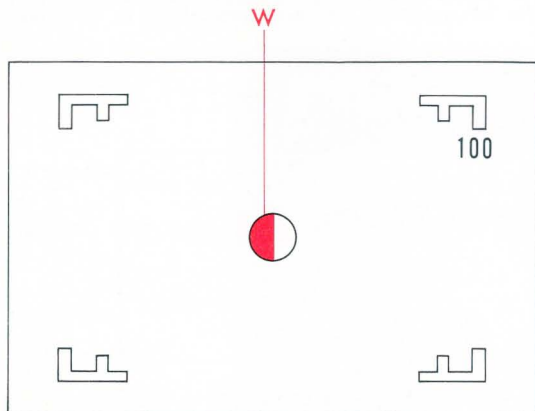
### **Pulling out lens-shutter assembly from its retracted position**

When using a 100mm f/3.5 standard lens, the lens-shutter assembly must be pulled out from its retracted position before taking normal photographs. Grip the lens-shutter assembly firmly, turn it slightly counterclockwise, and pull it out; then, turn it clockwise, as the direction of arrow on the lens barrel indicates.

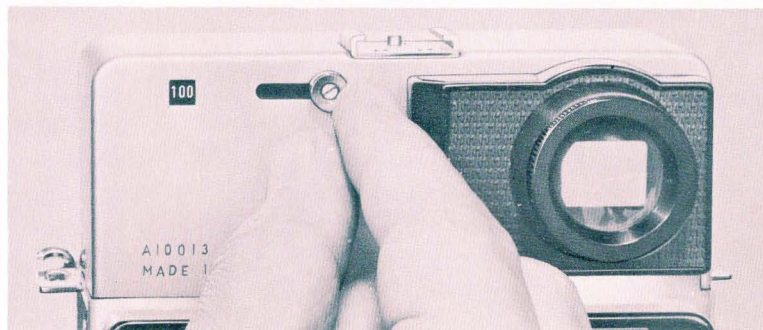
If the lens-shutter assembly is left in its retracted position, the coupled rangefinder will not function even if the two images are coincided and form a single image.

To prevent inadvertent photography with the lens retracted, a red warning mark (W) appears at the viewfinder center while the lens is in its retracted position. However, be careful that the red mark does not appear when the lens distance scale is set on 5 feet (1.5 meters) or closer

Retraction is necessary when the use of swinging and tilting back is desired, for photographing distant subjects.



## Adjusting brilliant frame of the finder to focal length of the lens.



The brilliant frame in the viewfinder can be flipped over to 100mm, 150mm, and 250mm lenses. Move the viewfinder field frame button (#26) on rear of the camera body so that the window (#25) displays the figure coinciding with focal length of the lens.

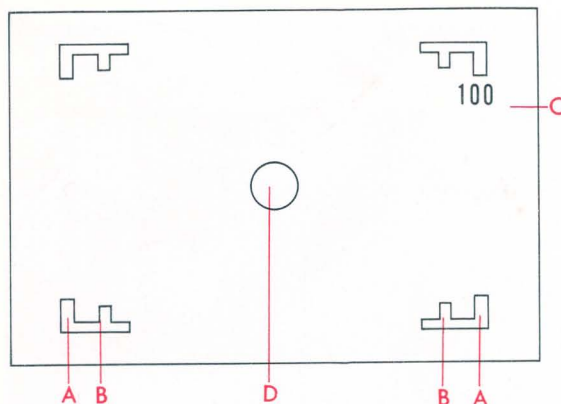
When using the 65mm wide angle lens, attach the exclusive separate viewfinder to accessory shoe of the camera.

### When using 65mm lens finder for the conventional Mamiya Press

Customers who possess a former finder with the 65mm lens for the Mamiya Press can use it as is.

In case, a former type finder is installed on this camera, the errors due to installation location of the finder fall within approximately  $\frac{1}{16}$  in. (15 mm) from top-to-bottom and from right-to-left respectively for dimensions of the object to be brought into focus. Consequently, this poses no problem in normal photographing procedures.

## Viewfinder



- A Frame for 6×9 cm format
- B Frame for 6×7 cm format
- C Focal length indicator
- D Focusing spot (double-image coincidence type)

The viewfinder field frame is adjustable for different focal length lenses and parallax is corrected automatically.

The brilliant frame in the viewfinder shows the 6×9 cm and 6×7 cm formats. When the principal subject is at close distance, use the inside edges of the frame to form composition of the picture. When the principal subject is further away, use the outer edge of the frame.

### Method of using finder when installing 90mm lens

When using the finder after installing a 90 mm f 3.5 lens for the Mamiya Press on this camera, the entire range of view in the finder is almost identical to that of the 90 mm lens.

### Adjustment of parallax

Since the view in the brilliant frame moves to the left and downward at close distances, after establishing the correct distance, the sighting position must be shifted in order to attain equal space between the outer edges of the brilliant frame and the entire range of view in the finder thereby adjusting the composition so that parallax is compensated for.

### Distance range to compose by brilliant frame

Focal length of lens	For close ranges, use inside edge of frame	For distances further away use outside edge of frame
100 mm	3.5 ft (1m)—approx. 6 ft (2m)	approx. 6 ft (2m)—∞
150 mm	6 ft (2m)—approx. 9 ft (3m)	approx. 9 ft (3m)—∞
250 mm	8 ft (2.5m)—approx. 12 ft (4m)	approx. 12 ft (4m)—∞



## Areas of viewfinder field to be composed

Close range

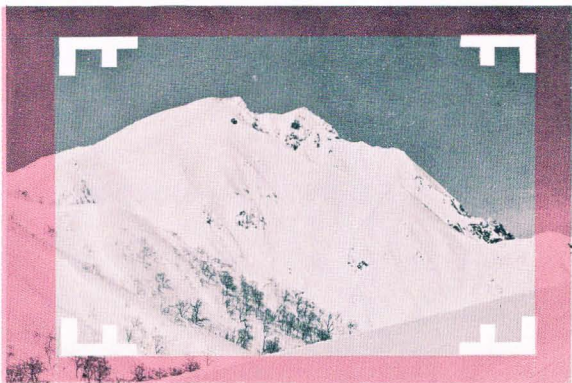


6 x 9



6 x 7

Further distance



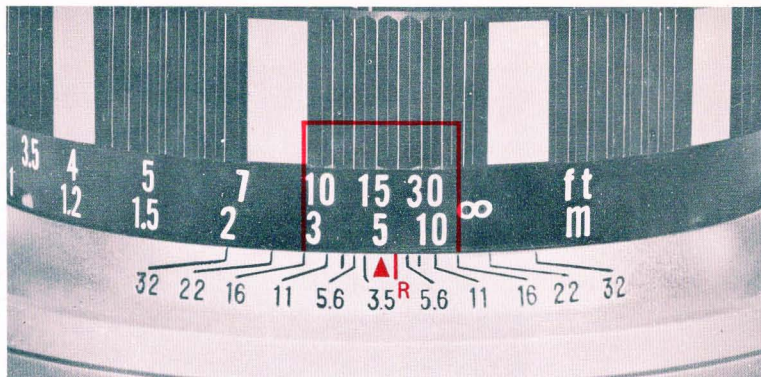
## Focusing with coupled rangefinder

A small circle in the center of the viewfinder field shows the rangefinder images for focusing.

Turn the focusing ring (#15) in either direction so that the two images are coincided and form a single image; then, the lens will be automatically and critically focused.

**PRECAUTION!** Do not turn the bayonet ring (#6) while focusing. The rangefinder will not function for focusing when the lens-shutter assembly is retracted or when the back mount (#29) is extended or swung.

## ■ Depth of Field Scale



Standard f-stop marks, indicating the depth of field for the aperture, are located on both sides of the triangle mark (▲) for distance indication.

For example, when aiming at a subject 15 feet (5 meters) away with a 100mm standard lens at f/16, all subjects between 9 feet (3 meters) and 50 feet (21 meters) lie within the focusing area.

The depth of field scale (#17) cannot be used when the lens is retracted or when the back mount is extended or swung.

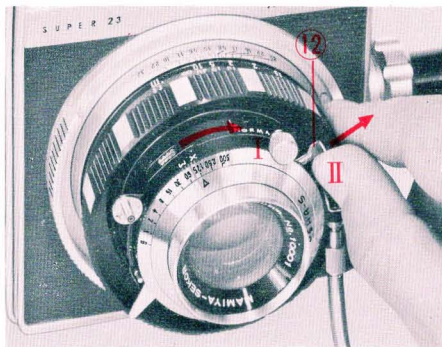
## ■ Infrared Photography

When photographing with infrared film, adjust the focus, read the distance scale (# 6) at the triangle mark (▲), then slide the position of the distance scale to the letter R on the depth of field scale. Use an appropriate RED filter when photographing with infrared film.

## Shutter Operation

Cock the shutter by moving the shutter cocking lever (#14). Screw the end of the cable release (#24) which extends from the hand grip into the cable release socket (#11).

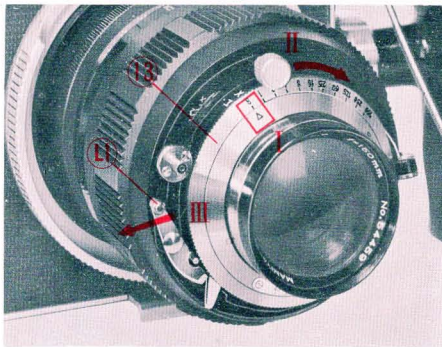
### Keeping the shutter open for focusing by focusing screen



With 100mm f/3.5 lens :

Cock the shutter regardless of the shutter speed, pull out the press focus lever (#12), and the shutter will remain open. After focusing, replace the lever (#12) to close the shutter readying it for immediate shutter release.

**PRECAUTION :** Do not pull the press focus lever (#12) before cocking the shutter



With 65mm f/6.3, 100mm f/2.8, and 150mm f/5.6 lenses :

Turn the shutter speed dial (#13) to "B", cock the shutter, pull the time lever knob (L1 outward, and the shutter will remain open. Depress the time lever knob to close the shutter

To release the shutter, press the shutter release trigger (#22) of the hand grip with the left forefinger ; or the shutter can be released by tripping the shutter release lever (#9).



With 250mm f/5 lens :

Turn the shutter speed dial to "B", cock the shutter, move the time lever knob fully toward the letter O (open), and the shutter will remain open. To close the shutter, move the time lever knob to the letter C (close).

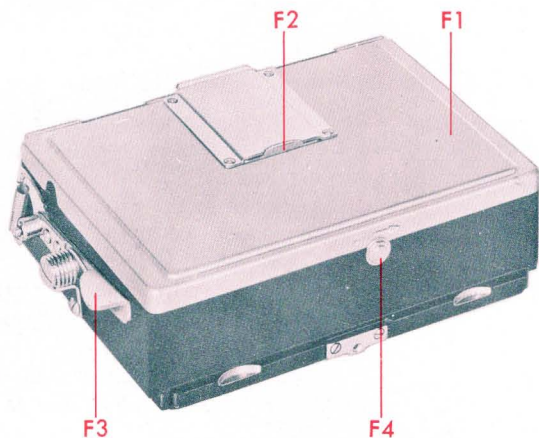
- ★ When the shutter has been opened by T-setting, turning the shutter speed dial is impossible.
- ★ The time lever can be moved only when the shutter speed dial is set at "B".

## ■ Focusing by Focusing Screen

### Opening the back cover :

To observe the ground glass image, open the back cover (F1) by moving the back cover catch button (F4) in the direction of the arrow. By pulling out the back cover opening angle adjustment slide (F2), the cover will fully open; by retracting the angle adjustment slide, the cover will open to the horizontal line.

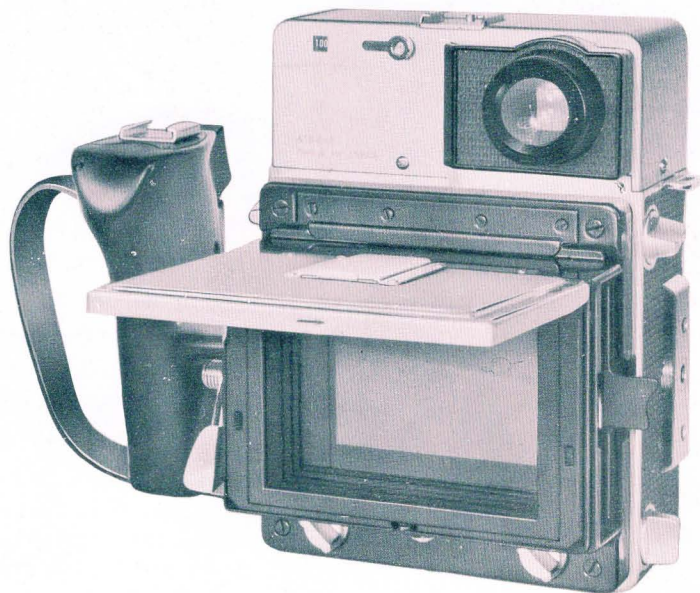
- F1. Back Cover
- F2. Opening Angle Adjustment Slide
- F3. Focusing Screen Release Lever
- F4. Back Cover Catch Button



### Focusing

For focusing by the ground glass image, keep the shutter open and the lens at its fullest aperture; then turn the focusing ring (#15). The depth of field can be observed on the screen by turning the aperture control lever (#10).

★ Full size of the focusing screen glass is for 6×9 cm format; the vertical lines on the screen indicate the size for 6×7 cm format



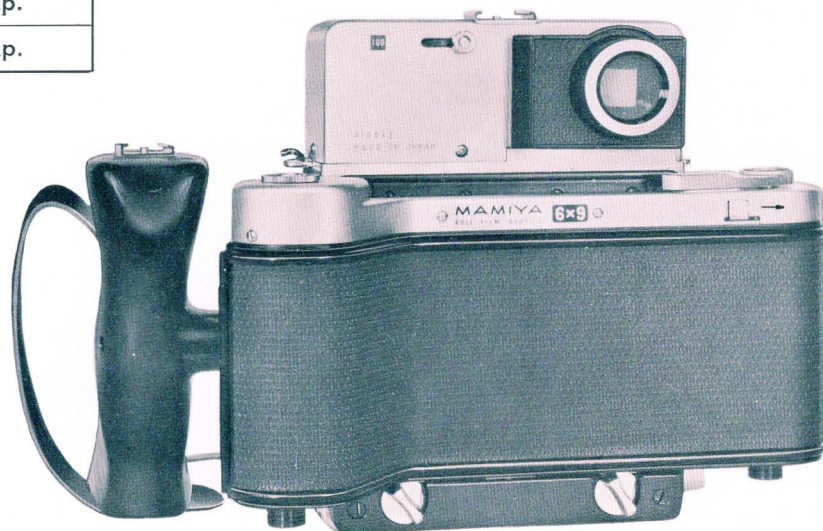
## ■ Roll Holder

There are two kinds of roll holders—one for a 6×9 cm and the other for 6×7 cm formats.

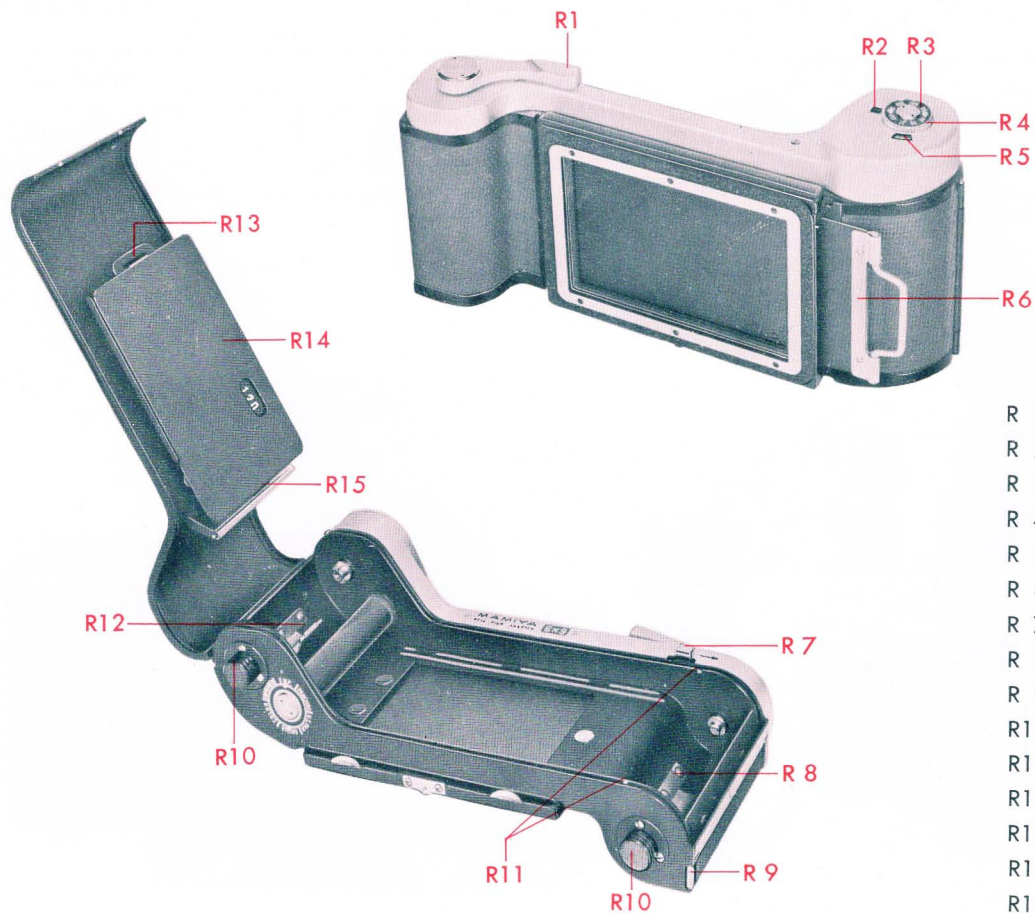
No. 120 and No. 220 roll films are available for both type of holders.

### Type of holder and number of exposures

Type of holder	Type of roll film	
	No. 120	No. 220
6×9 cm	8 exp.	16 exp.
6×7 cm	10 exp.	20 exp.

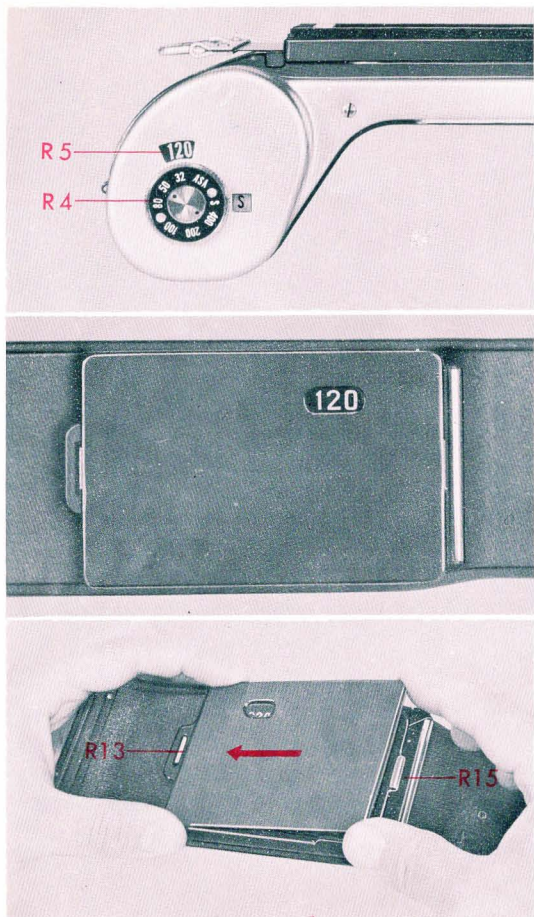


## ■ Roll Holder



- R 1 Film Advance Lever
- R 2. Film Counter Window
- R 3. Film Sensivity Reminder Dial
- R 4. Counter Change-Over Knob
- R 5. Film Indicator Window
- R 6. Dark Slide
- R 7 Film Wind-Stop Release Lever
- R 8. Film Chamber
- R 9 Back Cover Latch
- R10. Spool Exchange Knob
- R11 Start Mark
- R12 Take-Up Spool Chamber
- R13 Plate Catch (Left)
- R14. Pressure Plate
- R15. Plate Catch (Right)

## Roll Holder



### Before Loading Roll Film

1. **First, set the automatic film wind stop device, depending on the film used (120 or 220)**

Turn the counter-change over knob (R4) either to the right or left until the figure appearing in the film indicator window (R5) corresponds to that of the film to be used (120 or 220).

2. **Pull down the back cover latch (R9) and open the back cover of the holder**

3. **Make sure the correct pressure plate corresponds to the film used**

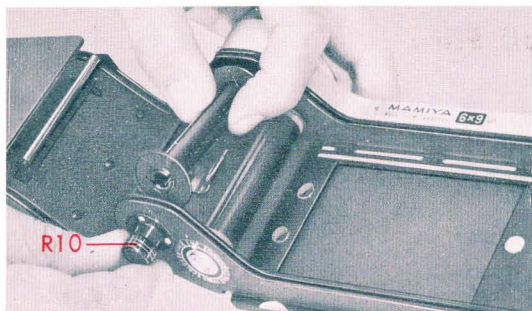
One side of the pressure plate (R14) is for No. 120 roll film, and the back of the plate is for No. 220. The figure "120" or 220 is indicated on the window of the pressure plate (R14).

4. **Turn pressure plate inside out if it does not match the film**  
**Remove the plate** by pushing its right side to the left, pulling it out from the plate catch (R15).

**Reattaching the plate;** while aligning the upper and lower edges of the plate with the flange, insert the groove into the plate catch (R13) on the left, then hook the plate catch (R15) on the right while pushing it slightly to the left. Always ascertain that the correct side of the pressure plate corresponds to the film used.

5. Use the convenient film sensitivity reminder dial (R3) as a reminder of film speed in the camera, turning the dial corresponding to the inserted film number to the red mark.

## Roll Holder

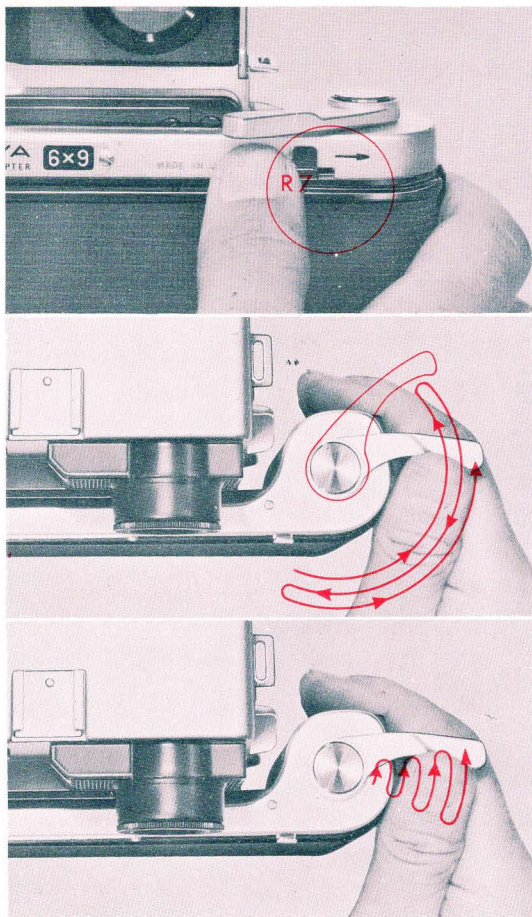


### Loading Roll Film

- 1 Pull out the spool exchange knob (R10) and place an empty spool into the spool chamber (R12).
- 2 Pull out the other spool exchange knob (R10) and place a roll film into the film chamber (R8).
  - ★ After pulling out the spool exchange knob, by turning it either to the right or left the knob will remain projected. By turning back the knob, the knob will snap back to its original retracted position.
- 3 Draw out the end of the leader paper of the film, inserting the tip into the slit of the take-up spool.
  - ★ If the spool is not in the proper position or the leader paper of the film is not correctly inserted into the take-up spool slit, film winding will not operate properly or smoothly.
- 4 Gradually wind the film advance lever (R1) until the start mark on the leader paper aligns with the start marks (R11) on the roll holder.
- 5 Close the back cover. When the back cover is closed, the start marks will be slightly separated, however this has no bad effect whatever.
- 6 As the film advance lever is carefully wound, the figure 1 appears in the film counter window (R2) and the lever stops winding. The first film frame is now ready to be exposed.
  - ★ Even before the figure 1 appears in the film counter window a heavy drag may be felt; however continue winding until the lever actually stops.



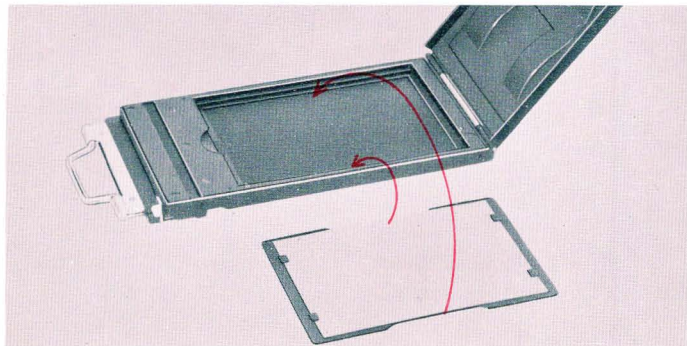
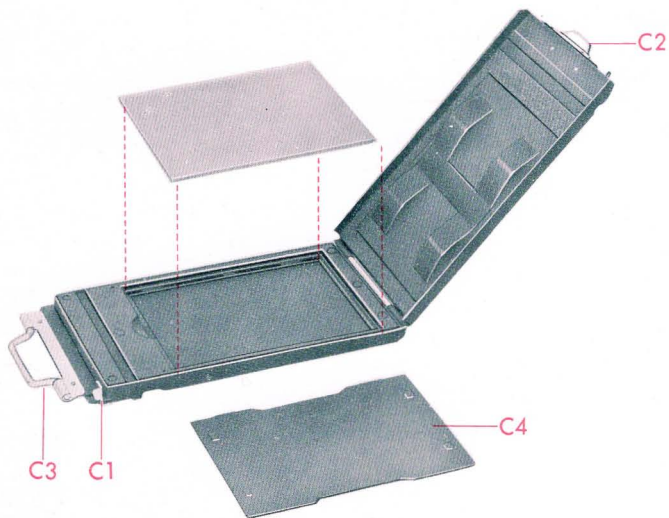
# Roll Holder



## Photographing

- 1 Attach the loaded roll holder to the camera body
- 2 Pull out the dark slide (R6), and then take a photograph.
- 3 After each exposure, move the film wind-stop release lever (R7) in the direction of the arrow; then the film can be advanced by turning the film advance lever
  - ★ The film will not advance far enough with only one stroke of the film advance lever. Turn the lever until it stops at the second stroke. Winding may be accomplished by moving the lever with several short definite strokes until the lever stops.
  - ★ Do not wind the lever too fast
4. After all frames have been exposed, move the wind-stop release lever (R7) once, then continue turning the film advance lever until you feel tension on the advance lever lessen as the leader end of the film slips off the spool and finally turn it freely in the take-up chamber. Now open the back cover and remove the film.
5. Fully insert a dark slide (R6) when the roll holder is detached, or the lens is interchanged before completing a roll of film.
  - ★ Without a film loaded, turning the film advance lever does not advance the film counter and it remains at the S (start) mark. When some other mark is seen in the film counter window it is assurance that film is loaded.

## Cut Film/Plate Holder (type J)



### Open the back lid :

Pull out the back lid catch (C1), and the back lid can be swung open by applying finger pressure to the finger hold (C2).

### Using dry plate $2\frac{1}{2} \times 3\frac{1}{2}$ in. (6.5×9cm)

Remove the adapter frame (C4) from the holder, Working in complete darkness, place a dry plate with its emulsion side facing the dark slide (C3); then close the back lid, and press in the back lid catch to its original position. In this case, the adapter frame (C4) is not used.

### Using cut film $2\frac{1}{2} \times 3\frac{1}{2}$ in. (6.5×9cm)

Remove the adapter frame (C4) from the holder, place cut film with its emulsion side facing the dark slide (C3), then place the adapter frame (C4) with the film catch side up, and close the back lid.

Or, instead of an adapter frame, a discarded dry plate can be used.

### Using cut film "one-quarter size" taken from $4\frac{3}{4} \times 6\frac{1}{2}$ in. (12×16.5cm) cut film

Insert cut film in the adapter frame (C4) with its emulsion side up, placing the frame in the holder

★ Mamiya's cutter is convenient for exact cutting  $4\frac{3}{4} \times 6\frac{1}{2}$  in. 12×16.5cm) cut film into one-quarter size  $2\frac{1}{4} \times 3\frac{1}{4}$  in. (59×81.5mm) films.

★ When color film is cut, usually the film is not developed; therefore, always use an exclusive film adapter for each film size.

## ■ Cut Film/Plate Holder (type A)

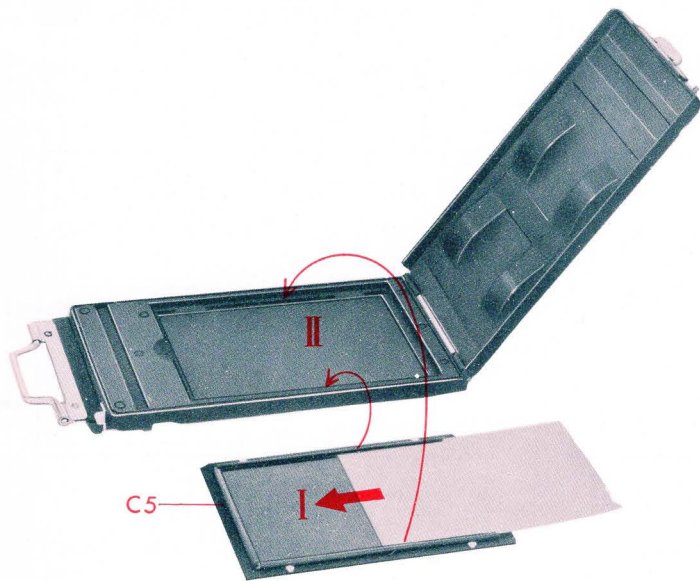
Using dry plate  $2\frac{1}{2} \times 3\frac{1}{2}$  in. (6.5×9cm)

The method of loading is the same as the cut film/plate holder (type J).

Using cut film  $2\frac{1}{4} \times 3\frac{1}{4}$  in.

Use the cut film/plate holder (type A) and adapter frame for  $2\frac{1}{4} \times 3\frac{1}{4}$  in. size film. Insert film in the adapter frame (C5) and put it into the holder

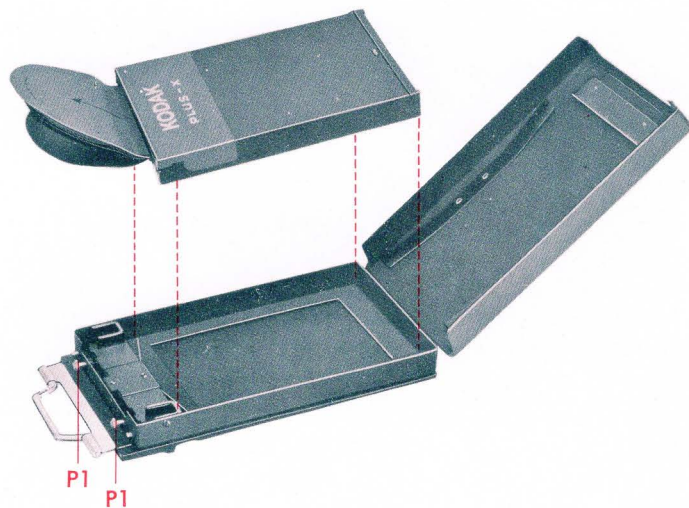
★ This cut film adapter frame is exclusive use for the holder. Do not use it on type J holder



## ■ Film Pack Adapter

$2\frac{1}{2} \times 3\frac{1}{2}$  in. (6.5×9cm) and  $2\frac{1}{4} \times 3\frac{1}{4}$  in. film packs are available.

Open the back lid of film pack adapter by simultaneously pressing the two catch buttons (P1), swinging open on the hinge. Take a fresh film pack, loading the tab end first in the film pack adapter with the metal case side up. Pull tabs should protrude beyond the catch buttons (P1); then close and lock the back lid by depressing the back of the adapter



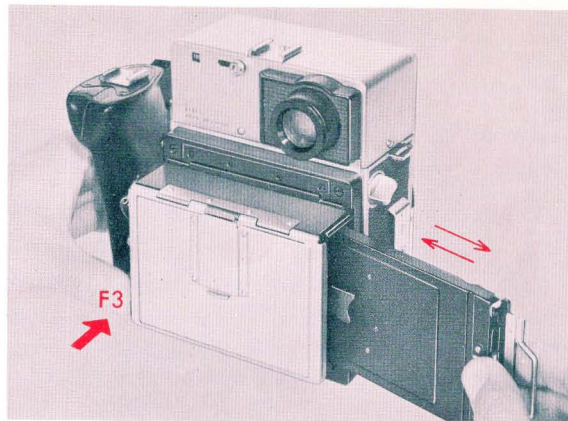
## ■ Attaching cut film/plate holder or film pack adapter to the focusing screen holder

Press the focusing screen release lever (F3), keeping it depressed while inserting the holder

To remove the holder from the screen holder, also while keeping the focusing screen release lever pressed, pull out the holder

**PRECAUTIONS:** Be sure that the shutter is closed when inserting the holder

Before releasing the shutter, pull out the dark slide, and after exposure, reinsert the dark slide.

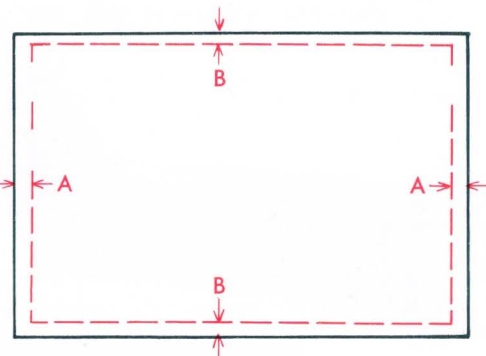


Composing the picture by ground glass focusing screen for film pack, quarter size of  $4\frac{3}{4} \times 6\frac{1}{2}$  in. ( $12 \times 16.5$ cm) cut film, or  $2\frac{1}{4} \times 3\frac{1}{4}$  in. cut film.

Since the actual negative size of these films is a little smaller than the ground glass focusing screen, compose the picture within the frame of the dotted lines as shown in the drawings. Use the whole area of the ground glass for  $2\frac{1}{2} \times 3\frac{1}{2}$  in. ( $6.5 \times 9$ cm) format



For film pack or a quarter size of  $4\frac{3}{4} \times 6\frac{1}{2}$  in.  $12 \times 16.5$ cm) cut film  
Dimension A: approx.  $\frac{1}{8}$  in. (3 mm)



For  $2\frac{1}{4} \times 3\frac{1}{4}$  in. cut film  
Dimensions A: approx.  $\frac{1}{8}$  in. (3mm)  
B: approx.  $\frac{1}{16}$  in. (2mm)

## ■ Back Mount Operation

### Swinging and tilting the back mount and close-up photography

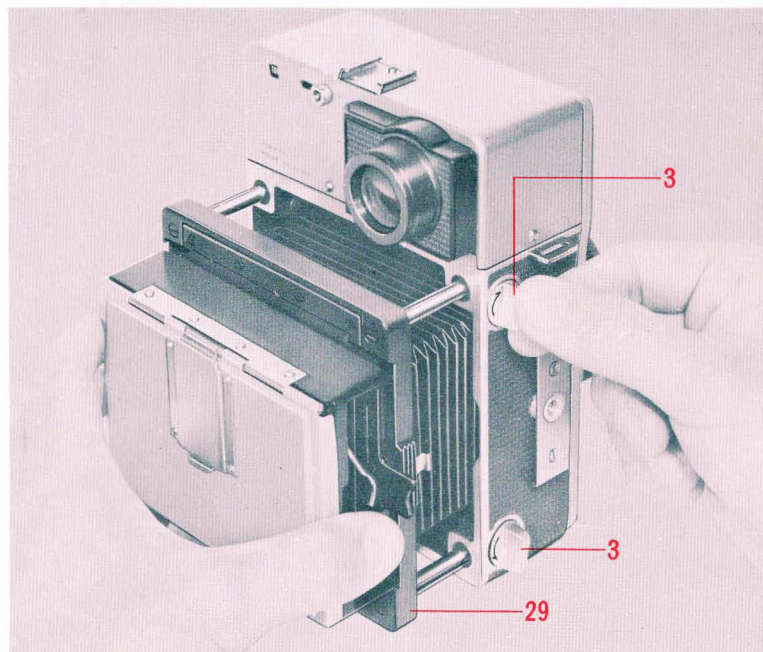
The Mamiya Press Super 23 can be effectively used in close-up photography by extending the back mount up to a maximum of  $1\frac{3}{16}$  in. (30mm). By swinging the back mount both depth of field control and slight perspective control is achievable. The back mount swings and tilts up to  $15^\circ$  in each direction.

### Extending the back mount

Loosen the four back mount swing lock knobs (#3) by turning them in the direction opposite to the arrow marks. When the back mount (#29) is extended to the required position, fasten it by turning the four lock knobs in the direction of the arrow marks.

### Focusing by ground glass focusing screen

Keeping the shutter open, decide composition of the picture on the ground glass and adjust the focus. When the back mount is extended, or when the lens-shutter assembly of the 100mm f/3.5 lens is in its retracted position, the depth of field scale (#17) cannot be used.



## Close-up range with extended back mount

Lens	Lens to subject distance	Magnification	Subject coverage	Exposure factor
65 mm f/6.3	6 <sup>1</sup> / <sub>8</sub> in. (156mm)	0.57	3 <sup>5</sup> / <sub>16</sub> × 5 <sup>3</sup> / <sub>16</sub> in. (100 × 148mm)	2.5
			3 <sup>5</sup> / <sub>16</sub> × 4 <sup>3</sup> / <sub>4</sub> in. (100 × 120mm)	
100 mm f/3.5	1 ft <sup>1</sup> / <sub>8</sub> in. (308mm)	0.45	4 <sup>5</sup> / <sub>16</sub> × 7 <sup>3</sup> / <sub>8</sub> in. (126 × 188mm)	2.1
			4 <sup>5</sup> / <sub>16</sub> × 6 in. (126 × 152mm)	
150 mm f/5.6	2 ft <sup>5</sup> / <sub>8</sub> in. (625mm)	0.3	7 <sup>3</sup> / <sub>8</sub> × 10 <sup>5</sup> / <sub>16</sub> in. (187 × 278mm)	1.7
			7 <sup>3</sup> / <sub>8</sub> × 8 <sup>7</sup> / <sub>8</sub> in. (187 × 225mm)	
250mm f/5	4 ft 1 in. (1246mm)	0.26	8 <sup>11</sup> / <sub>16</sub> × 1 ft <sup>7</sup> / <sub>8</sub> in. (220 × 327mm)	1.6
			8 <sup>11</sup> / <sub>16</sub> × 10 <sup>7</sup> / <sub>16</sub> in. (220 × 265mm)	

- ★ The values in the table represent those when the lens distance scale is set at the closest distance, and the back mount is fully extended.
- ★ Lens to subject distances represent those from the front extremity of the barrel to the subject
- ★ Subject coverage is the area of the subject registered on the focusing screen (2 <sup>1</sup>/<sub>4</sub> × 3 <sup>5</sup>/<sub>16</sub> in. 57 × 84mm). The values in the upper lines of the column indicate 6 × 9cm format; the lower lines designate 6 × 7cm format

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## Exposure factor calculation for close-up photographing with back mount extended

When the back mount is extended for close-up photographing, it is necessary to adjust for the increased exposure factor. Measure the brightness of the subject with an exposure meter, then compensate the exposure value with the exposure factor

Back mount extended



Back mount unextended

## Tilts and Swings

Conventional cameras are designed to accomplish focusing on a film plane which meets the optical axis of the lens at right angles; depth of field control is achieved only by aperture setting.

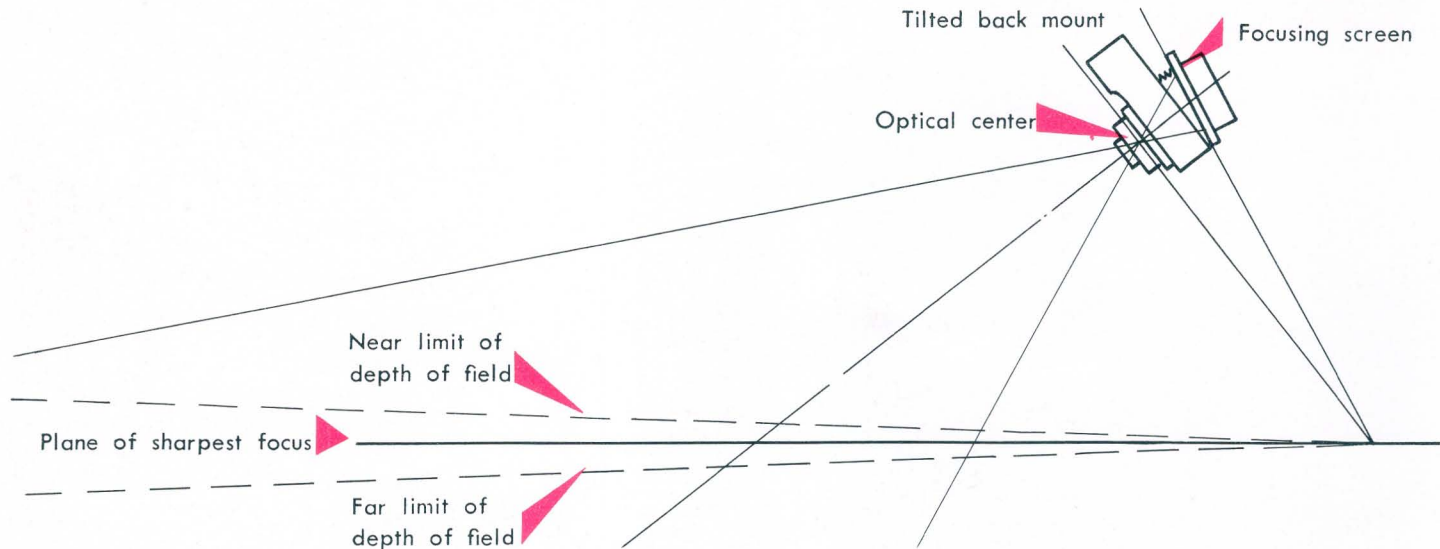
The Mamiya Press Super 23 controls depth of field not only by aperture setting, but also by permitting swinging or tilting of its back mount, which can render an exaggerated effect on perspectives and offers an enormous depth of field. The back mount swing can be employed for commercial photography, architectural photography and many other useful purposes.

### For additional depth of field

Adjust the focus and the depth of field by moving both the back mount (#29) and the focusing ring (#15), observing the subject on the focusing screen; then fasten the back mount by turning the lock knobs on all four corners.

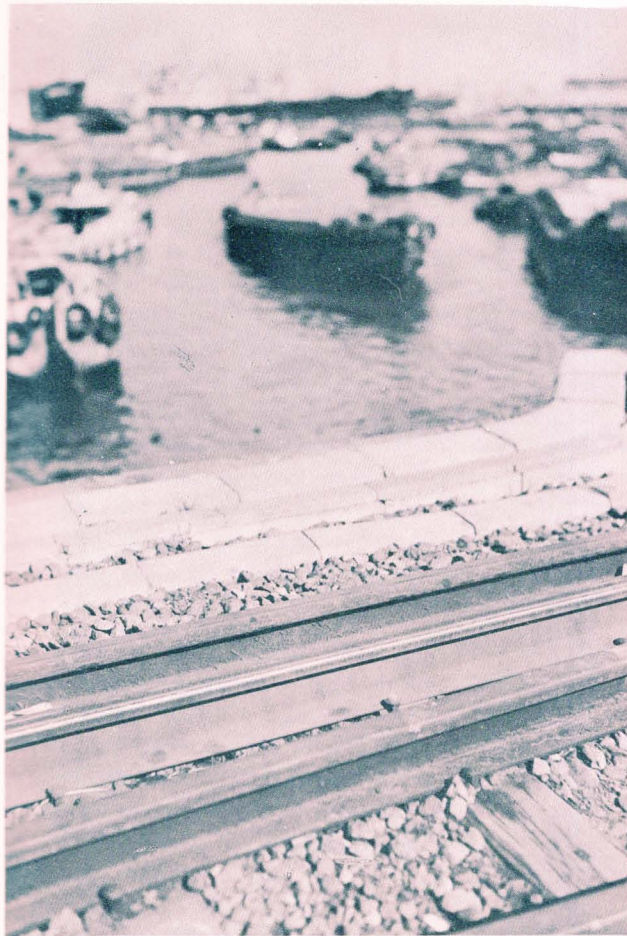
For swing back photography of close range subjects, pull out the lens-shutter assembly; for subjects at a distance, retract the lens-shutter assembly

Lenses that cannot retract do not function for swing back photography of distant subjects.

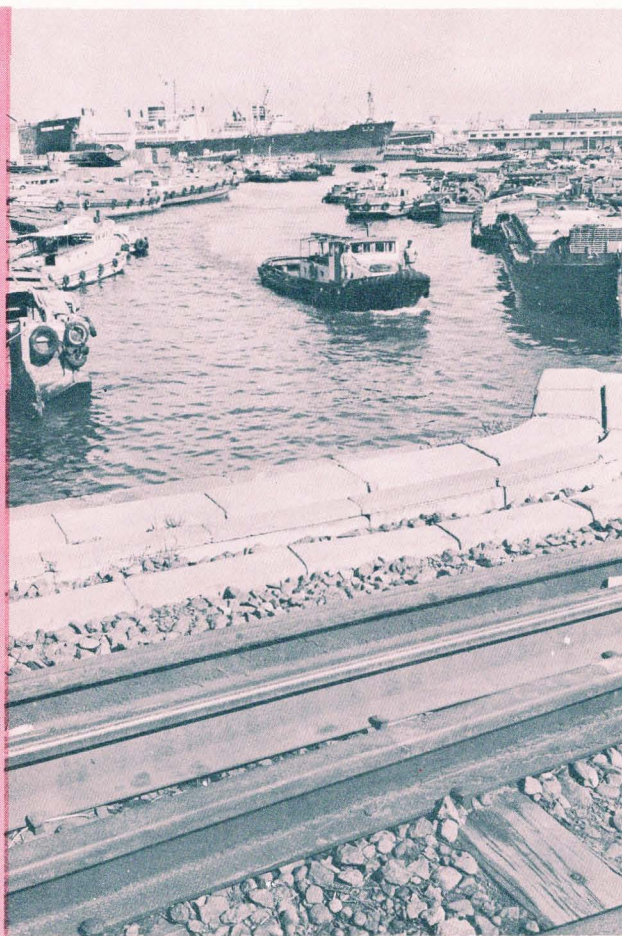




Back mount untilted



Back mount tilted

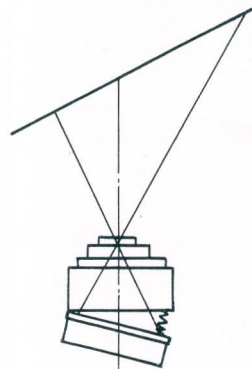
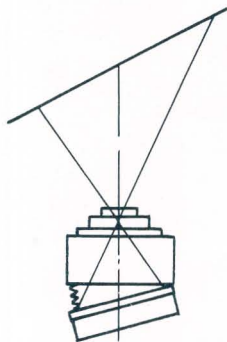
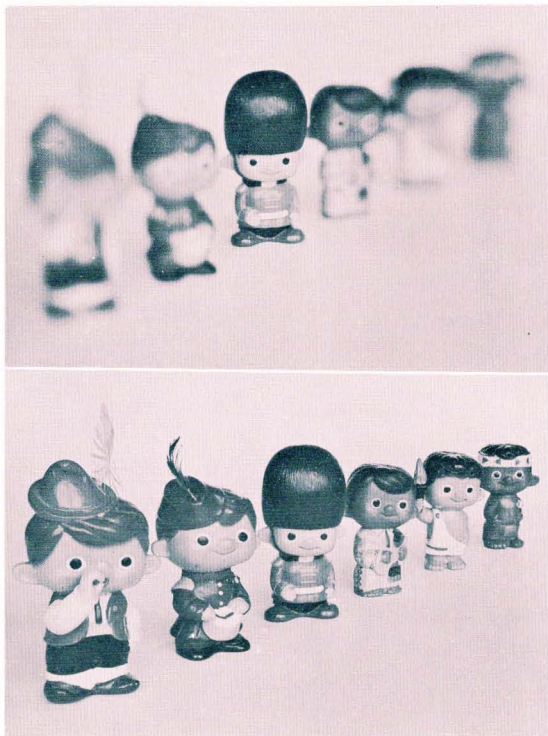


Same Lens  
with  
Same  
Aperture

## For shallow depth of field

In close-up photography, one area of the subject can be highlighted or emphasized, throwing the other areas out of focus by using the back mount swing.

Swing or tilt the back mount in the opposite direction utilized to obtain additional depth of field.



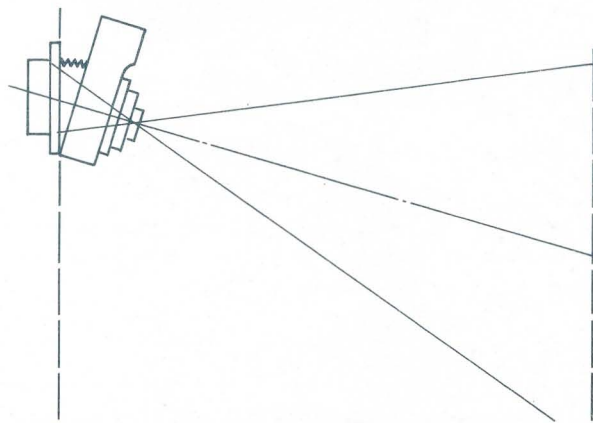
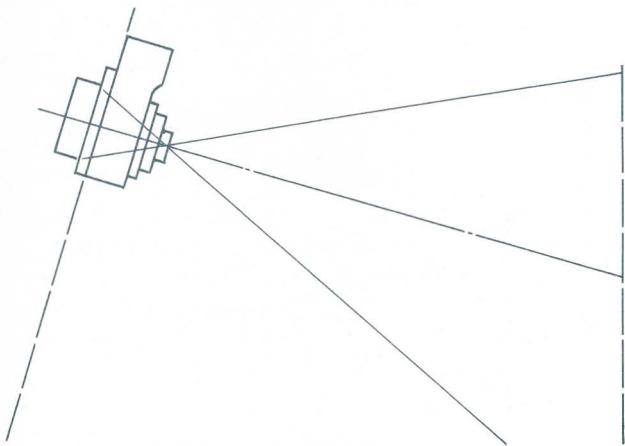
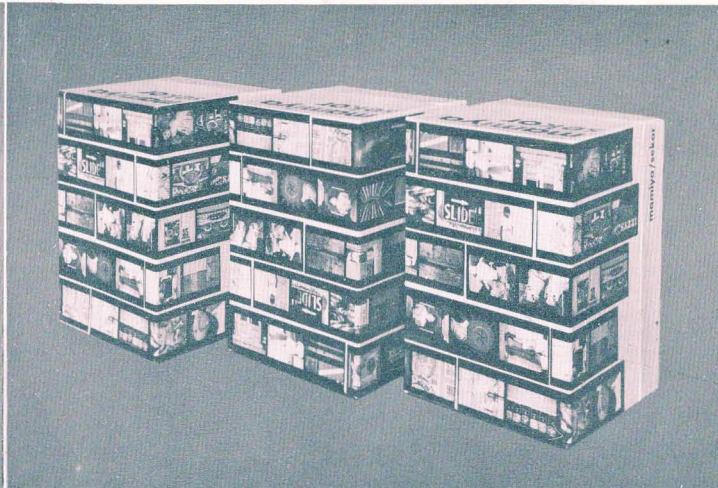
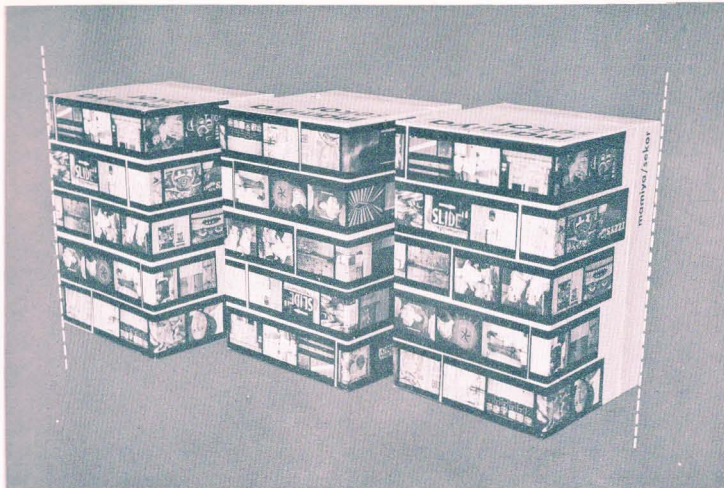
## For perspective rendition

Mamiya Press Super 23 can correct the converging lines of perspectives (controls the contour of the image on the film) to some degree.

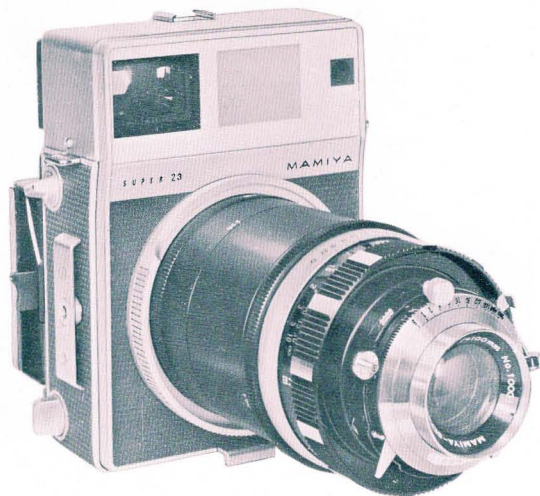
While observing the subject on the focusing screen, swing or tilt the back mount in parallel with the subject being photographed, adjust the perspective, focus on the most important part of the subject and turn the aperture control lever until the aperture covers the subject in the depth of field.

By retracting the lens-shutter assembly of the 100mm f 3.5 lens, a slight perspective rendition can be achieved on the subject even at further than medium distance. In this case, depth of field setting can be controlled only by the aperture setting.

★ Perspective rendition can be achieved with a 65mm lens on a subject only at close range. Using other long focal length lenses which do not retract, perspective rendition cannot be achieved on the subject further than medium distance.



## ■ Photographing with Extension Rings



By using a set of five extension rings in various combinations between the lens-shutter assembly and the lens mount of the camera, it is possible to undertake close range and copying work.

### Close-up range with extension rings

- ★ The values in the table represented those when the five extension rings are attached, the lens distance scale is set at the closest distance, and the back mount is fully extended.
- ★ Lens to subject distances represent those from the front extremity of the barrel to the subject
- ★ Subject coverage is the area of the subject registered on the focusing screen ( $2\frac{1}{4} \times 3\frac{5}{16}$  in.  $57 \times 84$ mm). The values in the upper lines of the column indicate  $6 \times 9$ cm format; the lower lines designate  $6 \times 7$ cm format

#### PRECAUTION

The 250mm lens cannot be mounted on the extension rings.

Lens	Lens to subject distance	Magnification	Subject coverage	Exposure factor
65 mm f/6.3	$2\frac{1}{3}\frac{1}{16}$ in. (72 mm)	2.12	$1\frac{1}{16} \times 1\frac{9}{16}$ in. (27 × 40 mm)	9.7
			$1\frac{1}{16} \times 1\frac{1}{4}$ in. (27 × 32 mm)	
100 mm f/3.5	$6\frac{1}{16}$ in. 153 mm)	1.46	$1\frac{1}{2} \times 2\frac{1}{4}$ in. (39 × 58 mm)	6.0
			$1\frac{1}{2} \times 1\frac{13}{16}$ in. (39 × 47 mm)	
150 mm f/5.6	$11\frac{1}{16}$ in. (281 mm)	0.98	$2\frac{1}{4} \times 3\frac{3}{8}$ in. (58 × 86 mm)	3.9
			$2\frac{1}{4} \times 2\frac{3}{4}$ in. (58 × 70 mm)	

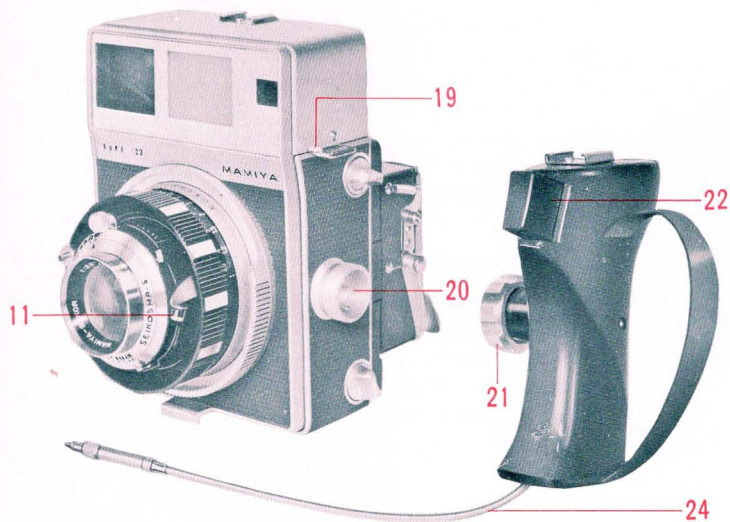
## ■ Attaching and Removing Hand Grip

The hand grip can be removed by loosening the hand grip lock ring (#21).

To attach the hand grip, insert the hand grip into the grip socket (#20) on the camera body turning the hand grip lock ring firmly.

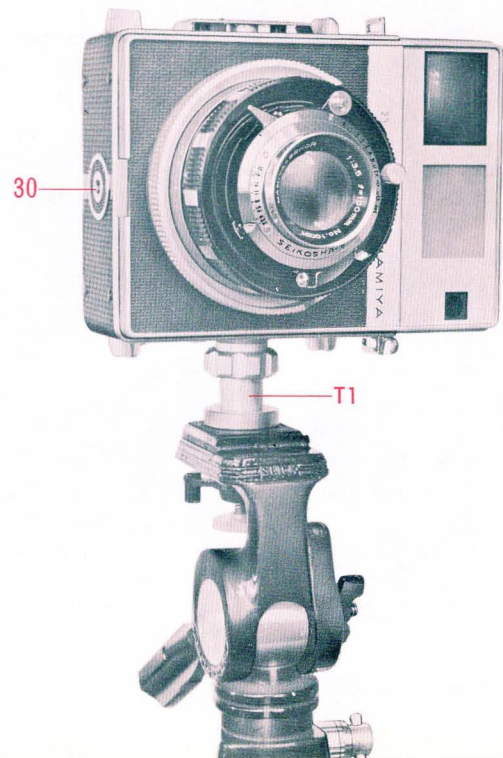
Screw the end of the cable release (#24) extending from the hand grip into the release socket (#11).

Hold the hand grip and press the shutter release trigger (#22). While dismantling a lens, hang the cable release on the cable release holder (#19).

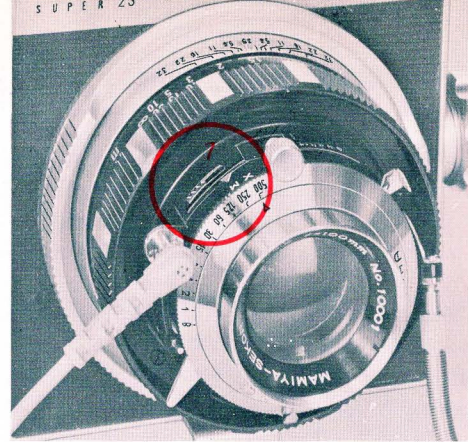


## ■ Using a Tripod

An UNC 1/4 in. tripod socket (#30) is recessed on the bottom of the camera body. For photographing long, vertical pictures on a tripod, remove the hand grip, screw a tripod adapter (T1) into the hand grip socket (#20), then attach a tripod.



## ■ Using a Flashgun



Screw a flashgun mounting piece (G1) into the flashgun socket (#5) on the camera body, plugging a cord into the flash terminal (#8) of the shutter

The flashgun has two extension cord sockets. Thus, when desired, supplementary flash equipments can be synchronized simultaneously for additional coverage or for special lighting effects with a professional touch.

### Photographing with flash

When using M-class flash bulbs, switch the M-X selector (#7) to M, then flash synchronizes to all shutter speeds.

Electronic flash synchronizes to all shutter speeds when the M-X selector is switched to X.

## Specifications

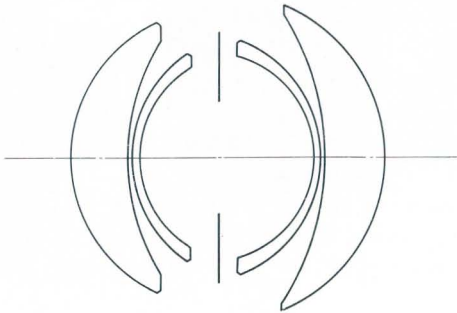
### Camera body and standard lens

- Lens : Mamiya-Sekor 100mm f/3.5, retracting-type ; with exclusive lens hood  
f-stops ; 3.5, 4, 5.6, 8, 11, 16, 22, and 32
- Shutter : Seikosha-S #0  
Shutter speeds ; B, 1, <sup>1</sup>/<sub>2</sub>, <sup>1</sup>/<sub>4</sub>, <sup>1</sup>/<sub>8</sub>, <sup>1</sup>/<sub>15</sub>, <sup>1</sup>/<sub>30</sub>, <sup>1</sup>/<sub>60</sub>,  
<sup>1</sup>/<sub>125</sub>, <sup>1</sup>/<sub>250</sub>, and <sup>1</sup>/<sub>500</sub> sec.
- Flash synchronization ; M and X selecting type  
Press focus lever (blade arrester built-in)
- Lens mount : Breech lock bayonet mount
- Viewfinder : Adjustable brilliant frame fields for 100mm, 150mm, and 250mm lenses ; 6×9cm and 6×7cm formats, with lens retraction warning signal  
Automatic parallax compensation
- Rangefinder : Coupled critical coincidence-type rangefinder provides instant coupling for the selected lenses
- Swinging back mount : The back mount can be tilted or swung to 15 degrees in four directions
- Maximum extension of back mount :  
Approximately 1 <sup>3</sup>/<sub>16</sub> inches (30mm)
- Hand grip : Removable hand grip with cable release
- Physical dimensions (camera body, plus 100mm f/3.5 lens) :
- Height : 6 <sup>19</sup>/<sub>32</sub> inches (168 mm)  
Width : 4 <sup>25</sup>/<sub>32</sub> inches (121 mm)  
Depth : 4 <sup>11</sup>/<sub>16</sub> inches (119 mm)
- Weight : Camera body 2 lbs. 7 oz. (1100 grams)  
100mm f/3.5 lens 1 lb. 3 oz. (540 grams)  
Hand grip 10 oz. (290 grams)

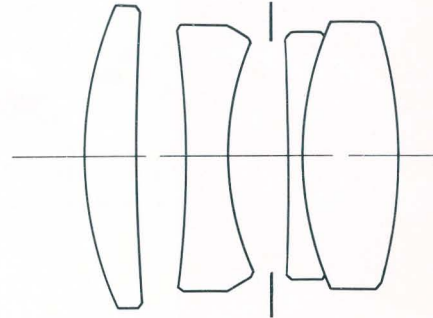
■ From the same camera position :



65mm



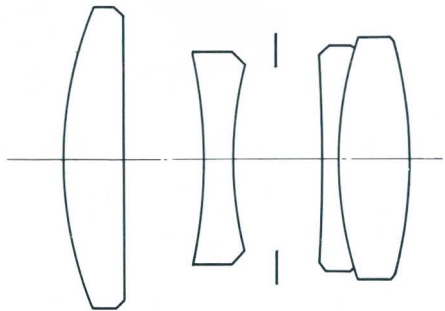
100mm



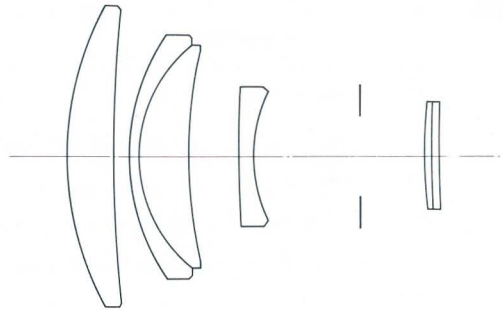




150mm



250mm



## ■ Lenses and Shutters for Mamiya Press Super 23

Lens	Lens construction	Angle of view		Lens retraction	Minimum aperture	Filter attachment size (screw in)	Shutter blade arresting
		6×9cm size	6×7cm size				
**65mm f/6.3	4-group 4-element	75°40'	67°50'	no	32	43 mm	T-setting
*100mm f/3.5	3-group 4-element	53°30'	47°30'	yes	32	40.5mm	Press focus
*100mm f/2.8	4-group 6-element	53°30'	47°30'	no	32	72 mm	T-setting
*150mm f/5.6	3-group 4-element	37°10'	32°30'	no	45	40.5mm	T-setting
*250mm f/5	4-group 6-element	22°50'	20°	no	45	105 mm	T-setting

All lenses equipped with Seikosha #0 shutter, full M-X flash synchronization.

\*\* ) Exclusive viewfinder furnished, insertable in the accessory shoe.

Lens barrel serves as lens hood.

\* ) Exclusive lens hood furnished.

# Accessories

## 6×9 cm roll holder :

Both No. 120 and No. 220 roll films accepted.  
Number of exposures per roll ; 8 on No. 120, 16 on No. 220.  
Film advancing by film advance lever in two strokes.  
Automatic resetting film counter.

## 6×7 cm roll holder :

Number of exposures per roll ; 10 on No. 120, 20 on No. 220.  
Other features are the same as 6×9 cm roll holder.

## Focusing screen holder :

Quick insertion is possible for cut film/plate holder and film pack adapter.

## Cut film/plate holder (type J) :

Cut film adapter frame furnished ; this adapter frame is suitable when using a quarter size of  $4\frac{3}{4} \times 6\frac{1}{2}$  in. (12×16.5 cm) cut film.  
Dry plate— $2\frac{1}{2} \times 3\frac{1}{2}$  in. (6.5×9 cm)  
Cut film— $2\frac{1}{4} \times 3\frac{1}{4}$  in. (6.5×9 cm)  
and one-quarter size of  $4\frac{3}{4} \times 6\frac{1}{2}$  in. (12×16.5 cm)

## Cut film/plate holder (type A) :

Cut film adapter frame furnished ; this adapter frame is suitable for  $2\frac{1}{4} \times 3\frac{1}{4}$  in. cut film.  
Dry plate— $2\frac{1}{2} \times 3\frac{1}{2}$  in. (6.5×9 cm)  
Cut film— $2\frac{1}{4} \times 3\frac{1}{4}$  in.

## Film pack adapter :

Film pack— $2\frac{1}{2} \times 3\frac{1}{2}$  in. (6.5×9 cm)  
 $2\frac{1}{4} \times 3\frac{1}{4}$  in.

★As for details of the actual size of usable photosensitive materials and actual negative size when they are used, refer to the table on page 43.

## Lens hood :

Individual slip-on type lens hoods are furnished (not necessary for 65 mm wide angle lens).

## Filter :

Filters for all lenses are available. (Refer to the table on page 41 for respective filter size.)  
Filter colors—Y2, YG, O2, UV and SL

## Sports finder for Super 23 :

Frame size—for 100 mm and 150 mm lenses  
Available in two types ; one for 6×9 cm format and the other for 6×7 cm format.

## 65 mm wide angle viewfinder for Super 23

## Extension rings :

For close-up photographing  
Set of five intermediate rings

## Flashgun for Mamiya Press with flashgun mounting piece

## Mounting piece for Mamiya Press flashgun

## Mounting bracket for Graflex flashgun

## Mounting bracket for Heiland flashgun

## Tripod adapter for vertical format photography

## Hand grip with cable release

## Strap

## Cutter for quarter format of $4\frac{3}{4} \times 6\frac{1}{2}$ in. (12×16.5 cm) size cut film

## Carrying bag for Super 23

## Acceptable Photosensitive Material and Actual Negative Size

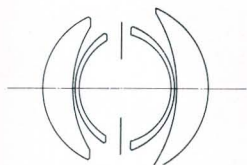
Type of holder	Type	Nominal size	Acceptable dimensions of material	Actual negative size
6×9 cm roll holder	Roll film	120		$2^{1\ 3}\ 64 \times 3^{5\ 1/6}$ in. (56×84 mm)
		220		
6×7 cm roll holder	Roll film	120		$2^{1\ 3}\ 64 \times 2^{4\ 3}\ 64$ in. (56×68 mm)
		220		
Cut film/plate holder (type J)	Plate	$2^1\ 2 \times 3^1\ 2$ in. (6.5×9cm)	$2^{3\ 3/64} \times 3^{3\ 5/64}$ in. (64×90 mm)	$2^1\ 4 \times 3^5\ 16$ in. (57×84 mm)
	Cut film	$2^1\ 2 \times 3^1\ 2$ in. (6.5×9cm)	$2^{3\ 3/64} \times 3^{3\ 5/64}$ in. (64×90 mm)	$2^1\ 4 \times 3^5\ 16$ in. (57×84 mm)
	Cut film	$4^3\ 4 \times 6^1\ 2$ in. (12×16.5cm) size divided into 4 equal parts	$2^{2\ 1}\ 64 \times 3^{1\ 3}\ 64$ in. (59×81.5 mm)	$2^1\ 4 \times 3^1\ 32$ in. (57×77 mm)
Cut film/plate holder (type A)	Plate	$2^1\ 2 \times 3^1\ 2$ in. (6.5×9cm)	$2^{3\ 3}\ 64 \times 3^{3\ 5}\ 64$ in. (64×90mm)	$2^9\ 32 \times 3^5\ 16$ in. (58×84 mm)
	Cut film	$2^1\ 4 \times 3^1\ 4$ in.	$2^{1\ 3}\ 64 \times 3^{1\ 3}\ 64$ in. (56×81mm)	$2^3\ 64 \times 3^7\ 64$ in. (52×79 mm)
Film pack adapter	Film pack	$2^1\ 2 \times 3^1\ 2$ in. (6.5×9cm)	Dimensions of film pack width $2^{2\ 3}\ 32$ in. (69 mm) length $4^{1\ 1}\ 64$ in. (106 mm) thickness $1\ 2$ in. (13 mm)	Minimum size $2^{1\ 1}\ 64 \times 3^5\ 32$ in. (55×80 mm)
		$2^1\ 4 \times 3^1\ 4$ in.		$2^1\ 4 \times 3^5\ 32$ in. (57×80 mm)

# Depth of Field Table

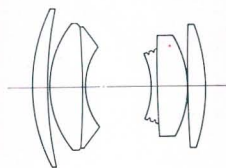
MAMIYA-SEKOR, 100 mm f/3.5

F	ft	∞	30	15	10	7	5	4	3.5
3.5	∞	93' 2"	22' 10"	13'	9' 1 1/2"	6' 7"	4' 9 1/2"	3' 10 1/2"	3' 5"
	∞	∞	43' 8"	17' 7"	11' 1"	7' 4 3/4"	5' 2 1/2"	4' 1 1/2"	3' 7"
4	81' 7"	22' 1"	12' 9"	9' 1/2"	6' 6 1/2"	4' 9 3/4"	3' 10 1/4"	3' 4 3/4"	
	∞	∞	46' 9"	18' 1"	11' 3"	7' 6 3/4"	5' 3"	4' 1 3/4"	3' 7 1/4"
5.6	57' 9"	19' 11"	12' 1"	8' 7 1/2"	6' 4 3/4"	4' 8"	3' 9 1/2"	3' 4 3/4"	
	∞	∞	60' 11"	19' 10"	11' 10"	7' 9 3/4"	5' 4 1/2"	4' 2 3/4"	3' 7 3/4"
8	40' 11"	17' 6"	11' 2"	8' 2 1/2"	6' 1 1/2"	4' 6 3/4"	3' 8 3/4"	3' 3 1/2"	
	∞	∞	107'	23'	12' 10"	8' 2 3/4"	5' 6 1/2"	4' 3 3/4"	3' 8 3/4"
11	29' 1"	15'	10' 1"	7' 7 1/2"	5' 9 1/2"	4' 4 3/4"	3' 7 1/2"	3' 2 3/4"	
	∞	∞	29' 7"	14' 7"	8' 10 1/2"	5' 10"	4' 5 1/2"	3' 10"	
16	20' 7"	12' 5"	8' 11 1/2"	6' 11 1/2"	5' 5"	4' 2 1/2"	3' 6"	3' 1 1/2"	
	∞	∞	50' 1"	18' 2"	10'	6' 3"	4' 8 1/2"	4'	
22	14' 8"	10' 1"	7' 8"	6' 2 1/2"	4' 11 3/4"	3' 11"	3' 3 3/4"	3'	
	∞	∞	∞	27' 10"	12' 2"	7'	5' 1"	4' 3"	
32	10' 6"	7' 11 1/2"	6' 5"	5' 4 1/2"	4' 5 1/2"	3' 7 1/2"	3' 1 1/4"	2' 10"	
	∞	∞	∞	∞	17' 11"	8' 5"	5' 9"	4' 8 1/4"	

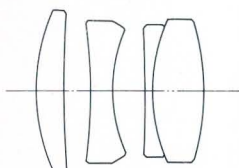
F	m	∞	10	5	3	2	1.5	1.2	1.0
3.5	∞	28.41	7.46	4.29	2.74	1.89	1.44	1.16	0.98
	∞	∞	15.24	6.00	3.32	2.13	1.57	1.24	1.03
4	24.87	7' 19"	4.21	2.71	1.87	1.43	1.16	0.97	
	∞	∞	16.48	6.18	3.37	2.15	1.58	1.25	1.03
5.6	17.61	6.45	3.95	2.60	1.82	1.40	1.14	0.96	
	∞	∞	22.57	6.85	3.55	2.22	1.61	1.26	1.04
8	12.49	5.63	3.63	2.47	1.76	1.37	1.12	0.95	
	∞	∞	47.48	8.09	3.84	2.32	1.66	1.29	1.06
11	8.86	4.77	3.27	2.30	1.68	1.32	1.09	0.93	
	∞	∞	10.93	4.36	2.49	1.74	1.34	1.09	
16	6.29	3.94	2.86	2.10	1.58	1.26	1.05	0.90	
	∞	∞	21.81	5.38	2.77	1.87	1.41	1.13	
22	4.48	3.16	2.44	1.87	1.45	1.18	1.00	0.87	
	∞	∞	∞	8.10	3.31	2.08	1.52	1.19	
32	3.20	2.48	2.03	1.63	1.31	1.09	0.94	0.82	
	∞	∞	∞	29.76	4.60	2.49	1.71	1.30	



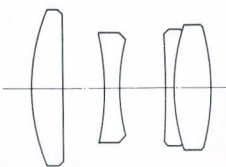
65 mm f 6.3



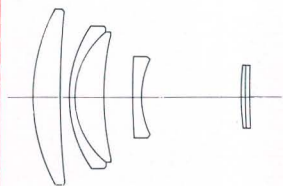
100 mm f 2.8



100 mm f 3.5



150 mm f 5.6



250 mm f/5

# Depth of Field Table

## MAMIYA-SEKOR, 65 mm f/6.3

F	ft	∞	30	15	10	7	5	4	3 5
6.3	22'	12' 10"	9' ¾"	7'	5' 5"	4' 2"	3' 5 ½"	3' 1 ¼"	
	∞	∞	44' 11 ¼"	17' 8 ¼"	9' 11 ¼"	6' 3 ¼"	4' 9"	4' ½"	
8	17' 4 ½"	11' 1 ¾"	8' 2 ½"	6' 6"	5' 1 ½"	4'	3' 4 ¾"	3'	
	∞	∞	98' 9 ½"	22' 4 ¾"	11' 2 ¾"	6' 9"	5'	4' 2 ½"	
11	12' 8 ¼"	9' ½"	7' ¼"	5' 9"	4' 7 ¾"	3' 8 ½"	3' 2"	2' 10 ¼"	
	∞	∞	∞	42' 4 ¾"	14' 7"	7' 9 ¾"	5' 6 ¼"	4' 6 ¾"	
16	8' 9 ½"	6' 10 ¾"	5' 8 ¼"	4' 10"	4' ¾"	3' 4"	2' 10 ¾"	2' 7 ½"	
	∞	∞	∞	∞	29' 4 ½"	10' 5 ¾"	6' 8 ½"	5' 4"	
22	6' 5 ¼"	5' 4 ¾"	4' 7 ¾"	4' ¾"	3' 6 ¾"	2' 11 ¾"	2' 7 ½"	2' 5"	
	∞	∞	∞	∞	∞	18' 2 ½"	9' 1"	6' 8 ¼"	
32	4' 6"	3' 11 ¾"	3' 7"	3' 3"	2' 10 ¾"	2' 6 ½"	2' 3 ½"	2' 1 ½"	
	∞	∞	∞	∞	∞	∞	22' 5"	11' 2 ½"	

F	m	∞	10	5	3	2	1.5	1.2	1
6.3	6.71	4.06	2.91	2.11	1.57	1.25	1.04	0.89	
	∞	∞	18.61	5.24	2.76	1.87	1.42	1.14	
8	5.29	3.50	2.62	1.96	1.49	1.20	1.01	0.87	
	∞	∞	72.39	6.58	3.08	2.01	1.49	1.19	
11	3.87	2.83	2.23	1.74	1.36	1.12	0.95	0.83	
	∞	∞	∞	12.06	3.88	2.31	1.64	1.28	
16	2.68	2.14	1.79	1.46	1.19	1.01	0.87	0.77	
	∞	∞	∞	∞	6.88	3.08	1.99	1.47	
22	1.96	1.67	1.45	1.23	1.04	0.90	0.79	0.71	
	∞	∞	∞	∞	125.05	5.21	2.66	1.79	
32	1.37	1.23	1.11	0.99	0.86	0.77	0.69	0.63	
	∞	∞	∞	∞	∞	∞	6.19	2.82	

## MAMIYA-SEKOR, 100 mm f/2.8

F	ft	∞	30	15	10	8	7	6	5	4.5	4	3.5
2.8	116'	24' 0"	13' 5"	9' 3 ½"	7' 7"	6' 8"	5' 9"	4' 10"	4' 4 ½"	3' 11"	3' 5 ¼"	
	∞	40' 0"	17' 1"	10' 10"	8' 6"	7' 4 ½"	6' 3 ½"	5' 2 ½"	4' 7 ¾"	4' 1 ¾"	3' 7"	
4	81' 7"	22' 2"	12' 10"	9' 0"	7' 4 ½"	6' 6 ½"	5' 8"	4' 9 ¾"	4' 4"	3' 10 ½"	3' 4 ¾"	
	∞	46' 8"	18' 1"	11' 3"	8' 9"	7' 7"	6' 5"	5' 3 ½"	4' 8 ½"	4' 1 ¾"	3' 7 ¼"	
5.6	57' 8"	20' 0"	12' 1"	8' 8"	7' 2"	6' 4 ¾"	5' 6 ½"	4' 8 ¾"	4' 3"	3' 9 ¾"	3' 4 ¾"	
	∞	60' 10"	19' 10"	11' 10"	9' 1 ½"	7' 10"	6' 7"	5' 4 ¾"	4' 9 ½"	4' 2 ¾"	3' 8"	
8	41' 0"	17' 7"	11' 2"	8' 2 ½"	6' 10"	6' 1 ½"	5' 4 ½"	4' 6 ¾"	4' 2"	3' 8 ¾"	3' 3 ¾"	
	∞	106'	22' 11"	12' 10"	9' 8"	8' 2 ½"	6' 10"	5' 6 ¾"	4' 11"	4' 3 ¾"	3' 8 ¾"	
11	29' 1"	15' 1"	10' 2"	7' 8"	6' 5 ½"	5' 10"	5' 1 ½"	4' 5"	4' ¾"	3' 7 ¾"	3' 2 ¾"	
	∞	∞	29' 6"	14' 7"	10' 7"	8' 10 ½"	7' 3 ½"	5' 10"	5' 1 ½"	4' 5 ½"	3' 10"	
16	20' 8"	12' 6"	9' 0"	7' 0"	6' 0"	5' 5 ½"	4' 10 ¼"	4' 2 ½"	3' 10 ¼"	3' 6"	3' 1 ¾"	
	∞	∞	49' 9"	18' 1"	12' 3"	9' 11 ½"	8' 0"	6' 3"	5' 5 ½"	4' 8 ¼"	4' 0"	
22	14' 9"	10' 1"	7' 9"	6' 3"	5' 5 ½"	5' 0"	4' 6"	3' 11 ½"	3' 7 ¾"	3' 4"	3' 0"	
	∞	∞	∞	27' 7"	15' 10"	12' 2"	9' 3 ½"	6' 11 ½"	5' 11 ½"	5' 1"	4' 2 ¾"	
32	10' 6"	8' 0"	6' 5"	5' 5"	4' 10 ¾"	4' 6"	4' 1"	3' 7 ¾"	3' 4 ¾"	3' 1 ½"	2' 10 ½"	
	∞	∞	∞	∞	27' 4"	17' 9"	12' 1"	8' 4 ½"	6' 11"	5' 8 ½"	4' 8"	

F	m	∞	10	5	3	2.5	2	1.7	1.5	1.3	1.2	1.1	1.0
2.8	35.47	7.86	4.42	2.79	2.36	1.91	1.64	1.45	1.27	1.17	1.08	0.98	
	∞	13.78	5.76	3.25	2.66	2.10	1.77	1.55	1.34	1.23	1.12	1.02	
4	24.87	7.20	4.21	2.71	2.30	1.87	1.61	1.43	1.25	1.16	1.07	0.97	
	∞	16.46	6.17	3.37	2.74	2.15	1.80	1.58	1.35	1.24	1.14	1.03	
5.6	17.62	6.46	3.95	2.60	2.23	1.83	1.58	1.41	1.23	1.14	1.05	0.96	
	∞	22.53	6.84	3.54	2.86	2.21	1.85	1.61	1.38	1.26	1.15	1.04	
8	12.49	5.64	3.64	2.47	2.13	1.76	1.53	1.37	1.21	1.12	1.04	0.95	
	∞	47.33	8.08	3.84	3.04	2.32	1.91	1.66	1.41	1.29	1.17	1.06	
11	8.87	4.78	3.27	2.30	2.01	1.68	1.47	1.32	1.17	1.09	1.01	0.93	
	∞	∞	10.89	4.34	3.34	2.48	2.02	1.74	1.47	1.34	1.21	1.08	
16	6.30	3.94	2.87	2.11	1.86	1.58	1.40	1.26	1.13	1.05	0.98	0.90	
	∞	∞	21.64	5.35	3.89	2.76	2.20	1.86	1.55	1.40	1.26	1.12	
22	4.49	3.17	2.45	1.88	1.68	1.46	1.30	1.19	1.07	1.00	0.94	0.87	
	∞	∞	∞	8.03	5.10	3.29	2.51	2.07	1.68	1.51	1.34	1.19	
32	3.21	2.49	2.03	1.64	1.49	1.31	1.19	1.10	1.00	0.94	0.89	0.83	
	∞	∞	∞	28.74	9.19	4.55	3.15	2.47	1.93	1.70	1.48	1.29	

## MAMIYA-SEKOR, 150 mm f/5.6

F \ ft	∞	30	15	10	8	7
5.6	130' 11 1/2"	24' 7 1/2"	13' 7"	9' 4 1/2"	7' 7 1/2"	6' 8 1/2"
	∞	38' 5 1/2"	16' 9"	10' 8 1/2"	8' 5 1/4"	7' 3 3/4"
8	91' 9 1/2"	22' 10 1/2"	13' 3/4"	9' 1 3/4"	7' 5 1/2"	6' 7 1/4"
	∞	43' 9 3/4"	17' 7 3/4"	11' 1 1/2"	8' 7 1/2"	7' 5 1/2"
11	66' 10 1/4"	21'	12' 5 1/2"	8' 10 1/4"	7' 3 3/4"	6' 5 1/2"
	∞	52' 11"	18' 10 3/4"	11' 6"	8' 10 3/4"	7' 7 3/4"
16	46' 1"	18' 6"	11' 7"	8' 5"	7'	6' 3"
	∞	81' 5 1/4"	21' 5 1/4"	12' 4 1/4"	9' 4 1/2"	7' 11 1/4"
22	33' 7 1/2"	16' 2 1/2"	10' 8"	7' 11 1/2"	6' 8 1/4"	6'
	∞	233' 3/4"	25' 7 1/2"	13' 6 1/2"	10' 1/4"	8' 5 1/4"
32	23' 3"	13' 5 1/4"	9' 5 1/2"	7' 3 1/2"	6' 2 3/4"	5' 7 3/4"
	∞	∞	38' 1"	16' 2 1/2"	11' 4"	9' 4"
45	16' 7 1/2"	11' 3/4"	8' 3"	6' 7"	5' 8 3/4"	5' 2 1/4"
	∞	∞	105' 9 1/4"	21' 10 1/4"	13' 8 1/2"	10' 9 3/4"

F \ m	∞	10	5	3	2.5	2
5.6	39.92	8.06	4.49	2.81	2.38	1.92
	∞	13.18	5.65	3.21	2.64	2.08
8	27.98	7.45	4.30	2.75	2.33	1.89
	∞	15.27	5.99	3.31	2.70	2.12
11	20.38	6.80	4.08	2.66	2.27	1.86
	∞	19.07	6.47	3.44	2.79	2.17
16	14.05	5.95	3.77	2.53	2.18	1.80
	∞	32.64	7.48	3.69	2.94	2.26
22	10.25	5.17	3.46	2.40	2.08	1.73
	∞	231.32	9.21	4.04	3.15	2.37
32	7.08	4.25	3.04	2.20	1.93	1.64
	∞	∞	15.09	4.81	3.59	2.60
45	5.07	3.46	2.63	1.99	1.77	1.53
	∞	∞	93.90	6.42	4.38	2.96

## MAMIYA-SEKOR, 250 mm f/5

F \ ft	∞	200	100	50	30	20	15	12	10	8
5	407'	134'	80' 6"	44' 8"	28' 1"	19' 2"	14' 6"	11' 8"	9' 9 1/2"	7' 10 1/2"
	∞	390'	132'	56' 9"	32' 3"	20' 11"	15' 6"	12' 4"	10' 2"	8' 2 1/2"
5.6	360'	129'	78' 6"	44' 1"	27' 10"	19'	14' 6"	11' 8"	9' 9 1/2"	7' 10 1/2"
	∞	446'	138'	57' 9"	32' 7"	21' 1"	15' 7"	12' 4"	10' 3"	8' 1 1/2"
8	255'	112'	72' 1"	42'	27'	18' 8"	14' 3"	11' 6"	9' 8 1/2"	7' 10"
	∞	748'	163'	61' 9"	33' 9"	21' 7"	15' 10"	12' 6"	10' 4"	8' 2 1/2"
11	180'	95' 2"	64' 8"	39' 10"	25' 11"	18' 2"	14'	11' 4"	9' 7"	7' 9"
	∞	∞	221'	68' 4"	35' 7"	22' 3"	16' 2"	12' 9"	10' 6"	8' 4"
16	128'	78' 2"	56' 5"	36' 3"	24' 7"	17' 6"	13' 7"	11' 1"	9' 5"	7' 7 1/2"
	∞	∞	442'	80' 8"	38' 7"	23' 4"	16' 9"	13' 1"	10' 8"	8' 5"
22	90' 7"	62' 5"	47' 9"	32' 8"	22' 10"	16' 8"	13' 1"	10' 9"	9' 2"	7' 6"
	∞	∞	∞	108'	43' 9"	25' 1"	17' 7"	13' 6"	11'	8' 7"
32	64' 3"	48' 7"	39' 4"	28' 5"	20' 9"	15' 7"	12' 5"	10' 8"	8' 10 1/2"	7' 3 1/2"
	∞	∞	∞	209'	54' 1"	28' 1"	18' 11"	14' 3"	11' 6"	8' 10"
45	45' 8"	37'	31' 5"	24' 2"	18' 5"	14' 3"	11' 7"	9' 9 1/2"	8' 5 1/2"	7' 1 1/2"
	∞	∞	∞	∞	81' 1"	33' 8"	21' 3"	15' 6"	12' 3"	9' 3"

F \ m	∞	50	30	20	15	10	7	5	4	3	2.5
5	124.1	35.7	24.2	17.29	13.43	9.29	6.65	4.83	3.90	2.94	2.46
	∞	83.2	39.4	23.73	16.98	10.83	7.39	5.19	4.12	3.06	2.54
5.6	109.7	34.4	23.6	16.98	13.25	9.21	6.61	4.81	3.88	2.94	2.46
	∞	91.2	41.1	24.32	17.28	10.95	7.44	5.21	4.13	3.07	2.55
8	77.6	30.5	21.7	15.98	12.64	8.91	6.46	4.73	3.83	2.91	2.44
	∞	138.5	48.4	26.72	18.45	11.39	7.64	5.31	4.19	3.10	2.56
11	55.0	26.3	19.5	14.76	11.87	8.53	6.26	4.63	3.77	2.87	2.42
	∞	∞	65.0	31.04	20.39	12.09	7.94	5.44	4.27	3.14	2.59
16	38.9	22.0	17.0	13.31	10.92	8.04	6.00	4.49	3.68	2.82	2.38
	∞	∞	125.8	40.25	23.96	13.24	8.40	5.65	4.40	3.20	2.63
22	27.6	17.8	14.5	11.69	9.82	7.43	5.67	4.30	3.56	2.76	2.34
	∞	∞	∞	69.38	31.84	15.22	9.16	5.97	4.58	3.29	2.69
32	19.6	14.1	11.9	9.98	8.59	6.72	5.25	4.07	3.40	2.67	2.28
	∞	∞	∞	59.58	19.58	10.51	6.50	4.87	3.43	2.78	
45	13.9	10.9	9.5	8.27	7.30	5.92	4.76	3.78	3.20	2.55	2.19
	∞	∞	∞	∞	∞	32.53	13.27	7.42	5.36	3.65	2.91

The portions enclosed by the red lines show the extremely shallow depth of field. When using the 250mm lens, please refer to the precautions enclosed with the lens.

MAMIYA CAMERA CO., LTD

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