

**Sankyo**

**Auto Zoom**

**8-ZZ**

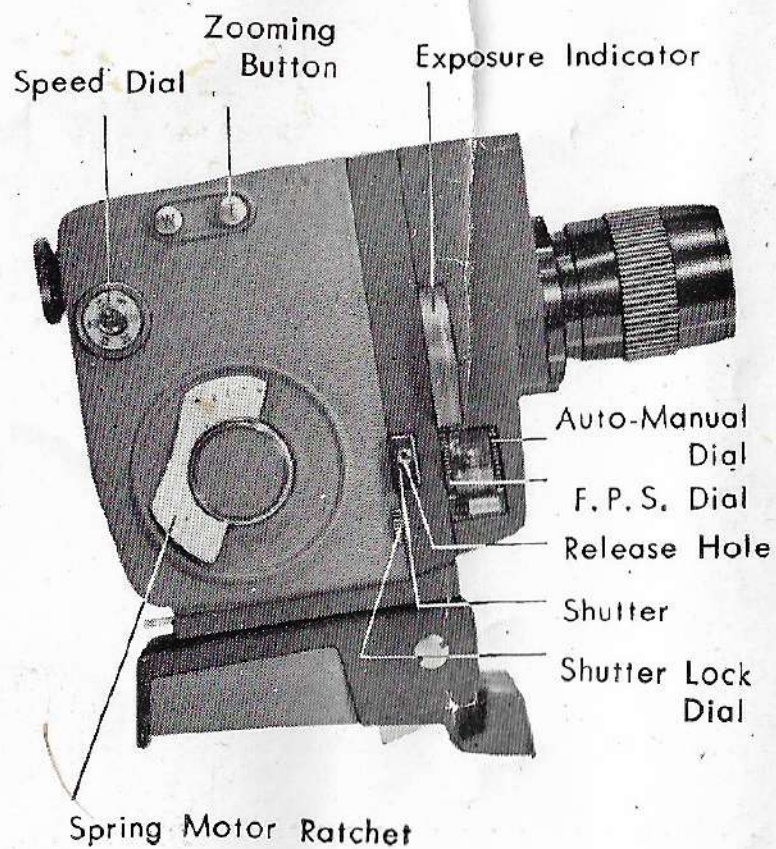
**INSTRUCTION BOOK**

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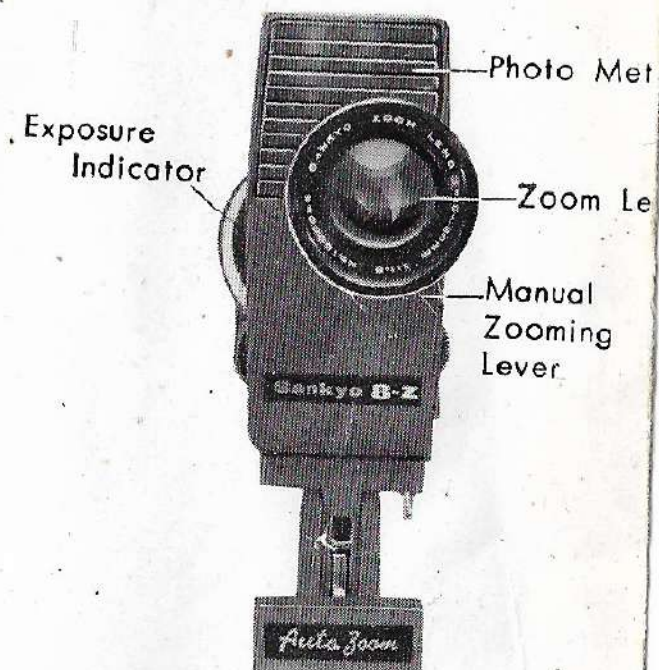


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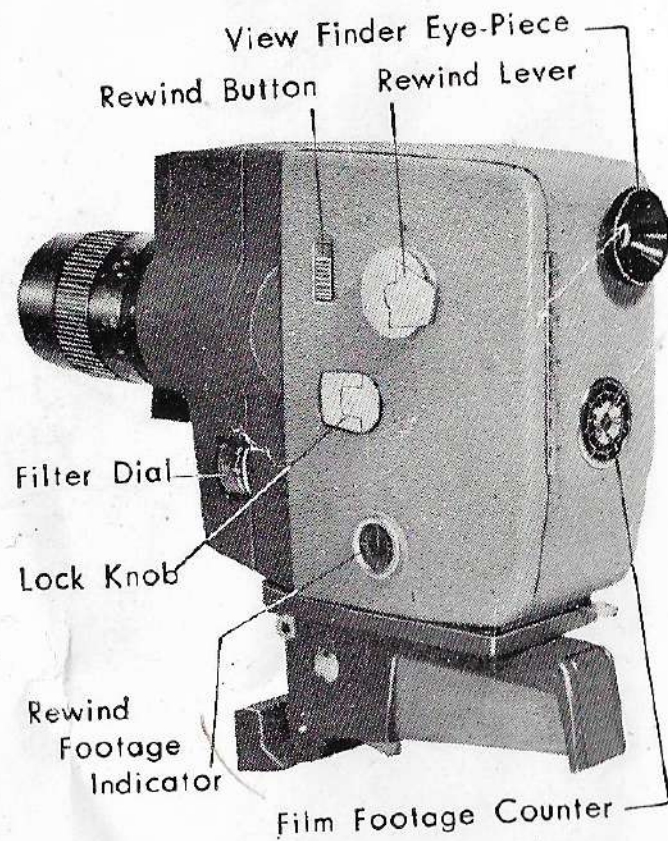
# Names of the Various Parts



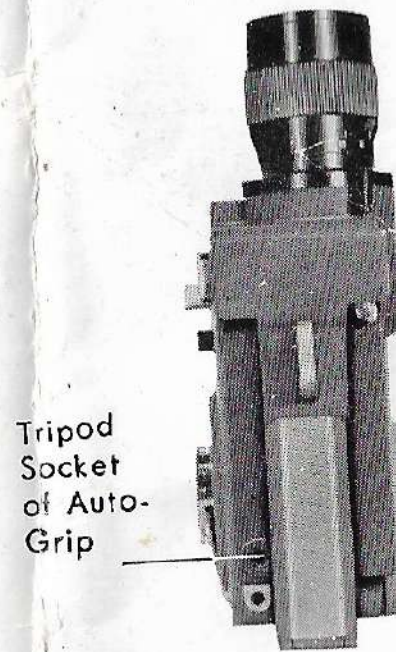
RIGHT SIDE



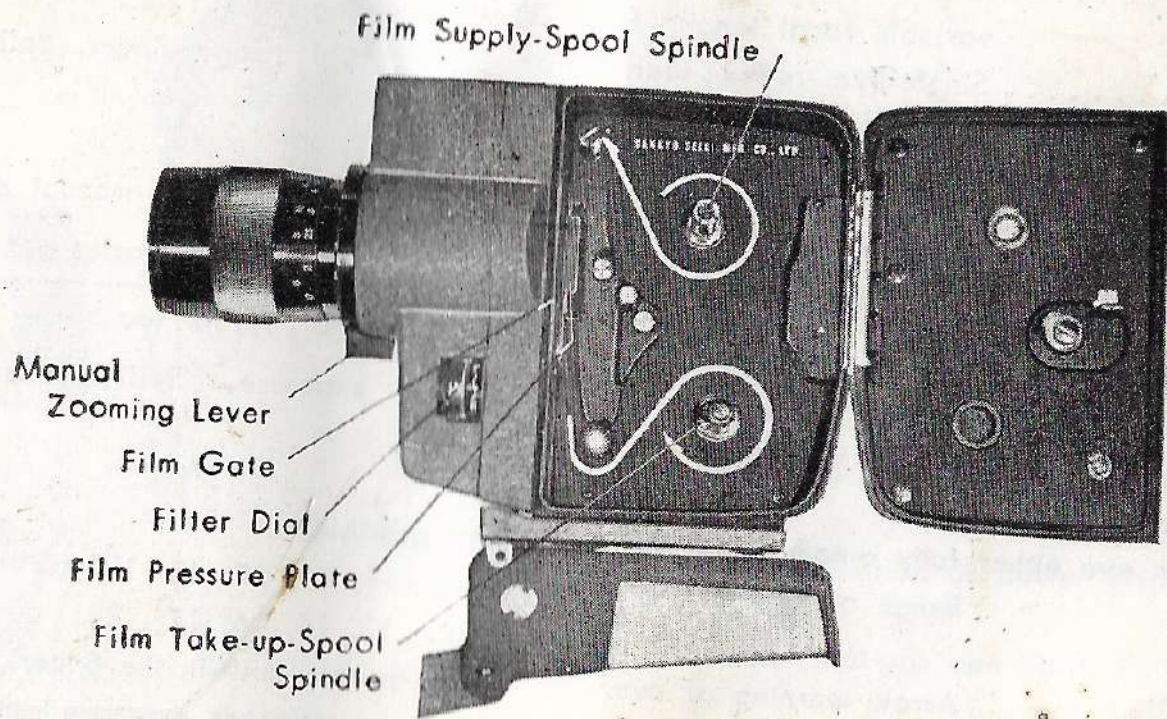
FRONT



LEFT SIDE AND BACK



BOTTOM



## Specifications

- Type ..... Spool-loading
- Lens ..... Built-in zoom lens consisting of 8 groups and 11 layers. F/1.8, variable focal length, f: 10-30 mm, zooming ratio 1:3.
- Finder ..... Single-eye reflex (half-mirror prism), real image finder, split-image focusing, variable field of vision.
- Filters ..... Type A, UV built-in.
- Zooming System Automatic pushbutton (5 sec 10-30 mm or 30-10 mm) or manual zooming.
- Speed ..... 

1	8	TV	16	24	32	48	frames per second
1/20	1/17	1/30	1/35	1/50	1/70	1/100	sec
- Shutter ..... Continuous run, lock and single-frame exposure. Self-timer and pistol grip attachable.
- Aperture ..... 160°
- Electric eye either fully automatic or manual setting possible.  
Range of film sensitivity: ASA 10, 16, 25, 32, 40, 100 (Gold spot)  
DIN 11, 13, 15, 16, 17, 21
- Drive ..... Spring-driven motor (9.1 feet-45 sec, continuous exposure possible).  
Arrow warning of over or under exposure built-in the finder.
- Rewinding ..... Equipped with rewind film counter and rewind lever.
- Film Counter ..... 0-25 feet accumulative counter.  
Returns to start automatically when door of camera is opened.
- Size ..... 55.5 × 122.5 × 136 mm.
- Weight ..... 1,580 gr. (Body), 350 gr. (Autogrip)



Just push the button and your Sankyo 8-Z does the rest. The age of real automation in 8 mm photography has arrived. The Sankyo 8-Z zooms automatically from 10-30 mm. when you press the button. The real fascination of power zooming lies in the fact that you can zoom from an object in the distance to one close up swiftly and automatically and the 8-Z's single-lens reflex-type finder allows you to view accurately any type of subject.

## Special Features

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1. Built-in power controlled zoom that works at the press of a button.
  2. Built-in, fully automatic exposure meter. Just aim and shoot. The camera itself will select the proper exposure.
  3. The lens is a built-in, f/1.8 zoom lens (10-30 mm.) which gives high resolution and good contrast and may be used for telescopic and wide angle shots.
  4. The finder is a single lens reflex, half-mirror prism type which allows you to film exactly what you see.
  5. The lens is so constructed that focusing is on a "split-image" principle, enabling you to always maintain accurate focus.
  6. A rewind mechanism permits overlap.
  7. A folding grip can be attached for fast, sure candid shots.
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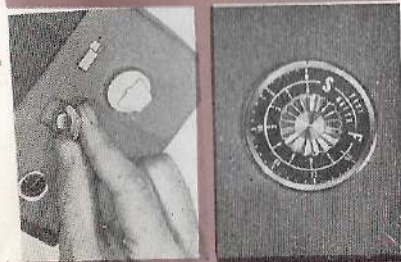
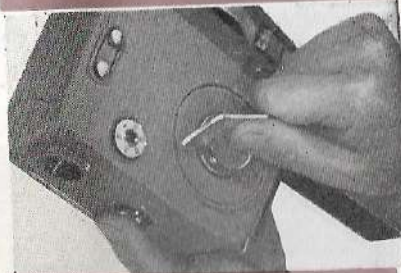


## How to Use The Sankyo 8-Z

## Loading

1. First, wind up the spring motor.

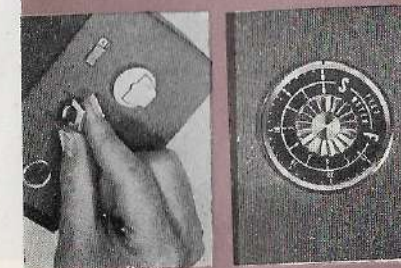
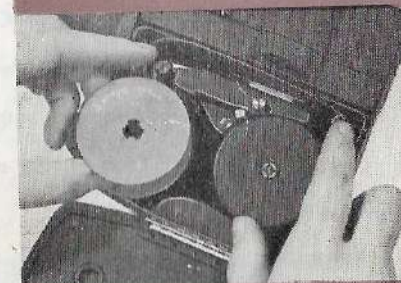
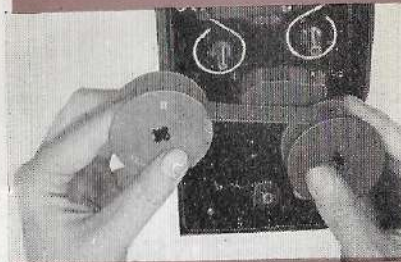
2. To open the camera, turn the lock knob counter-clockwise. When the camera is opened, the film counter will automatically return to "Start(S)".



3. Remove the colored take-up spool and insert the end of the film into the slot with the emulsion side in. Wind a few turns of film onto the spool.

4. Thread the film through the film gate with pulling the pressure plate towards you and be sure that the emulsion side is towards the lens. Then fit the spools onto their respective spindles as shown in the picture. Be sure the film follows the arrows, which indicate the exact path, on the inside plate.

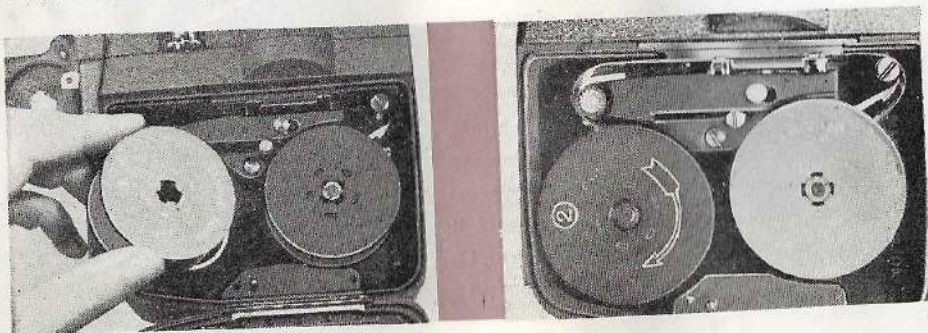
5. Press the shutter release button briefly and, after making sure the film is feeding properly, shut the camera door. Then press the shutter release once more and hold it until the film counter moves from S to O. The camera is now loaded and ready to shoot.





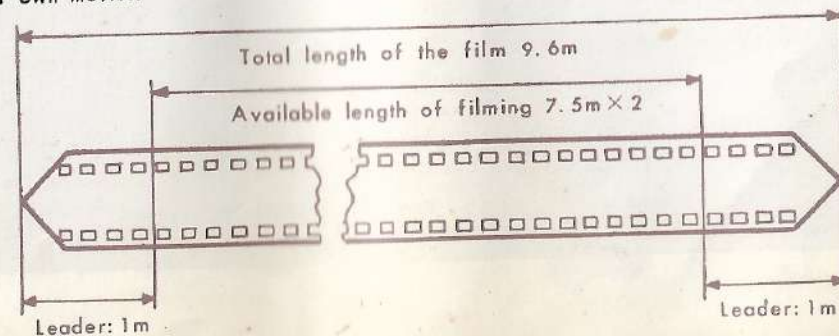
## Changing the Film

When the first 7.5 m (25 ft) of the film have been used up, let the camera run, until the F mark of the film counter appears. One side of the film has been exposed and taken up on the bottom spool. To use the other edge of the film, the spools must now be switched. First, open the camera and remove both spools. Turn the colored Sankyo spool over and put it on the top spindle. Then put the empty black spool on the bottom spindle and thread the film the same way as before.



## 8 mm Film

8 mm film is run through the camera twice, once for both edges. One reel of film is 16 mm wide and 7.5 m (25 ft.) long. The film is exposed twice, 8 mm of its width at a time so that its length is 15 m (50 ft.). However, in practice, the ends of the film become exposed when it is loaded so its effective length is 9.6 m (32 ft.). When the film has been exposed, it is sent to the company for developing where it is cut in half lengthwise and wound on a bigger reel. Only after this is done, can it be projected. A reel of 8 mm film lasts about 4 minutes on the screen and this is equal to 30 m of 16 mm film so that 8 mm film is very economical, making it possible for everyone to enjoy the thrill of taking their own movies.

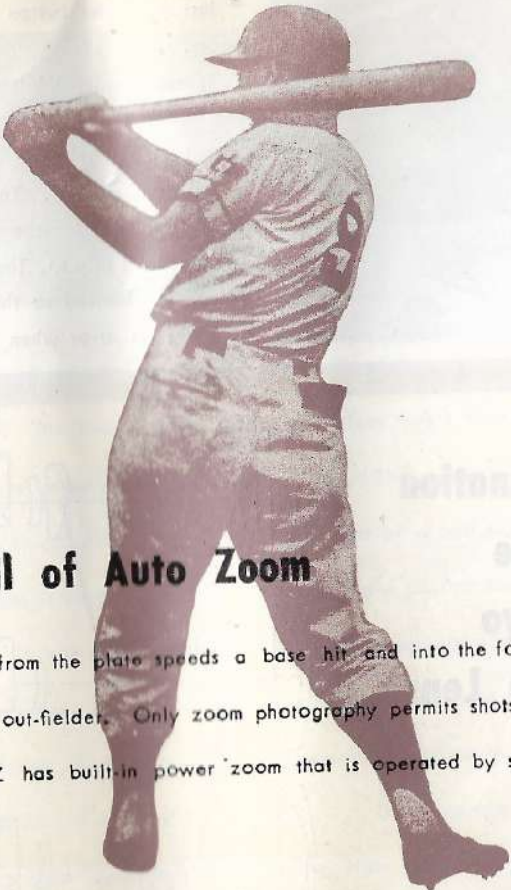


## The Sankyo Zoom Lens

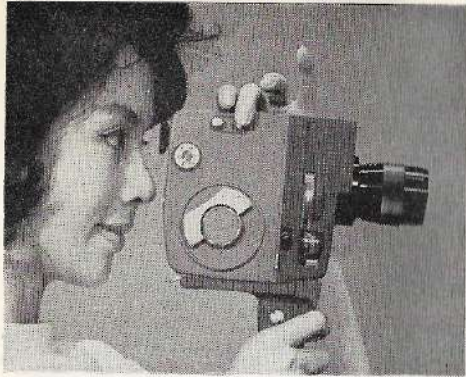


The Sankyo zoom lens is a new  $f/1.8$ , 10-30 mm lens consisting of 8 groups and 11 layers. In order to get the utmost zooming satisfaction from this lens, it is mounted on a high precision cam so that the point of focus is always the same and precise adjustments can be made since it is built-in. Therefore, anywhere between 10 mm and 30 mm, the focus is always the same which means high resolution and good contrast. The finder is the single lens reflex type so that there is no problem with parallax and the zoom effect can be used to full advantage. The zoom lens does the job of many different lenses so that by using zoom photography, action and a feeling of speed can be created on the screen making your movies more exciting and enjoyable.

## The Thrill of Auto Zoom



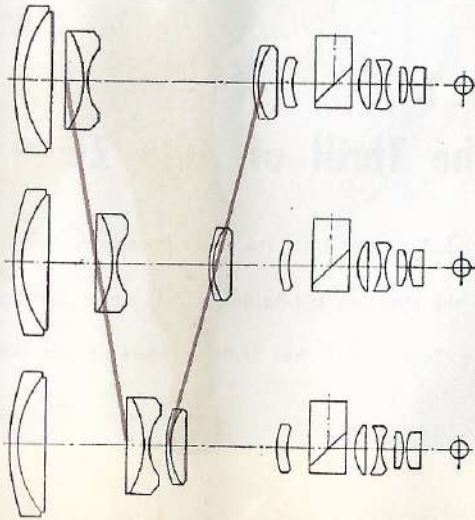
Wham! Away from the plate speeds a base hit and into the foreground comes the face of the straining out-fielder. Only zoom photography permits shots like this. The Sankyo 8-Z has built-in power zoom that is operated by simply pressing a button.



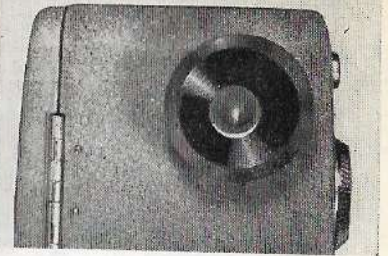
\* Just push the button when you want to zoom.

T is telescopic, W is wide-angle. When the button is released, the camera ceases zooming so that scene can be kept to any proportions desired. The zooming action, from 10-30 mm (or the other way) lasts 5 seconds (at 16 f.p.s.). The head of the "W" button is recessed so that it is impossible to make an error when zooming.

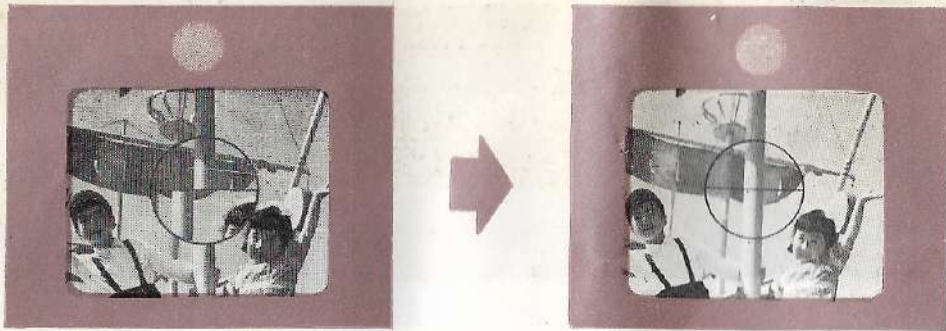
## Explanation of the Sankyo Zoom Lens



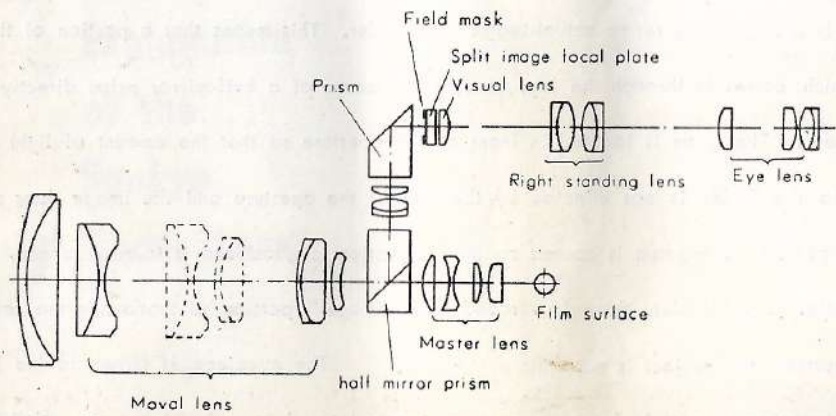
## The No-Parallax Single Lens Reflex Finder



To get the full zoom effect, without incurring any worry of parallax, it is necessary to compose quickly. The finder of the Sankyo 8-Z lens meets these requirements fully since it is a single lens reflex actual-image type finder. This means that a portion of the light which comes in through the lens is sent by means of a half-mirror prism directly to the finder. The prism is located in front of the aperture so that the amount of light passing into the finder is not affected by the size of the aperture and the image does not become dark. The prism is coated so that refraction is good and it is easy to see. In the center of the finder, there is a round "split-image" portion so that when the camera is focussed, the subject is not split but unified. The eyepiece is turned to the left for distance and the right for close-up (adjustments from +2~-2 diopter are possible).

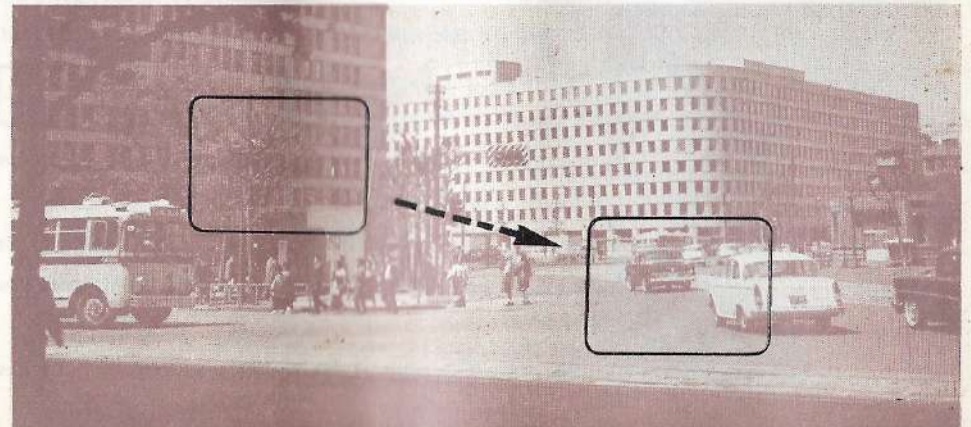


## Explanation of the Single Lens Reflex Finder

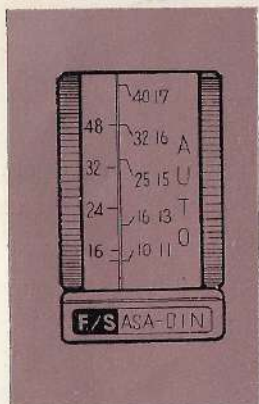


## How the Fully Automatic Diaphragm Works

A fully automatic exposure meter built in the Sankyo 8-Z makes it necessary only to aim the camera at the subject to take effective, well-exposed sequences in any given set of lighting conditions; no need to worry about exposure. Just leave everything to your Sankyo 8-Z. For example, even if you're panning from a light subject to a dark one, the diaphragm will expand and contract automatically to give the best exposure.



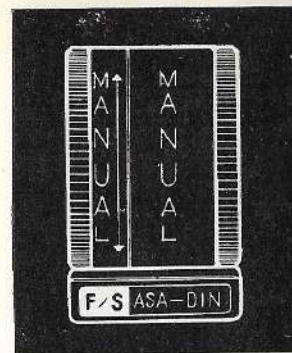
## Shooting with the Automatic Diaphragm



1) Turn the "Auto-Manual Switch dial" and set the letter "Auto" to the red mark which is stamped on the transparent cover of the dial. (It will lock in place with a clicking sound.) With this, the camera is ready for shooting with automatic exposure.

2) Determine the A.S.A. number of the film which you are using. Turn the f.p.s. dial and line up the film speed number to the proper A.S.A. number indicated on the face of the Auto-Manual dial. (The standard speed is 16 f.p.s.). With this the camera is ready to use. Just aim it at the subject and shoot.

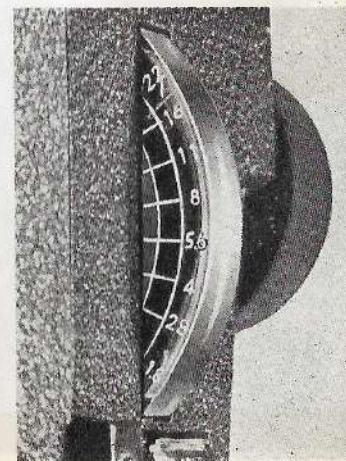
- 3) Film sensitivity is expressed in A.S.A. and D.I.N. numbers. The Sankyo 8-Z can be set for:
- |              |    |    |    |    |    |
|--------------|----|----|----|----|----|
| A.S.A. . . . | 10 | 16 | 25 | 32 | 40 |
| D.I.N. . . . | 11 | 13 | 15 | 16 | 17 |
- 4) By reading the exposure in the special exposure indicator, it is possible to determine the correct exposure for any given subject while you are filming it.
- 5) When there is insufficient light to take successful shots, the yellow indicator in the upper part of the finder window will change to a black indicator in this case you can not take pictures.
- 6) While shooting, do not aim the camera directly at the sun or inadvertently cover the exposure meter window with the fingers.



## Manual Exposure



1. When you wish to photograph the subject using a special exposure, turn the Auto-Manual dial to the "Manual" position. Then, the f.p.s. dial changes its role completely.
2. Turn the f.p.s. dial until the indicator in the Exposure Meter Window is at the desired exposure.



## Spring Motor Ratchet



The spring motor ratchet is wound clockwise. When fully wound, its capacity is 9 feet so that at the standard speed of 16 f.p.s., continuous shots totaling 45 seconds can be taken. This is a great improvement over 8 mm cine cameras. When the camera is not loaded, keep it unwound.

## Shutter Button

The action of the shutter button reads: run (R), lock (L) and single frame exposure (S) and the dial may be turned to any setting desired. When not taking pictures, the shutter button can be locked by turning the dial to (L), so that even if the shutter release button is accidentally pushed, the shutter will not be released. This is true even when remote control or grip is being used. The socket in the center of the release button is for the self-timer.



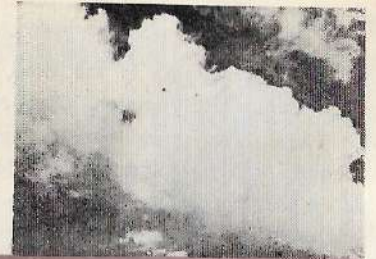
## The Frames-per-second "Speed" Dial



The speed dial is located on the side of the camera body and can be set on the standard speed of 16 f.p.s., slow-speed (8), sound movies speed (24) or the high-speed (32), (48) or TV-speed. Each speed has a click stop so that the dial can not accidentally be turned while shooting.

## 8 f. p. s.

To emphasize slow actions, 8 f.p.s. is a very effective speed. If clouds floating in the sky are taken at this speed, a realistic effect is achieved. When the slow speed is used because of inadequate lighting, actions become ludicrous. Therefore, scenes involving little action should be taken in such cases.



## 16 f. p. s.

This is the standard speed and needs little explanation. Regular sound movies are 24 f.p.s. but 8 mm movies are 16 f.p.s.



## T. V. Speed

A special speed is used to take movies from television screens. As long as this speed is used, the effect of scanning line can be avoided and good clear films can be obtained.



## 24 f. p. s.

When branches blowing in the wind, etc. are taken at this speed, a truly graceful effect can be achieved. Other rapidly moving subjects can also be shot at this speed for better effects. Film taken and shown at 24 f.p.s. is very smooth and this is the best speed for sound movies.



## 32, 48 f. p. s.

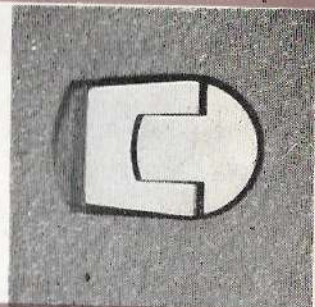
To photograph the waves clashing to the rocks or waterfalls, this is the best speed for maximum beauty. 48 f.p.s. permits slow motion shots which may be used very effectively to analyze form in sports, etc.



The camera should never be run at 48 f.p.s. when it is empty. The reason is that the shutter may undergo strain and the mechanism may be damaged if the shutter is stopped before the spring has run out completely.

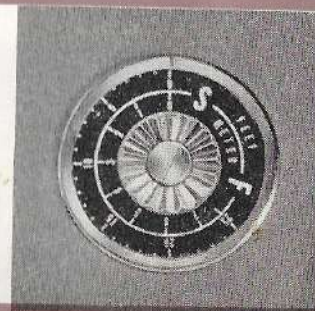
## Lock Knob

Turn the lock knob counter-clockwise to open the camera and clockwise when closing it. It will lock itself automatically when the camera is closed all the way.



## Film Footage Counter

At the rear of the camera, below the finder eye-piece, is located the film footage counter which returns to S (start) automatically when the camera is opened. It is graduated in both feet and meters. The amount of film rewound can be precisely determined by turning it by hand.

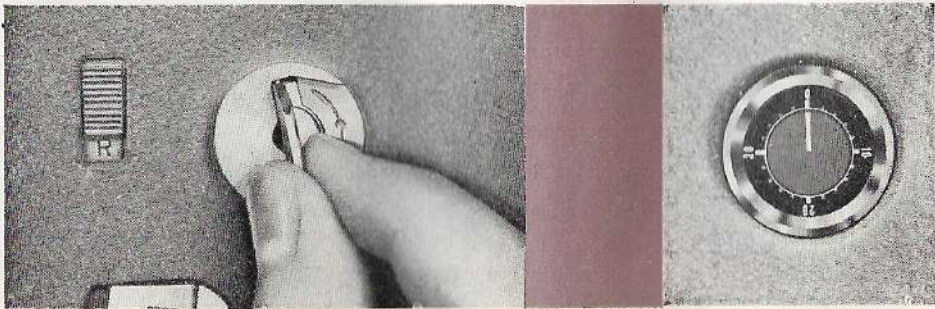




## Rewinding the Film for Overlap, etc.

To expose the film twice or use an overlap effect, first push the rewind button upward to "R"; turn the rewind lever counter-clockwise in the direction of the arrow and while looking at the rewind frame indicator, the necessary number of frames of film is rewound. One full revolution of the indicator is equal to 40 frames so that 2 revolutions equals one foot. When the film has been rewound, return the button to the "A" position. Be sure to turn the film footage counter back the amount of film you have rewound.

- \* When the rewind button is not on R, the rewind lever will not turn.
- \* When the button is on R, the camera cannot be closed.
- \* If the spring motor is not wound up, the button will not work.



## Filter Dial



- \* The Sankyo 8-Z has both a UV (ultra-violet) and amber filter (Type A) built in so that either one may be used.
- \* The UV filter absorbs ultra-violet rays and by its use, extremely clear mountain scenes and seascapes can be taken.
- \* The amber filter is used when shooting under sun light with tungsten type (artificial light type) color film and when shooting at the shadowy place or on a cloudy day with day light type color film.  
The amber filter used on the Sankyo 8-Z converts a color temperature of 3,500°K to 6,000°K and has a magnifying ratio of 1.5. This is the same as Kodak Written No. 85 filter.<sup>2</sup>

## How to Use the Zoom Lens

In order to get the best effect, be sure to keep the following points in mind when using the zoom lens:

1. When zooming, always begin the sequence with a 2-3 second burst holding the camera on one spot.
2. When zooming by hand rather than Auto-Zoom, be sure to keep the effect smooth. Do not stop in the middle and start up again since this will cause an unsettling effect when viewed on the screen.
3. As is the case with usual Tele-photo lenses, also, jiggling the camera when using the telescopic part of the zoom lens will result in unsteady sequences on the screen so that a tripod should be used for the best results.
4. Overuse of the zooming effect will result in a bad effect which should be avoided. It is probably best to limit the use of the zoom effect to the first and last scenes of the film.



at 10mm



at 20mm



at 30mm



## The Autogrip

Jumpy 8 mm movies taken with an unstable camera are very difficult to watch. Thus, whenever possible, it is desirable to use a tripod but even when a tripod is not available, you can be sure of getting steady pictures by using the Autogrip. The Autogrip is shaped something like a pistol butt and has a trigger to release the shutter.



## How to collapse The Autogrip

The 8-Z Autogrip is of special design so that it is collapsible making it more convenient to carry. Likewise, when folded over, the Autogrip becomes a display stand. To collapse the grip, pull the knob in the bottom of the grip, as shown in the picture, and then fold the body of the grip over. Furthermore, the camera can be mounted on a tripod without removing the grip.

## Sankyo Close-Up Lens

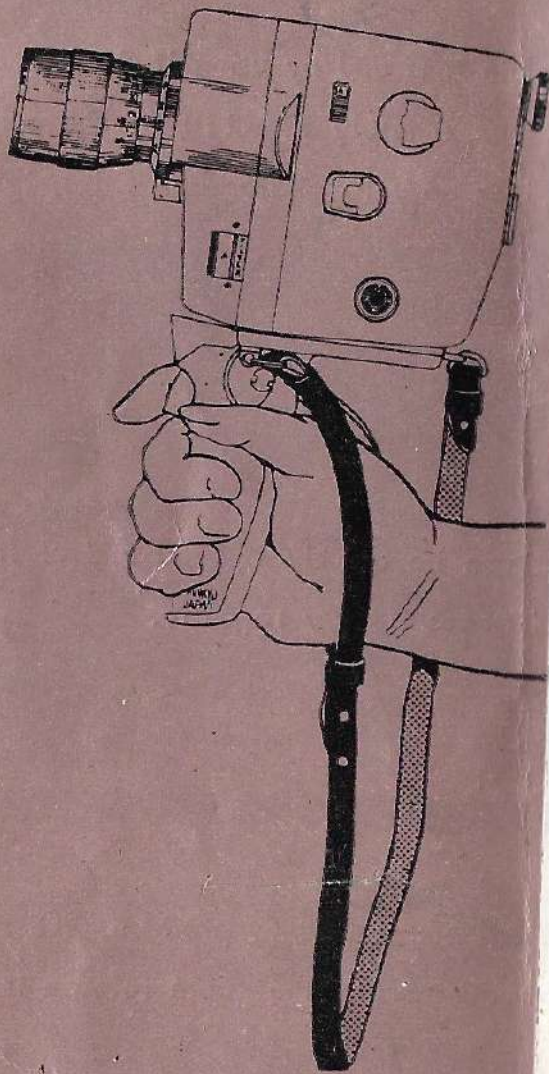
The Sankyo 8-Z close-up lens is attached to the main lens and by using it, it is possible to photograph objects up to within 50-60 cm (approximately 1 $\frac{1}{2}$ -2 ft) of the camera. Because of the no-parallax, single lens reflex finder, it is easy to photograph titles, insects, plants and flowers etc.

## Soft Case

The soft carrying case is made of leather and can be quickly opened and closed by means of the zipper. It protects the camera and makes it easy to carry.

## Fader

The Sankyo fader is attached to the front of the lens and is used to produce such special effects as fade-in, fade-out and over-lap. For smooth results, the cable release is used.



## Shoulder Band

The shoulder band for the 8-Z has been designed so that it can also be used for a wrist strap and makes carrying the 8-Z simple. When using the 8-Z, pass your hand through the loop in the band and grasp the Autogrip. Then adjust the size of the loop around your wrist as shown in the picture.

# TO MAKE MOVIES

1. Wind the motor.
2. Check the sky condition (or measure the lamp-to-subject distance) and set the lens according to the Exposure Guides.
3. Focus the camera's lens, if adjustable.
4. Make movies! Steady does it!

## OUTDOOR EXPOSURE GUIDE

Use Kodachrome Film, Daylight Type, at 16 frames per second.

BRIGHT SUN ON LIGHT SAND OR SNOW	BRIGHT SUN STRONG SHADOWS	HAZY SUN WEAK SHADOWS	IN OPEN SHADE, CLEAR BLUE SKY
f/11	f/8	f/5.6	f/2.8

## INDOOR EXPOSURE GUIDE

Use Kodachrome Film, Type A, at 16 frames per second.

300 or 375-Watt Reflector-Type Flood Lamps	DISTANCE IN FEET FROM LAMPS TO SUBJECT					
	4 to 6	6 to 8½	7 to 10	8½ to 12	10 to 14	12 to 17
With 2 lamps	f/4	f/2.8	f/2.3	f/1.9		f/1.4
With 4 lamps	f/5.6	f/4		f/2.8	f/2.3	f/1.9

## Exposure Meter Settings and Kodak Wratten Filters

	Daylight	Photoflood
Kodachrome Film, Daylight Type.....	10	5 80B
Kodachrome Film, Type A.....	10 85	16

See film instruction sheets.

● BASIC:

LENS OPENING, FOCUS, CAMERA SPEED.

● LENS OPENINGS:

SMALLEST NUMBERS ARE LARGEST OPENINGS

● CAMERA SPEEDS:

8 SPEEDED UP, JERKY MOTION

16 NORMAL

32 SLOW MOTION

64 EXTREME SLOW MOTION

● KODACHROME II FOR DAYLIGHT:

ON 16 FPS AT ASA 25

● KODACHROME II, TYPE "A", FOR INDOOR:

ON 16 FPS AT ASA 40 (OUTDOORS ASA 25 WITH FILTER)

● INDOOR:

LENS SETTING IS GOVERNED BY LIGHTS TO SUBJECT DISTANCE. REMEMBER TO CHANGE LENS OPENING WHEN YOU OR SUBJECT CHANGE POSITION.

● YOU CAN INCREASE EXPOSURE BY SETTING FILM-INDEX DIAL AT A LOWER NUMBER

YOU CAN DECREASE EXPOSURE BY SETTING FILM-INDEX DIAL AT A HIGHER NUMBER.

● NEON SIGNS AT NIGHT:

2.8 ; FLOODLIT FOUNTAINS, WIDEST OPENING.

● ICE SHOWS, CIRCUSES, ETC.

WHITE SPOTLIGHT 4.

PALE 2.8

DARK 1.9

● VARY CAMERA-TO-SUBJECT DISTANCE, SCENE LENGTHS, AND CLOSE-UPS, WITH MEDIUM AND LONG DISTANCE SHOTS;

CLOSE-UP TO 6 FEET

MEDIUM DISTANCE TO 25 FEET

LONG DISTANCE OVER 25 FEET

● AT LEAST ONE SCENE IN EVERY FOUR SHOULD BE A CLOSE-UP.

● REMEMBER:

ALWAYS PAN SLOWLY.

USE ZOOM LENS SPARINGLY.