

MAMIYA

MAMIYA CAMERA CO., LTD.

NO. 7, 1-CHOME, HONGO, BUNKYO-KU, TOKYO, JAPAN

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NOMENCLATURE



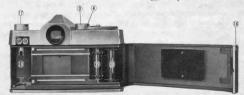
- 1. Cocking Lever
- Shutter Button (with cable release socket)
- 3. Shutterspeed Dial
- 4. Exposure Meter Coupling Pin
- 5. Exposure Counter



- 6. Eyepiece
- . Full Aperture Lever
- . Focusing Ring
- . Aperture Ring
- 10. Full Aperture Release
- 1. Aperture Release Coupling

- . Selftimer Set Lever
- 13. Selftimer Button
- 14. Distance Scale
 - . Depth of Field Scale
- 16. Backlid Catch
- 7. Rewind Crank
- 18. Film Chamber

- 9. Sprocket
- 0. Take-Up Spool
- 21. Sprocket Release Button
- 22. Lens Barrel Catch
- 23. Synchroflash Sockets
- 24. Filmspeed (ASA) Indicator
- Strap Eyelets
 Tripod Socket



BEFORE LOADING WITH FILM

Film is loaded in very much the same way as with other 35-millimeter miniature cameras. However, it will be well to understand the special features of this camera, a single-lens reflex camera of advanced design.

PICTURES EXACTLY AS SEEN THROUGH VIEWFINDER

Because the sighting and focusing image is provided by the main lens through a mirror and pentaprism, the subject-matter is always seen in proper orientation without parallax regardless of distance and the focal length of the lens in use.

The shutter button functions in two steps: half depression releases full aperture, reducing the iris opening to predetermined setting; full depression actuates the shutter and quick-return mirror. Consequently, there is momentary blackout of the viewing image while the shutter is functioning.

Focusing is accomplished by sight upon turning the focusing ring (8) of the lens barrel to obtain maximum sharpness of the viewing image. Depth of field can be judged by sight, while the viewing image is life size when using the standard lens set at infinity (∞) .

Quick Return Mechanism ensures continued viewing of the subject-matter after shutter action. The mirror flicks up when the focal plane shutter is in action, so the

viewing image is blacked out only momentarily.

MAXIMUM BRIGHTNESS AT WILL FOR VIEWING AND FOCUSING

Because the main lens is used for sighting and focusing, the viewing image will be dark when the aperture setting (f/value) is low. Provision is therefore made to use full aperture when sighting and focusing.

Automatic Aperture, set at full aperture for sighting and focusing by full aperture lever (7), closes down automatically to predetermined setting when shutter button(2) is depressed. Presetting of aperture is done by pushing the aperture ring (9) towards the camera body to turn the aperture ring. If it is desired to check, through the viewfinder, the actual effect of the predetermined aperture setting, operating the full aperture release (10) will close down the iris diaphragm quite independent of shutter button operation.

COCKING LEVER ADVANCES FILM AND SETS SHUTTER

Operation of the cocking lever advances the film by one frame and winds up the shutter mechanism. Once the camera is cocked, the film cannot be ad-



vanced. Film waste and double exposure are positively prevented.

Shutterspeed Dial (3) is non-revolving (during shutter action) and is equidistantly graduated in multiples of 2 (from 1 second to 1/1000 second). Click stop is provided at each shutterspeed setting.

When shutterspeed dial (3) is set at "B", the shutter will remain open while the shutter button(2) is kept depressed. When set at "T", the shutter will remain open even when the shutter button is released, and will close only when the shutterspeed dial (3) is turned toward "B". Shutter will also close when the dial (3) is turned toward "1000", but turning toward "B" is preferable.

COUPLING OF SHUTTERSPEED DIAL WITH SPECIAL EXPOSURE METER

Special exposure meter is mounted on the camera by loosening eyepiece (6) flange and securing mounting fork of the exposure meter. The shutterspeed dial of the exposure meter is coupled to the camera shutterspeed dial by means of an inverted cup piece which engages the coupling pin (4). Adjust exposure meter filmspeed setting to match ASA rating of film in use. Turn exposure meter shutterspeed dial to desired shutterspeed setting. Train camera on subject-matter, and note exposure meter needle indication which gives the correct aperture setting. Adjust camera aperture accordingly to obtain correct exposure.

When fitting special exposure meter to the camera, make sure that the exposure

meter shutterspeed dial indication matches that of the camera shutterspeed dial.

SELF-PHOTOGRAPHY

This camera has a built-in selftimer adjustable for time lag.

When the selftimer set lever (12) is turned counterclockwise about 180° a delay of about ten seconds is obtained. The delay time can be changed by setting the selftimer set lever anywhere between about 70° and 180°.

The selftimer is actuated by pressing selftimer button(13). Consequently, the shutter can be operated by the shutter button (2) even after the selftimer has been set. The selftimer will operate even though the camera is not cocked. When using selftimer, make sure shutter is cocked to avoid mistakes.

FILM LOADING

Regular 35-millimeter film, monochrome or color, 20- or 36-exposure may be used. Use film preloaded in safety cartridge. When loading film, avoid direct lighting, work in subdued light to prevent forging.

- 1. Pull up backlid catch (16), and swing backlid fully open. Fully pull out rewind crank (17). (Fig. 1)
- 2. Insert safety cartridge containing unexposed film in film chamber (18). Lock in position by pushing in rewind crank fully. If rewind crank does not sink down fully,



turn slightly until it engages safety cartridge with a distinct click. Pull out about four inches of film, and fold about a quarter inch of the end of the film outward (toward glossy film base side) at one of the perforations. (Fig. 2)

- 3. Turn take-up spool (20) with thumb, in direction of film gate (sprocket (19) will turn in opposite direction), to bring slit of spool into a position convenient for attaching end of film. Insert creased end of film into slit, hold lightly with fingertip, then wind film onto spool, seeing that lower edge of film is in contact with spool flange, and the perforations properly engage the sprocket teeth. (Fig. 3)
- 4. While holding down the film, turn rewind crank in direction of arrow to take up all slack. (Fig. 4)
- 5. Next turn take-up spool (20) again with thumb to check free advance of film, with sprocket teeth engaging the perforations, and with film playing out of the safety cartridge to turn rewind crank (17) counterclockwise. Close backlid. If when closing backlid, perforations on both sides of the film are engaged by the sprocket, the full number of exposures may not

be available for picture-taking.

- Exposure counter (5) will indicate "S" (start). Keeping lens covered, operate cocking lever (1) and release shutter until exposure counter indicates "1". You are now ready for picturetaking.
- 7. Finally, turn filmspeed indicator (24) to set at ASA rating of the film in use. The dots on the ASA scale between 50 and 100, and 100 and 200 indicate ASA 80 and 160 respectively. The number of exposures available is indicated on red background for color, black for monochrome.

CAMERA GRIP

Any comfortable method of holding the camera will do provided steadiness is assured. It is suggested, however, that the weight of the camera be supported by the palm of the left hand, while the index finger and thumb are applied to the focusing ring (8). The right hand lightly but firmly grips the right end, with the index finger falling naturally on the shutter button (2). The right thumb is hooked lightly on the cocking







lever (1). (Cut A)

When using the camera to take vertical pictures, essentially the same grip can be used when the cocking lever side is upmost. In this case, keep left elbow up against the body. (Cut B) When the cocking lever side is lowered, nestle camera in palm of right hand, and operate shutter button with thumb. Left hand is free to operate the focusing ring. (Cut C)

FOCUSING

After operating the cocking lever (1) to advance film and set the shutter mechanism, push full aperture lever (7) downward to obtain maximum image brightness. Sight subject through eveniece (6).

Turn focusing ring (8) to obtain maximum sharpness of image. Full aperture is not always necessary for focusing, but added brightness and reduced depth of field aid judgment of maximum sharpness.

By using full aperture release (10), the pre-selected aperture setting is obtained for visual check of depth of field and

DEPTH OF FIELD TABLE

CANON LENS OM F1.9 50mm. (circle of confusion 1.4/1.000 inch.)

Aperture	Ditances focused on (in feet)											
	00	60	30	15	10	8	6	5	4	3.5	2.5	2
1.9	132' ∞	41′ 35⁄8″ 110′ 27⁄8″	24' 6" 38' 8¾"	13′ 6″ 16′10″	9' 4" 10' 9"	7' 6¾" 8' 5¾"	5' 914" 6' 314"	4'10" 5' 216"	3' 10¾" 4' 1¾"	3' 5" 3' 7"	2' 5½" 2' 6½"	1' 1134" 2' 138"
2	125′ ∞	40′ 75″ 115′ 238″	24' 3%" 39' 3%"	13′ 5″ 16′ 1″	9' 3½" 10'10"	7' 6½" 8' 6½"	5' 9" 6' 3¼"	4' 93%" 5' 214"	3' 10¾" 4' 1¾"	3' 5" 3' 7"	2' 5½" 2' 6½"	1' 11%'' 2' %''
2.8	89′	35′ 107′s″′ 182′ 24′s″	22' 7" 44' 7"	12'11" 17'11"	9' 14"	7' 4½" 8' 8%"	5' 7½" 6' 4¾"	4' 918" 5' 314"	3' 10%" 4' 2"	3' 4%" 3' 7½"	2' 5%" 2' 6%"	1'11%"
4	63′	30′ 8¾″	20' 6" 56' 5"	12' 2" 19' 7"	8' 8" 11'10"	7' 1%" 9' 1"	5' 6¼" 6' 7"	4' 8" 5' 4%"	3' 9½" 4' 2¾"	3' 4" 3' 8%"	2' 516" 2' 7"	1' 1115"
5.6	44′ 9″	25′ 85%″	18' 2" 87' 2"	11' 4" 22' 3"	8' 3" 12'10"	6'10¼" 9' 7%"	5' 416" 6' 1016"	4' 6½" 5' 6¾"	3' 8½" 4' 4½"	3' 3%" 3' 9"	2' 43''' 2' 732''	1' 11 ¼" 2' 3%"
8	31′ 4″	20′ 8¼″	15′ 6″ 482′	10' 3" 28' 2"	7' 8" 14' 5"	6' 5½" 10' 7"	5' 1¼" 7' 3½"	4' 414" 5'1016"	3' 716" 4' 616"	3' 2¾" 3'10½"	2' 4¼" 2' 8¼"	1' 10%" 2' 1¼"
11	22'11"	16′ 7½″ ∞	13′ 2″ ∞	9' 2" 42' 1"	7′ 1″ 17′ 4″	6' ¼" 12'	4' 10" 7' 11¼"	4' 214" 6' 3"	3' 5%" 4' 8%"	3' 116" 4' 12"	2' 356" 2' 9"	1' 10½" 2' 1¾"
16	15′ 9″ ∞	12' 615"	10′ 6″ ∞	7′ 91½″ 247′	6' 3" 26'	5′ 5″ 15′ 7″	4' 5%"	3'10%" 7' %"	3' 3¼"	2'11¼"	2' 2%"	1' 978"

brightness of exposure.

When viewing image is too dark to permit visual checking of depth of field, make use of the depth of field scale (15) adjacent to the distance scale (14). When more precise checking of available depth of field is necessary, refer to the depth of field table.

When using infra-red film, in conjunction with red filters, certain corrections must be made in focus because of the shorter wave-length of infra-red rays. First focus in the usual manner, then note distance on the distance scale (14). Shift focus setting so that distance noted comes into alignment with the red infra-red index mark to the right of the regular index mark.

UNLOADING FILM

When available number of exposures (20 or 36) have been made, do not attempt to take any more pictures.

- Press sprocket release button (21) so that it remains depressed. Erect rewind crank(17), and turn in direction of arrow to return exposed film to safety cartridge.
- 2. When end of film is reached, slight resistance will be felt when end becomes detached from take-up spool. Leave end of film protruding from safety cartridge. Open backlid and remove. Depressed sprocket release button (21) will return automatically to

original position when cocking lever (1) is operated.

CAUTION If, at end of roll of film, the cocking lever jams part way through its stroke, do not force. Push in the sprocket release button (21) to free the cocking lever so its stroke can be completed. If jammed cocking lever is forced, the film may break or become detached from the feed spool. Then camera cannot be opened except in a darkroom if film is to be saved.

SYNCHROFLASH PHOTOGRAPHY

The term "synchroflash" is applied to synchronization of shutter action with the firing of a flashbulb or electronic flash.

Two synchroflash sockets (23) are provided. One socket is for FP (focal plane) flashbulbs, while the other is for electronic flash. The sockets are designed to take the

SYNCHRONIZATION TABLE

Synchroflash Socket	FP	x
Shutterspeed	1/60 to 1/1000 Sec.	1 to 1/30 Sec.
Type of flash	Type FP flashbulb	Electronic flash, Type F and M flashbulbs



JIS-B type plug (German type).

INTERCHANGEABLE LENSES

In addition to the standard F 1.9, f=50mm CANON LENS OM, a wide variety of interchangeable lenses is in preparation. The lens mount is of the EXAKTA type, so lenses of this make can be used. When removing lens from body, grip lens barrel with right hand; then, while depressing lens barrel catch (22), turn in counterclockwise direction. At about one-sixth turn the flanges will disengage, and the lens barrel can be lifted out. When fitting lens barrel on body mount, reverse this procedure, making sure that when inserting flanged end of lens barrel the red dots on the lens and body mount are in alignment. Lens barrel catch (22) will click into lock position.

When the lens barrel is removed, the reflex mirror can be seen inside the camera body. Do not touch this mirror. If dust be removed, blow clear with a bulb syringe.

WHEN CAMERA IS NOT IN USE

. When putting away camera for any length of time, do

not keep cocked. Release shutter.

- Temperatures above 104° and below 15° F as well as high numidity and salty air are harmful. Do not leave camera exposed for long in the sun.
- When storing camera, remove from leather carrying case, wrap in cellophane or polyethylene together with some dessicant (silica gel). Keep in some airtight container.
- Do not attempt to repair in case of malfunctioning. Never apply lubricants. Consult your camera dealer or the Service Department of MAMIYA CAMERA COMPANY.

SPECIAL ACCESSORIES

INTERCHANGEABLE LENSES: Wide Angle—F2.8, f=35mm (6-element, picture angle 63°)

Wide Angle—F2.8, f=48mm (5-element, picture angle 48°40')

Portrait — F3.5, f=100mm(5-element, picture angle 24°20')

Telephoto — F2.8, f=135mm(5-element, picture angle 18°20')

SPECIAL COUPLED EXPOSURE METER: Mounted on the camera, and adjusted to the filingseed rating, this coupled exposure meter inicates the aperture (f/) setting for correct exposure.

OTHER: Also available are such accessories as Extension Ring Set, Extension Bellows, Microscope Adapter, Lens Hoods, Filters, Copying Stand, Angle Finder, Diopter Correcting Adapter, and Accessories Holder.