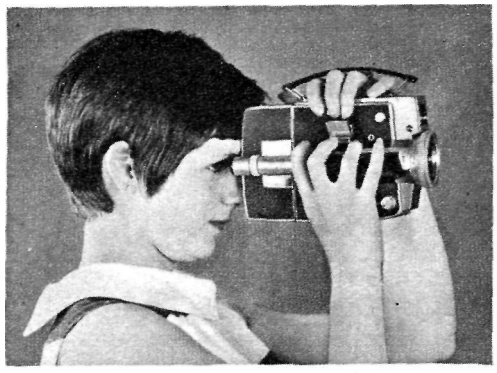
Ilford-Elmo Zoom C-200

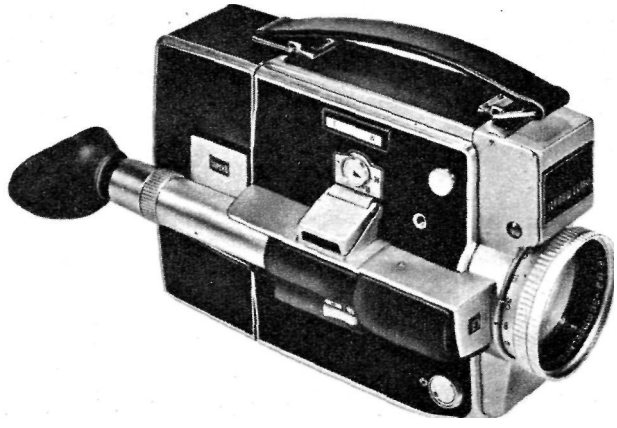
for Super-8 and Single-8

ap CINE TEST

By Norman Dyer



Kathy Carrington of A.P. staff demonstrates the most effective hold on the C-200.



Left: nearside of the C-200, showing the reflex finder tube, the central release (with flap closed), mechanism speed setting switch and (above) the power zoom rocker switch. Bottom front, the automatic/manual iris control, with the battery check rocker switch just underneath the finder tube.

Above: obverse side, with manual zoom setting knob and (beneath) the forward/reverse running switch. Note footage counter on the Super-8 magazine and the top button to release the swing-down back for cartridge interchange.

SINCE Super-8 and Single-8 have the same size picture and perforations, it should be possible to design a camera taking both loadings, and this has been done in the Ilford Elmo C-200, the two totally different cartridges being contained in separate magazines which can be interchanged by clipping into the camera back. The camera body is very soundly constructed in the established Elmo manner; the elegant, durable finish is in satin chrome, with side and top panels covered with simulated leather.

The lens is the 9-36mm f/1.8 Elmo Zoom, focussing by rotation of the front collar (the only portion which protrudes from the front panel) down to 4ft. A metric scale is also engraved and differentially coloured but this is on the other side of the mount—unusual but affording complete separation. As one would expect from this maker, the focussing movement is smooth and firm, without any trace of play; a double segmented portion around the circumference of the mount aids rapid setting, while the inside is threaded to accept the various lens accessories available (dia. 52mm). A push-on metal lenscap is supplied with the camera.

There is reflex through-the-lens viewing, the tube carrying the components of this system being fixed along the nearside of the body. The rear ocular rotates in a helical thread for setting to individual eyesight; it can be locked by a milled ring immediately against it—a most convenient and effective method. The ocular lens, dia. fin, is sufficiently recessed to be usable direct but in any case a rubber eyecup is provided which pushes into the lens mount; we found, however, that it was inclined to get knocked off and in any case was not very convenient for rapid adjustment to the eye socket, and this can create difficulties if a quick shot is wanted. The image is bright (prism viewing, so no flicker) and the rectangle clearly defined. The 45° split field rangefinder focussing circle set in the centre of the rectangle is positive in use at near distances and long focal lengths but less so at shorter ones. However, owing to the considerable depth of field, precise focussing is not then normally so necessary.

The CdS through-the-lens exposure control is fully automatic, the aperture being indicated on a scale just inside the right-hand side of the viewfinder rectangle. The minimum aperture indicated is f/16 and the iris does not totally close. Manual setting to any desired aperture is also possible by turning a small knob bottom front of the nearside from click-stop "automatic" setting and then observing the aperture scale in the viewfinder. The film speed is, of course, set automatically by the cartridge in both Super- and Single-8. The CdS system is powered by a 3.9v mercury cell contained in a compartment just beneath the lens.

The lens is set to the desired focal length by means of a large segmented disc on which the principal focal lengths are engraved, together with the focal plane (film gate) position for distance measurement. Alternatively, power zooming can be carried out by means of a rocker switch; operation of this (total zoom time 5 secs) also rotates the manual knob but this does not matter as it is not likely to be obstructed by any normal hold. The zoom rocker switch is very lightly spring-loaded and thus is liable to be actuated inadvertently, but this particular circuit is disconnected at the limits of rotation and thus would not be set off while the camera was in its case, so no harm can come to the (separate) zoom motor.

The mechanism is driven by a micro-motor powered, like the zoom motor, by four pen-cells held in a plastic container —a feature, also, of earlier Elmo cameras and a valuable one since cell deterioration (which should not occur with careful usage, particularly if leakproof cells are used) cannot possibly harm the camera—only the relatively inexpensive container need be replaced. Running speeds are 18 and 24 f.p.s., set by a little segmented disc and there are also click-stop settings for single frames and lock (off) when the mechanism drive motor is disconnected. If, however, this disc is set to "lock" after the mechanism release has been pressed, continuous running at 18 f.p.s. is obtained.

This mechanism release is quite unusual, consisting of a large plastic push-button on top of the viewfinder tube, with a socket for a standard cable release above it. A spring-loaded flap covers both and thus acts as a safety cover whether the mechanism is switched off or on; when closed it also switches off the CdS system by means of two micro-switches.

As mentioned, the top carries two lugs on to which a short carrying strap is normally attached. A convenient hold can thus be obtained with the left hand over the top, the knuckles tensed against the spring pressure of the strap and the second and third fingers actuating the zoom rocker switch. The camera base is supported between the thumb and first finger of the right hand, with the tips of the first and third fingers on either side of the control switch, the second finger actuating the release. This gives a reasonably steady and effective grip for this rather unusual positioning of the release. A standard British tripod socket is let into the camera base, the area around it being formed of ribbed rubber to afford a firm grip on the tripod pan and tilt head.

The state of either the pen-cells or the mercury battery can be determined by operation of a rocker switch just beneath the reflex viewing tube, the result being indicated by a little meter. There is a socket on the obverse side to take the plug of the remote control unit (available as an accessory) comprising a 13ft length of cable terminating in a switch unit which takes the battery container from the camera; it also has an on-off press button and a rotary lock-on switch to provide continuous running.

The Super-8 magazine quickly and conveniently clips into the open back of the body, which in fact forms the forward part of the cartridge chamber; apart from their function of carrying the appropriate film cartridge, the magazines also provide a completion of the body proper. The film chamber portion of the body carries the front portion of the gate, a neat, well engineered casting with polished chrome runners, of the full 16mm width, for Standard Eight film, a magazine for which is available for the C-300, which additionally takes this loading.

The gate aperture is for Super/Single-8, a single claw entering the frame but one above this. Edge tension is provided by two leaf springs along the centre portion of the track, i.e., on the side remote from the claw (in the C-200, the film only uses the one, 8mm, portion of the gate). There is the usual A-D filter pin in this camera section but no film speed setting pin, the setting being done in the magazine. The filter can be removed by changing a screw from a "keeper" socket to a lower one just above the viewfinder tube; attaching the Elmo Movi-lite will also achieve this.

The Super-8 magazine is in two portions; the body proper into which the cartridge fits and a hinged back which falls down for cartridge loading and forms the rear part of the camera body, having the same finish. The magazine body has a front plate with a centre hole into which the front portion of the gate fits, and also a hole for the A-D filter pin. The film speed is set by a pin on a sliding lever linkage which actuates a wiper arm travelling over a resistance network to give the correct film speed setting according to the cartridge slot. A button on the top of the magazine body makes contact with a spring-loaded ball in the camera body chamber, thus transferring the information about film speed setting to the CdS system in the camera.

The magazine body also contains the usual pin-on-disc arrangement to drive the cartridge take-up core, the drive being through a pinion on the front side of the magazine engaging with a similar one in the body chamber against the gate; there are actually two pinions in the body, one on either side of the gate, since the take-up drive is on opposite sides in Super and Single-8. The footage indicator, also driven from this gear chain, counts up to 50ft. It is not necessary to remove the Super-8 magazine in order to insert or withdraw a cartridge; the back is simply swung down after releasing a catch.

The Single-8 back is precisely the same size with a similar cut-out portion on the front of the magazine, to permit entrance of the front portion of the gate; the rear, sprung portion is of course now part of the magazine and not of the cartridge as with Super-8. It is a neatly formed metal

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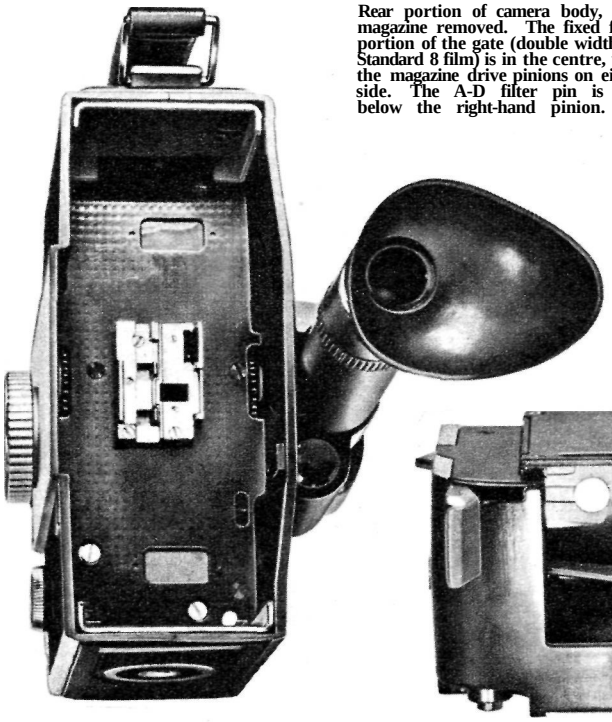
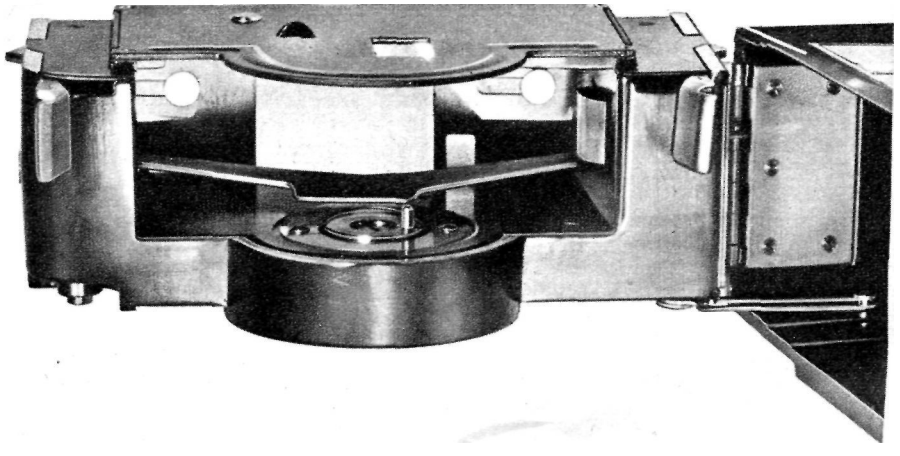


Rear portion of camera body, with magazine removed. The fixed front portion of the gate (double width for Standard 8 film) is in the centre, with the magazine drive pinions on either side. The A-D filter pin is just below the right-hand pinion.

Interior of the Super-8 magazine (on its side), with the cover opened. The disc driving the cartridge take-up core is seen at the bottom—the magazine is held to the camera body by the spring-loaded clips at each end.



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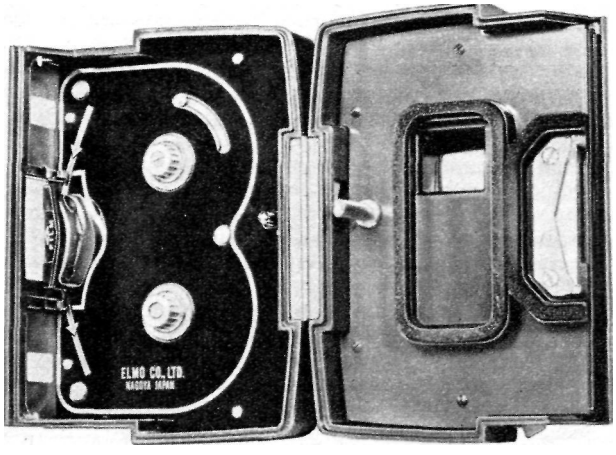
pressing, spring-loaded and held on three pins in a supporting **block.**

This Single-8 magazine comprises two castings of nearly identical size and shape hinged together at the back. The obverse side thus hinges back as a door to the cartridge compartment. The other, body, portion is the cartridge compartment, which is of the usual Single-8 type with geared, driven dogs on both feed and take-up spindles (for forward and reverse running); film speed setting is as in the Fuji cameras, i.e., by a pin being pushed back by a rod in the magazine lid, causing the film speed setting pin (which is also spring-loaded) to move in its arcuate slot in the baseboard until stopped at the end of the cartridge slot.

The speed is set by a wiper blade attached to this pin



Interior of the Single-8 magazine, showing the geared feed and take-up dogs. The layout and operation are similar to those of the Fujica cameras.

moving over a resistance network; as with Super-8, the information is transmitted to the CdS system via a pin on the top of the magazine contacting with a spring-loaded button on the camera body. This Single-8 magazine must, however, be removed from the body for cartridge interchange, and a lever moving in a slot at the back withdraws the locking lugs to enable this to be done.

Single-8 colour film is normally of daylight type, Fuji R25; but since there is no hole in the front of the cartridge, the lever actuating the A-D filter is moved out of the way by the cartridge depressing it; so the camera is all right for Fuji daylight colour film or for monochrome film (also available). For the recently introduced Fuji artificial light colour films, however, a separate correcting filter has to be used in front of the lens since there is no way of re-inserting the built-in filter.

Forward or reverse running is set at will by operation of a milled segment (reverse running is not, of course, possible on Super-8). It can be of any duration required and the footage counter also works either way since it is driven by the mechanism (the counter is on the near side of the magazine in this case). But there is no frame counter, which is usually considered desirable for accurate super-impositions—a curious omission in view of the fact that reverse running is the major advantage of the Single-8 system.

Also, the lens iris is not totally closing, so lap-dissolves cannot always readily be made—though they can be with the aid of the Elmo Fader, a somewhat elaborate and expensive device, which screws into the tripod socket and consists of two polarizing filter glasses one of which is rotated by a lever to give a fade (and thus a dissolve with reverse running). In lacking a frame counter and totally closing iris we feel that the full advantages of the Single-8 system have not been exploited in this camera.

Our Super-8 test film was shot on Kodachrome II Type A. In the tripod-mounted infinity test shots, taken at 24 f.p.s., aperture f/5.6, results were sharp edge-to-edge at all focal length settings, and definition was equally good in the hand-held shots. Exposures on a wide variety of outdoor subjects with front, side and back lighting were consistently accurate (there is automatic compensation for taking speed on both automatic and manual exposure control).

The test film using the Single-8 back was shot on Fujichrome R25 colour film, which is, of course, balanced for daylight. It is returned, after exposure, to Hanimex, Ltd., who send it to the Fuji European processing station in Dusseldorf-Oberkassel and they return it direct to the user on a white plastic reel, in about a week all told. Processing is clean and of a good standard throughout, and again the standard of definition was high; indeed the infinity shots were virtually indistinguishable from the Super-8 ones. We also made some successful lap dissolves, timing by counting seconds. Camera steadiness, in both gauges, was quite impressive. It is interesting to note that there is no noticeable loss of definition due to the thinner, polyester, base of Fuji Single-8 film, thus showing that register over the whole gate area can be maintained by normal pressure-plate systems.

The C-200 is indeed an intriguing, versatile and very well made camera; one advantage of the dual magazine facility is that immediate interchange between colour Super-8 (the only stocks currently available in this gauge) and monochrome Single-8 can be made without any difficulty whatever. The C-300, which additionally takes a Standard-8 magazine using the normal double-run 25ft rolls (the changeover being by inversion of the magazine), costs £129 10s with one back. The camera body is practically identical to that of the C-200 but has interlocks and contacts because of the double-run magazine (reverse running is also possible on Standard-8). The full gate area is, of course, employed for the 16mm film used in Standard-8, some slight modifications to the gate being made. In the autumn, a Double Super-8 back will be available for the C-300 taking 100ft spools.

Other accessories available include a smart, soft black grained leather carrying case, with adjustable plastic shoulder strap. The inside is partially lined gold plush; there are two compartments, one for the camera, the other for a second magazine, spare cartridges, etc., each having a zip fastener. Other accessories are a screw-on lenshood, two close-up lenses, also with the same screw fitting, which can be used together and with the lenshood, and three filters—a u v, a 4x neutral density and an A-D conversion—again with screw fitting.

SPECIFICATION

FILM SIZE: Super or Single-8 cartridges, fay interchangeable magazine backs.
SPEEDS: 18 and 24 f.p.s. and single frame.
MECHANISM CONTROL: Off (lock), normal running, continuous running (at 18 f.p.s. only), cable release, remote control by special unit. Reverse running (Single-8 only).
VIEWFINDER: Reflex through-the-lens viewing, with centre split-image rangefinder circle. Rear ocular adjustable for individual eyesight, with lock.
DIMENSIONS: 6½X9¼X4¾ins. Weight 41b. (both with magazine).
OTHER FEATURES: Fully automatic through-the-lens CdS exposure control (ASA 16-100 Super-8, 16-400 Single-8), set automatically by the cartridge, with manual setting also possible. Aperture continuously displayed in viewfinder with under- and over- exposure segments.
DRIVE: Electric motor powered by four pen-cells in special container. Separate zoom motor.
PRICE: With 9-36mm f/1.8 Elmo Zoom lens, focussing, either back, lens cap and shoulder strap, £101 8s.
ACCESSORIES: Filters, £3 3s 11d ea.; close-up lenses, £3 11s ea.; lenshood, £1 3s 10d; Fader, £17 0s I0d; remote control, £1 9s 11d; soft case, £6 12s 6d; spare backs, (either gauge), £16 17s 9d.