

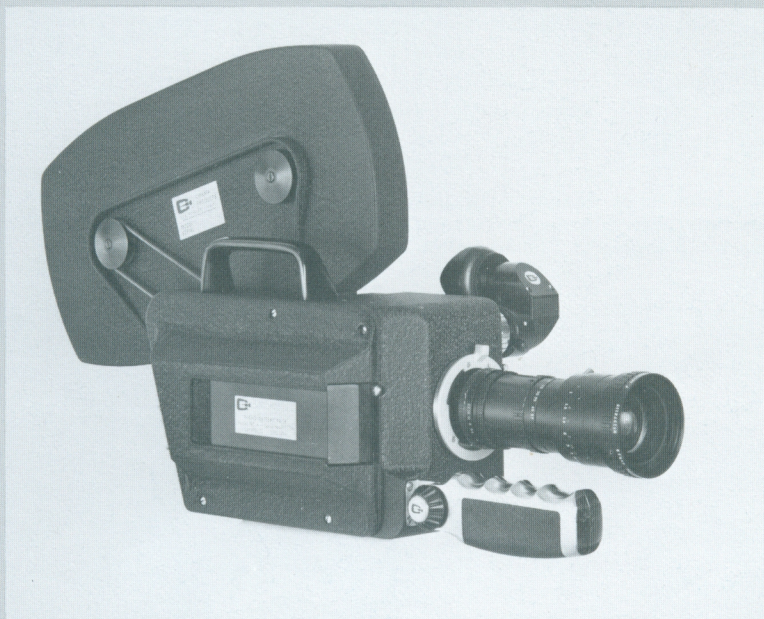
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THE NEW CP-16R AND CP-16R/A REFLEX TV-NEWSFILM DOCUMENTARY CAMERA SYSTEM



THE NEW CP-16R AND CP-16R/A REFLEX TV-NEWSFILM CAMERA SYSTEM, PLUS UNIQUE PLC-4 MAGAZINE MAKE JOINT DEBUT

Already proven highly successful, this favorite of the newsreel cameramen adds the reflex capability and an unusual new magazine

Making its debut at the Equipment Exhibit of the 114th SMPTE Conference in New York was Cinema Products' new CP-16R and CP-16R/A Reflex Camera System. These reflexed versions of the popular CP-16 and CP-16/A TV-newsfilm/documentary cameras had been eagerly awaited and received considerable favorable attention from the crowds attending the Exhibit.

As if that weren't enough, Cinema Products also unveiled its new 400-foot magazine, designed to fit not only its own CP-16 line of cameras, but all other 16mm cameras that presently utilize the Mitchell-type magazine.

The new PLC-4 magazine is made of high-impact glass-filled Lexan. This is an extremely rugged material used in the manufacture of hard hats and football helmets. The magazine is a compartment type to permit use of either 200 or 400-foot darkroom core or daylight load spools. It utilizes hinged doors which provide quick access for loading and unloading. The doors have a triple-step light trap to insure against light leaks. There are two thumb-activated latches on each door to guarantee positive safe closure. When a latch is not fully secured a bright luminescent orange band is visible to alert the operator.

Two major advantages are obtained by the use of glass-filled Lexan, as opposed to magnesium, which has been the most popular material for this type magazine up until now. For one thing an additional weight saving of 1/2

pound is achieved but, more importantly, the problem of film spotting, caused by particles of magnesium adhering to the emulsion and then reacting in the developing bath, is completely eliminated. The toe of the magazine is a removable aluminum insert. This makes repair and replacement of the toe a simple matter as compared with the problem when the toe of a magnesium magazine breaks.

The magazine is compatible either with conventional screw-down fastening methods or with the unique Cinema Products snap latch stud technique.

In response to a request for more comprehensive data on the new CP-16R and CP-16R/A Reflex camera system, as well as the unique PLC-4 magazine, Ed DiGiulio provided the following additional information:

WHY THE CP-16R AND CP-16R/A CAMERA SYSTEM AND PLC-4 MAGAZINE WERE DEVELOPED

By Edmund DiGiulio
President, Cinema Products Corporation

Our CP-16 has been received with such critical acclaim by the TV news-gathering organizations that it has now become recognized as the preferred camera for TV newsmen. This fact has been established by a survey recently conducted by the Radio and Television News Directors Association.*

The CP-16, of course, is not a reflex

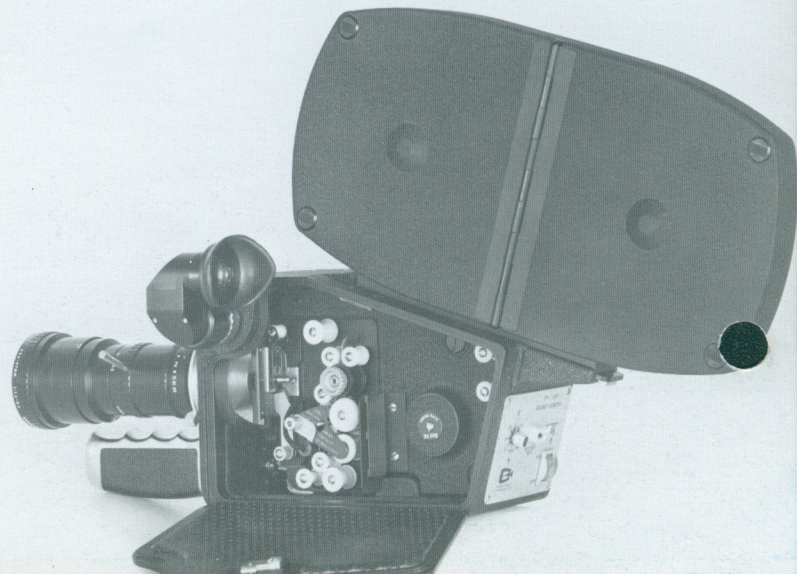
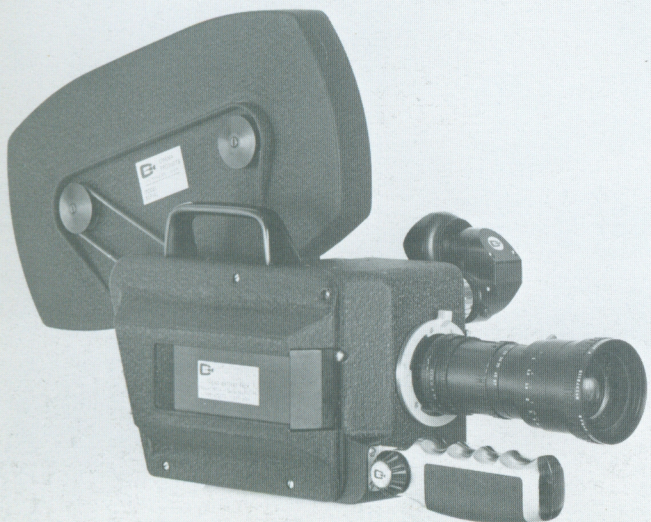
camera and relies exclusively on Angenieux Zoom lenses that are equipped with a reflex viewfinder. While this may be adequate for most TV news applications, it does represent a severe limitation in many instances. Even in hard news coverage, there are many occasions when an extremely long telephoto lens could be used to tremendous advantage. For example: looking over the Berlin wall. In close, low-lit quarters, a wide-angle fast lens would be of tremendous value.

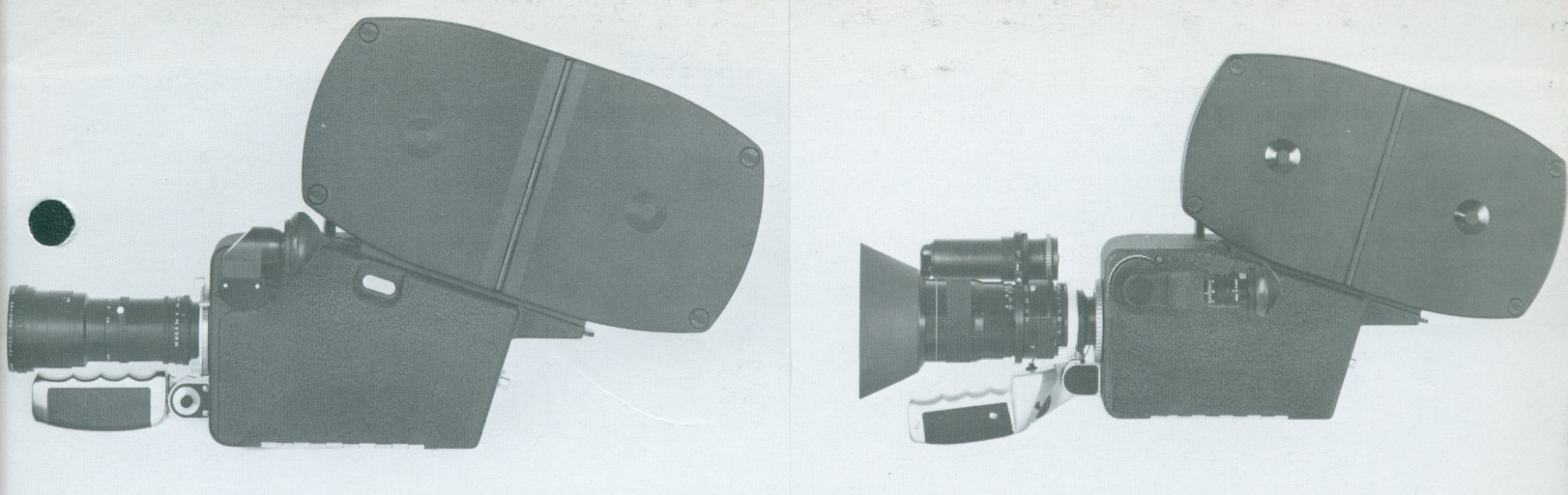
We designed the new CP-16R lens mount so that it would be compatible with all Arri-mounted lenses using a special adapter. For the standard CP mount for the CP-16R camera, we made a radical departure from what other 16mm cameras employ. We have designed what amounts to a miniature BNCR-type mount. This provides for a positive locking ring against the lens flange, so that there is no possibility of

**QUOTE FROM THE RTNDA COMMUNICATOR #10, OCTOBER 1973:*

"As newsfilm operations move toward increased use of natural SOF, they appear to be moving toward the CP-16A as their preferred camera. It has a built-in amplifier and one-pound battery as part of a single shoulder-balanced unit. The sound cameras now used most by RTNDA news operations are Auricons, often with conversions such as those by Frezzolini and General. Auricons are listed as most used at 64% of the stations, compared to 22% for the CP-16 and CP-16/A. But when asked their preferred camera, 58% of the respondents list the CP-16 or CP-16/A, compared to 29% for Auricons and their conversions."

(LEFT) The new CP-16R camera, shown equipped with Angenieux 9.5mm-57mm zoom lens (with miniaturized BNCR-type lens mount), plus Cinema Products-designed standard reflex viewfinder and unique PLC-4 400-foot magazine. (RIGHT) CP-16R camera, shown with door open. This camera door utilizes a triple-step light trap, instead of a rubber gasket.





(LEFT) Side view of the CP-16R camera, showing CP-16R standard viewfinder. (RIGHT) CP-16R/A reflex camera, shown with Angenieux "orientable" viewfinder, J-5 Zoom Control, Canon Macrozoom 12-120mm lens, plus the new Cinema Products PLC-4 lightweight glass-filled Lexan 400-foot magazine.

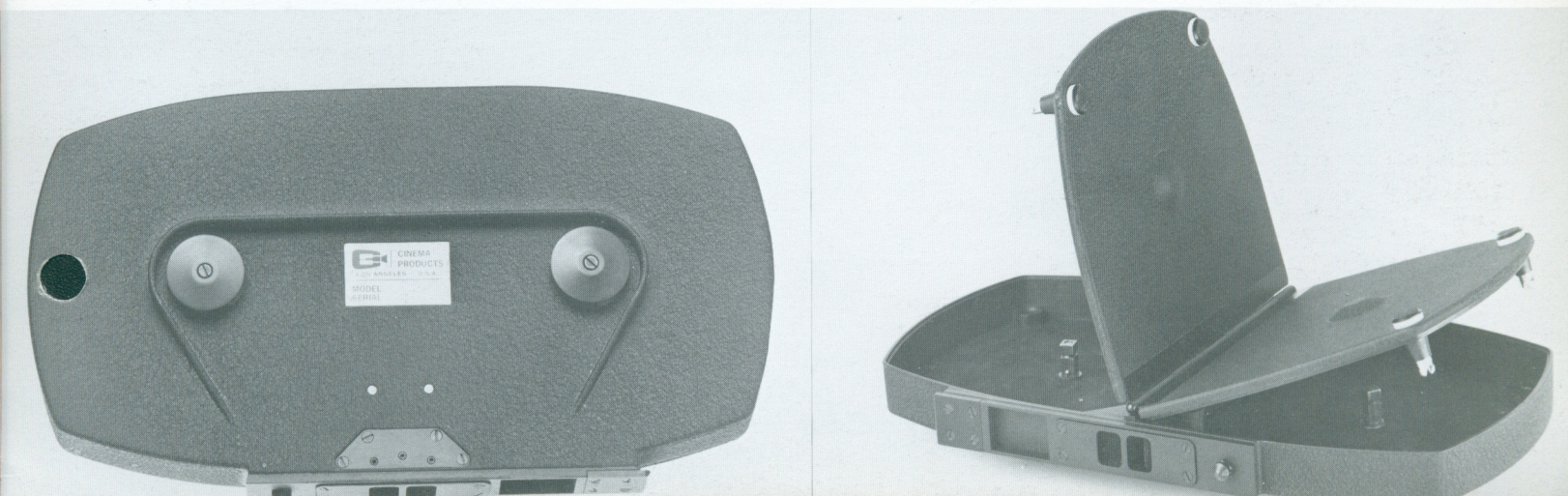
lens movement. Moreover, the lens is not torqued in any way when being installed in the camera, because the locking action is generated by the ring and not the lens. For this reason, we chose to make the Arri adapter a part that is set-screw-attached to the individual lens, rather than an adapter put onto the camera lens board. In this manner, we provide all the advantages of the CP mounting arrangement.

The rotating mirror shutter is driven by a small gear cluster in a sealed gear box. We utilized a design technique that proved extremely successful for us in the design of the XR35 Studio camera. As a result, the camera is extremely silent, even when the lens is removed. The mirror shutter rotates from below the aperture, projecting a reflex viewing image to a ground glass which is set above the aperture and at right angles to it. The ground glass is, of course, interchangeable. The viewing area is extremely large, easily encompassing the Super-16 format.



(LEFT) Rear view of the CP-16R/A reflex camera, showing sync and variable speed controls. (RIGHT) Cinema Products molded fiberglass shoulder pad, with built-in 17-degree slope to accommodate the normal shoulder slope (adjustable front-to-back, as well as side-to-side).

(LEFT) Cinema Products unique new PLC-4 glass-filled Lexan magazine is 1/2-pound lighter than magnesium magazine and eliminates problem caused by particles of magnesium adhering to the emulsion and then reacting in the developing bath. (RIGHT) PLC-4 magazine with door open. Toe of the magazine is a moveable aluminum insert, making repair or replacement simple. Magazine fits all cameras that take standard Mitchell-type magazines.



The standard eyepiece for the CP-16R has a large, bright viewing system and a very convenient dioptic adjustment. A rotating collar moves in a helical slot to provide this adjustment in a precise, smooth manner. When properly set, the adjustment can be locked off with a thumb screw.

The attachment of the standard eyepiece to the camera is through a locking arrangement which is identical to that used by the Angenieux orientable viewfinder. Accordingly, the Angenieux orientable viewfinder may be used with the camera as an optional accessory.

We were unhappy with this Angenieux viewfinder, however, because it caused the eye of the operator to be approximately four inches behind the film plane. We have designed an erect image viewfinder of our own in which the legs of the viewfinder fold in a forward direction, so as to have the eye of the operator remain approximately one inch behind the film plane, as is the case with the standard CP-16R finder. Our finder provides erect image viewing with left and right eye accommodation and 360-degree rotation about the horizontal axis normal to the prime lens optical axis.

We will also provide, with the standard CP-16R finder, an extender tube for left-eye viewing in those cases where this is required.

We have also changed our approach to the AC operation, utilizing two small chargers in lieu of the battery elimina-

tor. And we now encourage full reliance on our NC-4 Nicad batteries (since each NC-4 can drive over 4000 feet of 16mm film on a single charge).

A small molded-fiberglass shoulder pad was also designed for use with this camera. It has a built-in 17-degree slope to accommodate the normal shoulder slope. It is adjustable front-to-back, as well as side-to-side.

To complement the new reflex camera, we designed a molded plastic separate compartment-type magazine called the Model PLC-4. The magazine is made of glass-filled poly carbonate resin (Lexan). This is an extremely high-impact material which has greater strength than the magnesium. It is the same material we used to manufacture the casings of our NC-4 batteries. The magazine has two hinged doors that are easily opened with thumb latches for quick operation, as compared with the screw-down type of magazine covers. The relatively square configuration of the compartment makes it easy to remove a daylight-load spool. A special plunger in the center shaft positively retains the flange of the spool so that it will not rattle. The magazine is extremely silent in operation.

It has a replaceable aluminum toe which can be easily replaced if broken. Being non-metallic, it solves one of the major problems encountered by cameramen, which is caused by the fine particles of metal depositing on the emulsion and then causing spotting or "comet

tails" when the emulsion passes through the processing bath. This is due to the chemical reaction between the extremely active particles of magnesium or aluminum and the processing bath.

In general, I feel that the CP-16R Reflex represents not only an extremely versatile news-documentary camera, but also a very valid production camera for TV or feature production. We have not been lured into the cassette-load competition, but are following the more conventional film threading configuration. This gives us proven reliability, good steady pictures, great flexibility in magazine capacity (up to 1,200 feet) and a camera that is silent enough for both close location shooting and studio operation—a camera that is light and portable enough for hand-held shoulder operation, as well as tripod or dolly operation.

All the things that have been said about the CP-16 as innovations, such as a small DC crystal-controlled motor, plug-in batteries, and compact and lightweight design, can be said about the CP-16R Reflex camera, as well as its compatibility with the Crystasound amplifier and other accessories for the CP-16.

For further information about this equipment, please contact: CINEMA PRODUCTS CORPORATION, 2044 Cotner Avenue, Los Angeles, California 90025, Telephone: (213) 478-0711. ■

FEATURES OF CINEMA PRODUCTS' NEW CP-16R AND CP-16R/A REFLEX TV-NEWS-FILM/DOCUMENTARY CAMERA SYSTEM

MIRROR SHUTTER:

The mirror shutter is set at a 45° angle, and geared to rotate at half speed. The mirror shutter stops automatically in a viewing position.

STANDARD REFLEX VIEWFINDER:

The reflex viewfinder, supplied as standard equipment, is fixed in orientation. This dioptically adjustable standard reflex viewfinder is located approximately 1" back of the film plane.

"ORIENTABLE" REFLEX VIEWFINDER:

The standard fixed orientation viewfinder is removable, and may be replaced with an "orientable" erect image viewfinder. Optionally available is either the new Cinema Products "orientable" viewfinder (where the eyepiece is located approximately 1" back of the film plane) or the Angenieux "orientable" viewfinder (where the eyepiece is located approximately 4" back of the film plane). The Cinema Products and Angenieux "orientable" viewfinders—both dioptically adjustable—are directly interchangeable.

LENS MOUNT:

CP-16R and CP-16R/A reflex cameras feature

a unique miniaturized BNCR-type lens mount, with professional-type positive locking ring. A special lens adapter is available for Arriflex 16-mounted lenses.

SYNC AND VARIABLE SPEEDS:

Sync Speeds (crystal controlled): 24 or 25 fps.

Variable Speeds: 12, 16, 20, 28, 32 and 36 fps.

ADDITIONAL FEATURES (Standard or Optional):

J-5 Zoom Control (with servo feedback system circuitry, thumb activated direction/proportional speed control—all compactly packaged in the camera handgrip).

Indicators and controls visible in the viewfinder:

End-of-film warning indicator. Out-of-sync warning indicator. Battery condition indicator. Fully automatic and semi-automatic ("matched needle") exposure control.

POWER:

CP-16R and CP-16R/A reflex cameras are each supplied with two NC-4 nicad plug-in batteries and two NCC-5 battery chargers.

(Note: If AC operation is required, the NCC-4 battery eliminator/charger must be ordered, along with a "dummy" battery pack, as optional accessories.)

CP-16 SYSTEM COMPATIBILITY:

The internal mechanism of CP-16 reflex camera models, including the pull-down claw, is identical to non-reflex camera models. CP-16 system accessories are interchangeable between the reflex and non-reflex camera models (such as magazines, Crystasound Amplifier, Auxiliary Side Cover, 3XL Magnetic Record/Playback Head, Pre-Amplifier for condenser microphone, etc.).

WEIGHT:

CP-16R (body only): 10 lbs.

CP-16R/A (body only): 11 lbs.

DIMENSIONS:

CP-16R (body only): 9¾" long x 6" high x 6" wide.

CP-16R/A (body only): 9¾" long x 6" high x 6½" wide.

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