

# *Mamiya* **C330**

**INSTRUCTIONS**

# CONTENTS

We are highly gratified that you have selected the MAMIYA C330 from among so many makes of cameras on the market. Before using the camera, please read these instructions very carefully, and learn the correct method of handling it. By becoming completely familiarized with the MAMIYA C330, you can make the most of the splendid opportunities this fine camera offers for many years to come.

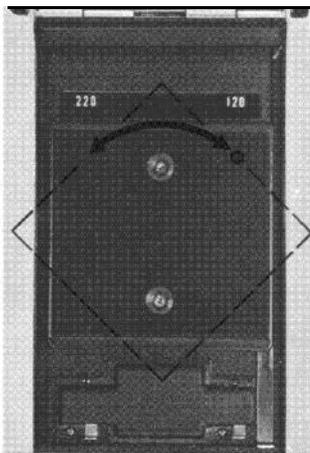
This MAMIYA C330, an exceptionally high-grade camera, was designed by emphasizing further improvements on the popular MAMIYA C series. Retaining the many features of the MAMIYA C series cameras which have won highest praise from professional photographers the world over as unique twin-lens reflex cameras (2 1/4 in. square format) with interchangeable lenses, especially stressed was minimizing size and weight plus handling ease.

Final results reveal that this MAMIYA C330, an ideal camera for professional photographers, is also a wise choice for the many advanced amateurs who wish to take advantage of fine details in enlargements which only a large-format camera truly makes possible.

The MAMIYA C330 accepts all interchangeable lenses of the current Mamiya C series as well as all of the accessories except the single-exposure attachment.

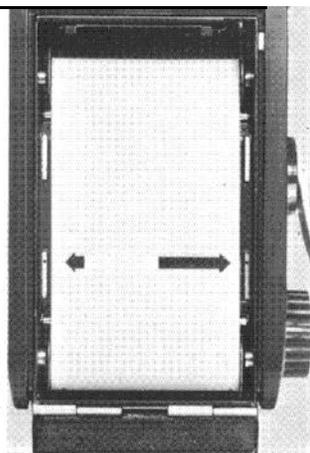
In addition, various new accessories have been designed for this model. With the wide selection of all these interchangeable lenses and accessories, you can further widen your scope of photography by making the most of the unlimited versatility the MAMIYA C330 offers.

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Adjust the direction of the pressure plate according to the film used (120 roll film or 220 roll film).

**See page 8  
for details.**



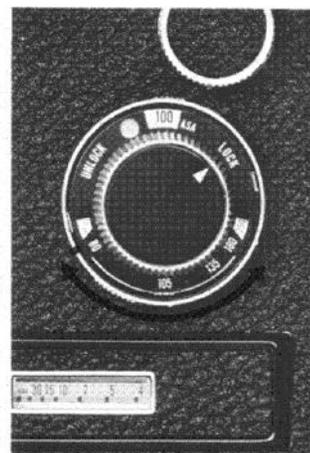
When loading film, insert both film spools correctly.

**See page 9  
for details.**



When closing the back cover, firmly press both sides of the back cover catch button.

**See page 7  
for details.**



In coinciding the focal length of the lens to be used, set the parallax correcting dial. The amount of parallax correction and the exposure factor are readable on the focusing screen in the finder.

**See page 74  
for details.**

## ■ Read These Instructions Before Using Your MAMIYA C330 (cont.)

When this camera is under any of the conditions described as follows, the shutter release button cannot be depressed. In this case, absolutely do not use force.

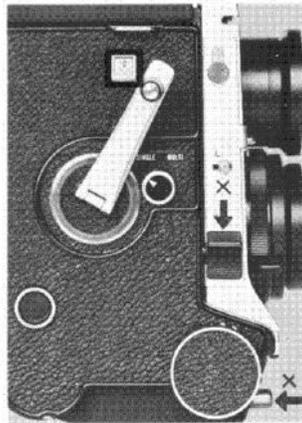
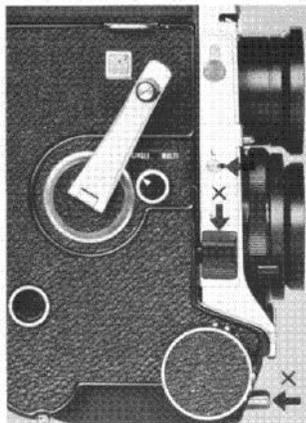
**1.** When lens change knob is set on "UNLOCK".

**2.** When shutter release lock button is set on the letter "L".

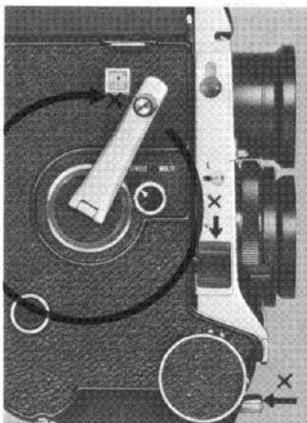
**3.** When multiple exposure button is set on "SINGLE," and . . .



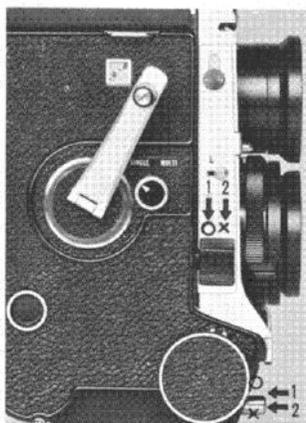
A red warning signal is visible on the focusing screen.



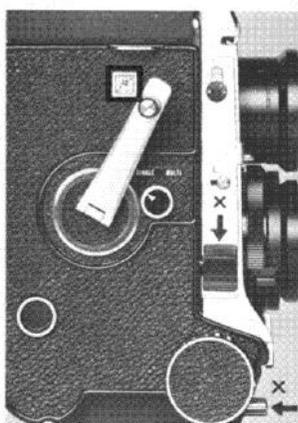
(1) When film is not loaded (exposure counter indicates "0").



(2) When the film has not been wound.

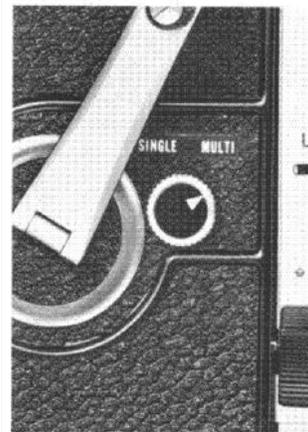


(3) When the shutter release button has already been pressed.



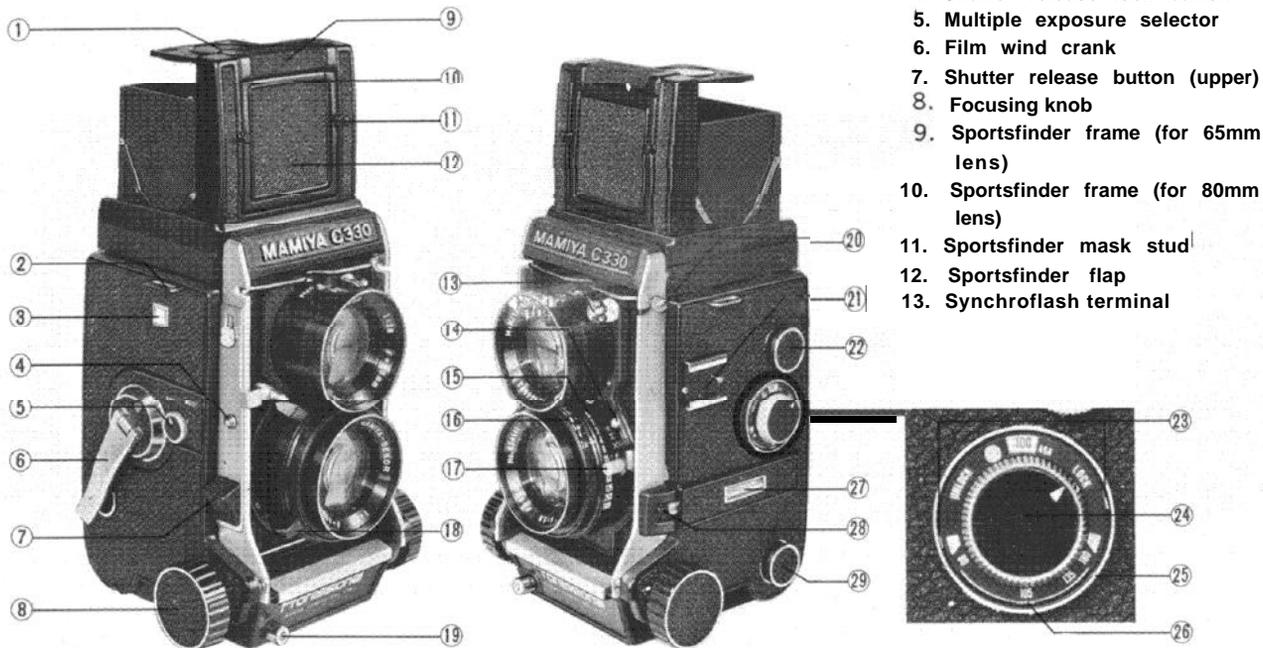
(4) When the last film in roll is exposed (after 12 or 24 exposures).

When taking ordinary pictures with roll film, set the multiple exposure selector triangular mark toward the word "SINGLE."

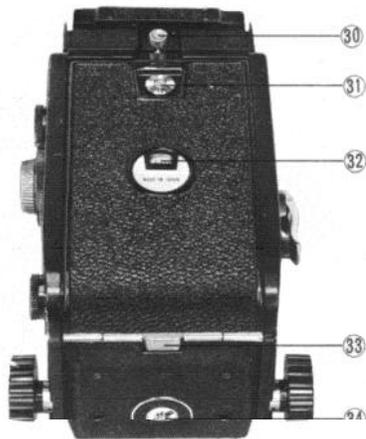


For multiple exposures, when the shutter is freely released without loading film, or when the single exposure attachment is used, set the triangular mark toward the word "MULTI."

# Nomenclature of Operating Parts

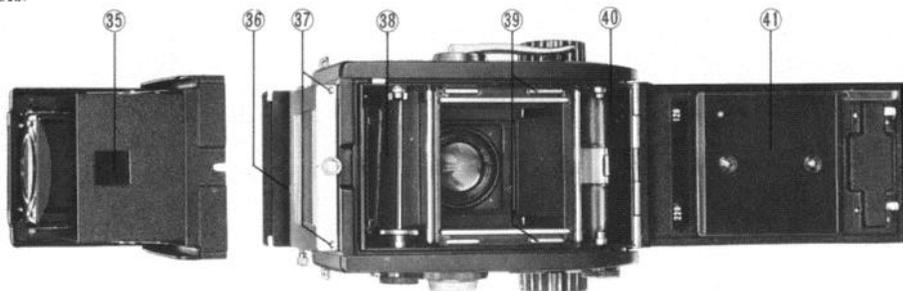


1. Magnifying glass
2. Strap eyelet
3. Exposure counter
4. Shutter release lock button
5. Multiple exposure selector
6. Film wind crank
7. Shutter release button (upper)
8. Focusing knob
9. Sportsfinder frame (for 65mm lens)
10. Sportsfinder frame (for 80mm lens)
11. Sportsfinder mask stud
12. Sportsfinder flap
13. Synchroflash terminal



- 14. Synchroflash M-X selector
- 15. Shutter speed ring
- 16. Aperture ring
- 17. Shutter cocking lever
- 18. Aperture control knob
- 19. Shutter release button (lower)  
with cable release socket
- 20. Lens catch bracket
- 21. Accessory shoe
- 22. Spool change knob (upper)
- 23. ASA indication shifting lever
- 24. Lens change knob
- 25. Parallax correcting dial
- 26. Film type indication select lever
- 27. Distance scale window

- 28. Distance scale revolving knob
- 29. Spool change knob (lower)
- 30. Focusing hood lock screw
- 31. Back cover catch button
- 32. Film indicating window (120/  
220)
- 33. Back cover hinge release
- 34. Tripod socket
- 35. Eye opening for sportsfinder
- 36. Focusing screen frame catch
- 37. Focusing screen frame guide pin
- 38. Take-up spool chamber
- 39. Start mark
- 40. Film chamber
- 41. Film pressure plate



## Opening and Closing the Back Cover



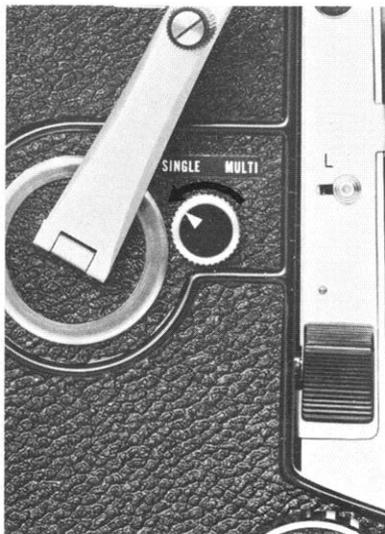
Twist the back cover catch button (31) until the red mark on the button faces upward. Then, by pressing the button in the direction indicated on the back cover, the back cover will open. The figure in the exposure counter automatically returns to "0" when the back cover opens.



When closing the back cover, firmly press both sides of the back cover catch button, making sure that neither side of the back cover is open or loose. Unless the back cover is closed tightly, the automatic film stopper will not work. Also, if only one side of the back cover is pressed when closing, the automatic film stopper may not function.

When the back cover is closed, by twisting the back cover catch button counterclockwise until the red mark of the button is on the left side, the back cover can be locked. If the button is twisted and the red mark moved to the left side before closing, the back cover will automatically lock when closed.

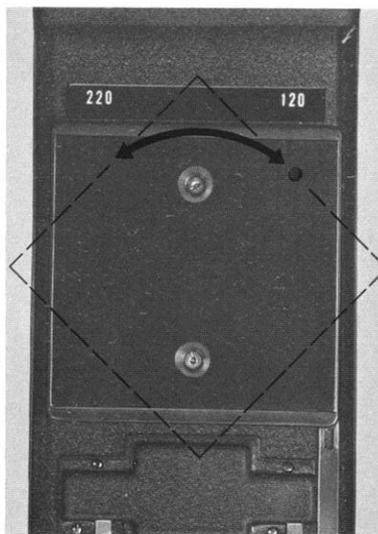
# Before Loading Film



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

**1** By turning the multiple exposure selector (5), set the triangular mark toward the word "SINGLE."

This action locks the shutter release button until the film is wound, preventing accidental double exposures.



**2** Adjust direction of the pressure plate according to the film used.

Open the back cover, twist the pressure plate (41) either to the right or left 90 degrees until the red mark on the pressure plate matches either 120 or 220.



Subsequently, when closing the back cover the film stopper mechanism is automatically set to coincide with the film frame number.

The figure 120 or 220 will appear in the film indicating window (32), informing the user of the loaded film size when the back cover is closed.

# Loading Film



**1** Open the back cover and pull out the spool change knob (22), then insert an empty spool into the take-up spool chamber (38) so that it engages the winding axis. Release the spool change knob.

Pull out the spool change knob (29), and insert a roll of film in the film chamber (40).

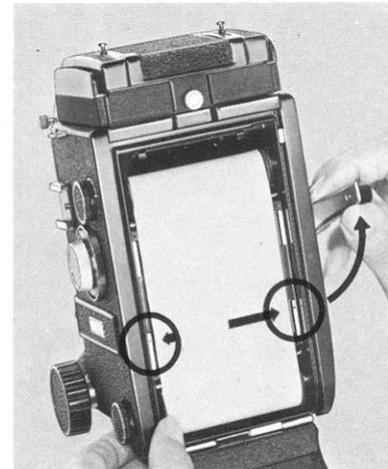


## PRECAUTIONS

By turning the spool change knobs (22) and (29) either to the right or left after pulling them outward, the knobs stay at their protruded positions. Turn the knobs backward to reinsert them.

If both spool change knobs are not returned to their original positions after loading a film, unbalanced film winding will result.

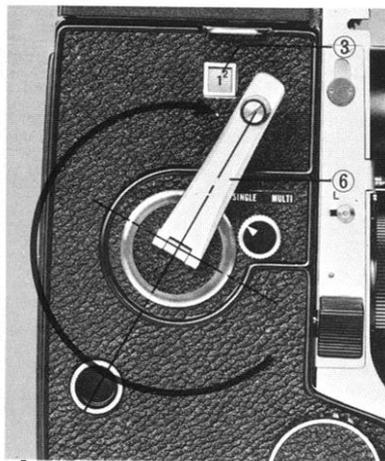
Should the spool change knob not return to its original position, move the spool slightly to the front and rear or up and down.



**2** Pull out the leader paper of the film and guide it into the slit of the take-up spool, turn the film wind crank (6) clockwise until the start mark on the leader paper matches the start marks (39) on the camera.



**3** Close the back cover. When closing the back cover, firmly press both sides of the back cover catch button. Twist the button counter-clockwise, so that the back cover does not open unexpectedly.



**4** Turn the film wind crank (6) clockwise until it stops. Figure 1 appears on the exposure counter (3) at the position where the crank stops diagonally upward, and the shutter is automatically set. Now the camera is prepared for the first exposure.

The crank cannot be turned in reverse.

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

## ■ Handling the Focusing Hood



### Raising the Focusing Hood

By pulling up the rear of the finder frame (9), the focusing hood automatically springs up into position.

By pushing in the top of the sportsfinder flap (12) at the center of the finder frame, the magnifying glass swings up into the ground glass focusing screen in this position, turn the focusing knob (8) to focus. After focusing, push down the magnifying glass, and decide the photo composition by using the entire view on the focusing screen as a guide.



### Using the Focusing Hood as a Sportsfinder

**1** By pulling up the magnifying glass and pushing down the sportsfinder flap, and by attaching 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** After pushing down the flap (12), also fold down the finder frame (10) to obtain the field of view for the 65 mm lens.



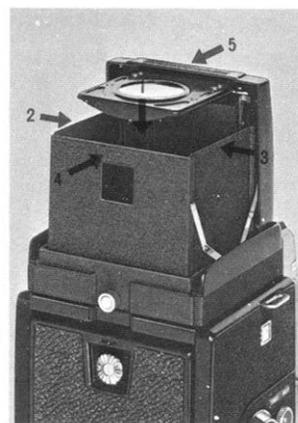
**3** When using the 105 mm, 135mm, 180mm, or 250mm lens, attach the respective sportsfinder mask for the lens used on the finder mask stud (11), adjusting for the change in field of view.



**4** To return the finder frame (10) to its original position, by pushing and releasing the left side plate of the hood with a finger tip (left side when the camera is held for photographing), the finder frame will automatically return to its position.



**5** To return the sportsfinder flap (12), push the magnifying glass, fold the side plates inward and the back plate downward, finally folding the finder frame (9).



### Folding the Focusing Hood

Return the sportsfinder flap, push down the magnifying glass, fold the side plates inward and the back plate downward, finally folding the finder frame (9).

## ■ Handling the Focusing Hood (cont.)

### Changing the Focusing Hood



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

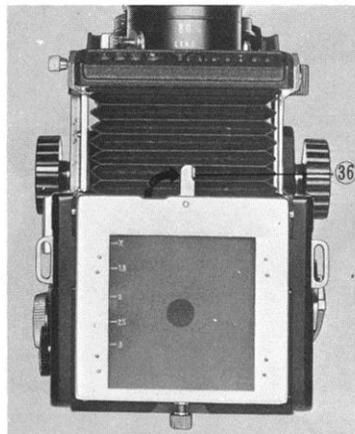
#### How to Remove the Focusing Hood

By turning the focusing hood lock screw (30) counterclockwise to loosen it, pull back the hood and move it upward: then the hood can be taken off.

#### How to Attach a Focusing Hood

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

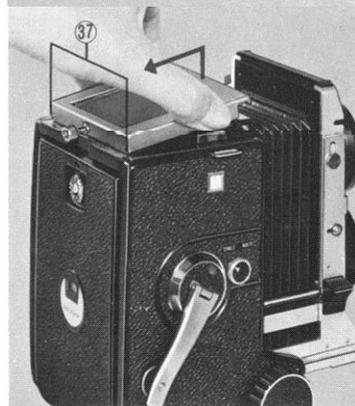
### Changing the Focusing Screen



Various focusing screens inserted in convenient individual frames are interchangeable for this camera as accessories. They can be freely exchanged when desired.

#### Removing the focusing screen

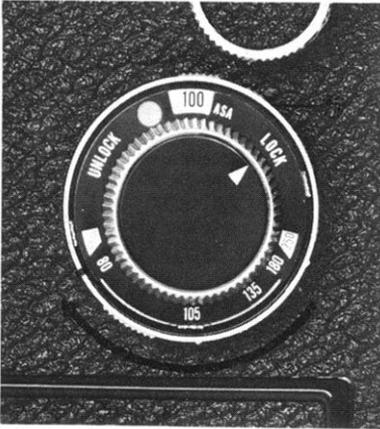
Initially remove the focusing hood, then extend the bellows by turning the focusing knob. Release the frame catch (36) by turning it in the direction of the arrow, as shown in the photo. Next, by pulling back the focusing screen frame after raising its front portion upward, the focusing screen frame can be removed.



#### Installing the focusing screen

After positioning the two holes on the rear side of the focusing screen over the two guide pins (37) on the body, depress the front portion. Return the frame catch to its original position while depressing the front portion of the focusing screen frame.

# ■ Before Taking Pictures

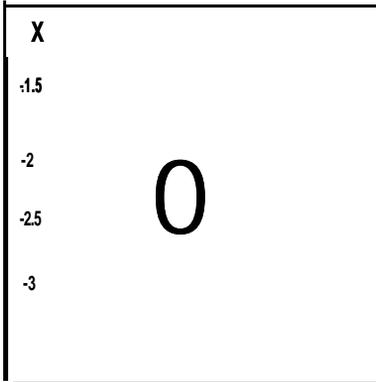


## Setting the Parallax Correcting Dial

By turning the parallax correcting dial (25), 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.



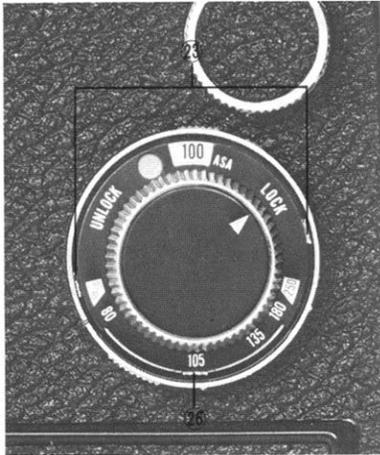
### Compensating exposure:

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

The figures on the focusing screen left side indicate the exposure factor. Compensate the exposure after reading the figure indicated by the pointer while focusing. For instance, assuming that the correct exposure value measured by an exposure meter is  $1/125$  sec. at  $f/11$ , compensate the exposure as follows:

If the pointer indicates 2,  $1/125$  sec.,  $f/8$   
or  $1/60$  sec.,  $f/11$

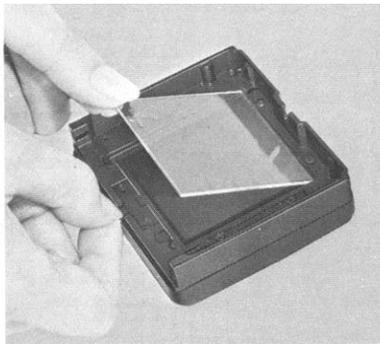
If the pointer indicates 3,  $1/125$  sec., between  $f/5$  and  $f/5.6$   
or  $1/60$  sec., between  $f/11$  and  $f/8$



## Indicating Film Speed and Type on Respective Windows

By turning the ASA indication shifting lever (23) while pushing it against the camera body, the film speed (ASA) will appear in the window. Set it to the speed of the loaded film.

By turning the film type indication select lever (26), three types of identifying marks will appear in the window. Use these marks as a film memory guide (black and white, daylight color, and tungsten type color).



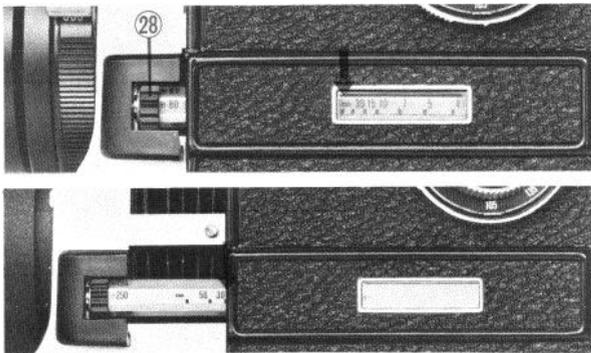
When using a 55mm or 65mm lens, set the dial (25) to 80 and attach the parallax correction plate for 55mm/65mm lenses to the focusing hood.

How to install the parallax correction plate:

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

The figures visible on the left side of the correction plate after attaching the focusing hood to the camera reveal 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.

## Distance Scale



A distance scale is provided on the left side (viewing the camera held for photographing). By turning the knob (28), 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 red. Read these scales at the index position in the window.

Distance scales for 105mm, 135mm, 180mm, and 250mm lenses are indicated in black. Read these scales at the front end of the camera body side plate.

Since the flange-focal length varies between the 105 mm F3.5DS or 105mm F3.5D lens and the ordinary 105mm F3.5 lens, a distance scale is especially provided.

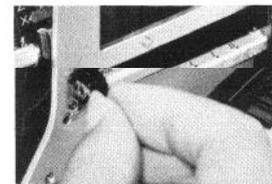
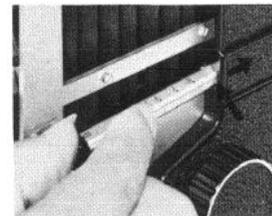
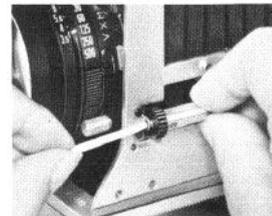
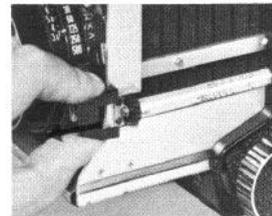
A distance scale marked 105D.DS is used for 105mm DS and 105mmD lenses (There are two types, scaled in feet or meters.).

A distance scale marked 105 is used for ordinary 105 mm lens (There are two types, scaled in feet or meter.).

Distance graduations of lenses other than the 105mm lens are all the same.

### Replacing the Distance Scale

To remove the distance scale, at first, fully extend the bellows by turning the focusing knob, then remove the scale end cover by sliding it to the front. Next, pull out the distance scale after detaching it from the bearing, by holding the distance scale revolving knob portion while pressing in the distance scale shaft with a pointed, fine wire.



When installing the distance scale, insert the shaft tip opposite the revolving knob into the camera body bearing. In this case, insert the shaft tip while pressing the spring located near the bearing to the inner side, at the side of the scale. Next, fit the shaft to the bearing while pushing in the shaft tip with a finger nail; then install the cover as it originally was.

# ■ Taking Pictures



1. After focusing, turn the shutter speed ring (15) and set the shutter speed; then adjust the aperture of the lens by turning the aperture control knob (18). Now the camera is prepared for taking pictures.
2. Release the shutter by pressing the shutter release button (7) or (19). When a cable release is used, screw its tip into the cable release socket in the lower button (19).
3. After each exposure, wind the film by turning the film wind crank, then follow the same routine as mentioned above.

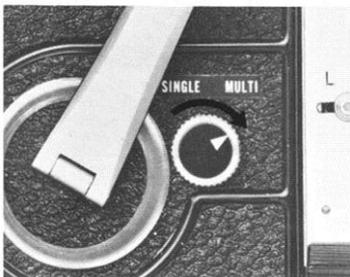
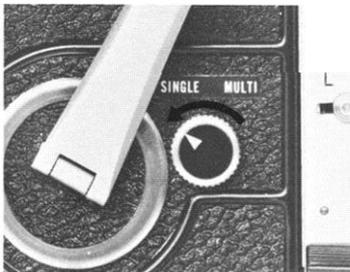
## How to Remove Film

When all film frames have been exposed, the film winding stop mechanism is automatically released. Remove the film after winding the remaining leader 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 (6-exposure color films), turn the film wind crank while depressing the shutter button on the camera body after winding the exposed frame. In this manner, film can be completely wound without stopping.

## Shutter Operations



### Using the Multiple Exposure Selector

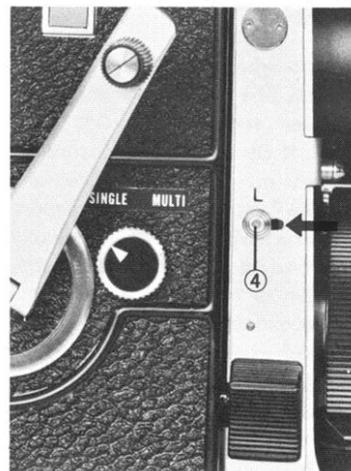
When the multiple exposure selector triangular mark is set toward the word "SINGLE," double exposures are prevented. Once the shutter button has been depressed, it cannot be redepressed without first advancing the film. When the multiple exposure selector triangular mark is set toward the word "MULTI," the shutter button can be depressed repeatedly regardless of advancing film. This proves convenient in the following cases:

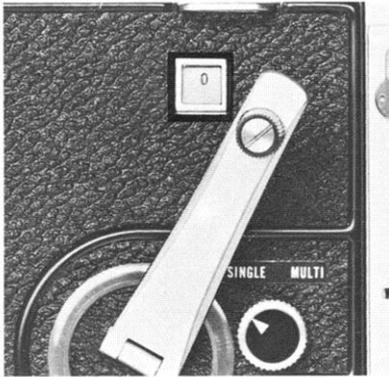
1. When multiple exposures are desired.
2. For operations without loaded film (such as shutter testing).
3. When photographing with the single-exposure attachment.

When photography is suspended by a missing chance to release the shutter in spite of deeply depressing the shutter button half way, it rarely happens that the shutter button cannot be depressed on the next attempt. In this case, by setting the mark on "MULTI." pictures can be taken without needlessly advancing the film.

### Locking the Shutter Button

By shifting the lock button (4) toward the letter "L", the shutter button is locked. While suspending photography or the camera is stored in the case, even though the shutter has been cocked by film winding inadvertently releasing the shutter can be prevented.





## When No Film is Loaded in the Camera

Even when the film wind crank is turned, the number in the exposure counter remains at "0". In this case, if the multiple exposure button is set on "SINGLE," the shutter release button cannot be depressed. However, when a takeup spool is in the take-up spool chamber, although no film is loaded, the counter may be advanced (depending upon the type of spool). In this case, roller connected to a film will run idle, causing wear on the roller and proving undesirable to turn the film wind crank in this condition.

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

When using this type of lens shutter, if the shutter button is depressed without cocking the shutter, no picture will be recorded on the film. Concerning the unopened shutter blades, even though the shutter is cocked manually, the shutter button will not operate due to action of the double-exposure-preventing device. In this case, also, set the multiple exposure button triangular mark toward "MULTI" and depress the shutter button, or release the shutter by pushing the release lever on the lens-shutter assembly.



250 mm 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.

# ■ Photographing by Flash Unit



When photographing by flash, attach a flash gun to the accessory shoe (21) on the camera body and connect the cord to the flash synchro-terminal (13).

When M-class flash bulbs are used, set the synchroflash M-X selector (14) on M to synchronize flash at all shutter speeds.

When an electronic flash unit is used, set the synchroflash M-X selector on X to synchronize flash at all shutter speeds.

This synchroflash M-X selector can be changed even after cocking the shutter. When photographing without flash, keep the selector on X.

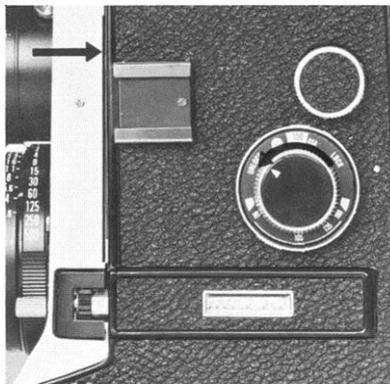
## FLASH SYNCHRONIZATION TABLE

Contact	Bulb	Shutter Speed										
		B	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{15}$	$\frac{1}{30}$	$\frac{1}{60}$	$\frac{1}{125}$	$\frac{1}{250}$	$\frac{1}{500}$
M	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
	F class	0	0	0	0	0	0	0	0	x	x	x
	M class	0	0	0	0	0	0	0	0	x	x	x

Combinations with the 0 mark synchronize.

Combinations with the x mark do not synchronize.

## Changing lenses



By turning the focusing knob, completely retract the bellows so that the lens mount portion contact to the body. Recess the film wind crank in the camera body.

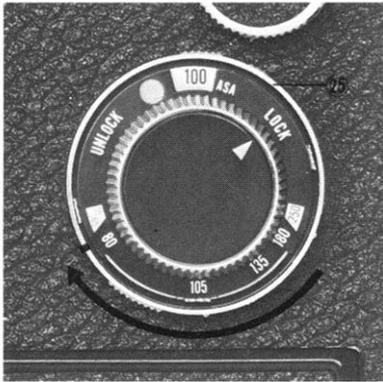
Turn the lens change knob (24) so that the triangular mark points to the word "UNLOCK."



Tip the camera so that the lens faces upward, and while firmly grasping the lens barrel pinch the head of the lens catch bracket (20), press the head toward the camera body, push it down to release the lens catch, and remove the lens.



To attach another lens to the camera body, carefully position the lens so that the lens shutter cocking lever (17) connects with the cocking lever on the camera body. This operation is correctly performed by previously cocking the lens shutter with the fingers, first inserting the lens from the cocking lever side on the body. Clamp the lens catch (20) to its original position, and turn the lens change knob (24) clockwise to the "LOCK" position. With this operation, lens replacement is completed.

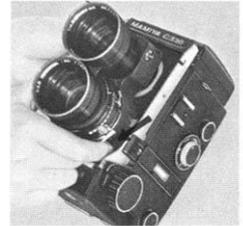
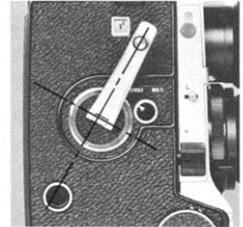


After changing a lens, set the parallax correcting dial (25) to the focal length value of the mounted lens. Regarding 55mm and 65mm lenses, set the parallax correcting dial to 80. then attach the parallax correction plate for 55mm/65mm lenses to the focusing hood. (Refer to p. 15 for handling method of the focusing hood).

Concerning the 250mm lens, set the parallax correcting dial to 180.

## PRECAUTIONS

1. If the film wind crank is not kept positioned diagonally upward, (the same angle as the crank housing position), the cocking lever (17) cannot be connected with the cocking lever on the camera body.
2. Regarding 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.
3. When the lens change knob (24) is in the "UNLOCK" position, the portion to which the picture taking lens (lower lens) is attached is protected by a cover from the camera interior 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. Never push it.
4. After changing a lens, turn the lens change knob (24) to the "LOCK" position; otherwise, the shutter release button cannot be depressed.



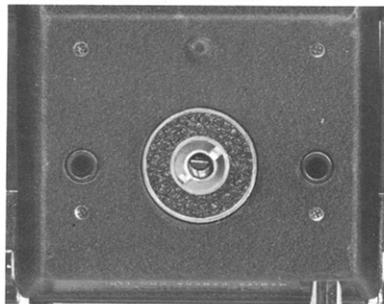
## ■ Changing the Back Cover



The back cover of this camera can be exchanged with the exclusive back cover for single exposure attachment. Release the back cover catch button and open the back cover halfway. In this condition, slide the back cover in the arrow direction (as shown in the picture) while depressing the back cover hinge release (33).

When the back cover is fully opened, the back cover also can be detached by sliding it horizontally while depressing the tip of the hinge release from the inner side of the back cover. When installing the back cover, press the hinge release with the hinge of the cover while inserting the hinged shaft of the back cover in the body receiver, sliding the back cover in the reverse direction from detaching it.

## ■ Tripod Socket



In addition to a tripod, a grip holder, pistol grip, paramender, and so forth can be attached to the tripod socket (34) on the camera base.

Those persons who own a tripod with a 3/8 in. tripod screw can attach their tripod as follows. First, remove the securing screw located in the interior of the tripod socket with a driver, turning the screw counterclockwise. Next, fit a coin to the groove of the tripod socket and remove the tripod screw by turning it counterclockwise; thus the screw receptacle on the camera body will accept a 3/8 in. screw.

## ■ Lens Specifications Table

Lens	Composition	Picture Angle	Minimum Aperture	Filter Diameter (mm)	Lens Hood Diameter (mm)	Close-Up Capabilities	
						Shortest Distance from Film to Subject	Subject Coverage
55mm f/4.5	9 element 7 group	70° 30'	f/22	46 $\phi$	48 $\phi$	9 1/2 in. (24.1cm)	2 17/32 × 2 17/32 in. (6.4 × 6.4cm)
65mm f/3.5	6 element 5 group	63°	f/32	49 $\phi$	50 $\phi$	10 11/16 in. (27.1cm)	2 21/32 × 2 21/32 in. (6.7 × 6.7cm)
80mm f/2.8	5 element 3 group	50° 40'	f/32	46 $\phi$	48 $\phi$	1ft. 1 15/16 in. (35.4cm)	3 25/64 × 3 25/64 in. (8.6 × 8.6cm)
105mm f/3.5D	5 element 3 group	41° 20'	f/32	46 $\phi$	48 $\phi$	1ft. 11in. (58.4cm)	7 1/4 × 7 1/4 in. (18.4 × 18.4cm)
135mm f/4.5	4 element 3 group	33°	f/45	46 $\phi$	48 $\phi$	2ft. 11 1/2 in. (90.2cm)	9 15/16 × 9 15/16 in. (25.2 × 25.2cm)
Super 180mm f/4.5	5 element 4 group	24° 30'	f/45	49 $\phi$	50 $\phi$	4ft. 2 3/4 in. (1m29cm)	10 53/64 × 10 53/64 in. (27.5 × 27.5cm)
250mm f/6.3	6 element 4 group	18°	f/64	49 $\phi$	50 $\phi$	6ft. 8 3/4 in. (2m05cm)	1ft. 1/4 in. × 1ft. 1/4 in. (31.1 × 31.1cm)

# ■ Angle of View Changes by Interchanging lenses

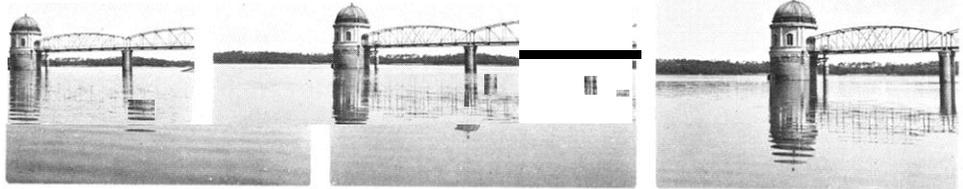
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**55mm**

**65mm**

**80mm**

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



**105mm**

**135mm**

**180mm**

**250mm**

