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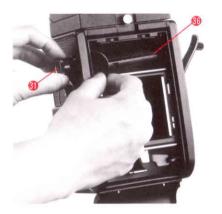
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Loading Film



1. Open the back cover and pull out the upper spool change knob (31), then insert an empty spool into the take-up spool chamber (36) so that it engages the winding axis. Leave go the spool change knob.



2. Pull out the lower spool change knob (32), and insert a roll of film into the film chamber (38).

By turning the spool change knobs either to the right or to the left after pulling them outward, the knobs stay at their protruded positions. Turn the knobs backward to reinsert them.



 If either spool change knob is not returned to its original position after loading film, unbalanced film winding will result.

To make sure that the spool change knobs fit their original positions, move the spools slightly to the right and to the left or up and down.

Changing the Focusing Hood

The focusing hood can be replaced with various finders available for this camera as optional accessories.



Removing the Focusing Hood

Turn the focusing hood lock screw (34) counterclockwise and pull back the hood and move it upward; then the hood can be taken off.

Attaching a Focusing Hood

Match the grooves on the hood's front sides to the pins of the camera body, fit the groove on the hood's rear to the focusing hood lock screw, then tighten it.

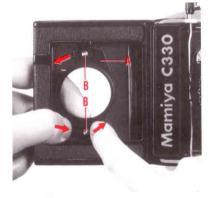
Changing the Magnifier (for diopter correction)

In addition to the standard magnifier (-1.5 diopter), diopter lenses of +2, +1, 0, -2 and -3 diopter are available for near and farsighted persons.

The standard -1.5 diopter magnifier is designed for users, whether or not they wear eyeglasses, who have no trouble seeing clearly a subject up to 2.5 ft. (70cm) away. Those who have difficulty seeing clearly at such a distance should use an appropriate diopter lens available as an optional accessory. However, before making a purchase, test the diopter lens at your Mamiya dealer to make sure it matches your eye.

Changing Method

- 1. Raise the focusing hood; then depress the sportsfinder flap and frame.
- 2. Fold the raised magnifier, then lay the camera down with the lens facing upward.
- 3. Hold the base plate of the magnifier from inside and under the focusing hood, with the backs of the pins (B) held by your fingers, thus preventing the base plate from being depressed.
- **4.** By turning the retainer (A) towards the arrow direction in the photo, the retainer and the magnifier can be removed. In this case, turn the retainer one side at a time while pushing it towards the base plate, also holding the base plate from the back, as mentioned above.
- **5.** To attach the magnifier, place the magnifier and the retainer on the base plate, facing the flat surface of the magnifier downward; then, by turning the retainer clockwise while pressing it towards the base plate, the retainer will snap into the pins (B). When looking through the magnifier for focusing, the flat surface of the glass will face one's eyes.



Changing the Focusing Screen

Various types of focusing screens are available to meet individual needs or preference.



Removing the Focusing Screen

Remove the focusing hood and slide the focusing screen frame lock (35) in the direction of the arrow, then the focusing screen holder will popup. Remove the focusing screen by holding its both side edges.



Attaching the Focusing Screen

Hold both side edges of the focusing screen so that the Fresnel lens surface faces upward, then insert the focusing screen into the screen holder. After checking to make sure the screen is correctly fitted into the screen holder, depress the focusing screen frame. Then the focusing screen will be locked in place.

Since the focusing screens surfaces are soft and easily damaged, handle them carefully. Never touch the surface with bare fingers, should dust settle on it, merely blow away by using a blower.

Flash Photography



When a flash unit is used for photographing, connect the synchro cord to the synchro socket (2).

When using an electronic flash unit, set the M-X synchro selector (3) on X to synchronize all shutter speeds.

When using M-class flash bulbs, set the M-X synchro selector (3) on M to synchronize flash at all shutter speeds. This M-X synchro selector can be switched even after cocking the shutter.

When photographing without flash, keep the M-X synchro selector on X

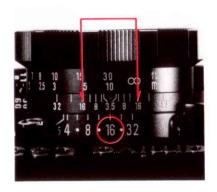
Flash Synchronization Table

	T	Shutter Speed											
Contact	Type of Flash	В	1	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500	
М	M class	0	0	0	0	0	0	0	0	0	0	0	
V	Electronic Flash	0	0	0	0	0	0	0	0	0	0	0	
X	M class	0	0	0	0	0	0	10	×	×	×	×	

Combinations with the \bigcirc mark synchronize. Combinations with the \times mark do not synchronize.

Handling the 105mm f/3.5 DS Lens

The 105mm f/3.5 DS lens is equipped with diaphragms on the viewing lens, thus enabling you to observe the depth-offield on the focusing screen. In addition, this lens-shutter has a built-in self-timer.



Depth-of-Field Control

When the camera is focused on a subject, a certain area in front of and behind the subject is also in focus; this is called the depth-of-field. Depth-of-field varies in relation to the aperture in use; it increases as the aperture is stopped down to smaller apertures,

and decreases as the lens is opened up to larger apertures.

Viewing on the Focusing Screen

After focusing, set the desired aperture to the central index mark by turning the aperture scale ring of the viewing lens. Now, the depth-of-field can be observed on the focusing screen.

Using the Depth-of-Field Scale

Turn the distance scale ring and set the focused distance to the central index mark. Next, select an aperture and set it to the central index mark, and look at the corresponding figures on the depth-of-field scale on both sides of the central index mark. This is the extent of the depth-of-field that will

be obtained with the aperture you are using.

For example, if the camera is focused at 30 ft. (10m) at an aperture of f/16, the range of sharp focus will be approximately from 15 ft. (5m) to infinity.

Note:

The aperture scale of the viewing lens does not interlock with the taking lens, so in actual photography, never forget to set the aperture of the taking lens.

The distance scale of the viewing lens is provided to read the depth-of-field, and has no relation with actual focusing.



Self-Timer Operation

By setting M-X synchro selector to the V position, the shutter is released approximately 10 seconds after pressing the shutter release button. At this V setting, X flash synchronization is offered.

The M-X synchro selector (3) can

be moved before or after cocking the shutter.

After finishing photographing with the self-timer, return the selector to the X position. If left on the V position, the self-timer will be activated for the next picture.

If you notice that the self-timer is activated after releasing the shutter for ordinary photography, depress the shutter cocking lever immediately to switch off the self-timer. Then set the synchro selector to X or M to restore ordinary shutter action.

Multiple Exposures



Turn the multiple exposure dial (28) and set the word "MULTI" to the red dot, then the double exposure prevention is disengaged. The shutter button can be depressed without advancing the film, whenever the shutter is cocked manually.

Upon finishing photography, be sure to set the word "SINGLE" of the dial back to the red dot.

When photographing is suspended with the shutter button depressed halfway, it very rarely happens that the shutter button cannot be depressed on the next attempt. In this case, the shutter can be released by setting the "MULTI" to the red dot, without needlessly advancing the film.

Precautions on Shutte

In any of the following situations, the safety mechanism prevents the shutter release button from being depressed.

- 1. When the triangle mark of the lens lock knob points UNLOCK. Red warning mark will appear on the ground glass focusing screen in the finder.
- 2. When the triangle mark on the shutter release lock is set to "L".
- 3. When "SINGLE" on the multiple exposure dial is set to the red dot, and
 - When film is not loaded (exposure counter indicates "0").
 - (2) When the film has not been wound completely.
 - (3) When the shutter release button has already been pressed.
 - (4) When the last film in roll is exposed (after 12 or 24 exposures).

To freely release the shutter or for multiple exposures, set the multiple exposure dial so that the "MULTI" matches the red dot.

Operations

250mm f/6.3 and 80mm f/3.7 lenses:

Shutters of these lenses have no self-cocking system, requiring the shutter to be set manually after each film advance.



For certain lens-shutter assemblies (such as the formar 80mm f/3.7 lens), the release lever of the lens-shutter can be depressed many times even though the shutter is not cocked. When the shutter is not cocked, the shutter blades do not open.

When using this type of lens-shutter, no picture will be recorded on the film, if the shutter button is depressed without cocking the shutter. If you find the shutter blades are unopened after depressing the shutter button, the shutter button cannot be depressed again by the double exposure prevention device, even the shutter is cocked afterwards. In this case, set the multiple exposure dial to the "MULTI" and depress the shutter button, or release the shutter by pushing the release lever on the lens-shutter assembly.

Mamiya-Sekor Lenses

55mm f/4.5



65mm f/3.5



80mm f/2.8



105mm f/3.5DS



 $\frac{135mm}{\text{f}/4.5}$



Super 180mm f/4.5



250mm f/6.3





				Filter	Lens Hood	Close-Up	Capabilities
Lens	Composition	Picture Angle	Minimum Aperture	Diameter (mm)	Diameter (mm)	Shortest Distance from Film to Subject	Subject Coverage
55mm f/4.5	9 element 7 group	70°30′	f/22	46ø	48ø	9 ½ in. (24.1 cm)	2 ¹⁷ / ₃₂ × 2 ¹⁷ / ₃₂ in. (6.4 × 6.4 cm)
65mm f/3.5	6 element 5 gro up	63°	f/32	49ø	50ø	10 ¹¹ /16 in. (27.1 cm)	$2^{21/32} \times 2^{21/32}$ in. $(6.7 \times 6.7 \text{ cm})$
80mmf/2.8	5 element 3 group	50°40′	f/32	46ø	48ø	1 ft. 1 ¹⁵ ⁄16 in. (35.4 cm)	$3^{25}/64 \times 3^{25}/64$ in. $(8.6 \times 8.6 \text{ cm})$
105mm f/3.5DS	5 element 3 group	41°20′	f/32	46ø	48ø	1 ft. 11 in (58.4 cm)	7 ¹ / ₄ × 7 ¹ / ₄ in. (18.4 × 18.4 cm)
135mm f/4.5	4 element 3 group	33°	f/45	46ø	48ø	2ft. 11 ½ in. (90.2 cm)	$9^{15/16} \times 9^{15/16}$ in. (25.2 × 25.2 cm)
Super 180mm f/4.5	5 element 4 group	24°30′	f/45	49ø	50ø	4 ft. 2 ³ ⁄4 ift. (1 m 29 cm)	10 ⁵³ / ₆₄ × 10 ⁵³ / ₆₄ in. (27.5 × 27.5 cm)
250mm f/6.3	6 element 4 group	18°	f/64	49ø	50ø	6 ft. 8 ³ ⁄4 in. (2 m 05 cm)	1 ft. 1/4 in. × 1 ft. 1/4 in. (31.1 × 31.1 cm)

Accessories

Filter

Filters are available in five types: SY48 (Y2), SO56 (02), SL39 (UV), YG, SL-1B (skylight). Filter sizes for each lens are shown in the system chart.

- When using a 49mm diameter filter, employ the 49mm filter for Mamiya C; otherwise attaching the lens hood might be impossible. When you order filters, always specify the Mamiya C Professional type.
- To attach a filter to a lens of 49mm filter diameter, place your palm on the protective lens ring screwed into the front barrel of the lens, turn the ring counter-clockwise to remove it, and then screw in the filter. When a filter is not used, always replace the ring to protect the lens barrel

Lens Hood

There are four different types of lens hoods available for interchangeable lenses.

1. Lens hood for 55mm lens (*)

- 2. Lens hood for 65mm lens (*)
- Lens hood 48mm ø for 80mm f/2.8, 105mm f/3.5 DS and 135mm f/4.5 lenses
- 4. Lens hood for super 180mm and 250mm lenses (*)
- Lens hood marked with an asterisk
 (*) have a side plate which can be inclined. Attach the lens hood to the lens with this plate upward. When light reflected from the lens hood to the viewing lens becomes annoying while focusing, due to a certain light condition, incline the side plate to eliminate the annoying reflection.
- All of these lens hoods are comparatively new type attached only to the taking lens. Old type lens hoods are also acceptable.

Diopter Lens

For persons whose vision is not adapted to the magnifier (-1.5 diopter) mounted on the focusing hood as standard equipment, five additional types of lens(-3,-2,0,+1,+2diopters) are available to effect diopter correction.

Lens Case

To protect and easily carry interchangeable lenses, the following hard cases (4 types) are available:

- (1) Case for 55, 80, and 105mm lenses
- (2) Case for 65 and 135mm lenses
- (3) Case for 180mm lens
- (4) Case for 250mm lens

Soft Lens Case

The soft lens case is widely applicable to protect interchangeable lenses for the Mamiya C Professional or to store accessories.

This case also can hold lenses for the Mamiya Press and Mamiya RB.

Focusing Screen

A focusing screen is necessary to focus quickly and accurately. Mamiya offers the following seven types, and advises you to use these focusing screens by changing them according to the lens used, the photographing purpose, and/or the subject condition. Each focusing screen has exposure factor graduations.

Type A: Matte

Entirely matted with Fresnel lens. For general photography. Suitable for any focal length lens.

Type A2: Matte for wide-angle lens

Entirely matted with Fresnel lens.

Clear view-field is obtained when using the 55mm and 65mm wide-angle lenses since the parallax correction plate need not be used.

Type B: Rangefinder Spot 4°

Entirely matted with Fresnel lens, and split prism.

For general photography. Quick, accurate focusing is possible through the matted surface and the split prism.

Type B2: Rangefinder Spot 6°

Entirely matted with Fresnel lens, and split prism.

For general photography. Focusing precision by the split prism is more sensitive than the type B Range Finder Spot 4°.

Type C: Microprism

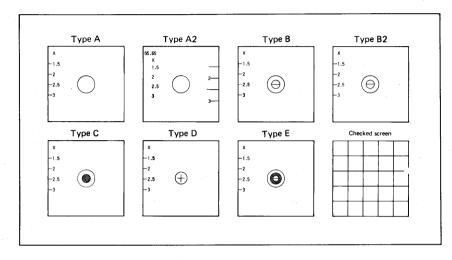
Entirely matted with Fresnel lens, and microprism.

For general photography. Focusing is performed through the matted surface and the center microprism portion.

Type D: Cross Hair

Entirely matted, center small circular portion is transparent without Fresnel lens.

For special photography. Suitable for close-up photography by extending the



bellows; also for dim, distant views and astrophotography.

Type E: Rangefinder Spot/Microprism

Entirely matted with Fresnel lens, split prism at center, microprism surrounding the center.

For general photography. Convenient for quick, accurate focusing with either the central split prism or a doughnut-shaped microprism. Focusing can also be done in the surrounding matte area.

Checked Screen

Convenient in arranging composition. Most suitable for close-ups, copying, and photographing buildings.

The checked screen can be used with any focusing screen, by simply putting it onto the focusing screen frame, placing the thin edge toward the back cover. The screen will be fixed by installing the focusing hood.

Accessories

O CdS Magnifying Hood

This is a spot metering finder with a CdS exposure meter incorporated in the magnifying hood. Since the meter measures light which passes through the lens, the correct exposure setting is easily obtained. A compensating exposure factor need not be considered even if the bellows is extended. When employing a color filter, however, compensating exposure must be made by considering the filter exposure factor. (By attaching the same color filter to the viewing lens, such compensation is unnecessary.)

2 Prism Finder

As with the magnifying hood, this prism finder may be used instead of the focusing hood. Through this prism finder, the image on the ground glass focusing screen appears exactly as the subject is seen. Really an indispensable accessory for eye-level photo-journal photos or candid shots.

Magnification of this finder is approximately 2.5 times the image on the ground glass focusing screen, particularly bright and clear.

OCdS Porrofinder

This is a Porrofinder with built-in CdS exposure meter. Match the index needles within the finder by turning the dial on the back of the finder, and read the dial scale. This device measures the amount of light traveling through the viewing lens, offering correct exposure setting even for amateurs.



This lens, designed to correct visibility, is installed inside the eyepiece ring of the CdS Porrofinder, or Prism Finder.

Nine types of lenses are provided from +2.5 to -2 diopter (each diopter is +2.5, +2.0, +1.5, +1.0, +0.5, -0.5, -1.0, -1.5 and -2.0).

When installing the lens on the finder, hold the milled portion of the eyepiece ring with the thumb and







finger, and turn it counterclockwise to remove the ring. When the lens is a plus (convex) lens, position it with the flat surface outside, and when it is a minus (concave) lens, place the concave surface on the exterior, then screw the ring into its original position.

4 Grip Holder

(for Mamiya C)

The grip holder is a very convenient accessory for hand-holding the camera while taking pictures or for

carrying the camera. Its accessory shoe is attached on the top of the grip.

(for Mamiya C330 and RZ/RB)

The camera shutter can be released by triggering the shutter button of this grip. This grip can also be used for the Mamiya RZ/RB.

6 Multi-angle Grip (for Mamiya C330 and RZ/RB)

The grip mounting angle can be

freely turned by single action, when one's finger is removed, the grip is secured after each 20-degree turn.

A trigger-type design is adopted for this grip, interlocked with the camera shutter release button. It is equipped with a lock device so that the trigger cannot be depressed inadvertently.

The accessory shoe on the grip can be freely turned in either direction and secured.







Accessories

6 Pistol Grip Model 2 (for Mamiya C330 and RZ/RB)

A trigger-type shutter release button is interlocked with the camera. By replacing the changeable base plate, an optional flashgun bracket may be attached. When a subgrip is mounted instead of the flashgun bracket, further stabilized eye-level photography becomes possible.



Paramender Model 2

This is a parallax-correcting instrument used between the camera base and a tripod. Keep the part attached to the camera base downward while focusing, then raise the camera position by turning the handle unit it stops prior to releasing the shutter. Thus, the taking lens is lifted to the position where the viewing lens was, and parallax is hereby automatically corrected.

3 Focusing Knob Adapter DSF-2/DSM-2

(for Mamiya C330S and C220f)

An adapter for attaching to the focusing knob to facilitate precise focusing. Focused distance can be read easily by using distance scales (for 65, 80, and 105mm lenses) which comes with the adapter. The DSF is calibrated in foot and the DSM, in meter.

From left to right:

Flashgun bracket **Type M** (for Mamiya flashgun), **Type H** (for Heiland flashgun), **Type G** (for Graflex flashgun), and Subgrip.





8

Quick-shoe Model 2

A two piece set in which one piece is attached to the camera and the other to the tripod. When this is done, the camera can instantly be mounted to, or removed from, a tripod without the need to fumble with screws.

Mamiyalite MZ 36R

This grip-type auto electronic flash has a guide number of 36 (ASA 100·m); 28 when wide-angle adapter is attached.

The head of unit can be swung upward 90° and rotated almost one full turn, so bounce flash operation on auto is possible. You can select three different apertures and the flash unit automatically controls flash intensity according to the subject distance. In addition, you can select one of five different flash intensity for your pur-



pose, so it is highly convenient for close-up work and daylight synchro flash.

Power source: Eight AA-size alkaline or rechargeable Ni-Cad batteries.

Electronic Flash Auto 480 Model 2

The Auto 480 Model 2 is an automatic electronic flash which features superior bursts of light with a guide number of 48 (with ASA 100, in meters), superb flashlight delivery



characteristics and three f-stop value settings.

As the bracket can be set to three different angles, the Auto 480 Model 2 may be used in a bounced automatic flash mode with a sensor, which is available as an accessory.

Flash angle: 60° vertically, 70° horizontally

Power source: 12 AA-size alkaline batteries in the TR Pack. A Ni-Cad cartridge is separately available.



Accessories

@ Compartment Case

In addition to the Camera and Standard Lens set, this convenient, heavy-duty camera case holds interchangeable lenses and camera accessories in separate compartments. Panels inside the case may be rearranged freely for accomodating various items. Accessory wrapping cloth for protection of the camera body and lenses is also provided.

Inside Dimensions:

Length Width Height (Top Cover) 13 9/16" × 7 7/8" × 6 7/8" + 2" 34.5cm × 20cm × 17.5cm +5cm

® 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 C, Mamiya RZ/RB, or Mamiya Press and related equipment.

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

The case measures 18 $3/\!\!s''\times13$ $7/\!\!s''\times63/\!\!4''$ (47 \times 35 \times 17cm) and weighs 8 lbs, 2 $1/\!\!2$ oz., (3.7 kg).





Depth-of-Field Table

55 mm f/4.5

		Distance (in feet)												
Aperture	00	30	15	7	5	3	2.5	2	1.5	1	9 1/2"			
4.5	29 1°	14' 11'	10' 30' 1'	5′ 9° 9′	4′ 4¼° 5′ 11′	2 9½° 3 3½°	2' 4%'	1 10 % 2 1 %	1 5½ 1 6½	111%	9% 9%			
5.6	23 2° ∞	13 3°	9' 3' 40' 8'	5 6 9 8½	4 2½ 6 2	2' 8½' 3' 4¼'	2 41/4	1' 10% 2' 1½	1 5% 1 6%	11% 1 %	9% 9%			
8	16 5° ∞	10 9°	8' 145	5' 1' 11' 7'	3 11½ 6 10	2' 7½' 3' 6¼'	2 33%	1' 10% 2' 2%	1' 5½' 1' 7'	113%	9 % 9%			
11	11′ 8°	8° 6°	6 9	4' 6½' 16' 1'	3 7¾ 8 2	2 5% 3 9½	2 2%	1' 9½'	1 4¾ 1 7½	11% 1 %	9% 9%			
16	8' 4' ∞	6′ 8° ∞	5° 6°	3' 11¾' 35' 10'	3' 3½' 11' 1'	2 4% 4 3%	2 1/6	1 8% 2 5	1' 4½' 1' 8½'	11½' 1′ %'	9% 9%			
22	5 11½°	5' 1'	4° 5°	3' 4¾'	2 10¾ 23 8	2' 1¾' 5' 1'	1 11 1/8 3 10 3/4	1' 7½° 2' 7¾°	1' 3%'	11%	9% 9%			

80 mm f/2.8

		Distance (in feet)													
Aperture	∞	30	15	10	7	5	4	3	1.						
2.8	102° 7°	23 4¼ 42 ¼	13 2° 17 5°	9 2 11	6 7½° 7 5½	4′ 9¾ 5′ 2½	3 10½ 4 1½	2' 11½' 3' ¾'	1′5 1′6						
4	71 10½°	21 4 50 914	12 6½ 18 8¾	8 10½ 11 5¾	6 5½ 7 8	4' 8¾' 5' 3¾'	3 10 4 2½	2' 11" 3' 1½"	1 5 1 6						
5.6	51 5° ∞	19 1½ 70 4	11 9 20 9½	8 5¾ 12 2½	6 3 7 1134 1	4' 7½' 5' 5½'	3 9½ 4 3½	2 10½ 3 1½	1 5 ² 1 6						
8	36 ¾	16 7 167 5¾	10 9¼ 24 11½	7 11½ 13 5¾	5 11¾ 8 5¾	4 5¾ 5 8	3 8 4 434	2 10 3 214	1 5 1 6						
11	26 3½	14 2½°	9 8¾ 33 3¾	7 5' 15 6½'	5 8 9 2½	4' 3¾' 5' 11¾'	3 6¾ 4 6¾	2 9½° 3 3½°	1 5 1 6						
16	18 1¾°	11 6 o	8 5 76 3½	6 7½ 20 10¼	5 2½ 10 9½	4' ¾' 6' 6¾'	3 4¾ 4 10½	2 8 3 5	1 5 1 6						
22	13 314	9 4½ ∞	7′ 3′	5 10¾ 35 8	4 9½ 13 7	3' 9½' 7' 5¾'	3 2¾° 5 4°	2° 7° 3° 7½°	1 5 1 7						
32	9 21/4	7 21/4	5 10%	5´ x	4 21/4 23/4	3 5½ 9 7¾	2' 11½' 6' 3¾'	2' 5'	1′ 4 1′ 7						

65 mm f/3.5

					Dista	nce (in f	eet)				
Aperture	00	30	15	7	5	3	2	1.75	1.5	1.25	1
3.5	50° 2¾°	18' 11'%' 73' 1'%'	11 8 21 1	6 2½ 8 ¼	4 7½ 5 5¾	2 10½ 3 1¾	1 111/4	1 8% 1 9%	1 5 % 1 6 %	1 2 % 1 3 %	11% 1′ %
4	43 11½ ∞	17 11 ³ 4 92 1 ¹ 4	11 3¾ 22 4½	6 1½ 8 2½	4 6½ 5 6¾	2 10 ½ 3 2	1 111/4	1 8½ 1 9½	1 5½ 1 6½	1 21% 1 3%	11% 1 %
5.6	31 5½	15' 6¾' 155' 9'	10 3½° 27 11	5 9¾ 8 9¾	4' 4¾' 5' 9¾'	2 9½ 3 3	1 11 2 1	1 8½ 1 9½	1 5½ 1 6½	1 2½ 1 3½	11 % 1′ %
8	22. 1.	12' 10½' ∞	9' 1' 44' 5%'	5 5% 9 11	4 2 6 3	2 8½ 3 4½	1 10½ 2 1½	1 8 1 10 %	1 5½ 1 6¾	1 2% 1 3%	11%
11	16 1½ o	10 7½	7 11½ 175 8	5' ¼' 11' 9¼'	3 11½ 6 11	2 7½ 3 6¼	1 10 ¼ 2 2¼	1 7% 1 10%	1 5½ 1 7½	1 2%	11¾ 1 ¼
16	11 1¾	8′3° ∞	6′ 6¾° ∞	4 5½ 17 2¼	3 7½ 8 5	2 5¾ 3 10¼	1 9½ 2 3½	1 7% 1 11%	1 4½ 1 7%	1 2%	11½ 1′¾
22	8 2 ·	6′ 6¾°	5' 5¼' ∞	3 11½ 39 ¾	3′ 3° 11′ 5′	2 4 4 334	1 8½ 2 5	1 6½ 2 ½	1 4½ 1 8¼	1 1½ 1 4½	11% 1 %
32	5′ 8¼°	4 10¼° ∞	4 3 ° ∞	3′ 3½′	2 10 34	2 1½ 5 5¼	1 7%	1 5%	1 3%	1 1% 1 4%	11% 1 %

105 mm f/3.5

				Dist	ance (in fe	et)			
Aperture	00	30	15	10	7	5	4.5	4	3
3.5	131 5¼* ∞	24' 7' 38' 6½'	13 6¾ 16 9½	9' 4¼' 10' 8¾'	6 8½ 7 4	4 10 ¼ 5 2	4' 4½' 4' 7½'	3' 11' 4' 1'	2′11½ 3′ %
4	115 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	23' 11½' 40' 2'	13 4½ 17 1	9 3¼ 10 10¼	6' 7¾' 7' 4½'	4 10 5 21/4	4' 41/2'	3' 10¾' 4' 1¼'	2′ 11½ 3′ %
5.6	82 3½°	22' 2½' 46' 6¾'	12 9¾ 18 1¼	9 14 11 234	6 6½ 7 6¾	4' 9½' 5' 3'	4' 3¾' 4' 8½'	3' 10½' 4' 1¾'	2' 11 1/2 3' 1/8
8	57 8¼°	19' 11¾' 60' 11¾'	12´ 1´ 19´ 10½´	8 7¾ 11 10½	6 4 7 9¾	4' 8¾' 5' 4½'	4' 3' 4' 9½'	3′ 9¾° 4′ 2¾°	2 10 % 3 1%
11	42' ½'	17 9½ 100 ½	11 3 . 22 734	8 3 12 9½	6' 1½' 8' 2½'	4' 6¾' 5' 6¾'	4' 2" 4' 11"	3′ 8¾° 4′ 3¾°	2 10光 3 1光
16	28 11½°	15′ ∞	10 1½° 29 7°	7' 7¾' 14' 7½'	5 9¾ 8 10½	4' 4¾' 5' 9¾'	4' ¼' 5' 1½'	3' 7½' 4' 5½'	2' 9% 3' 2%
22	21 21/4	12. 8°	9' ½' 38' 6½'	7 ¾ 17 9	5' 5½' 9' 10½'	4 2½° 6 2½°	3 10½ 5 5	3 6° 4 8°	2′ 8′% 3′ 3%
32	14 8	10 1 °	7' 8¼' 5180' 3¼'	6 2½ 27 9½	4 11¾ 12 2¼	3 11½ 6 11¾	3' 7¾' 5' 11¾'	3' 4'	2' 7¾ 3' 5¾

Depth-of-Field Table

135 mm f/4.5

				Dis	ance (in fe	et}			
Aperture	oc oc	30	15	10	7	6	4	3.5	3
4.5	159 3½°	25 4¾ 36 8	13 9½ 16 5¼	9 5¾ 10 7	6 9 7 3½	5 10° 6 2¾°	3 11½ 4 ¾	3 5½ 3 6½	2 11 ½ 3 ½
5.6	128 ¾	24 5¾ 38 9¼	13 6½° 16 10°	9 4½ 10 9	6 8½ 7 4	5 9½ 6 2¾	3' 11" 4' 1"	3 5¼ 3 6¾	2 11 1/2 3
8	89 8¾° ∞	22 8½ 44 4¼	13 17 9	9 1½ 11 1½	6 7 7 5%	5 8¼ 6 4	3 10½ 4 1½	3 5 7	2 11 4 3
11	65 4 ∞	20 9¾ 54 1¼	12 4½° 19 1	8 9¾ 11 9	6 5½ 7 8½	5 7 6 5¾	3 10° 4 2¼°	3' 4½' 3' 7½'	2 11 3 1
16	45' ¼'	18 3½ 85 6¾	11 5¾ 21 9½	8 4¼ 12 5¾	6 2½ 8 ¾	5′ 5′ 6′ 8¾	3 9¾° 4 3¼°	3 4 3 8¼	2 10¾°
22	32 10°	15 11¾ 286 2¼	10 6¾ 26 3½	7 10½ 13 9½	5 11½ 8 6½	5 2¾ 7 ¾	3 8¼ 4 4½	3 314	2 10½* 3 2
32	22 8	13 2½° ∞	9 3¾ 40 2¾	7 2½ 16 8	5 6¾ 9 6	4 11½ 7 8	3 6¾ 4 7	3 214 3 1034	2 9 L
45	16 214 ×	10 9½°	8 1 132 8	6 5¾ 23 ½	5 1¾ 11 2	4 7½ 8 8¼	3 5 4 10 ½	3 34 4 334	2 8 L ₂ 3 4 3

250 mm f/6.3

					Dista	ince (in f	eet)				
Aperture	- 00	200	100	50	30	20	15	12	10	8	7
6.3	412′ ∞	135 385	81 131	44 11 56 5	28 2 32 1	19 2 20 10	14 7 15 5	11 9 12 3	9 10 10 2	7' 11" 8' 1"	6' 11½ 7' ½
8	325 °	125 513	77′ 143′	43 8 58 6	27 8 32 8	19 ⁻ 21 ⁻ 1	14′ 5′ 15′ 7′	11 8 12 4	9 9½ 10 2	7' 10½' 8' 1½'	6 11 7 7 1
11	230 °	108' 1474'	70′ 4° 174′	41 6 62 11	26 10 34	18 7 21 7	14' 3' 15' 10'	11 6 12 6	9 8½ 10 3	7′ 10° 8′ 2°	6 103 7 13
16	163 ° ∞	90° 7° ∞	62 9 252	38 10 70 6	25' 9' 36'	18 1 22 4	14′ 16′ 2′	11 3 1 12 8	9' 7' 10' 5'	7 9 8 3	6' 10 7' 2
22	116′ ∞	74′ ∞	54′ 5° 688′	35′ 7° 85′ 2°	24' 4' 39' 3'	17 5 23 6	13 7 16 9	11 2 13'	9 5 10 8	7' 8' 8' 4½'	6 9 7 23
32	82′1° ∞	58°10° ∞	45 11 °	31′ 10° 121′	22' 7' 45' 2'	16 7 25 4	13 1 1 17 7 7	10' 10' 13' 7'	9 2½° 10 11	7 6½° 8 6	6' 8'
45	58′5° ∞	45′9' ∞	37′ 7* ∞	27 9° 303	20' 6' 57' 6'	15 6 28 7	12 5 19	10' 5' 14' 3'	8 11½ 11 4	7 4½° 8 9	6 63 7 6
64	41′8* ∞	34' 11'	30 1°	23 6°	18' 3' 94' 4'	14 3 34 11	11 8 21 5	9 10½ 15 6	8 6½ 12 1	7' 1½' 9' 1½'	6 43 7 9

180 mm f/4.5

					Dista	ince (in f	eet)				
Aperture	- 00	60	30	15	12	10	8	7	6	5	4:5
4.5	299' ∞	50 2 74 8	27 4½ 33 2¼	14 4¼ 15 8½	11 7 12 5½	9 8¾ 10 3½	7 10 8 2½°	6 10½° 7 1½°	5 11 6 1	4' 11½' 5' ¾'	4 5½ 4 6½
5.6	240 °	48 3 79 5	26 9¾ 34 ¾	14 2½ 15 10¾	11 6 12 6½	9' 8' 10' 43'2'	7 9½° 8 2¾°	6 10 7 2 7 2 7	5' 10¾' 6' 1¼'	4′ 11½° 5′ 1′	4 5% 4 6%
8	168′ ∞	44 6 92 3	25 7¾ 36 2	13 10½ 16 3¾	11′ 3½° 12′ 9¾°	9 6½ 10 6½	7 8½ 8 3¾	6 9½ 7 2¾	5 10¾ 6 2	4' 10¾' 5' 1¼'	4′ 5′ 4′ 7′
11	122 o	40 7 115 7	24 4 39 21/4	13 6 16 10½	11′ ½ 13′ 1½′	9' 4¾' 10' 9'	7 7½° 8 5½°	6 ½ 7 4	5 9½ 6 2¾	4 10½ 5 1¾	4 4% 4 7%
16	84´2` ∞	35 5° 200	22 4¾ 45 6½	12 11 17 10%	10 8 13 8¾	9' 1' 11' 1½'	7′ 5° 8′ 8°	6 6¾ 7 6	5 8½ 6 4	4 9¾ 5 2½	4' 4½' 4' 8'
22	61 3 ∞	30 8 1664	20 5½ 56 7	12 3½° 19 3½°	10 3 14 6½	8 9½ 11 7½	7' 2¾' 8' 11½'	6 5 7 814	5' 7' 6' 5¾	4 8¾ 5 3½	4' 3½' 4' 8¾'
32	42 3 ∞	25 2°	17' 10¾' 95' 2'	11 4½° 22 2½°	9 7½ 16 ½	8 3¾ 12 6¾	6' 11 1/4" 9' 53/4"	6 2½ 8 ¾	5 5 6 8¾	4' 7½' 5' 5½'	4 2½ 4 10
45	30 1 ∞	20 4 °	15′ 4¾° 874′	10 4½ 27 8	8 10¾ 18 7½	7 9½. 14 ½.	6 7 10 3	5 11 8 7½	5' 2¾' 7' ¾'	4′ 5¾ 5′ 8′	4 1½ 5

System Chart for Mamiya C330S

