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Super 8 Exchange

Sankyo

SOUND XL-300S

INSTRUCTION MANUAL



Thank you for purchasing the Sankyo SOUND XL-300S Camera, Sankyo's latest camera boasting a number of highly advanced features packed in a surprisingly lightweight, compact body. To be sure of obtaining maximum enjoyment from your 8 mm sound movies we urge you to make the most of the host of features available.

Big features

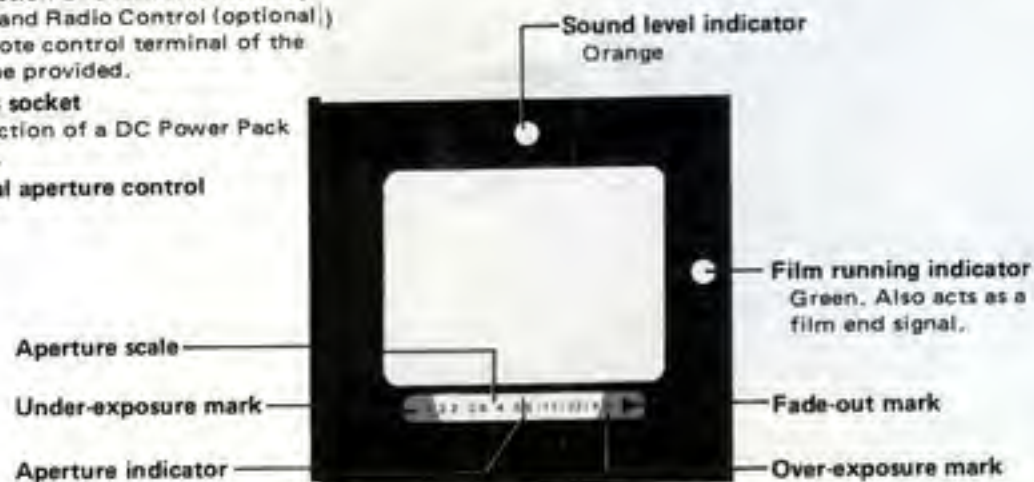
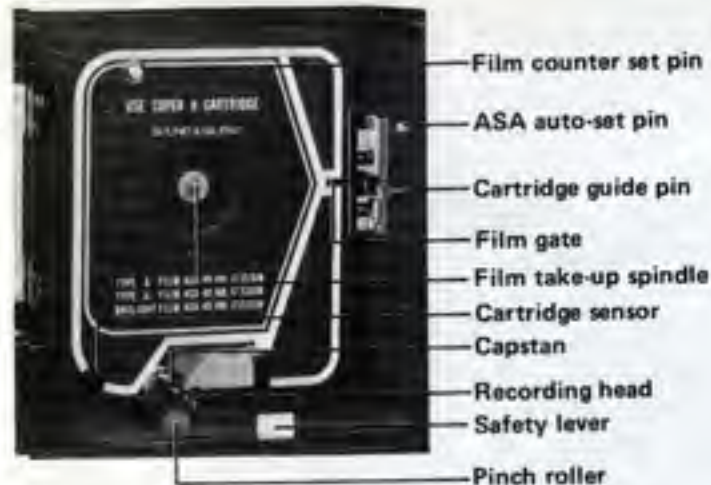
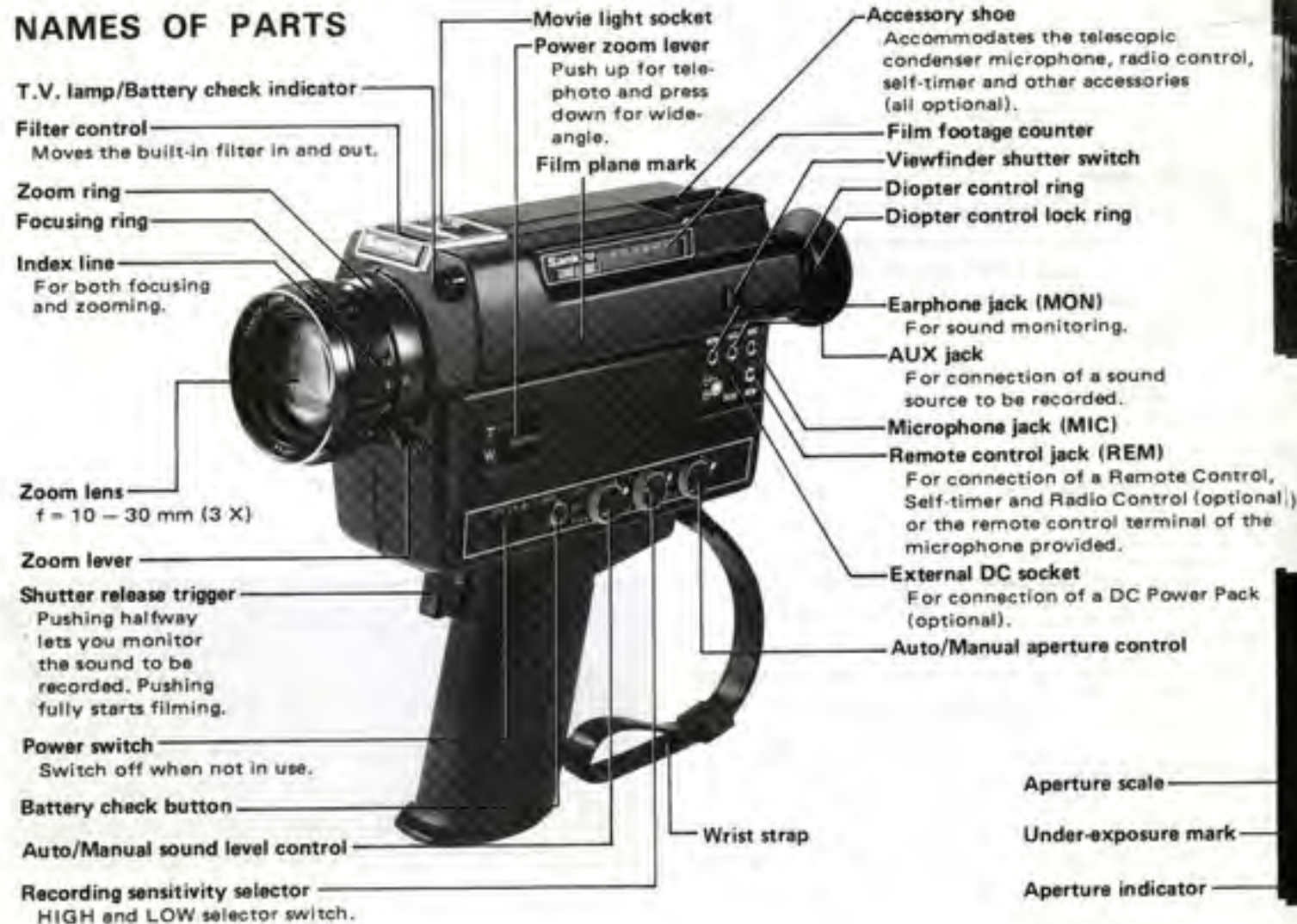
- Independent picture and sound manual fading.
- XL-specifications for low light indoor filming.
- Electromagnetic shutter release which permits use of various accessories including radio control and self-timer (optional).

Master camera operation to ensure full utilization of all the outstanding features. The most important point here is to obtain a thorough understanding of the camera. Read this instruction manual carefully and familiarize yourself with the operation of the camera before the start of filming.

Precautions

- Be sure to set the power switch to OFF when you are not using the camera so as not to waste the battery power.
- Remove the batteries if you are not using the camera for several weeks; battery leakage can cause damage to the camera.
- Insert the batteries correctly; incorrectly loaded batteries will burn out.
- Be sure to check the polarity of the cord when you are using the external source socket (9 V DC); its polarity is (-) in the center and (+) around the rim.

NAMES OF PARTS



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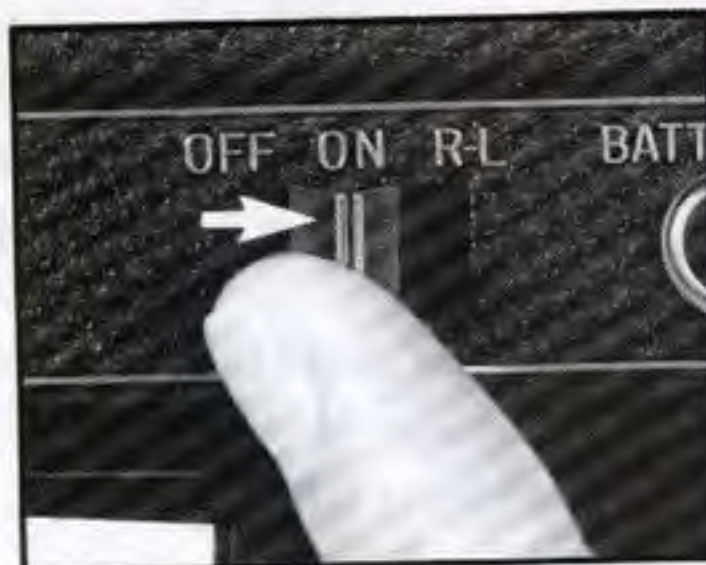
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OPERATION PROCEDURE



1 Load the batteries.
(See p. 4)



2 Set the power switch to "ON".



3 Check the battery power.
(See p. 5)



4 Turn the aperture control to "AUTO".



9 Turn the sound level control to "AUTO".



10 Monitor the sound by pressing the shutter release trigger halfway. (See p. 17)



11 Confirm film transport. (See p. 8)



5 Insert the film cartridge. (See p. 6)



6 Connect the microphone. (See p. 17)



7 Connect the earphone.



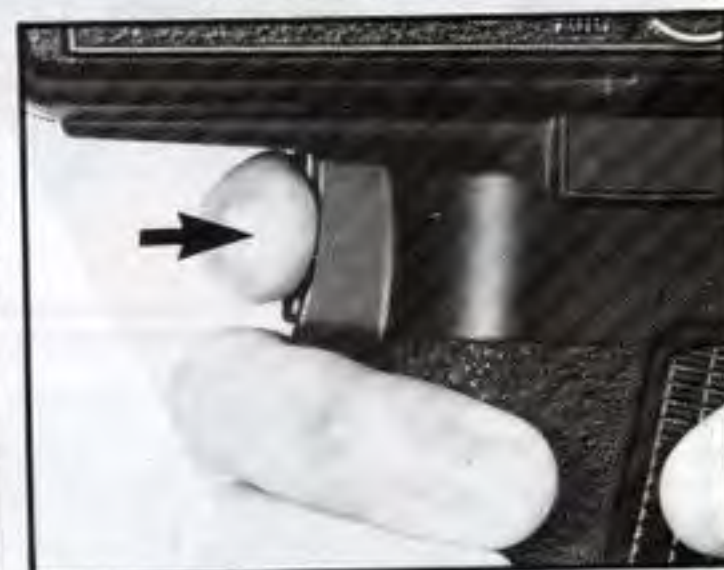
8 Turn the recording sensitivity selector to "HI".



12 Adjust the viewfinder to your eye. (See p. 11)



13 Set the zoom ring to maximum telephoto and focus the lens. (See p. 12)



14 Start filming by fully pressing the shutter release trigger.

BASICS

1 LOADING THE BATTERIES



1. Open the battery cover.



2. Take out the battery case.



3. Insert 6 "AA"-size dry batteries following the diagram inside the case. We suggest the use of alkaline batteries for greatest efficiency.



4. Replace the battery case correctly and close the cover.

- * Insert the batteries correctly. If loaded incorrectly, battery power will be wasted and the camera may be damaged.
- * Make it a rule to set the power switch to OFF when you are not using the camera. This will save battery power.
- * Exclusive DC Power Pack is optionally available to drive the camera with an external power supply. The DC Power Pack requires 6 "C"-size batteries.
- * Do not use rechargeable batteries.

2 CHECKING THE BATTERY POWER



1. Set the power switch to "ON".



2. Press the battery check button.

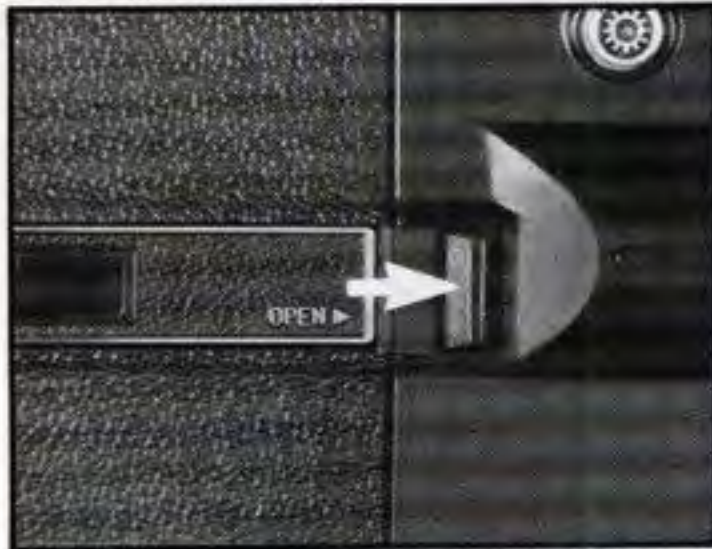


The batteries have enough power if the T.V. lamp/battery check indicator (red) lights. If not, replace the batteries. The check indicator may light only the moment when the check button is pressed. Also replace the batteries in this case. Always replace the 6 batteries at the same time. During filming, the T.V. lamp lights and the film running indicator (green) flickers. If the battery power drops, the T.V. lamp goes out.

- * *In extremely cold temperatures, the power of even a fresh set of batteries may be insufficient because of the cold. If this happens, warm the battery case (containing the batteries) by putting it in your pocket, for a short time, before starting to film.*
- * *Use the exclusive Power Pack (optional) when filming for a long time or in extremely cold temperatures.*
- * *Check the battery power periodically.*

3 LOADING AND UNLOADING THE FILM

To load the film



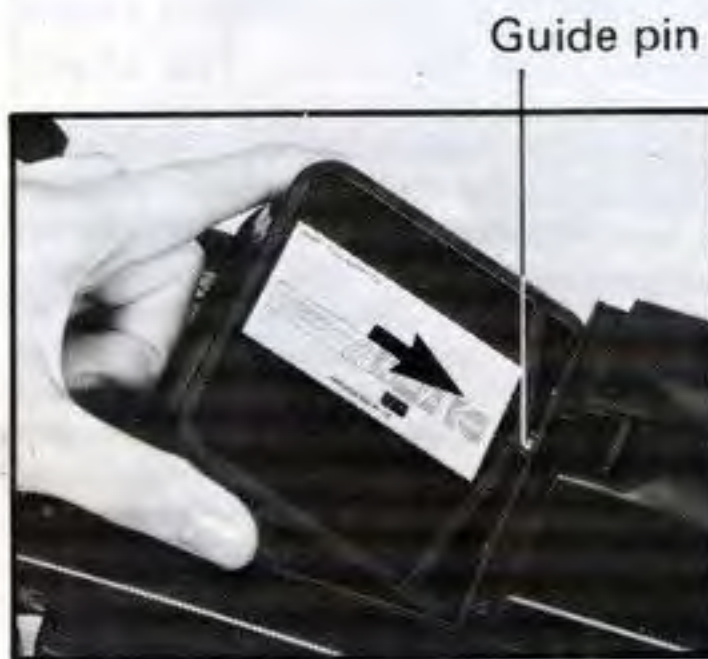
1. Push the side cover latch knob in the direction of the arrow.

2. Open the side cover.

4. Close the side cover.

Film sensitivity is automatically set.

Do not operate the camera with the cover open and a cartridge in position.



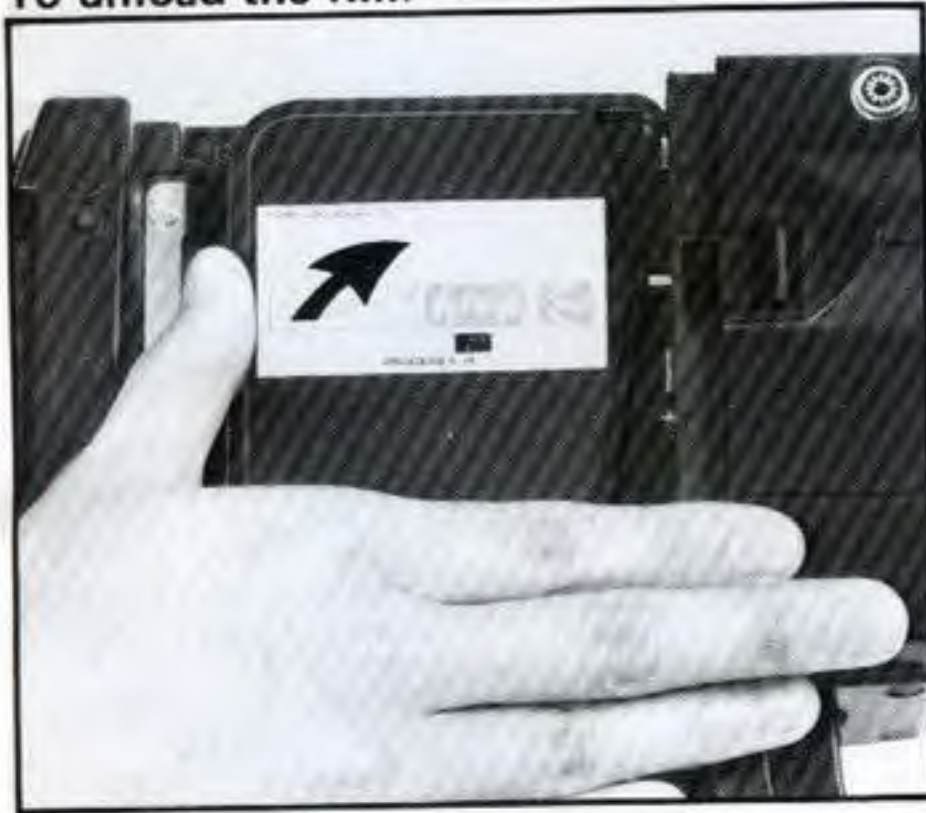
3. Insert a Super-8 sound film cartridge or silent film cartridge.

Align the camera guide pin with the cartridge guide slot, then press lightly on the cartridge from above.



When the side cover is opened in the running lock mode (see p. 15), the yellow safety lever projects to prevent insertion or removal of the cartridge.

To unload the film



To remove the cartridge, lift the rear side.

Avoid removing the cartridge before the end of the film is reached since 15 cm (6") of the film will become fogged. Slack may also develop in the film.

When the cartridge has slack



Slack film hanging from the cartridge may prevent proper loading. If this happens, turn the core on the back center of the cartridge in the take-up direction (clockwise) to remove the slack.

When the film jams

Jamming	Cause
Film jams at beginning.	Improper loading of cartridge.
Film jams in middle of roll.	Insufficient battery power.

Film running indicator



Press the shutter release trigger fully, and a green light will flicker in the viewfinder to indicate that the film is running correctly. The T.V. lamp (red) on the front of the camera will light as an external indication that shooting is in progress.

Film running	Green light flickers
Film finished	Stops flickering (lit or unlit)
Film not transporting	Stops flickering (lit or unlit)

The green lamp does not flicker if the film is not correctly loaded. Try to reload it in such a case.

Film footage counter



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

- * *If the cartridge is removed before the end of the film is reached, then re-inserted to use the remaining film, the needle indication will not correspond to the actual film consumption because it returns to zero when the cartridge is once removed.*
- * *If the film running indicator stops flickering before the film counter reaches "50", this indicates an abnormality with either the cartridge or the camera. Consult your dealer.*

4 APERTURE CONTROL

Automatic control



Make sure that the aperture control is set to "AUTO" once again before filming.

- Set the aperture control to "AUTO".
In normal filming this setting gives correct exposure at all times.

Exposure warnings and remedies

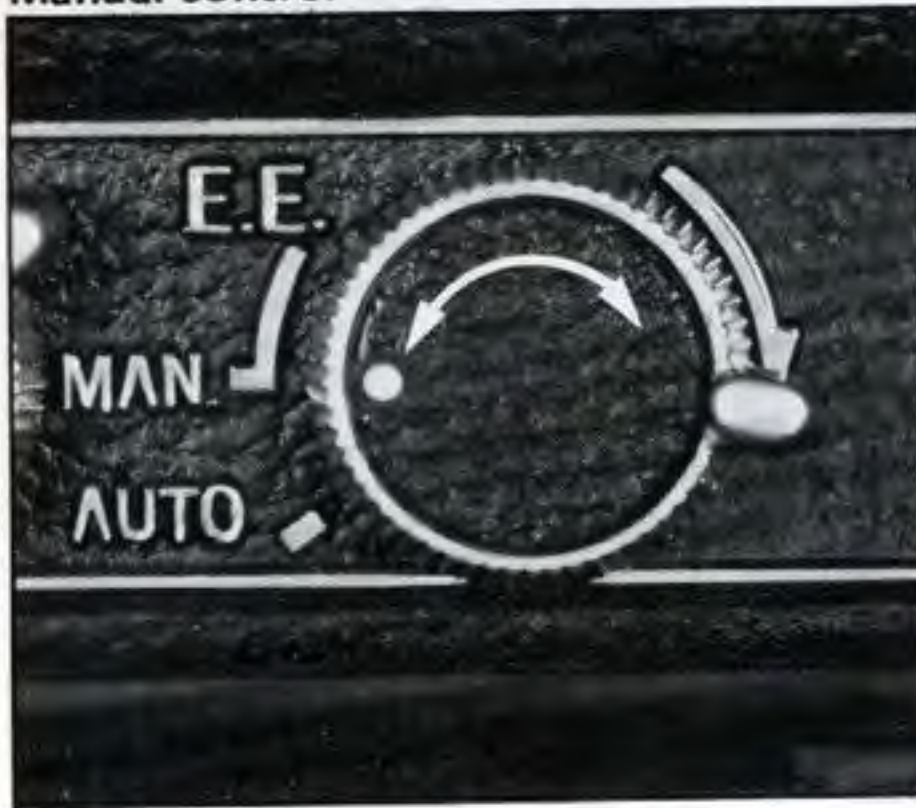
Under-exposure 	The aperture indicator in the viewfinder enters the left red area.	Use artificial lighting.
Over-exposure 	The aperture indicator in the viewfinder enters the right red area.	Use ND filters. Filter size: 55 mm

Backlighting compensation



Press the backlighting compensator button when shooting against a subject that is in a brilliant light, and the exposure is automatically increased by 1.5 f-stops, allowing you to film with better exposure of the back-lighted subject. The exposure returns to normal when the button is released.

Manual control



- Set the aperture indicator needle to the desired value by turning the aperture control in the range of "MAN".

For accurate manual control

1. Set the aperture control to "AUTO".
2. Move the camera close to the subject and note the f-stop on the aperture scale.
3. Return to your shooting position and manually adjust the aperture to the setting previously noted.

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.

Be sure to return the aperture control to "AUTO" when you have finished manual exposure.

5 ADJUSTING VIEWFINDER TO YOUR EYE



1. Set the zoom ring to maximum telephoto "30".



2. Set the focusing ring to infinity (∞).



3. Loosen the lock ring, then turn the diopter control ring while looking through the viewfinder.

Nothing will be seen if the viewfinder shutter is closed. First slide the viewfinder shutter switch to "0" (open).

Turn the diopter control ring so that a distant subject (over 150 m/490 ft) and the viewfinder mask can be seen most clearly.

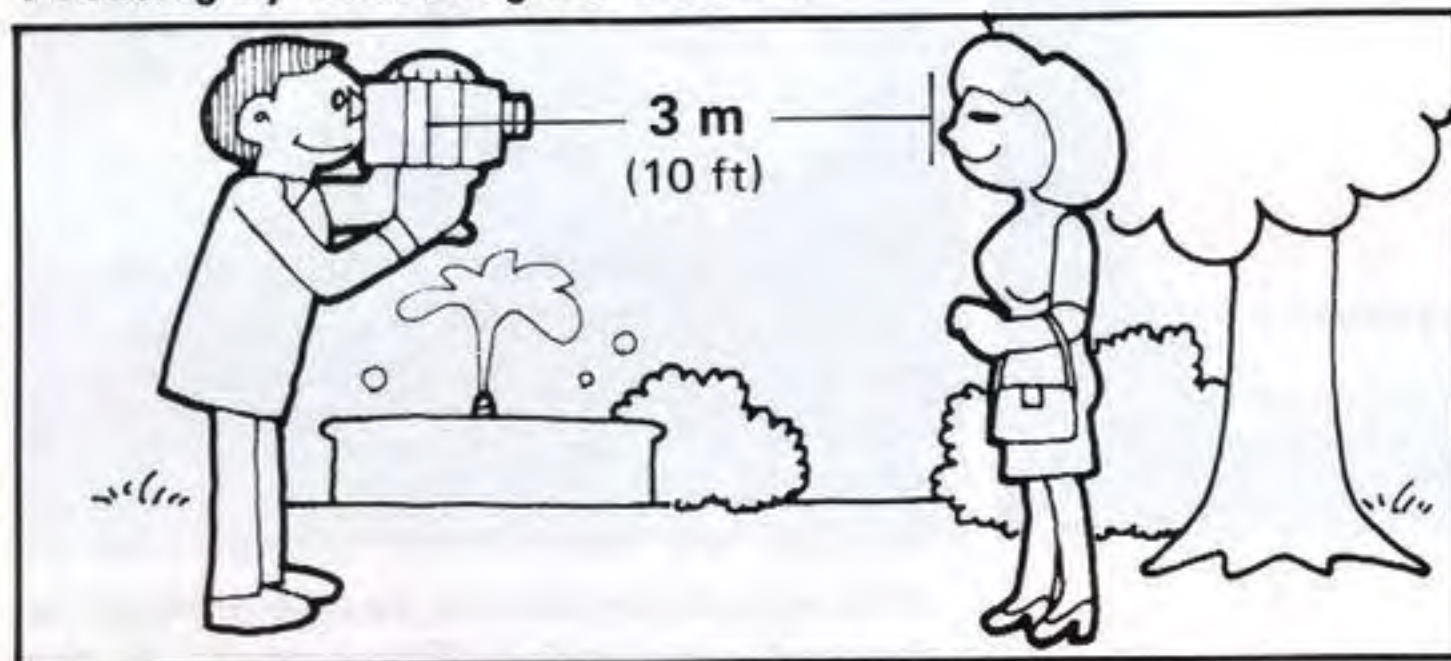
After adjustment, hold the diopter control ring so that it doesn't move, then tighten the lock ring.

To check the eyepiece focus, estimate an object's distance from your position. Set the front lens focus ring to that distance mark. Set the zoom ring on full tele. The object should be in focus as you see it through the viewfinder. Several tries at different distances will ensure a properly focused viewfinder. Remember: **If the viewfinder is not focused properly, you will never properly focus the front lens.**

6 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:

Focusing by measuring the distance



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



- Set the focusing ring to this value.

Universal focusing



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

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.

The universal focusing method, effective due to the wide depth of field, cannot be used with the lens set to maximum telephoto. For clear focusing, focal lengths of up to 20 mm are desirable.

Zone focusing

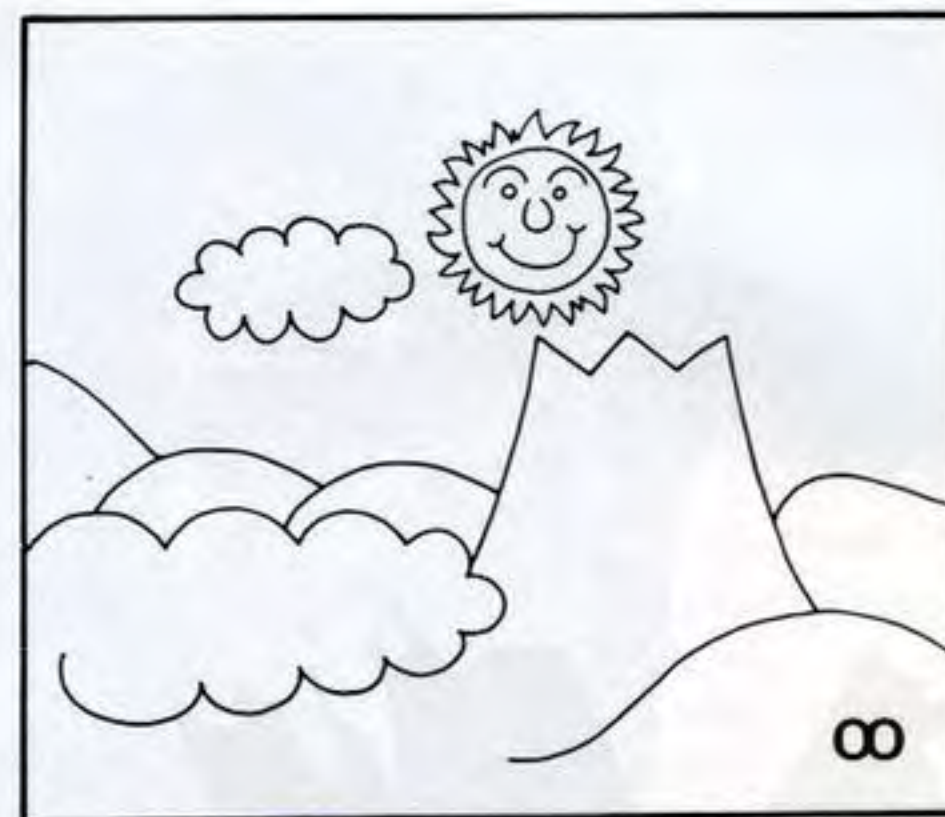


- Set the focusing ring to 2 m (6 ft) for ordinary close-ups.

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



- Set the focusing ring to 5 m (15 ft) for full figure or group shots.

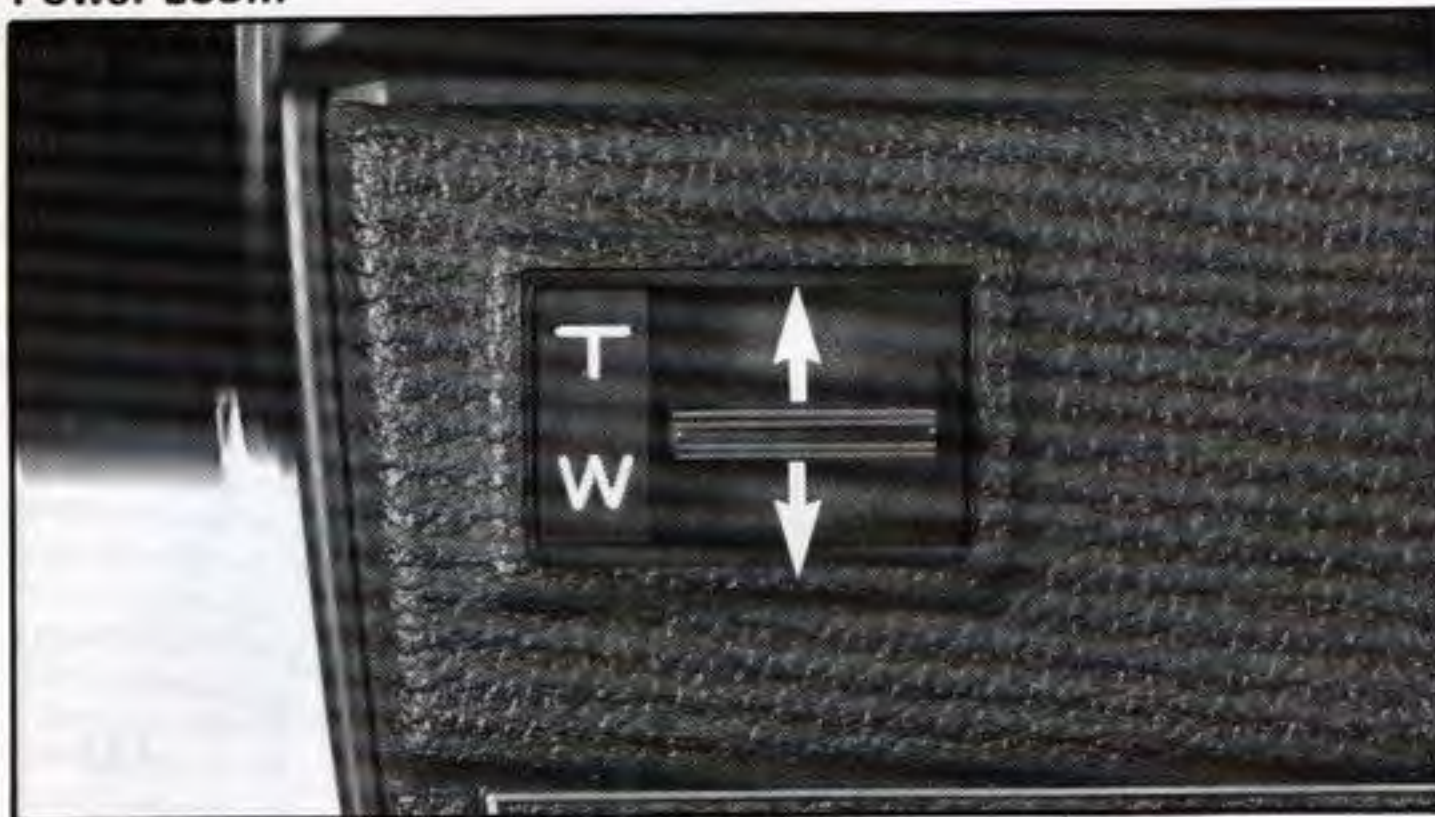


- Set the focusing ring to infinity for landscapes.

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

7 ZOOMING

Power zoom



1. Push up the power zoom lever to "T", and the size of the image increases (zoom to telephoto).
2. Press down the power zoom lever to "W", and the size of the image decreases (zoom to wide-angle).

Power zooming is possible only while the shutter release trigger is being pressed.

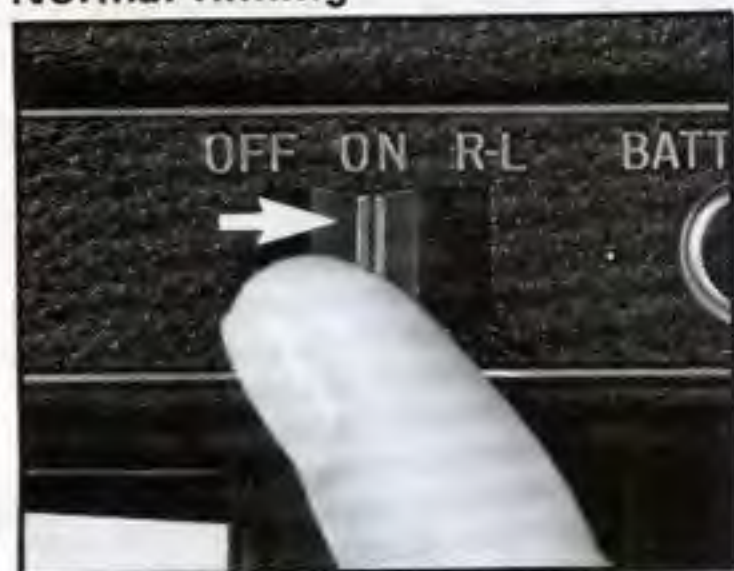
Manual zoom



- Turn the zoom ring using the manual zoom lever.

8 SHOOTING

Normal filming



1. Set the power switch to "ON".



2. Press the shutter release trigger.
Depress the trigger fully.

Running lock



1. Set the power switch to "R-L".
2. Press the shutter release trigger.
(Filming will continue if you remove your finger from the trigger.)
3. Press the shutter release trigger once again.
(The trigger is unlocked and filming stops.)
4. Shift the power switch to "ON" or "OFF" with the shutter release trigger unlocked.



This new Push-Push system permits you to repeat running lock filming by merely operating the shutter release trigger.

- * When the power switch is at "OFF", power to all parts is shut off.
- * The power switch cannot be moved from the "R-L" position unless the shutter release trigger is first unlocked.
- * Avoid rapid, successive depressions of the shutter release trigger with the film cartridge loaded since this may cause a film transport malfunction.

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 in
Up Filter out

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

Movie light



The movie light may be screwed into the movie light socket on top of the camera, or mounted on a bracket screwed into the tripod socket.

When the movie light is screwed into the movie light socket, the built-in filter is automatically removed.

- * *Movie lights should be sufficiently removed from the camera to prevent discoloration and deformation of the camera body due to heat.*
- * *Do not mount a movie light on the accessory shoe. Movie lights get very hot. Be careful not to allow the camera body to be damaged by heat.*

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.

10 SOUND FILMING

Using the microphone provided



1. Set the remote control switch on the microphone to "ON".



2. Connect the microphone to the "MIC" and "REM" jacks.



3. Set the camera's power switch to "ON".



4. Set the recording sensitivity switch to "HI".



5. Turn the sound level control to "AUTO".



6. Press the shutter release trigger gently (up to "MON").

The recording level is at an optimum when the sound level indicator (orange) in the viewfinder flickers.

- * When you use a microphone other than the one provided, select one with an impedance of 200 to 1000 ohms.
- * With the remote control switch at OFF, you can monitor the sound level, but you can't operate the camera.
- * Operate the remote control switch as gently as possible, or unwanted clicks could be recorded.
- * Remote control filming is possible using the microphone provided. (See p. 19)

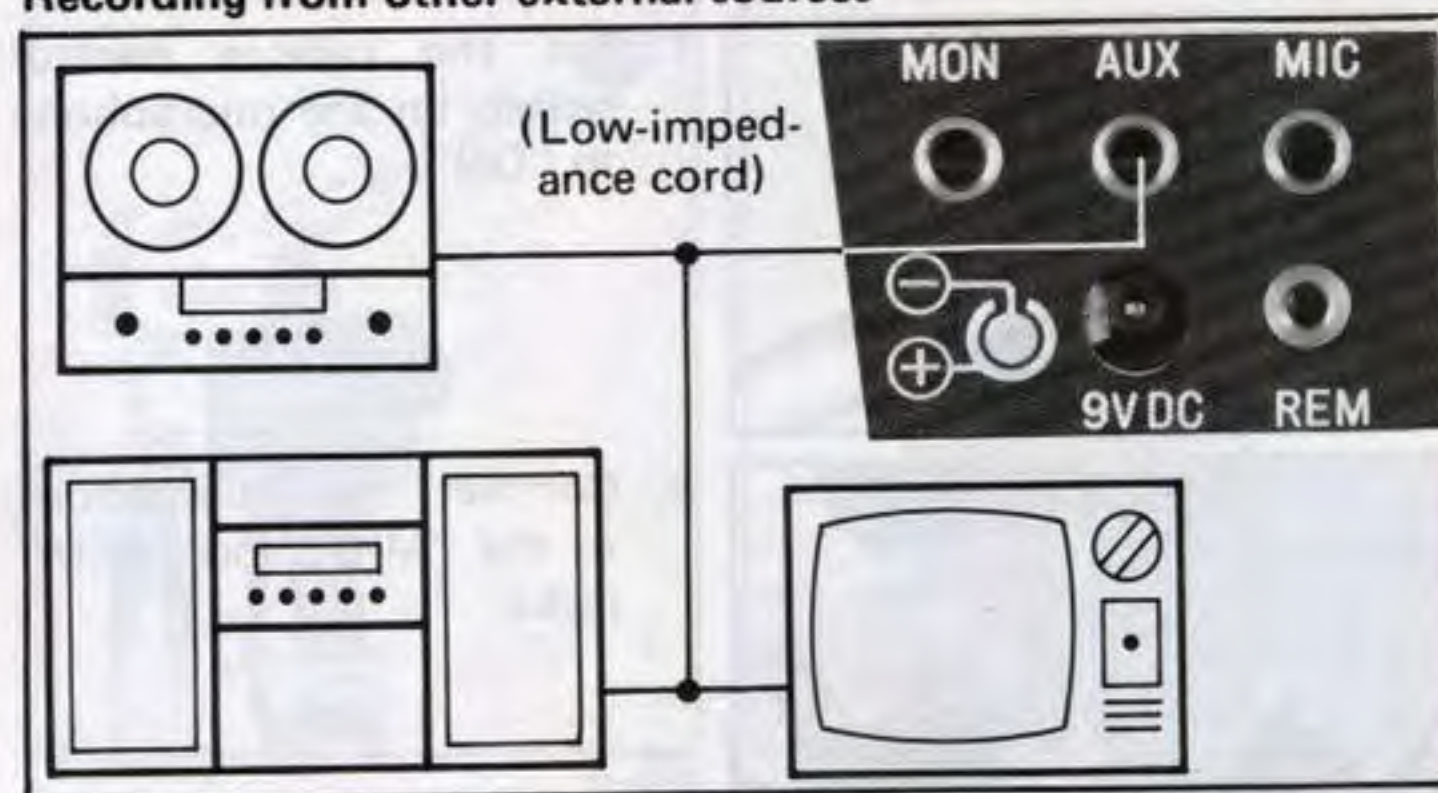


If the sound level indicator remains on or background noise is excessive, set the recording sensitivity selector to "LO". Plug the headset provided into the "MON" jack, and you can monitor the sound being recorded.

Now you are ready to film while recording sound. Press the shutter trigger fully, and filming and recording will start at the same time. In the viewfinder you will see the green and orange lamps flickering.

When the sound level control is set to "AUTO", the built-in automatic level control circuit functions to optimize the recording level. Turning the control clockwise from the "MAN" position reduces sound volume.

Recording from other external sources



- Connect a sound source such as a TV, radio, tuner, tape deck, record player, etc. to the "AUX" jack.
- Set the camera sound level control to "AUTO", then, while watching the sound level indicator, adjust the recording level with the recording level control on the source device.

Both the microphone sound and sound from an external source connected to the "AUX" jack can be recorded simultaneously.

With some connection cords, particularly high impedance cords, the camera may fail to record with an external source connected to the "AUX" jack. In such a case, connect the connection cord to the "MIC" jack or use a low impedance cord. Be sure to adjust the recording level using the source device's recording output volume control while monitoring with the headset.

11 PICTURE AND SOUND FADE-IN/OUT

Sound fading



- Turn the sound level control in the "MAN" range.

Turning clockwise reduces the sound level and vice versa. Monitor the fading condition through the headset.

Picture fading



1. Set the aperture control to "AUTO" and read the f-stop on the aperture scale.
2. Turn the aperture control in the "MAN" range to adjust the aperture indicator needle to the value previously noted.

3. Start fading out by turning the aperture control counter-clockwise. The picture fades out completely when the indicator needle enters the fade-out mark.
4. To fade in, turn the aperture control clockwise from the faded-out state until the indicator needle returns to the f-stop corresponding to the subject.

After picture fading, be sure to return the aperture control to "AUTO".

12 REMOTE CONTROL FILMING

Remote control filming is possible with an optional remote control or the remote control microphone provided.



1. Set the camera's power switch to "OFF".



2. Set the remote control switch to "OFF".



3. Plug the remote control into the "REM" jack.

When using the remote control microphone, connect this to the "MIC" and "REM" jacks.



4. Set the camera's power switch to "R-L" and press the shutter trigger.



5. Slide the viewfinder shutter switch to "C" (closed).

6. Set the remote control switch to "ON", and filming will start.



When you finish remote control filming

1. Set the remote control switch to "OFF".
2. Depress the shutter release trigger to unlock.
3. Set the camera's power switch to "OFF".
4. Unplug the remote control.

* *Be careful not to plug or unplug the remote control with the shutter trigger locked, or the camera will continue to film. Be sure to observe the sequence of operation mentioned above.*

* *Viewfinder shutter
When filming without looking through the viewfinder, for example when using a remote control, radio control, self-timer or a tripod, light may come through the eyepiece. To prevent this, slide the viewfinder shutter switch to "C".*

13 TRIPOD MOUNTING



- Screw the tripod into the hole in the bottom of the grip.

Be sure to use a tripod for telephoto, remote control, radio control or self-timer filming.

When carrying the camera on the tripod, support the camera to avoid exposing it to shocks or vibrations.

14 EXTERNAL DC POWER

The camera is provided with a "9 V DC" socket so that it can also be driven from an external DC power source. The exclusive DC Power Pack is available from Sankyo. It will give you much convenience when you have to use the camera over a long period.

Do not use any external power source other than that specified.



1. Connect the cord of the DC Power Pack to the "9 V DC" socket.

2. Press the battery check button and make sure that the T.V. lamp/battery check indicator lights.



FILMING AND SOUND RECORDING TECHNIQUES

1 Make the battery check a habit

- Battery power may be insufficient for sound filming even though sound monitoring is possible. Filming under such conditions may result in the recorded sound being distorted or faulty film transport.
- It is recommended that you check the battery power from time to time, when you switch the scenes to be shot, for instance.
- The check light must stay lit for about 5 seconds. This will ensure full power and prevent film from jamming.

2 Allow an idle running interval for the first 2 or 3 seconds after the cartridge is newly inserted

- If you record sound from the very beginning of the film, it may become distorted due to curling of the film.

3 Time your shots to be at least 15 seconds in duration

- Short scenes will make your movies unstable.
- In simultaneous sound recording, longer shots are especially convenient in balancing the picture and sound.
- Shooting longer scenes also makes editing easier.

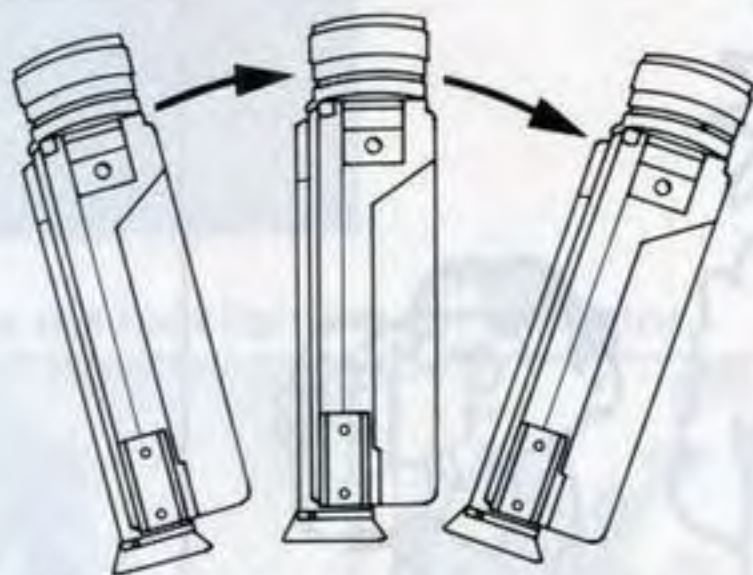
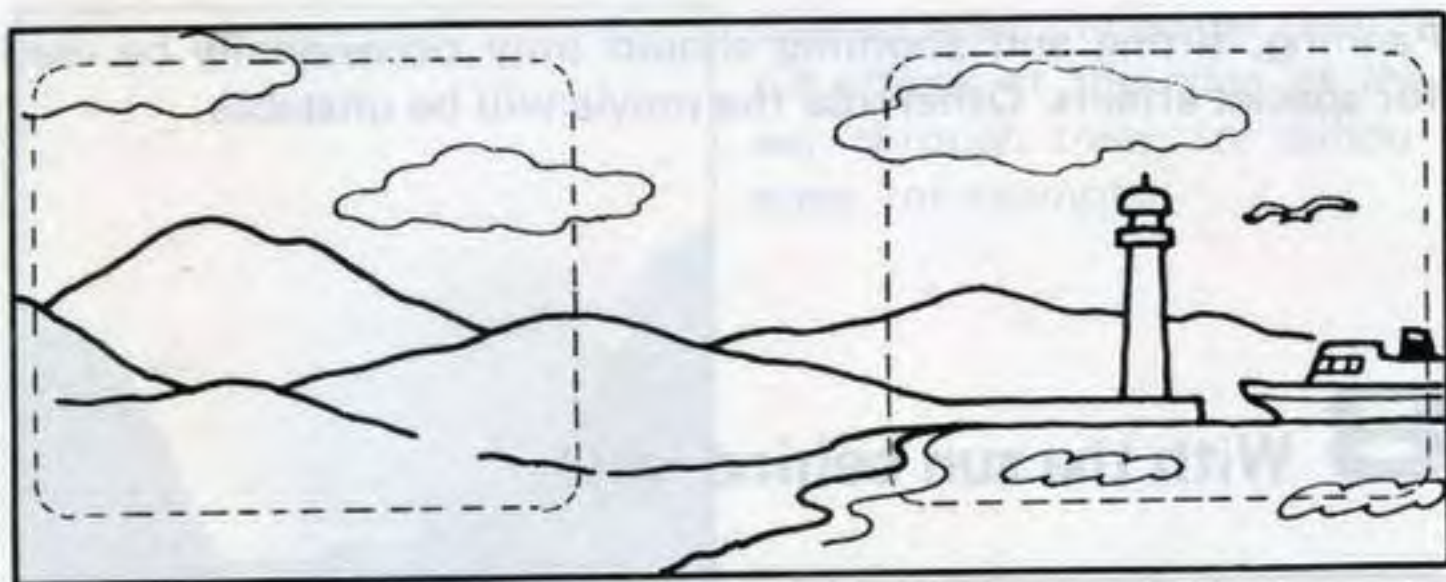
4 Hold the camera steady



- One way is to brace the elbow of the arm holding the camera against the chest.
- Put the wrist strap round your wrist and secure firmly with the ring.
- Be sure to use a tripod or the like when shooting telephoto scenes, since shaking of the hand will make the projected movie difficult to see.

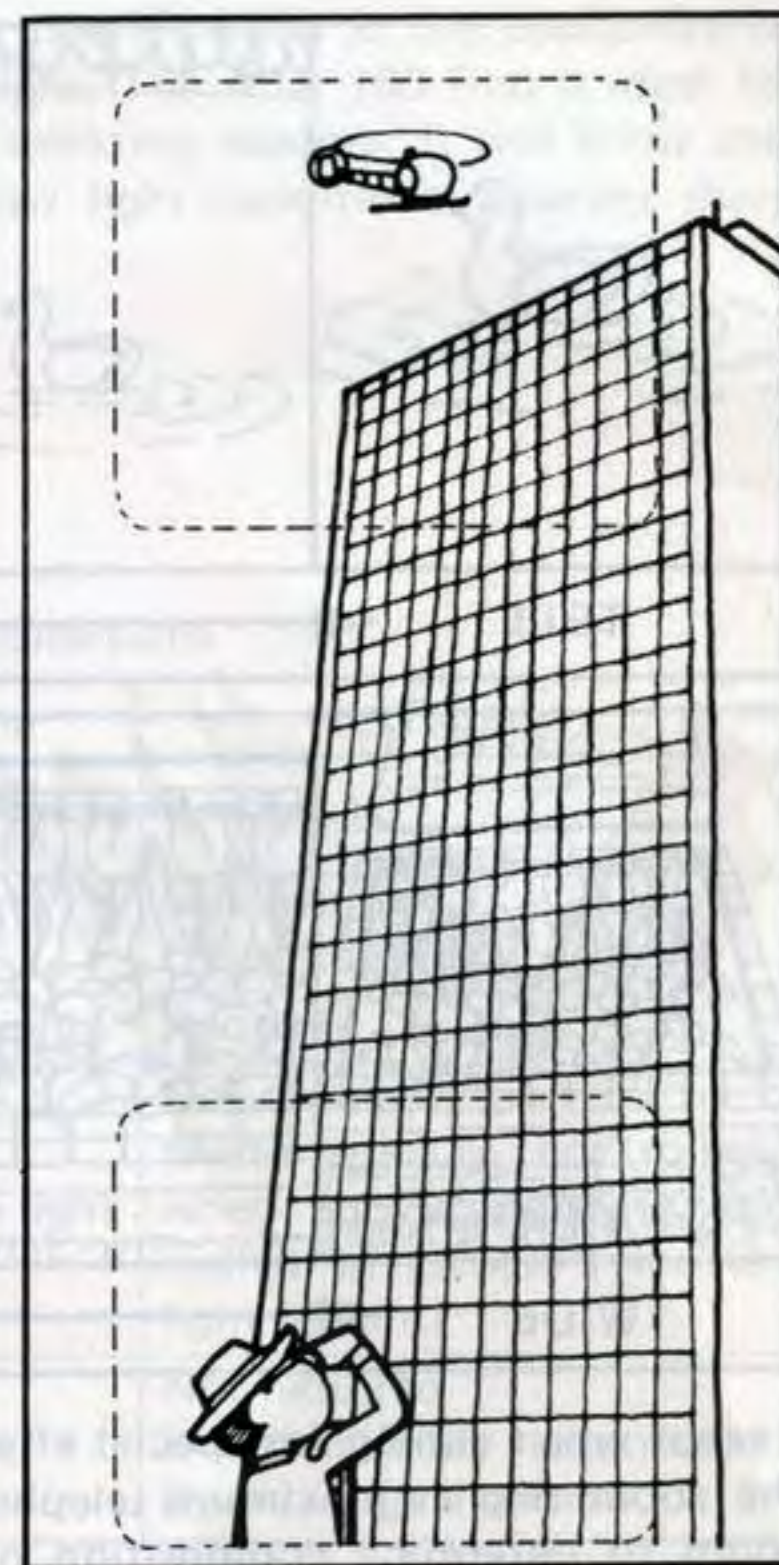
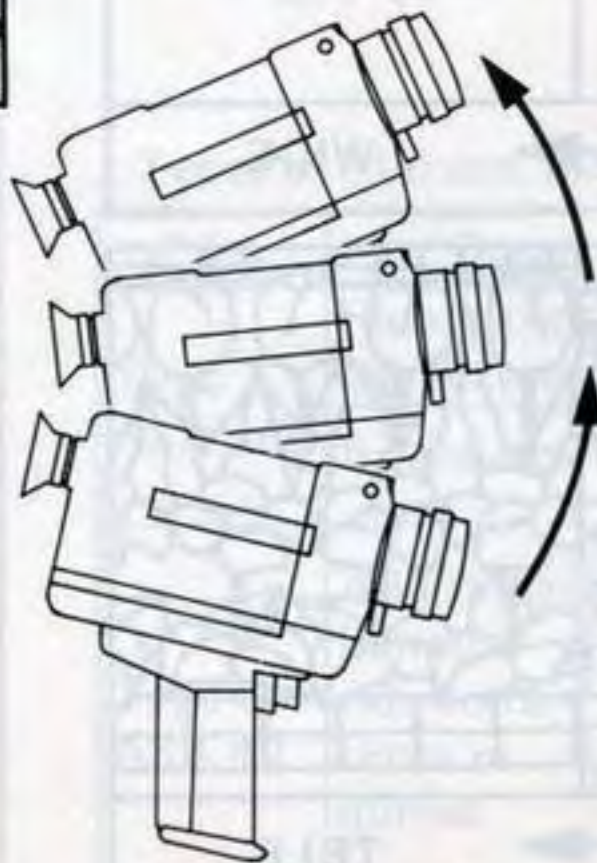


5 For effective panning and tilting

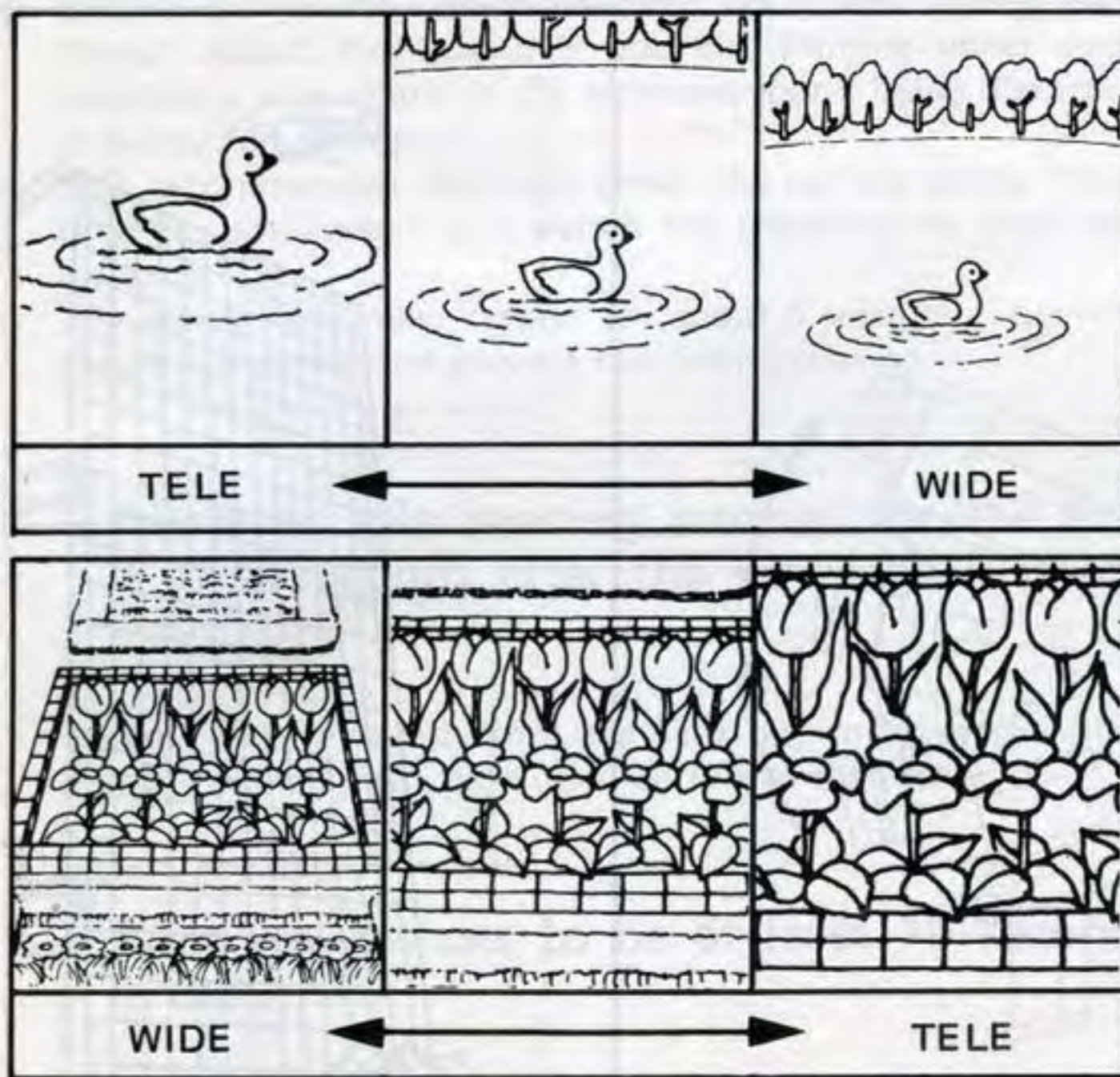


1. Start: Hold still for about 3 seconds
2. Pan or tilt slowly
3. Stop: Hold still for about 3 seconds

- Determine in advance from what point to what point you are going to shoot.
- Pan or tilt steadily from one point to the other. Do not return the camera to the starting point.
- Hold the camera still for about 3 seconds when you reach the scene you wish to emphasize.
- Fast panning or tilting will make the movie unstable.



6 Power Zoom for smooth zooming

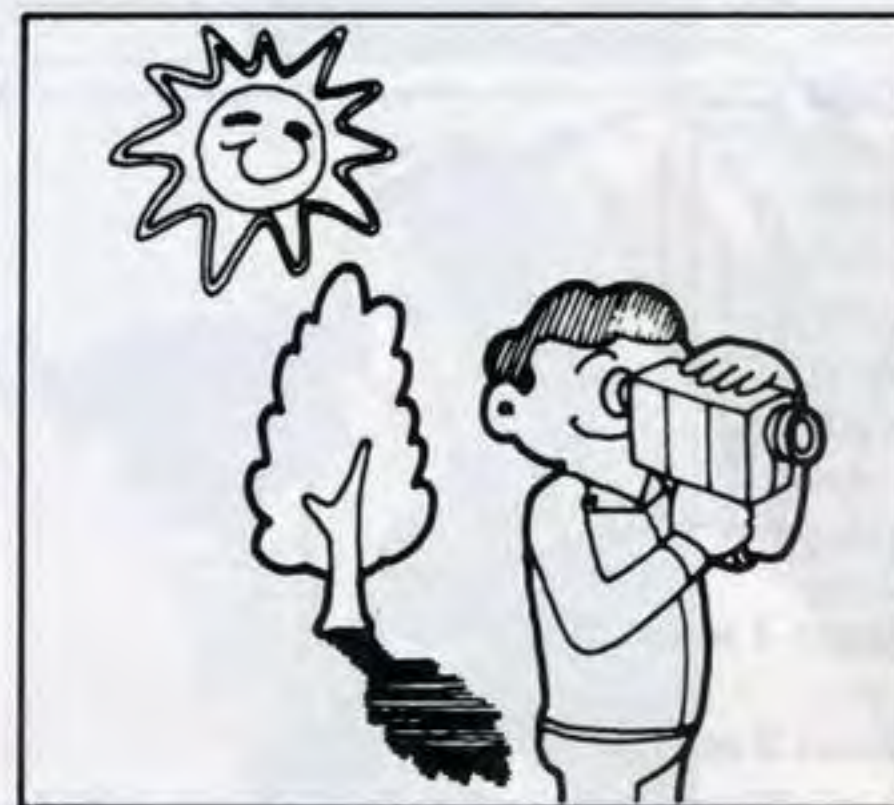


Except when aiming for special effects, first focus the lens with the zoom ring at maximum telephoto, then zoom. Use manual zoom to determine composition or when you wish to obtain special effects by quickly changing from telephoto to wide-angle or vice versa.

7 Do not change the camera angle very often

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

8 With the sun behind you



Take pictures with the sun behind you whenever possible.

9 Against the sun



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

If necessary, use the backlighting compensator.



10 Shooting indoors

One of the big features of the XL-300S is the possibility of indoor shooting in the low light. The ASA 160 film is ideal for use with this camera when shooting indoors. It will allow correctly exposed filming in low light conditions, assuring sharp and clear pictures.

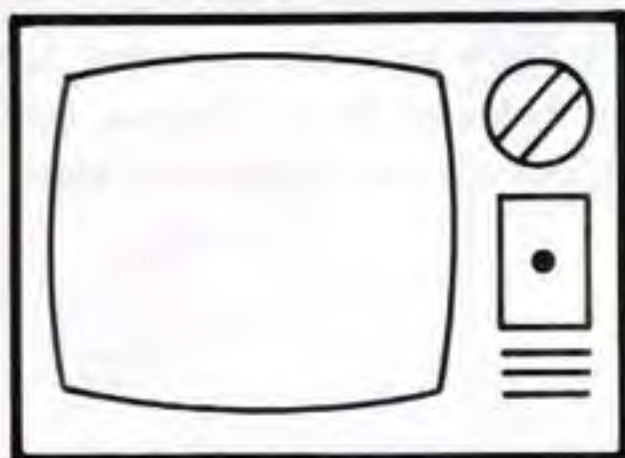
Types of film and filming conditions

Film	Room lighting		Filter
Type A ASA 160	Fluorescent light or mercury-vapor lamp.		Required
	Incandescent light		Not required (Raise the filter control.)
Type A ASA 40	Additional illumination sometimes required.	Blue light	Required
		Movie light	Not required (Automatically controlled when movie light is installed in camera's movie light socket.)
Type G ASA 160			Not required (Automatically controlled by cartridge insertion.)

- The darker the light, the less the depth of field. Be accurate in focusing.

11

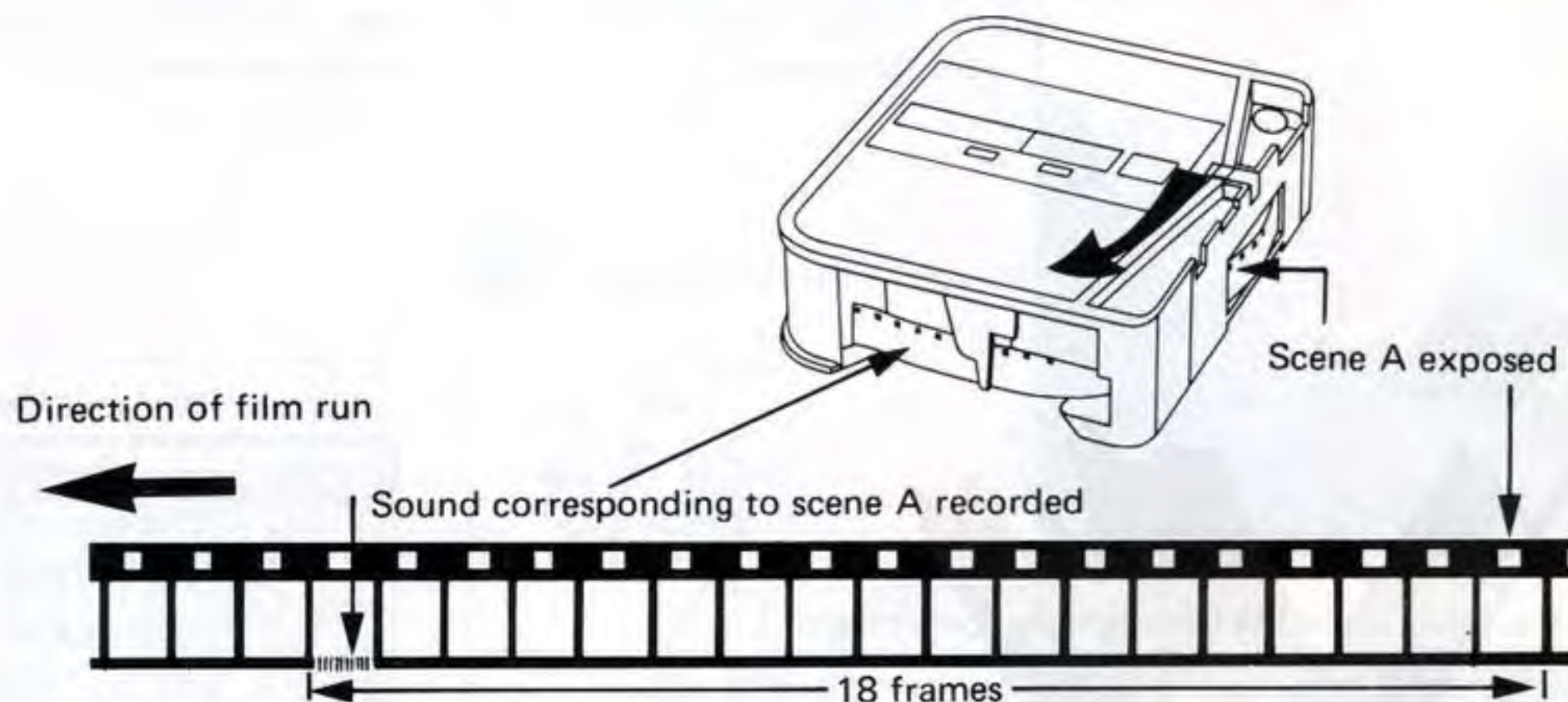
Television screen is excellent film subject



- Shoot the television screen with the built-in type A filter moved in as when shooting in the daylight.
- Exercise care to prevent the reflection of undesired images onto the screen.
- Normally color-balanced television pictures may become bluish on the film. Adjust the color balance with the TV set controls until the picture appears slightly reddish.
- Keep the microphone at least 1m (3 ft) away from the TV set, when using the provided one, to avoid pickup of noise.

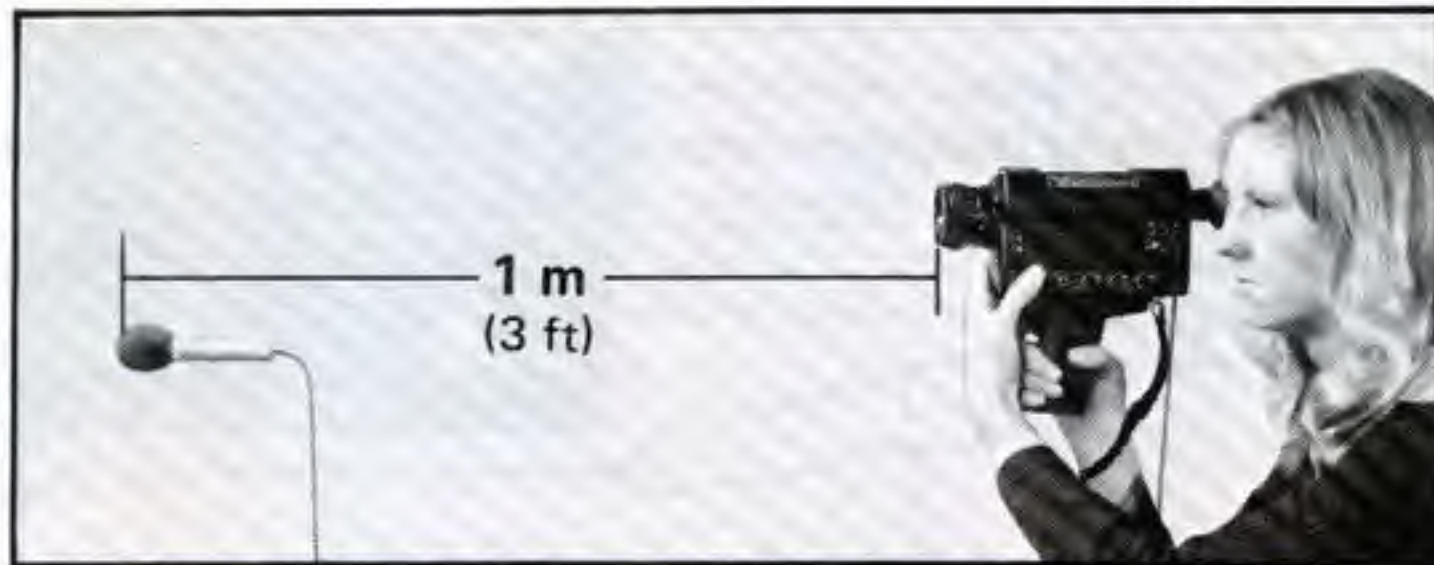
12

Sound is recorded 18 frames ahead of the corresponding picture



- The picture and sound are not at the same position on the film. The sound is recorded on the sound track 18 frames ahead of the corresponding picture.
- Try to finish the cut at a break in the conversation or the sound to be recorded.
- Filming slightly longer than necessary before and after the object sound will make editing easier.

13 Care exercised with the microphone will determine the sound quality



1. More than 1 m (3 ft) between mike and camera

The microphone provided is omni-directional and will pick up camera running noise if placed too close to the camera. Always keep the microphone at least 1 m (3 ft) away from the camera.

2. Position mike close to the sound source

Always place the microphone as close to the sound source as possible, especially when there is a large amount of background noise, to make the object sound more conspicuous. When it is difficult to position the mike close to the object sound, employ a uni-directional telescopic condenser microphone or FM wireless microphone (both optional).



3. Wind screen plays an important part

Employing the wind screen (provided) does not degrade the sound quality in any way and may be used all the time. Be sure to employ the wind screen, especially when using the microphone outdoors or close to the mouth, since wind noise or breathing will make the recorded sound difficult to hear and understand.

4. Vibrations are an enemy of the microphone

Vibrations caused by the microphone being passed from one hand to the other or pulling the microphone cord are recorded as noise. Do not rub or beat on the microphone.

14 Take advantage of the optional microphones

15 Sound mixing for more pleasurable recording



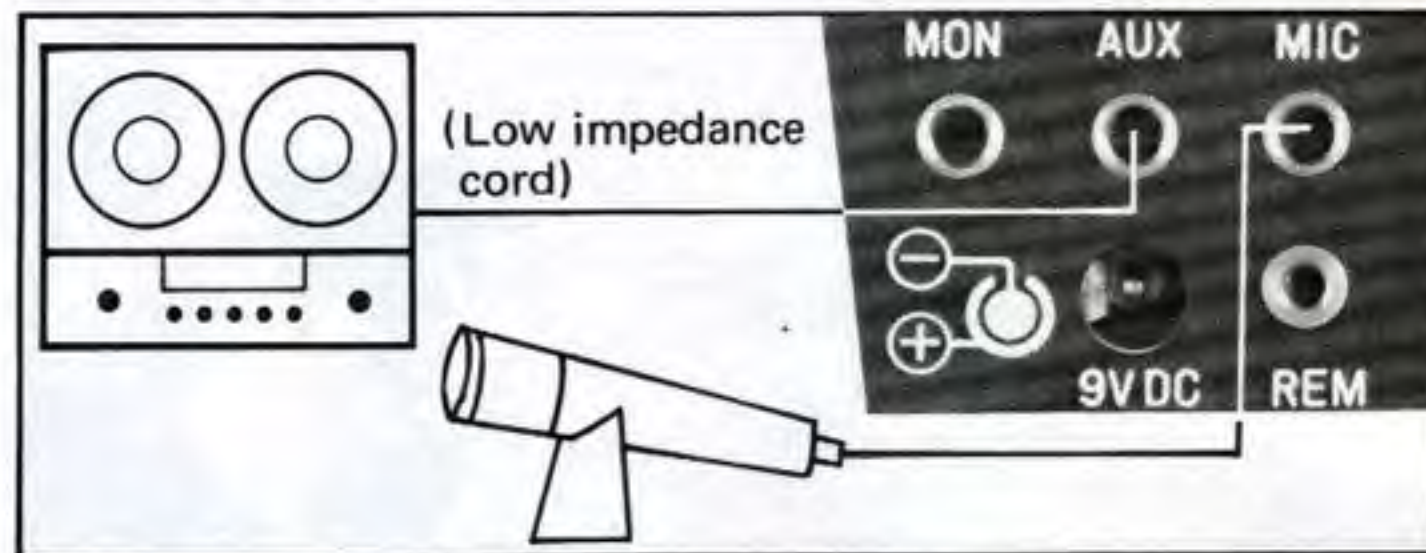
1. Telescopic condenser microphone

When you don't want sounds other than from the scene being shot to be recorded, aim directly at the object sound using an optionally available telescopic condenser microphone which can be mounted on the accessory shoe on top of the camera. The accessory shoe is equipped with a stopper to prevent the microphone from becoming detached during operation. Insert the microphone into the shoe until the stopper clicks up.



2. FM wireless microphone set*

The optionally available FM wireless microphone set is convenient in the sound filming of moving scenes such as a stage performance. Insert the receiver supplied with the microphone into the accessory shoe.



- It is possible to simultaneously record sounds from both MIC and AUX jacks.
- One recording technique is that in which background music is recorded from a tape recorder connected to the AUX jack, while a narration is recorded from the microphone.
- The recording level from the AUX jack must be adjusted with the source device controls while the camera sound level control is at "AUTO".

* May not be available due to governmental regulations in some countries.

- For details refer to the instruction manual for each accessory.

16

Using the special accessories – Add to the pleasure of simultaneous sound recording

Radio Control*

Use the Radio Control to make wild life movies.

- Connect the Radio Control to the "REM" jack.
- Place the camera into the running lock mode.
- The remote control microphone provided cannot be connected directly. Use a microphone without remote control switch.

Do not use the Radio Control when filming TV pictures and recording the TV sound through the "AUX" jack of the camera. This could cause malfunction of the Radio Control or noise on the TV screen.

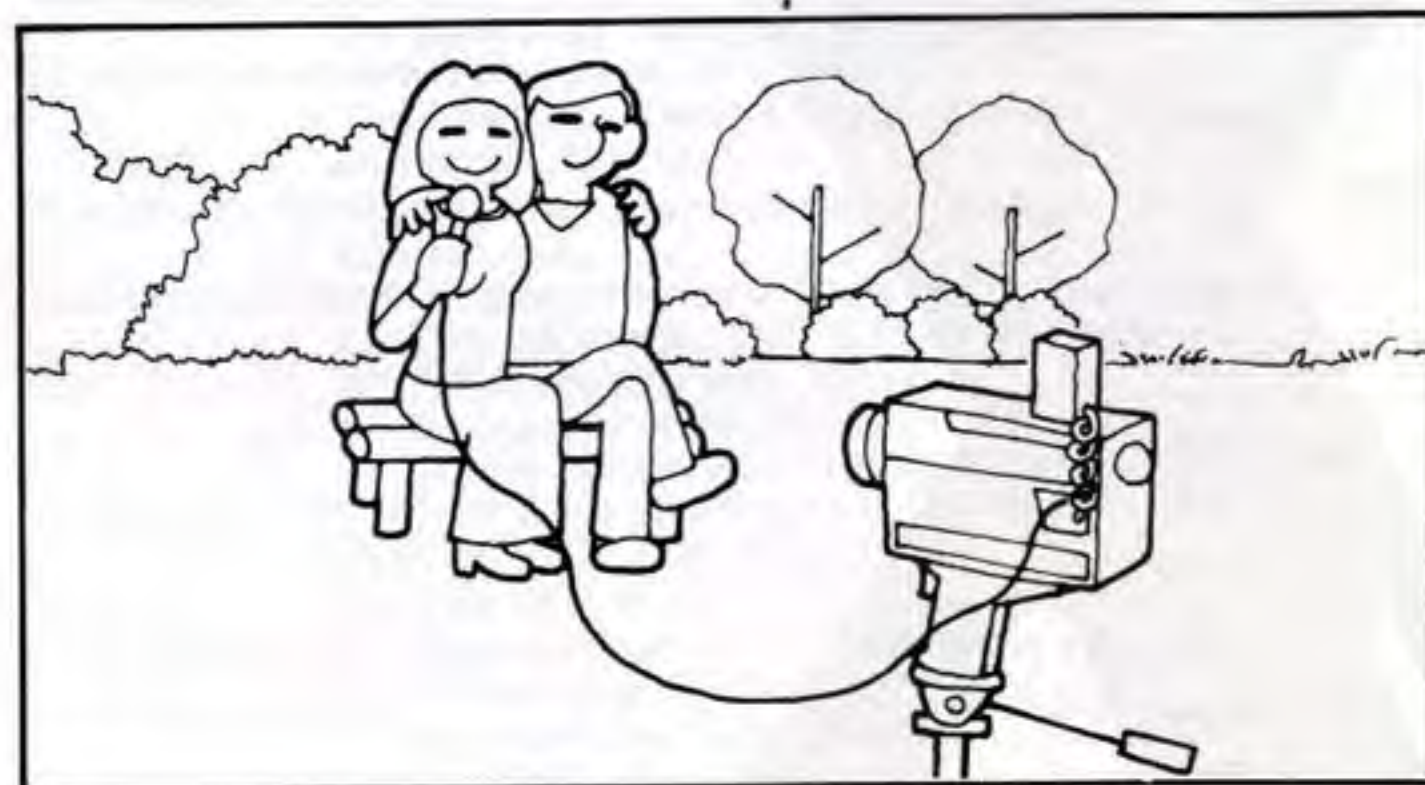
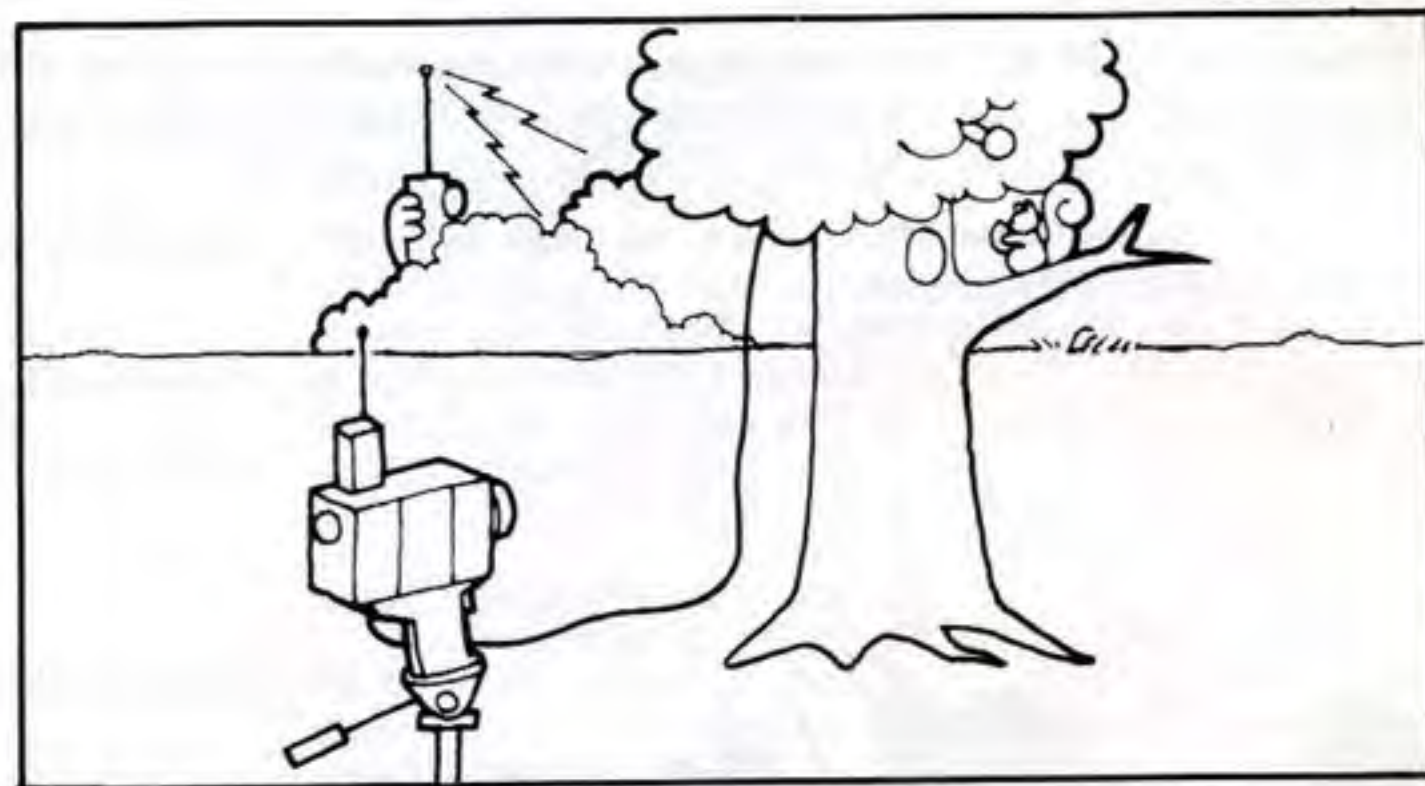
* May not be available due to governmental regulations in some countries.

Self-Timer

Use the Self-Timer to film yourself.

- Connections are the same as for the Radio Control.

For details see the respective accessory instruction manuals.



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. The distances shown are measured from the film plane mark (ϕ) of the camera.

SOUND XL-300S f=20mm							
Dis- tance Aper ture	Meter	∞	10	5	3	2	1.5
	Feet	∞	30	15	10	6	5
1.2	Meter	25.64 ~ ∞	7.19 ~ 16.39	4.18 ~ 6.21	2.69 ~ 3.40	1.86 ~ 2.17	1.42 ~ 1.59
	Feet	84.12 ~ ∞	22.11 ~ 46.63	12.73 ~ 18.26	8.94 ~ 11.35	5.60 ~ 6.46	4.72 ~ 5.32
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
5.6	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	1.92 ~ ∞	1.61 ~ ∞	1.39 ~ ∞	1.17 ~ ∞	0.98 ~ ∞	0.84 ~ 6.82
	Feet	6.31 ~ ∞	5.21 ~ ∞	4.44 ~ ∞	3.87 ~ ∞	3.08 ~ 122.39	2.79 ~ 24.09

SOUND XL-300S f=10mm							
Aper- ture \ Dis- tance	Meter	∞	10	5	3	2	1.5
	Feet	∞	30	15	10	6	5
1.2	Meter	6.41 ~ ∞	3.9 ~ ∞	2.81 ~ 22.73	2.04 ~ 5.64	1.52 ~ 2.91	1.22 ~ 1.96
	Feet	21 ~ ∞	12.36 ~ ∞	8.76 ~ 52.31	6.78 ~ 19.07	4.67 ~ 8.40	4.04 ~ 6.56
2.8	Meter	2.72 ~ ∞	2.14 ~ ∞	1.76 ~ ∞	1.43 ~ ∞	1.15 ~ 7.56	0.97 ~ 3.34
	Feet	8.92 ~ ∞	6.88 ~ ∞	5.59 ~ ∞	4.72 ~ ∞	3.59 ~ 18.32	3.20 ~ 11.37
5.6	Meter	1.36 ~ ∞	1.20 ~ ∞	1.07 ~ ∞	0.94 ~ ∞	0.81 ~ ∞	0.71 ~ ∞
	Feet	4.46 ~ ∞	3.88 ~ ∞	3.44 ~ ∞	3.09 ~ ∞	2.56 ~ ∞	2.36 ~ ∞
16	Meter	0.48 ~ ∞	0.46 ~ ∞	0.44 ~ ∞	0.41 ~ ∞	0.39 ~ ∞	0.36 ~ ∞
	Feet	1.58 ~ ∞	1.50 ~ ∞	1.43 ~ ∞	1.36 ~ ∞	1.25 ~ ∞	1.20 ~ ∞


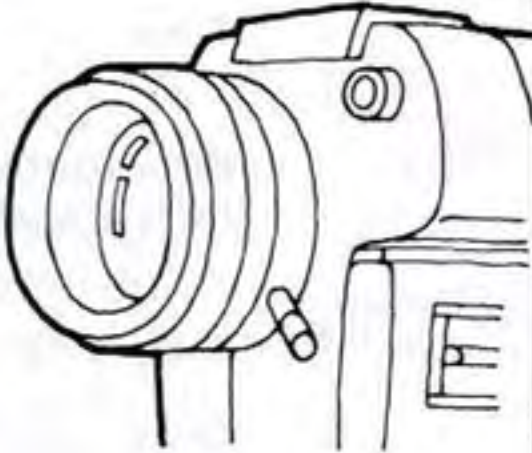
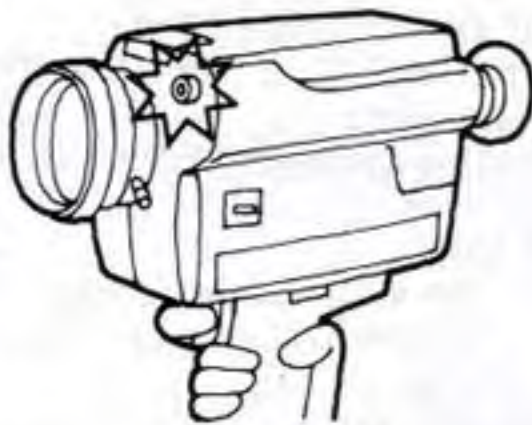

		SOUND XL-300S f=30mm						
Aper ture	Dis tance	Meter	∞	10	5	3	2	1.5
		Feet	∞	30	15	10	6	5
1.2	Meter	57.69 ~ ∞	8.52 ~ 12.10	4.60 ~ 5.47	2.85 ~ 3.16	1.93 ~ 2.07	1.46 ~ 1.54	
	Feet	189.28 ~ ∞	25.90 ~ 35.65	13.90 ~ 16.29	9.50 ~ 10.56	5.82 ~ 6.20	4.87 ~ 5.14	
2.8	Meter	24.48 ~ ∞	7.10 ~ 16.91	4.15 ~ 6.28	2.67 ~ 3.42	1.85 ~ 2.18	1.41 ~ 1.60	
	Feet	80.30 ~ ∞	21.84 ~ 47.89	12.64 ~ 18.45	8.89 ~ 11.42	5.58 ~ 6.48	4.71 ~ 5.33	
5.6	Meter	12.24 ~ ∞	5.50 ~ 54.68	3.55 ~ 8.45	2.41 ~ 3.97	1.72 ~ 2.39	1.34 ~ 1.71	
	Feet	40.15 ~ ∞	17.17 ~ 118.65	10.92 ~ 23.95	8.01 ~ 13.32	5.22 ~ 7.05	4.45 ~ 5.71	
16	Meter	4.33 ~ ∞	3.02 ~ ∞	2.32 ~ ∞	1.77 ~ 9.78	1.37 ~ 3.72	1.11 ~ 2.30	
	Feet	14.20 ~ ∞	9.64 ~ ∞	7.29 ~ ∞	5.87 ~ 33.83	4.22 ~ 10.39	3.70 ~ 7.72	

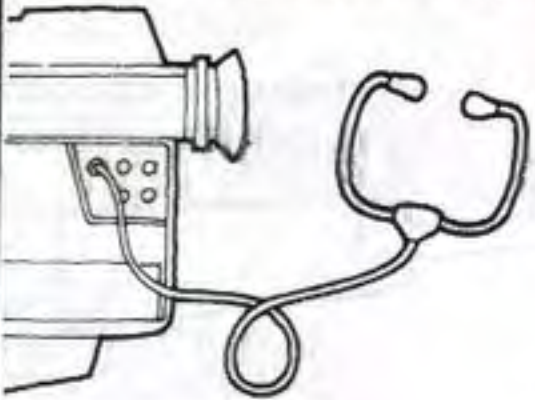
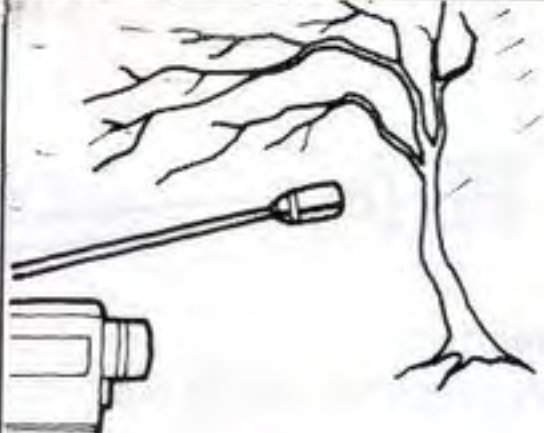

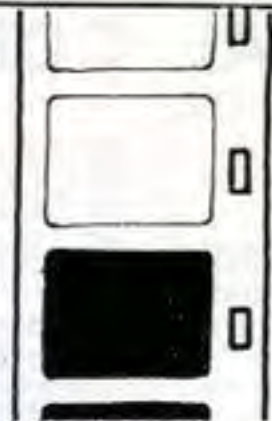
SPECIFICATIONS

Film	Super-8 sound or silent film (50 ft)
Lens	1) Sankyo zoom lens, f1.2, f=10 — 30 mm (3X) 10-group/11-element 2) Shortest focusing distance 1.5 m (5 ft) 3) Filter size: 55 mm 4) Lens cap: 57 mm
Viewfinder	1) Reflex viewfinder with aerial image range finder. 2) Adjustable to individual eye within the range of -5 to +5 diopters. 3) Provided with eye cup. 4) Provided with viewfinder shutter.
Zooming	1) Automatic power zooming Approximately 4.5 seconds from wide-angle to telephoto or vice versa. 2) Manual zooming possible with the manual zoom ring.
Power source	1) 6 penlight alkaline manganese batteries "AA". Battery life: 10 films at normal temperature. The batteries are housed in the battery case contained in the grip. 2) External 9 V DC source. The polarity of the socket: (-) in the center and (+) around the rim.
Battery checker	Push button checking. The indication is done by the T.V. lamp/battery check indicator.
Filming speed	18 frames per second (for both sound and silent films).
Shutter opening	220°
Film sensitivity	1) ASA 40, 160 (Daylight film) ASA 40, 160 (Type-A film) ASA 40, 160 (Type-G film) 2) Film sensitivity is automatically set by the cartridge.
Exposure meter	1) Fully automatic aperture control with through-the-lens CdS meter. 2) Aperture range f/1.2 — 45 (Complete fade-out possible). 3) Manual aperture control with the aperture control (with indicator in the viewfinder). 4) Under- and over-exposure warning areas (red) and fade-out mark.
Backlighting compensation	1.5 f-stop compensation by pressing a button.

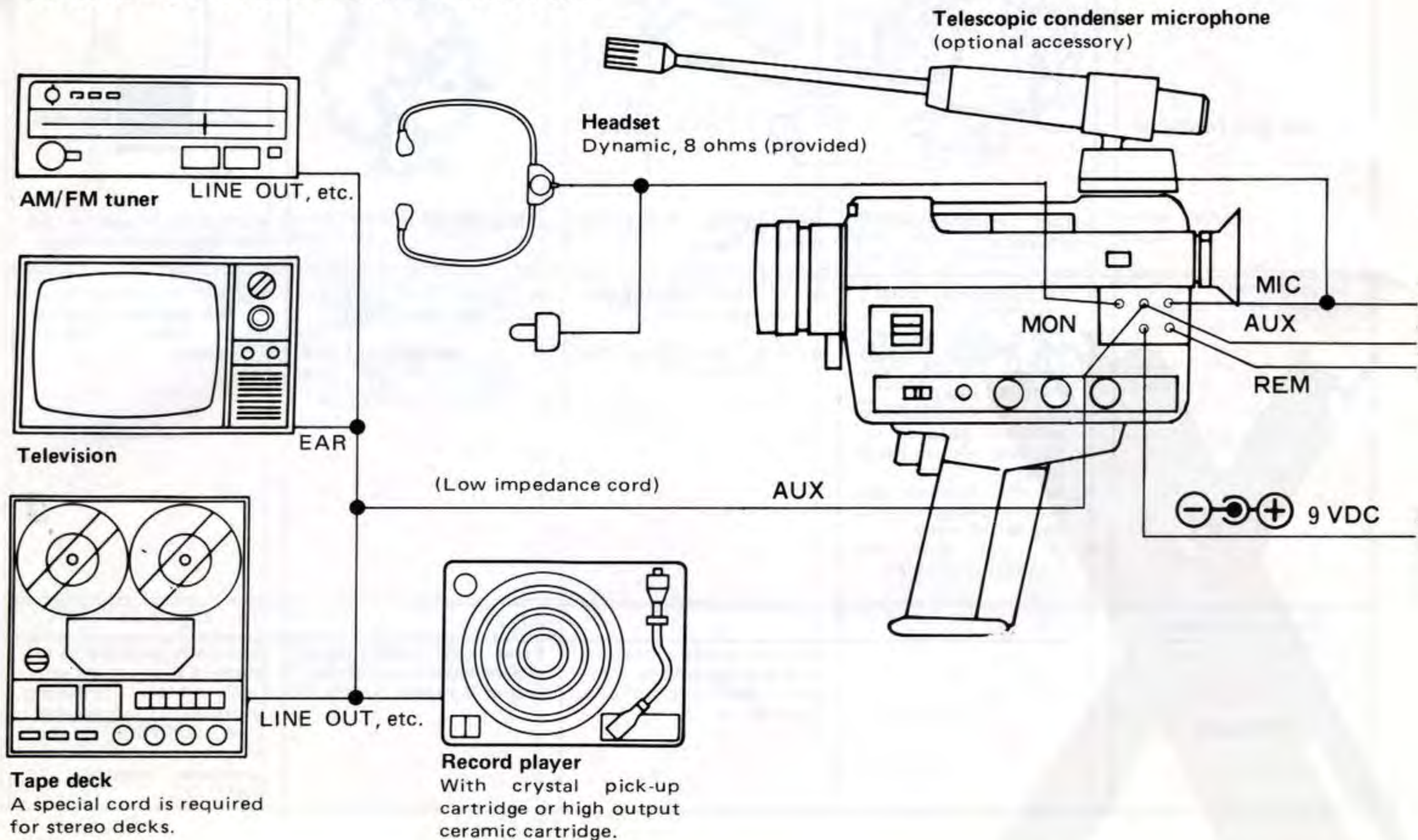
Filter	1) Built-in Type 85 filter. 2) Automatically controlled by the film cartridge or manually controlled by the filter control.
Film footage counter	Automatic resetting mechanical counter.
Film transport indicator	1) Green light flickers in the viewfinder. 2) Also functions as a film end signal and power warning indicator.
T.V. lamp	1) Red light on the front of the camera. 2) Also functions as a power warning indicator.
Grip	Fixed grip (contains battery case).
Recording and control amplifier circuit	6 ICs, 14 transistors and 18 diodes.
Input jacks	MIC: Input impedance 1 k Ω Input level HIGH 0.055 mV — 25 mV LOW 0.17 mV — 77 mV AUX: Input impedance 220 k Ω Input level HIGH 12 mV, LOW 39 mV
Recording level control	ALC (Automatic Level Control) and manual control. Manual fading possible with the sound level control.
Sound level indication	Orange light flickers in the viewfinder.
Recording sensitivity	High — low switchable. (Difference: 10 dB)
Microphone	Omni-directional, dynamic microphone, 500 ohms, Cord: 4.5 m (14.8 ft). With remote control switch.
Monitoring sound	Possible with headset. The shutter release trigger acts as a monitor switch.
Headset	Dynamic, 8 ohms
Remote control jack	For connecting remote control and other accessories.
Other features	1) Power switch with running lock position 2) Tripod socket (JIS B7103 1/4-20UNC) 3) Wrist strap (removable) 4) Accessory shoe (JIS B7101) 5) Movie light socket (JIS B7103 1/4-20UNC)
Dimensions	235 (L) x 78 (W) x 215.5 (H) mm (9-5/16" x 3-1/8" x 8-1/2")
Weight	1.45 kg (3.2 lb.)
Accessories	1) Battery case 2) Wrist strap 3) Lens hood 4) Lens cap 5) Microphone (with remote control switch) 6) Microphone stand 7) Wind screen 8) Headset 9) Head cleaner

TROUBLESHOOTING

When this happens	 <p>Viewfinder image is blurred.</p>	 <p>Battery check lamp does not light.</p>	 <p>Battery check lamp lights, but the camera does not function.</p>	 <p>Battery discharge is too fast.</p>
Check!	<ul style="list-style-type: none"> • Have you accurately adjusted the viewfinder to your eye? • Have you focused the lens at maximum telephoto? 	<ul style="list-style-type: none"> • Is the power switch "ON"? • Are the batteries correctly loaded? • Are the batteries discharged? 	<ul style="list-style-type: none"> • Is the film cartridge correctly loaded? • Is the remote control switch ON, if used? 	<ul style="list-style-type: none"> • Was the power switch left "ON" after use? • Are the batteries loaded with the correct polarity?
Refer to pages	11, 12, 13	4, 5	6, 7, 8, 17, 20	4, 15
Remarks	Focus the lens at maximum telephoto (30 mm).			Be sure to set the power switch to "OFF" when the camera is not in use.

When this happens	 <p>Sound monitoring is impossible.</p>	 <p>Rustling or rumbling noise is heard.</p>	 <p>Distorted sound.</p>	 <p>Almost no image on the film after development.</p>
Check!	<ul style="list-style-type: none"> • Is the power switch "ON"? • Have you pressed the shutter release trigger until the "MON" line? • Is the microphone securely plugged into the microphone jack? • Is the headset securely plugged into the MON jack? • Are you using the headset provided? 	<ul style="list-style-type: none"> • Is the microphone firmly fixed? • Are you using the wind screen? 	<ul style="list-style-type: none"> • Does the battery check lamp light? • Is the microphone too close to the sound source? 	<ul style="list-style-type: none"> • Did you shoot with the aperture control in the "MAN" range?
Refer to pages	17, 18	27	22, 27	10
Remarks		Do not apply vibration to the microphone. Protect the microphone from wind.	Place the microphone where optimum object sound is heard.	Generally employ automatic EE aperture control. After finishing shots with manual aperture control, do not forget to return the aperture control to "AUTO".

TOTAL CONNECTION DIAGRAM

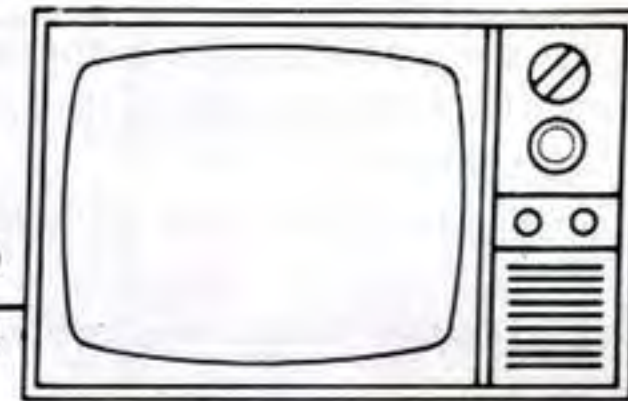


FM wireless microphone set
(May not be available due
to governmental regulations
in some countries.)
(optional accessory)



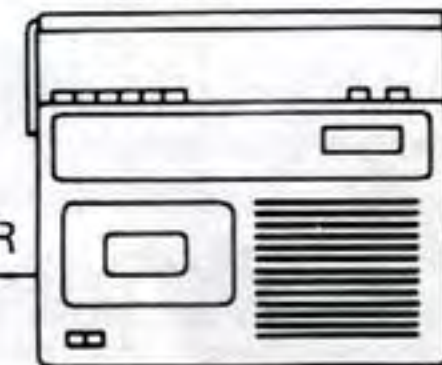
(High impedance cord)

EAR



Television

EAR



Radio

(High impedance cord)

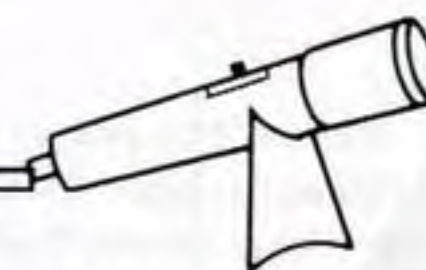
Microphone
Low impedance



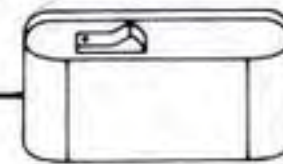
Wind screen
(provided)



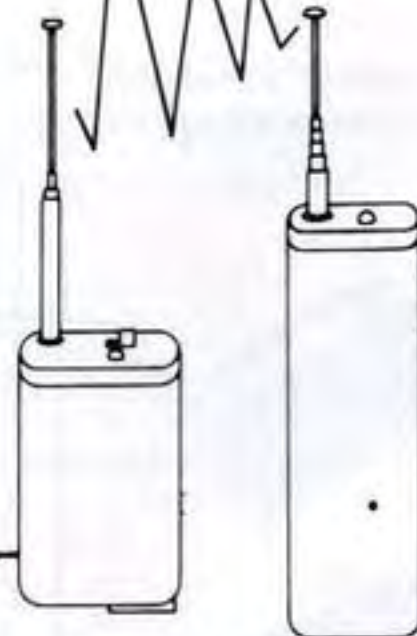
Remote control microphone
500 ohms (provided)



Remote control
(optional accessory)



Radio control
(May not be available due
to governmental regulations
in some countries.)
(optional accessory)



Self-timer
(optional
accessory)

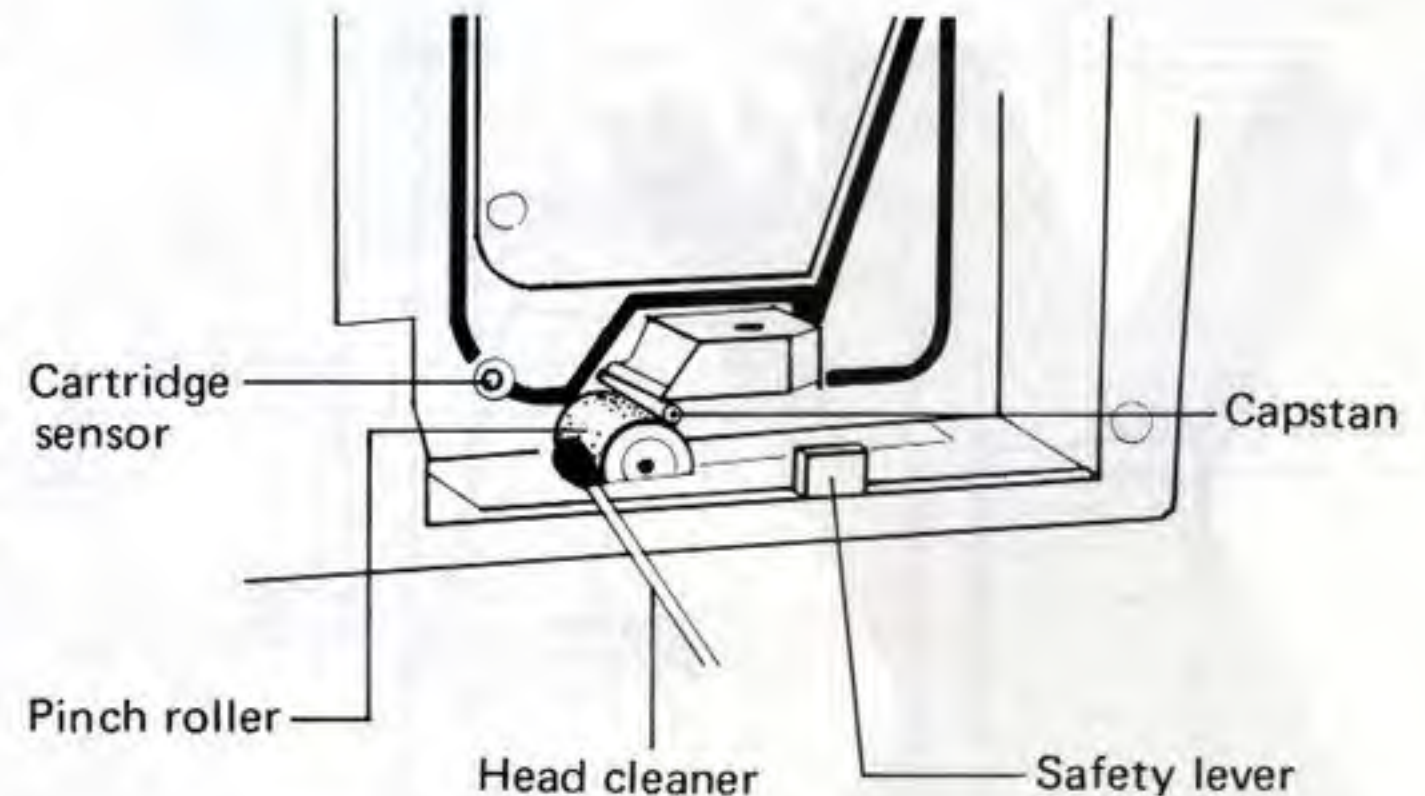


DC power pack
Contains 6 "C"-size
batteries.
(optional accessory)



MAINTENANCE

- Do not store the camera where there is excessive humidity.
 - Do not leave the lens stained with fingerprints, as they may be difficult to remove.
 - 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.
 - If the magnetic head is dirty, it will increase noise and cause the sound quality to deteriorate.
 - Keep the head and pinch roller clean at all times by wiping gently with the head cleaner provided or a soft cloth.
 - Do not bring a metallic object close to or into contact with the head.
 - A magnetic field will have an adverse effect on sound film. Do not place it close to things which produce strong magnetic fields (motors, transformers, radios, TVs, magnets, etc.).
 - Be careful not to drop the camera or allow it to get wet. If this happens, the camera may be damaged beyond repair or require expensive repairs.
-
- To clean the pinch roller
 1. Open the side cover and set the power switch to "R-L".
 2. Depress the shutter release trigger to run the camera.
 3. While pressing the cartridge sensor button, wipe the pinch roller with the head cleaner soaked with rubber cleaning alcohol (isopropyl alcohol).



Be careful not to let alcohol come in contact with plastic parts such as the camera body.

ACCESSORIES

Standard accessories

Omni-directional Microphone with Remote Control Switch (500 ohms)

Wind Screen Microphone Stand



Headset



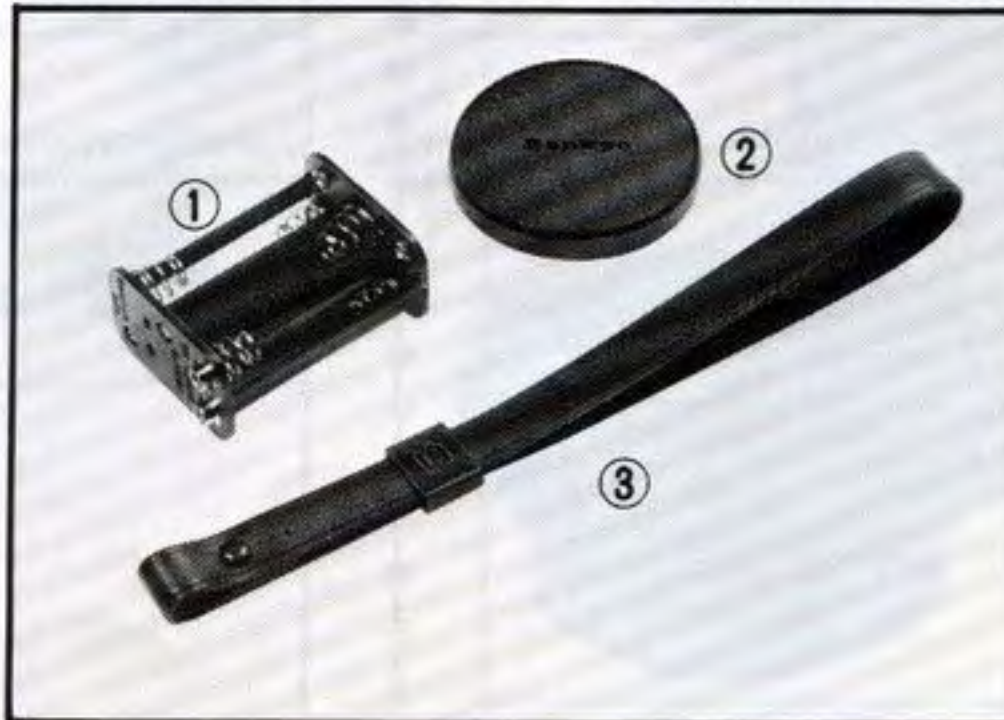
Head Cleaner



Lens Hood



① Battery Case ② Lens Cap ③ Wrist Strap



Optional accessories

(*May not be available due to governmental regulations in some countries.)

FM Wireless Microphone Set*



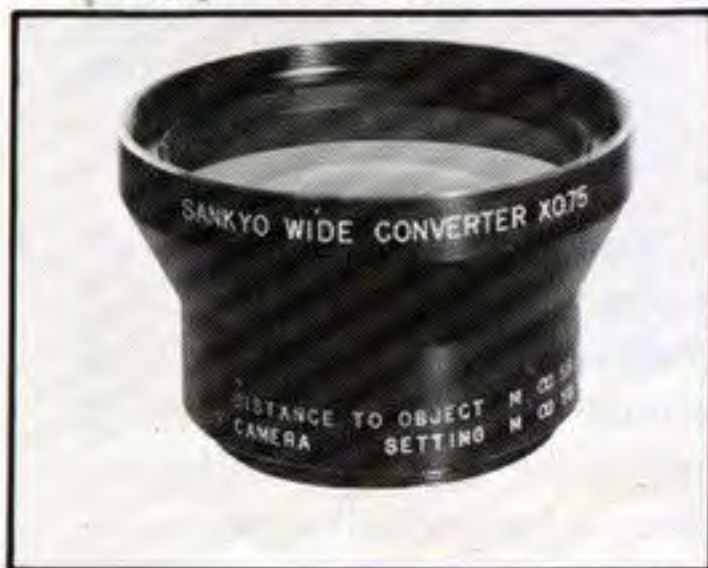
Radio Control*



Self-Timer



Wide-angle Converter



Tele Converter



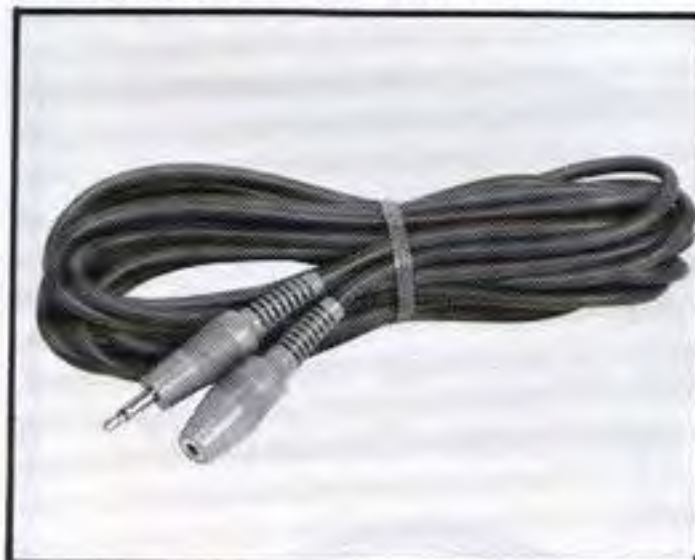
Uni-directional Telescopic Condenser Microphone



Carrying Case



Microphone Extension Cord



DC Power Pack



Remote Control

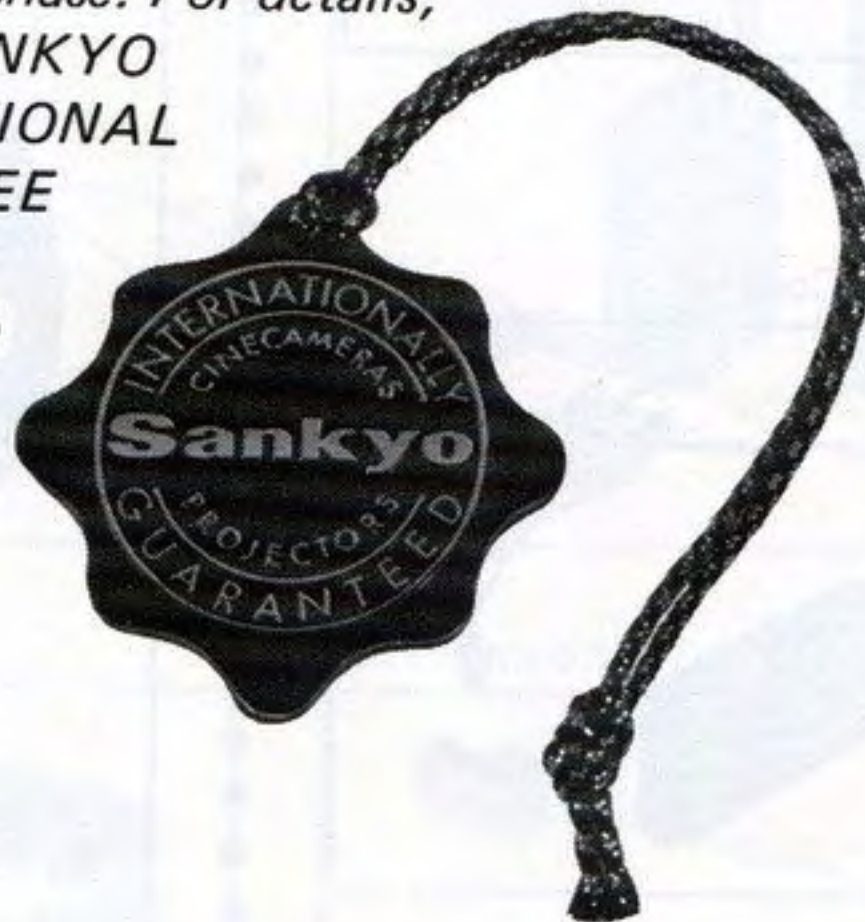


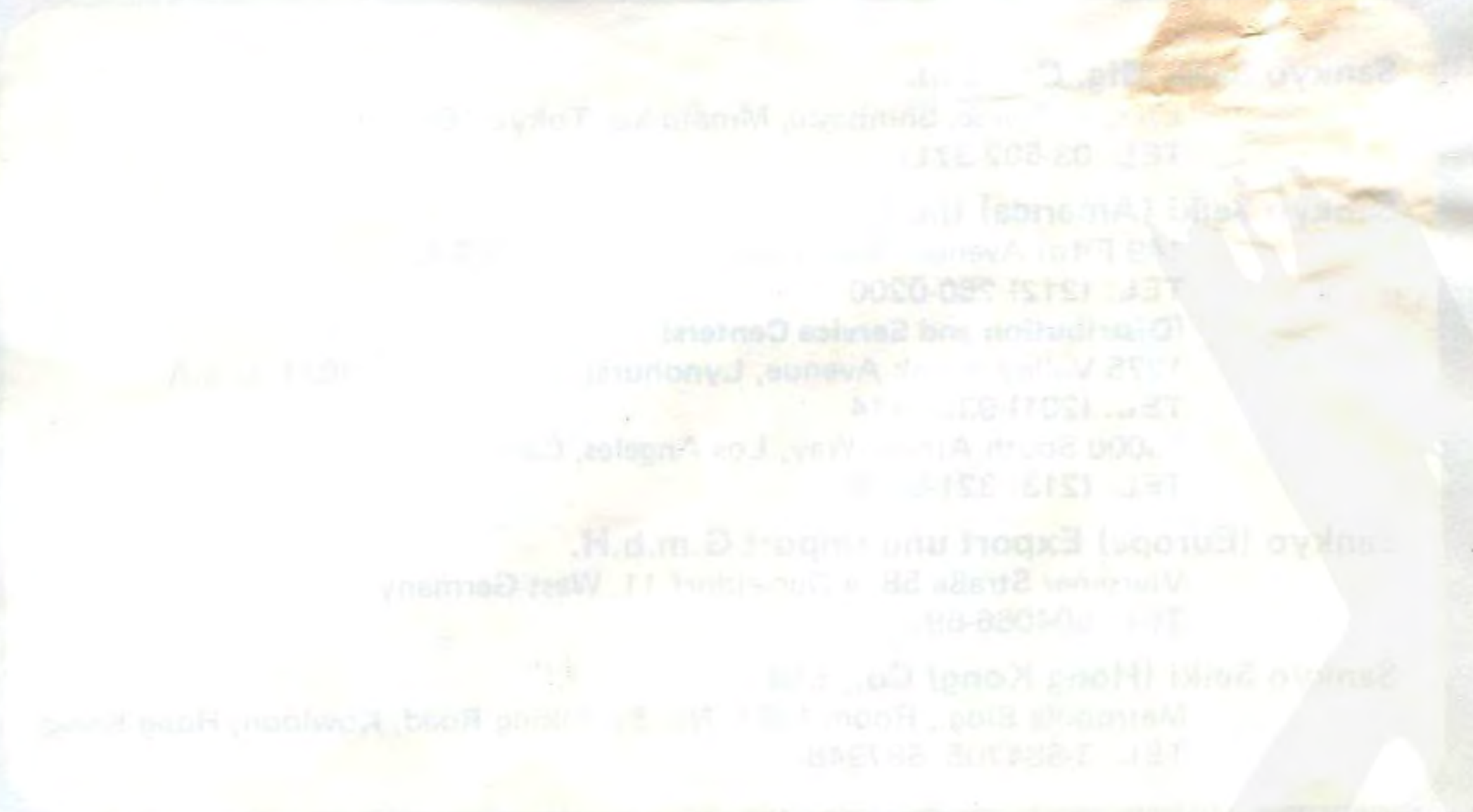
SOUND-700/500 Super-8/Single-8 sound movie projectors with two projection speeds; 18 and 24 f.p.s.



GUARANTEE

Your Sankyo SOUND XL-300S is internationally guaranteed for any defect in material or workmanship for a full year from the date of original purchase. For details, read the SANKYO INTERNATIONAL GUARANTEE which is enclosed in the original camera package.







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Wichtig:

Schalten Sie bei Nichtgebrauch der Kamera in jedem Fall die Stromversorgung mit Hauptschalter aus! Andernfalls werden die Batterien durch den Eigenverbrauch der Elektronik entladen!

Note:

Make sure to switch off the power supply whenever you lay the camera aside for a while. Otherwise the electronics of the camera will drain the batteries within short.

Important:

Dans le cas de non utilisation de la caméra, indispensable de débrancher la caméra à l'interrupteur principal! Le cas échéant, les piles se déchargeraient par concommation de l'électronique!

Importante:

Non usando la cinepresa disinserisca sempre l'alimentazione di corrente con l'interruttore principale. Altrimenti le batterie vengono scaricate dal consumo proprio dell'elettronica.

Importante:

Al no usar la cámara, desconectar siempre el suministro de corriente mediante el interruptor principal. De no hacerlo se irán descargando las baterías por el consumo propio del equipo electrónico.

Belangrijk:

Schakelt u in ieder geval de stroomvoorziening met de hoofdschakelaar uit, als de camera niet wordt gebruikt. Anders raken de batterijen uitgeput door het eigen gebruik van de elektronische componenten.

Viktigt:

Når kameræt ikke anvendes skal strømforsyningen afbrydes, da batterierne ellers vil blive opbrugt af kamera elektronikkens hvilestrøm.

Observera:

Stäng av huvudströmbrytaren, när ni inte använder er kamera. Ni undviker på detta sätt urladdning hos batterierna.