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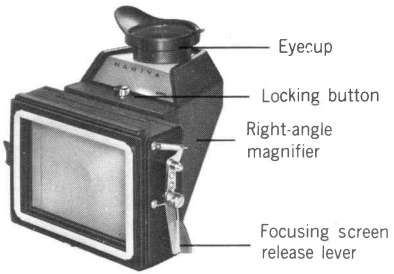
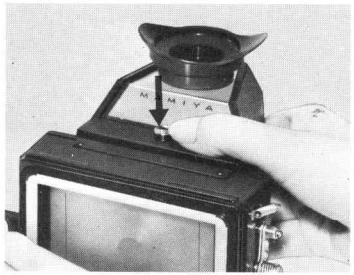
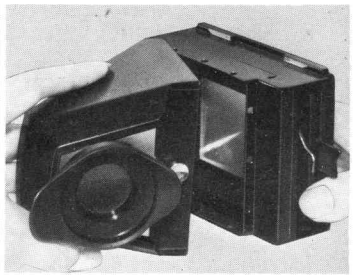
Right-angle and Magnifying Focusing Backs

Right-angle focusing back

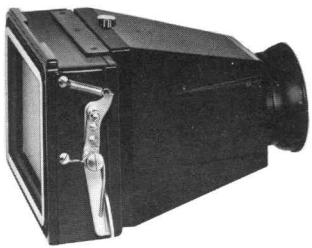


This device enables observing the image on the ground glass from the right-angle direction against the optical axis. The right-angle magnifier can be very simply turned upward or sideward, facilitating focusing from any camera angle.





Magnifying focusing back



This back is provided with an eye-level, totally enclosed box instead of the right-angle magnifier of the right-angle focusing back. Precise focusing is possible by directly observing the image on the ground glass focusing screen through the eyepiece magnifier.

Since a Fresnel lens is used on both focusing backs, the entire ground glass is very bright, and focusing can be easily accomplished because extraneous light is blocked out. The ground glass has light lines which indicate a 6 × 7 format.

After focusing, insert a cut film/plate holder or film pack adapter as well as the focusing screen holder for photographing.

Attaching and Detaching the Right-angle Magnifier

The right-angle magnifier can be removed by swinging it around the bottom of the housing while depressing the button of the right-angle magnifier.

To attach the right-angle magnifier, match the projections at the bottom of the magnifier to the holes of the holder, and press in the upper part. When attaching the magnifier, the button does not need to be pressed.

The right-angle magnifier can be attached for up, down, right, and left directions. Merely attach it in the direction necessary for the camera angle employed.

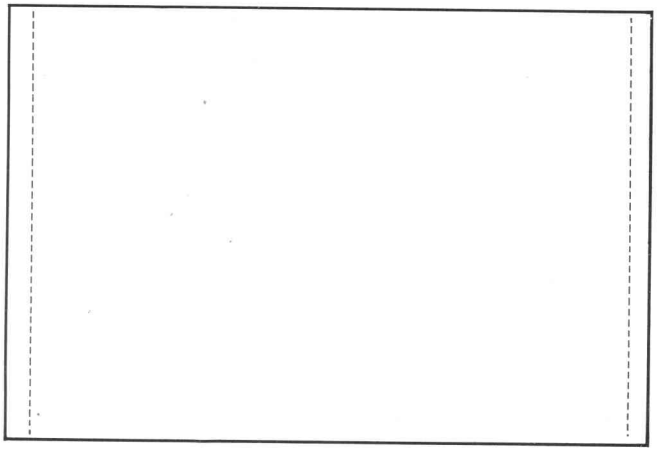
When looking from above or below, the image assumes the correct right-side-up position, but the right and left will be reversed. When looking from the side, right and left are correct but the image will be upside down.

Composing the Picture by Ground Glass Focusing Screen for Film Pack or Cut Film

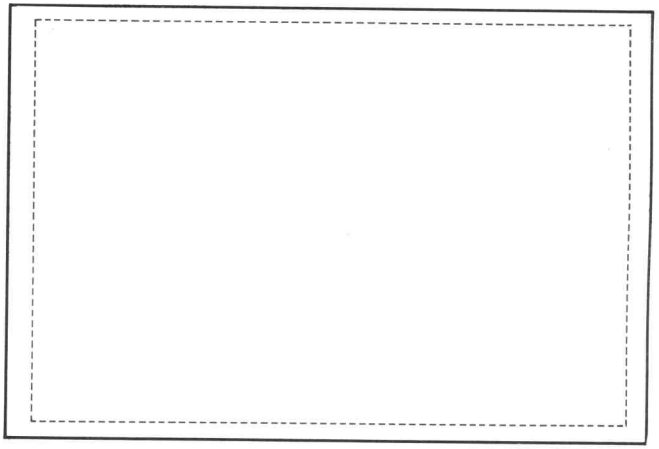
When dry plates or 2 ½ × 3 ½inch (6.5 × 9cm) cut films are used, the actual picture format is exactly the same as seen on the focusing screen.

When "one-quarter size" cut film, 2 ¼ × 3 ¼inch cut film, or film packs are used, since the actual picture size of these films is a little smaller than the ground glass focusing screen, compose the picture within the frame of the broken lines as shown in the drawings.

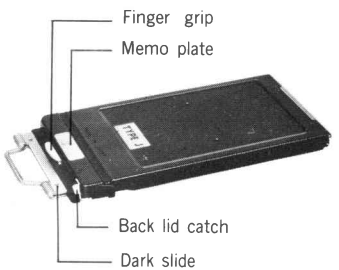
For "one-quarter size" cut film taken from 4 ¾ × 6 ½inch (12 × 16.5cm) cut film, or for a film pack;



For 2 ¼ × 3 ¼inch cut film;



Cut Film/Plate Holder (Type J)



Open the Back Lid:

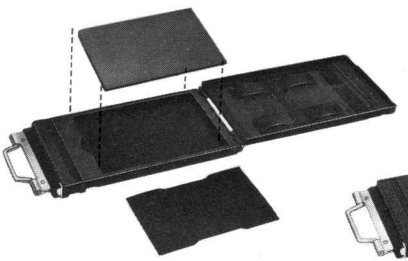
By pulling out the back lid catch, the back lid can be swung open by applying finger pressure to the finger grip.

Memo plate:

Use the memo plate for recording on the holder your file number, the film type, and so on.

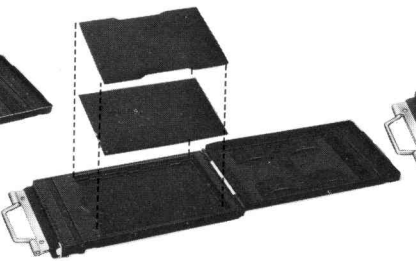
Correct recorded letters or figures by rubbing the plate with a finger tip, soft cloth, or tissue.

When Using a Dry Plate 2 ½ × 3 ½ inch (6.5 × 9 cm):



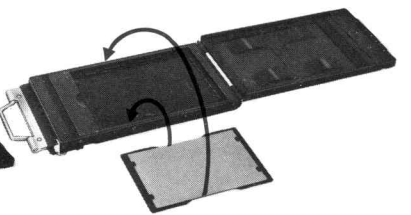
Remove the film sheath from the holder, insert the dry plate with the emulsion side facing the dark slide, close the back lid, and push it back to its original position. In this case, the film sheath is not used.

When Using a Cut Film 2 ½ × 3 ½ inch (6.5 × 9 cm):



Remove the film sheath from the holder, place the cut film with its emulsion side facing the dark slide, then place the film sheath with the film catch side up, and close the back lid. Instead of the film sheath, a discarded dry plate may be used.

When Using a Cut Film Taken by Cutting a 4 ¾ × 6 ½ inch Cut Film into Four One-quarter Sizes:

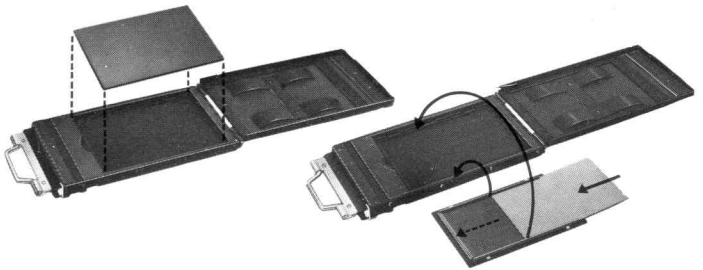


Insert the cut film in the film sheath with its emulsion side up, placing the sheath in the holder.

When a color film is cut, sometimes the film is not developed at a developing laboratory. For color photography, therefore, use factory-cut 2 ½ × 3 ½ inch (6.5 × 9 cm) color film.

Cut Film/Plate Holder (Type A)

When Using a Dry Plate 2½ × 3½ inch (6.5 × 9cm):

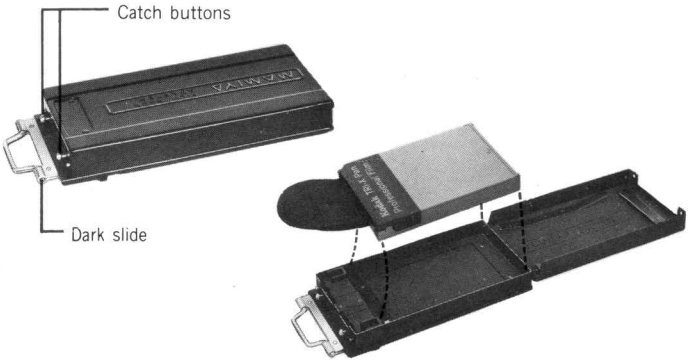


Remove the film sheath from the holder, insert the dry plate with the emulsion side facing the dark slide, close the back lid, and push it back to its original position. In this case, the film sheath is not used.

When Using a Cut Film 2¼ × 3¼ inch:

Use the cut film/plate holder (type A). Insert a film in the film sheath, place it in the holder, and close the back lid. This film sheath is exclusive for type A; do not use it with a type J holder.

Film Pack Adapter

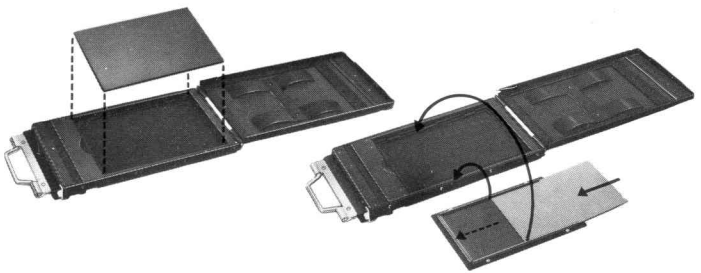


Both 2½ × 3½ inch (6.5 × 9cm) or 2¼ × 3¼ inch film packs are available.

Open the back lid of the film pack adapter by pressing the two catch buttons simultaneously, lifting up the back lid. Load the tab end first in the film pack adapter, and by pressing the tab side to the spring, push in the entire film pack. Close the back lid, keeping the paper tab protruding.

Cut Film/Plate Holder (Type A)

When Using a Dry Plate 2½ × 3½ inch (6.5 × 9cm):

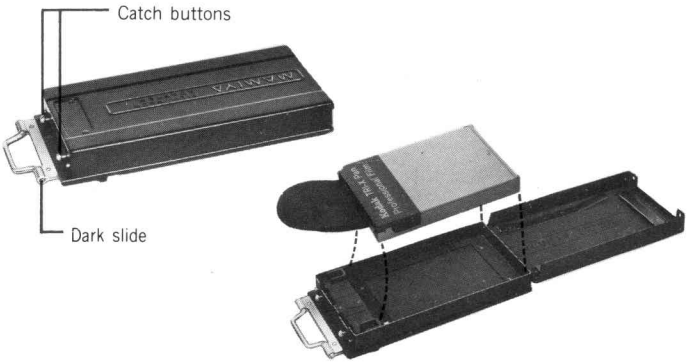


Remove the film sheath from the holder, insert the dry plate with the emulsion side facing the dark slide, close the back lid, and push it back to its original position. In this case, the film sheath is not used.

When Using a Cut Film 2¼ × 3¼ inch:

Use the cut film/plate holder (type A). Insert a film in the film sheath, place it in the holder, and close the back lid. This film sheath is exclusive for type A; do not use it with a type J holder.

Film Pack Adapter



Both 2½ × 3½ inch (6.5 × 9cm) or 2¼ × 3¼ inch film packs are available.

Open the back lid of the film pack adapter by pressing the two catch buttons simultaneously, lifting up the back lid. Load the tab end first in the film pack adapter, and by pressing the tab side to the spring, push in the entire film pack. Close the back lid, keeping the paper tab protruding.

Extension Rings

Use a set of five extension rings in various combinations between the lens-shutter assembly and the camera body for close-up photography.

The values in the table represent those when the five extension rings are attached and the lens distance scale is set at the closest distance.

The lens-to-subject distance represents the distance of the subject from the front extremity of the lens barrel.

Subject coverage is the area of the subject registered on the focusing screen (2 ¼ × 3 5/16 in. 57 × 84mm).

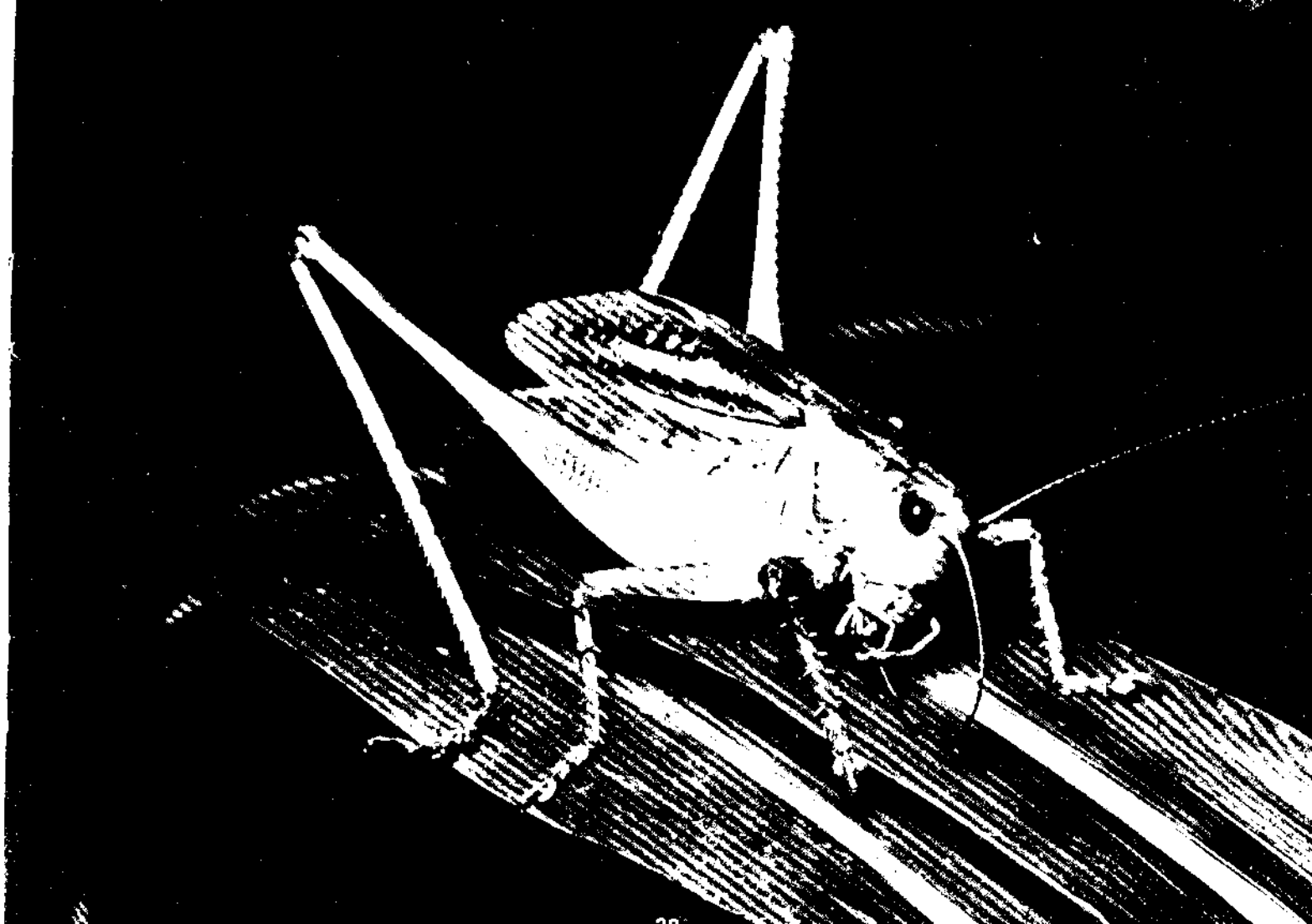
Precaution

When using many extension rings for photographing in the 6×9cm format, certain lenses may produce pictures with darker corners. By stopping down the aperture while looking into the focusing screen, how much darker the corners appear can be observed.

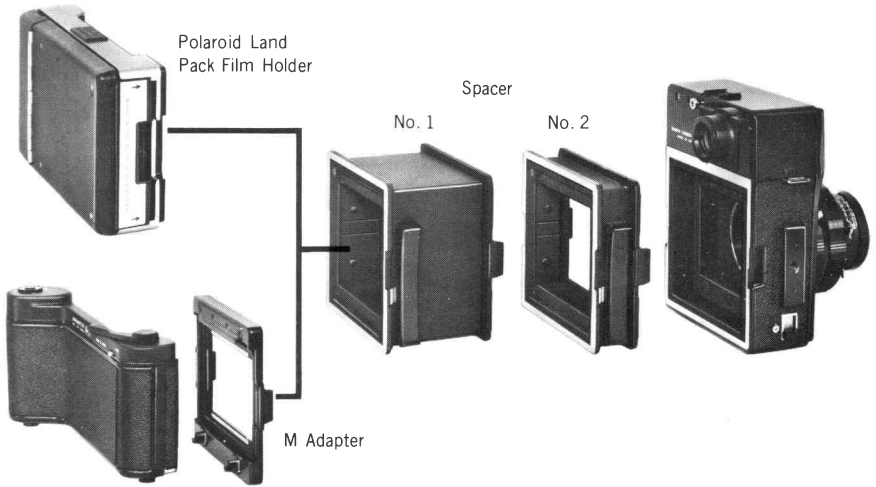
The 75mm f/5.6 and 250mm f/5 lenses cannot be mounted with extension rings.

Maximum Close-up Photographing Table

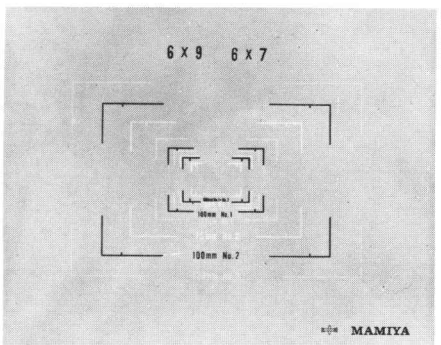
Lens	Lens-to-subject Distance	Magnification	Subject Coverage		Exposure Factor
			6 × 9	6 × 7	
50mm f/6.3	1 7/8" (47.9mm)	2.04	1 5/64" × 1 5/8" 28 × 41mm	1 5/64" × 1 25/64" 28 × 35mm	9.2
65mm f/6.3	3 7/64" (79mm)	1.59	1 11/32" × 1 31/32" 34 × 50mm	1 11/32" × 1 5/8" 34 × 41mm	6.7
100mm f/2.8	5 1/8" (130mm)	1.13	2" × 2 61/64" 51 × 75mm	2" × 2 13/32" 51 × 61mm	4.6
100mm f/3.5	6 37/64" (167mm)	1.14	1 31/32" × 2 7/8" 50 × 73mm	1 31/32" × 2 23/64" 50 × 60mm	4.6
127mm f/4.7	10 5/64" (256mm)	0.90	2 31/64" × 3 5/8" 63 × 92mm	2 31/64" × 3" 63 × 76mm	3.6
150mm f/5.6	1' 19/32" (320mm)	0.77	2 7/8" × 4 1/4" 73 × 108mm	2 7/8" × 3 53/64" 73 × 83mm	3.1
250mm f/8	3' 1/32" (921mm)	0.49	4 17/32" × 6 21/32" 115 × 169mm	4 17/32" × 5 15/32" 115 × 139mm	2.2



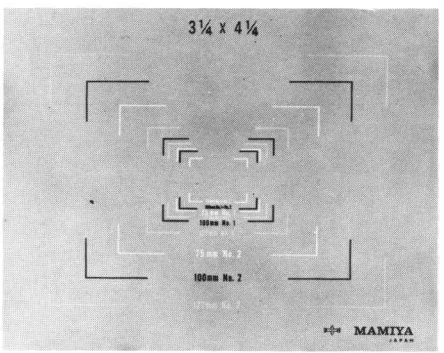
Spacer Set



Indication sheet for subject coverage
for 6 × 9 and 6 × 7 cm format



for 3 ¼ × 4 ¼ inch format



A spacer is a device for close-up photography by extending the camera back by installing a spacer between the camera back and the film holder.

Since two types (No. 1 spacer and No.2 spacer) are combined as one set, the photographing range can be varied by changing the combination or the lens to be used.

Extreme close-up photography can be achieved by combining with the extension rings.

The Polaroid Land pack film holder can be directly installed on the spacer. When using an M-adapter or G-adapter, photography through all holders installable on these adapters can be achieved.

Indication Sheet for Subject Coverage

On the vinyl sheet in the spacer set, subject coverages varying according to the combination of lenses (75mm f/5.6, 100mm f/3.5, and 127mm f/4.7) and spacers are indicated through color identification.

Close-up Photographing Table

The left-side values is each column of the close-up photography table indicate values when setting the lens distance scale to ∞ (infinity). The right-side values indicate when extending the lens to the nearest close-up distance scale.

The lens-to-subject distance indicates the distance from the front edge of the lens barrel to the subject.

Magnification indicates the ratio of image and the subject size.

Close-up Photographing Table for 75 mm f/5.6 Lens

Combination	Lens-to-subject distance	Magnification	Subject coverage			Exposure factor
			3 1/4 × 4 1/4	6 × 9	6 × 7	
No. 2	8 3/16″ ~ 6 31/32″ 208~177mm	0.42~0.51	6 13/16″ × 8 7/8″ ~ 5 19/32″ × 7 9/32″ (173×226)~(142×185)mm	5 1/4″ × 7 23/32″ ~ 4 9/32″ × 6 11/32″ (133×196)~(109×161)mm	5 1/4″ × 6 3/8″ ~ 4 9/32″ × 5 1/4″ (133×162)~(109×133)mm	2.0~2.3
No. 1	4 3/16″ ~ 3 15/16″ 106~100mm	1.00~1.09	2 7/8″ × 3 3/4″ ~ 2 5/8″ × 3 7/16″ (73×95)~(67×87)mm	2 7/32″ × 3 9/32″ ~ 2 1/16″ × 3″ (56×83)~(52×76)mm	2 7/32″ × 2 11/16″ ~ 2 1/16″ × 2 1/2″ (56×68)~(52×63)mm	4.0~4.4
No. 1 +No. 2	3 5/16″ ~ 3 3/16″ 84~81mm	1.42~1.51	2″ × 2 5/8″ ~ 1 7/8″ × 2 1/2″ (51×67)~(48×63)mm	1 9/16″ × 2 9/32″ ~ 1 15/32″ × 2 5/32″ (40×58)~(37×55)mm	1 9/16″ × 1 7/8″ ~ 1 15/32″ × 1 25/32″ (40×48)~(37×45)mm	5.9~6.3

Close-up Photographing Table for 100 mm f/3.5 Lens (Lens is nonretracted condition)

Combination	Lens-to-subject distance	Magnification	Subject coverage			Exposure factor
			3 1/4 × 4 1/4	6 × 9	6 × 7	
No. 2	1′ 3 1/2″ ~1′ 393~304mm	0.32~0.44	9 1/16″ × 11 13/16″ ~ 6 15/32″ × 8 15/32″ (230×300)~(164×215)mm	6 31/32″ × 10 9/32″ ~ 5″ × 7 3/8″ (177×261)~(127×187)mm	6 31/32″ × 8 1/2″ ~ 5″ × 6 1/16″ (177×216)~(127×154)mm	1.7~2.1
No. 1	8 1/32″ ~ 7 9/16″ 212~192mm	0.75~0.88	3 13/16″ × 5″ ~ 3 9/32″ × 4 9/32″ (97×127)~(83×109)mm	2 15/16″ × 4 11/32″ ~ 2 17/32″ × 3 3/4″ (75×110)~(64×95)mm	2 15/16″ × 3 19/32″ ~ 2 17/32″ × 3 1/16″ (75×91)~(64×78)mm	3.1~3.5
No. 1 +No. 2	6 25/32″ ~ 6 7/16″ 172~163mm	1.07~1.20	2 11/16″ × 3 1/2″ ~ 2 13/32″ × 3 5/32″ (68×89)~(61×80)mm	2 3/32″ × 3 1/16″ ~ 1 27/32″ × 2 23/32″ (53×78)~(47×69)mm	2 3/32″ × 2 17/32″ ~ 1 27/32″ × 2 1/4″ (53×64)~(47×57)mm	4.3~4.8

Close-up Photographing Table for 127 mm f/4.7 Lens

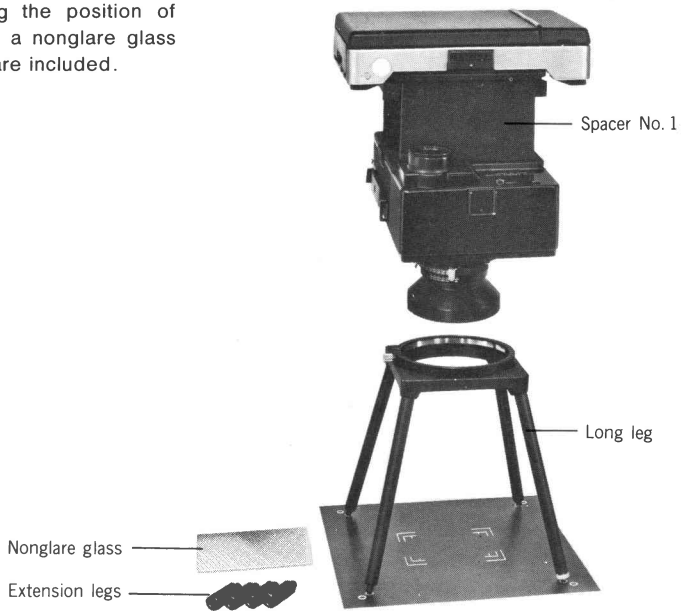
Combination	Lens-to-subject distance	Magnification	Subject coverage			Exposure factor
			3 1/4 × 4 1/4	6 × 9	6 × 7	
No. 2	2′ ~1′ 6 7/32″ 610~463mm	0.25~0.35	11 1/2″ × 1′ 3″ ~ 8 5/32″ × 10 21/32″ (292×381)~(207×271)mm	8 7/8″ × 1′ 1 1/16″ ~ 6 5/16″ × 9 9/32″ (225×332)~(160×236)mm	8 7/8″ × 10 25/32″ ~ 6 5/16″ × 7 5/8″ (225×274)~(160×194)mm	1.6~1.8
No. 1	1′ 17/32″ ~11 1/4″ 318~286mm	0.59~0.69	4 27/32″ × 6 11/32″ ~ 4 1/8″ × 5 13/32″ (123×161)~(105×137)mm	3 3/4″ × 5 1/2″ ~ 3 3/16″ × 4 23/32″ (95×140)~(81×120)mm	3 3/4″ × 4 9/16″ ~ 3 3/16″ × 3 29/32″ (95×116)~(81×99)mm	2.5~2.9
No. 1 +No. 2	10″ ~ 9 3/8″ 254~238mm	0.84~0.94	3 7/16″ × 4 7/16″ ~ 3 1/32″ × 3 31/32″ (87×113)~(77×101)mm	2 5/8″ × 3 29/32″ ~ 2 3/8″ × 3 15/32″ (67×99)~(60×88)mm	2 5/8″ × 3 3/16″ ~ 2 3/8″ × 2 7/8″ (67×81)~(60×73)mm	3.4~3.8

Life-size Photocopying Set

The life-size photocopying set is used for actual size photography by using the 75 mm f/5.6 or 100 mm f/3.5 lens and the spacers.

A sheet for determining the position of subject to be copied and a nonglare glass which prevents reflection are included.

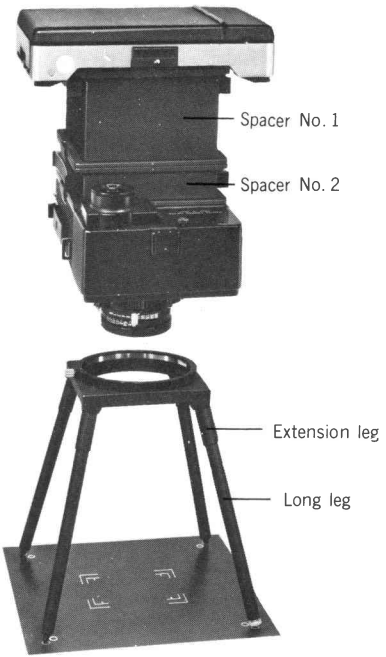
When using the 75 mm f/5.6 lens:



Use spacer No. 1.

Set lens distance scale to infinity (∞). Install only the four long legs to the photocopying stand.

When using the 100 mm f/3.5 lens:



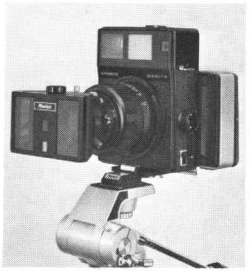
Use spacers No. 1 and No. 2.

Retract the lens and set the distance scale to 3 m.

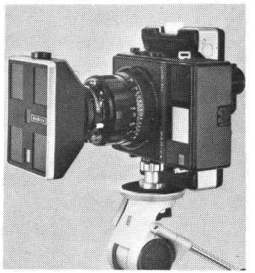
Install long legs and extension legs on the photocopying stand.

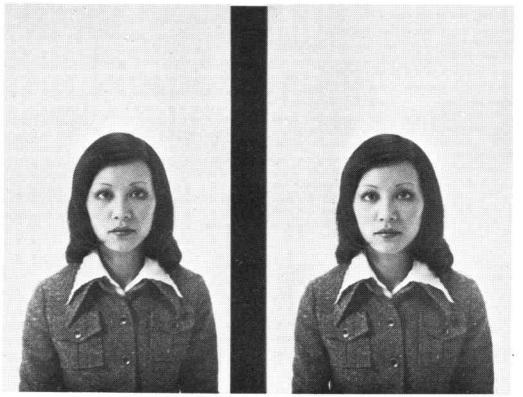
Duophoto Adapter and Tetraphoto Adapter

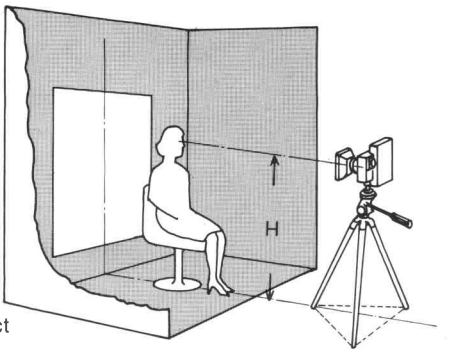
Duophoto Adapter



Tetraphoto Adapter







H: Height of eyes of the subject

Polaroid Land film pack 100 series is used for both the duophoto adapter and the tetraphoto adapter, whereby duplicate or quadruple photos can be obtained by a single exposure. Ideal for taking photos for driver's licenses and identification cards.

Lens and Accessories to be used

127mm, f/4.7 lens
Polaroid Land pack film holder
Tripod adapter (for vertical format) for duophoto adapter
Tripod adapter (Type P) for tetraphoto adapter

Photographing

Set the height (optical axis) of the camera on which the duophoto adapter or tetraphoto adapter is installed to the height of eyes of the subject to be photographed, placing the camera in front of the subject; then adjust the distance.

After confirming whether or not the adapter is inclined, position the center of the subject's face in the center of the adapter finder field of view.

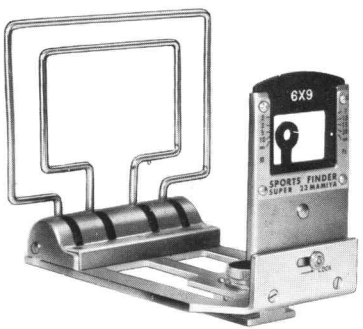
As shown in the sketch, prepare a white background for use only as the photographing range, and use back which reflects negligible light from other portions and on the floor.

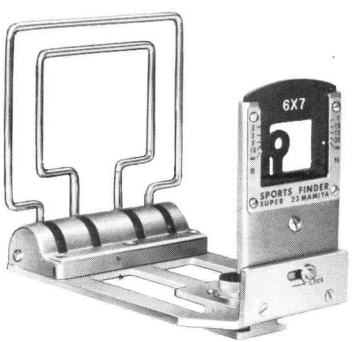
Accessories for the Viewfinder

Sports Finder

For both Mamiya Universal and the Mamiya Press Super 23, this is available in 6×9 and 6×7 formats, both with wire frames for 100 mm and 150 mm lenses.

Really an undispensable accessory for photographing quick-moving subjects.





Eyecup

Maintains the correct eye position and prevents extraneous light from entering the viewfinder from the back when looking into the viewfinder. Attach this to the eyepiece.

Eye-correction Lens

The finder image is adjusted for those people with normal eyesight. Nearsighted or farsighted people without glasses, or those with improper glasses, will have difficulty looking into the image. Use this lens in such cases.

There are eight diopter lenses available (+3, +2, +1, −0.5, −1, −2, −3, and −4).

The diopter has no relation to the figures used for eye tests such as "1.0", and cannot be converted into such figures. Have the diopter of your glasses checked by an optometrist. For instance, when your glasses have a diopter of +2, by using a +2 diopter lens, you will find it easier to observe the image. To attach the lens to the eyepiece, turn the ring on the eyepiece counterclockwise and remove it, insert the lens, and screw the ring back in as it was.

Flashgun

Screw in the flashgun adapter to the flashgun socket (4) on the camera body. Plug the cord into the flash terminal (22) of the shutter.

The flashgun has two extension cord sockets; thus, when desired, supplementary flash equipment can be synchronized simultaneously for additional coverage or for special lighting effects.

When a single flashgun is used, connect the cord to the socket marked SHUTTER.

Shaded area of the above table indicates the synchronizing shutter speed.

Move the MX-selector lever to obtain the right terminal.

When the MX-selector is set to M, M-class bulbs synchronize to all shutter speeds.

When the MX-selector is set to X, electronic flash synchronizes to all shutter speeds.

Flash Synchronizing Table

Terminal	Flash bulb	Shutter speed									
		1	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500
M	M-class	■	■	■	■	■	■	■	■	■	■
X	Electronic flash	■	■	■	■	■	■	■	■	■	■
	F-class	■	■	■	■	■	■	■			
	M-class	■	■	■	■	■	■				

Grip and Tripod Adapter

Rotating Grip

This is a unique grip whose angle is freely adjusted according to the photographing posture.

This grip rotates approximately 180°, centering the installation point to the camera; however, when grasping the center belt of the grip, the grip is secured at an optional angle.

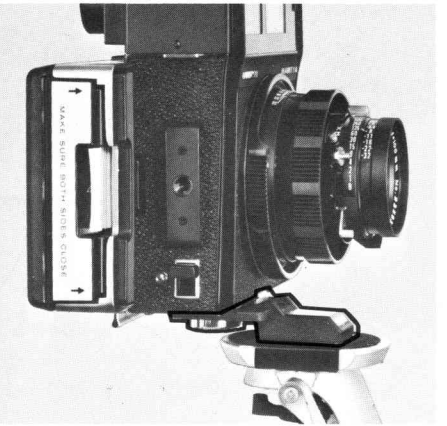
Rotating Adapter

This is a convenient universal head which can be freely changed over from a vertical photographing position to a horizontal photographing position (or vice versa) by revolving the camera installed on the tripod, centering the camera optical axis.

Tripod Adapter (For Vertical Format)

For photographing vertical format pictures on a tripod, remove the hand grip from the camera body and attach this tripod adapter to the socket.

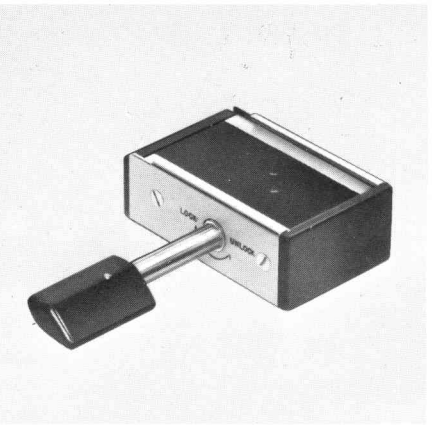
Tripod Adapter Type P



This tripod adapter is a necessity when using the Polaroid Land pack film holder. If the camera is attached directly to a normal tripod, the dark slide contacts the tripod and cannot be pulled out. In this case, use this tripod adapter to enable pulling out the dark slide.

This adapter can be attached to either a U 1/4 inch or 3/8 inch tripod screw. Also this adapter permits coupling with the quick-shoe, enabling rapid camera mounting on the tripod.

Quick-shoe



By attaching a quick-shoe to the tripod while tripod adapter type P is attached to the camera body, the camera can easily be mounted onto the tripod simply by inserting the adapter into the quick-shoe, then clamping the lever.

Case

Mamiya Aluminum Custom Case

The Mamiya Custom Case is a smartly portable, luggage-type aluminum case.

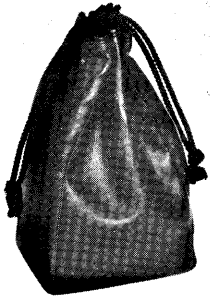
The Custom Case is designed to accommodate and to easily hand-carry normally required interchangeable lenses and accessories as well as standard equipment. By changing the inserts, the Custom Case conveniently accommodates the Mamiya Press, Mamiya C, or Mamiya RB and related equipment.

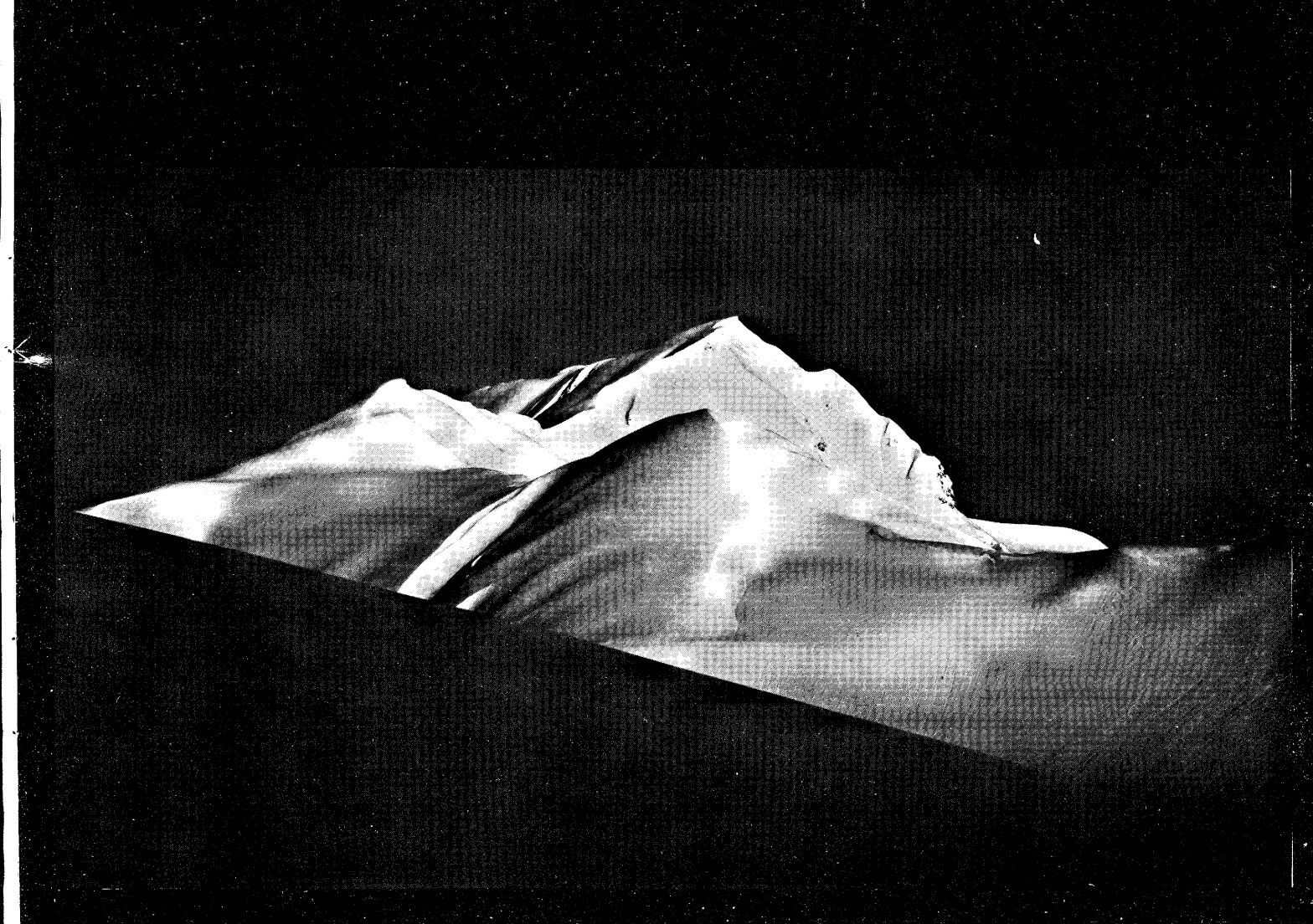
The interchangeable inserts, made of sponge rubber, provide effective shock absorption and sufficient protection of the equipment.

Dimensions (outer): 18⅜" × 13⅜" × 6⅜"
(47 × 35 × 17 cm)
Weight: 8 lbs, 2 ½oz., (3.7 kg).

Soft Leather Case

A flexible and convenient soft case for lens protection and carrying. Can be used for accommodating one of lenses from 50 mm to 150 mm, or extension rings or accessories, and so on.

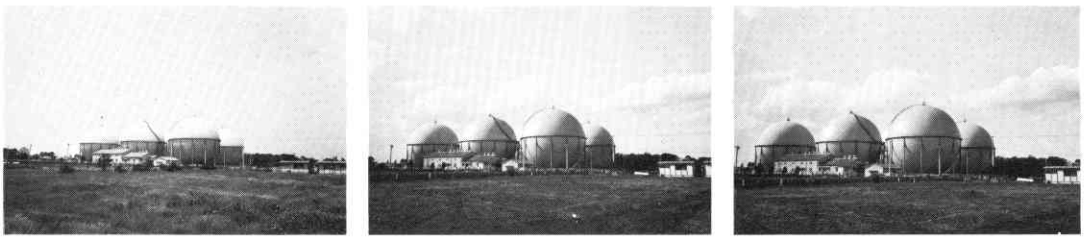


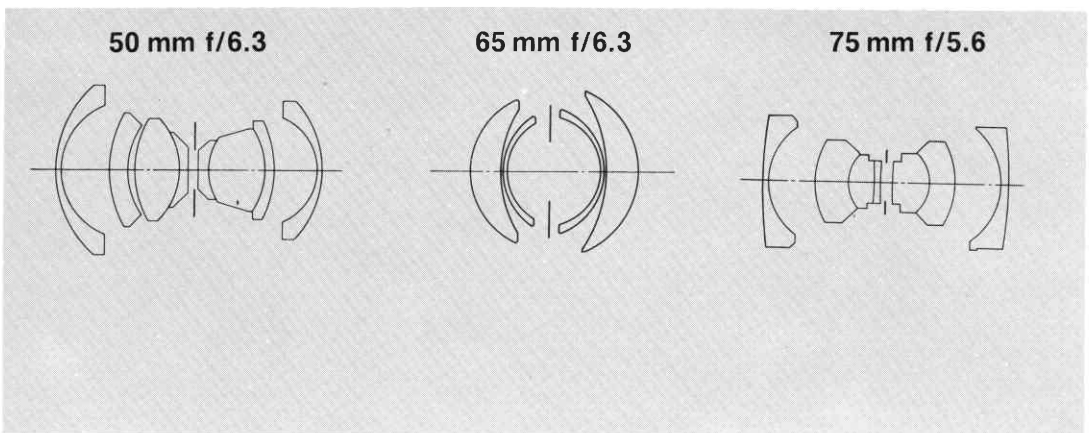


Angle of View Changes by Interchanging Lenses

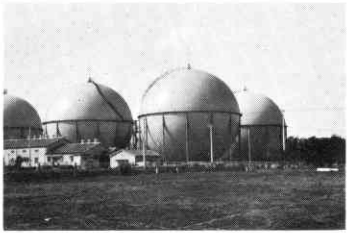
All these pictures were taken from the same position, at an identical distance from the subject.

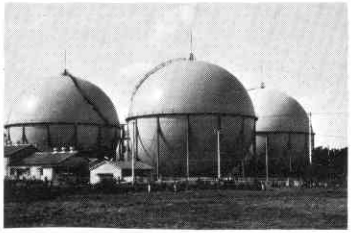
50mm F6.3 **65mm F6.3** **75mm F5.6**

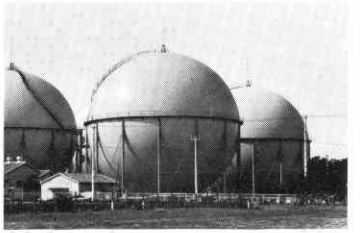


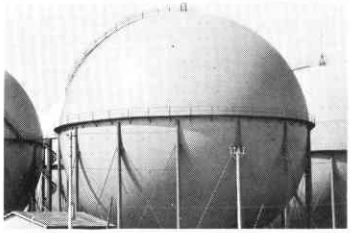


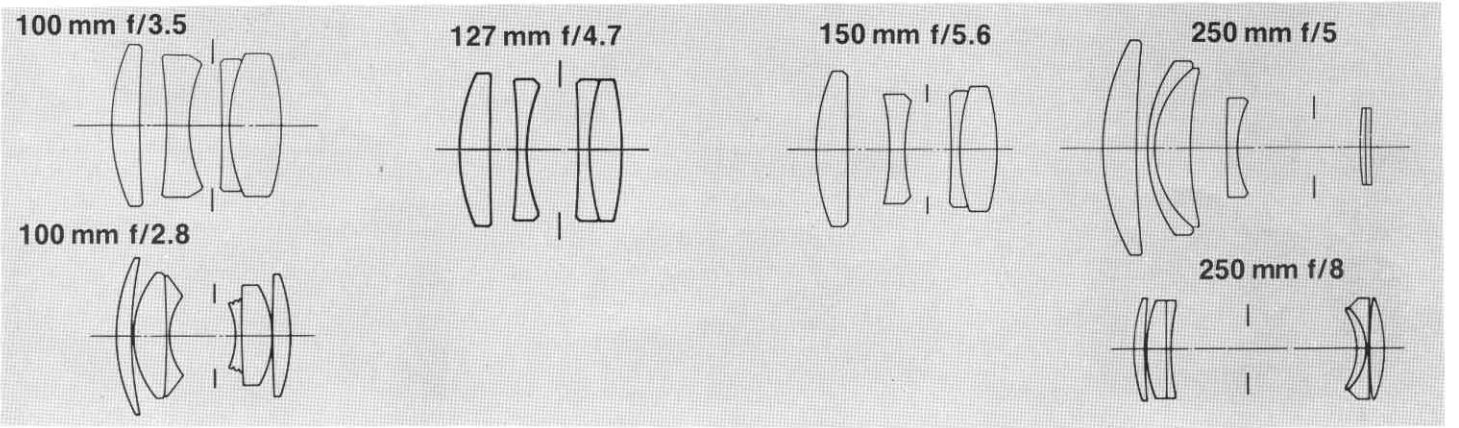
100 mm F3.5/F2.8 127 mm F4.7 150 mm F5.6 250 mm F5/F8





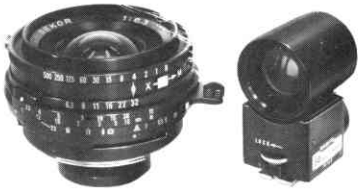






Lens Comparison Chart

50 mm f/6.3

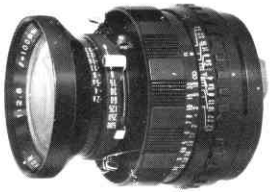


65 mm f/6.3

75 mm f/5.6

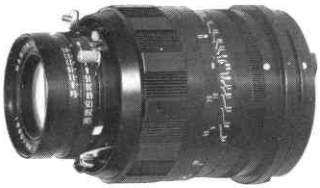
100 mm f/3.5

100 mm f/2.8



127 mm f/4.7

150 mm f/5.6



250 mm f/8

250 mm f/5

Lens	Lens construction	Angle of view		Minimum aperture	Shutter type	Filter size	Lens hood	Shutter blade arresting
		6 × 9 cm	6 × 7 cm					
50mm f/6.3	5-group 8-element	89° 30′	81° 40′	32	Black	72mm	Clamp-on	Time lock
65mm f/6.3	4-group 4-element	75° 40′	67° 50′	32	Chrome	43mm	Slip-on	Time lever
75mm f/5.6	4-group 7-element	61° * 77°	68°	45	Black	72mm	Clamp-on	Press focus
100mm f/3.5	3-group 4-element	53° 30′	47° 30′	32	Black Chrome	55mm 40.5mm	Screw-in Clamp-on	Press focus
100mm f/2.8	4-group 6-element	53° 30′	47° 30′	32	Black Chrome	72mm 〃	Clamp-on 〃	Press focus Time lever
127mm f/4.7	3-group 4-element	43° 30′ * 50° 50′	38° 40′	64	Black	55mm	Screw-in	Press focus
150mm f/5.6	3-group 4-element	37° 10′	32° 40′	45	Black Chrome	55mm 40.5mm	Screw-in Clamp-on	Press focus Time lever
250mm f/5	4-group 6-element	22° 50′	20° 10′	45	Black	105mm	Clamp-on	Time lever
250mm f/8	4-group 6-element	22° 50′	20° 10′	64	Black	55mm	Screw-in	Press focus

The picture angle marked with an asterisk (*) is that when photographing through the Polaroid film pack format 100 series.

The black type lens has a black-finished lens barrel scale ring.

The chromium type lens has a chromium-plated shutter speed dial.

The lenses combine Mamiya Sekor lenses, boasting high resolving power and beautiful color balance, incorporating the famed Seiko #0 shutter.

All lenses have an M-X synchro terminal. By selecting this terminal, both M-class flash bulbs and electronic flash can be synchronized at all shutter speeds.

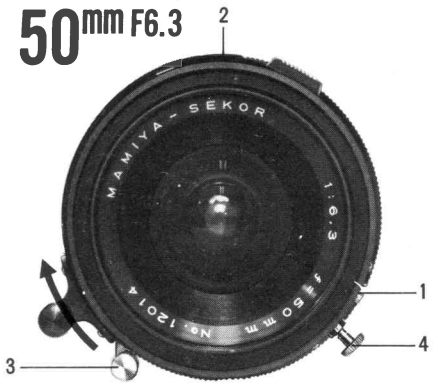
The 250mm f/5 lens interlocks with the rangefinder from 12ft (4m) to infinity. When photographing at a short distance, focus by directly observing the ground glass focusing screen or by setting the lens distance scale to the actually measured distance (by tape measure) or the distance measured visually.

The 250mm f/8 lens has no interlocking mechanism with the camera rangefinder; thus, the lens does not interlock with the rangefinder. Focusing must be performed by measuring visually or by directly viewing the ground glass focusing screen.

Regarding the black type and the chromium type lens, the 100mm f/3.5 and 150 mm f/5.6 lenses have different filter sizes and hood attachment sizes. **When purchasing filters, clearly indicate the filter diameter; when purchasing hoods, clearly designate the type of lens and its focal length.**

Shutter Operation (For 100 mm f/3.5 and 127 mm f/4.7 lenses, see Page 16.)

50mm F6.3



Cable Release: Screw the cable release into the cable release socket (1).

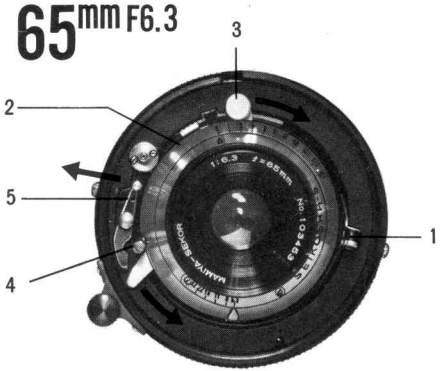
Shutter speed: Rotate the shutter speed ring (2), until the desired shutter speed scale is aligned with the index mark.

Cocking: Press the shutter cocking lever (3) in the direction shown in the photo until it stops. When removing the finger, the lever returns to its original position.

Tripping: Press the shutter release trigger of the hand grip or push in the shutter release button (4).

T Setting: To keep the shutter open for focusing on the focusing screen, by setting the shutter speed to "B", cocking the shutter, pushing the shutter release button (4) and rotating it clockwise, the shutter will remain open. To close the shutter, rotate the shutter release button counterclockwise, removing the finger from it.

65mm F6.3



Cable Release: Screw the cable release into the cable relaese socket (1).

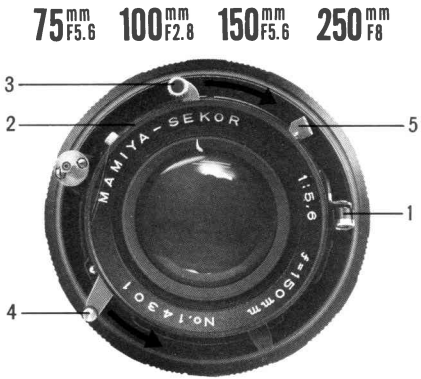
Shutter Speed: Rotate the shutter speed ring (2), until the desired shutter speed scale is aligned with the index mark.

Cocking: Press the shutter cocking lever (3) in the direction shown in the photo until it stops.

Tripping: Press the shutter release trigger or move the shutter release lever (4) in the direction indicated in the photo.

T Setting: To keep the shutter open for focusing on the focusing screen, by setting the shutter speed to "B", cocking the shutter, and moving the time lever (5) in the direction indicated in the photo, the shutter will remain open. To close the shutter, return the time lever (5) to its original position.

75mm F5.6 100mm F2.8 150mm F5.6 250mm F8



Cable Release: Screw the cable release into the cable release socket (1).

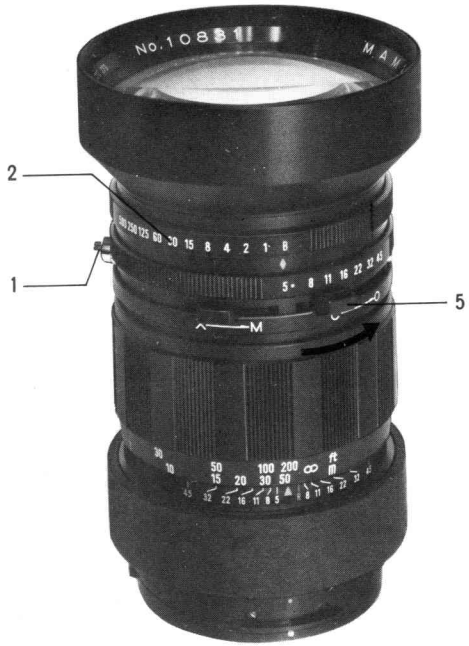
Shutter Speed: Rotate the shutter speed ring (2) until the desired shutter speed scale is aligned with the index mark.

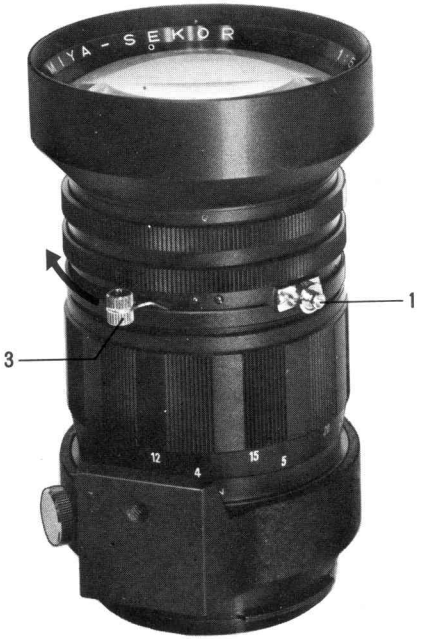
Cocking: Press the shutter cocking lever (3) in the direction indicated in the photo until it stops.

Tripping: Press the shutter release trigger or move the shutter release lever (4) in the direction indicated in the photo.

Press Focus: When focusing by the focusing screen, by cocking the shutter (regardless of shutter speed) and pulling out the press focus lever (5), the shutter will remain open. To close the shutter, return the press focus lever (5) to its original position. It is not necessary to recock the shutter.

250mmF5





Cable Release: Screw the cable release into the release socket of the shutter button (1).

Shutter Speed: Rotate the shutter speed ring (2) until the desired shutter speed scale is aligned with the index mark.

Cocking: Press the shutter cocking lever (3) in the direction indicated in the photo until it stops. When removing the finger, the lever returns to its original position.

Tripping: Press the shutter release trigger of the cable release. When the cable release is not attached, press the shutter button (1).

T Setting: When focusing by the focusing screen, by setting the shutter speed to "B", cocking the shutter, and moving the time lever (5) in the direction indicated in the photo until it stops, the shutter will remain open. To close the shutter, return the time lever (5) to its original position. The time lever will not move when the shutter speed is not set on "B".

The shutter speed ring (2) will not turn when the shutter is kept open by using time "T" operation.

Do not move the shutter cocking lever (3) while the shutter is kept open.

Depth of Field Table (Distance in feet)

50mm f/6.3

F \ ft	∞	30	15	10	8	7	6	5	4.5	4	3.5
6.3	13′ 8″ ∞	9′ 6½″ ∞	7′ 3½″ ∞	5′11″ 34′ 4″	5′ 2½″ 18′ 1″	4′ 9¼″ 13′ 6″	4′ 3¾″ 10′ 1″	3′ 9½″ 7′ 5½″	3′ 6″ 6′ 4″	3′ 2½″ 5′ 4½″	2′ 10¾″ 4′ 5½″
8	10′ 10″ ∞	8′ 1″ ∞	6′ 5½″ ∞	5′ 4¼″ 105′	4′ 9¼″ 27′ 8″	4′ 5″ 18′ 1″	4′ ¼″ 12′ 5″	3′ 6¾″ 8′ 7½″	3′ 3¾″ 7′ 2″	3′ ½″ 5′ 11″	2′ 9¼″ 4′ 10″
11	7′ 8½″ ∞	6′ 3″ ∞	5′ 3″ ∞	4′ 6¼″ ∞	4′ 4″ ∞	3′ 10″ 56′ 9″	3′ 6½″ 22′ 11″	3′ 2⅜″ 12′ 6″	3′ 9′ 7″	2′ 9½″ 7′ 5″	2′ 6½″ 5′ 9″
16	5′ 6½″ ∞	4′ 9″ ∞	4′ 2″ ∞	3′ 8½″ ∞	3′ 5″ ∞	3′ 3″ ∞	3′ ½″ ∞	2′ 9⅝″ 35′ 9″	2′ 7¾″ 18′ 10″	2′ 5⅞″ 11′ 10″	2′ 3⅝″ 8′
22	3′11¾″ ∞	3′ 7″ ∞	3′ 3″ ∞	2′11¾″ ∞	2′ 9¾″ ∞	2′ 8¼″ ∞	2′ 6¾″ ∞	2′ 4⅝″ ∞	2′ 10¼″ ∞	2′ 2″ ∞	2′ ⅜″ 18′ 7″
32	2′10⅜″ ∞	2′ 8¼″ ∞	2′ 6″ ∞	2′ 4¼″ ∞	2′ 3″ ∞	2′ 2¼″ ∞	2′ 1⅜″ ∞	2′ ∞	1′11¼″ ∞	1′10⅜″ ∞	1′ 9⅜″ ∞

75mm f/5.6

F \ ft	∞	30	15	10	7	5	4	3.5
5.6	32′ 7″ ∞	15′ 10″ ∞	10′ 5″ 27′ 0″	7′ 9½″ 14′ 1″	5′10½″ 8′ 8½″	4′ 5″ 5′ 9″	3′ 7¾″ 4′ 5½″	3′ 2¾″ 3′ 10″
8	23′ 1″ ∞	13′ 3″ ∞	9′ 3½″ 40′ 8″	7′ 1½″ 16′ 11″	5′ 6″ 9′ 8″	4′ 2¾″ 6′ 2″	3′ 6″ 4′ 8″	3′ 1½″ 3′11¾″
11	16′ 5″ ∞	10′ 9″ ∞	8′ ½″ 144′ 0″	6′ 4½″ 23′ 11″	5′ 1″ 11′ 6″	3′11½″ 6′ 10″	3′ 4″ 5′ ½″	3′ 0″ 4′ 2¾″
16	11′ 8″ ∞	8′ 6½″ ∞	6′ 9″ ∞	5′ 7″ 58′ 2″	4′ 6¾″ 15′ 11″	3′ 8″ 8′ 1″	3′ 1½″ 5′ 7½″	2′ 10″ 4′ 7¾″
22	8′ 4″ ∞	6′ 7½″ ∞	5′ 6½″ ∞	4′ 8¾″ ∞	4′ 0″ 34′ 9″	3′ 3¾″ 10′ 11″	2′10½″ 6′ 10″	2′ 7½″ 5′ 5″
32	5′11½″ ∞	5′ 1″ ∞	4′ 5″ ∞	3′ 11″ ∞	3′ 5″ ∞	2′ 11″ 22′ 6″	2′ 7″ 9′10½″	2′ 4⅝″ 7′ ½″
45	4′ 3½″ ∞	3′ 10″ ∞	3′ 5½″ ∞	3′ 2″ ∞	2′ 10″ ∞	2′ 6″ ∞	2′ 3¼″ 27′ 9″	2′ 1½″ 12′ 8″

65mm f/6.3

F \ ft	∞	30	15	10	8	7	6	5	4.5	4	3.5
6.3	22′ ∞	12′ 10″ ∞	9′ ¾″ 44′11¼″	7′ 17′ 8¼″	5′11¾″ 12′ 2″	5′ 5″ 9′11¾″	4′ 9¾″ 8′	4′ 2″ 6′ 3¼″	3′ 10″ 5′ 5¾″	3′ 5½″ 4′ 9″	3′ 1¼″ 4′ ½″
8	17′ 4½″ ∞	11′ 1¾″ ∞	8′ 2½″ 98′ 9½″	6′ 6″ 22′ 4¾″	5′ 7¼″ 14′ 2″	5′ 1½″ 11′ 2¾″	4′ 7″ 8′ 9½″	4′ 6′ 9″	3′ 8¼″ 5′ 10″	3′ 4¼″ 5′	3′ 4′ 2½″
11	12′ 8¼″ ∞	9′ ½″ ∞	7′ ¼″ ∞	5′ 9″ 42′ 4¾″	5′ ¾″ 20′ ¾″	4′ 7¾″ 14′ 7″	4′ 2½″ 10′ 8¼″	3′ 8½″ 7′ 9¼″	3′ 5¼″ 6′ 7″	3′ 2″ 5′ 6¼″	2′10¼″ 4′ 6¾″
16	8′ 9½″ ∞	6′10¾″ ∞	5′ 8¼″ ∞	4′ 10″ ∞	4′ 4¼″ 67′ 3″	4′ ¾″ 29′ 4½″	3′ 8¾″ 16′ 9¼″	3′ 4″ 10′ 5¾″	3′ 1½″ 8′ 4½″	2′10¾″ 6′ 8½″	2′ 7½″ 5′ 4″
22	6′ 5¼″ ∞	5′ 4¾″ ∞	4′ 7¾″ ∞	4′ ¾″ ∞	3′ 8¾″ ∞	3′ 6¼″ ∞	3′ 3¼″ 55′ ½″	2′11¾″ 18′ 2½″	2′ 9¾″ 12′ 7″	2′ 7½″ 9′ 1″	2′ 5″ 6′ 8¼″
32	4′ 6″ ∞	3′11¾″ ∞	3′ 7″ ∞	3′ 3″ ∞	3′ ½″ ∞	2′10¾″ ∞	2′ 8¾″ ∞	2′ 6½″ ∞	2′ 5″ 80′ 7″	2′ 3½″ 22′ 5″	2′ 1½″ 11′ 2½″

100mm f/3.5

F \ ft	∞	30	15	10	8	7	6	5	4.5	4	3.5
3.5	93′ 2″ ∞	22′ 10″ 43′ 8″	13′ 17′ 7″	9′ 1½″ 11′ 1″	7′ 5½″ 8′ 8″	6′ 7″ 7′ 4¾″	5′ 8½″ 6′ 4″	4′ 9½″ 5′ 2½″	4′ 4″ 4′ 8″	3′10½″ 4′ 1½″	3′ 5″ 3′ 7″
4	81′ 7″ ∞	22′ 1″ 46′ 9″	12′ 9″ 18′ 1″	9′ ½″ 11′ 3″	7′ 4½″ 8′ 9″	6′ 6½″ 7′ 6¾″	5′ 8″ 6′ 4½″	4′ 9¼″ 5′ 3″	4′ 3½″ 4′ 8½″	3′10¾″ 4′ 1¾″	3′ 4¾″ 3′ 7¼″
5.6	57′ 9″ ∞	19′ 11″ 60′ 11″	12′ 1″ 19′ 10″	8′ 7½″ 11′ 10″	7′ 1½″ 9′ 1½″	6′ 4¼″ 7′ 9¾″	5′ 6½″ 6′ 7″	4′ 8″ 5′ 4½″	4′ 3″ 4′ 9½″	3′ 9½″ 4′ 2⅝″	3′ 4¼″ 3′ 7¾″
8	40′ 11″ ∞	17′ 6″ 107′	11′ 2″ 23′	8′ 2½″ 12′ 10″	6′ 10″ 9′ 8″	6′ 1½″ 8′ 2⅝″	5′ 4″ 6′ 10″	4′ 6¾″ 5′ 6½″	4′ 1¾″ 4′ 11″	3′ 8⅝″ 4′ 3⅜″	3′ 3½″ 3′ 8⅝″
11	29′ 1″ ∞	15′ ∞	10′ 1″ 29′ 7″	7′ 7½″ 14′ 7″	6′ 5½″ 10′ 7″	5′ 9½″ 8′10½″	5′ 1½″ 7′ 3½″	4′ 4¾″ 5′ 10″	4′ 5′ 1½″	3′ 7½″ 4′ 5½″	3′ 2¾″ 3′ 10″
16	20′ 7″ ∞	12′ 5″ ∞	8′11½″ 50′ 1″	6′11½″ 18′ 2″	5′11½″ 12′ 3″	5′ 5″ 10′	4′ 10″ 8′	4′ 2½″ 6′ 3″	3′ 10″ 5′ 5½″	3′ 6″ 4′ 8½″	3′ 1½″ 4′
22	14′ 8″ ∞	10′ 1″ ∞	7′ 8″ ∞	6′ 2½″ 27′ 10″	5′ 5″ 15′ 11″	4′11¾″ 12′ 2″	4′ 5¾″ 9′ 3½″	3′ 11″ 7′	3′ 7½″ 6′	3′ 3⅜″ 5′ 1″	3′ 4′ 3″
32	10′ 6″ ∞	7′ 11½″ ∞	6′ 5″ ∞	5′ 4½″ ∞	4′ 9½″ 27′ 9″	4′ 5½″ 17′ 11″	4′ ¾″ 12′ 2″	3′ 7½″ 8′ 5″	3′ 4½″ 6′ 11¾″	3′ 1¼″ 5′ 9″	2′ 10″ 4′ 8¼″

100mm f/2.8

F \ ft	∞	30	15	10	8	7	6	5	4.5	4	3.5
2.8	116′ ∞	24′ 0″ 40′ 0″	13′ 5″ 17′ 1″	9′ 3½″ 10′ 10″	7′ 7″ 8′ 6″	6′ 8″ 7′ 4½″	5′ 9″ 6′ 3½″	4′ 10″ 5′ 2½″	4′ 4½″ 4′ 7¾″	3′ 11″ 4′ 1¼″	3′ 5¼″ 3′ 7″
4	81′ 7″ ∞	22′ 2″ 46′ 8″	12′ 10″ 18′ 1″	9′ 0″ 11′ 3″	7′ 4½″ 8′ 9″	6′ 6½″ 7′ 7″	5′ 8″ 6′ 5″	4′ 9¼″ 5′ 3½″	4′ 4″ 4′ 8½″	3′ 10½″ 4′ 1¾″	3′ 4¾″ 3′ 7¼″
5.6	57′ 8″ ∞	20′ 0″ 60′ 10″	12′ 1″ 19′ 10″	8′ 8″ 11′ 10″	7′ 2″ 9′ 1½″	6′ 4½″ 7′ 10″	5′ 6½″ 6′ 7″	4′ 8¼″ 5′ 4¼″	4′ 3″ 4′ 9½″	3′ 9¾″ 4′ 2¾″	3′ 4¼″ 3′ 8″
8	41′ 0″ ∞	17′ 7″ 106′	11′ 2″ 22′ 11″	8′ 2½″ 12′ 10″	6′ 10″ 9′ 8″	6′ 1½″ 8′ 2½″	5′ 4½″ 6′ 10″	4′ 6¾″ 5′ 6½″	4′ 2″ 4′ 11″	3′ 8¾″ 4′ 3¾″	3′ 3¾″ 3′ 8¾″
11	29′ 1″ ∞	15′ 1″ ∞	10′ 2″ 29′ 6″	7′ 8″ 14′ 7″	6′ 5½″ 10′ 7″	5′ 10″ 8′10½″	5′ 1½″ 7′ 3½″	4′ 5″ 5′ 10″	4′ ¼″ 5′ 1½″	3′ 7¾″ 4′ 5½″	3′ 2¾″ 3′ 10″
16	20′ 8″ ∞	12′ 6″ ∞	9′ 0″ 49′ 9″	7′ 0″ 18′ 1″	6′ 0″ 12′ 3″	5′ 5½″ 9′11½″	4′ 10¼″ 8′ 0″	4′ 2½″ 6′ 3″	3′10¼″ 5′ 5½″	3′ 6″ 4′ 8¼″	3′ 1¾″ 4′ 0″
22	14′ 9″ ∞	10′ 1″ ∞	7′ 9″ ∞	6′ 3″ 27′ 7″	5′ 5½″ 15′ 10″	5′ 0″ 12′ 2″	4′ 6″ 9′ 3½″	3′11½″ 6′11½″	3′ 7¾″ 5′11½″	3′ 4″ 5′ 1″	3′ 0″ 4′ 2¾″
32	10′ 6″ ∞	8′ 0″ ∞	6′ 5″ ∞	5′ 5″ ∞	4′ 10¾″ 27′ 4″	4′ 6″ 17′ 9″	4′ 1″ 12′ 1″	3′ 7¾″ 8′ 4½″	3′ 4¾″ 6′ 11″	3′ 1½″ 5′ 8½″	2′10⅛″ 4′ 8″

127mm f/4.7

F \ ft	∞	30	15	10	8	7	6	5
4.7	112′ ∞	23′10″ 40′ 6″	13′ 4″ 17′ 2″	9′ 3½″ 10′10″	7′ 6½″ 8′ 6″	6′ 8″ 7′ 4½″	5′ 9″ 6′ 3″	4′10″ 5′ 2″
5.6	92′9″ ∞	22′11″ 43′ 8″	13′ 1″ 17′ 8″	9′ 1½″ 11′ 1″	7′ 5½″ 8′ 7½″	6′ 7″ 7′ 5½″	5′ 8½″ 6′ 4″	4′ 9¾″ 5′ 2½″
8	65′8″ ∞	20′10″ 53′11″	12′ 5″ 19′ 0″	8′10″ 11′ 7″	7′ 3″ 8′11″	6′ 5″ 7′ 8″	5′ 7″ 6′ 5½″	4′ 8¾″ 5′ 3½″
11	46′7″ ∞	18′ 7″ 80′ 9″	11′ 7″ 21′ 5″	8′ 5″ 12′ 4″	7′ 0″ 9′ 4½″	6′ 3″ 8′ 0″	5′ 5½″ 6′ 8½″	4′ 7½″ 5′ 5½″
16	33′1″ ∞	16′ 0″ 279′ 0″	10′ 7″ 26′ 2″	7′11″ 13′ 9″	6′ 7½″ 10′ 1″	5′11½″ 8′ 6″	5′ 3″ 7′1½″	4′ 6″ 5′ 8″
22	23′6″ ∞	13′ 6″ ∞	9′ 5½″ 38′ 2″	7′ 3½″ 16′ 3″	6′ 2½″ 11′ 5″	5′ 7½″ 9′ 4½″	5′ 0″ 7′ 7″	4′ 3¾″ 6′ 0″
32	16′9″ ∞	11′ 0″ ∞	8′ 3″ 111′ 0″	6′ 7″ 22′ 3″	5′ 8½″ 13′11″	5′ 2½″ 10′ 1″	4′ 8″ 8′ 6½″	4′ 1″ 6′ 6½″
45	11′11″ ∞	8′ 9½″ ∞	6′11½″ ∞	5′ 9″ 46′ 8″	5′ 1½″ 20′ 4″	4′ 8¾″ 14′ 6″	4′ 3½″ 10′ 5″	3′ 9¾″ 7′ 6½″
64	8′7″ ∞	6′10½″ ∞	5′ 9″ ∞	4′11¼″ ∞	4′ 5¾″ 61′ 3″	4′ 2¼″ 26′11″	3′10¼″ 15′ 5″	3′ 5¾″ 9′ 8″

150mm f/5.6

F \ ft	∞	30	15	10	8	7
5.6	130′ 11½″ ∞	24′ 7½″ 38′ 5½″	13′ 7″ 16′ 9″	9′ 4½″ 10′ 8½″	7′ 7½″ 8′ 5¼″	6′ 8½″ 7′ 3¾″
8	91′ 9½″ ∞	22′ 10½″ 43′ 9¼″	13′ ¾″ 17′ 7¾″	9′ 1¾″ 11′ ½″	7′ 5½″ 8′ 7½″	6′ 7¼″ 7′ 5½″
11	66′ 10¼″ ∞	21′ 52′ 11″	12′ 5½″ 18′ 10¾″	8′ 10¼″ 11′ 6″	7′ 3¼″ 8′ 10¾″	6′ 5½″ 7′ 7¾″
16	46′ 1″ ∞	18′ 6″ 81′ 5¼″	11′ 7″ 21′ 5¼″	8′ 5″ 12′ 4¼″	7′ 9′ 4½″	6′ 3″ 7′ 11¾″
22	33′ 7½″ ∞	16′ 2½″ 233′ ¾″	10′ 8″ 25′ 7½″	7′ 11½″ 13′ 6½″	6′ 8¼″ 10′ ¼″	6′ 8′ 5¼″
32	23′ 3″ ∞	13′ 5¼″ ∞	9′ 5½″ 38′ 1″	7′ 3½″ 16′ 2½″	6′ 2¾″ 11′ 4″	5′ 7¾″ 9′ 4″
45	16′ 7½″ ∞	11′ ¼″ ∞	8′ 3″ 105′ 9¼″	6′ 7″ 21′ 10¼″	5′ 8¾″ 13′ 8½″	5′ 2¾″ 10′ 9¾″

250mm f/5 and 250mm f/8

F \ ft	∞	200	100	50	30	20	15	12
5	407′ ∞	134′ 390′	80′ 6″ 132′	44′ 8″ 56′ 9″	28′ 1″ 32′ 3″	19′ 2″ 20′ 11″	14′ 6″ 15′ 6″	11′ 8″ 12′ 4″
5.6	360′ ∞	129′ 446′	78′ 6″ 138′	44′ 1″ 57′ 9″	27′ 10″ 32′ 7″	19′ 21′ 1″	14′ 6″ 15′ 7″	11′ 8″ 12′ 4″
8	255′ ∞	112′ 748′	72′ 1″ 163′	42′ 61′ 9″	27′ 33′ 9″	18′ 8″ 21′ 7″	14′ 3″ 15′ 10″	11′ 6″ 12′ 6″
11	180′ ∞	95′ 2″ ∞	64′ 8″ 221′	39′ 10″ 68′ 4″	25′ 11″ 35′ 7″	18′ 2″ 22′ 3″	14′ 16′ 2″	11′ 4″ 12′ 9″
16	128′ ∞	78′ 2″ ∞	56′ 5″ 442′	36′ 3″ 80′ 8″	24′ 7″ 38′ 7″	17′ 6″ 23′ 4″	13′ 7″ 16′ 9″	11′ 1″ 13′ 1″
22	90′ 7″ ∞	62′ 5″ ∞	47′ 9″ ∞	32′ 8″ 108′	22′ 10″ 43′ 9″	16′ 8″ 25′ 1″	13′ 1″ 17′ 7″	10′ 9″ 13′ 6″
32	64′ 3″ ∞	48′ 7″ ∞	39′ 4″ ∞	28′ 5″ 209′	20′ 9″ 54′ 1″	15′ 7″ 28′ 1″	12′ 5″ 18′ 11″	10′ 8″ 14′ 3″
45	45′ 8″ ∞	37′ ∞	31′ 5″ ∞	24′ 2″ ∞	18′ 5″ 81′ 1″	14′ 3″ 33′ 8″	11′ 7″ 21′ 3″	9′ 9½″ 15′ 6″
64	31′ 10″ ∞	27′ 8″ ∞	24′ 6″ ∞	19′ 11″ ∞	15′ 11″ 276′ 9″	12′ 9″ 47′ 1″	10′ 7″ 25′ 9″	9′ ½″ 17′ 8″

The minimum aperture of 250 mm f/5 lens is 45; figures in the red frame indicate that for the 250 mm f/8 lens.

Depth of Field Table (Distance in meter)

50mm f/6.3

F \ m	∞	10	5	3	2.5	2	1.7	1.5	1.3	1.2	1.1	1
6.3	4.17	2.98	2.32	1.79	1.61	1.40	1.25	1.14	1.03	0.97	0.90	0.84
	∞	∞	∞	9.90	5.85	3.62	2.71	2.22	1.79	1.60	1.42	1.25
8	3.30	2.52	2.04	1.62	1.47	1.29	1.17	1.08	0.97	0.92	0.86	0.80
	∞	∞	∞	27.10	9.27	4.67	3.25	2.55	2.00	1.76	1.54	1.34
11	2.35	1.94	1.64	1.37	1.26	1.13	1.04	0.97	0.89	0.84	0.79	0.75
	∞	∞	∞	∞	∞	10.87	5.31	3.65	2.59	2.20	1.89	1.57
16	1.69	1.47	1.30	1.13	1.06	0.97	0.90	0.85	0.79	0.75	0.72	0.68
	∞	∞	∞	∞	∞	∞	∞	9.66	4.56	3.43	2.65	2.08
22	1.21	1.10	1.01	0.91	0.86	0.80	0.76	0.72	0.68	0.66	0.63	0.60
	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	6.99	3.98
32	0.88	0.82	0.77	0.72	0.69	0.66	0.63	0.60	0.58	0.56	0.54	0.52
	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞

75mm f/5.6

F \ m	∞	10	5	3	2	1.5	1.2	1
5.6	9.92	5.04	3.38	2.34	1.70	1.33	1.09	0.93
	∞	∞	9.77	4.19	2.44	1.72	1.33	1.09
8	7.04	4.19	2.98	2.15	1.60	1.27	1.05	0.90
	∞	∞	16.28	5.02	2.59	1.84	1.40	1.13
11	5.00	3.38	2.56	1.93	1.48	1.20	1.00	0.87
	∞	∞	∞	7.01	3.15	2.03	1.50	1.19
16	3.56	2.67	2.13	1.68	1.33	1.10	0.94	0.82
	∞	∞	∞	16.12	4.17	2.39	1.68	1.29
22	2.54	2.06	1.73	1.43	1.18	1.00	0.87	0.77
	∞	∞	∞	∞	7.77	3.21	2.02	1.48
32	1.82	1.57	1.38	1.19	1.01	0.88	0.78	0.70
	∞	∞	∞	∞	∞	6.34	2.88	1.86
45	1.31	1.18	1.07	0.96	0.85	0.76	0.69	0.63
	∞	∞	∞	∞	∞	∞	7.47	3.00

65mm f/6.3

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

100mm f/3.5

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

100mm f/2.8

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

127mm f/4.7

F \ m	∞	10	5	3	2.5	2	1.7	1.5
4.7	33.99	7.79	4.40	2.79	2.35	1.91	1.64	1.45
	∞	13.99	5.79	3.25	2.67	2.10	1.77	1.55
5.6	28.26	7.46	4.30	2.75	2.33	1.89	1.62	1.44
	∞	15.23	5.99	3.31	2.70	2.12	1.78	1.56
8	20.02	6.75	4.06	2.65	2.26	1.85	1.59	1.42
	∞	19.48	6.52	3.46	2.80	2.18	1.82	1.59
11	14.19	5.96	3.77	2.53	2.18	1.80	1.56	1.39
	∞	32.26	7.48	3.69	2.95	2.26	1.88	1.63
16	10.07	5.11	3.43	2.38	2.07	1.72	1.50	1.35
	∞	∞	9.44	4.09	3.19	2.39	1.96	1.69
22	7.16	4.27	3.04	2.20	1.93	1.63	1.44	1.30
	∞	∞	15.09	4.83	3.61	2.61	2.10	1.79
32	5.10	3.46	2.62	1.98	1.77	1.52	1.35	1.23
	∞	∞	∞	6.52	4.44	3.00	2.33	1.95
45	3.64	2.75	2.20	1.74	1.58	1.38	1.25	1.15
	∞	∞	∞	13.13	6.65	3.82	2.78	2.23
64	2.61	2.14	1.81	1.50	1.38	1.23	1.13	1.05
	∞	∞	∞	∞	23.94	6.32	3.83	2.84

150mm f/5.6

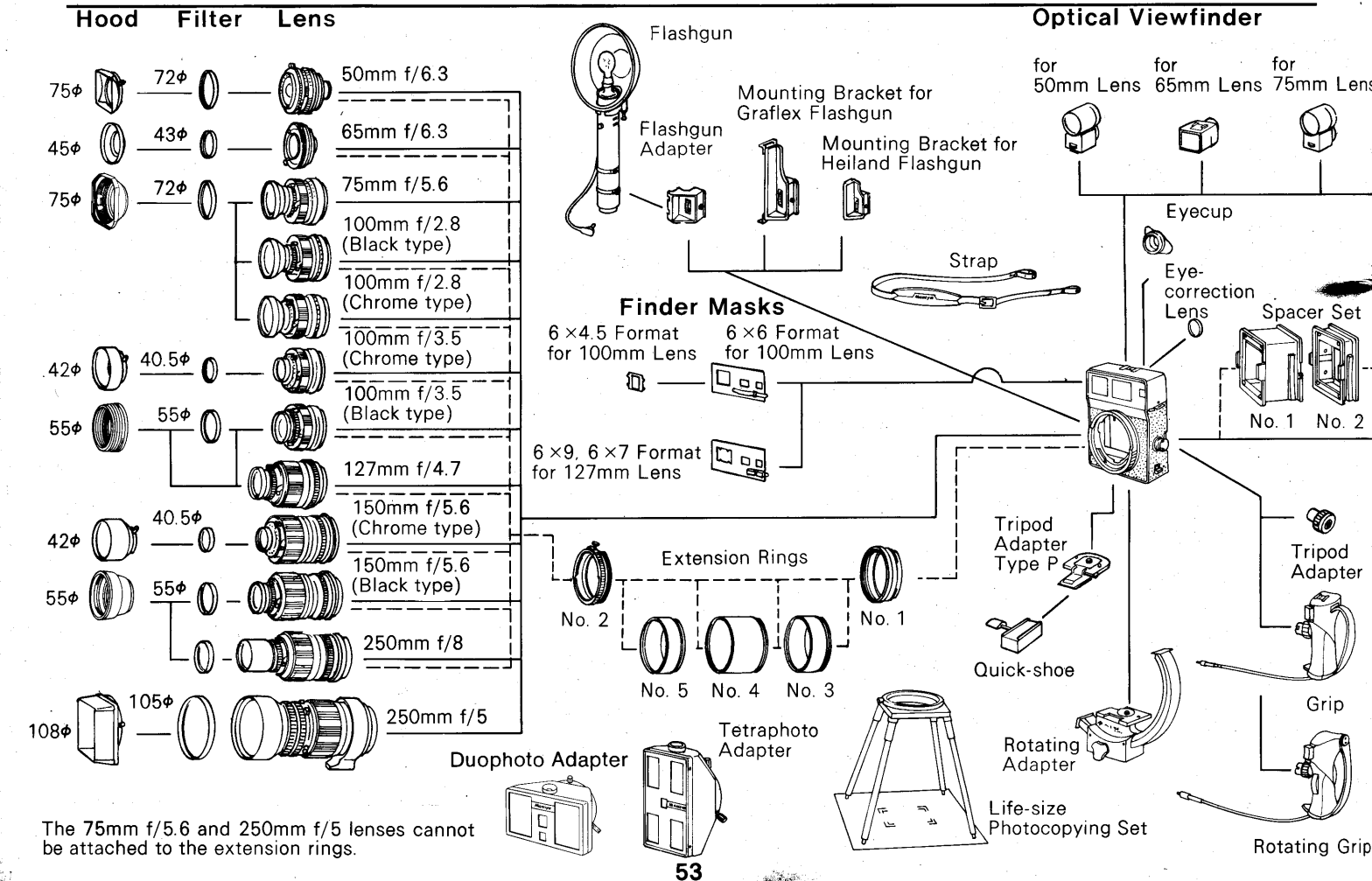
F \ m	∞	10	5	3	2.5	2
5.6	39.92	8.06	4.49	2.81	2.38	1.92
	∞	13.18	5.65	3.21	2.64	2.08
8	27.98	7.45	4.30	2.75	2.33	1.89
	∞	15.27	5.99	3.31	2.70	2.12
11	20.38	6.80	4.08	2.66	2.27	1.86
	∞	19.07	6.47	3.44	2.79	2.17
16	14.05	5.95	3.77	2.53	2.18	1.80
	∞	32.64	7.48	3.69	2.94	2.26
22	10.25	5.17	3.46	2.40	2.08	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

250mm f/5 and 250mm f/8

F \ m	∞	50	30	20	15	10	7	5	4	3.5
5	124.1	35.7	24.2	17.29	13.43	9.29	6.65	4.83	3.90	
	∞	83.2	39.4	23.73	16.98	10.83	7.39	5.19	4.12	
5.6	109.7	34.4	23.6	16.98	13.25	9.21	6.61	4.81	3.88	
	∞	91.2	41.1	24.32	17.28	10.95	7.44	5.21	4.13	
8	77.6	30.5	21.7	15.98	12.64	8.91	6.46	4.73	3.83	3.38
	∞	138.5	48.4	26.72	18.45	11.39	7.64	5.31	4.19	3.63
11	55.0	26.3	19.5	14.76	11.87	8.53	6.26	4.63	3.77	3.33
	∞	∞	65.0	31.04	20.39	12.09	7.94	5.44	4.27	3.69
16	38.9	22.0	17.0	13.31	10.92	8.04	6.00	4.49	3.68	3.27
	∞	∞	125.8	40.25	23.96	13.24	8.40	5.65	4.40	3.77
22	27.6	17.8	14.5	11.69	9.82	7.43	5.67	4.30	3.56	3.18
	∞	∞	∞	69.38	31.84	15.22	9.16	5.97	4.58	3.90
32	19.6	14.1	11.9	9.98	8.59	6.72	5.25	4.07	3.40	3.07
	∞	∞	∞	∞	59.58	19.58	10.51	6.50	4.87	4.09
45	13.9	10.9	9.5	8.27	7.30	5.92	4.76	3.78	3.20	2.92
	∞	∞	∞	∞	∞	32.53	13.27	7.42	5.36	4.40
64	9.9	8.2	7.4	6.66	6.03	5.07	4.21	3.43	2.96	2.74
	∞	∞	∞	∞	∞	∞	21.15	9.28	6.23	4.94

The minimum aperture of 250 mm f/5 lens is 45; figures in the red frame indicate that for the 250 mm f/8 lens.

System Chart for Mamiya Universal



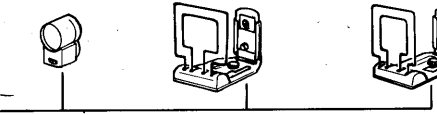
Sports Finder

Due to a modification of the product, design and specifications are subject to change without notice.

Optical Viewfinder Model P

for 6×9 Format (100, 150mm Lenses)

for 6×7 Format (100, 150mm Lenses)



6×9 Roll Film Holder

6×7 Roll Film Holder

6×9 Roll Film Holder Model 2

6×7 Roll Film Holder Model 2

Soft Leather Case

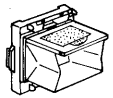
Roll Film Holder Model K

6×6 Picture Frame

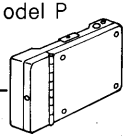
6×4.5 Picture Frame

M Adapter

G Adapter



Focusing Hood Model P



Polaroid Land Pack Film Holder

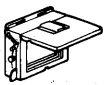
120 Roll Film Holder for Mamiya RB

220 Roll Film Holder for Mamiya RB

120 Roll Film Holder 6×4.5 for Mamiya RB

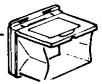
Film Pack Adapter for Mamiya RB

Focusing Screen Holder

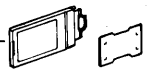


Right-angle Focusing Back

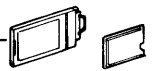
Magnifying Focusing Back



Focusing Hood

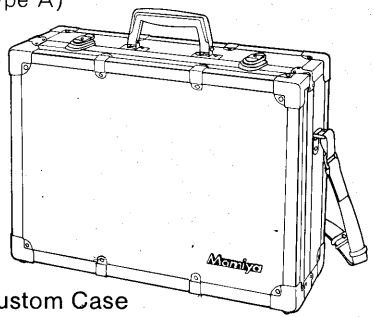


Cut Film/Plate Holder (Type J)



Cut Film/Plate Holder (Type A)

Film Pack Adapter



Aluminum Custom Case