

Congratulations on your choice of the Mamiya C330 Professional "S" twin-lens reflex camera.

The Mamiya C330S is an exceptionally high-grade camera and was designed by emphasizing, taking into consideration, and improving on the popular Mamiya C series. The C330S retains many features of the Mamiya C series camera which have won them the highest praise from professional photographers the world over.

This unique twin-lens reflex camera featuring the 6×6 square format and interchangeable lenses is ideal for professional photographers and also an intelligent choice for many advanced amateurs. The large format ensures the utmost in fine detail particularly when enlargements are concerned.

Before using the camera, read these instructions very carefully, and learn the correct way to use it. By becoming completely familiar with the Mamiya C330 Professional "S", you can make the most of the splendid opportunities this fine camera offers for many years to come.

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1 Names of Parts





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Specifications

Type Picture Size 6×6 Twin-Lens Reflex Camera with Interchangeable Lens System

 56×56 mm (actual photo size)

Film Size 120 roll film (12 exposures) or 220 roll film (24 exposures): easy pressure plate changeover.

Lens (standard) Mamiya/Sekor 80mm f/2.8S

Seiko-#0 (B,1-1/500 sec. M-X synchronization) Shutter

Focusing Front extension system by rack-and-pinion with focusing knobs.

Focusing screen Changeable

Waist-level viewfinder One-touch operation facilitates the interchange of dioptric lenses. Film wind By winding crank. Automatic shutter cocking and winding stop.

Double exposure prevention device.

Exposure counter Other features

Progressive type, automatic re-set. (120/220 changeover coupled with the pressure plate) Parallax and exposure compensation are readable on the focusing screen in the finder.

Multiple exposures possible. Shutter release lock provided.

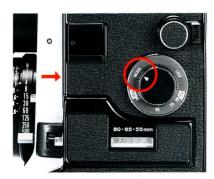
123 (W) \times 171 (H) \times 113 (D) mm. 1,650 grams (with 80mm f/2.8S lens). **Dimensions** Weight

Before Using These Instructions

These instructions contain much information which has already been described or indicated in the instructions on already released lenses (65mm, 105mm, 250mm), product or photo illustrations (e.g. parallax correcting dial, distance scale window, etc.), for the convenience of those lens users. Please keep these associated descriptions in mind before using these

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Lens Mounting/Removal



Wind up the film advance crank and fold the bellows into the camera body. Turn the focusing knob and fully retract the lens into the camera body. Then, turn the lens lock knob until the triangular pointer is on "UNLOCK".



Place the camera so that the lens mount faces upward and pinch the head of the lens clamp bracket, pressing the head toward the camera body: then move it along the groove to release the lens clamp. Now the body cap and/or lens can be removed.



Insert the lens into the lens mount so that the lens shutter cocking lever connects with the cocking lever on the camera body. This operation is more easily performed by cocking the lens shutter with the fingers and inserting the lens from the cocking lever side of the body.

Move the lens clamp bracket to its original position, and turn the lens lock knob clockwise to the "LOCK" position.



After changing a lens, set the parallax correcting dial to the focal length value of the mounted lens. For 55mm and 65mm lenses, set the parallax correcting dial to 80, then attach the parallax correction plate for 55mm/65mm lenses to the focusing hood. (Refer to p.21).

Precautions

 If the film advance crank is not kept in a diagonally upward position, (the same angle as the crank housing position), the cocking lever cannot be connected to the cocking lever on the camera body.

2. When the lens lock knob is in the "UNLOCK" position, the portion to which the picture taking lens (lower lens) is attached is protected from the camera interior by a cover to shield the film from exposure to light, and a red warning signal is visible on the focusing screen surface.

Should this cover be pushed while removing the lens, light will strike the film. Don't push it.

3. After changing a lens, turn the lens lock knob to the "LOCK" position; otherwise, the shutter release button cannot be depressed.

4. For the cocking lever on the 180mm lens, an auxiliary lever for connection is provided on the side of the lens barrel. Since this lever is constantly pushed upward by a spring, when mounting the lens, hold the auxiliary lever downward with a finger tip to prevent obstructing installation.





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4 Handling Focusing Hood the Waist-level Viewfinder



Raising the Focusing Hood

Raise the rear of the focusing hood; it will automatically spring up into position.



Raising the Magnifier

By pushing in the top of the sportsfinder flap at the center of the finder frame, the magnifier swings up into position.

While looking into the focusing screen, turn the focusing knob until the image becomes sharp and clear.



Using the Focusing Hood as a Sportsfinder

1. By setting up the magnifier and pushing down the sportsfinder flap, and by retaining the latter to the catch at the bottom of the focusing hood, the hood can be used as a sportsfinder for the 80mm standard lens.



2. When using the 135mm or 180mm lens, attach the sportsfinder mask corresponding with the lens used to the sportsfinder mask stud to obtain the correct field of view.



3. To return the sportsfinder frame and the flap to their original position, move the release button towards the arrow and the frame and the flap will automatically return to position.



After pushing down the flap, also fold down the finder frame to obtain a field of view for the 65mm lens.





To fold the magnifier, simply depress the base plate of the magnifier.



Folding the Focusing Hood

To fold the viewfinder, return the sportsfinder frame and flap and fold the magnifier. The viewfinder can then be folded down by pressing the frame inward while pushing both sidepanels in as illustrated above.



Removing the Focusing Hood

Turn the focusing hood lock screw counter clockwise and pull back on the hood moving it upward. The hood is then easily removed.

Attaching the Focusing Hood

Match the grooves on the front side of the hood to the pins on the camera body. Fit the groove on the rear of the hood to the focusing hood lock screw and tighten.

Opening and Closing the Back Cover



Push the back cover open knob while the back cover lock button is pulled down, and the back cover will open. When the back cover opens, the figure in the exposure counter automatically returns to "0".

To load film make sure that the spool has been properly seated in the take-up chamber: refer to page 16 for details.



To close the back cover, firmly press both sides of the back cover, making sure that neither side of it is open or loose. Unless it is closed tightly, the automatic film stopper will not work.

When closing the back cover and turning the film advance crank, the exposure counter will advance. When figure 1 appears on the counter, the crank will stop.

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6 Winding and Shutter without Film







To familiarize yourself with the operation of your camera, practice the shutter release before loading film.

- Check to make sure that the triangle mark on the lens lock knob points to LOCK and SINGLE on the multiple exposure dial matches the red dot.
- The shutter release lock should be fully pulled backward. If the triangle mark of the release lock is aligned with the "L", the shutter button cannot be depressed.

Open the back cover and make sure that a spool has been inserted into the take-up spool chamber.

- 3. Turn the shutter speed ring and align a desired shutter speed with the index line. The shutter speed ring must be set on a click stop position. Turn the aperture ring and set a desired f/stop to the index line. The aperture ring may be set at intermediate click stop positions.
- **4.** Depress the shutter button and the shutter will be released. By turning the film advance crank until it stops (and a frame is advanced) the shutter button may be depressed again.
- When the shutter speed ring is set on "B" (Bulb), the shutter will remain open as long as the shutter button is depressed and it will close as soon as the shutter button is released. Bulb is used for long exposures of 2 seconds or more.

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

- When the triangle mark of the lend 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".
- When "SINGLE" on the multiple exposure dial is set to the red dot, and...
 - (1) 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 frame in the roll is exposed (either 12 or 24 exposures).

To release the shutter or free it for multiple exposures, align the red dot on the multiple exposure dial with "MULTI".

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Before Loading Film

This camera accepts either 120 or 220 roll film. It has an automatic film stopper and a multiple exposure prevention device. Observe the following before loading film:



Preventing Double Exposures

Turn the multiple exposure dial until "SINGLE" matches the red dot on the side plate. This locks the shutter release button until the film is wound, and prevents accidental multiple exposures.



Adjust the Film Pressure Plate According to the Film Used (120 or 220)

Open the back cover and turn the film pressure plate either to the right or to the left 90 degrees until the red dot on the film pressure plate matches the figure 120 or 220 respectively.



When the back cover is closed the exposure counter automatically sets to indicate the type of film being used.

120 or 220 will appear in the film size indicating window in the center of the back cover.

Loading Film



1. Open the back cover and pull out the upper spool change knob (arrow), then insert an empty spool into the take-up spool chamber so that it engages the winding axis. Once inserted, release the spool change knob.



- 2. Pull out the lower spool change knob, and insert a roll of film into the film chamber.
- By turning the spool change knobs either to the right or to the left after pulling them out the knobs will remain out. Turn the knobs back to reinsert them.



 If either of the spool change knobs are not returned to their original position after loading, the film may be wound unevenly.

To make sure that they are properly seated move them slightly to the right/ left, and up/down.





3. Pull out the leader paper of the film and insert it into the slit of the take-up spool; turn the film advance crank clockwise until the start mark on the leader paper matches the start marks on the camera (arrows).

It is important to make sure that the film is correctly aligned as otherwise parts of frames may not be exposed.



 Closing the back cover. When closing the back cover, firmly press both sides at the upper corner as indicated above. Unless it is closed tightly, the automatic film stopper will not work.

Memo Holder

As a reminder of the type and number of exposures of the film in the camera, tear off the end of the film box and insert it in the memo holder on the back cover.



4. Turn the film advance crank clockwis until it stops. The figure 1 will appear o the exposure counter at the position wher the crank stops (i.e. diagonally upward and the shutter is automatically set — th camera is ready for the first exposure.

Turn the crank each time one picture exposed. Regardless of the number of pictures taken, the crank always stops at diagonally upward position. In this position, when folding the crank in the opposit direction, the crank can be recessed intitle body.

The crank cannot be turned cour terclockwise and the shutter releas button can only be pressed when it in its diagonal position.

9 Photographing



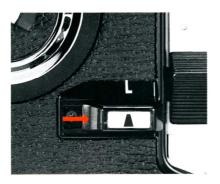
- (1)
 After focusing, turn the shutter speed ring (1) and set the shutter speed, then adjust the lens aperture by turning the aperture control knob (2). Any of three procedures mentioned above can be performed first.
- Release the shutter by pressing the shutter release button (A) or (B). When a cable release is used, screw its tip into the cable release socket in the lower button (B).
- After each exposure, wind the film by turning the film advance crank, then follow the same procedures as noted above.





After adjusting the focus, turn the focusing knob fixing lever forward and appropriately clamp it, whereby the focusing mechanism is secured.

Deviation in focusing can be prevented in this manner, when continuously taking pictures, taking snapshots with wide-angle lenses, close-up photographs, and using telephoto lenses.



By shifting the triangle mark on the lock button to the letter "L", the shutter button is locked. During a period when the camera is not in use and is stored in the case, inadvertent shutter release can be prevented.



When all film frames have been exposed, the film winding stop mechanism is automatically disengaged. Remove the film after winding the remaining backing paper on the film end.

Winding Up the Roll Film

To remove film before exposing the entire roll, or to wind up a short roll of film after exposure (i.e. 6-exposure color films), simply depress the shutter button and turn the film advance crank until the roll has been rewound.

10 Distance Scale



A distance scale is provided on the left side of the camera (viewing the camera held for photographing). By turning the knob, set the distance scale to coincide with the lens used, so that the scale faces horizontally.

Distance scales for 55mm, 65mm, and 80mm lenses are indicated in oirange. Read these scales at the index position in the window.

Distance scales for 135mm, 180mm, and 250mm lenses are indicated in black. Read these scales at the front end of the camera body side plate.



11 Close-up Photography



Setting the Parallax Correcting Dial:

By turning the parallax correcting dial, set the dial index to the focal length of the lens used. Subsequently, while the lens is being extended, the pointer will appear on the upper left portion of the focusing screen. The position of this pointer indicates parallax and the exposure factor.

Correcting Parallax:

When the pointer appears on the focusing screen, the upper portion visible above the pointer will be cut off on the film. Be sure that the subject is satisfactorily appears under the lower portion of this pointer. When using the camera on a tripod, use the Paramender (parallax correcting device) to ensure that the camera photographs the same image viewed on the focusing screen through simple operations.

Compensating Exposure:

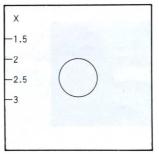
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As distance between the lens and film increases, image brightness on the film is reduced even though aperture size remains the same. Consequently, it is necessary to increase the exposure.

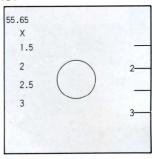
The figures on the left side of the focusing screen indicate exposure factors. Taking the figure indicated by the pointer, compensate (while focusing) for exposure.

For instance, assuming that the correct exposure value measured by an exposure meter is 1/125 sec. at f/11, compensensate for exposure as follows: If the pointer indicates 2, 1/125 sec., f/8 or 1/60 sec., f/11

If the pointer indicates 3, 1/125 sec.; between f/8 and f/5.6 or 1/60 sec., between f/11 and f/8



When Using 55mm or 65mm Lens:



When using a 55mm or 65mm lens, set the dial to 80 and attach the parallax correction plate to the focusing hood.

How to Install the Parallax Correction Plate:

Remove the focusing hood from the camera and turn it inside out. Also turn the correctrion plate inside out and insert its chamfered edge into the two catches on the hood, then fit the correction plate in while pulling out the slide lock on the opposite side. When the slide lock is released, the plate is secured.

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12 Multiple Exposure



The figures visible on the left side of the correction plate after attaching the focusing hood to the camera indicate the exposure factor. Observe the line on the right for correcting parallax. When the pointer indicates 1.5, the upper portion of the first line will be cut off. In turn, this becomes a correcting scale when the exposure factor is 2, 2.5 and 3.

 When wishing to replace the stan ard focusing screen with the optional focusing screen type A2, the parallax correction plate need not be attached.



Turn the multiple exposure dial 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.

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13 Flash Photography



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

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

When using M-class flash bulbs, set the M-X synchro selector 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 Sychronization Table

	- Segment	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	
x	Electronic Flash	0	0	0	0	0	0	0	0	0	0	0	
^	M class	0	0	0	0	0	0	0	×	×	×	×	

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

Diopter Correction Magnifier

Changing the Magnifier (for diopter correction)

In addition to the standard magnifier (-1.5 diopter) dioter 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 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.



How to Change

- 1. Raise the focusing hood; then depress the sportsfinder flap and frame.
- Fold the raised magnifier, then lay the camera down with the lens facing upward.
- 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) in the direction of the arrow (see above), 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 be sure to hold the base plate from the back as mentioned above.
- 5. To attach the magnifier place the magnifier and the retainer on the base plate with the flat surface of the magnifier facing down; 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.

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15 Changing the Focusing Screen

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



Removing the Focusing Screen

Remove the focusing hood and slide the focusing screen frame lock in the direction of the arrow, then the focusing screen holder will pop-up. Remove the focusing screen by holding both side edges.



Inserting 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 properly seated in the screen holder, depress the focusing screen frame to lock it in place.

Since the surfaces of the focusing screens are soft and easily damaged, handle them carefully. Never touch the surface with bare fingers. Should dust settle on the screen surface carefully blow off with a blower.

Handling the Neck Strap



Attaching to Camera

Place the neck strap fastener over the neck strap lug on the camera body and slide it up (see arrow), while pressing it toward the body until it clicks and locks in place.



Removing from Camera

While pushing in on the rear blade of the neck strap fastener with your thumb, slide it in the reverse direction, and remove the fastener.

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Mamiya-Sekor Lenses

55mm F4.5



80mm F2.8S



135mm F4.5



Super 180mm F4.5

Lens Performance Table

		Picture	Minimum	Filter	Lens Hood	Close-Up Capabilities		
Lens	Composition	Angle	Aperture	Diameter (mm)	Diameter (mm)	Shortest Distance from Film to Subject	Subject Coverage	
55mmf/4.5	9 element 7 group	70°30′	f/22	46ø	48ø	24.1 cm	6.4 × 6.4 cm	
80mmf/2.8S	4 element 3 group	51°45′	f/32	46ø	48ø	35.4 cm	8.6 × 8.6 cm	
135mmf/4.5	4 element 3 group	33°	f/45	46ø	48ø	90.2 cm	25.2 × 25.2 cm	
Super 180mmf/4,5	5 element 4 group	24°30′	f/45	49ø	50ø	1m 29 cm	27.5 × 27.5 cm	

Depth-of-Field Table

55mm f/4.5

Anartura	Distance (in meter)												
Aperture	00	5	3	2	1.5	1.1	0.8	0.6	0.5	0.4	0.3	0.25	
4.5	8.87 ∞	3. 24 11. 11	2. 28 4. 42	1. 66 2. 52	1.31 1.76	1.00 1.23	0.75 0.86	0.57 0.63	0.48 0.52	0. 391 0. 410	0. 296 0. 304		
5.6	7.07 ∞	2. 98 16. 28	2. 15 5. 04	1. 59 2. 70	1.27 1.85	0.98 1.26	0.74 0.88	0.57 0.64	0.48 0.52	0.389 0.412	0.296 0.305		
8	5.02 ∞	2. 56 ∞	1. 93 7. 04	1.47 3.17	1.19 2.05	0.93 1.35	0.71 0.91	0.56 0.65	0.47 0.53	0.384 0.418	0. 294 0. 307	0. 248 0. 253	
11	3.57 ∞	2. 13 ∞	1. 68 16. 81	1.33 4.21	1.10 2.42	0.88 1.49	0.68 0.97	0.54 0.68	0.46 0.55	0.378 0.425	0. 291 0. 309	0. 247 0. 254	
16	2.55 ∞	1.73 ∞	1.43	1.17 7.97	0.99 3.27	0.81 1.76	0.65 1.07	0.52 0.72	0.45 0.57	0. 370 0. 437	0. 288 0. 314	0. 245 0. 255	
22	1.82 ∞	1.37 ∞	1. 18 ∞	1.00 ∞	0.87 6.65	0.73 2.37	0.60 1.25	0.49	0.43 0.61		0. 283 0. 320	0. 243	

80mm f/2.8S

Aper-			1	Distance	е		(in met	er)			
Aperture 2.8 4 5.6 8 11 16 22	00	10	5	3	2	1.5	1.2	1	0.45	0.35	0.335
2.8	30.65 ∞	7.59 14.70	4.33 5.92	2.75 3.30	1.89 2.12	1.44 1.56	1.16 1.24	0.98 1.03	0.447 0.452	0.349 0.350	0.334 0.335
4	21.69 ∞	6.90 18.28	4.10 6.42	2.66 3.44	1.85 2.18	1.42 1.59	1.15 1.26	0.97 1.04	0.445 0.454	0.348 0.351	0.334 0.335
5.6	15.36 ∞	6.12 27.89	3.82 7.27	2.54 3.66	1.79 2.26	1.39 1.63	1.13 1.28	0.95 1.05	0.444 0.455	0.348 0.351	0.333 0.336
8	10.88	5.27 109.78	3.48 8.98	4.04 2.39	1.72 2.39	1.34 1.70	1.10 1.32	0.94 1.08	0.441 0.458	0.347 0.352	0.333 0.336
11	7.72	4.41	3.09 13.46	2.21 4.71	1.63 2.60	1.29 1.80	1.07 1.37	0.91 1.11	0.438 0.461	0.346 0.353	0.332 0.337
16	5.48	3.60 ∞	2.68 46.42	2.00 6.21	1.51 2.98	1.22 1.96	1.02	0.88 1.16	0.434 0.467	0.344 0.355	0.332 0.338
22	3.90 ∞	2.85	2.25	1.76 11.33	1.38 3.76	1.13 2.25	0.96 1.61	0.84 1.25	0.428 0.474	0.342 0.357	0.330
32	2.78	2.22	1.84	1.50	1.22 6.02	1.03 2.87	0.89 1.88	0.79 1.40	0.420 0.486	0.340 0.360	0.329 0.341

135mm f/4.5

Aperture	HELE	Disttance (in meter)												
Aperture	00	10	5	3	2	1.75	1.2	1.0	0.95					
4.5	48.55	8.34	4.56	2. 85	1.93	1.70	1.18	0. 99	0. 94					
	∞	12.49	5.53	3. 17	2.07	1.80	1.22	1. 01	0. 96					
5. 6	39.03	8.02	4.47	2. 81	1.92	1.69	1.17	0.98	0. 94					
	∞	13.30	5.68	3. 22	2.09	1.81	1.23	1.02	0. 96					
8	27.35 ∞	7.39 15.51	4.27 6.03	2. 74 3. 32	1.89 2.13	1.67 1.84	1.16 1.24	0. 98 1. 02	0.93					
11	19.92 ∞	6.74 19.56	4.05 6.54	2. 65 3. 46	1.85 2.18	1.64 1.88	1.15 1.25	0.97 1.03	0. 92					
16	13.72	5.87	3.74	2. 52	1.79	1.59	1.13	0. 96	0. 91					
	∞	34.79	7.61	3. 73	2.28	1.95	1.28	1. 05	0. 99					
22	10.01	5.09	3.41	2.37	1.72	1.54	1.11	0. 94	0.90					
	∞	566.22	9.49	4.10	2.40	2.04	1.31	1. 07	1.01					
32	6. 91	4.17	2.99	2.17	1.62	1.46	1.07	0. 92	0. 88					
	∞	∞	16.18	4.94	2.65	2.21	1.37	1. 10	1. 04					
45	4.94 ∞	3.39 ∞	2.58 217.48	1. 95 6. 75	1.50 3.05	1.37 2.47	1.03 1.46	0.89 1.15	0.85					

180mm f/4.5

Aper-	Distance (in meter)														
ture	∞	20	10	7	5	4	3	2.5	2	1.7	1.5	1.3	1.2		
4.5	92.47 ∞	16.52 25.32	9.07 11.15	6.54 7.53	4. 77 5. 26	3.85 4.16	2. 92 3. 08	2.45 2.56	1.97	1.68	1.48 1.52	1.29	1.19		
5.6	73.80 ∞	15.81 27.23	8.86 11.49	6.43 7.68	4. 71 5. 33	3.82	2. 90 3. 11	2.43 2.57	1.95 2.04	1.67 1.73	1.48 1.52	1.29	1.19		
8	52. 21 ∞	15.55 32.03	8.46 12.24	6. 22 8. 01	4. 60 5. 48	3.75	2. 86 3. 15	2.41 2.60	1.94 2.06	1.66	1.47	1.28 1.32	1.18 1.22		
11	36.95 ∞	13.08 42.69	7.95 13.50	5.95 8.51	4. 45 5. 70	3.65	2.81 3.22	2.37 2.65	1.92	1.65	1.45	1.27	1.18		
16	26.15 ∞	11.45 80.80	7.33 15.80	5.60 9.35	4. 26 6. 06	3.53 4.63	2.74 3.32	2.32 2.71	1.89	1.63 1.78	1.44 1.56	1.26	1.17		
22	18.52 ∞	9.73 ∞	6.60 20.84	5.18 10.88	4. 02 6. 64	3.36 4.95	2. 64 3. 48	2. 25 2. 81	1.85 2.18	1.60 1.83	1.42 1.59	1.25 1.36	1.16 1.25		
32	13. 13 ∞	8.04 ∞	5.79 38.05	4.67 14.14	3.72	3.15 5.50	2. 52 3. 73	2.17 2.96	1.79	1.56 1.88	1.39 1.63	1.23 1.39	1.14		
45	9.31 ∞	6.46 ∞	4.94 ∞	4.11 24.69	3. 36 9. 94	2.90 6.52	2.36 4.15	2. 05 3. 21	1.72 2.40	1.50 1.96	1.35	1.20	1.12		

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18 Accessories

Filters for the Super 180mm

Five types of filters are avilable: Y2, YG, O2, UV, SL. Filter sizes for each lens are shown in the system chart.

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

Lens Hoods

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

- 1. 48mm ø lens hood for the 55mm lens (*)
- 2. 48mm ø lens hood for the 80mm and 135mm lenses.
- 3. 50mm ø lens hood for the 180mm lens.
- 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 attached only to the indicated lenses.

Diopter Lens

For individuals whoes 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, +2 diopters) are available for diopter correction.

Focusing Screens

A focusing screen is necessary to focus quickly and accurately. Mamiya features 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. 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 lenses Entirely matted with Fresnel lens.

A 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

An entirely matted microprism Fresnel lens microprism.

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

Type D: Cross Hair

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

For special photography. By extending the bellows; it is suitable for close-ups, also for low light levels, distant views and astrophotography.

Type E: Rangefinder Spot/Microprism

Entirely matted Fresnel lens, split prism at center with 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.

Checjed Screen

Convenient for arranging compositions and ideally suited 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 and placing the thin edge toward the back cover.



Grip Holder (for Mamiya C330 and RB/RZ)

The grip holder is a very convenient accessory for hand-holding the camera while taking pictures or for carrying the camera. An accessory shoe is on the top of the grip.



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

A trigger-type shutter release button interlocks with the camera. Suitable for eye-level photography with a sportsfinder. Weight: 350 grams



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

The single action adjustable feature anables the grip angle to be adjusted in 20° increments. Simply press your finger to move at 20° increments.

The trigger-type feature on the grip, interlocks with the camera shutter release button. It is equipped with a locking device so that the trigger cannot be depressed inadvertently.

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



Paramender Model 2

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

Weight: 340 grams



Quick-shoe Model 2 (for Mamiya C330, RB/RZ and M645)

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.

Weight: 235 grams

Focusing Knob Adapter DSF-2/DSM-2

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.

Aluminum Custom Case (with Optional Interchangeable Inserts)

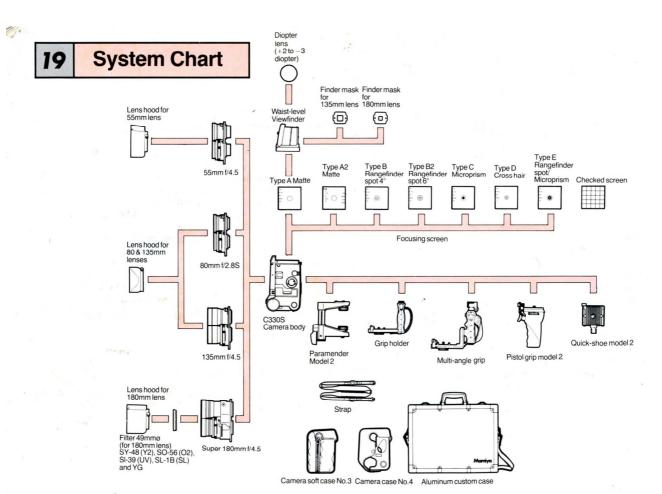
The Mamiya Custom Case is an attractive portable, luggage-type aluminum case.

The Custom Case is designed to accommodate and to let you easily hand-carry normal required interchangeable lenses and accessories as well as other standard equipment. By changing the inserts, the Custom Case conveniently accommodates the Mamiya C, Mamiya RZ/RB, or Mamiya M645 and other related equipment.

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

The case measures $47 \times 35 \times 17$ cm and weighs 3.7 kg.





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20 Camera Storage and Maintenance

- If the camera is not to be used for a long time, remove the film.
- Do not store the camera at temperatures exceeding 40°C or below -10°C. Also avoid storing in a damp or a sea air environment.

When stored in the vicinity of gaseous chemicals, such as naphtaline and formalin, the camera film may be adversely affected Read the instructions on the film carefully for proper handling procedures.

 As your camera is a precision instrument, avoid exposing it to vibrations or severe shocks.

When handholding your camera, always use a neck strap and exercise extreme caution when removing lenses and adjusting the mount

- Prolonged disuse does not lengthen camera life, but shortens it. So, when storing for a long time, periodically take the camera and release the shutter several times to keep it in good condition.
- Do not touch either the front or the back of the lens surfaces. If either needs cleaning use blower or lens tissue to remove dust particles. A fingerprint can be removed with a drop of lens cleaner and wiped off with lens tissue.
- · Carefully read all instructions in the manual.

Periodic Examination

In order to maintain the camera in its best condition, it is advisable to periodically check all functions.

When the camera has not been used for a long time, or when it is to be used for very important photographs, check the camera or take some trial pictures beforehand. (Be sure to check the electronic flash synchronization, film advance, and shutter function.)

For a general overhaul, cleaning, or repairs, take the camera to your nearest authorized Mamiya Service center or ask your camera shop for advice.

★ When using the C330S for special important photos over a long period for location photography, weddings, overseas trips and/or other important photography, be sure to take some trial photos and check all functions.

It is advisable to put your camera in for periodical checkups (at intervals of one to two years) to get the best photography at optimum performance.

