

YASHICA **MAT**

INSTRUCTION BOOKLET

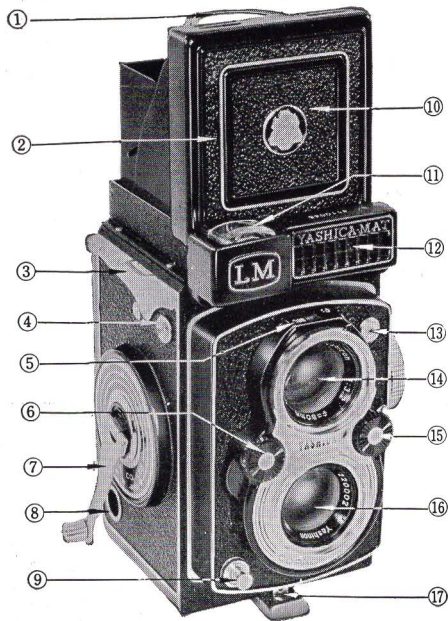


LM

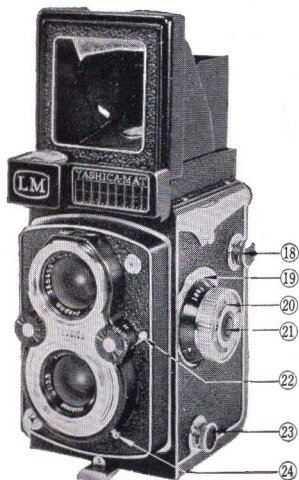
DESCRIPTION OF YASHICA MAT-LM

This is your Yashica **MAT-LM**

A precision instrument capable of bringing you some of the finest photographs you have ever taken. Please read the following pages carefully. Follow the easy step-by-step recommendations.

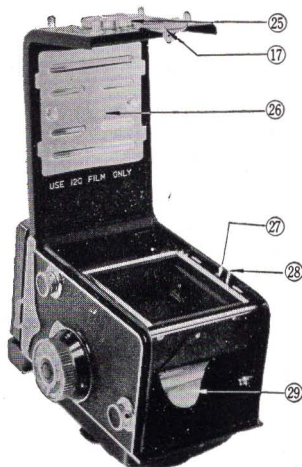


1. Magnifying Glass
2. Sportsfinder Frame
3. Strap Holder
4. Film Counter Window
5. Lens Opening & Shutter Speed Window
6. Shutter Speed Control Wheel
7. Crank
8. Crank Rest
9. Shutter Release Button
10. Focusing Hood Cover



- 21. Focusing Knob
- 22. MX Synchro-selector
- 23. Spool Locking Spring
- 24. Self-timer

- 11. Exposure Meter Light Reading Window
- 12. Exposure Meter Photo Cell
- 13. Flash Synchronization Terminal
- 14. Viewing Lens
- 15. Lens Aperture Control Wheel
- 16. Taking Lens
- 17. Back Cover Locking Lever
- 18. Spool Locking Spring
- 19. Depth-of-Field Scale
- 20. Exposure Setting Reading Scale



LOADING FILM

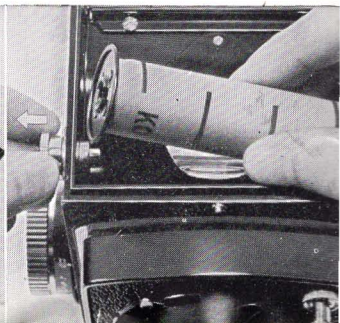
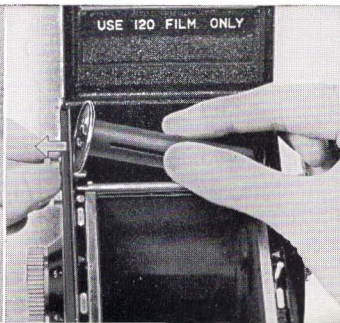
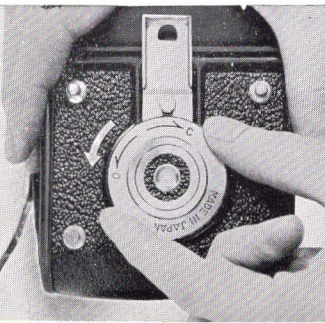
120 size film

12 pictures per roll

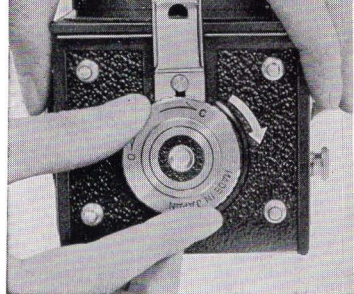
in the popular $2\frac{1}{4} \times 2\frac{1}{4}$ size

Black-and-white or Color

- (1) To unlock back cover, turn the tripod socket in the direction marked 'O'. Then open the Back Cover by swinging it out.
- (2) Remove the take-up Spool in the Lower Film Chamber by pulling out the Lower Spool Locking Spring. Place the Take-up Spool in the Upper Film Chamber by pulling out the Upper Spool Locking Spring.
- (3) Place a new roll of size 120 film in the Lower Film Chamber.

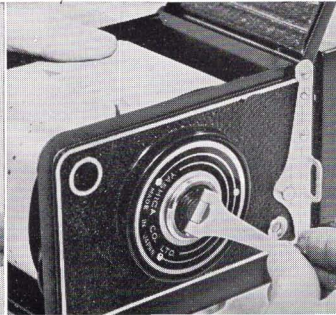
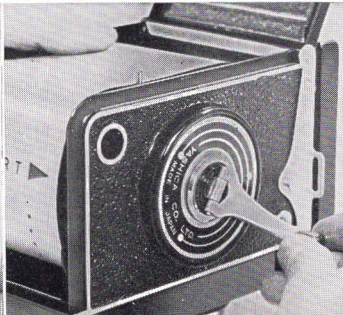
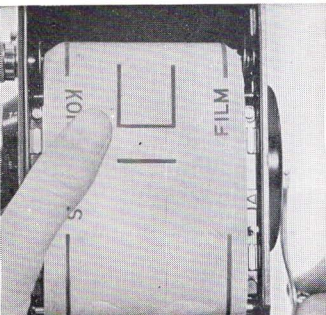


- (4) Flip up the Film Transport Crank and slowly wind it clockwise so that the wider slot of the Take-up Spool in the upper Film Chamber faces upward. Then gently draw out the film leader and thread it firmly and evenly into the slot.
- (5) Gently wind the Crank clockwise.
- (6) Advance the film by slowly winding the Crank until the arrow on the film points to the triangles on either side of the camera body.
- (7) Close the camera back cover and lock it by turning the Tripod-Socket in the direction marked 'C'. The letter 'S' will appear in the Film Counter window.



UNLOADING FILM

See 9th page
(Same Title)



CRANK OPERATION

Note:

The Yashica MAT-LM transport employs a fine, precision mechanism, constructed to provide years of trouble-free performance. Like any fine instrument it should be treated with care and respect.

The following are recommended:

- a. Operate the film transport crank gently. It is important that the clockwise, film-advancing stroke of the crank be first completed before it is brought back.
- b. In loading the film, be sure that the paper leader is inserted in the take up spool so that the film will draw evenly.

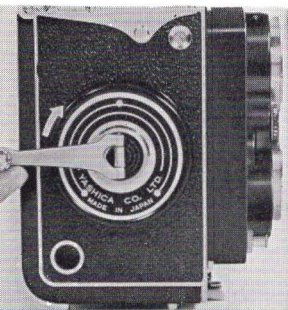
(1) Wind the crank clockwise until it comes to a stop. The letter 'S' will have disappeared and NO.1 will appear in the Film Counter Window.

(2) Then wind the Crank counter-clockwise until it stops. You are ready to snap your first picture.

For subsequent exposures a smooth pendulum swing, first downward to stop and then upward to stop, advances the film and cocks the shutter simultaneously.

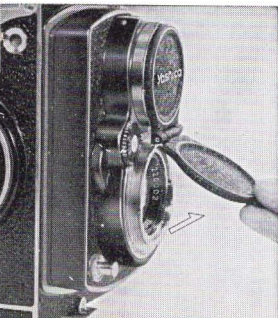
(A) The downward wind advances the film and moves up the number of the next film in the Film Counter Window.
(B) The upward wind cocks the shutter.
(C) The position of the Crank when it is flipped back into its rest after your pictures have been taken.

The shutter should not be kept cocked When not in use because it weakens the shutter spring and there is the possibility you may unknowingly press the shutter button and waste a film.



REMOVE THE LENS CAP

Raise the lower cap and fold back on its hinge. Turn the upper cap counter clockwise and remove.



LENS OPENING AND SHUTTER SPEED

(A) The arrow points to the Lens Opening and Shutter Speed Scale Window. The letter 'f' on the left of the window indicates lens opening and 'sec' indicates shutter speed.

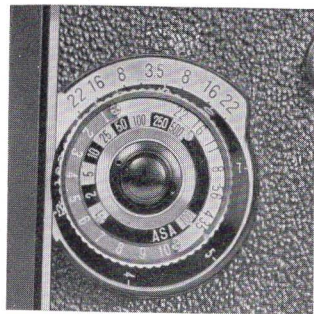
(B) The shutter speed is set by turning the Control Wheel with your right-hand thumb either up or down as indicated by the arrow. The red shutter speed figures should be set so that the red line in the window runs exactly through the center of the figures.

(C) The lens opening is set by turning the Control Wheel with your left-hand thumb either up or down as indicated by the arrow. The black lens opening figures should be set so that the red line in the window runs exactly through the center of the figures.

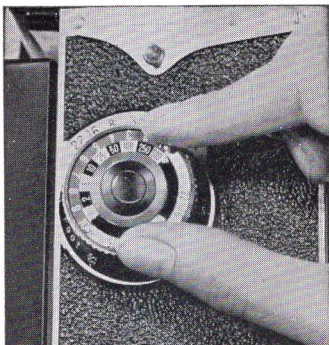


BUILT-IN EXPOSURE METER

Your Yashica MAT-LM with its built-in Exposure Meter measures the light and helps you to determine the proper exposure settings, easily and rapidly. The exposure setting reading system of your Yashica MAT-LM consists of the following three elements.



HOW TO USE THE EXPOSURE READING SYSTEM OF YASHICA MAT-LM



First, you set the ASA speed of your film by turning the ASA Speed Setting Ring (Black Ring). Direct the camera (Photo Cell) at the subject. The needle of the Light Reading Window swings to indicate the required key number. Read the key number.

Turn the Exposure Number Ring and set the key number at the black dot appearing on the outer rim of the focusing knob.

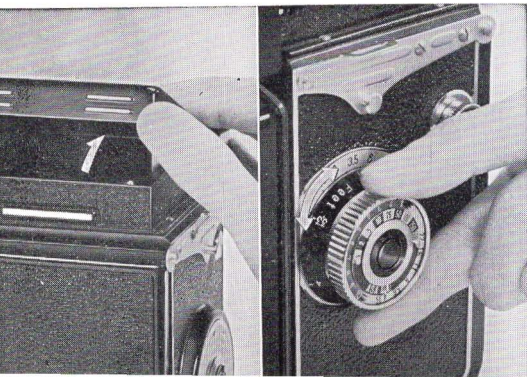
Now look at combination of lens aperture and shutter speed you have on the opposite side of the ASA Reading Window. These are the proper exposure combination of lens aperture and shutter speed to be set on your camera.



SIGHTING THE SUBJECT AND FOCUSING

Your Yashica MAT-LM is a twin-lens reflex camera. The lower lens takes the picture. The upper lens is for focusing and composing on the ground glass viewing screen.

- (1) Open the focusing hood by lifting it at the back, and now point your Yashica at the subjects.
- (2) Rotate the Focusing Knob until your subject on the ground glass screen is sharp. The bright circle in the center of the ground glass viewing screen enables you to obtain a sharp focus and should be the center of the picture you are composing on the screen. The red lines on the screen help you to judge proportion and proper composition. Compose your subject on the ground glass as you would like to see it in the final picture.



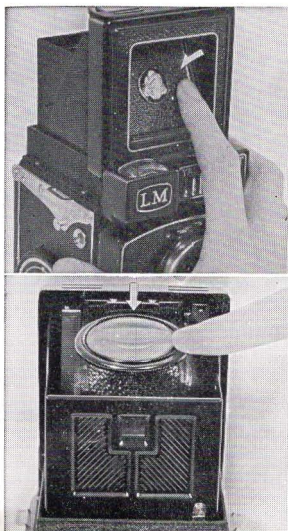
MAGNIFYING GLASS

For critical focusing

(A) Raise the Magnifying Glass by pressing the front of the Focusing Hood Cover inward, holding the Focusing Hood so that it does not close.

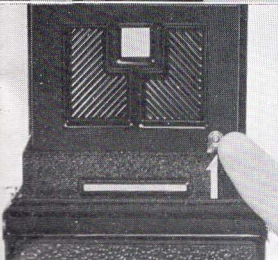
When using the Magnifying Glass place your eye as close to the Magnifying Glass as possible.

(B) Always make sure that you have first lowered the Magnifying Glass before closing the Focusing Hood.



SPORTS FINDER

Sight your subject through the Sports Finder Window.
(A) Depress the Focusing Hood Cover until it clicks into place. Lift the Yashica to your eye level.
(B) Push the Release Button to closing the Hood cover.



HOLDING THE CAMERA



When fences or other obstructions are in your way you can hold your Yashica over head, focusing and viewing from below.

Use the Sports-finder for taking pictures on the eye level.



Hold the camera, steady, then gently, push the shutter Release Button.



Steady the camera on you knee when taking pictures from a lower level.

For low objects rest the Yashica on the ground

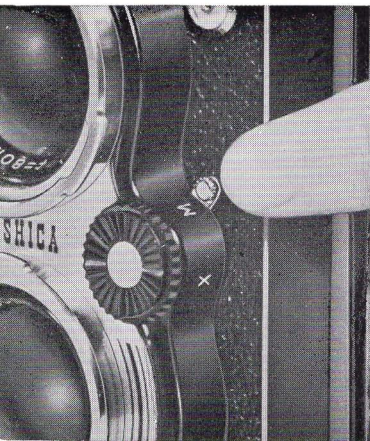
TAKING FLASH PICTURES

Your Yashica MAT-LM offers M-X synchronization.

FLASH PICTURES

Correct exposures for flash pictures will be obtained easily and correctly by consulting the guide numbers printed on the package of the flash bulbs.

When taking color flash pictures you may need filters or have to use proper bulbs according to the type of films (Day-light or Tungsten) you are using.



Your camera dealer will be glad to supply the proper flash attachment for your camera.

As you become more proficient at taking pictures, you will want to acquire accessories that increase the versatility of your Yashica. One of the first accessories you will want will be a flash unit.

Your Yashica is ready and waiting. Synchronization for flash is built-in. A standard PC connector plug into the flash terminal. The battery case is attached to the camera via an arm that screws into the tripod socket.

Selector Position	M	X	X
Bulb used	Medium Peak	Short Peak	Medium Peak
Shutter Speed	Any Speed	1/60 or slower	1/30 or slower (When using self-timer)

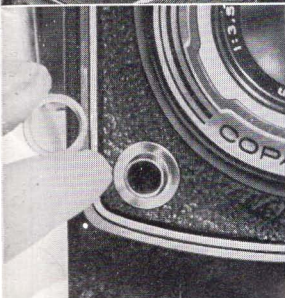
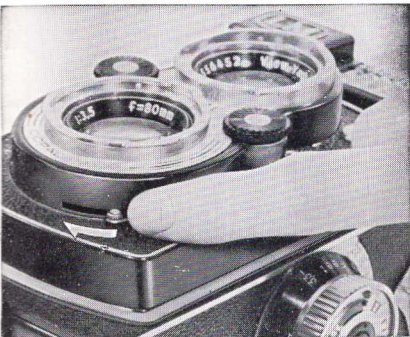
Do not use Short peak Bulb with 'M' Synchronization.

Move the selector to X position when using Electronic Flash.

SELF-TIMER

For taking self-portraits or group pictures, you have about 8 seconds to get into the picture. Therefore your camera must be mounted on a tripod or brace to prevent a blurred picture.

Caution! Be sure to move the synchro selector to the X position when using Self-timer.



CABLE RELEASE

A standard, overlap-type Cable Release can be fitted to your Yashica. Simply unscrew the Shutter Release Ring and Screw in the Cable Release. Your camera dealer will supply the proper Cable Release for your camera. See left Picture.

UNLOADING FILM

After all 12 pictures have been taken, wind the Film Transport Crank about 6 times to take up the remaining film and open the camera and remove the film.



In addition, to focusing, there are two other basic adjustments on any fine camera : the LENS APERTURE or OPENING and the SHUTTER SPEED.

THE LENS OPENING

The lens opening controls the amount of light that will pass through the lens onto the light-sensitive film. Your Yashica MAT-LM with it Yashinon lens, offer openings at f: 3.5 4 5.6 8 11 16 22.



Notice that the lower the number, the larger the opening. F 3.5 is the largest opening, f : 22 the smallest.

To set the lens opening, move the Aperture Control Wheel to the desired number on the Aperture Scale.

SHUTTER SPEED

The Shutter Speed controls the duration of the exposure. Shutter speeds on this camera with its fine Copal Shutter are 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500 of a second and B. The 'B' setting is for taking pictures with an exposure longer than 1 second. Use a Tripod or Brace when using B. When you press the Shutter Release Button on the 'B' setting the shutter stays open until you release pressure on the button.

It is advisable to set the shutter speed before you cock the shutter all times.

Camera may be Hand Held

Use a Tripod or Brace

Average Pictures			Action Pictures		Time Exposure	Slow speeds				
1/30	1/68	1/125	1/250	1/500	'B'	1 sec	1/2	1/4	1/8	1/15

EXPOSURE

Exposure means finding the right combination of lens-opening (aperture) and shutter speed in relation to the sensitivity (ASA) of your film. (ASA indicates American Standard Association). For example, if you are using a film of ASA 2000 (TRI-X type) sensitivity your correct exposure will be according to the following table :

DAYLIGHT EXPOSURE TABLE

You shutter speed will be 1/100 with the aperture number shown below.

	Bright Sun	Hazy Sun	Cloudy-Bright	Cloudy-Dull or Open Shade(4)
Light Subjects (1)	f/32	f/22	f/16	f/11
Average Subjects (2)	f/22	f/16	f/11	f/8
Dark Subjects (3)	f/16	f/11	f/5	f/5.6

- (1) Light Subjects : Distant landscapes, near-by people with sea, beach and snow scenes in the background.
- (2) Average Subjects : Near-by people, houses, gardens, buildings and places not in the shade. Advisable to use this class when light and dark objects are in about equal proportions.
- (3) Dark Subjects : People in dark clothing ; trees, flowers, animals and large buildings.
- (4) Open Shade : Subjects shaded from the sun but lighted by a wide area of open sky. The less the open sky the larger the lens opening.

If you are using an ASA 100 film, you will make a larger lens-opening or lower your shutter speed to 1/60.

But if you never want to make a mistake, use an exposure meter. Be sure to consult your local camera dealer.

DEPTH-OF-FIELD

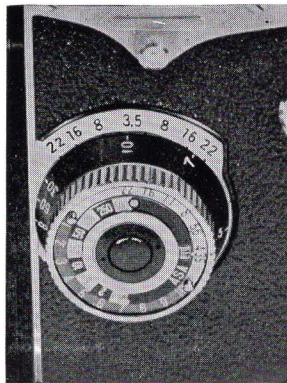
When you focus the camera on a subject there is a certain distance in front and back of the subject within which other object will also appear sharp. This is known as the "Depth-of-Field", and it varies with the lens aperture. The smaller the aperture the greater the Depth-of Field; it is much larger at $f:22$ than at $f:3.5$.

At the focusing knob is a scale which will indicate the Depth-of Field when the camera is focused at various distances. You will notice that on either side of the $f:3.5$ figure is a similar set of numbers which represent lens apertures.

When the camera is focused on your subject look for the aperture you are using on either side of the scale to determine the Depth-of-Field. Thus, if the camera is focused at 10 feet and the lens aperture is $f:8$ the Depth-of-Field (area in which all objects are sharp) is from about 8 ft. to 13 ft.

You can also use the depth-of-field scale to use your Yashica as a fixed-focus camera.

In this case set the infinity mark on the distance scale opposite the lens aperture being used. If the aperture is $f:8$ you will notice that all objects from about 25 feet to infinity will be sharp.



REVIEW

- a. Read your exposure combination on Exposure Meter.
- b. Set the lens opening (aperture)
- c. Set the shutter speed
- d. Wind the crank downward to advance the film.
- e. Wind the crank upward to cock the shutter
- f. Compose (on the ground glass or through the sports finder)
- g. Take the picture
- h. Replace the crank in its rest

FILTERS

Your Yashica MAT-LM accepts sunshades and filter's adapter rings in convenient Bayonet mounts that readily fasten to the 'taking' lens. A complete range of filters and supplementary lenses are available in the popular Series V size Bayonet $\phi 30$.

Initially, you will find a yellow filter ideal for bringing out clouds in landscape pictures and for general uses. As you become more advanced, you may want to use various, filters, such as orange, green, etc. for different effects. Your camera dealer will give you complete information.

Notice!

Be sure to replace the lens Cap when your camera is not in use. Keep your camera away from dust and moisture. For cleaning the lens surface to remove dust or dirt, always wipe very lightly by using clean gauze or lens cleaning cloth. Do not wipe the lens with a dirty handkerchief. When you are not using your camera for a long period do not leave the shutter set.

MAT LM



YASHICA CO., LTD.

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