

CODE NO. C33-2001-211
ITEM Canon 814 XL-S w/lens 7-56mm f/1.4, with Eyecup, Lens Cap C62, Rubber Hood SC-62, Dynamic Microphone DM40R, Remote Switch 60, Earphone E, Head Cleaning Bar, Action Strap 2, Step-up Ring 62-67

Canon
814XL-S
1014XL-S
CANOSOUND

C33-2201-211 Canon 1014 XL-S w/lens 6.5-65mm f/1.4, with Eyecup, Lens Cap C67, Rubber Hood SC-67, Dynamic Microphone DM40R, Remote Switch 60, Earphone E, Head Cleaning Bar, Action Strap 2

Two high-performance professionals for superb movies



Specifications

Type: Super 8 SLR (single-lens-reflex) XL camera for sound and silent filming. Magnetic stripe sound recording (single system) with Super 8 cartridge as well as double system sound (pulse-sync) recording, latter for joint use with a stereo tape recorder.

Double System Sound: An 8-pin DIN jack on the side of the camera for use with many of the synchronization systems available, both one pulse per frame and one pulse every fourth frame. (For further information, contact Canon USA's Technical Dept at 10 Nevada Drive, Lake Success, N.Y.)

Picture Size: 5.8 x 4.2mm.

Lens:

814XL-S: 7-56mm f/1.4 with 8:1 zoom ratio; 16 elements in 13 groups; built-in wide-angle and telephoto macro mechanisms; Spectra Coating; 62mm ϕ filter and cap size; screw-in detachable rubber hood.

1014XL-S: 6.5-65mm f/1.4 with 10:1 zoom ratio; 17 elements in 13 groups; built-in wide-angle and telephoto macro mechanisms; Spectra Coating; 72mm ϕ filter threads (filter attached over hood); 67mm ϕ cap; screw-in, detachable rubber hood.

Focusing: By rotation of focusing ring.

Distance Scale: ft 4 5 7 10 15 50
 m 1.2 1.5 2 3 5 10 ∞

Zooming Mechanism: Manual by rotation of zooming ring with zoom-

ing lever with zooming speed switch at "M". Zooming lever extendable. Power zooming by independent motor by pressing "W" (wide-angle) or "T" (telephoto) zooming buttons. Two power zooming speeds: "L" covers entire focal length range (8X for 814XL-S, 10X for 1014XL-S) in 9 sec. "H" covers entire focal length range (8X for 814XL-S, 10X for 1014XL-S) in 5 sec.

Zooming Scale: **814XL-S:** 56 40 30 20 15 10 7
1014XL-S: 65 40 30 20 15 10 6.5

Macro Mechanism:

Wide-angle: By macro set button. Minimum working distance and field of view: 10cm, 8.2 x 11.5cm for 814XL-S; 10cm, 8.7 x 12.0cm for 1014XL-S.

Telephoto: By focusing in yellow focusing range. Minimum working distance and field of view: 53cm, 3.6 x 5.0cm for 814XL-S; 56cm, 3.3 x 4.6cm for 1014XL-S.

Viewfinder: Single-lens reflex type with split-image rangefinder.

Viewfinder Information: The following indications function at first pressure of shutter release lever: Illuminated aperture indication with over and under exposure warnings, manual aperture control indication, LED recording level indication, footage indicator needle. LED warning signal in 814XL-S and END warning signal in 1014XL-S blink 2ft before end of film and glow steadily to indicate film end, film jam, battery exhaustion.

Dioptric Adjustment: -5 to +3 diopters by rotation of eyepiece ring.

SELLING POINTS

CPU: The Brain That Controls the System

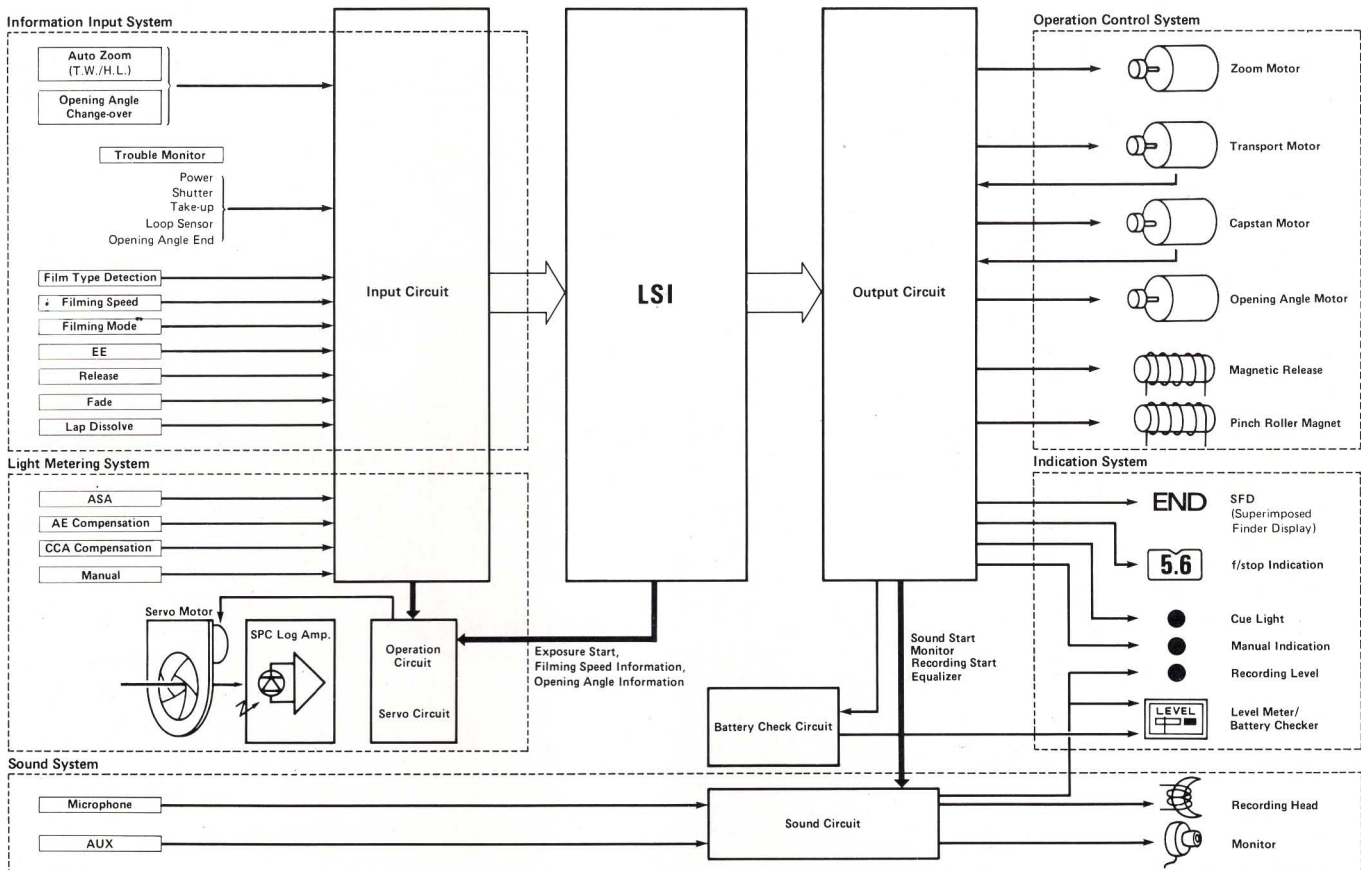
The Canon 1014XL-S and 814XLS incorporate a feature not found in any other movie camera: a CPU (Central Processing Unit).

This dramatic advance has enabled concentrated control of a multitude of functions, yet at the same time ensures total ease of operation. The CPU controls the film transport system, multi-information processing for recording and exposure and detects abnormalities in the film transport. And in case of any system malfunction, the photographer isn't kept in the dark: A warning appears in the viewfinder and simultaneously stops the camera.

Canon employed the most advanced human engineering concepts to provide maximum handling ease. A convenient folding type grip ensures steadiness in hand-held shooting and the white indices of dial controls point upward at their normal setting positions. To prevent improper operation, essential switches employ locking devices.

Fast f/1.4 Zoom Lenses to Capture the Action

The 10X (6.5mm to 65mm) zoom on the 1014XL-S and the 8X (7mm to 56mm) zoom on the 814XL-S can be operated either automatically or manually. The cameras are truly "XL" as the full aperture performance is maintained throughout



With lock.

Eyeiece Shutter: Built-in.

Eyeicup: Detachable.

Shutter Release Lever: Two-step, electromagnetic release. Pressing halfway activates viewfinder information, readies camera. Pressing completely starts film drive.

Filming Speed: Sound cartridge: 1 and 9 fps (silent filming), 18 and 24 fps (sound filming). Silent cartridge: 1, 9, 18, 24 fps and instant slow motion (approx. 36 fps).

Shutter Opening Control: By independent DC micro-motor.

Shutter Opening Angle: Variable. By rotating dial with click-stop settings. Two settings: \square (220°) for XL filming, \circ (150°) for regular filming. Automatic exposure compensation at either setting. Angle varies continuously from 220° or 150° to 0° for fading at electronically controlled speed.

Fading: By variable shutter opening angle. Automatic fade-in/fade-out possible for picture and sound simultaneously (at P.S position of filming mode dial), picture only (P position of mode dial), sound only (S position of mode dial).

Lap Dissolve:

1014XL-S only: Automatic dissolve (one image merges into and is replaced by the next) possible for picture and sound simultaneously

Running Lock: Possible at "RL" position of the switch on the grip.

Flash Synchronization: Built-in socket for flash sync.

Self-Timer: Built-in. Two settings, for 10 seconds delay 10 seconds filming and 10 seconds delay and 20 seconds filming.

EE Mechanism: TTL type Servo EE mechanism (using servo motor) with SPC (silicon photocell) controlling five-bladed iris diaphragm, coupled to film speed and filming speed. With AE lock.

Light Metering Range: For tungsten type, from ASA 400, f/1.4, \square (220°), 9 fps (CCA filter removed) to ASA 25, f/45 \circ (150°), approx. 36 fps (CCA filter in place).

Film Speed: Automatically set by inserting film cartridge:

Artificial Light Type: ASA 25 to 400.

Daylight Type: ASA 16 to 250.

Exposure Compensations: Seven click-stop settings for -1, -0.6, -0.3, 0, +0.3, +0.6, and +1 f/stop.

Color Temperature Adjustment Filter: Built-in for using artificial light type film in daylight; cancelled automatically by inserting daylight type film cartridge; manual cancellation possible.

Manual Exposure Control: Full manual override possible.

Main Switch: On-off two-position switch.

Remote Control: 2.5mm REMOTE jack for remote control accessories.

Footage Counter: Shows exposed footage and filming time left.

1014XL-S: Straight line marking to show where dissolve operation is possible.

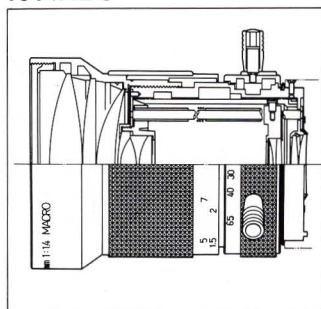
Battery Life: Under normal temperature, more than 7 sound cartridges or more than 10 silent cartridges at 18 fps.

SELLING POINTS

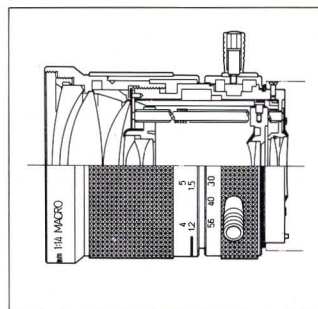
the entire zooming range and the shutter angle setting of 220° gives a longer 'open' time for the exposure. The 1014XL-S/814XL-S cameras used in conjunction with fast film such as Ektachrome 160, enable you to film by available light in situations where it would be more appropriate to shoot without the use of movie lights. The employment of a five-bladed iris diaphragm using a servomotor and SPC (silicon photocell) which excels in linearity and low-light reading achieves the best possible efficiency in these XL cameras.



1014XL-S



814XL-S



Wide-Angle and Tele-Converter System Accessories

The wide-angle attachment reduces the focal length from 6.5mm to 4.3mm while the tele-converter increases the focal length from 65mm to 91mm in the case of the 1014XL-S. And in the case of the 814XL-S, the wide-angle attachment reduces the focal length from 7mm to 4.5mm while the tele-converter increases the focal length from 56mm to 78.4mm. These accessories open up a whole new world of possibilities for the creative photographer.

1014XL-S



4.3mm

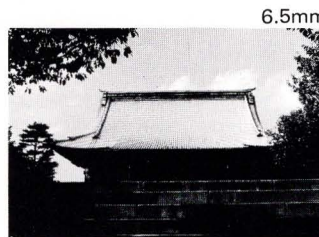
814XL-S



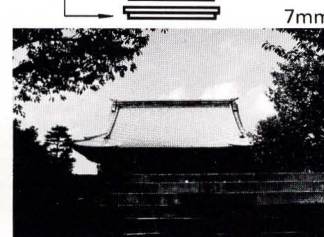
4.5mm



Wide Attachment
Step-up Ring



6.5mm

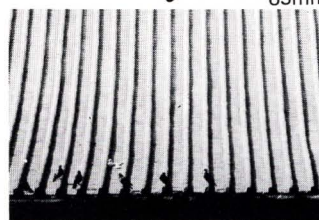


7mm

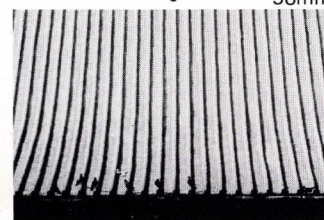
10 times



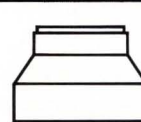
8 times



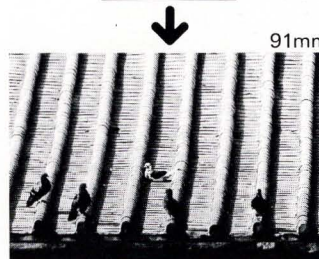
65mm



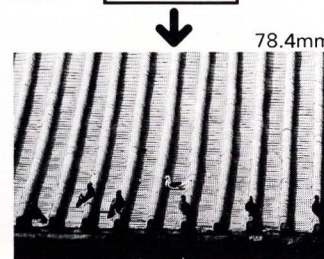
56mm



Tele-Converter



91mm



78.4mm

Battery Checker: Recording level/power level meter needle combined. Battery check button provided.

Microphone Jack: 3.5mm mini-jack. Input impedance of around 5KΩ. Minimum input sensitivity, -20dBv (0dBv = 1V).

Aux Jack: 3.5mm mini-jack. Input impedance of more than 50KΩ.

Sound Input Monitor: Monitoring with recording level indicator (LED signal), level meter, and with an earphone or headphone.

Monitor Jack: 3.5mm mini-jack suitable for 8Ω earphone.

Recording Level: ALC (Automatic Level Control), LIMITER and MANUAL. Automatic sound fading possible at all three positions. ALC position for automatic recording at correct volume. The LIMITER and MANUAL positions for manual sound control. Volume control dial for these two positions.

Tone Control Switch: NORMAL and BASS CUT two settings possible for controlling sound quality.

Cue Light: In front of camera. Flashes 8 times/sec. during filming and once/sec. during self-timer delay.

Accessory Shoe: For attaching the Boom Microphones or the Lighting Adapter LA-1.

Grip: Collapsible, hinges up sideways and lies upwards along the camera side; serves as battery compartment.

External Power Jack: Coaxial feed plug fitting on the grip for an external 9V DC supply with Power Pack 9V.

Tripod Attachment: Standard CU 1/4" socket.

Dimensions and Weight:

814XL-S: 252.5(L) x 113.5(H) x 59.5(W)mm. (9-15/16" x 4-7/16" x 2-5/16") when grip is folded. Hood and eyecup not included in the measurement. 2 Kg (4lb 6oz) with batteries.

1014XL-S: 264(L) x 113.5(H) x 59.5(W)mm. (10-3/8" x 4-7/16" x 2-5/16") when grip is folded. Hood and eyecup not included in the measurement. 2.1 Kg (4lb 10-1/2oz) with batteries.

Accessories: Remote Switch 60, Dynamic Microphone DM 40R, Earphone E, Action Strap II.

814XL-S: Rubber Hood SC-62, 62mm Lens Cap, Step-up Ring 62-67.

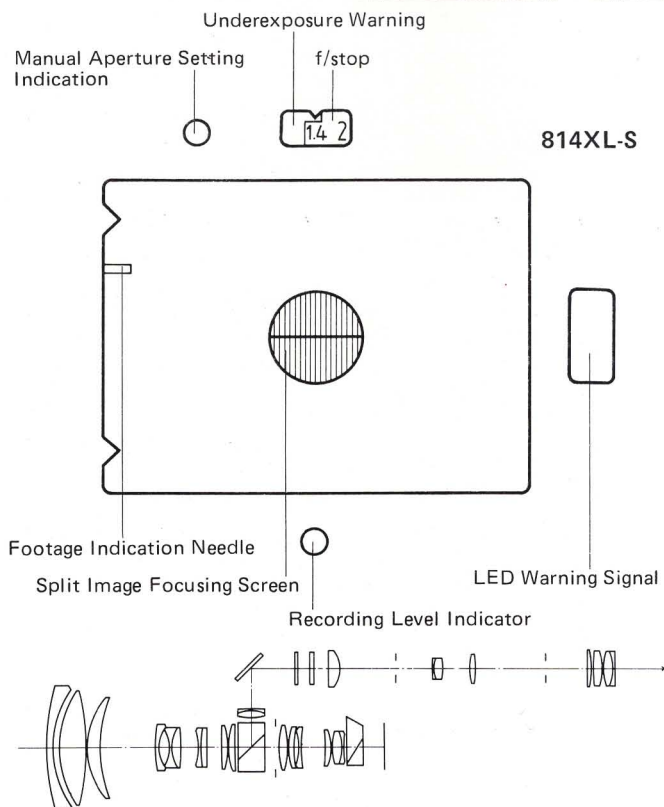
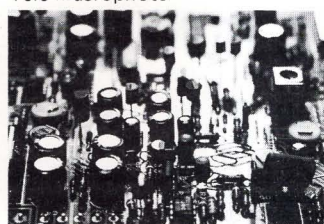
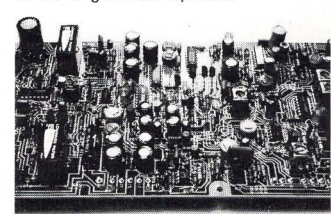
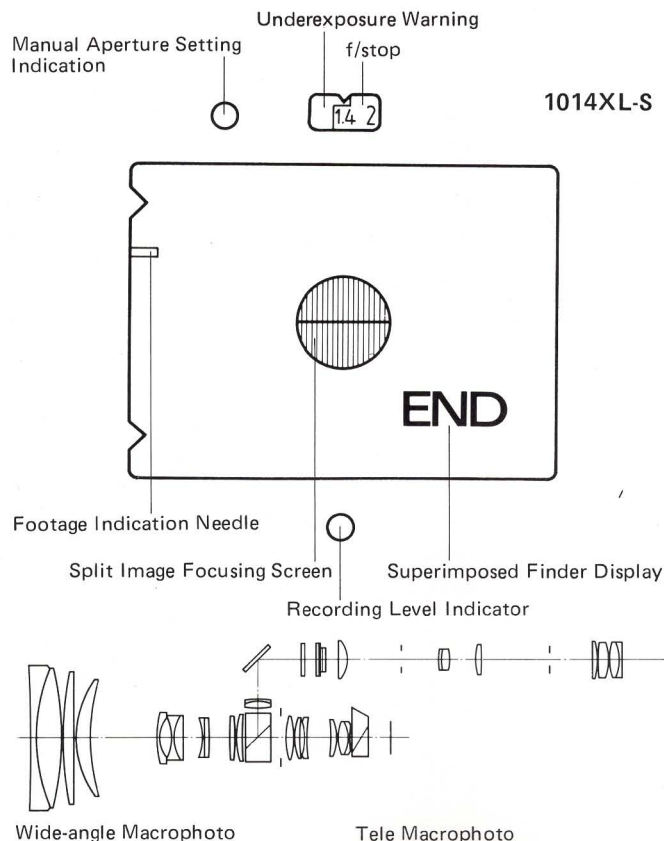
1014XL-S: Rubber Hood SC-67, 67mm Lens Cap.

Optional Items: Snap Case C8-1, Boom Microphones BM 50 and BM 70, Electret Condenser Mike CM 100, Power Pack 9V, Microphone Extension Cord E450Y, Lighting Adapter LA-1, Wireless Receiver WR-50 Quartz, Wireless Microphone WM-50 Quartz, Wireless Controller LC-1, C-8 Wide Attachment 67, Tele-Converter 1.4 x 67, 67mm Close-up Lens 240 C-8, Chest Pod II, Remote Switch 3, Extension Cord E1000, Connecting Cord C300L, Angle Finders A2 and B.

814XL-S: 62mm filters.

1014XL-S: 72mm filters (for use on Rubber Hood SC-67).

Subject to change without notice.



The Viewfinder Says it All

Canon's advanced optical technologies are employed for a warning indicator in the 1014XL-S. The word "END" is produced on the primary focal plane of the finder optical system in eye-catching color. Normally invisible during shooting, the END warning flashes on and off toward the end of the film (approximately two feet from the end) and lights up continuously when the end is reached. It also lights up in case of film jam or voltage drop.

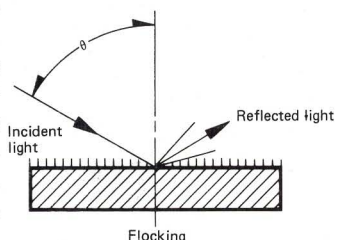
Instead of this Superimposed Finder Display (SFD) warning, an LED flashes on and off to the right of the 814XL-S's finder when only 2ft of film is left or in case of film jam, film end or voltage drop. With both the 1014XL-S and the 814XL-S, f/stop readout appears by pressing the shutter release lever halfway and warning marks appear in case of under- or over-exposure. A footage indicator with descending needle is provided along the left side of the finder, and when the AE dial is changed from AUTO to either AE LOCK or MANUAL, an indicator lights up. Finally, to let you know that all is going well in the sound department, an LED indicator flashes on and off to indicate the recording level. The LED lights up brighter at the peak of the sound and stays bright when higher input exceeds the normal recording level range.

Superb 10X and 8X Zoom Lenses

Both cameras are equipped with separate motor for zooming and that means you can rehearse power zooming without having to run the camera. Low speed covers the entire range in 9 seconds and high speed in 5 seconds. Besides this two-speed selection, you can also set the zoom manually which is quite smooth as the gear is unclutched and there is also a short operating lever for convenient movement of the zooming ring. Besides the "reach" you get at the telephoto end, the user will also value close connection between the zooming functions of the two cameras and their built-in close-focusing mode.

Electrostatic Flocking

The effective blacking of the inside of the lens is essential in preventing stray reflections of light rays. The insides of the 1014XL-S and 814XL-S lenses are completely mat finished by static electrical depositions of fibers to effectively suppress reflections from the interior of a lens barrel.



Macro-Cinematography Brings it All in Close

Dramatic close-up shot of flowers, insects, etc., is another of the exciting capabilities of the 1014XL-S and 814XL-S. Both are equipped with wide-angle macro and tele-macro. For wide-angle macro, simply move the zoom ring fully to the wide-angle position, press the macro button and rotate to the macro zone. Minimum lens-to-subject distance is 10cm, with a picture area of 8.7 x 12.0cm for the 1014XL-S and 8.2 x 11.5cm for the 814XL-S which is ideal for titling. For telemacro, move the zoom ring fully to the telephoto position and turn the focusing ring past the 1.2m position. Minimum lens-to-subject distance is 56cm for the 1014XL-S and 53cm for the 814XL-S, with a picture area of 3.3 x 4.6cm for the 1014XL-S and 3.6 x 5.0cm for the 814XL-S.

SELLING POINTS



AE Dial

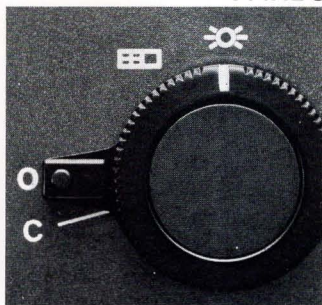
Three different exposure modes are available with the 1014 XL-S and 814XL-S. Set the AE dial to AUTO and normal AE photography is performed. To guard against accidentally turning the dial—and hence cause inaccurate exposure—it is provided with a lock.

AE LOCK is used for fixing a certain exposure, for instance, when panning a moving subject. MANUAL is useful for such backlight filming as snow scenes or when sunlight enters the picture frame. In such cases, exposure compensation of more than one f/stop is necessary.

1014XL-S

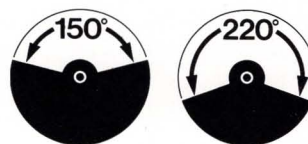


814XL-S



Fade Lever/Changeable Shutter Opening Angle

With the 1014XL-S and 814XL-S fade-out and fade-in can be done with either 150° or 220° shutter angle. Exposure is automatically compensated for and the fade-in/fade-out time speed is electronically controlled. That is to say the time taken to fade out does not depend on the aperture at which you begin or the working aperture you reach at the end of the fade-in. The time consumed is about 5 seconds at the filming speed of 9 and 18 fps and about 3.75 at 24 fps.



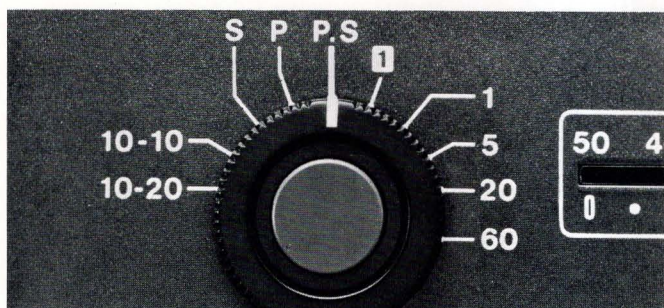
The fade lever is normally in position at "O". To finish a scene with a fade-out, merely hold down the fade lever to "C" while filming until the film drive automatically comes to a stop. The scene can also begin with a fade-in by first holding down the fade lever to the "C" position and then pressing the shutter release lever. Once the start of the film drive is heard, the fade lever should be released to "O" position to allow shutter blades to slowly open for the fade-in effect.



Mode Dial Combinations


The fading technique is used in various combinations, selectable with the mode dial adjacent to the fade lever. When using fade for picture and sound (P.S), picture only (P) and sound only (S), film run automatically stops in case of P.S and P while the film run continues in case of S.

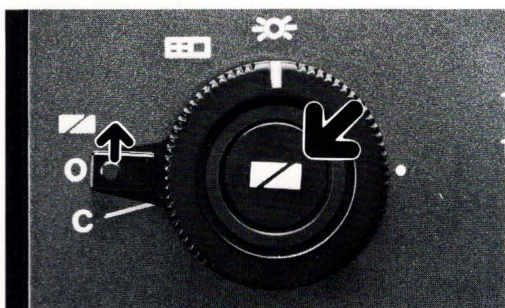
The mode dial also has settings for interval timer and self timer photography. Using the interval timer single frames can be shot at intervals of 1, 5, 20 and 60 seconds. This means you can set the camera up and film a flower blooming over a period of time or a butterfly coming out of its chrysalis. The self timer, on the other hand, enables sustained shooting, punctuated by waiting time intervals. At the 10-10 setting, the interval is 10 seconds and shooting is performed for 10 seconds. At 10-20, the interval is 10 seconds and shooting is performed for 20 seconds.



Lap Dissolve Button

The 1014XL-S boasts yet another advanced feature: Lap dissolve.

Lap dissolve is when one scene gradually appears over the previous one, while the previous one gradually disappears. This is invaluable when changing to a different theme. Lap dissolve is controlled electronically with picture and sound together. To accomplish this, the film is rewound about 90 frames after the completion of fade-out. It can be done with either 150° or 220° shutter angle. After pressing the shutter button, lap dissolve is started by pressing in the overlap button and moving the fade lever to the  mark.



SELLING POINTS

Advanced Recording System for Pure Sound Fidelity

To match the superb optical characteristics of the 1014XL-S and 814XL-S, Canon has provided them with a recording system that combines maximum sound fidelity with total ease of operation.

Heart of the system is an Automatic Level Control (ALC) circuit that assures excellent sound reproduction for every acoustical level and recording condition. The ALC eliminates the hit-or-miss situation posed by manual control as well as the limitation of conventional automatic level control systems. This means that whether you are recording an ear-splitting

rock concert or the quiet humming of a bee flitting from flower to flower, the sound track feeds back the sound naturally as the real thing. The ALC controls the level according to both level and duration to render sounds in their proper perspective.

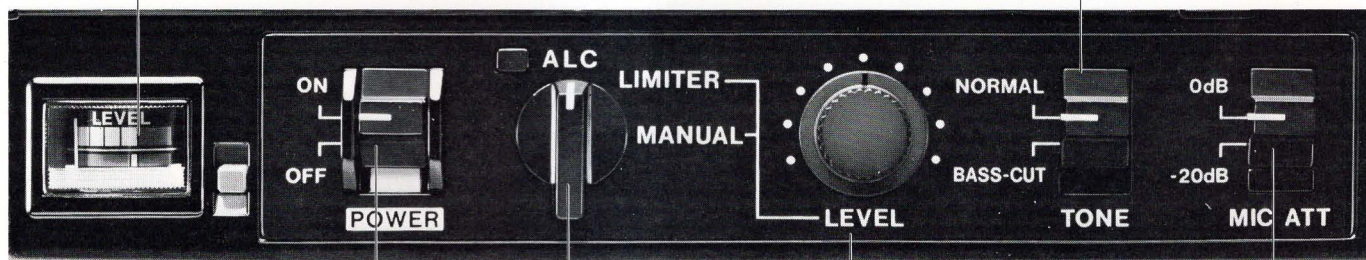
Two other recording methods are provided: manual, using a limiter for chopping off only excessively loud sound and regular manual. For easy manual recording, a level meter is provided. And for even better sound, a tone switch, microphone attenuator and facility for mixing microphone and audio equipment are provided.

Level Meter/Battery Check

The recording level meter also doubles as the battery check, with the upper indication being the level meter. The needle usually rests toward the left end and moves toward the right as the sound level increases. If the needle enters the red zone during manual recording, the sound will be distorted. The sound level should be adjusted by the volume control so that the needle does not enter the red zone at maximum inputs.

Tone Switch

The tone switch enables effective recordings under a variety of recording conditions. There are two positions—NORMAL and BASS CUT—to be selected depending on your purpose. Normally, set the tone switch at NORMAL for making use of the camera's entire recording frequency range. BASS CUT eliminates the low range of the recording frequency and records certain sounds more clearly. It is ideal when recording close to the microphone, inside an echoing room or for interviews on the street or in windy, noisy places.



Main Switch

The ON-OFF slide-switch is conveniently located next to the Level Meter/Battery Check. The main switch turns on and off all the electrical systems of the camera powered by six penlight batteries.

Recording Mode Switch

Set this switch to ALC and the input level is controlled automatically during recording in normal sound conditions. The LIMITER and MANUAL positions are for manual sound control when the input level is relatively stable and continuous adjustment of the recording level is not necessary or when special effects from distortions are purposely sought after. The LIMITER position on the recording mode switch puts the ALC into operation even during manual recording to cope with occasional loud sound that puts the recording level meter needle into the red zone. At either the LIMITER or MANUAL setting, sound volume is adjusted manually through monitoring prior to shooting.

Microphone Attenuator

Set this switch at 0dB, where it locks, in most cases. When recording outdoors or in noisy areas or when the main recording interest is exceptionally loud such as that of a jet take-off, set the switch to the -20dB setting. The recording level is reduced to approximately one-tenth.

Volume Control

This dial is for controlling the volume when the recording mode switch is set to LIMITER or MANUAL. It is turned clockwise to increase the recorded sound level which can be monitored by looking at the volume level scale of the level meter.

FILMING TECHNIQUE CHART

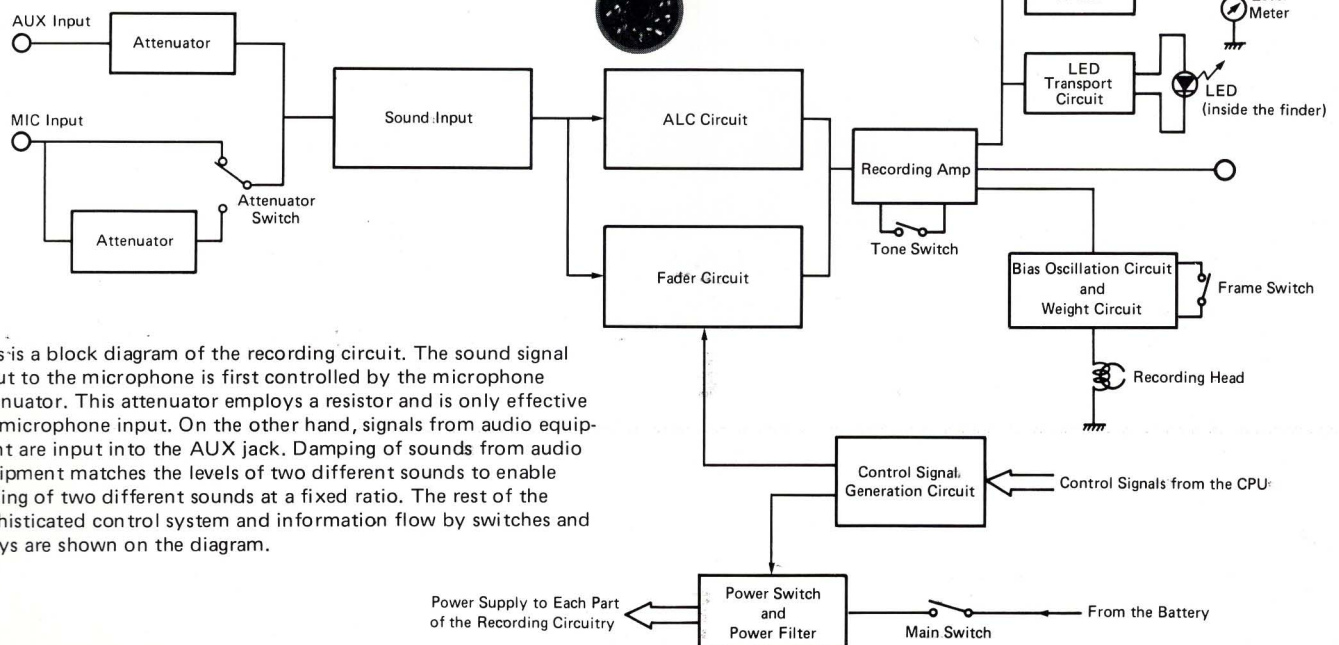
	Mode Dial	Filming								Cue Light	Viewfinder Exposure Indication	Remarks
		Sound Cartridge				Silent Cartridge						
		9	18	24	SM	9	18	24	SM			
Normal Filming	P.S, P, S	○	◎	◎	×	○	○	○	○	Flashes 8 times/sec. during filming	Lights up at first pressure of shutter release	
Fading, in/out	P.S	○	◎	◎	×	○	○	○	○			Picture and sound, automatic stop
	P	○	◎	◎	×	○	○	○	○			Picture only, automatic stop
	S	○	◎	◎	×	○	○	○	○			Sound fade only
Lap Dissolve	P.S, P, S	×	◎	◎	×	×	○	○	△	Out during auto reverse	Out during auto reverse (Out when finger removed from shutter lever)	Image/sound synchronization
Single Frame	1	○	○	○	×	○	○	○	×	On during exposure	On at first pressure of shutter release	
Interval	1, 5, 20, 60	○	○	○	×	○	○	○	×	On during exposure Out during interval	On right before exposure Out during interval	R/RL switch on RL
Self-Timer	10-10 10-20	○	◎	◎	×	○	○	○	○	Flashes once/sec. during delay, 8 times/sec. during filming	Out during waiting time On during filming	R/RL switch on RL

- ◎ Both sound/silent filming possible.
- Only silent filming possible.
- × Slow motion button does not function.
- △ Slow motion possible after fade-in filming.
- × Neither silent nor sound filming possible.

Function Jacks

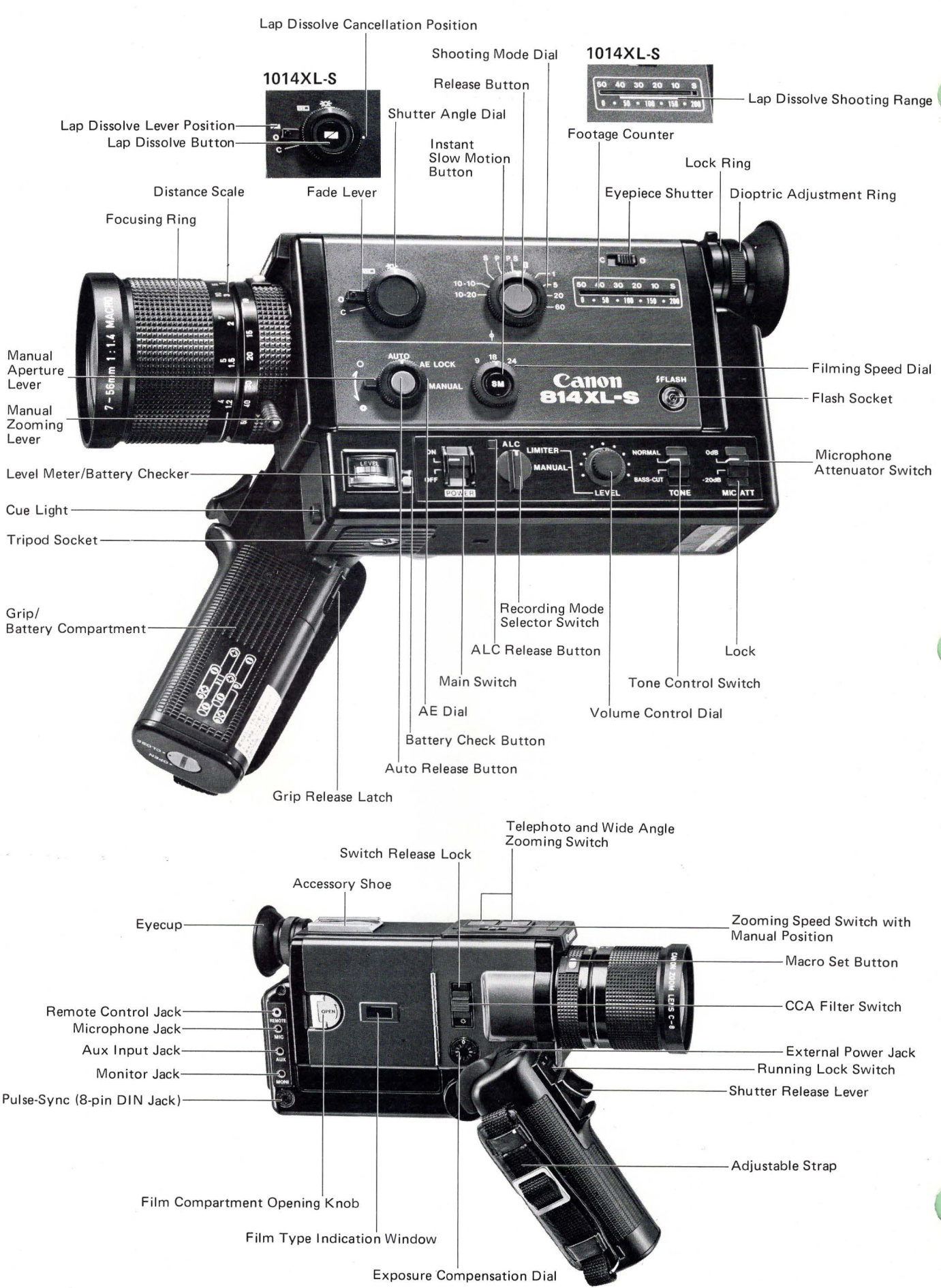
The jacks, located at the rear of the camera, provide a variety of functions. The REMOTE jack is used for plugging in the remote control plug. MIC accommodates the microphone input plug. In case of microphone with remote control, the REMOTE and MIC jacks are used simultaneously. Use the AUX input jack when recording from audio equipment such as a tape recorder, TV,

etc. during filming. The sound can be monitored during recording by plugging in an earphone or headphone into the MONI jack. The small 8-pin jack is used when performing pulse synchronized recording using a tape recorder. For further information about synchronization, please contact Canon USA's Technical Department.

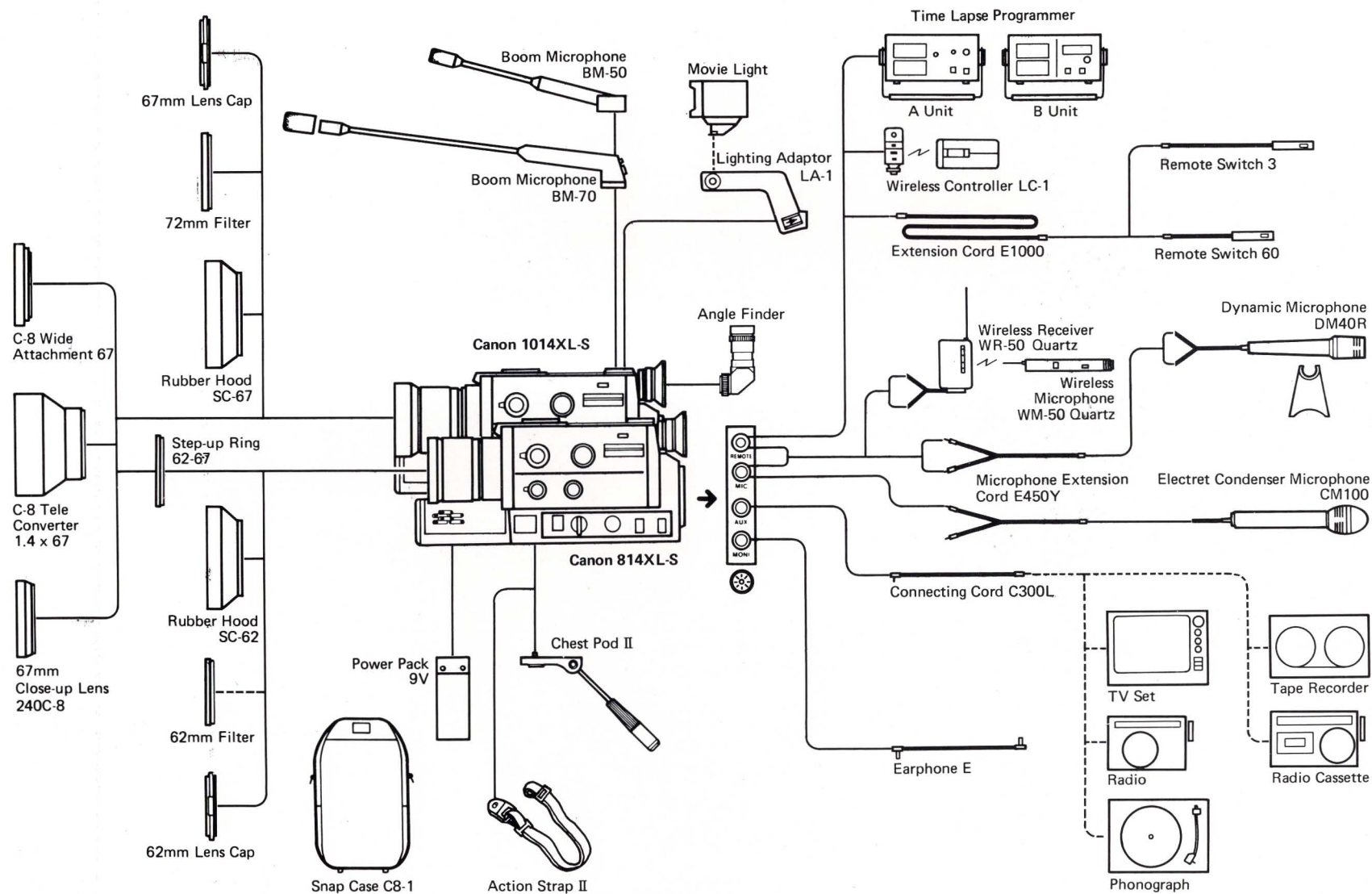


This is a block diagram of the recording circuit. The sound signal input to the microphone is first controlled by the microphone attenuator. This attenuator employs a resistor and is only effective for microphone input. On the other hand, signals from audio equipment are input into the AUX jack. Damping of sounds from audio equipment matches the levels of two different sounds to enable mixing of two different sounds at a fixed ratio. The rest of the sophisticated control system and information flow by switches and relays are shown on the diagram.

NOMENCLATURE



1014XL-S/814XL-S SOUND SYSTEM



ACCESSORIES

ATTACHMENT LENSES, VIEWFINDER ACCESSORIES, ETC.

CODE NO.	DESCRIPTION
C54-3701	Tele Converter 1.4 x 67
CA4-2144	100mm Lens Cap
CA4-2122	Lens Dust Cap
C49-0591	Semi Hard Case
C54-3711	C-8 Wide Attachment 67
49-1006	80mm Lens Cap 4
C54-3721	67 C-8 Close-Up 240mm
C53-9381	Step-up Ring 62-67
5-40712	Angle Finder A2
5-40711	Angle Finder B
C44-6201	Rubber Hood SC-62
C44-6702	Rubber Hood SC-67
CG3-0005	Lens Cap C-62
CG3-0006	Lens Cap C-67

MICROPHONE ACCESSORIES

C53-9361	Dynamic Microphone DM 40R
C53-9362	Electret Condenser Mike CM 100
C53-9254	Boom Microphone BM 70
C53-9255	Boom Microphone BM 50
C53-9397	Wireless Microphone WM-50 Quartz
C53-9277	Wireless Receiver WR-50 Quartz
C53-9261	Earphone E
C53-9291	Connecting Cord C300L
C53-9302	Microphone Extension Cord E450Y

REMOTE CONTROL ACCESSORIES

5-22051	Remote Switch 60
5-22041	Remote Switch 3
5-81071	Extension Cord E 1000
C58-5351	Wireless Controller LC-1 Set
5-39177	Time Lapse Programmer A Unit
5-39172	Time Lapse Programmer B Unit

POWER PACK ACCESSORIES

CODE NO.	DESCRIPTION
C53-9281	Power Pack 9V

MISCELLANEOUS ACCESSORIES

C53-9321	Lighting Adaptor LA-1
C53-9371	Chest Pod II
C56-1191	Action Strap II
C46-1031	Snap Case C8-1 for 1014XL-S/814XL-S

Note: Federal Communications Commission approval pending for Wireless Microphone WM-50 Quartz and Wireless Receiver WR-50 Quartz