



Mamiya 7

Instructions

Congratulations on your purchase of the Mamiya 7 and welcome to the world-wide family of happy Mamiya camera owners!

Mamiya pioneered the 6x7cm medium format SLR system camera when it introduced the first Mamiya RB67 in 1970. In 1982 an additional model followed, the Mamiya RZ67 with electronic features.

Both cameras soon became the market leaders and the preferred tool of trade for portrait, commercial and magazine photographers all over the world and established the 6x7 rectangular image as the "ideal format".

Now we are proud to present the Mamiya 7, 6 x 7cm rangefinder camera.

Reflecting Mamiya's traditional quality workmanship plus modern design, the Mamiya 7 is compact and lightweight. It offers the handling ease of a 35mm camera, while yielding far superior 4.5 times larger images. Featuring interchangeable, rangefinder coupled lenses and AE metering, it also permits taking 24 x 65mm panoramic images on 35mm film, by means of an optional adapter kit.

The Mamiya 7 lens program includes a standard 80mm lens, a 65mm wide angle lens, an ultra-wide 43mm lens and a 150mm telephoto lens.

The Mamiya 7 and its lenses have undergone extensive quality controls at every step of manufacture. Please read this instruction manual thoroughly before you use the camera. A proper understanding of all its features and functions will eliminate potential misuse and ensure a long service life.

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Mamiya 7, the ultimate 6x7 rangefinder camera.

The Mamiya 7 is the only camera in the world that has these exclusive features:

- Ideal 6x7cm film format that enlarges to standard photographic and industrial paper sizes without cropping and without wasting film. A size that can be viewed with the naked eye and that is easy to retouch.
- Lightweight, compact, "quick on the draw" and ergonomically designed to fit in your hand like a glove.
- Crisp, accurate, broad based, split-image rangefinder, that is easy to focus, even in poor light.
- Bright viewfinder with frame lines that are automatically indexed to match the focal length of lens in use and that automatically adjust for parallax.
- Interchangeable, world-class Mamiya lenses, utilizing the latest optical glasses and computer aided design and that take advantage of the camera's short flange focal distance (there is no mirror box) to reach new heights in lens quality.
- Precision, super quiet, electronic shutter with speeds from 4 to 1/500 sec., flash synchronized at all speeds.
- Built-in "dark slide" curtain that permits changing lenses with film in camera.
- Precision AE (automatic exposure) meter with manual overrides.
- Selftimer (delayed action release) with automatic turn-off.
- Optional external battery case to wear inside clothing in extreme cold.
- Optional panoramic adapter that permits use of 35mm film and yields 24x65mm images.
- Built with typical Mamiya quality for hard professional use and long service life.

Nomenclature and Functional Parts

Exposure compensation scale

Exposure counter window

"S" appears automatically when opening the back cover. (Any other numeral indicates that the film is loaded. Do not open the back cover under this condition.)

Exposure compensation lever

Cable release socket

Shutter release button

Power on/off lever

Turn off after use

Self-timer pilot lamp

Lights for 8 seconds when the Self-timer button is pressed, then blinks for 2 seconds, after which the shutter is released.

Lens release button



Film speed window (ISO)

Shutter speed Index Mark

Self-timer button

Rangefinder window

Shows the field of view within the bright frame and the double-image superimposed rangefinder.

Rangefinder coupling roller

Electronic contacts

(Do not touch contacts and keep them clean in order not to impair good electrical contact.)

Bayonet mount

PC Terminal

Lens alignment dot

Align with the dot on the lens to mount/remove the lens.

Nomenclature and Functional Parts

Hot Shoe for mounting electronic flash

Light shield curtain
(Built-in darkslide)

Shutter speed dial

When A or AEL on the shutter speed dial is aligned with the indicator on the camera body, the dial will lock in place. To unlock it, rotate the dial while pushing in the AE lock (AEL) release button located in the center.

Film advance lever

Advance until it stops - the shutter is then cocked.

A/AEL release button

Film setting index dots

Pressure plate

Set the pressure plate position according to the film type (120 or 220/135) used.

Film holder roller

Spool release levers

When replacing the film, be sure to push this lever to the side to lower the spool stud.

Film spool stud

Film holder spring

Back cover latch

Back cover lock release button

Exposure compensation lock release button

Film starting indicator

Be sure to align the film starting indicator "▼" on the camera with the arrow on the film. (Incorrect alignment may result in the film loading failure.)

Film type (120 or 220/135)

Position the pressure plate with either the 120, 220 or 135 roll film index mark.

Viewfinder eyepiece

Rubber eyecup

Carrying strap lugs

Film spool stud

Lower cover

Tripod socket
The socket has U1/4" threads.



Back cover

Memo clip

Holds the film box top or memo as a film type reminder.

120-220/135 selector index window

When the pressure plate is aligned with the film type used, either "120" or "220/135" is indicated in this window.

Film Rewind Button

(use for 135 type film)

Battery chamber

Stores one of silver-oxide battery (4SR44), alkaline manganese battery (4L-R44), or lithium battery (2CR1/3).

Light shield curtain release

Used to open a closed curtain.

Light shield curtain closing lever



mark indicates that the curtain is open.
mark indicates that the curtain is closed.

Nomenclature and Functional Parts

Aperture scale

Focusing ring

Used to focus the lens.

Depth-of-field scale

Allows the aperture (f-stop) to be checked in relation to the correct focusing range.

Lens alignment dot

When mounting or changing a lens, align this dot with the dot on the camera body.



Aperture ring

Distance scale (m-ft)

Used to set or read the subject-to-lens distance.

Infrared index mark

When engaged in infrared photography, use this mark to align lens according to usual focusing position.

Rangefinder coupling lever

Inserting Battery



The camera will not function without a battery.

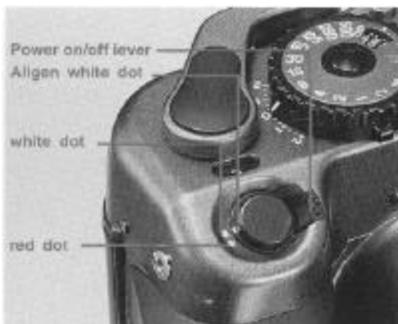
1. Remove the battery chamber cover on the bottom of the camera with a coin or screwdriver.
2. The + terminal is indicated on the inside of the battery chamber cover. Insert the battery as shown in the Photo, being sure to properly place the battery with the "+" side up, facing the cover.

[Batteries]

The Mamiya 7 uses one of 4SR44 silver oxide battery, 4LR44 alkaline battery or 2CR1/3 lithium battery.

Removing camera body cap

[Power on/off]



1. Power can be turned on/off with the small lever beside the shutter release button.

(ON) Align the white dot on the lever with the white dot on the camera body.

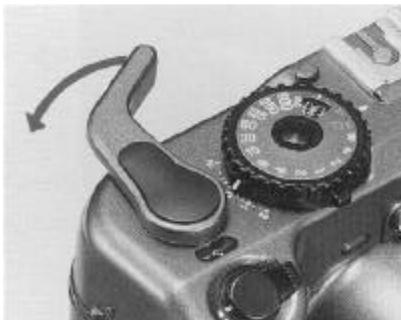
(OFF) Align the white dot on the lever with the red dot on the camera body.



While pressing the lens release button "A" in, rotate the cap counterclockwise, and align the groove "B" on the cap's side with the lens alignment dot on the body. The body cap can then be pulled out.

*The lens release button cannot be pressed when the light shield curtain is open. So make sure the curtain is closed. For curtain opening/closing see page 8.

Opening/Closing Light Shield Curtain



Before opening/closing the light shield curtain, be sure to cock the shutter, otherwise, it will not open/close.

CAUTION:

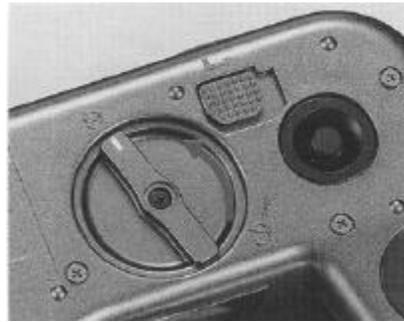
Never touch the light shield curtain. If touched, light leakage or a malfunction may result.

[Opening the light shield curtain]



To open the light shield curtain, slide the light shield curtain release lever along to follow the arrow "↘" down and right. This will cause curtain to snap open. The light shield lever indicator - (a white line) is then aligned with "S".

[Closing the light shield curtain]



Rotate the light shield closing lever in the direction of the arrow, away from the open position "S" and align the white indicator mark on the lever with "⊖" to close.

* When the light shield curtain is open, the lens cannot be removed. Close the curtain to remove the lens.

* When the light shield curtain is closed, the shutter cannot be released. When taking a picture, open the light shield curtain.

(If the light shield curtain is closed, the red warning lamp in the viewfinder will indicate that it is closed.)

Mounting/Removing Lenses

[Mounting lens]



Remove the front and rear lens caps. The front lens cap can be removed by pressing in the tabs on the right and left with your fingers and pulling the cap towards you. The rear lens cap can be removed by rotating it counterclockwise. Align Lens Alignment Dot "A" with the Camera Alignment Dot "B". Insert the lens into the camera body. Then turn the lens in the direction of the arrow (clockwise) until it clicks and locks into place.

[Removing lens]



Same method as removing the camera body cap. While pressing in the lens release button "A", rotate the lens in the direction of the arrow until the lens alignment dot is lined up with the white alignment dot "B" on the camera body.

Changing lens

* When the lens has been removed and film remains in the camera body, avoid exposure to direct sunlight as film fogging may result.

* Put the front and rear lens cap on the lens when the lens is removed.

CAUTION



1) As the rangefinder coupling roller is precisely adjusted, be sure not to touch with your hand or move it with finger.

2) Gold plated electronic contacts are located inside the bayonet mount and at the rear of each lens. If oil, dirt, or other foreign matter collects on the contacts, poor electronic information transfer may result. When soiled, use a clean cloth to wipe them.

Battery Check

CAUTION



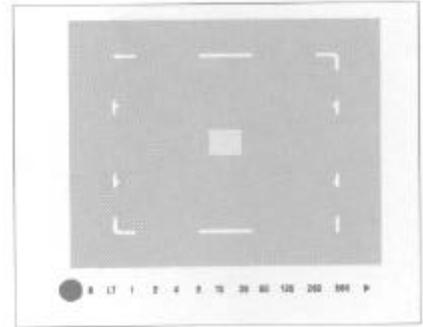
3) Be careful not to damage the rangefinder coupling lever and the shutter cocking lever at the rear of each lens.



4) When mounting the 43mm or 65mm wide angle lenses make sure that the rear lens rims do not touch the rangefinder coupling roller.



Position the front face of the lens which has been removed as shown in the photo.



1. Set the shutter speed dial at A (Auto Exposure) position. When the power is turned on and the shutter release button is touched slightly, the shutter speed is indicated on the lower part of the viewfinder.

- 1) When the shutter speed LED lights on, the battery power is normal.
- 2) Blinking light of the shutter speed LED indicates drop of the battery power below the allowable level. Then replace the battery.
- 3) No light or blinking light of the red warning lamp on the lower left side of the viewfinder indicates depletion of the power, so that camera will not work. Replace the battery immediately.

Releasing the Shutter



Before using the camera, it is advisable to understand how it works.

- ① Power on/off lever Set to ON.
(See page 7)
- ② Film advance Wind the lever to
cock the shutter .
(See page 8)
- ③ Light shield curtain Open.
(See page 12)
- ④ Back coverOpen.
(See page 16)
- ⑤ Release the shutter
(See page 16)

Note:

If the shutter is not released, red warning lamp in the viewfinder will light; repeat steps ② to ④ again.

Tip:

To observe the function of the shutter release and the interaction between the light shield curtain, shutter and lenses, you need not load film in the camera. Just leave the back cover open:

Before Loading the Film

[Setting the film speed]



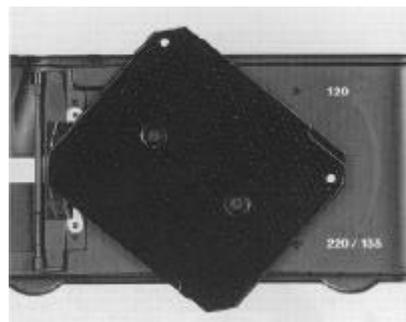
Set the film speed of the film being used by lifting up the outer rim of the shutter speed dial and rotate it until the correct ISO value appears in the window.

[Opening/closing the back cover]



While depressing the back cover lock button, simultaneously push down the lock lever in the direction of the arrow and the back will open. When closing the back cover, securely press both corners until it clicks.

[Setting the film type]



This camera can use either 120 or 220/135 film. To set for the type of film used, simply rotate the pressure plate in either direction of the arrow until the white dot is at "120" or "220/135". When set, "120" or "220/135" will appear in the small window under the memo clip on the rear of the camera.

ISO
25 · 50 · 100 · 200 · 400 · 800 · 1600
(32)(40) (64)(80) (125)(160) (250)(320) (500)(640) (1000)(1250)

- Be sure to set the exact film speed, as otherwise incorrect exposure will result.

- If pressure plate position is not matched to the type of film used, a picture can be taken but it might be out of focus.

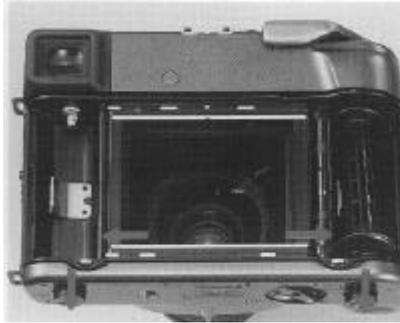
The number of exposures on the film counter is automatically set at 10 for 120 film and 20 for 220 film, according to the position of the pressure plate.

Loading the Film

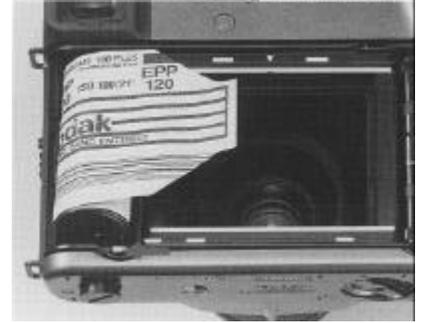
[Memo clip]



This memo clip on the back cover is used to hold the film box tab to serve as a convenient reminder of the type of film in the camera or for recording other data.



1. Push the spool release lever on right side to the right, and install the take-up spool in the take-up spool chamber, top first, then push the lower spool stud up.



2. Like installing the take-up spool, push the spool release lever on left side to the left, place a roll of film in the film chamber, making sure it seats properly. Make sure the backing paper is in the position illustrated above, black side facing the lens, colored side towards the back.

* The product identification number, and other data are printed on the outside of the backing paper. If not visible, the film has been loaded incorrectly. Simply remove and position properly.

* When loading film or installing the take-up spool, carefully place the spool in the stud and make sure it is seated properly by gently turning to the right or left so that it engages smoothly.

Loading the Film



3. When the new roll has been inserted, be sure to reset the lower spool stud by pressing it in. (Also, be sure to reset the take-up spool stud in a similar manner.)
4. Pull out the backing paper, and insert the tip into the slot on the take-up spool as pictured.

5. Wind the film advance lever until the small arrow (the starting indicator on the backing paper) aligns with the film starting indicator (▼) on the camera body. Then close the back cover.
6. Wind the film advance lever until it stops automatically and "1" appears in the exposure counter window.

- When a 6EX roll film (5 exposures) is used, the procedure of loading the film is the same as with 120 roll film.

* Make sure backing paper advances evenly between the spool flanges and does not begin to slant. If it advances unevenly, remove the backing paper from the take-up spool and start over again.

* If the film is not properly aligned with the "▼" indicator, the film may be improperly loaded and cause spacing problems.

* When any other numeral than "S" appears in the exposure counter window, it is an indication that the film is loaded. So do not open back cover.

* Do not pull excessively on the backing paper, and do not load/unload the film in direct sunlight: bright light may fog the film.

* When photographing with the 135 Panoramic Adapter, see its instructions.

Shutter Speed

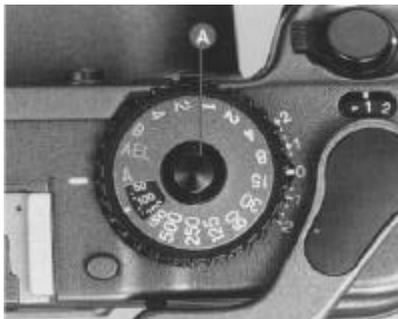


The Mamiya 7 has an aperture-priority, AE lens shutter. Once the aperture and film speed are set, the AE meter selects a proper shutter speed in relation to the set aperture.

In the manual photographic mode, proper shutter speed is indicated by a blinking red LED within the viewfinder.

1. To set the diaphragm to a desired aperture, rotate the aperture ring "A" until the appropriate figure is aligned with the central red index line "B" (Click stops are provided at each engraved aperture number but the diaphragm can be set also for intermediate stops.)

[Determining the shutter speed]



Shutter speed dial:

A. (Automatic exposure)

Based on the aperture setting, the camera automatically selects the shutter speed.

AEL.(AE lock)

The camera memorizes the aperture when shutter release button is touched slightly so that, even when the position of the subject or camera changes, a picture can be taken with the initial aperture setting and is not affected by changes in light conditions or subject contrast.

B. (Bulb exposure)

At this position, the shutter will remain open as long as the shutter release button is pressed.

Shutter controls

On the shutter speed dial the yellow numbers indicate the number of whole seconds while the white numbers indicate fractions of seconds.

Example: "4" indicates 4 seconds while 125 indicates 1/125 seconds.

2. Rotate the shutter speed dial and select either the A(Auto exposure) or manual mode for photographing.

Rotate the dial to align it with the white index line (-) on the camera body.

* At A or AEL, the dial is locked. The lock can be released by pressing the AE lock release button "A" in the center of dial.

* In any position other than A or AEL, the shutter speed dial is in the manual mode and moves freely from click-stop to click-stop: it must be set on a specific click-stop and cannot be used at an in between setting.

* Intermediate Diaphragm settings (between click stops) are possible
Intermediate Shutter Speeds (between engraved numbers) are not possible.

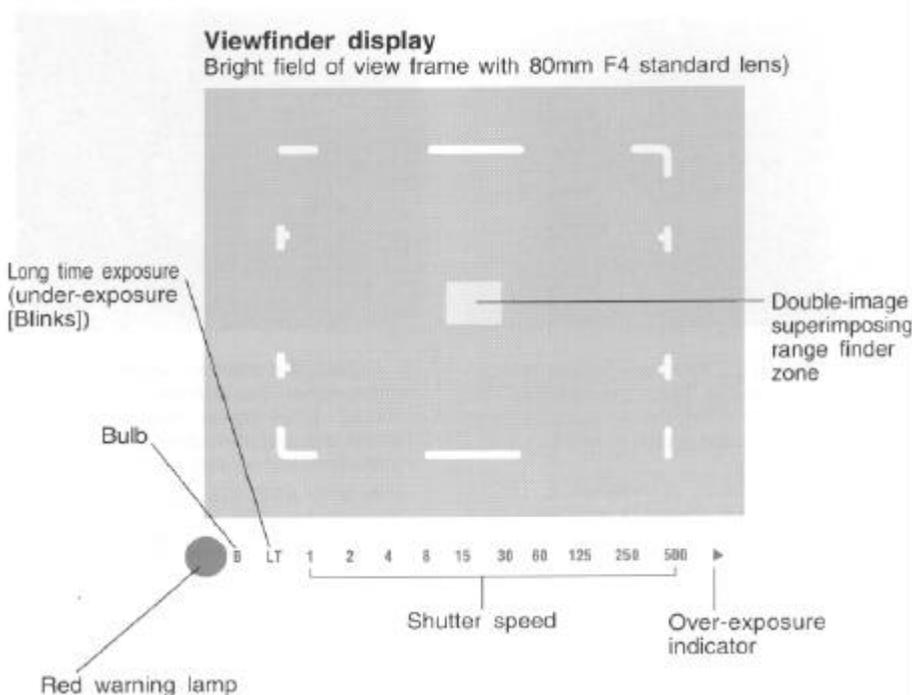
Shutter Release Button



The shutter release button is designed so that pressure can be applied in two stages. When it is lightly touched, correct metering data is displayed on the bottom of the view finder. When it is depressed all the way, the shutter is released and an exposure is made.

The LED's are located at the bottom of the finder in order not to interfere with the field of view of the wide angle lens.

LED Indicators in the Viewfinder

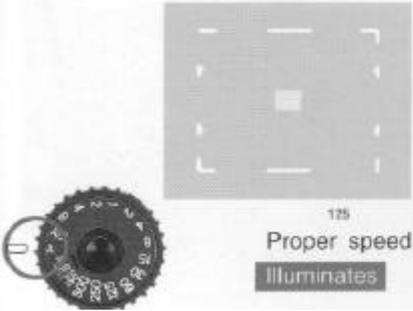


Red warning lamp

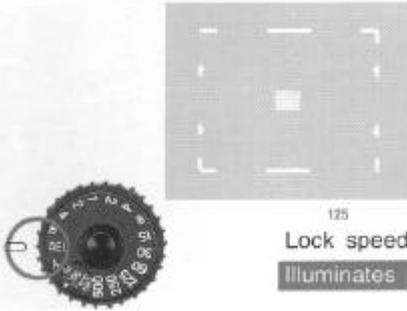
- The red lamp illuminates when
- the shutter is not cocked
 - the light shield curtain is closed
 - the film is not loaded.
 - the lens is not attached.
 - the battery power is weakening : The lamp blinks.

LED Indicators in the Viewfinder

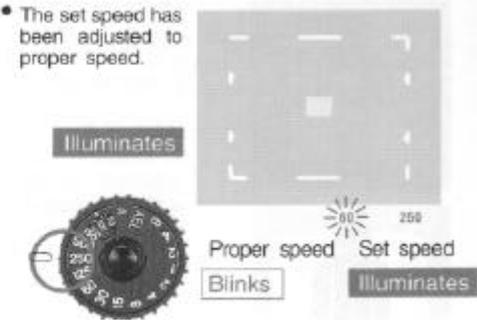
AE photography



AEL photography

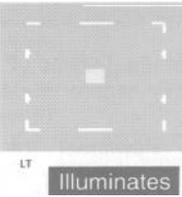


Manual mode

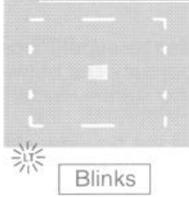


Long time exposure

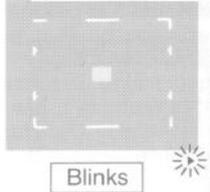
1 sec to 4 sec at the A and AEL modes.
2 sec and 4 sec at the Manual mode.



Under-exposure

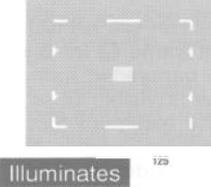


Over-exposure



Battery drain increases in the AE mode

Battery capacity is sufficient.



Battery capacity drops.

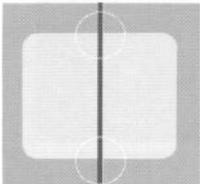
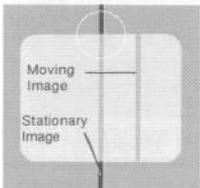


When the Battery is badly weakening.



Red warning lamp

Focusing the Lens



When the lens has been focused, the double image superimposing rangefinder produces two superimposed images with in the square of the viewfinder.

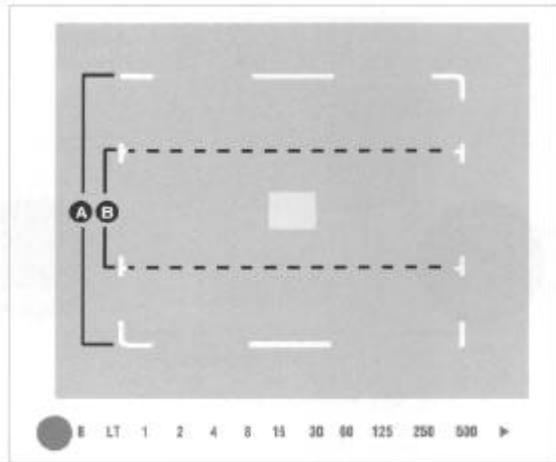
How To:

1. Position the subject within the central square of the viewfinder. As on the top left the subject will appear as a double images.
2. Rotate the focusing ring until the two images converge and are superimposed as on the figure on the left. The lens is now focused.

The two images can also be superimposed by using the lateral boundary line between the viewfinder and the center rectangle zone or split image.

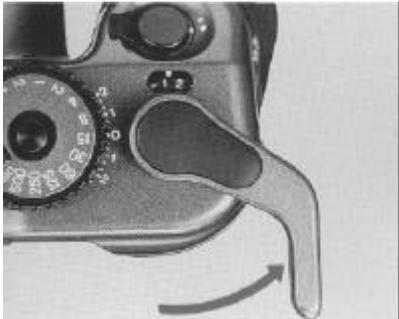
Adjust the images until the boundary lines converge.

[Photographic area covered]



Within the viewfinder the subject area covered is indicated by the visible bright frame. Parallax is automatically compensated for according to the subject-to-lens distance. The composition will be within in the lines of the bright frame "A" for 6 x 7 format and "B" for 135 panoramic format. 83% of the field of view is visible at infinity and 100% is visible at the minimum focusing distance. The appropriate bright frame area is automatically indexed upon lens interchange.

Taking Photographs



1. Press the shutter release button when you have focused and determined composition.
2. Advance the film by winding the film advance lever until it stops. (The shutter is then cocked.)
3. After completing the last exposure, wind the advance lever several times, until the film with its backing paper is completely wound onto the take-up spool. The advance lever will become easier to actuate when the film has been completely wound on the spool.

* When the shutter release button is pressed and the film is exposed, a red LED will light on the lower left side of the viewfinder.

[Unloading the film]



When unloading film, avoid direct sunlight.

1. Open the back cover.
See page 12.

When the back cover is opened, the exposure counter will automatically return to "S" (Start).

2. Push the spool stud releases lever to the right in order to disengage the spool from the stud.
3. Simply push the upper rim of the spool with your index finger as shown to lift up the other end of the spool.
4. Then the roll of film can be easily removed from the take-up chamber.
5. Be careful not to let the roll of exposed film unwind. Be sure to seal it immediately.

- Do not advance the film too quickly, as this might adversely affect film flatness, or frame spacing.

* To prepare for another roll, remove the empty spool from the film chamber, and place it in the take-up chamber.

* Wind the advance lever until it stops. (Otherwise, a red warning lamp in the viewfinder will signal that it is impossible to press the shutter release button.)

* To remove the film before exposing the entire roll, cap the lens and press the shutter release button and wind the film onto the take-up spool frame by frame.

AE (Automatic Exposure) Photography



The aperture priority metering device is incorporated into the rangefinder system. The correct shutter speed for the preselected aperture will automatically be determined.

1. Align "A" on the shutter speed dial with the white line index mark on the camera body.
2. Be sure to set the exposure compensation scale to 0. (See page23)
3. Set the aperture to the desired "f" number according to conditions.
4. When the shutter release button is slightly touched, an LED indicating proper exposure will automatically light in the viewfinder.

* When "▲" LED blinks, it indicates over-exposure. Rotate the aperture ring to stop down to a smaller f/stop until an LED indicates proper exposure.

* Blinking "LT" indicates underexposure: rotate the aperture ring until the LED stops blinking to increase exposure.

* Illuminating "LT" indicates that the shutter is set for a relatively long exposure from between 1 to 4 seconds. When taking pictures at such slow speeds you must be able to hold the camera very steady, or increase aperture to obtain higher shutter speeds, or best of all, use a sturdy tripod.

- Under AE (automatic exposure) or AEL (AE lock), the LED display in the viewfinder will continue to operate as long as the shutter release button is touched slightly. When you take your finger off the button, the LEDs will go out.

* If you cannot get close enough to your subject for another meter reading, make substitute measurements by pointing the camera to light and dark areas and calculate a mean exposure value or try taking a reading off your palm.

AE Lock(AEL)Photography



The AEL position is very useful when making selective exposure measurements of important subject areas which are not in the center of the finder image when faced with difficult lighting conditions.

1. Rotate the shutter speed dial until "AEL" aligns with the white index mark on the camera body.
2. Position the important part of your subject in the central square of the viewfinder - this will establish the correct exposure. Then touch the shutter release button slightly and an LED will light indicating the correct exposure.
3. In above state, the exposure reading will be memorized. After adjusting for composition as desired, release the shutter.

Manual Photography



You may override the AE mode and select the aperture and shutter speed manually. Simply set the shutter speed against the white line index mark and also set the lens aperture to the desired "f" stop.

1. When the shutter release button is touched gently, the selected shutter speed LED only will be continuously illuminated or another LED may also flash.
2. When the pre-selected shutter speed LED only illuminates, it indicates the shutter speed for correct exposure.
3. When the pre-selected shutter LED illuminates and one other LED blinks, the blinking LED indicates the shutter speed for correct exposure.

4. Turn the shutter speed dial and/or aperture ring to align the two LEDs until merged. The single LED indicates correct shutter speed.

* When on manual, 10 seconds after activation, the LED indicators will go out, to save battery power. If they do so during metering, press the Shutter Release Button half way again.

Please note:

The LED indicators will disappear 10 seconds after you remove your finger from the shutter release button in the following situations:

- 1) When the film advance lever is not advanced.
- 2) When the light shield curtain is closed.

Self-Timer



1. The shutter is released about 10 seconds after pressing the self-timer button. The LED on the front of the camera illuminates for about 8 seconds, then blinks for about 2 seconds, and then the shutter is released.
2. The self-timer mode cancels itself automatically.

* When using the self-timer the camera must rest on a steady support. When the shutter is set to "B" (bulb), the self-timer does not operate.

* To override the self-timer, after having pressed the release, press the self-timer button again. Then the self-timer lamp will go out and then the self-timer mode will be canceled.

Depth-of-Field



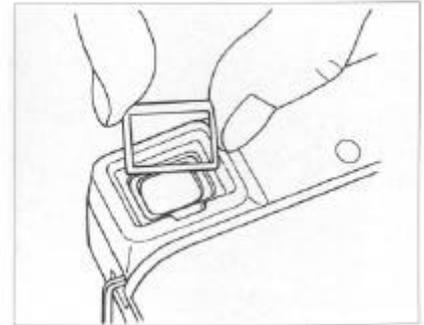
The depth-of-field varies according to the aperture. The smaller the aperture (f/8, f/11, f/16...) the greater the depth-of-field; the larger the aperture (f/8, f/5.6,...) the smaller the depth-of-field. To take pictures which are sharp from foreground to infinity or when taking snap shots, the focusing range is extended or depth increased by using a smaller aperture. When the subject is to stand out, with the background out of focus, a larger aperture is appropriate.



The depth-of-field scale on the lens indicates depth-of-field in terms of the distance between subjects on both sides of the scale. For example, when a 80mm lens is stopped down to f/8 and f/22, respectively, all objects located within the ranges shown in the illustrations above will be sharp.

* Refer to the instructions attached to individual lenses for specific depth-of-field tables.

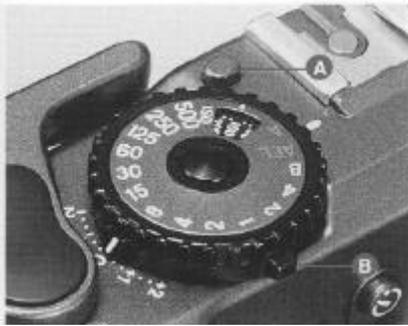
Diopter Correction Lenses



Six types of diopter correcting lenses are available for near/far-sighted people. Mount as indicated above. Powers available are: +3, +2, +1, -1, -2 and -3.

+: Far-Sighted
-: Near-Sighted

Exposure Compensation



The exposure compensator functions in a number of important ways. It can be used to correct exposure values (EVs) or the differences in brightness between a primary subject and its background -especially when over or under-exposures occur. It can also be used when filters are employed or when engaged in available light photography - or under high contrast conditions (i.e. low or high key).

To set, press the compensator lock release button "A", and move lever "B" to select the desired EV: graduations are 1/3 EV.

[When a filter is used]

Whether using the AE or manual mode simply compensate for the filter exposure factor as indicated in the table below.

* After using exposure compensation, be sure to reset to "0".

Time Exposures



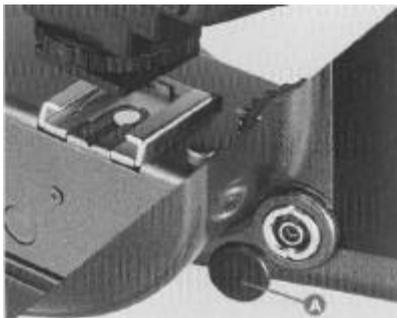
When taking an exposure longer than 4 seconds, set shutter to "B" (bulb). At "B" the shutter will remain open as long as the release is pressed down. In order to prevent camera movement, it is best to use a cable release and tripod.

When set at "B" the self-timer does not work.

The cable release can be screwed in the release socket beside the shutter release button as pictured above.

Filter exposure factor	×1	×1.2	×1.5	×1.7	×2	×2.5	×3	×4
Exposure compensation value (EV)	0	+ $\frac{1}{3}$	+ $\frac{2}{3}$	+ $\frac{2}{3}$	+1	+1 $\frac{1}{3}$	+1 $\frac{2}{3}$	+2

Flash Photography



The Mamiya 7 features an X synchro flash terminal and its lens shutter system permits flash synchronization at all shutter speeds.

Shoe-mounted flash units can be attached directly to the hot-shoe, while flash brackets can be attached to the tripod socket for larger flash guns.

Remove safety cover to attach sync cord to PC terminal on front left bottom of camera.

[Determining the aperture]

When using automatic flash units, refer to the instructions on the flash unit for correct aperture settings.

When using a manual electronic flash, the guide number divided by subject distance gives the correct aperture.

Guide number (48) = Correct aperture
Subject distance (6 m) = setting (8)

*Charged electronic flash units sometimes fire when they are attached to the camera. This does not indicate a defective circuit.

*When using electronic flash, be sure to read its manual carefully.

*Be careful, if electronic flash is used at the "A" (Auto exposure) mode, over-exposure may occur.

CAUTION:

When an electronic flash is connected to the hot-shoe, current moves through the X contact. So, be sure to put the safety cover supplied with the camera on the X contact so that you will not receive an electric shock.

Infrared Photography



When using infrared film, it is necessary to make a focusing adjustment in order to achieve accurate focus. This is because the focus position of the image deviates from normal since the infrared ray wavelength is longer. After focusing in the usual manner, check the distance on the distance scale that is aligned with the center reference mark of the lens. Make the focusing adjustment by turning the focusing ring in the direction of the arrow in the accompanying photograph so that the distance just observed is aligned with the infrared mark.

When using infrared film, be sure to read the instructions with the film.

How to Hold the Camera



Because most out of focus pictures are the result of camera movement, make sure not to move when pressing the shutter button. Hold the camera with your elbows close to your body: pressing part of the camera on your forehead will help stabilize it. Then gently release the shutter.

When making exposures longer than 1/30 sec., it is advisable to use a tripod with a cable release.

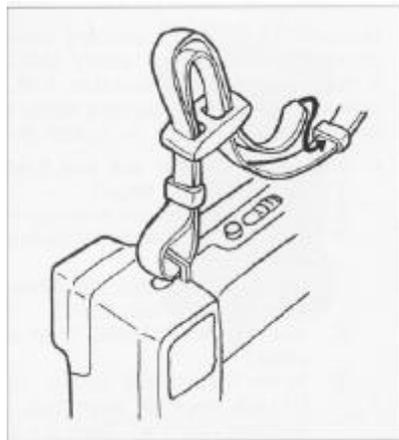


[Using a tripod]

When using the camera with a large tripod head, the head may interfere with the spool stud, preventing film from being loaded. To prevent this, use the optional tripod adapter N.

*The threaded tripod screw hole is 5.5mm deep and the use of a longer tripod screw might result in damaging the camera. So be careful not to apply unnecessary pressure when mounting the camera.

[Neck strap]



Pass the neck strap through the carrying strap lugs, and fasten it as shown.

TIP:

Be sure to focus the lenses by spanning the lower part of the focusing collar with your fingers, in order not to block the rangefinder window.

Trouble shooting

Uniquely designed to prevent errors, the Mamiya 7 incorporates numerous safety features.

If the shutter will not function, it is very likely due to user error rather than camera malfunction. Should there be problems, be sure to review the following points.

- **When the shutter will not function.**

- ① Is the battery good?
- ② Is the power on/off lever set to the ON position?
- ③ Has the film been completely advanced to the next frame?

Have all the exposures already been made (10 with 120, 20 with 220)?

- ④ Has the film advance lever been moved until it stops?
- ⑤ Is the light shield curtain closed?

(In the case of examples ③ - ⑤ the red warning Lamp will flash a warning on the lower left hand corner of the viewfinder.

- **When the lens cannot be removed:**

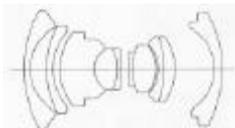
Is the light shield curtain open?

Lenses

N43mm f/4.5L



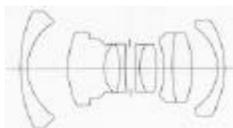
Lens construction: 10 elements in 6 groups
 Angle of view: 92°
 Minimum aperture: 22
 35mm equivalent: 21 mm
 Minimum focusing distance: 1m
 Magnification at minimum distance : 0.049
 Area covered: 1145 x 1421 mm
 Filter size: 67mm
 Hood: Bayonet type
 Dimensions: 42(L) x 72(D)mm
 Weight: 390g



N65mm f/4L



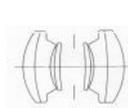
Lens construction: 9 elements in 5 groups
 Angle of view: 69°
 Minimum aperture: 22
 35mm equivalent: 32mm
 Minimum focusing distance: 1m
 Magnification at minimum distance : 0.078
 Area covered: 719 x 892mm
 Filter size: 58mm
 Hood: Bayonet type
 Dimensions: 65(L) x 67(D)mm
 Weight: 380g



N80mm f/4L



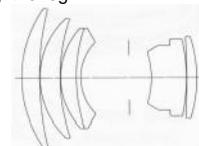
Lens construction: 6 elements in 4 groups
 Angle of view: 58°
 Minimum aperture: 22
 35mm equivalent: 39mm
 Minimum focusing distance: 1 m
 Magnification at minimum distance : 0.097
 Area covered: 580 x 719 mm
 Filter size: 58mm
 Hood: Bayonet type
 Dimensions: 56(L) x 67 (D) mm
 Weight: 290g



N150mm f/4.5L



Lens construction: 6 elements in 5 groups
 Angle of view: 34°
 Minimum aperture: 32
 35mm equivalent: 71 mm
 Minimum focusing distance: 1.8m
 Magnification at minimum distance : 0.096
 Area covered: 581 x 721 mm
 Filter size: 67mm
 Hood: Bayonet type
 Dimensions: 96(L) x 70(D)mm
 Weight: 520g



Accessories

Lens hood

For 43mm f/4.5 : Bayonet type
For 65mm f/4 : Bayonet type
For 80mm f/4 : Bayonet type
For 150mm f/4.5: Bayonet type
All are supplied with the lenses.

Diopter correcting Lenses

Focusing accuracy diminishes when the eye diopter is incorrect. So, it is advisable that near and far sighted people use diopter correcting lenses. Fit the proper diopter correcting lens to the eyepiece.

6 types are available: +3, +2, +1, -1, -2, -3.

Tripod adapter N

This is used to mount the camera to tripod head.

Even when the tripod has a large head, the adapter allows film to be loaded, while the camera is attached to the tripod.

Panoramic Adapter Kit AD701

When using the Panoramic Adapter, a wide panoramic photograph can be taken by using 35mm film. The 135 panoramic Adapter Kit is composed of the following:

- ① 135 Panoramic Mask
- ② Take-up Spool
- ③ Cassette Holder
- ④ Rewind Crank Unit
(Unit Weight : 110g)

- 135 Panoramic Picture Area and the Number of Exposures.
Picture area : 24mm x 65mm

Number of exposures:	
135 Film 36EXP.....	16
135 Film 24EXP	10

The picture area (24 x 65mm) provided by the Mamiya 7 panoramic format is 3.3 x larger the 35mm panoramic format (13 x 36mm).

Note: A panoramic paper slide mount, 24 x 65mm, is also available.

Lens case Type A

The lens case is made of special material which is very soft but tough and fits 65mm, 80mm and 150mm lenses.

Dimension: bottom diameter is 90mm and it is 160mm in length.

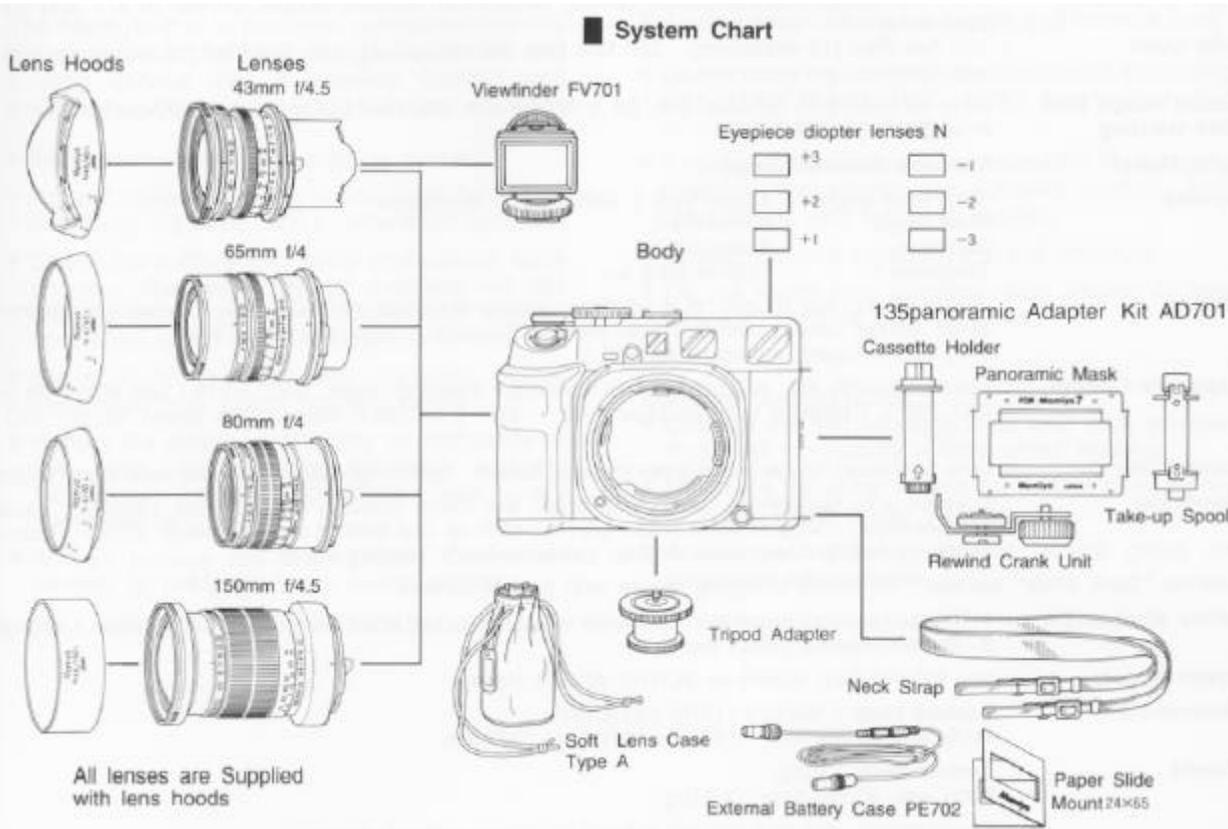
External Battery Case PE702

Cold temperatures can affect battery power. Permits camera battery to be worn conveniently inside clothing and connected to battery chamber by wire.

Viewfinder FV701 for 43mm f/4.5 lens

See lens instructions booklet.

System chart



Specifications

Type of Camera	: 6 x 7cm format interchangeable lenses, rangefinder camera, double formats (6 x 7 and 35mm panorama)
Film Used	: 120 Roll Film (10 exposures) , 220 Roll Film (20 exposures), 135 Roll Film (16 exposures with 36 exp. film)
Actual Image Size	: 56 x 69.5mm with 120/220 film, 24 x 65mm with 135 film, using Panoramic Adapter Kit
Film winding	: A single 185° stroke
Lens Mount	: Exclusive Bayonet Mount
Lenses	Ultra wide angle : 43mm f/4.5 L with Optical Viewfinder Wide angle : 65mm f/4 L Standard : 80mm f/4 L Telephoto : 150mm f/4.5 L
Shutter	: #00 electronic leaf shutter , B, 4-1/500sec. ,electro-magnetic shutter release, X-contact synchronizing at all shutter speeds with hot-shoe and PC Terminal ; Electronic Self Timer (10 sec. delayed, automatic turn-off)
Exposure Control	: Aperture priority AE , SPD receptor in viewfinder metering range : EV3- EV18 (with 80mm f/4 lens, ISO 100) , Exposure compensation : +2 - -2EV (in 1/3EV steps) Film speed range : ISO 25 - 1600
Rangefinder Viewfinder	: Lens declination, double image super imposing system : base length 60mm (effective base length 34.2mm) : Coupled with rangefinder : automatic bright line frame indexing (65, 80 and 150mm) : parallax compensation : Magnification ratio : 0.57X : 83% of the field of view visible at infinity : built - in shutter speed and exposure display, safety interlock warning L.E.D.
Internal "Dark Slide" curtain	: To permit changing lenses with loaded camera
Safety Mechanism	: 1. Double exposure prevention 2. Shutter release is locked when internal dark slide curtain is engaged. 3. Shutter release button lock lever
Power Supply	: one 6V (4SR44, 4LR44 or 2CR1/3 lithium) battery
Dimensions	: Camera body : 159(L) x 112(H) x 66(D)mm Body with 80mm lens : 159(L) x 112(H) x 120(D)mm
Weight	: Camera body : 920g Body with 80mm lens : 1,210g

- Specifications and features are subject to change without notice.

Common Sense Camera Care and Practice

The Mamiya 7 is a precision optical/mechanical instrument, built for heavy professional use and a long service life, if properly treated and maintained. Please observe these basic caveats:

- Read instructions before using camera.
- Protect camera against shocks and falls. Use neckstrap supplied with it, whenever possible.
- Check the battery frequently and always carry spares. The sealed battery supplied with the camera may have been subject to storage conditions which have reduced its service life.
- Be sure to wipe battery contacts before installation and watch correct polarity.
- Battery life differs, depending on frequency of use, type, age, storage condition, ambient temperature (use External Battery Case in very cold weather), etc.
- Always remove the battery (and film) when camera is not used for a period of time.

- Always keep covers on lenses and camera body.
- Do not store the camera at temperatures exceeding 40°C (105° F) and -10°C (15°F). Also avoid humid or sea air environment.
- Prolonged disuse shortens camera life. Periodically exercise the shutter (at different speeds, lens diaphragms and focusing mounts).
- Protect camera against rain and moisture.
- Do not touch lens surfaces. Use blower or lens tissue to remove dust particles.

Specific Suggestions:

- Operate the film advance lever with easy strokes. If moved too rapidly it may affect spacing.
- Hold lens focusing mounts on bottom in order not to block range finder window.
- Always test your equipment before going on important assignments.

Common Sense Camera Care and Practice

The Importance of Proper Maintenance

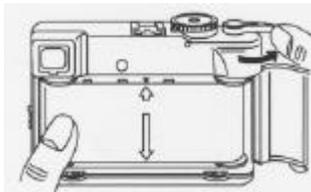
Your camera has mechanisms like film transport, shutter and diaphragm blades, rangefinder couplings, etc. They are controlled by gears, levers, springs, and so on. All require special lubrication from time to time. Ambient conditions can also affect these mechanisms, as well as the electronic components and the optical glass of your lenses. "We therefore suggest that you have your camera and lenses checked, and if necessary serviced, periodically".

Batteries Care:

1. The sealed, new battery which is supplied with this camera may have been subject to storage conditions which have reduced its service life. Therefore it is desirable to replace it with a fresh battery as soon as possible.
2. Carefully wipe the battery contacts before inserting into the chamber. Failure to do so may result in poor electrical contact and consequent malfunctioning of the camera.
3. Always remove battery when camera is not used for a while. Always carry spare batteries.
4. Battery life differs, depending on type, age, storage condition, ambient temperature, frequency of use etc.
5. Be sure to match the poles of the battery with those shown in the diagram in the chamber.
6. Always keep batteries out of the reach of children and never throw used batteries into a fire or expose to excessive heat.
7. When going on trips be sure to carry spare batteries to ensure that the camera will function. Also, as batteries tend to temporarily malfunction at temperatures below freezing, when photographing in extremely cold climates, carry the External Battery Case.
8. When you carry spare batteries, leave them in the original factory packaging. If they are "unpacked", be sure to wrap them carefully in order to prevent them touching each other or any metal objects which can cause them to short circuit and become useless.

Prevention of Light Leaks Due To Loose Film Winding

- Thread the paper leader on the empty take up spool so the film will be wound evenly and parallel. This will prevent the film from winding loosely or over the edge of the spool, which can cause light leaks and film fogging.
- Use your left thumb to press lightly on the paper leader while advancing winding lever slowly to assure smooth and tight film take-up on the empty spool. Advance the film and align the printed arrow start mark with the small triangle start mark on the camera. Then close the camera back.



Handling of Exposed Film

- DO NOT remove exposed film from the camera under direct sunlight. Find a shaded area or turn your back to the sun and shade the camera before you open it.
- When removing the exposed film, be careful to prevent it from unraveling on the spool. Gently tighten the paper trailer, moisten the attached seal, and secure the film to prevent light leaks.
- Immediately place exposed film in your camera case or a bag, away from sunlight.

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.