

AMERICAN
Cinematographer

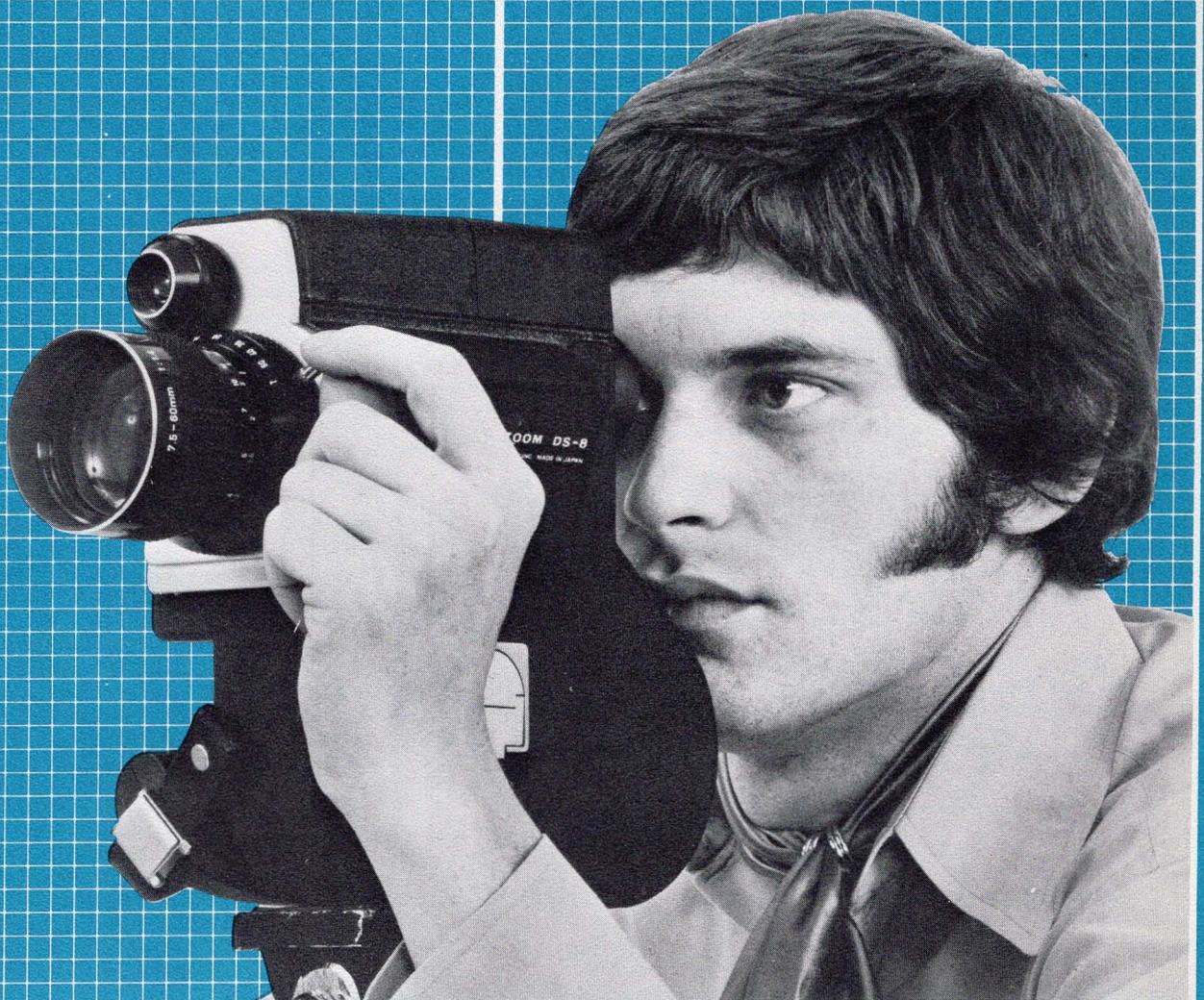
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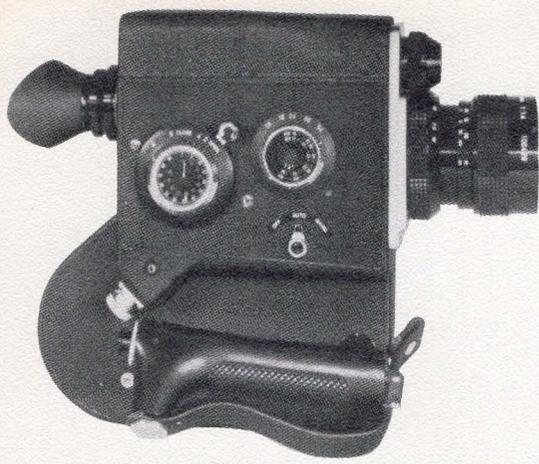
Canon

ZOOM DS-8

DOUBLE SUPER 8
MOVIE CAMERA

MARCH 1971 ISSUE





DOUBLE SUPER-8

THE CANON ZOOM DS-8

DOUBLE SUPER-8 CAMERA

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THE CANON ZOOM DS-8 CAMERA

The newest of the professional double Super-8 cameras, recently introduced by and available from the Bell & Howell Company, is the Canon Zoom DS-8 camera. It has been designed to represent "the ultimate in a Super-8 camera in terms of sophisticated features that will be of particular interest to the highly creative or advanced film-maker and to those involved with the professional and commercial motion picture fields."

Because of its technical sophistication and wide versatility, it would also seem to offer special advantages in the fields of television newsfilming and sports photography.

Priced at \$1,000.00 the new camera is identical in size, weight and configuration to the familiar Canon Scoopic 16mm camera. In fact, it would not be

oversimplifying the facts to state that the Canon Zoom DS-8 is a Super-8 version of the extremely versatile and highly dependable Scoopic. Like other double Super-8 cameras, it utilizes a 100-foot roll of 16mm width film with two rows of Super-8 perforations. This roll, when exposed along both edges and then slit following processing, provides 200 feet of Super-8 film for projection.

Professional features of the new Canon Zoom DS-8 movie camera include:

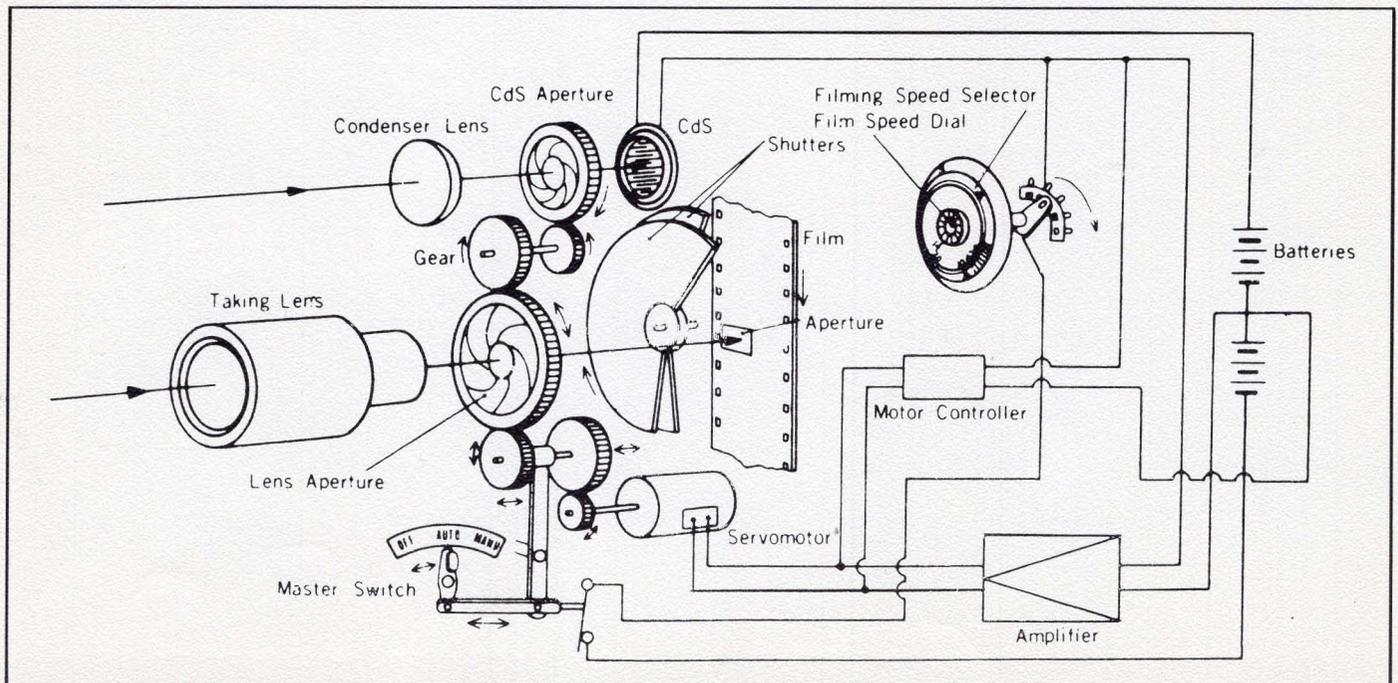
An exceptionally fast $F/1.4$ lens with an 8 to 1 (7.5 to 60mm) zoom range.

Highly accurate and sensitive electric eye with an *unique servomechanism*—a system completely different from that found in conventional movie cameras. When light hits the

CdS photocell, the cell diaphragm and lens diaphragm both adjust until a balance is obtained between the illumination on the CdS photocell and the light exposing the film. Taken into account are such factors as film speed, filming speed, and shutter opening angle. A servomotor operates both diaphragm mechanisms.

A *variable shutter control and powered rewinding mechanisms for fading and overlapping*. The variable shutter control mechanism is composed of two shutter leaves and regulates the shutter opening angle from 0 degrees to 165 degrees. The consecutive changes can be made by turning the variable shutter control lever. The rewinding is activated when the variable shutter control

Diagrammed below is the unique "Electric Eye" automatic exposure control circuit system featured on the Canon Zoom DS-8 camera. A servomechanism, entirely different from that of conventional movie cameras, it incorporates diaphragm mechanisms both inside the taking lens and in front of the CdS photocell. These diaphragm mechanisms, operated by a servomotor, are coupled by means of a gear train and function to adjust the illumination on the film plane and CdS photocell, respectively. The servomotor, vibration-free and shockproof, is designed for minimum of breakdown, and its unusual power makes possible the use of iris diaphragm blades, which ensure high resolving power and sharp edges.





SHUTTER FULL OPEN (165°) 18 fps 1/39 SECOND



SHUTTER 1/2 OPEN (82.5°) 18 fps 1/79 SECOND



SHUTTER 1/4 OPEN (41.25°) 18 fps 1/158 SECOND

Variable Shutter Control not only makes possible in-camera fades and dissolves but also sharpens the image when rapid action is photographed, as shown above.

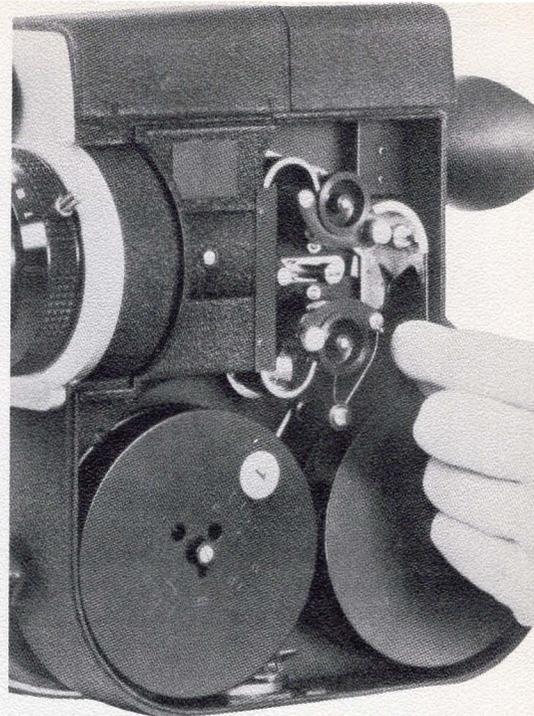
lever is shifted to the "R" position. The frame counter rotates in the reverse direction and the rewind frame numbers can be clearly read during rewinding.

Electronic governor system makes possible a wider range of filming speeds. With the new camera, *filming speeds of 12, 18, 24, 36, 54 fps, and single frame* can be obtained.

Powered and semiautomatic film loading system. Double Super-8 film is loaded with ease. The film leader is inserted into a guide, and when the shutter release button is pressed, the film will automatically advance through the system toward the take-up reel.

The Canon Zoom DS-8 also offers electric film drive; a film speed range of ASA 10 to 320; reflex viewing with split-image rangefinder; exposure indicator in viewfinder with over/under warnings; automatic frame and footage counters; provision for external battery box; a manual aperture control; cable release socket for single frame; socket for electrical remote control, tape recorder starting socket; adjustable eyepiece with eyecups; and it accepts 58mm screw-in filters.

The new camera comes in an attractive carrying case with AA battery box, take-up spool, and lens cap. Accessories available include (at suggested list prices) an external battery box for \$40.00; nickel-cadmium battery (12v) for \$42.00; a battery charger S for \$80.00; and AA battery box for \$6.95;



Film leader is inserted into a guide. When shutter release button is pressed, power mechanism automatically advances film through the system toward take-up reel.

and a remote control unit for \$5.95. The aluminum carrying case that comes with the camera has a list value of \$69.95.

The extensive line of Canon Super-8 movie cameras, including the new DS-8 professional camera, are exclusively sold, serviced, and guaranteed by the Bell & Howell Company in the United States and Canada. Additional information on the DS-8 camera can be obtained by writing to: Bell & Howell Company, 7100 McCormick Road, Chicago, Illinois 60645. ■

TECHNICAL SPECIFICATIONS OF THE CANON ZOOM DS-8 CAMERA

Lens: F1.4 with focal length of 7.5–60mm. Zoom ratio 1:8. 13-component, 18-element construction (including six rare earth glasses). Inner diameter, 58mm. Outer diameter, 65mm.

Zooming: Manual, with zooming lever.

Viewfinder: Single-lens reflex type combined with built-in split-image rangefinder. Contains exposure indicator, f/stops scale, over/under exposure warning marks and manual aperture control mark. Eyepiece is adjustable (–5 to +4 diopter). Magnification, 0.62x–4.67x. With eyepiece shutter. Two types of eyecups are supplied with the camera.

Electric Eye Mechanism: Automatic aperture setting coupled to CdS photocell and servomotor. The Electric Eye is coupled to the changes in light volume received by the independent window. Light receiving angle, approx. 20 degrees. Powered by the electric motor used in common for film advance.

EE Working Range: Coupled to entire range of ASA 320, f/1.4, 12 fps–ASA 10, f/22, 54 fps.

Manual Aperture Control: Possible by setting the master switch at "MANU" and turning the aperture control ring.

Film Speeds: ASA 10–320, DIN 11–26.

Filming Speeds: 12, 18, 24, 36, 54 fps and single frame release. Running lock possible.

Variable Shutter Control: Consecutively from 0° to 165°. "CLOSE", "4", "2" and "OPEN" with 0°, 41.25°, 82.5° and 165° respectively. Exposure adjustment and fades are possible.

Film Advance: Electric motor drive system.

Rewinding Mechanism: Electrically performed by setting the variable shutter control lever at "R" and depressing the shutter release button. Overlappings possible.

Power Source: Eight 1.5v penlight (size AA) alkaline or manganese batteries. Use with exclusive battery magazine. Approx. nine reels can be filmed with alkaline batteries under normal temperature at 18 fps. External battery box adaptable using alkaline, manganese, or nickel cadmium batteries.

Film Loading: Semiautomatically loaded by power. Film cutter, built-in.

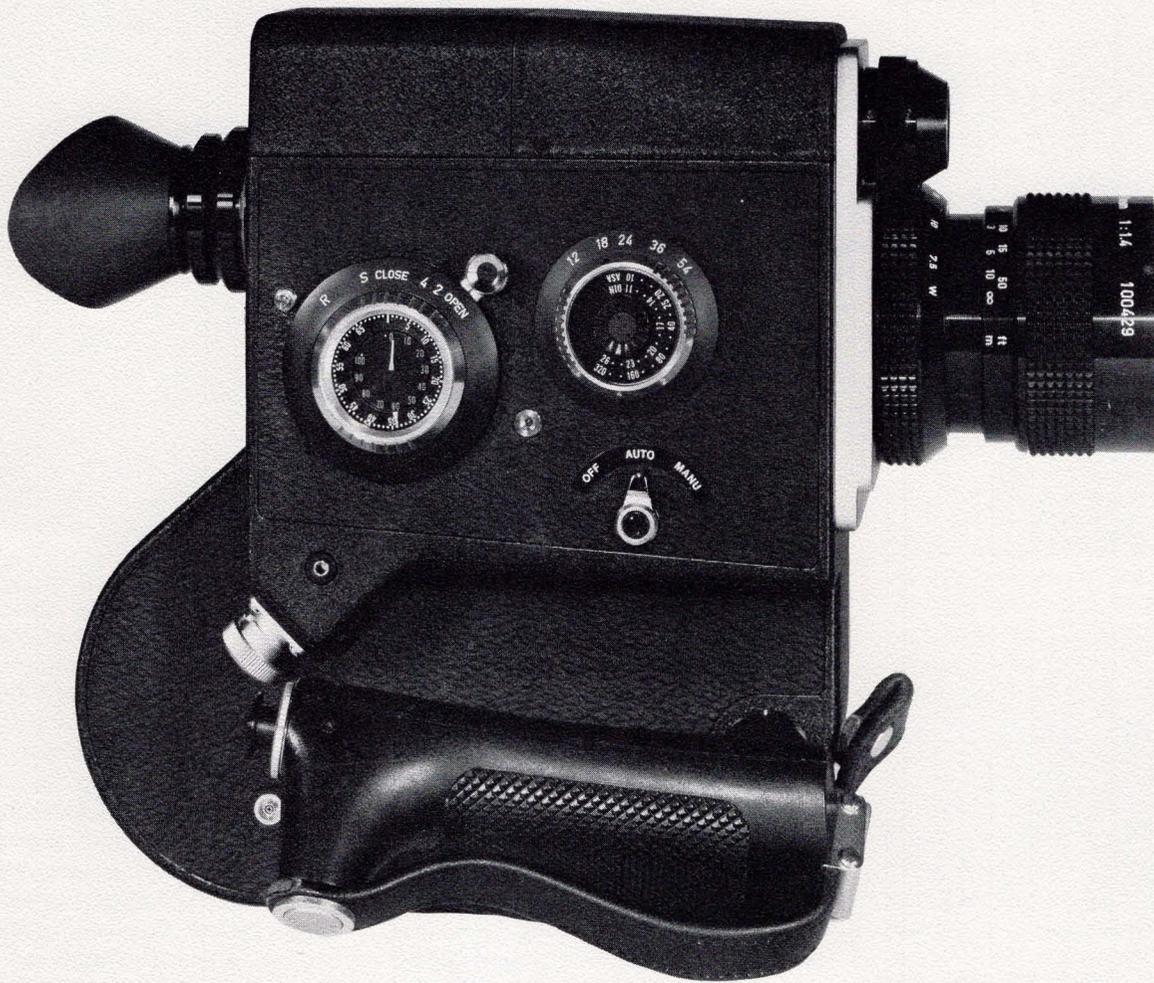
Footage and Frame Counters: The footage counter has graduations at 10-foot intervals. Rotates in forward and reverse directions. Automatically resets when the side cover is opened. The frame counter indicates 72 frames (one foot) with every one rotation. Coupled to footage counter and able to count up to the single frame.

Various Sockets: For single frame, remote control, tape recorder starting, and tripod.

Size: 268 x 227 x 103mm (10-1/2" x 8-7/8" x 4").

Weight: 3,370 grams (7 lb. 6-7/8 oz.).

Accessories: Lens Cap, Filters, Close-Up Lenses, Remote Switch 3, External Battery Box, Battery Magazine, NiCd Battery Charger, Spool.



CANON GUARANTEE

This new Canon product is guaranteed to be free from imperfections in both material and workmanship for one year from date of original purchase. Should any part of this equipment be defective, it will be replaced or repaired free of charge (except for transportation), providing the equipment has been operated according to the instructions accompanying it.

No liability is assumed for film which is damaged or is unsatisfactory for any reason and no liability is assumed for interruptions in operation of this equipment. This guarantee is void:

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- 2) If equipment has been serviced by other than a Bell & Howell/Canon Factory Approved Field Service Station* or one of the Bell & Howell General Service Departments listed below;
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See your franchised Bell & Howell/Canon dealer for complete information, or write to the Bell & Howell Customer Relations Department at the address below.

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