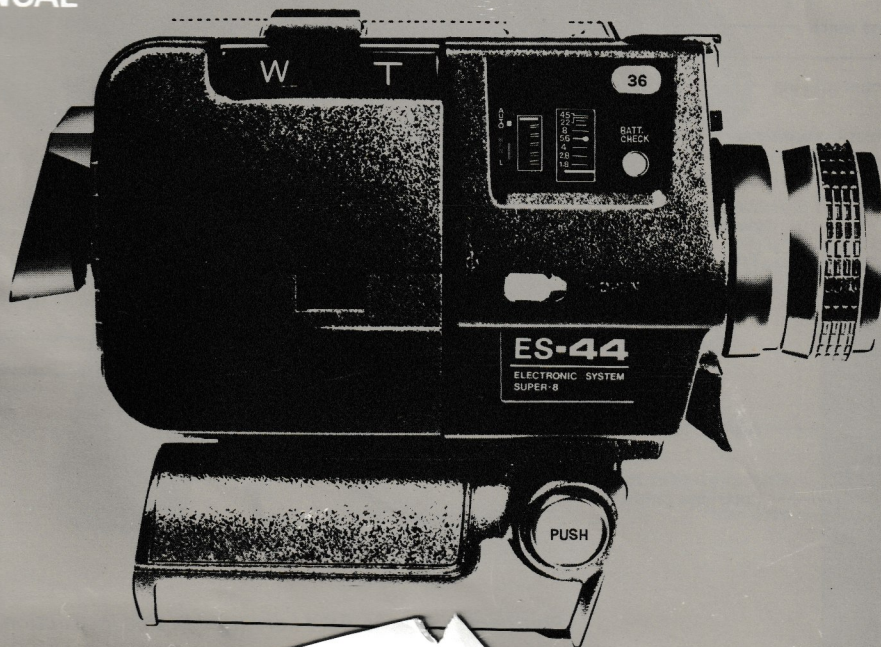


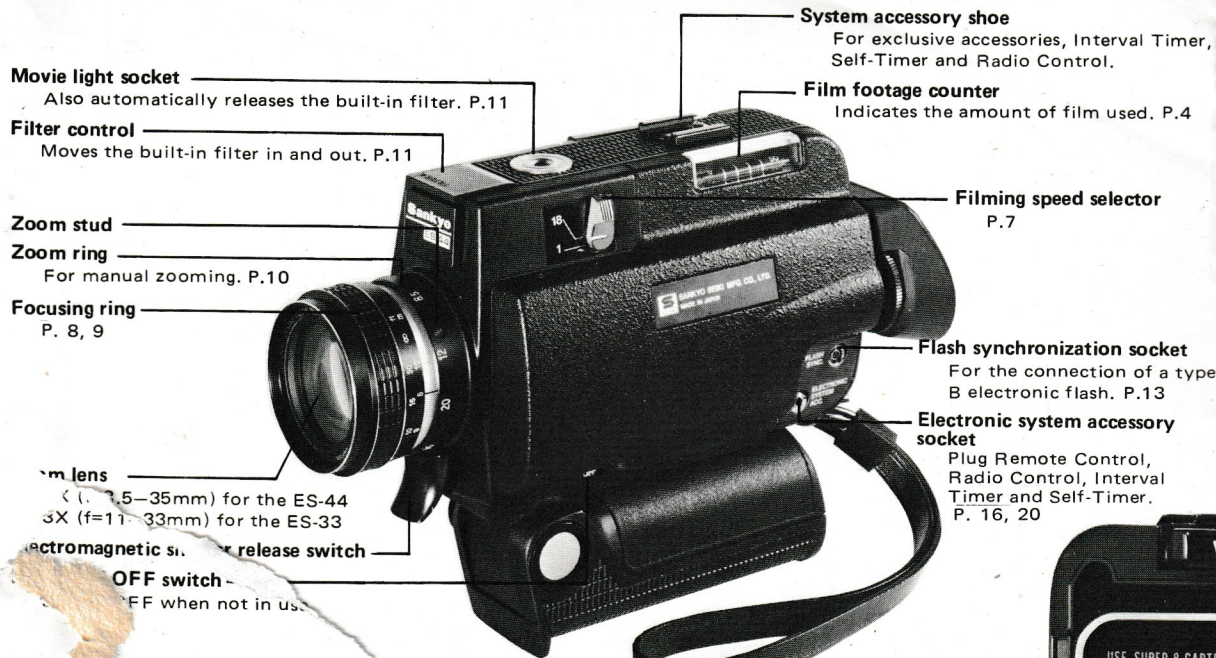
# Sankyo ES-44/33

ELECTRONIC SYSTEM SUPER 8

INSTRUCTION MANUAL



# PARTS AND DESIGNATION



**Power zoom button** —  
Press "T" for telephoto and "W" for wide angle

**Film plane mark** —

**Eyecup** —

**Diopter control ring** —  
P.7

**Film indication window** —

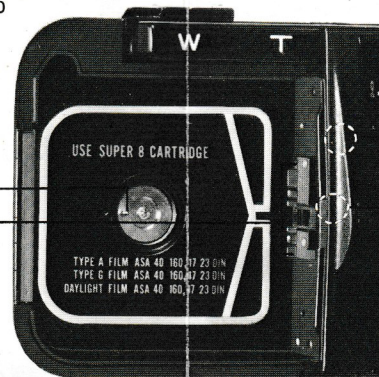
**Wrist strap ring** —

**Wrist strap** —

**Tripod socket** —  
P.15

**Film take-up spindle** —

**Film gate** —





**Power zoom button**

Press "T" for telephoto and "W" for wide angle. P.10

**Film plane mark**

**Eyecup**

**Diopter control ring**  
P.7

**Film indication window**

**Wrist strap ring**

**Wrist strap**

**Tripod socket**  
P.15

**ASA auto-set pin**

**Cartridge guide pin**

**Auto-Manual aperture control dial**

**Aperture indicator**

Also used as battery checker. P.3,5

**Slow motion button**

For high speed filming (36 frames per second).

Only on the ES-44. P. 14

**Battery check button**

Press to check the battery power.  
P.3

**Side cover latch**

Slide in the direction of arrow. P.4

**Grip lock button**

Push to open and close the grip. P.2

**Foldaway pin grip**

**Battery compartment cover**

## CONTENT

### BASICS

1. Loading t
2. Checking
3. Loading t
4. Aperture
5. Selecting

*Photographs of the ES-44 are used in this instruction manual.*

aperture control dial  
 indicator  
 as battery checker, P.3,5  
 button  
 speed filming (36  
 second).  
 the ES-44, P. 14  
 button  
 check the battery power.

ch  
 the direction of arrow, P.4  
 ton  
 open and close the grip, P.2

ay pin grip  
 tment cover

## CONTENTS

### BASICS

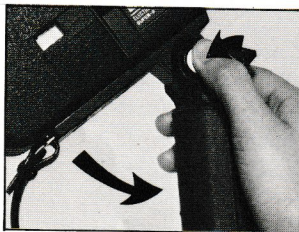
1. Loading the batteries . . . . .	2
2. Checking the battery power . . . . .	3
3. Loading the film . . . . .	4
4. Aperture control . . . . .	5
5. Selecting the filming speed . . . . .	7

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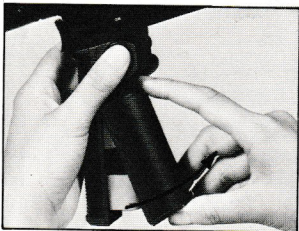


# BASICS

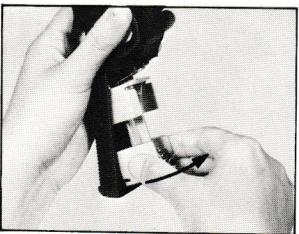
## 1 LOADING THE BATTERIES



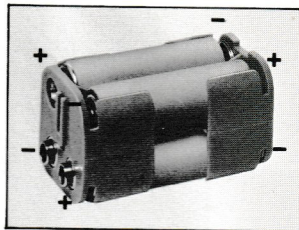
- Fold the grip away while pushing the lock button.



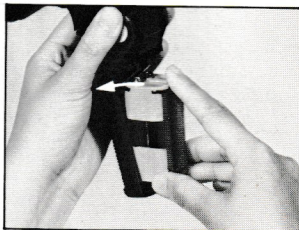
- Remove the battery compartment cover.



- Take out the battery case.



- Insert 4 "AA"-size dry batteries following the diagram inside the case.



- Replace the case as shown inside the compartment.
- Replace the cover.

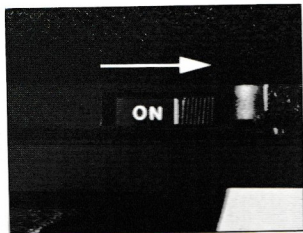
*Make it a rule to set the power switch to OFF when you are not using the camera.  
This will save battery power.*

## 2 CHECKING THE BATTERY POWER

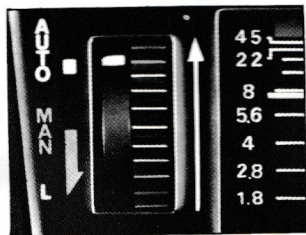
4 "AA"-size dry bat-  
following the diagram  
the case.

place the case as shown  
the compartment.  
place the cover.

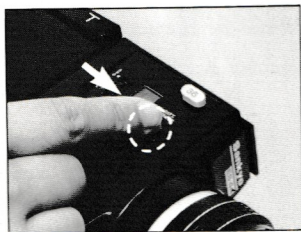
to OFF when you



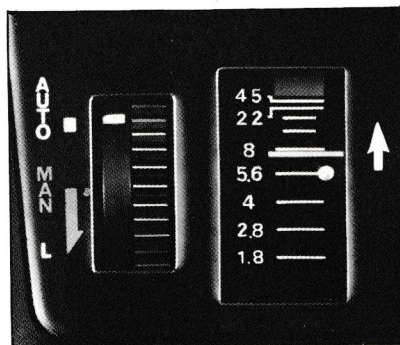
- Set the power switch to ON.



- Set the aperture control dial to AUTO.



- Press the battery check button.



- Look at the aperture indicator.

The batteries have enough power if the needle deflects to above the —● mark (F5.6). If not, replace the batteries.

*In extremely cold temperatures, the needle may fail to reach the —● mark even if a fresh set of batteries has been installed. If this happens, warm the battery case (containing the batteries) before starting to film (by putting it in your pocket, for example).*



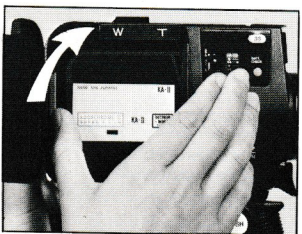
### 3 LOADING THE FILM



- Slide the side cover latch.
- Open the side cover.

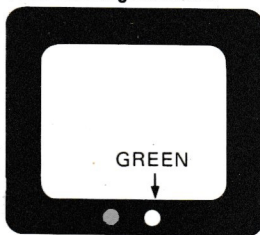


- Insert a Super-8 film cartridge.
- Close the cover.



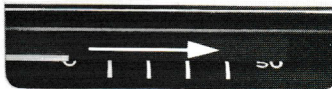
The film sensitivity is automatically set.  
To remove the cartridge, lift out by its rear end.

#### Film running indicator



Press the shutter release switch, and a green light will flicker to indicate that the film is running correctly. When the light either disappears or stop flickering, it indicates that the film has come to end or is not running correctly.

#### Film footage counter

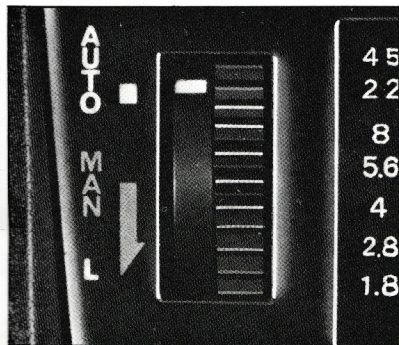


The green strip shows how much film has been used. When the cartridge is removed, the green strip returns to zero automatically.

*When the film running indicator light disappears or stop flickering before the film counter reaches "50", there may be something wrong with the cartridge or camera. Consult a camera shop.*

# 4 APERTURE CONTROL

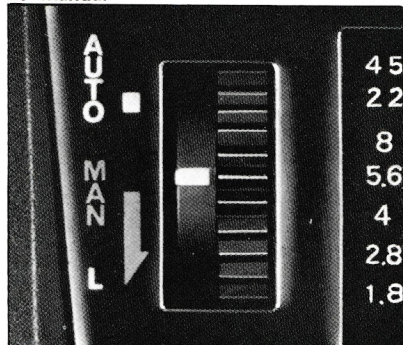
## 1. Automatic



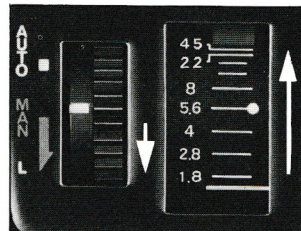
- Set the aperture control dial to AUTO.

In normal filming this setting gives correct exposure at all times.

## 2. Manual



- Turn the aperture control dial to MAN.



- Set the aperture indicator needle to the desired value by turning the dial.

Use this manual control when the subject is strongly backlit or when the subject-background contrast is high, or when you want to get special effects.

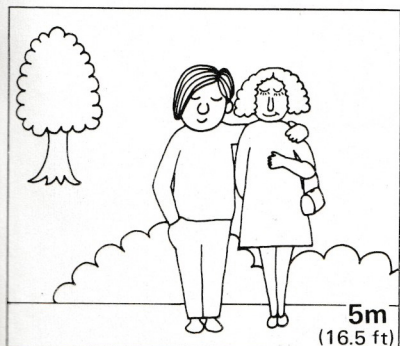


### 3. Zone focusing

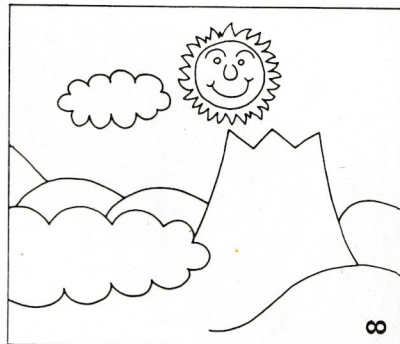


- Set the focusing ring to 2m for ordinary close-ups.

When shooting close-ups at telephoto, measure the distance to focus.



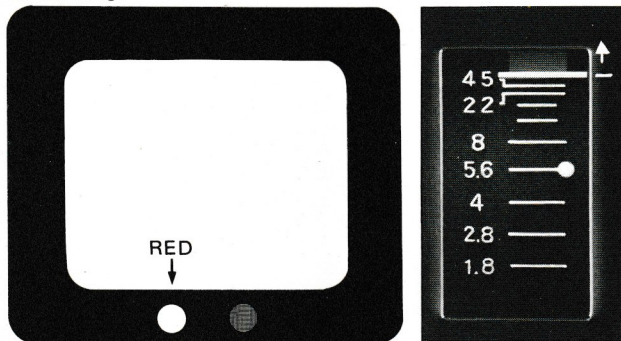
- Set the focusing ring to 5m for full figure or group shots.



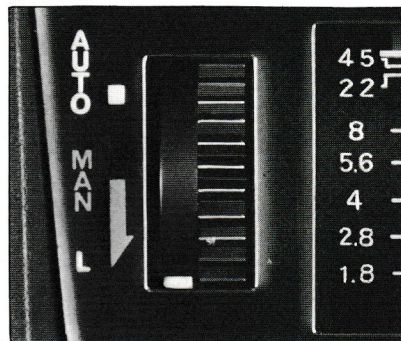
- Set the focusing ring to infinity for landscapes.

If the aperture reading is below F5.6, select one of these three settings depending on the subject.

### 3. Warning



### 4. Lock



#### Automatic exposure

Under-exposure	Red lamp lights in the viewfinder	Use artificial light
Over-exposure	Aperture indicator needle enters the red field above 45	Use ND filters

#### Manual exposure

The red lamp in the viewfinder also lights in manual operation.

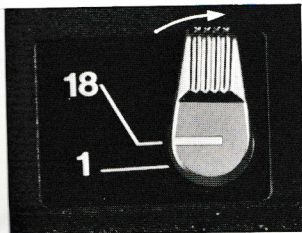
*Be sure to return the aperture control dial to AUTO when you have finished manual exposure. Otherwise, not only are the batteries used up too quickly, but your next filming may fail because the automatic exposure does not work.*

- To lock the aperture indicator, set the aperture control dial to L.

Switching off the power protects the EE mechanism from general shocks. Use the lock facility when the camera will be subject to greater shocks. Switch to L when you are carrying it in your automobile and sending it for repair, for example.

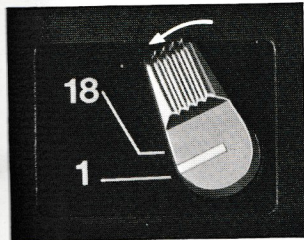


## 5 SELECTING THE FILMING SPEED



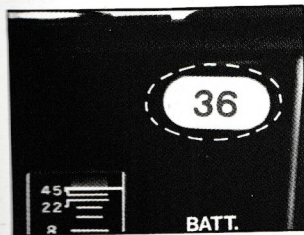
### Normal filming

- Set the filming speed selector to "18".



### Single frame exposure (P.12)

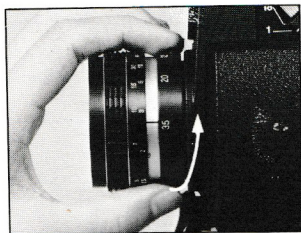
- Set the filming speed selector to "1".



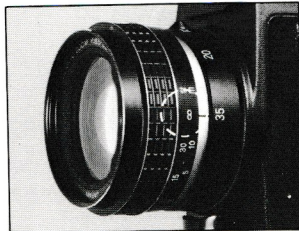
### Slow motion filming (P.14)

- Press the "36" button. (ES-44 only)

## 6 ADJUSTING TO YOUR EYESIGHT



- Set the zoom ring to maximum (telephoto).



- Set the focusing ring to infinity ( $\infty$ ).



- Turn the diopter control ring while looking through the viewfinder.

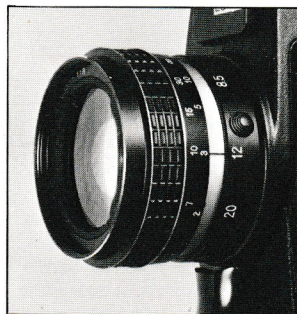
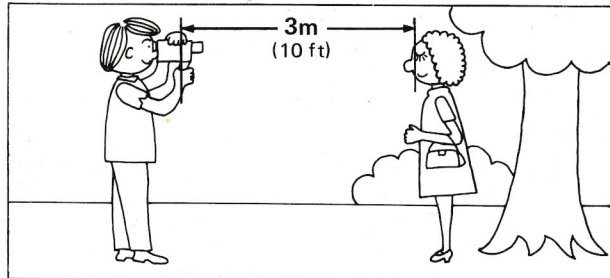
Adjust so that a distant subject and the frame of view can be seen most clearly.

## 7 FOCUSING

This camera uses the aerial image focusing system. To focus, turn the focusing ring so that the image is seen most clearly in the viewfinder.

There are three other simplified focusing techniques:

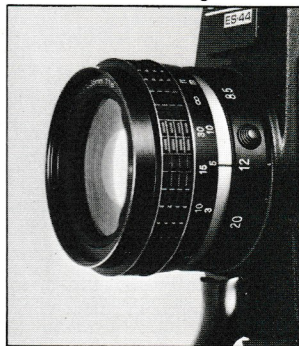
### 1. Focusing by measuring the distance



- Measure or estimate the distance between camera (∞ mark) and subject.

- Set the focusing ring to this value.

### 2. Universal focusing

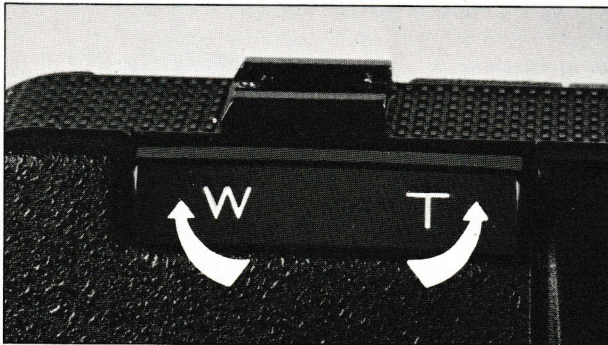


- Set the focusing ring to 5m (15ft).

This method is based on the depth of field. The aperture should be F5.6 or higher. Use this method when you have no time to focus as when making documentaries.

## 8 ZOOMING

### 1. Power zoom (P.19)



- Press the "T" side of the power zoom button and the size of the image increases (zoom to telephoto).
- Press the "W" side of the power zoom button and the size of the image decreases (zoom to wide-angle).

*The power zoom mechanism only works when the shutter release switch is being pressed.*

### 2. Manual zoom



- Turn the zoom ring to get the effect you want.

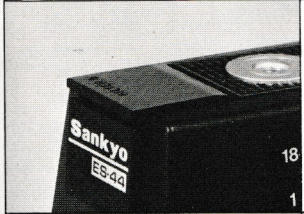

For stable zooming, turn with the upper part of the finger against the zoom stud.



## 9 FILTER CONTROL

This filter control is to move in or out the built-in type-A filter (color compensation filter for type-A color film).

- Down . . . . . Filter
- Up . . . . . No filter

Filter control	Lighting
	<ul style="list-style-type: none"> <li>• Sunshine</li> <li>• Fluorescent light</li> <li>• Blue light</li> </ul>
	<ul style="list-style-type: none"> <li>• Tungsten light</li> <li>• Movie light</li> </ul>

### Type-G film

Type-G film requires no color compensation filter for any type of lighting. When the film cartridge is inserted, the built-in type-A filter is automatically removed. The filter control has no effect.

### Movie light

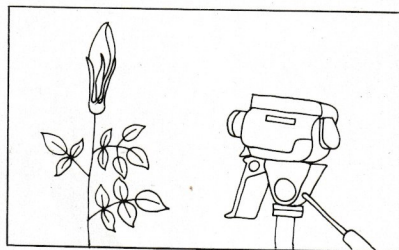


1. With the movie light screwed into the movie light socket, the filter is automatically removed. There is no need to operate the filter control.

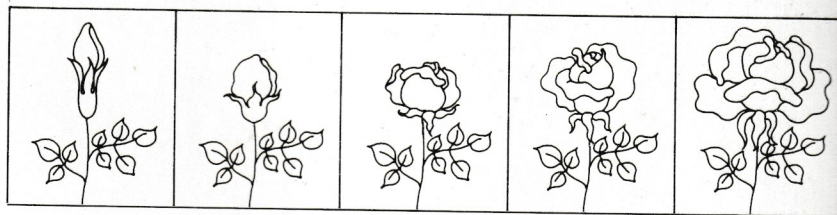


2. When the movie light is mounted on a bracket screwed into the tripod socket, raise the filter control.

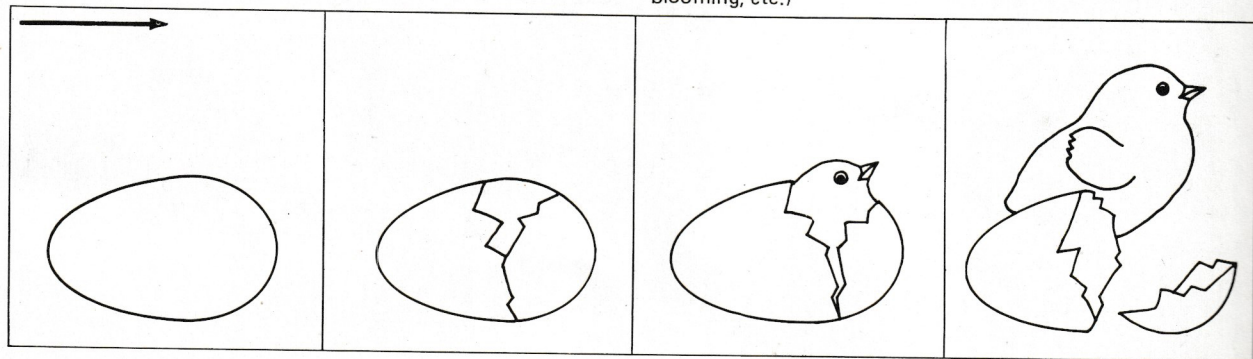
# 10 SINGLE FRAME EXPOSURE



- Set the filming speed selector to "1".
- Set the aperture control dial to AUTO.
- Press the shutter release switch.



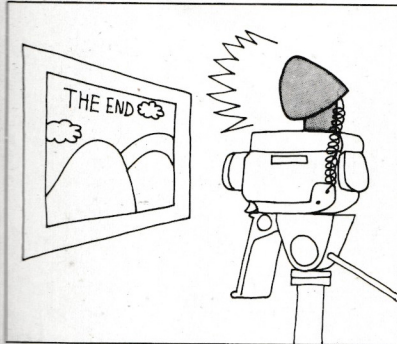
This technique is useful for titling, animation or other films where you want a time lapse effect (filming plants growing, blooming, etc.)



- Plug flash
- Calc
- guid
- by t
- Set
- the
- Pres

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ing a  
expo  
ber t

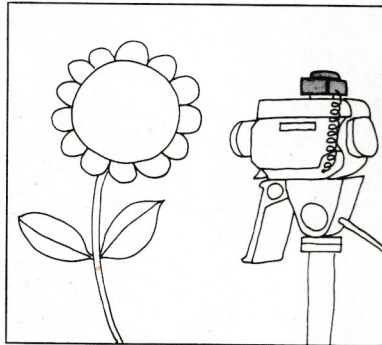
### Using an electronic flash



- Plug the cord of a type-B electronic flash into the flash sync socket.
- Calculate the aperture by dividing the guide number (from the flash manual) by the distance.
- Set the exposure by manually turning the aperture control dial.
- Press the shutter release switch.

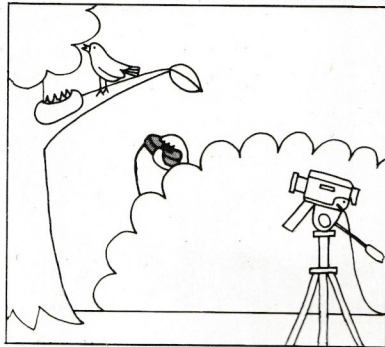
*The service life of the flash sync contact is 5,000 flashes. When making a large number of single frame exposures it is important to remember this.*

### Using with Interval Timer



If you use the optionally available "Interval Timer" you can make single frame exposures automatically at intervals of from 0.5–60 seconds. This will increase the versatility of your filming. For detailed instructions, see the Interval Timer's instruction manual.

### Using with Remote Control and Radio Control

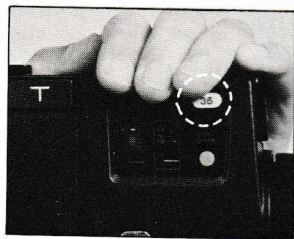
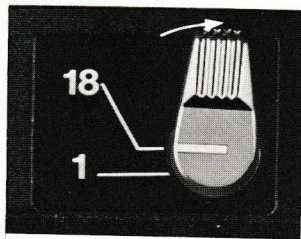


The optionally available "Remote Control" and "Radio Control" can be used to operate the shutter release when you are away from the camera: the "Radio Control" gives you added flexibility because there is no wire between the cameraman and the camera. You can also use these accessories when filming in the single-frame mode.



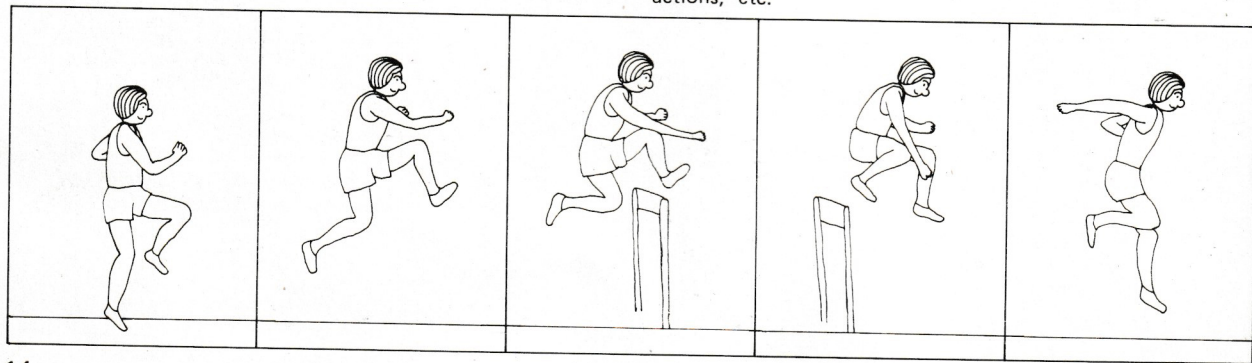
# 11

## SLOW MOTION FILMING (ES-44 only)

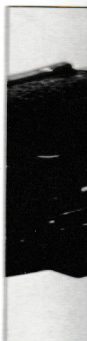


- Set the filming speed selector to "18".
- Press the slow motion "36" button while pressing the shutter release switch.

The built-in instant slow motion system lets you change continuously from normal to slow motion filming or vice versa. When you release slow motion button, the camera will continue to film at 18 frames/second. Use to film and analyze sports actions, etc.



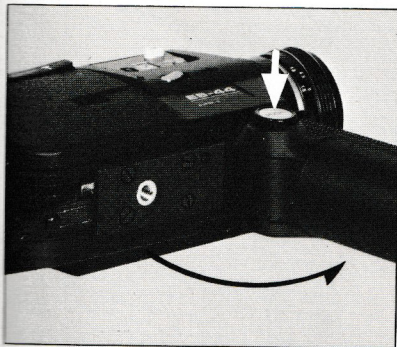
# 12



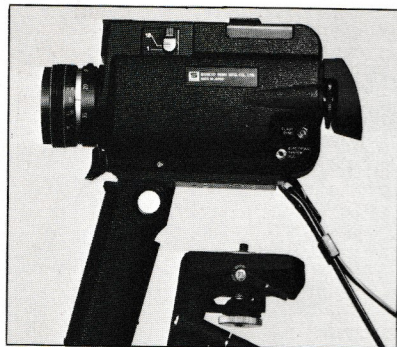
- Fold pushi

Be sure  
single fr  
Remote C

# 12 TRIPOD MOUNTING

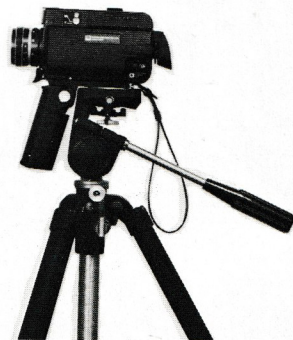
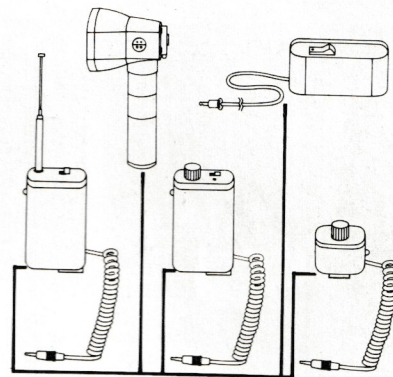


- Fold away the pistol grip while pushing the lock button.



- Fit a tripod into the hole in the bottom of the camera body.

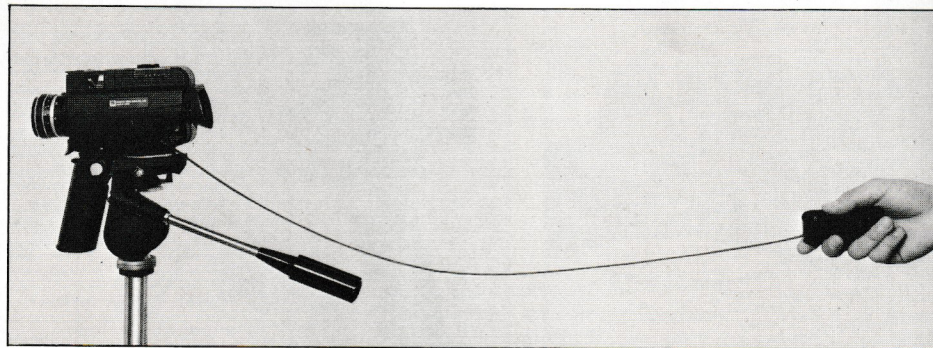
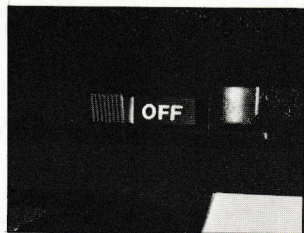
Be sure to use a tripod for telephoto and close-up shooting, single frame exposures or when you use an electronic flash, Remote Control, Radio Control, Interval Timer and Self-Timer.





# 13

## REMOTE CONTROL FILMING



- Set the camera's power switch to OFF.
- Set the Remote Control's switch to OFF.
- Plug the Remote Control into the electronic system accessory socket.
- Set the camera's power switch to ON.
- Set the Remote Control's switch to ON and filming will start.

### When you finish filming with the Remote Control

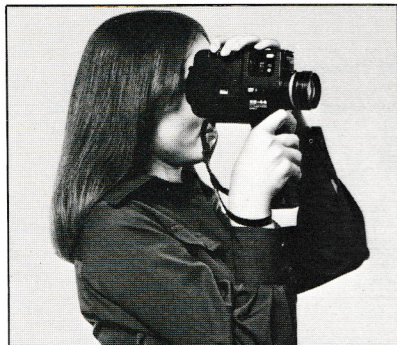
- Set the Remote Control's switch to OFF.
- Set the camera's power switch to OFF.
- Unplug the Remote Control.

*Be careful not to plug or unplug the Remote Control with the camera's power switch ON, or the shutter release will operate momentarily.*



# FILMING TECHNIQUES

## 1 HOLD THE CAMERA STEADY



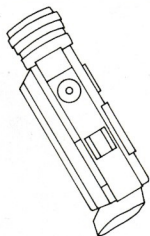
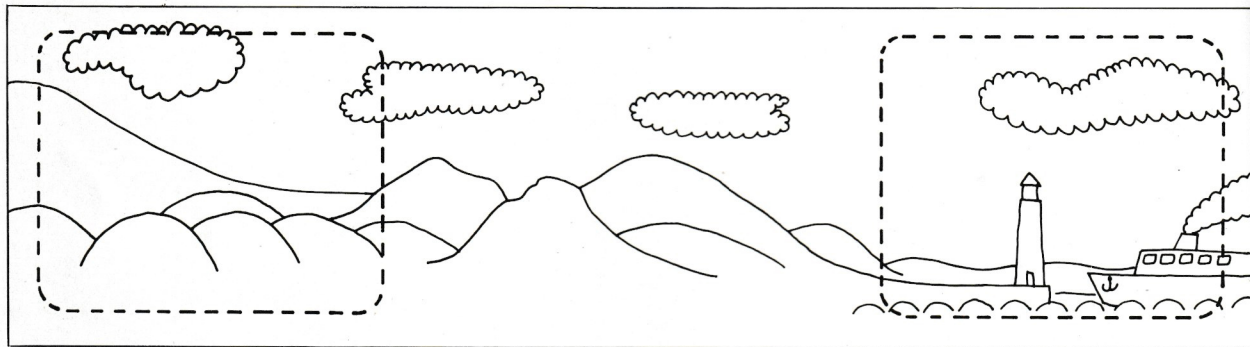
- One way is to brace the elbow of the arm which is holding the camera against the chest.
- Put the wrist strap round your wrist.
- Use a tripod.

## 2 TIME YOUR SHOTS TO BE 5 OR 6 SECONDS AT LEAST

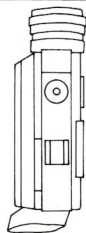
- Short scenes will make your movies unstable.
- Shooting longer scenes will make editing easier and the movies more pleasing.



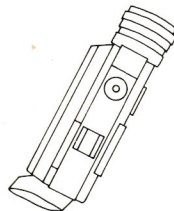
### 3 FOR EFFECTIVE PANNING



START: still for about 3 seconds



PAN SLOWLY



STOP: still for about 3 seconds

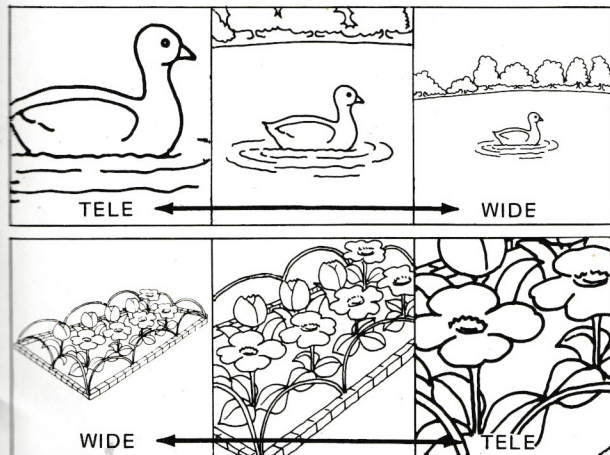
- Pan steadily from one side to the other.
- Hold the camera still for about 3 seconds when you reach a scene you want to emphasize.



- The  
sel  
spe  
ang

- Pan  
spe

## 4 POWER ZOOM FOR SMOOTH ZOOMING

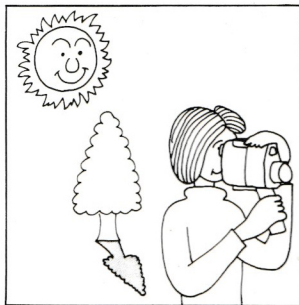


- The manual zoom facility should be used before filming to select the desired composition or during filming to give special effects by quickly changing from telephoto to wide angle or vice-versa.

## 5 DO NOT CHANGE THE CAMERA ANGLE SO OFTEN

- Panning and zooming should only occasionally be used for special effects. Otherwise the movie will be unstable.

## 6 WITH THE SUN BEHIND YOU



- Take pictures with the sun behind you whenever possible.

## 7 AGAINST THE SUN



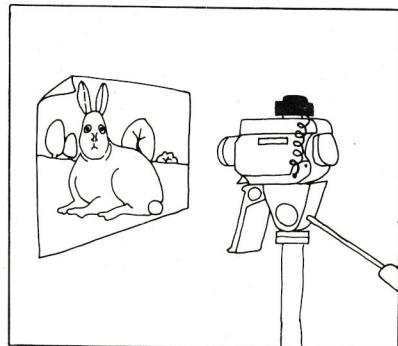
- Use occasionally to get beautiful effects at the edge of the sea, through trees, for silhouettes, for example.



## 8 WHEN MAKING FILMS WITH A STORY

- Film some scenes which are unrelated to the story. These will be useful when you are editing.

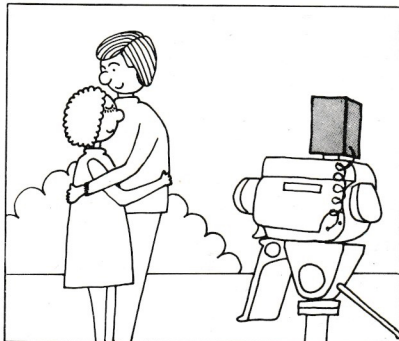
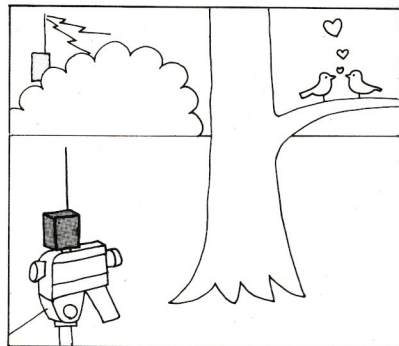
## 9 USING THE SPECIAL ACCESSORIES



- Use the Interval Timer when making animated cartoons.

For details see the respective accessory instruction manuals.

- Use the Radio Control when making wild life movies.
- Use the Self-Timer when filming yourself.



Distance	Aperture
1.8	1.8
2.8	2.8
5.6	5.6
16	16

Distance	Aperture
1.8	1.8
2.8	2.8
5.6	5.6
16	16

# DEPTH-OF-FIELD TABLES

When a subject is in focus, objects nearer and farther from the camera will also be in focus. The distance between the nearest and farthest objects which are in focus is called the depth of field.

ES-44 f=8.5							
Distance Aperture	Meter	∞	10	5	3	2	1.3
	Feet	∞	30	15	10	6	4
1.8	Meter	3.09~∞	2.36~∞	1.91~∞	1.52~105.73	1.21~5.68	0.91~2.25
	Feet	10.13~∞	7.57~∞	6.05~∞	5.03~∞	3.77~14.72	2.87~6.61
2.8	Meter	1.96~∞	1.64~∞	1.41~∞	1.19~∞	0.99~∞	0.78~3.84
	Feet	6.45~∞	5.31~∞	4.51~∞	3.92~∞	3.11~86.60	2.47~10.54
5.6	Meter	0.98~∞	0.89~∞	0.82~∞	0.74~∞	0.66~∞	0.56~∞
	Feet	3.22~∞	2.91~∞	2.65~∞	2.44~∞	2.10~∞	1.78~∞
16	Meter	0.69~∞	0.65~∞	0.61~∞	0.56~∞	0.52~∞	0.45~∞
	Feet	2.28~∞	2.12~∞	1.98~∞	1.86~∞	1.65~∞	1.45~∞

ES-44 f=12								
Distance Aperture	Meter	$\infty$	10	5	3	2	1.3	
	Feet	$\infty$	30	15	10	6	4	
1.8	Meter	6.15~ $\infty$	3.81~ $\infty$	2.76~26.67	2.02~5.85	1.51~2.96	1.07~1.65	
	Feet	20.22~ $\infty$	12.08~ $\infty$	8.61~58.08	6.69~19.78	4.63~8.53	3.34~4.99	
2.8	Meter	3.92~ $\infty$	2.81~ $\infty$	2.20~ $\infty$	1.70~12.82	1.32~4.09	0.98~1.95	
	Feet	12.87~ $\infty$	9.01~ $\infty$	6.93~ $\infty$	5.63~44.85	4.09~11.24	3.05~5.80	
5.6	Meter	1.96~ $\infty$	1.64~ $\infty$	1.41~ $\infty$	1.18~ $\infty$	0.99~ $\infty$	0.78~3.87	
	Feet	6.43~ $\infty$	5.30~ $\infty$	4.50~ $\infty$	3.92~ $\infty$	3.10~88.78	2.47~10.57	
16	Meter	1.38~ $\infty$	1.22~ $\infty$	1.08~ $\infty$	0.95~ $\infty$	0.82~ $\infty$	0.67~21.27	
	Feet	4.55~ $\infty$	3.95~ $\infty$	3.49~ $\infty$	3.13~ $\infty$	2.59~ $\infty$	2.13~33.08	

ES-44 f=20							
Distance Aperture	Meter	$\infty$	10	5	3	2	1.3
	Feet	$\infty$	30	15	10	6	4
1.8	Meter	17.09 ~ $\infty$	6.31 ~ 24.10	3.87 ~ 7.07	2.55 ~ 3.64	1.79 ~ 2.27	1.21 ~ 1.41
	Feet	56.08 ~ $\infty$	19.54 ~ 64.51	11.83 ~ 20.48	8.49 ~ 12.17	5.42 ~ 6.72	3.73 ~ 4.31
2.8	Meter	10.88 ~ $\infty$	5.21 ~ 123.82	3.43 ~ 9.25	2.35 ~ 4.14	1.69 ~ 2.45	1.16 ~ 1.48
	Feet	35.69 ~ $\infty$	16.30 ~ 188.15	10.56 ~ 25.87	7.81 ~ 13.89	5.14 ~ 7.21	3.60 ~ 4.50
5.6	Meter	5.44 ~ $\infty$	3.52 ~ $\infty$	2.61 ~ 61.91	1.93 ~ 6.69	1.46 ~ 3.16	1.05 ~ 1.71
	Feet	17.85 ~ $\infty$	11.19 ~ $\infty$	8.15 ~ 94.07	6.41 ~ 22.75	4.49 ~ 9.04	3.27 ~ 5.16
16	Meter	3.85 ~ $\infty$	2.78 ~ $\infty$	2.17 ~ $\infty$	1.69 ~ 13.64	1.32 ~ 4.17	0.97 ~ 1.96
	Feet	12.62 ~ $\infty$	8.88 ~ $\infty$	6.85 ~ $\infty$	5.58 ~ 48.19	4.07 ~ 11.44	3.04 ~ 5.86

ES - 44      f=35								
Distance Aperture	Meter	∞	10	5	3	2	1.3	
	Feet	∞	30	15	10	6	4	
1.8	Meter	52.35 ~ ∞	8.40 ~ 12.36	4.56 ~ 5.53	2.84 ~ 3.18	1.93 ~ 2.08	1.27 ~ 1.33	
	Feet	171.75 ~ ∞	25.54 ~ 36.35	13.80 ~ 16.44	9.45 ~ 10.62	5.80 ~ 6.22	3.91 ~ 4.10	
2.8	Meter	33.32 ~ ∞	7.69 ~ 14.29	4.35 ~ 5.88	2.75 ~ 3.30	1.89 ~ 2.13	1.25 ~ 1.35	
	Feet	109.30 ~ ∞	23.54 ~ 41.35	13.19 ~ 17.39	9.16 ~ 11.01	5.69 ~ 6.35	3.86 ~ 4.15	
5.6	Meter	16.66 ~ ∞	6.25 ~ 25.02	3.85 ~ 7.14	2.54 ~ 3.66	1.79 ~ 2.27	1.21 ~ 1.41	
	Feet	54.65 ~ ∞	19.37 ~ 66.51	11.77 ~ 20.67	8.45 ~ 12.24	5.41 ~ 6.74	3.73 ~ 4.32	
16	Meter	11.78 ~ ∞	5.41 ~ 66.22	3.51 ~ 8.69	2.39 ~ 4.03	1.71 ~ 2.41	1.17 ~ 1.46	
	Feet	38.64 ~ ∞	16.89 ~ 134.11	10.81 ~ 24.52	7.94 ~ 13.49	5.19 ~ 7.10	3.62 ~ 4.46	

ES-33 f=11							
Distance \ Aperture	Meter	∞	10	5	3	2	1.5
	Feet	∞	30	15	10	6	5
1.8	Meter	5.17~∞	3.41~∞	2.54~151.25	1.90~7.15	1.44~3.26	1.16~2.11
	Feet	16.97~∞	10.84~∞	7.96~129.50	6.29~24.36	4.43~9.28	3.86~7.09
2.8	Meter	3.29~∞	2.48~∞	1.98~∞	1.57~33.95	1.24~5.10	1.03~2.76
	Feet	10.80~∞	7.94~∞	6.28~∞	5.19~135.55	3.86~13.51	3.42~9.31
5.6	Meter	1.65~∞	1.41~∞	1.24~∞	1.06~∞	0.90~∞	0.78~16.98
	Feet	5.40~∞	4.58~∞	3.97~∞	3.51~∞	2.84~∞	2.60~67.78
16	Meter	1.16~∞	1.04~∞	0.94~∞	0.84~∞	0.74~∞	0.66~∞
	Feet	3.82~∞	3.39~∞	3.04~∞	2.76~∞	2.33~∞	2.16~∞

ES-33 f=15							
Distance \ Aperture	Meter	∞	10	5	3	2	1.5
	Feet	∞	30	15	10	6	5
1.8	Meter	9.62~∞	4.90~∞	3.29~10.42	2.29~4.36	1.66~2.53	1.30~1.78
	Feet	31.55~∞	15.38~∞	10.17~28.60	7.59~14.64	5.04~7.41	4.32~5.94
2.8	Meter	6.12~∞	3.80~∞	2.75~27.34	2.01~5.89	1.51~2.97	1.20~1.99
	Feet	20.08~∞	12.03~∞	8.59~59.33	6.68~19.92	4.62~8.56	4.00~6.66
5.6	Meter	3.06~∞	2.34~∞	1.90~∞	1.51~154.02	1.21~5.78	1.01~2.94
	Feet	10.04~∞	7.52~∞	6.01~∞	5.01~∞	3.76~14.92	3.34~9.96
16	Meter	2.16~∞	1.78~∞	1.51~∞	1.26~∞	1.04~26.47	0.89~4.89
	Feet	7.10~∞	5.74~∞	4.82~∞	4.15~∞	3.25~38.79	2.93~16.92

ES-33 f=20							
Distance \ Aperture	Meter	∞	10	5	3	2	1.5
	Feet	∞	30	15	10	6	5
1.8	Meter	17.09~∞	6.31~24.10	3.87~7.07	2.55~3.64	1.79~2.27	1.38~1.64
	Feet	56.08~∞	19.54~64.51	11.83~20.48	8.49~12.17	5.42~6.72	4.59~5.49
2.8	Meter	10.88~∞	5.21~123.82	3.43~9.25	2.35~4.14	1.69~2.45	1.32~1.74
	Feet	35.69~∞	16.30~188.15	10.56~25.87	7.81~13.89	5.14~7.21	4.39~5.81
5.8	Meter	5.44~∞	3.52~∞	2.61~61.91	1.93~6.69	1.46~3.16	1.18~2.07
	Feet	17.85~∞	11.19~∞	8.15~94.07	6.41~22.75	4.49~9.04	3.91~6.95
16	Meter	3.85~∞	2.78~∞	2.17~∞	1.69~13.64	1.32~4.17	1.08~2.46
	Feet	12.62~∞	8.88~∞	6.85~∞	5.58~48.19	4.07~11.44	3.58~8.28

ES-33 f=33							
Distance \ Aperture	Meter	∞	10	5	3	2	1.5
	Feet	∞	30	15	10	6	5
1.8	Meter	46.54~∞	8.23~12.74	4.51~5.60	2.82~3.21	1.92~2.09	1.45~1.55
	Feet	152.69~∞	25.07~37.34	13.66~16.63	9.39~10.70	5.77~6.25	4.84~5.17
2.8	Meter	29.62~∞	7.48~15.10	4.28~6.02	2.72~3.34	1.87~2.14	1.43~1.58
	Feet	97.17~∞	22.92~43.40	12.99~17.74	9.07~11.15	5.65~6.39	4.76~5.27
5.6	Meter	14.81~∞	5.97~30.80	3.74~7.55	2.49~3.76	1.76~2.31	1.36~1.67
	Feet	48.58~∞	18.55~78.43	11.46~21.70	8.29~12.59	5.34~6.85	4.53~5.57
16	Meter	10.47~∞	5.12~222.24	3.38~9.57	2.33~4.20	1.68~2.47	1.31~1.75
	Feet	34.35~∞	16.01~236.70	10.44~26.63	7.75~14.11	5.11~7.27	4.36~5.85



# SPECIFICATIONS

**Film** Super 8 film cartridge.

**Lens** (1) ES-44: Sankyo zoom F1.8,  $f = 8.5-35\text{mm}$ .  
ES-33: Sankyo zoom F1.8,  $f = 11-33\text{mm}$ .  
(2) Shortest focusing distance 1.3m (ES-44); 1.5m (ES-33).  
(3) Filter size 46mm dia. (screw-in type), 48mm dia. (fit-on type).

**Viewfinder** (1) Bright, extra-large reflex viewfinder.  
(2) Adjustable to individual eyesight over the range of +5 to -5 diopters.

**Zooming** (1) Push button automatic power zooming (approximately 4 sec. from wide angle to telephoto or vice versa).  
(2) Manual zooming by the manual zoom ring.

**Film driving** Electric driving by 4 penlight alkaline manganese batteries AM-3  
Battery life: 17 films at normal temperature. The batteries are housed in the battery case contained in the fold-away pistol grip.

**Battery checker** This is shown in the aperture indicator/battery checker window on the side of the camera.

**Filming speed** 18 frames per second and 36 frames per second (instantly switchable by pressing the slow motion button ES-44 only). Single frame exposure.

**Shutter opening** 220°

**Exposure meter** (1) Fully automatic aperture control with through-the lens CdS meter.  
(2) Aperture range F1.8-45.  
(3) Manual aperture control with the aperture control dial. (Signalled in the viewfinder by a red lamp).  
(4) Under-exposure warning lamp in the viewfinder and over-exposure warning area (red) in the

aperture indicator window.

**Film sensitivity** (1) ASA 40, 160 (Type A film); ASA 40, 160 (Daylight film); ASA 40, 160 (Type G film).

(2) Film sensitivity is automatically set by cartridge.

**Filter** (1) Built-in Kodak Type 85 filter.

(2) Automatically controlled by the film cartridge or manually controlled through the movie light socket or filter control.

**Film footage counter** Automatic resetting mechanical counter.

**Film transport indicator** (1) Green light flickers in the viewfinder when the film is running properly.

(2) Also functions as a film end signal.

**Grip** Fold-away pistol grip (contains battery case).

**Electronic system accessory socket** Accepts Interval Timer, Self-Timer, Radio Control, Remote Control to operate the electromagnetic shutter release.

**Other features** (1) Power switch.

(2) Tripod socket, movie light socket (JIS B7103, 1/4-20UNC).

(3) Filter control.

(4) Removable wrist strap.

(5) Accessory shoe.

**Dimensions** ES-44 180mm x 66mm x 143mm (7-1/8" x 2-5/8" x 5-5/8")

ES-33 190mm x 66mm x 143mm (7-1/2" x 2-5/8" x 5-5/8")

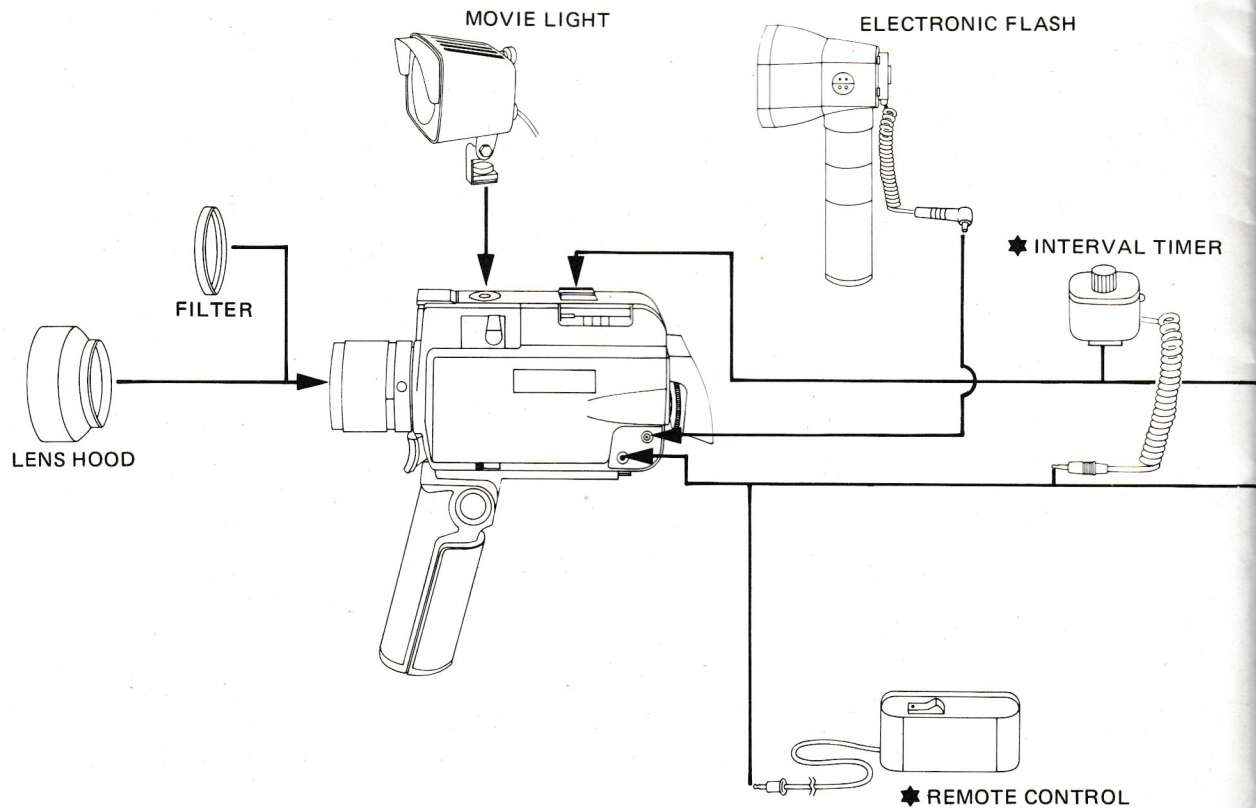
**Weight** ES-44 940g (2.06 lbs) with film and batteries.

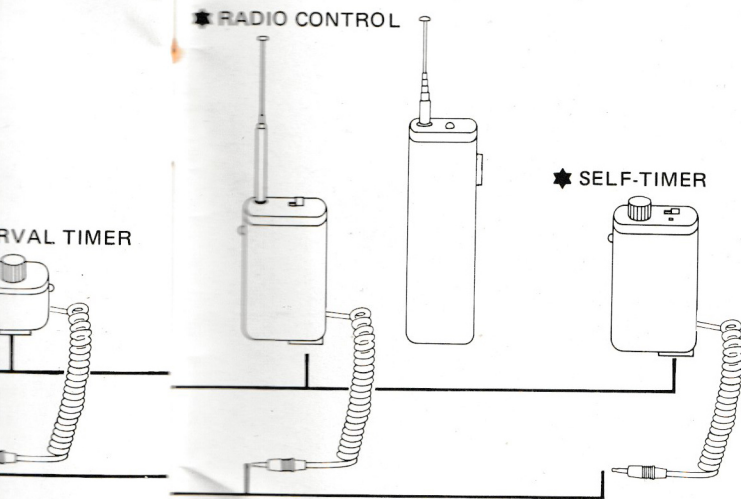
ES-33 960g (2.11 lbs) with film and batteries.

**Standard accessories** Battery case, Wrist strap, Lens cap.

**Optional accessories** Interval Timer, Self-Timer, Radio control, Remote control, Carrying case.

# ES TOTAL SYSTEM DIAGRAM





### SANKYO ELECTRONIC SYSTEM

These accessories will make your Sankyo ES-44/33 more flexible. Use them for greater versatility and more filming pleasure.

The accessories marked ★ are Sankyo exclusive accessories. You can purchase them from your Sankyo dealer.

## MAINTENANCE

- Do not store the camera where there is excessive humidity to keep the lens from getting musty.
- Do not leave the lens stained with fingerprints, as they cannot be removed.
- Wipe the film gate from time to time with a piece of dry cloth.
- Remove the batteries when you are not using the camera for several weeks.
- Avoid leaving the camera where it is extremely hot, in closed cars, for example.

Design and specifications subject to change without notice.





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