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Instructions

Congratulations on your wise decision to purchase the Mamiya RB 67 Professional SD (Pro-SD)

The RB67 Pro-SD is the latest addition to the long-selling RB67 Series which was first released in 1970. Due to its innovative 6×7cm revolving back format, the RB67 has been highly recognized throughout the world as the genesis of the medium format cameras.

Specically, the camera features an expanded interval lens mount diameter (from 54mm to 61mm, i.e. the same as that of the RZ67), thereby enabling a wider variety of new, high performance lenses, such as the APO series to be used. The newly developed extra bright, ultra low dispersion glass of the APO series lenses and shift lens have gone a long way to improving system configuration.

With a wide spectrum of accessories, photographic excellence is assured in a multitude of applications from commercial to portraiture.

Perusing this manual before attempting to use the Pro-SD will minimize the possibility of malfunctions.

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Practical 6×7cm

Since 6×7cm format covers an area 4.5 times the 35mm format, excellent picture quality is assured. In color photography, in particular, it demonstrates superior results. The ratio between the length and width of the 6×7cm format is almost the same as that of large sized printing paper, permitting economical enlargements without cropping.

The revolving adapter allows quick changeover from the vertical or horizontal format

By simply turning the revolving adapter 90°, either a vertical or horizontal format can be selected without moving the camera. Proper picture composition is easily determined by index finder lines interlocked with the revolving adapter.

Bright, parallax-free finder

With the lens aperture open, the subject appearing on the large, bright focusing screen assures speedy focusing and composing. The parallax-free single-lens reflex Pro-SD thus is ideal for instantaneous photos where the utmost in quality is required.

The Pro-SD roll film holders assure excellent film flatness

The Pro-SD roll film holders are designed with the utmost consideration given to film flatness and also feature an interlocked multiple exposure prevention system.

The newly designed dark slide slot accepts the dark slide from either the left or right side.

The 6×8cm format now possible

The Pro-SD body back is designed to permit 6×8cm photography, thus expanding the photographic scope for studio work and in other fields that use 6×8cm.

Close-up photography through the full use of the bellows

Since the bellows can be extended up to 46mm, photographing even the smallest subjects in frame full is possible. When auto extension tubes are used, the subject can be further enlarged. When a standard lens is employed, life-sized (1:1) reproductions are possible only with the tubes.

Excellent heat and cold resistance

The Pro-SD is mechanically advanced so that its components can function over a wide temperature range from approximately -20°C to -50°C.

Enlarged lens mount

Compared to the conventional RB67 Series, the Pro-SD has a lens mount with a diameter 7mm larger, making it possible to accept a new group of high performance sophisticated lenses, such as the APO, shift, and newly designed wide angle lens 75mm. Since the lenses are systematized, a lens suitable for desired composition can be selected. The new lenses are designed with emphasis on color contribution and feature a built-in bulb (B) unit, and the wide-angle lenses have a floating feature to assure improved close-up performance. All Pro-SD lenses use a lens shutter and an electronic flash synchronize for all shutter speeds.

Extensive variety of accessories and interchangeable film holders

Pro-SD accessories are interchangeable with those of the RB67 Series and are available in a diverse variety, thus satisfying every possible photographic need.

A wide variety of film holders are available: 6×7cm format 120/200 roll film holders and 6×4.5cm (semi-format) holders for the Pro-SD, as well as 6×7cm and 6×8cm power drive holders, 70mm holder and sheet film holders. All these assure high quality, sharp images over a large picture area.

2 Parts and How to Operate

Shutter cocking lever

The lever cocks both the shutter and the mirror. Unless they are set, a safety device prevents the shutter release button from being depressed.

Dark slide

When the dark slide is inserted, a safety device prevents the shutter release button from being depressed. (Take the dark slide out before taking a picture and put it into the storing lug.)

Mirror (Never touch it!)

Distance graduation

Focusing knob

Distance scale

Nameplate

By sliding the nameplate, the focusing hood can be exchanged.

Finder latch

The latch prevents the finder from slipping off if the nameplate is carelessly move.

Lens mounting index mark (red dot)

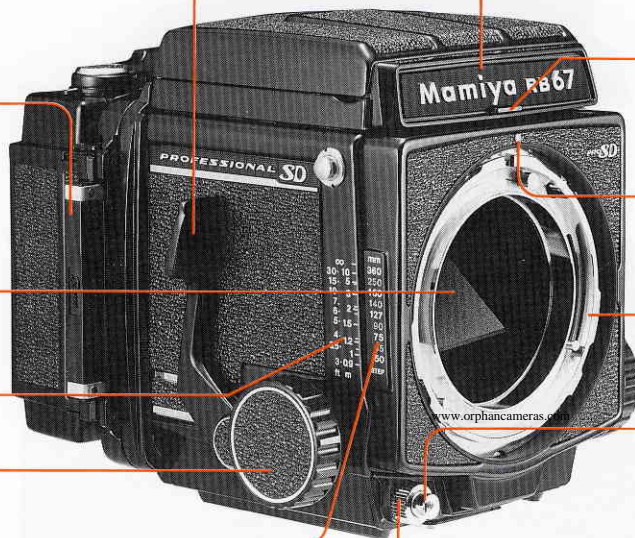
Lens mount

Shutter release button

A safety device will prevent the shutter from being released if the camera is not completely ready for photography.

Shutter release lock ring

When index mark of the ring is aligned with the red dot, a safety device prevents the shutter release button from being depressed. (Align the index mark with the white dot before taking a picture.)



Waist-level finder

Single touch shielded operation.

Magnifier setting lever

By moving the lever to the left, the magnifier can be set. By pressing down on the magnifier base plate, the magnifier can be hooked in place.

Diopter lens

The diopter lens is interchangeable with other diopter lenses.

Finder mounting prongs**Focusing screen**

Various interchangeable screens are available. Being interlocked with the revolving adapter, horizontal picture format index lines appear under the screen.

Carrying strap lug**Accessory shoe****Dark slide storing lug**

Insert the dark slide of a holder without a dark slide slot.

Focusing knob fixing lever**Film advance lever**

Unless the film is loaded and advanced, a multiple-exposure preventive device prevents the shutter from being released. Unless the shutter is released, the film cannot be advanced, thus preventing idle film advance.

Film wind-stop release lever**Memo clip**

Convenient slot to store film box covers or to enter other data.

Coupling pin for film wind-stop release

When the shutter is released the pin will automatically disengage film wind-stop allowing subsequent film advance.

Light baffle

Do NOT touch the baffle with your fingers!

Revolving adapter

Turning this adapter up to 90° permits change-over between the horizontal and vertical picture format.

R-lock lever

Use the lever to attach and detach the revolving adapter.

Slide lock for G-lock type holder

Use the lock to attach and detach film holders. When the dark slide is not inserted in the attached roll film holder, a safety device prevents the holder from being detached from the camera body.

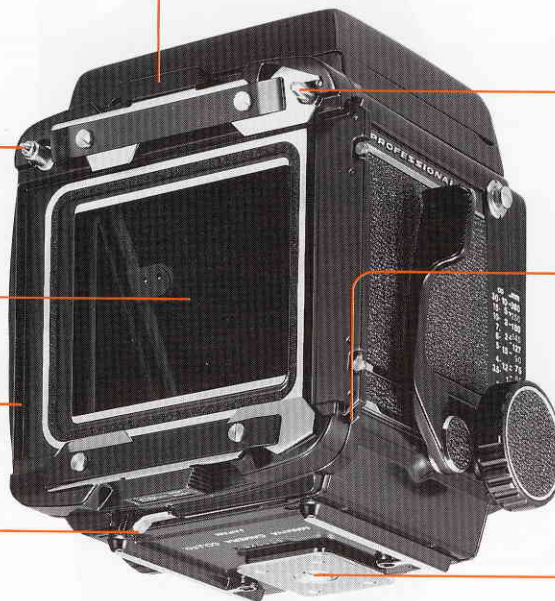
Coupling pin for multi-exposure prevention

Release lever for slide lock

When detaching a film holder other than the roll film holder, or when the slide lock is locked, move the slide lock to the left while pressing this release lever.

Tripod socket

The socket fits to a U 1/4-inch tripod screw. By removing the inner socket, a tripod with a 3/8-inch tripod screw can be used.



Synchronized at all speeds.

Shutter speed ring

Bulb (B)

Used to close the shutter when the shutter speed dial has been set at T (time).

Depth-of-field preview lever

Bayonet ring

The bayonet ring clamps the lens to the body. When the mirror is not cocked, a safety device prevents the lens from being removed.

Cocking position marks

Mirror-up socket

Merely screwing a cable release into the mirror-up socket prepares the camera for mirror-up, giving vibration-free photography. Raise the mirror before-hand, then release the shutter just when taking a picture.



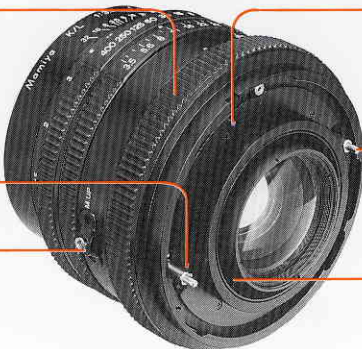
- Aperture scale ring

Depth-of-field scale

- Distance scale for depth-of-field reading

The ring is calibrated in both meters (m) and feet (ft).

- Distance scale lever for depth-of-field reading



- Shutter release lock pin

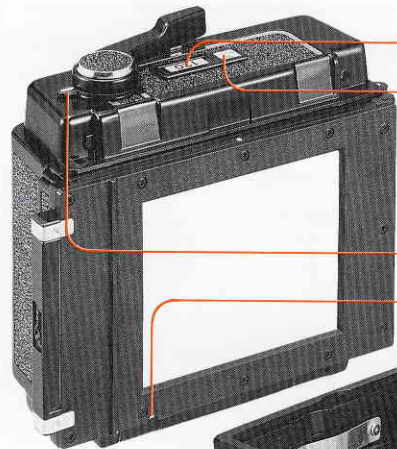
The shutter can be released by turning the shutter cocking pin clockwise while pressing the lock pin.

- Shutter cocking pin

When cocking the shutter with a finger, turn the cocking pin to the red dot.

- Lens mount adapter ring

By removing the KL lens adapter ring, use it with the RB series lens body. (When using with the Pro-SD, attach the adapter ring to its original position.)



Film type index (120 or 220)

Exposure counter

When the film is advanced and the shutter is released, a red mark appears on the side of the counter digits. When the next film advance is completed, the red mark disappears. The red mark also appears while the film is being advanced from S to 1.

Multiple exposure lever

When multiple exposures are desired, simply move this lever to the front until the red mark becomes visible.

Pro-SD Outer Cassette

Safety-catch for dark slide

When the film holder is being carried about after detaching it from the camera body, the safety device prevents the dark slide from accidentally slipping off.

When the film holder is attached to the camera body, the dark slide can be removed automatically.

Back cover

Dark slide slot

Accepts the dark slide from either the right or left side.

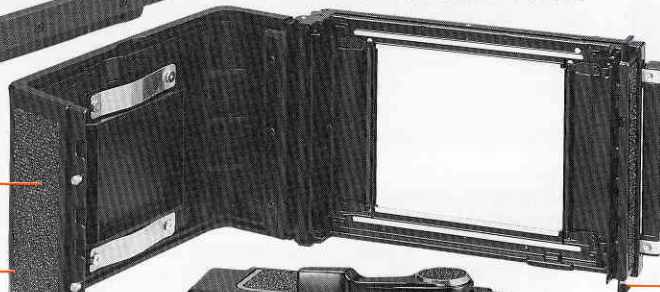
Film spool stud

Load film so that the leader paper is pulled out following the guide marks.

Guide mark for leader paper

Starting mark

Wind the film advance lever until the leader paper starting mark is aligned with this mark. After closing the back cover, wind the lever several strokes, and it will stop at the first exposure position.

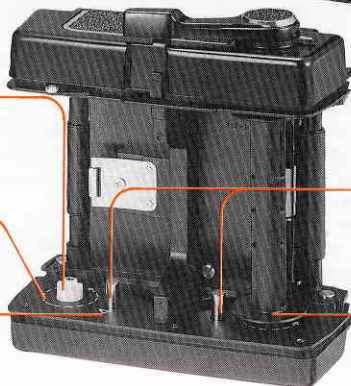


Back cover latch (top and bottom)

To open back cover, both top and bottom latches must be pulled out.

Spool release pin

The film spool is attached and detached by pressing down this pin.



Take-up spool stud

After inserting the take-up spool, the leader paper is inserted in the spool.

● Camera Body

Type:

6×7cm lens-shutter single-lens reflex camera; corresponding the 6×8cm format.

Lens mount:

With safety lock ring.

Viewfinder:

Horizontal format index mark interlocks with revolution of revolving adapter (Vertical format based on fixing index line on focusing screen) 96% of the field of view visible.

Waist-level finder:

Single-action opening and closing, with mounting lock.

Interchangeable.

Finder magnification is 3×. Interchangeable, diopter lens.

Focusing screen:

With fresnel lens. Interchangeable. (7 types)

Revolving adapter

Full 90° revolving rotary system; vertical horizontal format indicator interlocking mechanism.

By R-lock interchangeable system with Polaroid pack film holder, etc.

By G-lock revolving adapter system, G-lock-type film holders are attachable.

Focusing:

Bellows extension system with rack and pinions.

Maximum extension 46mm. With focusing knob fixing device.

Shutter and mirror cocking:

Single-action (75°) cocking by lever on the side of the body.

Additional features:

Accessory shoe is provided.

Shutter release button can be locked to prevent releasing the shutter accidentally.

● Standard Lenses:

Lens:

Mamiya KL 127mm f/3.5L with lens hood

Composition:

6 elements in 4 groups

Angle of view:

38°

Filter screw diameter:

77mm

Aperture:

Full automatic diaphragm (with depth-of-field preview lever). f/3.5 to 32 (with click-stops for aperture settings).

Shutter:

Seiko #1 shutter

1 to 1/400 second and T (Time)

Flash synchronization:

X contact

Other features:

Mirror-up photography. Bulb (B) feature.

● Pro-SD 120 Roll Film Holder

Film used:

120 roll film 10 exposures; 6×7cm format
Actual negative size: 56×69.5mm

Film advance:

One-stroke film advance lever (After winding 70°, can be wound in several short, definite strokes).

Automatic multiple-exposure prevention.

Film wind-stop automatic release.

Multiple exposures are also an option.

Film counter:

Automatic reset; red index mark disappears upon completion of film winding

Features dark slide dislocation prevention, storing lug and memo clip.

● Dimensions:

(Camera body with roll film holder)

Height: 144mm

Width: 104mm

Length: 233mm (with 127mm f/3.5 lens)

● Weight:

Camera body 1050g

Revolving adapter 200g

Waist-level finder 185g

Pro-SD roll film holder 475g

KL 127mm f/3.5L lens 780g

Total weight 2690g

4 Attaching and Removing the Lens



After cocking the mirror and the lens shutter, mount the lens on the camera body.

Cocking the mirror

1. Remove the front body cap from the camera body.
2. Be sure that the mirror is in the cocked, down position in the camera body, shielding the film plane from exposure to light.

If the mirror is up, cock the mirror by fully pushing down the shutter cocking lever toward the front of the camera.

Cocking the lens shutter

1. Remove the rear cap of the lens by turning the bayonet ring clockwise.
2. Cock the lens shutter. Firmly turn the shutter cocking pins with your fingers, to the red dots (A) of the cocking position.
 - If the cocking pins are not fully turned to the red dots (A), the shutter will not be completely cocked.
 - The shutter is always cocked on a lens that has been removed from the body.



Attaching the lens

1. Turn the bayonet ring counterclockwise, and align the white dot on the bayonet ring with the red mark at the center of the lens mount.
2. Mount the lens, keeping the red mark aligned with the red mark on the body; then firmly twist the bayonet ring clockwise. The camera and lens are now set.

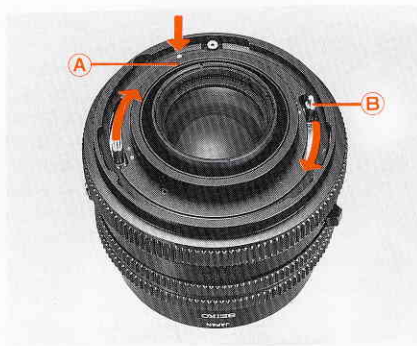
NOTE:

Do not place the camera on its back without the rear body cap or film holder being in place. Otherwise the coupling mechanism may be damaged!



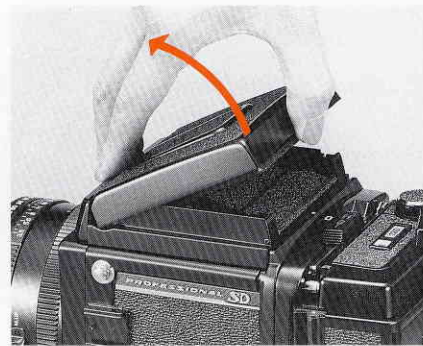
Removing the lens

1. Set the mirror and cock the shutter by pushing the cocking lever as far as it will go toward the front of the camera body.
 2. Rotate the bayonet ring of the lens counter-clockwise as far as it will go (the white dot on the bayonet ring will align with the central red mark on the body) and remove the lens.
- If the mirror and the shutter are not cocked the safety interlock will interfere with the rotation of the bayonet ring and the lens cannot be removed.



Releasing the shutter on a lens which has been removed from the body

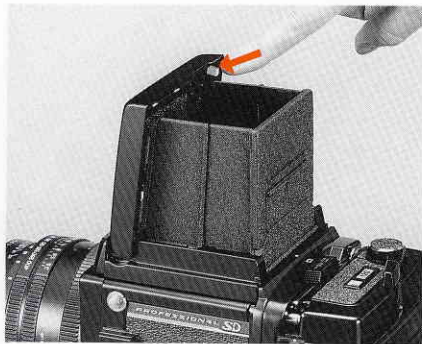
To release the shutter on a lens which has been removed from the camera body, turn the cocking pins (B) clockwise, while pressing the shutter lock pin (A) with a finger. The cocking pins should be turned all the way; do NOT leave the pins turned halfway.



Raising the finder

Merely lift the back of the finder until it opens completely.

Operation



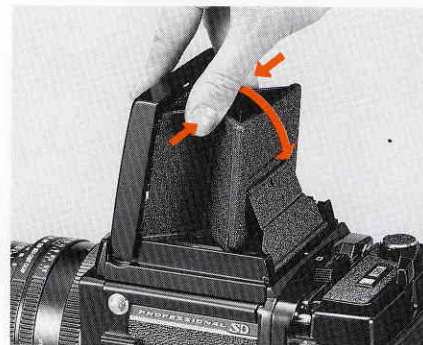
Raising the magnifier

Slide the magnifier release slightly to the left and the magnifier will pop up into position.



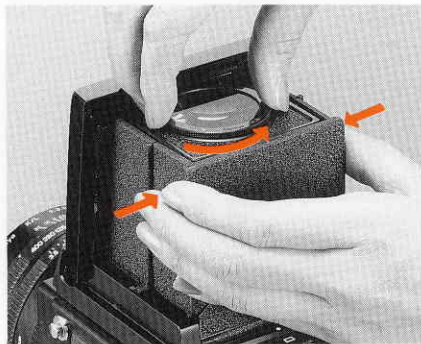
Lowering the magnifier

Gently push the base plate of the magnifier all the way down until it locks in place.



Folding the finder

After lowering the magnifier, gently squeeze the right and left panels of the finder together while closing it.

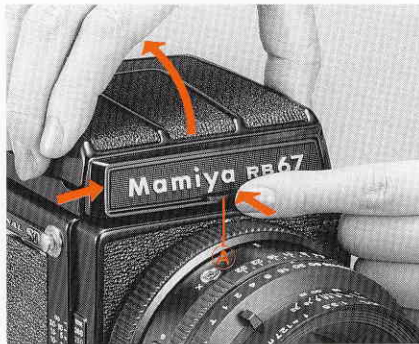


Changing the diopter lens

While holding the diopter lens base plate with both side panels of the finder, turn the diopter lens counterclockwise, and at the point where the white dot on the diopter lens aligns with the white dot on the base plate, remove the diopter lens.

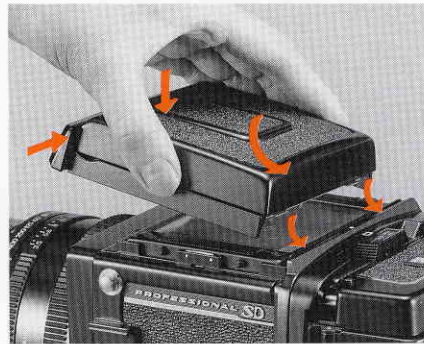
To mount another diopter lens, simply aligns its white dot with that of the base plate and turn clockwise.

- In addition to the standard (-1.5) diopter lens, there are 5 others: +1, 0, -1, -2, and -3.



Detaching the finder

While pressing the finder latch (A), as viewed from the front slide the nameplate to the right, and while slightly raising the front remove the finder.

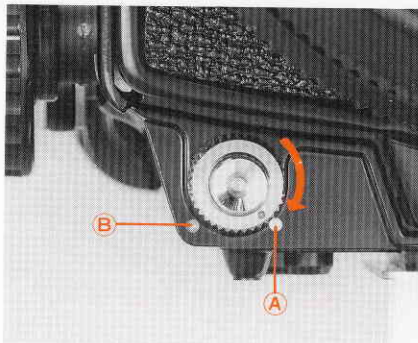


Attaching the finder

Insert the two prongs on the back of the finder into the slots on the camera body, and while pressing the front portion of the finder toward the camera body, return the nameplate to its original position. The latch will pop out and the finder will lock automatically.

6

Shutter Operation

**Shutter release button**

The shutter release button incorporates a safety mechanism to prevent accidental release of the shutter.

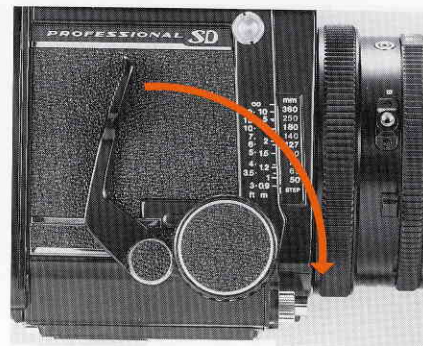
When the shutter release locking ring is turned and the red index dot is aligned with the white dot (A) on the body, the shutter release button can be pressed.

When the red index dot is aligned with the red dot (B) on the body, the shutter release button cannot be pressed.

Releasing the shutter

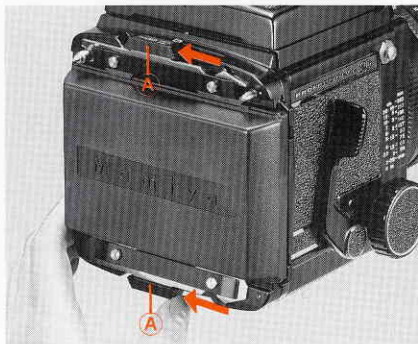
When the shutter release button is pressed, the mirror is pushed up and the shutter is released.

- If the mirror is not cocked, the shutter release button cannot be depressed.
- The socket inside the shutter release button is threaded so that a cable release or a self-timer can be easily attached.

**Cocking the shutter**

Push the shutter cocking lever forward until it stops. The shutter in the mounted lens and the mirror in the camera body will be cocked simultaneously. The lever will return to its original position automatically.

- When the shutter is not completely cocked the shutter cocking lever will not return to its original position.
- Once the shutter is cocked, the cocking lever will not move until the shutter release button is pushed and the shutter released. Therefore, when the cocking lever does not move, it indicates the shutter is cocked.



Removing the rear body cap

By moving the slide locks (A) on both sides all the way to the left, the cap be removed.

- Never push the light baffle on the camera back after removing the rear body cap. If the light baffle is forced, light leakage or other malfunctions may occur.



Attaching the roll film holder

1. Slide the upper and lower slide locks (A) on the back the body completely to the left of the indentation.

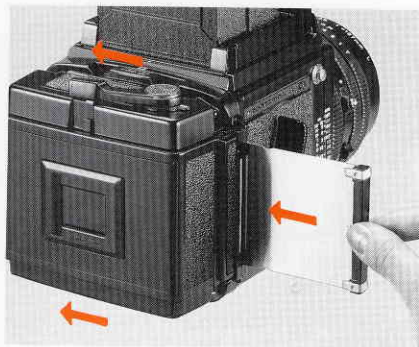
NOTE:

Should either slide lock be moved to the right while nothing is attached to the revolving adapter, the slide lock release lever (B) will engaged and the slide lock will not move. If this happens, press the release lever (B) and return the slide lock to the open position.



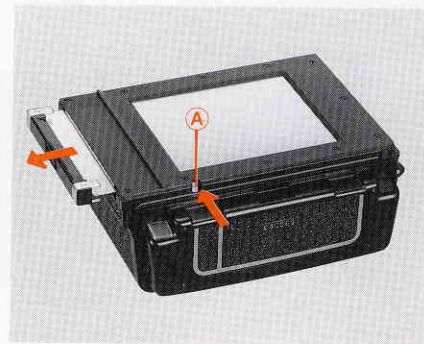
2. Attach the roll film holder to the body and slide both slide locks firmly in the direction of the arrow. (lock)

- If the revolving adapter slide lock is not completely pushed in or pulled out, the shutter safety lock will not release the shutter. Always make sure the slide lock is properly engaged or disengaged.
- The shutter release button can not be depressed if the dark slide is completely inserted or if there is no film in the camera. In addition the Pro-SD roll film coupler prevents multiple exposures. (See pages 16 and 25 for the shutter release test.)



Removing the roll film holder

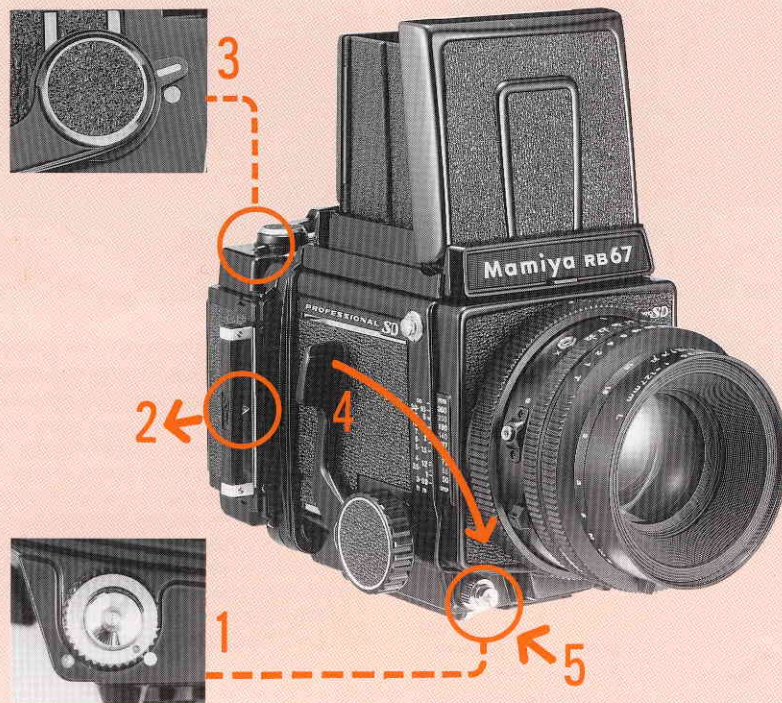
1. Insert a dark slide in the roll film holder.
 2. Remove the roll film holder by sliding both slide locks in the opposite direction to the arrow (Lock) on the slide lock.
- If the dark slide is not inserted, the slide lock will be locked by the safety device, and the roll film holder cannot be detached.
 - When a dark slide is completely inserted, the slide lock release lever is automatically disengaged, and the slide locks can be moved without pressing the release levers.



Extracting the dark slide of the roll film holder after it has been detached from the body

When the roll film holder for the Pro-SD is removed from the body, the safety device prevents the dark slide from being pulled out carelessly or accidentally. However, if you desire to pull it out, simply use your fingernail tip to press the dark slide lock release lever (A) on the bottom of the outer cassette.

8 Releasing the Shutter

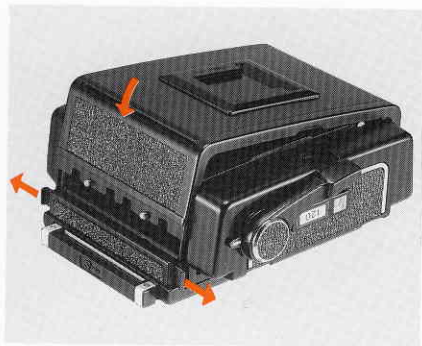


It is best to become acquainted with the method of releasing the shutter before actually putting film in the camera.

1. Rotate the shutter release lock ring until the mark on it is aligned with the white dot on the body.
2. Remove the dark slide or pull it out until all the triangular holes become visible.
3. Push the multiple exposure lever on the roll film holder forward to the multiple exposure position — i.e. until the red mark is visible.
4. Push the cocking lever all the way down.
5. Press the shutter release button.

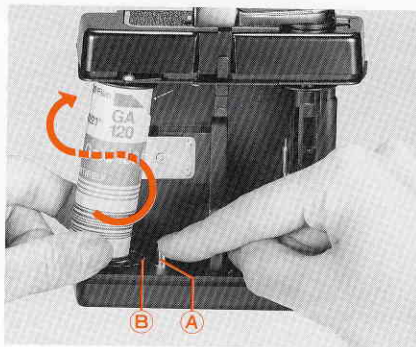
The first steps can be done in any order. After you are thoroughly familiar with the above steps, return the multiple exposure lever to its normal setting.

9 Loading the Film Holder



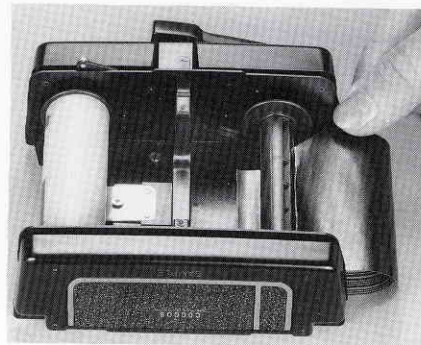
1. While pressing the back cover, pull out the upper and lower back cover latches and the back cover will open. Remove the film insert.

- When loading film, avoid direct sunlight: either load the film in the shade or turn your body away from the sun and load it in the shade of your own body.
- Use 120 roll film with the 120 roll film holder and 220 roll film with the 220 roll film holder.



2. While pressing the spool release pin (A) on the left side of the film insert, insert a new roll of film on the film spool stud.

Load the film so that the leader paper can be pulled out along the arrow of the leader paper guide mark (B). Wind the film with the printed side of the leader paper on the holder's pressure plate side. If the printed side does not face the pressure plate side, reload the film, reversing the film position.



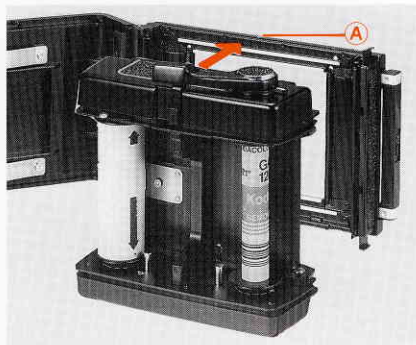
3. Pull out the leader paper and insert the tip into the groove of the take-up spool.

* Position the film so that the leader paper winds evenly between the spool flanges — if it is uneven, film and photo malfunctions may occur.



Move the film advance lever gently, until the starting mark (arrow) of the leader paper aligns with the starting mark of the holder. The film advance lever can be moved in several short, definite strokes.

- If the leader paper is pulled too far, the film may become fogged, so be careful not to go beyond the arrow.



1. Put the insert into the cassette, aligning the top side of the insert with the white dot (A) of the cassette.

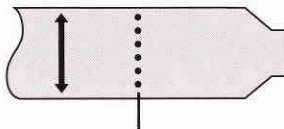
- If the film insert is attached in reverse, the back cover cannot be closed.



2. While pressing the back cover gently, push the back cover latches (top and bottom) as far as they will go.

Setting Start Mark with 220 Roll Film

- To assure even frame spacing, and prevent overlapping, be sure to wind the film up to the printed arrow start mark, which appears after the dotted line.

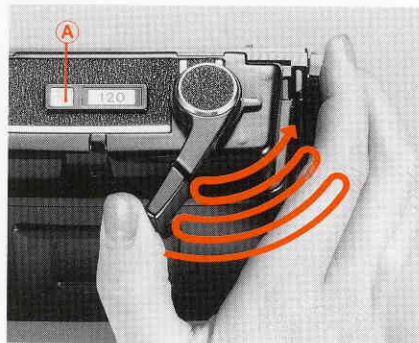
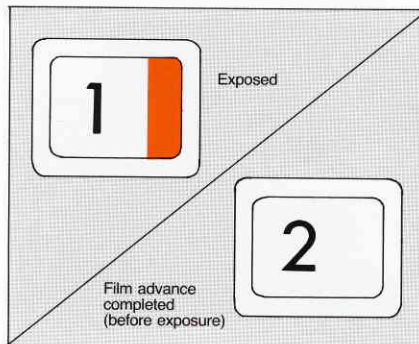


DO NOT use the dotted line for a start mark.

NOTE:

1. The outer cassette of the Pro-SD roll film holder (HA-701) can be used for both 120 and 220 film inserts.
2. The film insert of the Pro-SD roll film holder cannot be attached to the outer cassette of the Pro-S roll film holder.

Exposure Counter



Film winding for first exposure

When the film is completely advanced, the numeral '1' will appear in the exposure counter and the red film-advance warning will disappear indicating that the holder is ready for photography.

- The shutter cannot be released unless the film from S (start) to 1 has been completely advanced with the cocking lever.

10 Operating the Revolving Adapter

(Changing the Picture Format to Horizontal or Vertical)



Operating the revolving adapter

When the horizontal format mark of the revolving adapter is facing upward, a horizontal photo will result. For a vertical photograph, turn the revolving adapter clockwise until it stops. To change from vertical to horizontal, turn the revolving adapter counterclockwise.

In either case, be sure to turn the adapter a full 90° until it clicks and stops. If the adapter is stopped midway, the shutter release button cannot be pressed.

- Do NOT turn the revolving adapter while the shutter release button is being pressed. Especially, when a cable release or a self-timer is used, and adjustment of the release tip is improper, the shutter release button will remain depressed after the shutter is released. Please note!



Horizontal picture format

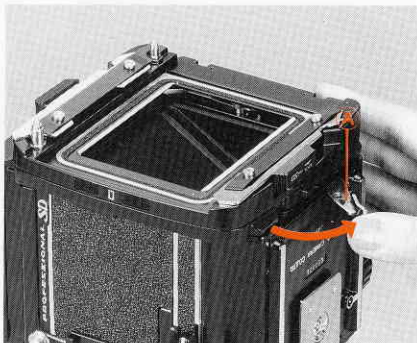
When the revolving adapter is positioned for horizontal format photos, the solid red lines on the ground glass focusing screen indicate the limits of photo composition.



Vertical picture format

When the revolving adapter is positioned for vertical format photos, the broken red lines on the ground glass focusing screen indicate the limits of photo composition.

11 Setting the Shutter Speed and the Aperture



Removing/attaching the revolving adapter

To remove the revolving adapter, pull down the R-lock lever (A) on the back bottom of the camera.

To attach the revolving adapter, position the white dot on the side of the adapter towards the upper side of the camera, and completely push in the R-lock lever while firmly holding the adapter to the camera body.

- The revolving adapter for the Pro-S can also be used.
- **When attaching the revolving adapter, securely hold it to the camera body. A loose attachment may cause incorrect focusing or leakage of light.**



Setting the shutter speed

Align the desired shutter speed with the red dot on the center of the lens barrel.

- Always set the shutter speed to the click stop position: intermediate shutter speeds cannot be used.
- If the speed is changed, after cocking the shutter, do not turn the shutter speed ring rapidly.

Setting the aperture

Turn the aperture ring until the desired aperture is aligned with the red dot on the center of the lens barrel.

- The fully automatic diaphragm can be easily stopped down.
- The aperture can be set at either full click stops or half graduated stops.