

GSMO

The "state-of-the-art" 16mm camera system.

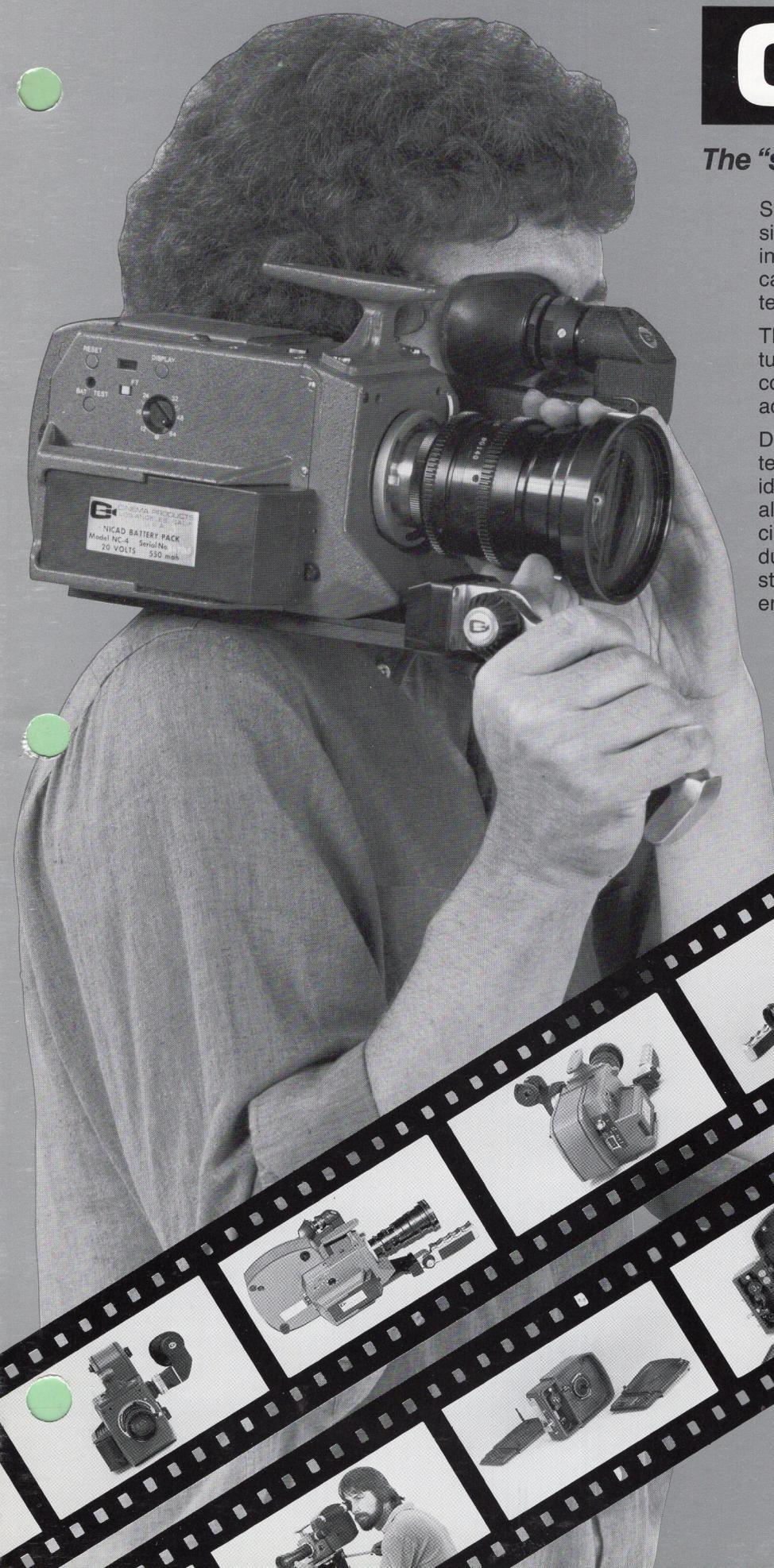
Silent. Lightweight. Compact. The GSMO professional 16mm reflex motion picture camera system incorporates the most advanced and sophisticated design features available through modern technology.

The GSMO is a top-quality camera system featuring a 180° shutter, quick change cassette-type coaxial magazines and a full range of options and accessories for utmost versatility.

Designed for ease of operation and simple maintenance, the rugged and dependable GSMO is the ideal double system sound production camera for all 16mm cinematography applications: commercials, features, documentaries; educational, industrial, and military training films. The GSMO is sturdy enough for student filmmaking and steady enough for 35mm blow up.

GSMO is the only professional 16mm production camera in the world offering a choice of 100 ft. (30m) and 400 ft. (120m) coaxial magazines.

A complete GSMO camera outfit with NC-4 battery pack, GSMO Dual Purpose viewfinder, 30m (100') magazine fully loaded with film, Handgrip, and "Ultra T" 6mm T1.6 High Speed lens — weighs only 5.2kg (11 lbs. 6 oz.)!

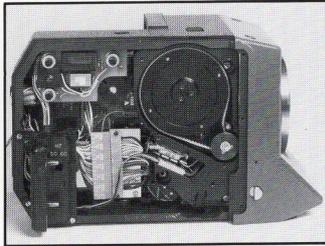


Description & Specifications

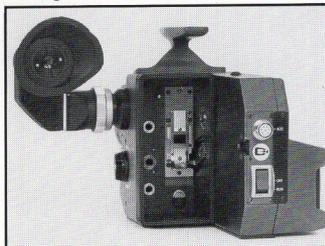
GSMO

Camera Drive System: The GSMO camera drive system is of unique construction, embodying the most recent advances in electronics and mechanical technology. A miniaturized, highly-efficient crystal-controlled motor and gear train are embedded in a solid aluminum block to achieve maximum noise attenuation.

All the electronics are located on an extremely compact circuit board using CMOS logic and hybrid electronic circuits for maximum component density. In addition to crystal-controlled step-variable speeds of 12 to 64 fps, the circuit board also provides *auto slating* and *pilotone* outputs, as well as an electronic digital footage counter.



Film Transport System: The movement consists of a high-precision, single-claw sinusoidal registration movement, with a curved film gate for minimum pull-down time. The interchangeable film gate assembly with its floating pressure plate and hard-chrome-edge film guides is located in the cassette-type coaxial magazine, which also features automatic loop-forming devices for easy loading.



- Frame line accuracy: $\pm .05\text{mm}$ (.002")
- Picture steadiness: $\pm .0076\text{mm}$ (.0003")

Magazines: Built with durable lightweight high impact carbon fiber material, the specially designed quick-change cassette-type coaxial magazines are designed to withstand rugged use.

An automatic loop forming device insures quick easy loading. The film path is totally visible and accessible for ease of inspection and cleaning. Available in 30m (100 ft.) and 120m (400 ft.) capacities, both size magazines feature identical removable, and interchangeable, film gate assemblies to facilitate servicing and allow for the possibility of quick change from one size magazine to the other. Each film gate assembly includes an easily removable pressure plate to expedite cleaning.



The 120m (400 ft.) magazine features a "film remaining" manual indicator which reads: E -1/4 -1/2 -3/4 -F.

Digital Footage Counter: Reads in feet (full feet) or meters (full meters and tenths of meters) as desired.

Auto Slating & Pilotone: Automatic slating system provides full frame fogging coincident with the pilotone pulse (50 or 60 Hz) available on the rear connector for remote connection to a sound recorder.



Sync-sound Speed:

Crystal-controlled 24 fps or 25 fps.

Camera Speed Range: Crystal-controlled step variable standard speeds of 12, 16, 24, 25, 32, 48 and 64 fps. *Optional* alternate speeds of 12, 20, 24, 25, 30 (for direct frame-to-frame transfer to video tape), 48 and 64 fps.

Speed Accuracy: $\pm 30\text{ppm}$ over a temperature range of -18° to 60°C

(0-140°F) for all crystal-controlled step-variable speeds from 12 to 64 fps.

Sound Level: 28 dB max. measured at 1m (3.3 ft.) from film plane on the weighted "A" scale.

Film Size: 16mm single or double perforated, "B" wind, core load or daylight load.

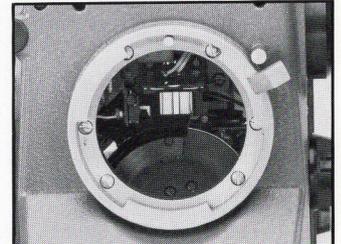
Film Capacity: Quick-change, cassette-type coaxial magazines designed to accept:

- 30m (100 ft.) — daylight load
- 120m (400 ft.) — core load or daylight load

Rotating Mirror Shutter with

"Electronic Inching": Single-blade, full-speed mirror shutter set at a 45° angle. Automatically stops in viewing position or can be electronically commanded to stop in the open position with the aperture visible for inspection.

Shutter stopped in aperture visible position for inspection.



Shutter Opening: 180°

Shutter Speed: 1/48th second

@ 24 fps (1/50th second @ 25 fps)

Aperture Opening: 7.46mm x 10.41mm (0.294" x 0.410")

GSMO Dual Purpose Viewfinder: Bright 12X magnification finder with 32 adjustable viewing positions, sets the eyepiece approximately 1" forward of the film plane for comfortable on-the-shoulder balance. A unique design allows this versatile finder to accommodate varying eye to shoulder heights for handheld use. Fully extended rearward, the GSMO Dual Purpose Viewfinder sets the eyepiece approximately 6" behind the film plane for convenient tripod operation.

Warning Indicators in Viewfinder: When illuminated, "S" indicates camera speed is not at pre-selected speed level, or "out of sync." "B" indicates low battery.

Lens Mount: CP bayonet mount, with a positive locking ring. Accepts reflex type lenses that fit on any of the existing Arriflex, Eclair and Nik cameras (with proper CP mount adapter).

Dimensions: GSMO camera with 30m (100 ft.) magazine: 13cm wide x 11.8cm high x 19.3cm long (5.1" x 4.6" x 7.6").

GSMO camera with 120m (400 ft.) magazine: 13cm wide x 18.3cm high x 30.8cm long (5.1" x 7.2" x 12.1").

Weights: GSMO camera head only, with GSMO Dual Purpose Viewfinder and NC-4 battery pack, less lens: 2.8kg (6 lbs. 4 oz.)

Magazine weights:

- 30m (100 ft.) magazine: 0.7kg (1 lb. 9 oz.)
- 120m (400 ft.) magazine: 1.6kg (3 lbs. 10 oz.)

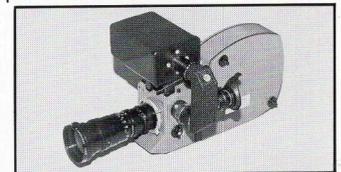
Semi-automatic Exposure Control System: Optional system features through-the-lens metering which employs an elliptical weighting system giving emphasis to the horizontal center portion of the frame. Seven dependable LED exposure indicators appear in the viewfinder.

Power Supply: The GSMO is powered by the standard CP NC-4 nicad plug-in battery pack, which can drive 450-500 meters (up to 1600') of film through the camera on one charge.

Tripod Sockets: 1/4"-20 and 3/8"-16 tripod mount sockets.

Other Options and Accessories:

J-5 Power Zoom Control; Cinevid Video Assist; Steadicam Camera Stabilizing System; CP Camera-prompter; adjustable handgrips, cases, etc. Adaptable to optical or magnetic time code.



GSMO shown with Cinevid-16 Video Assist Camera.

Cinema E products CORPORATION

Technology In The Service Of Creativity

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