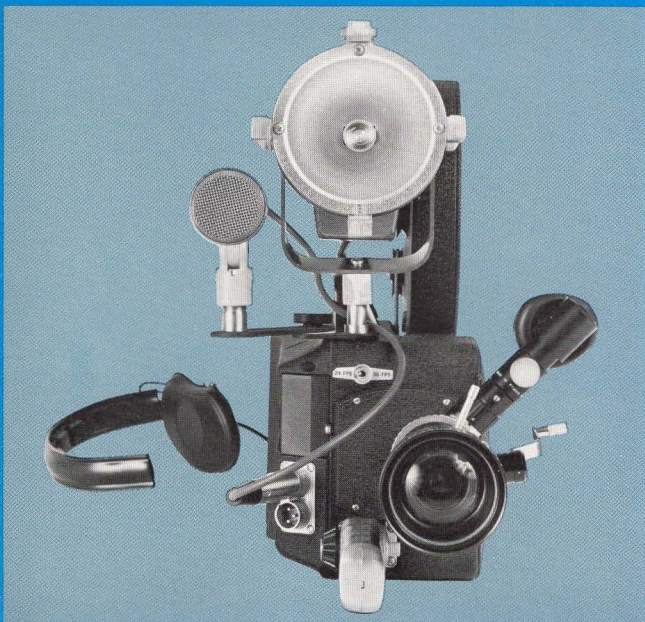
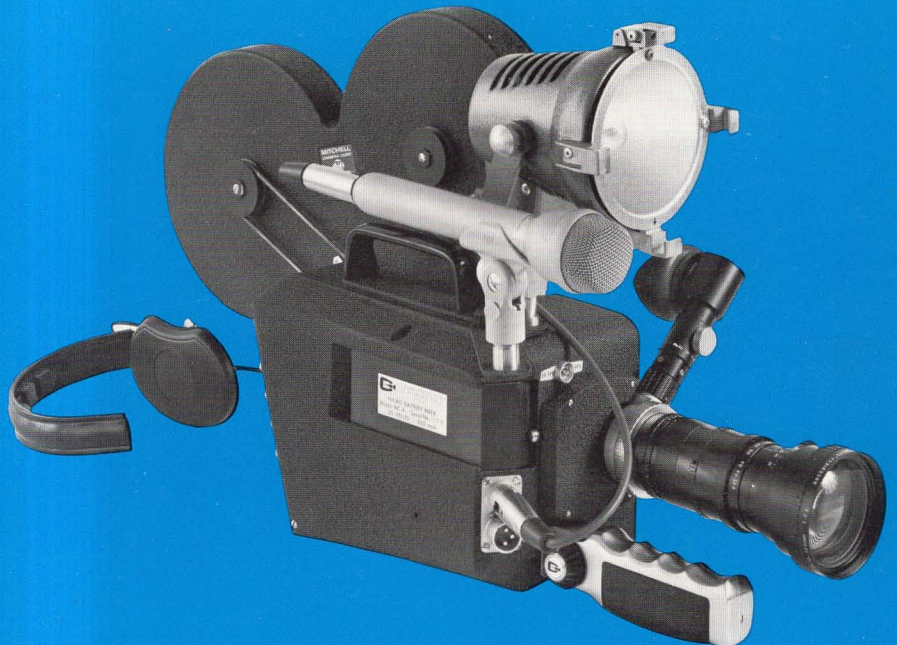


CP-16 and CP-16/A



NEWS/DOCUMENTARY 16mm Camera Systems



Extremely lightweight, yet ruggedly built and reliable in operation, the new CP-16 and CP-16/A ultra silent camera systems were specifically designed and engineered to meet the needs of the TV-newsfilm cameraman and documentary filmmaker. The CP-16 and CP-16/A crystal-controlled single/double sound cameras are specially balanced for on-the-shoulder shooting, eliminating the need for backbreaking body braces and cumbersome tripods, while permitting the utmost freedom of movement.

The CP-16/A camera incorporates the Crystasound recording system (with built-in amplifier) which makes it ideal for those cameramen who have to "go it alone," with the responsibility of capturing both picture and sound.

CP-16 and CP-16/A cameras embody in their construction the most advanced design principles known to modern technology—making them the most sophisticated 16mm camera systems presently available.

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CORPORATION

Technology In The Service Of Creativity



CP-16, complete with 400-ft. magazine and 12-120mm zoom lens.



CP-16/A, complete with 400-ft. magazine and 12-120mm zoom lens.

CP-16 and CP-16/A



NEWS/DOCUMENTARY 16mm Camera Systems

CAMERA WEIGHT:

CP-16 Camera Body Only: 9 lbs. (4 kg)

CP-16 Camera Body, with plug-in Nicad battery pack: 10 lbs. (4.5 kg)

CP-16 Camera fully equipped with: plug-in Nicad battery pack, 400-ft. magazine loaded with 400 feet of film, 12-120mm Angenieux zoom lens (w/short reflex finder): 15 lbs. 13 oz. (7.2 kg)

CP-16/A Camera Body Only (with Crystasound record/playback head and built-in amplifier): 10 lbs. (4.5 kg)

CP-16/A Camera Body (as above), with Nicad battery pack: 11 lbs. (5 kg)

CP-16/A Camera (with Crystasound record/playback head and built-in amplifier) fully equipped with: plug-in Nicad battery pack, 400-ft. magazine loaded with 400 feet of film, 12-120mm Angenieux zoom lens (w/short reflex finder): 16 lbs. 13 oz. (7.6 kg)

CAMERA WEIGHTS & DIMENSIONS



CP-16 (Body Only)

CAMERA DIMENSIONS:

CP-16 (Body Only): 9" long x 6" high x 5½" wide (23cm x 15cm x 14cm)

CP-16/A (Body Only): 9" long x 6" high x 6" wide (23cm x 15cm x 15cm)

SPECIFICATIONS

FILM SIZE: 16mm single or double perforated, daylight loading or lab pack; "B" wind.

FILM CAPACITY: 400-ft. or 1200-ft. standard Mitchell-type magazines (120 or 360 meters). Threaded studs are provided for the magazines so that they can be instantly snapped on and off the camera, which is equipped with a unique quick release snap-latch mechanism.

SHUTTER: 173 degree rotary disc fixed shutter is supplied as standard equipment. Precise 180 or 144 degree shutters can also be provided for kinescope recording. Shutter speed: 1/50 second.

CAMERA SPEED: Camera may be ordered in the following speed configurations:

a) 24 or 25 fps.

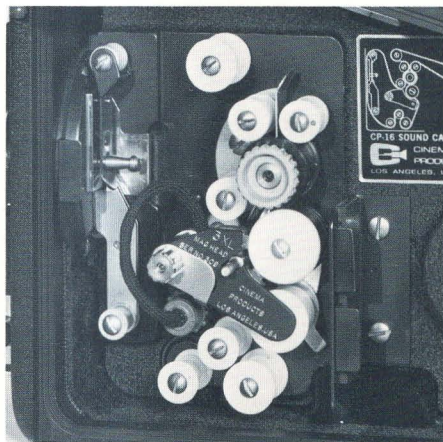
b) 24 and 25 fps (with interchangeable pulley stored inside the camera body).

c) either of the above, with a selector switch (located on the front of the camera) to provide an additional speed of 36 fps and/or 37.5 fps.

FILTER SLOT: Located behind the lens. The filter slot accepts 1.180" x .740" gel filter holders. Two filter holders are supplied with each CP-16 or CP-16/A camera.

HANDGRIP: Adjustable (and removable) front handgrip permits positioning through an arc of 90 degrees for maximum convenience in hand-held operation. A power switch is built into the handgrip.

POWER SWITCHES: Two separate camera on-off switching systems are provided with each camera: One located in the rear of the camera and one incorporated into the handgrip—with each switching system able to operate the camera independently of the other.



CAMERA MOVEMENT: Sinusoidal, intermittent movement, utilizing self-engaging single-claw film pull-down of hardened and tempered tool steel, with precision lapped surfaces for quiet, long-life reliability. Film is accurately guided over a series of stainless steel balls to guarantee in-focus, and scratch-free pictures (with no emulsion pickup). Stainless steel pressure plate, ground and lapped with recessed center area, is easily removable for cleaning.

CAMERA NOISE LEVEL: 31 dB at 3 feet.

FOCUSING: The CP-16 and CP-16/A were designed for specific use with Angenieux zoom lenses with built-in reflex viewfinders. Viewfinders are available in various lengths for on-the-shoulder or tripod operation, and provide ground spot focusing in the center with a clear viewing area around it. TV reticle markings define the safe action area.

CRYSTAL-CONTROLLED MOTOR DRIVE:

CP-16 and CP-16/A cameras are driven by a built-in, highly efficient, small DC motor whose speed is precisely regulated by a crystal-controlled circuit. The crystal oscillator is temperature compensated to provide frame rate accuracy of ± 15 parts per million over a temperature range of 0 to 140 degrees F. And an accuracy of ± 8 ppm at 70 degrees F. This crystal-controlled DC servo drive motor system meets the critical tolerances required by cordless double system recording.

The compact motor has sufficiently high torque to operate either 400-ft. or 1200-ft. magazines with no difficulty, even at low temperatures.

LENSES: The heavy duty single lens front plate accepts standard "C" mount lenses. Angenieux zoom lenses (available with built-in short or long reflex viewfinders) are equipped with modified "C" cup adaptors. A triple slotted block is attached to the rear of the "C" adaptor so as to engage the locating pin mounted on the front of the camera. This permits positive positioning of the viewfinder in one of three positions: horizontal, a 22½ degree angle and a 45 degree angle. The short viewfinder is ideally suited for on-the-shoulder filming.

"OUT-OF-SYNC" WARNING: If, for any reason, the CP-16 or CP-16/A camera does not maintain its pre-set running speed, the easily visible red-colored "out-of-sync" warning lamp immediately lights up.

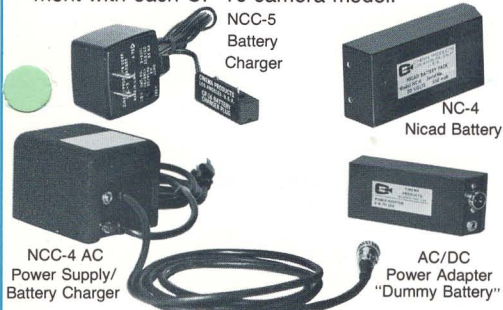
TRIPOD SOCKETS: Cameras accept both ⅜"-16 and ¼"-20 screws.

POWER SUPPLY



BATTERY: The NC-4 Nicad Battery Pack will drive from 3200 to 4000 feet of film on a single charge. It can be fully recharged in 14 hours. The battery rating is 20 Volt, 550 mah. The NC-4 battery pack automatically makes electrical connection to the camera upon insertion into the battery channel located in the camera side cover. The battery pack is easily and almost instantly clicked into or out of its position in the camera. A single NC-4 battery pack supplies all the required power for camera operation, as well as powering the Crystasound recording system. Extremely compact, a fully charged spare NC-4 will easily fit into a shirt pocket. The NC-4 casing is made from rugged, high-impact glass-filled Lexan®. Weight: 16 ounces (454 grams) Dimensions: 5" long x 1 1/4" high and 2 1/2" wide. (12.5 cm x 3.2 cm x 5.5 cm)

BATTERY CHARGER: For charging individual NC-4 Battery Packs. The NCC-5 Charger operates, with switch selection, from 115 to 230 VAC, 60 or 50 Hz., single-phase supply. **NOTE:** Two NC-4 Nicad Battery Packs and two NCC-5 Battery Chargers are supplied as standard equipment with each CP-16 camera model.

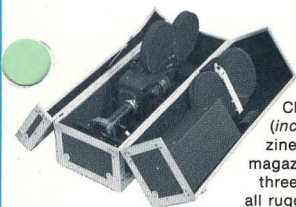


AC POWER SUPPLY/BATTERY CHARGER: The NCC-4 AC Power Supply/Battery Charger will run the CP-16 and CP-16/A cameras directly from standard AC mains. (For use with AC/DC Power Adapter "Dummy Battery".)



PLC-4 MAGAZINE: The 400 ft. PLC-4 magazine is made of extremely lightweight, glass-filled Lexan®, a material with greater impact strength than magnesium.

LOCATION CARRYING CASES



Location carrying cases for fully equipped CP-16 and CP-16/A cameras (including three 400-ft. magazines) are available, as well as magazine cases accommodating three extra 400-ft. magazines—all ruggedly constructed of fiber-covered plywood and metal reinforced. (Soft location case also available.)

SOUND RECORDING SYSTEMS



CP-16 (with Auxiliary Side Cover)



Auxiliary Side Cover (with 8-pin connector)



CP-16/A (with Crystasound Amplifier)

CORDLESS DOUBLE SYSTEM SOUND

CP-16 and CP-16/A camera speeds are precisely controlled by critically accurate oscillators. Consequently, they are *automatically* in cordless sync with professional-type tape recorders which use crystal oscillators of a similar high degree of accuracy for sync sound control.

SINGLE SYSTEM SOUND: CP-16 CAMERA

The CP-16 camera is compatible in operation with standard Auricon-type amplifiers. It has been designed to accept the Crystasound 3XL magnetic head as well as standard Auricon-type magnetic heads.

SINGLE SYSTEM SOUND: CP-16/A CAMERA



The CP-16/A camera is supplied with the Crystasound *built-in* amplifier. In addition to the built-in amplifier, also available are the Crystasound magnetic head and the Crystasound auxiliary mixer.

Crystasound 3XL Magnetic Head:

Crystasound 3XL magnetic heads feature a unique record/playback head encapsulated in the same module to guarantee positive azimuth alignment for the entire life of the head. The CP-16/A camera also accepts standard Auricon-type magnetic heads.



Crystasound Built-in Amplifier:



The built-in Crystasound amplifier system draws its power from the same Nicad battery pack that powers the camera. The built-in amplifier features:

- 1 Two low impedance, dynamic microphone inputs and one 600 ohm line input, all with independent volume control.
- 2 Switchable, variable compression, AGC.

3 VU meter.

- 4 Headphone monitoring channel that automatically switches from live mike to playback when camera is turned on.
- 5 Automatic bias level (no adjustment requirement).
- 6 Preview switch (disables bias, so previously recorded material can be checked without erasure).
- 7 Minimum distortion in playback channel due to close coupling to preamp and through shielding.
- 8 Draws only 30 Ma from the camera battery.
- 9 Provision for a line feed to a tape recorder (through a pig-tail connector attaching to the auxiliary mixer connector on the built-in amplifier). This feature is useful in those instances where the cameraman is recording simultaneously for TV and radio.
- 10 The Crystasound built-in amplifier can be easily removed from the CP-16/A camera body through two disconnects. An accessory replacement camera cover (wired with two disconnects identical to those used on the Crystasound built-in amplifier) is available, fitted with an 8-pin connector to provide compatibility with existing Auricon-type amplifiers.
- 11 Auxiliary mixer input.



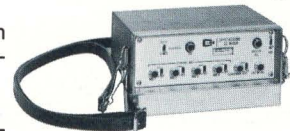
Crystasound 6C Auxiliary Mixer:

Available as an option is a Crystasound auxiliary mixer which features four low impedance dynamic microphone inputs, one condenser mike input, switchable for use with either Sennheiser 804 or 805 series condenser microphones (powered directly from the auxiliary mixer)* and one 600 ohm line input. The auxiliary mixer also features individual and master volume controls, VU meter, as well as switchable AGC. The 6C auxiliary mixer is powered from the same Nicad battery pack that powers the camera. *as well as similar type condenser microphones

Weight: 3 lbs. 1 oz. (1.4 kg)

Dimensions:

6 1/2" long x
2 1/2" high x 6" wide
(16.5cm x 6.4cm
x 15.2cm)

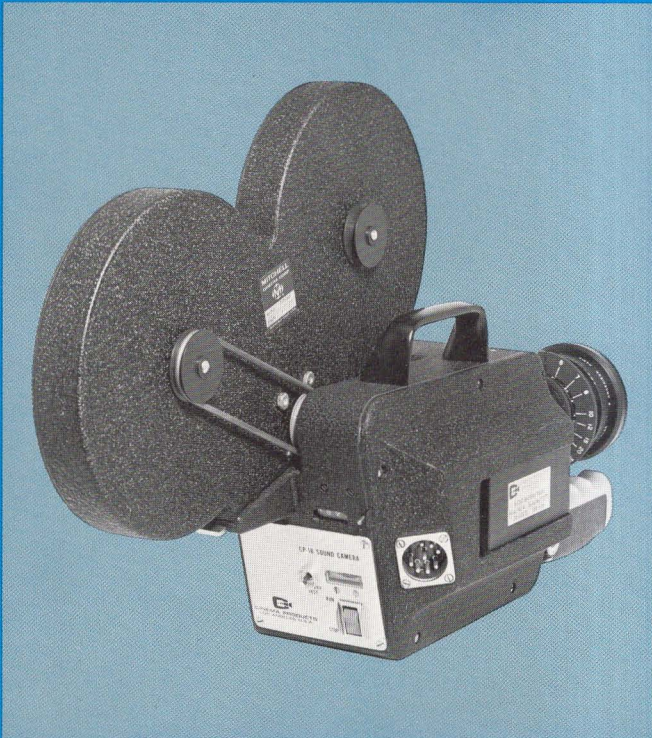
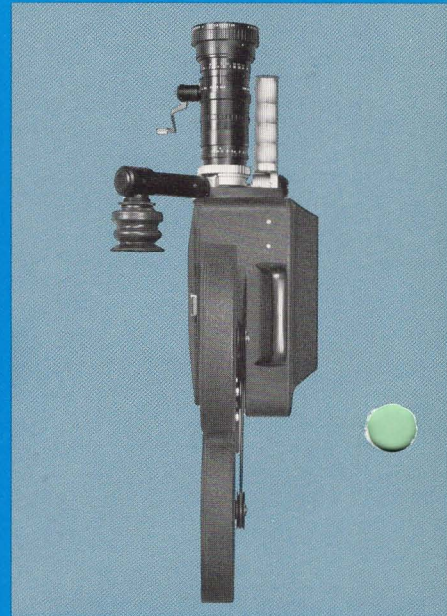


Note: CP-16 cameras can be factory-modified to accept the Crystasound recording system, with built-in amplifier.

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