

# New Products & Developments

Further information about these items can be obtained direct from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement of the products or services.

The **Moviecam 3**, a self-blimped, compact and lightweight 35mm mirror reflex camera suitable for both studio and shoulder operation, has been announced by Neilson-Hordell Ltd., Central Trading Estate, Staines, Middlesex TW18 4UU, England. The movement is dual-pin registered with a 4-pin film transport system providing continuously variable speeds from 3 to 140 pictures/s and stop motion in addition to synchronous 24 and 25 pictures/s. The camera, with a 300-m magazine, is 590 mm long, 310 mm wide, 300 mm high and weighs (without film or lens) 14.5 kg.

With the **Moviespeed** system, through the use of a unique interlock coupled to the lens iris, it is possible to alter the camera speed while shooting and automatically maintain correct exposure of the film. This feature is expected to appeal particularly to producers of television commercials and special effects. Drive is

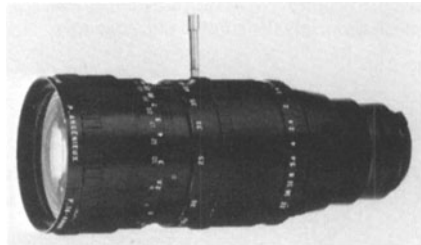


achieved by a built-in controlled printer-circuit motor that can be powered by batteries or mains electric. The camera incorporates a high-contrast television pickup tube which can feed television monitors and a videotape recorder. A built-in safety circuit prevents damage to the pickup tube if it is left pointed at a strong light source.

The camera has a built-in device called a **Digiclapper** which prints a dialed scene number on

the first frames. It also provides start, stop and synchronization pulse marks.

The price of the basic camera with motor, vari-pitch, movement, eyepiece and BNCR mount is £16,600. The illuminated fiber-optics screen is priced at £395. The **Digiclapper** is priced at £1920. The remote-control computer for control of forward/reverse, single frame, time lapse, **Moviespeed** system, auto-iris and **EBU** code system is priced at £3930. A number of other additional features are available at various prices.



A new zoom lens, the **2.8X16B**, 16-44 mm,  $T/1.3$ , called the variable prime because of its image quality and normal focal length range, has been announced by Angenieux Corp. of America, 1500 Ocean Ave., Bohemia, NY 11716. The lens has a constant maximum aperture of  $T/1.3$  and provides image quality equal to that of fixed focal length lenses even under extremely low light conditions. The focal length range can be increased by the use of front-mounted attachments. Both wide-angle (retrozoom) and telephoto (tele-attachment) bayonet-mounted attachments are available to increase the versatility of the lens. The retrozoom attachment

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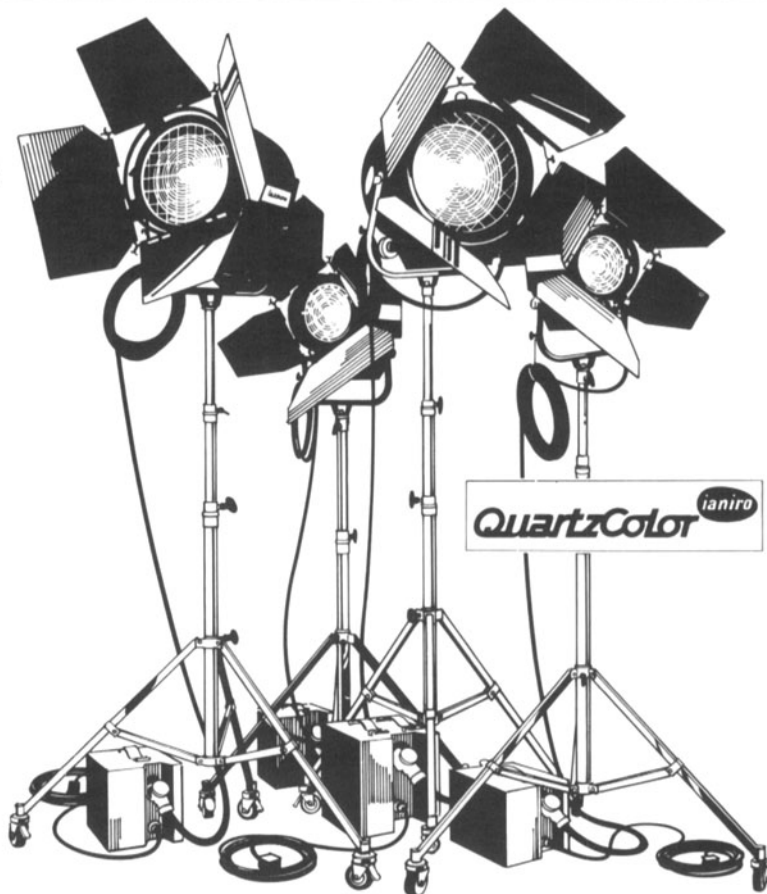
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# Think you've heard everything?

The world thought so, too. Then Thomas Edison invented a little thing called a phonograph.

Suddenly sounds could not only be produced. They could be reproduced. And for 100 years, we've been reproducing sounds just about the way Tom did when his music went round and round.

But not any more.

Sony has perfected a new kind of audio recording system for professional use. It's called PCM, which stands for Pulse Code Modulation. And it's part of the digital audio revolution — such a great improvement over conventional analog recording techniques, it's been called the best thing since night baseball.

## It's here right now

We've taken those last important steps toward making digital audio a practical reality. And the 2-track PCM-1600 we're exhibiting at this fall's AES conference isn't just the most advanced professional digital equipment to come to the mar-

ketplace. It's an idea whose time has come.

## The perfect master

Used as a Studio Master, the Sony PCM-1600 gives you true digital mastery of audio. Substantially better audio quality than is possible through even the best analog technology. It lets you record separate takes and assemble them. Make generation after generation of laquers with no sound degeneration. And distribute any number of digital masters to, say, foreign affiliates... giving France the same quality you gave England.

And you still haven't heard the best about the PCM-1600.

First, it uses a standard videotape recorder. The same kind of recorder already familiar to broadcasters across the nation. To edit, or to perform a digital-to-digital dub, you use a standard Sony video editing console — and do it all electronically.



Second, some very impressive numbers. Dynamic range greater than 90 dB. Harmonic distortion less than 0.05%. Wow and flutter so low it can't be measured. And absolutely no hint of hiss.

Third, we've solved the problem of dropouts. By introducing an error-correcting code technique originally developed for computers, we've given our PCM-1600 fail-safe signal reproduction. The kind computer applications take for granted.

And finally, Sony PCM equipment is ready to live up to the Sony name. It's rugged. Reliable. Designed to take anything professionals dish out. And once producers and artists hear the difference, conventional analog recording systems just don't sound good enough.

## Now you've heard everything

Unless, of course, you haven't heard our PCM-1600 in action. In that case, we'll be glad to demonstrate...and even take your order now for fall and winter deliveries.

If you think you can wait, see our PCM exhibit at the 61st AES Convention, Waldorf Astoria, New York, November 3-6. Have a good look around.

Then have a good listen.

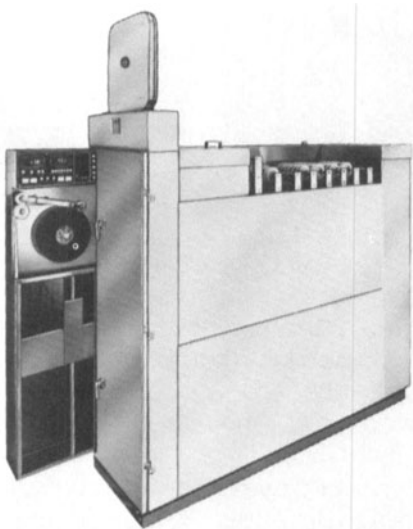
# SONY<sup>®</sup>

## DIGITAL AUDIO



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changes the focal length to 12-34 mm, while only changing the photometric aperture to  $T/1.4$ ; the front-mounted tele-attachment increases the focal length to 52-74 mm while also retaining the  $T/1.4$  aperture. About the same size as the 10-150 mm Angenieux zoom, the 2.8X16B has a 72 mm front accepting Series 9 filters and other accessories. The new lens is available for all 16mm professional camera mounts, i.e., Arriflex, Cinema Products, Eclair, Frezzolini, etc. The price is \$4990.



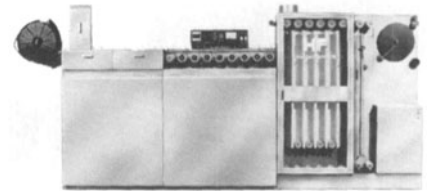
The Compact 2000 series of film processors has been announced by Photomec (London) Ltd., Valley Road Industrial Estate, St. Albans,

Hertfordshire, England. The line includes options for 14 processes and outputs, e.g., 2001 Kodak Ektachrome VNF material at 20 ft/min on 16mm film; 2010 Agfa-Gevaert Gevachrome II material at 17 ft/min on 16mm film; and 2031 Kodak Print Release Pos. 1 material at 9 ft/min on 35mm film.

The processors use the Photomec Demand Drive System which provides an overdrive speed to individual film strands, thus reducing film tension to a controlled condition. Film is transported through the machine at a fixed and constant speed, with a varying loop facility provided in the first developer tank to allow forced processing. The film is loaded and unloaded at the same end of the machine, allowing the equipment to be situated on smaller floor areas and saving the operator from having to move from one end to the other end of the machine. The machines are fully daylight operated. They are constructed of type 316 stainless steel except for the bleach tanks, where titanium is used. Features include digital indication of all solution temperatures and magnetic-drive circulation pumps with filtration of all solutions.

Audible and visual alarms are provided for an over/under heat warning, film break warning, end of film warning with automatic film clamp, circulation failure of the developers warning, and elevator height indication. The price range of the 2000 series is £12,000 to £15,000.

New Advanced Colormaster film processors offering energy-saving features in the solution heating systems as well as in the drying chambers have been announced by Houston Fearless 76, Inc., 833 East Walnut St., Carson, CA 90746. Other features include simplified main-



tenance with stainless-steel covers to allow easy cleaning. The Advanced Colormasters are available with extended load accumulators, plus torque take-up control. Prices range from \$20,000 to \$25,000.



A portable color broadcast camera, the BCC-14, has been announced by Ampex Corp., 401 Broadway, Redwood City, CA 94063. Designed for ENG and EFP applications, the camera packages sophisticated electronics in a rugged, shock-proof design. Weighing only 12 lb, the camera requires only 27 W, permitting 90 minutes of operation from a conventional battery belt. Miniaturized components are combined

# RCA's FR-35B TV Projector: you should see it in action.

You'll be impressed with what it does.

Some of our customers are so impressed they've bought a second. And a third.

The FR-35B 35mm TV Projector is a post-production tool especially designed for high quality film-to-tape transfer work.

The basic projector is outstanding—and there are a host of accessories available to extend its unique post-production capabilities.

- Instant Start and Stop for accurate cueing
- Still Frame without loss of light or detail
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- Shutter Phasing Control, an aid to color correction
- ServoLock Synchronizer for interlock of two projectors
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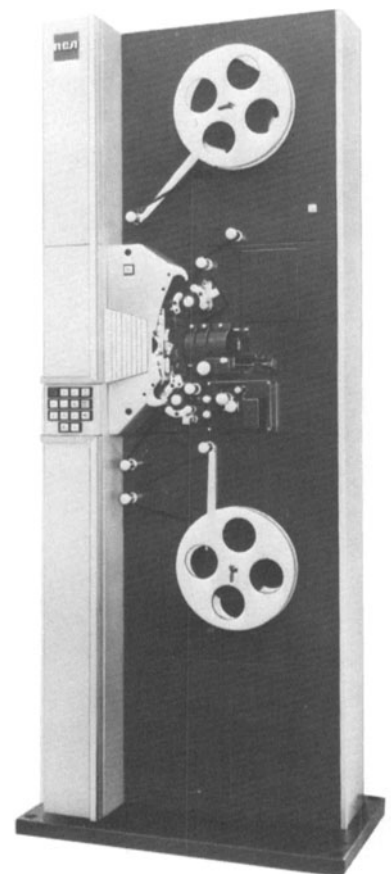
With the Projector and selected accessories, you can deliver to your client a television tape product, program or commercial, with innovative action, effects, and enhancement never before available.

The FR-35B Projector, from RCA Photophone Systems—the people with the broadest line of sound-on-film and sound-for-tape systems.

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CP-16R/A



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And we have a track record for reliability and service that is unmatched by any other camera manufacturer/distributor in the TV-news gathering industry.

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What's more, we are the only ones who have available for you, *under one roof*, the finest film and video newsgathering equipment and accessories: our own CP-16 line of newsfilm/documentary cameras... as well as the most advanced ENG/EFP camera of its class — the all-new MNC-71CP, manufactured exclusively for us by NEC (Japan's largest manufacturer of broadcast equipment).



On a recent visit to the U.S., Sadayuki Ikeda (right), Supervisor of NEC's Video Development Dept., Broadcast Equipment Division, and Cinema Products' Chief Engineer Robert Auguste exchange views on ENG/EFP practices and equipment requirements.

Ideally suited for American television industry needs, the MNC-71CP incorporates many design features based on CP inputs gathered from our extensive experience in the TV-news/documentary field. The MNC-71CP is so rugged and reliable, it is covered by the standard Cinema Products full one-year warranty (unprecedented in the broadcast industry!).

We also offer accessory equipment such as lenses, VTR's, portable video set-up units, including a unique portable 16mm film-to-tape transfer system (the new KM-16).

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At the recent NAB Conference, Ed DiGiulio (right), President of Cinema Products Corp., and R. Dennis Fraser, Vice President and General Manager, Broadcast Equipment Division, NEC America, Inc., display the Oscar and Emmy awards won by their companies for their respective "state of the art" contributions to the motion picture and television industries.

For further information, please contact:

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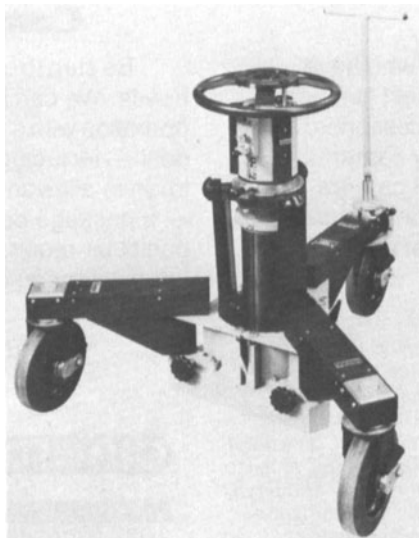
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with integrated circuits and lightweight materials to provide electronic stability, off-the-shoulder balance and handling ease. The optical axis is at normal eye level. Broadcast picture quality and colorimetry are optimized by all-magnetic  $\frac{2}{3}$ -in Plumbicons with a high transmission  $f/1.4$  prism system, dynamic beam control, switchable black stretch, bias light for minimum lag and full two-line vertical and horizontal contour correction. A remote-control unit and a 5-in viewfinder for EFP or studio use are available as options. The BCC-14 accepts power from a battery belt, as in ENG use, from a vehicle battery for EFP, or from a conventional ac supply in the studio. The BCC-14 is equipped with memory-controlled color balancing and centering among other important features. The prices begin at \$34,500.



An audio analyzer designated Model 910, used to provide instant analysis of speaker, component and listening-room performance, has been announced by American Scientific Corp., 1283 Mountain View-Alviso Rd., Sunnyvale, CA 94086. Model 910 contains pink noise generation and signal analysis circuitry, combined with a multi-function CRT display. For room equalization, the audio analyzer drives the speaker system and simultaneously displays ten octave responses so room peaks and dips can be scientifically equalized. Actual acoustic response to input material can be viewed on the CRT display. The user can make exact antenna adjustments to maximize signal and stereo performance while minimizing FM multipath effects. Basic tests of audiocomponents can be performed.

The model 910 audio analyzer provides four operating modes — analyzer (for spectral analysis), oscilloscope (for signal response observation), FM multipath (for optimizing FM performance including signal strength and multipath minimization), and audio (for optimizing stereo performance and antenna tuning). The price of model 910 is \$895.



The Vinten TriTrack tracking base (shown above with the PortaPed), manufactured in England

by W. Vinten Ltd., has been announced by Listec Television Equipment Corp., 39 Cain Dr., Plainview, NY 11803. The TriTrack is designed for use with the Vinten PortaPed and the Dolphin Crane arm. It provides studio mobility — crab, steer or linked casting to both units. A folding or detachable tiller arm provides full control in tricycle, steer, or the full 360° crab modes. The unit has 8-in adjustable castor hard-rubber tires. It weighs 55 lb and can support over 130 lb (PortaPed plus 100 lb camera load). It is 11 in high and the base width is 34.5 in with the legs fully extended. Dimensions when folded are 28 × 16.6 × 13.1 in. The price is \$2700.



A video noise meter, Model VNM-428, designed specifically for video signal-to-noise measurement requirements of television studios, CATV installations and microwave system users, has been announced by Lenco, Inc., Electronics Div., 300 North Maryland St., Jackson, MO 63755. The instrument is said to have the ability to make real-time signal-to-noise measurements of any composite video signal, no matter what the source. It has a built-in calibrator to ensure accuracy of  $\pm 0.5$  dB throughout the range of 20 dB to 55 dB. The SNR is calibrated to EIA standards and is shown on a large LED display. Model VNM-428 employs the tangential noise measurement technique to overcome problems associated with oscilloscope measurement of Gaussian noise in video waveforms. Features include three built-in filters conforming to CCIR/EIA standards. The meter may be used as a portable unit or may be rack-mounted with an adaptor for side-by-side use with an oscilloscope. The unit measures 6 1/2 × 8 × 11 in and weighs 6 lb. The price is \$1495.

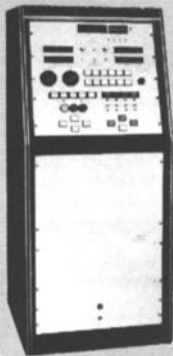
A new series of magnetic sound film recorders and reproducers specifically designed for high-speed rock-and-roll applications has been announced by Magnasync/Moviola Corp., 5539 Riverton Ave., P.O. Box 707, North Hollywood, CA 91603. The series (designated Series 4000) includes both a 35mm and 16mm magnetic film insert recorder/reproducer as well as magnetic film reproducers. All models in the series have a CMOS electronic drive control system enabling the recording engineer to rock and roll at up to ten times sound speed. The 16mm and 35mm insert recorder/reproducers feature erase and bias signals derived from a crystal-controlled square-wave generator to eliminate noise contributed by even order harmonics, jitter and unsymmetry in the bias and erase signals. The use of a precision ramp start control for these signals, together with the ability to set the precise in/out times, is said to result in undetectable insertions and deletions of recorded speech, effects and music. Other features include crystal-controlled sound speed front-panel switch-



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**MTE, The Leader,** is winner of two "Academy of Motion Picture Arts and Sciences" awards for Technical Achievement.

**MTE, The Leader,** provides complete studio engineering services and operating personnel training. Our systems engineers have over 30 years experience in all areas of film production and post-production.

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# A quick look at the Arriflex 16SR production camera system:



**W**ith your eye at the 16SR's eyepiece, you can frame, focus *and* set the f/stop. Fast.

## Accurate readings

Through-the-lens readings tell you precisely how much light is getting to the film.  $\pm 2$  stops, visible in the finder. Range is 24/25 – 80 fps, 16 – 500 ASA.

## Fiber optic focussing screen

Its better light transmission makes viewing easier at

low levels and small apertures. Less light scatter and no grain result in a sharper finder image with even edge-to-edge brightness.

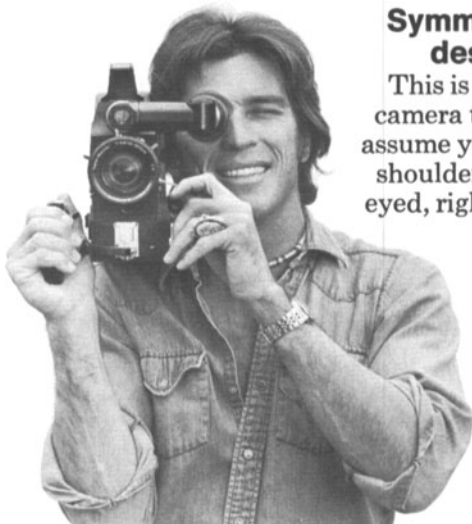
## Automatic iris

With an auto-iris lens mounted, the 16SR stops the lens down to your pre-set f/stop when you switch on, and opens wide again when you switch off.



## Symmetrical design

This is the first camera that *doesn't* assume you're right shouldered, right eyed, right-handed.



## Four T1.3 Zeiss lenses, and 22 others

In addition to the four super-speeds, there's a choice of fifteen fixed lenses, including an Angenieux 5.9mm. And there are seven zoom lenses in the Arri steel bayonet mount.

## Electronics & Crystal

At left are the 16SR's magazine and body. Inside the flat base are electronic integrated circuits for crystal sync, start-mark, off-speed light and slave operation.

## Motor & speeds

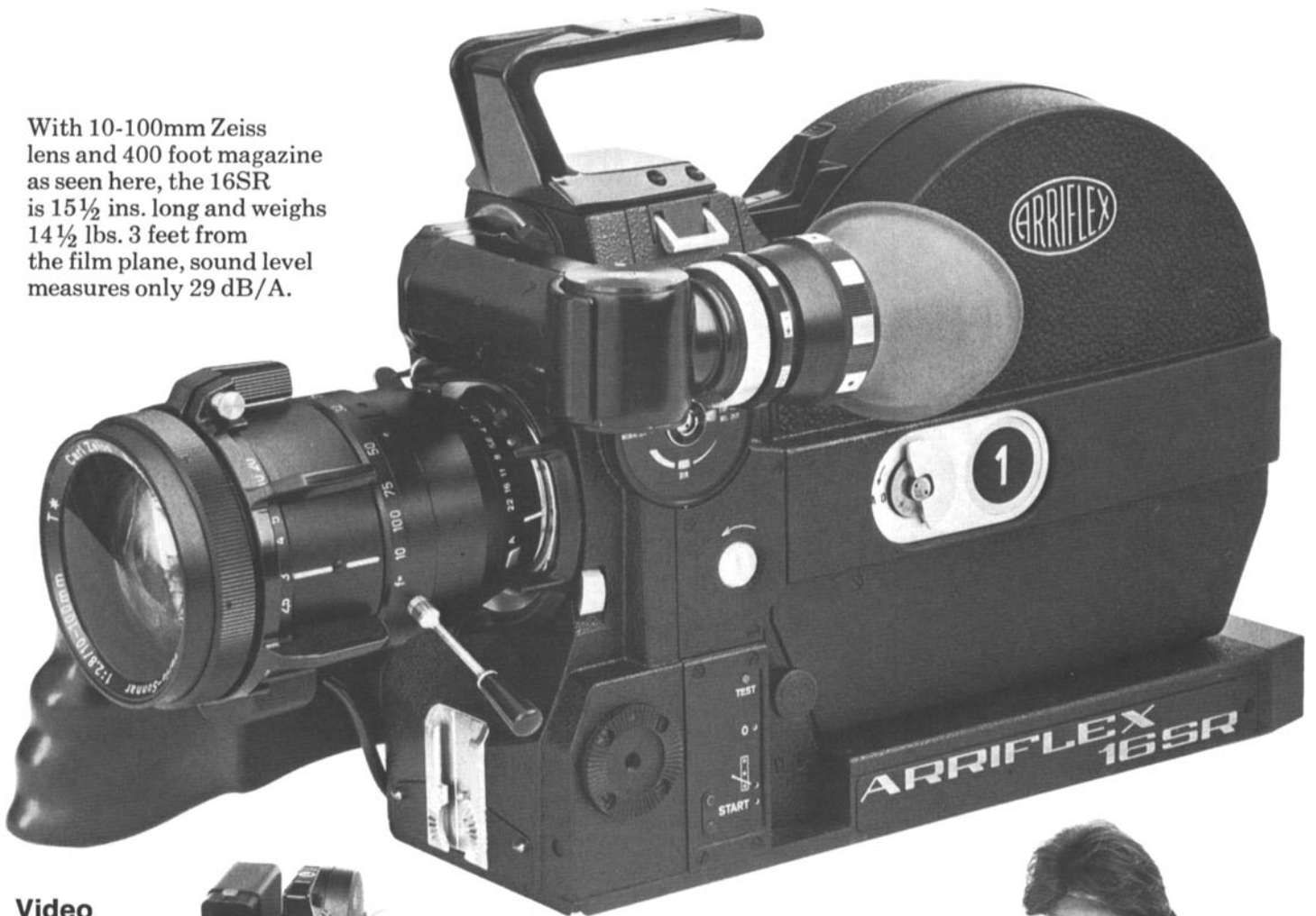
The 12V DC motor is built into the body, just below the lens mount. No bulges. Off sync speed, a red light shows in the finder. There's a variable-speed accessory – 5 to 75 fps.

## Magazine changes without touching film

It takes about ten seconds. Snap off the old magazine, check the aperture, snap on the the new one. No threading, no loop to form.

That's all done when you *load* the magazine – which is also fast and easy. All you do

With 10-100mm Zeiss lens and 400 foot magazine as seen here, the 16SR is 15 1/2 ins. long and weighs 14 1/2 lbs. 3 feet from the film plane, sound level measures only 29 dB/A.



### Video Monitor

Video adapter (visible on right side of camera) fits onto the 16SR easily, runs on 12VDC and works with most remote TV monitors.



in the dark: put the roll on the core spindle, slide the film end out, close the feed side lid. The entire loop is visible as you form it, in daylight.

### Magazine locks

When you snap it on, the magazine is locked into place automatically, at *three* points. And its bottom rests against the camera's base.

### Film channel bars

On each side of the aperture is a hardened steel guide-rail bar. They fit against the magazine's face plate, forming a fixed film channel. Only at the aperture does the film make contact with the pressure plate.

### Register-pin movement

The 16SR uses a completely new compensating link film transport design with an independent registration-pin. Positive action control at *every* stage of film pull-down and registration.



### Bridge Plate & Matte Box

Seen above, the 16SR is mounted on the Arri Bridge Plate, which is adjustable for balance. The Bridge Plate's rods are supporting both a long zoom lens and the 16SR Production Matte Box, which has two rotating 4 x 4 inch filter stages. Note also the 7 inch Finder Extension.



### Versatile viewfinder and on-board battery

That's the battery, on the back of the camera. It drives about 2,000 feet. No cables. The finder rotates to left and right *and* it rotates 360° parallel to the camera's side. And the eyepiece swivels 25° out from the side.

# ARRI

ARRIFLEX CORPORATION

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In Canada: ARRI/NAGRA Inc., 6467 Northam Drive, Mississauga, Ontario. (416) 677-4033.

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Sharpness! The way people see it on the big screen. Nothing else matters. At Western Cine we are uniquely qualified to blow-up prints from 16mm to 35mm with excellent acuity -- actually the best in the state of the art today.

If you are contemplating a 35mm blow-up of your 16mm film production, we will furnish a test of your work at no charge.

### WE PROVIDE COMPLETE FINISHING SERVICES

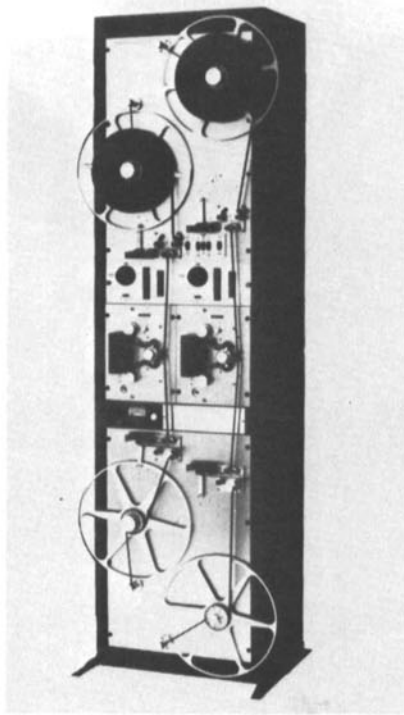
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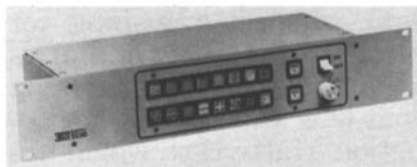


able to 18, 24 and 25 frames/s; manual inching for precise sync-point location; and variable speed control through sprocket from less than one frame/s to ten times sound speed. The systems are available in single- or multi-track configurations. Prices range from about \$6900 for a 16mm single reproducer to about \$12,000 for a 35mm 3-track insert recorder/reproducer.

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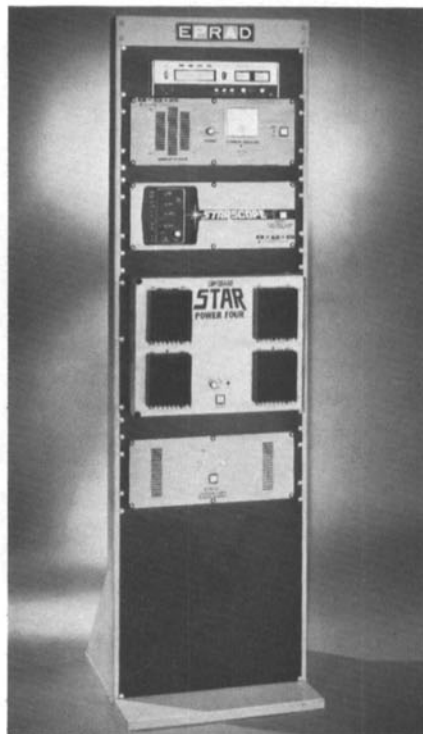
**Scriptel P**, a microprocessor-controlled digital character generator, has been announced by Unitel, 80, rue d'Arcueil, 94250 Gentilly, France. It is adaptable to all television standards. Features include proportional spacing; 96-character basic equipment; four character sizes, fully mixed; character-by-character color; blink and inverted background; eight colors and floppy disc. The Scriptel P is priced at 100,000 French francs. Options include automatic subtitling at an additional 20,000 francs.

Unitel also announced the Scriptel RWR, a digital twin-alphabet character generator allowing both Arabic and Latin writing on the same screen (illustrated above). The price of the basic unit is 150,000 French francs. Options include disc memory at an additional 35,000 francs and clock at 9000 francs.

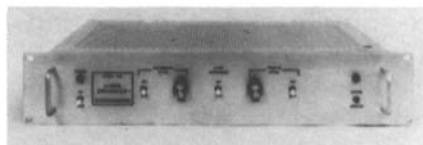


A **digital effects generator**, Model 5130, has been announced by 3M Company, P.O. Box 33600, St. Paul, MN 55133. The generator operates

with any video production switcher having an external key input. It generates 16 patterns by sequencing 256 raster areas for special effects, including spiral, horizontal, diagonal and random wipes at five different switchable rates. The price is \$1495.



A complete stereo-optical sound system package called **Galaxy** has been announced by Eprad, Inc., 123 West Woodruff, P.O. Box 4712, Toledo, OH 43620. The package consists of Eprad's StarScope four-channel signal processor; the Star Power Four amplifier, rated at 60 W per channel at 8  $\Omega$ ; a dc exciter lamp supply; a monitor speaker with a VU meter; and a floor-mount rack. Provision has been made for the incorporation of a tape deck for non-sync music in the package, if desired. The Galaxy system was designed specifically for use in commercial motion-picture theaters. It is priced at \$7109.52.



A **video enhancer**, designed to interface with cameras and monitors operating over a 30-MHz bandwidth at a 1023-line scan rate, has been announced by Dynasciences, Township Line Rd., Blue Bell, PA 19422. Designated Model 858, the unit has a 30-MHz bandwidth and SNR of better than 46 dB. Features include separate controls for adding up to 12 dB of horizontal and 6 dB of vertical enhancement. An internal coring control, accessible through an opening in the top cover, provides for noise reduction. Model 858 may be added to any existing high-resolution 1023 scan line system without significant interfacing problems. The price is about \$9000.

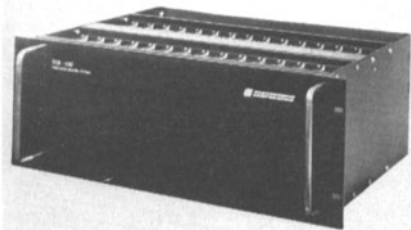
A **projection television system**, a two-piece unit consisting of a 72-in screen (XU-720 SC) and a projector (XV-720U), has been announced by

Sharp Electronics Corp., 10 Keystone Pl., Paramus, NJ 07652. The system uses three projection tubes, a tri-potential electrostatic focus coil and a comb filter circuit. Features include a "setting string" and "built-in cross-line pattern" generator enabling easy setup and adjustment. The unit also has a soft-touch electronic channel selector which can instantly turn on any one of up to 12 pre-selected, pre-tuned VHF and UHF channels. In addition, the system has an ultrasonic remote control, CATV connector, ac outlets for other audio/video equipment and two 6<sup>5</sup>/<sub>16</sub>-in round speakers. The price is about \$4000.



**A modification package**, including joystick control and tape timer designed for use with Panasonic 3/4-in editing controllers, has been announced by Videocomedia, 250 North Wolfe Rd., Sunnyvale, CA 94086. Designated the VM 95UA, the modification can interface with the Panasonic NV 9200 and 9500 and the Sony VO 2860 videotape recorders without the need for mechanical alterations. The VM 95UA provides bi-directional joystick control of all key editing functions; simplified activation of all modes, including pause; single control for all VTR search modes, forward and reverse; and logic reset buttons which enable the operator to cancel logic on either side of the machine. Other features include programmable, previewable timed inserts, start and end; automatic return to edit point; full remote control of both VTRs; automatic assemble; and 2X forward search and cue speeds.

The VM 95UA can be added to existing Panasonic NV A950 editing controllers for \$1350. Also offered is an optional field installable add-on dual tape timer with random search control; dual LED readouts; and reset, preset, hold and search functions for each VTR. The price is \$1750. Also available is an entire Panasonic system complete with all VM 95UA modifications, including the dual tape timer option, for about \$11,500.



**The TCR-100 time-code reader system**, an option for the ECS-100 Superstick videotape editing systems (*Journal*, p. 482, July 1978), has been announced by Convergence Corp., 17935 Sky Park Circle, Irvine, CA 92714. It is an external, rack-mounted unit that converts prerecorded longitudinal SMPTE or EBU time code to a format usable as an input to the Superstick

editing systems. The basic TCR-100 reads code from one source VTR and one record VTR. It includes a direct plug-in digital interface for any ECS-100 Superstick editor. The system can be expanded by adding two additional RC-100 plug-in modules for reading up to three source VTRs and one record VTR. The price of the basic TCR-100 system is \$5000.



**The Optical Crown system** (shown above) and an electronic counter (see below) are two newly developed optional accessories for the Cinemonta 16mm and 35mm editing tables manufactured by Oldelft (nv Optische Industrie De Oude Delft), Delft, the Netherlands, exclusively represented in the United States by KLM Associates, Inc., P.O. Box 34102, Bethesda, MD 20034.

The Optical Crown system is a rotating crown fitted with 24 small lenses to produce a high-contrast, high-definition image without flicker, regardless of the projection speed. The brightness of the system allows the operator to work at the Cinemonta table in normal ambient light without eyestrain. Since the system does not use a rotating prism, there is no image distortion on the screen. Even the darkest parts of the image are readily viewed. The Optical Crown is said to eliminate the dust particles that can show on the screens of conventional editing tables. The price of the Optical Crown is about \$1500.



**The Oldelft electronic counter** incorporates a microprocessor providing information on film length and time in directly readable figures, thus eliminating the need for conversion tables. A simple switchover during operation sets the counter at the required information data.

Any of the following settings can be chosen: frames, frames/s, frames/s/min, frames/ft, or frames/decimeters/meters. The counter is provided with pushbuttons for start/stop, reset, 24/25 frames/s, super 8, 16mm and 35mm.

Although the counter has been designed for the Oldelft Cinemonta, it fits any other film-handling equipment. The electronic counter is priced at \$1350. Price of installation on film-handling equipment other than the Cinemonta is \$250 additional.

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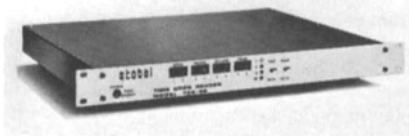
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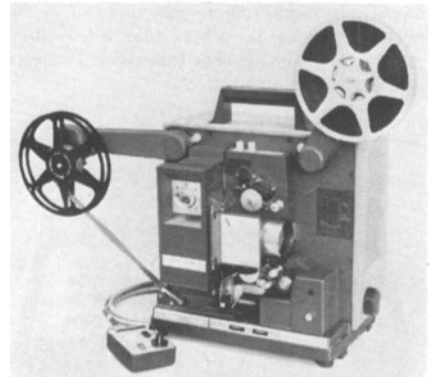
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A **time-code reader**, Model TCR-80, has been announced by Skotel Corp., 1445 Provencher, Brossard, Que., Canada J4W 1Z3. The unit provides reading and display of time and user data at search speeds from hand-turn reel speed to more than 40 times play speed. Features include a wideband preamplifier to read time code at fast and hand-turn reel speed, drop frame indicator, detection and bypass of code errors, automatic selection of record bias filter, and 7-segment LED displays with contrast enhancing filter. The TCR-80 can select and hold in its memory an edit point code without stopping the machine, and it holds in its memory the last address when the machine stops. Options which can be installed on a plug-in basis include a data output module for external jam sync operation and a video character generator with an integral insert keyer that can simultaneously insert and position time and user data into the video of a work print or on a monitor and that can be remotely operated. Prices range from \$2100 to \$2985 depending on the options selected.

The **Model 274 Video Frame Store** has been announced by Colorado Video, Inc., Box 928, Boulder, CO 80306. The 274 allows the user to freeze a single frame of television information in a digital memory for computer processing, decision making and redisplay. A solid-state memory, together with A/D and D/A converters, provide the versatility of either video in with video or digital out, or digital in and digital or video out. Model 274 can be interfaced with minicomputers or other digital processing equipment. Individual picture elements in the

stored picture can be randomly accessed, processed and returned to the memory. The unit is available with either 256 × 256 or 256 × 512 picture elements. Six bits of gray scale (64 levels) are standard. One bit through eight bits are optional. Model 274 is priced at \$9000 for the 256 × 256 × 6 bit configuration and at \$11,000 for the 256 × 512 × 6 bit version.



The **Selecta-Frame 5**, a 16mm analysis projector available in both sound and silent models, has been announced by Visual Instrumentation Corp., 903 No. Victory Blvd., Burbank, CA 91502. Features include flickerless projection, stop action, single frame, slow motion, variable speeds forward and reverse and a high-brightness lamp/lens system. A control box provides local or remote operation up to 25 ft from the projector. It was designed for one-hand operation of all control functions. The box also incorporates a 5-digit LED frame-count display with zero inset. The Selecta-Frame 5 operates at 16 and 24 frames/s cine, plus eight discrete pulse rates from one pulse every 4 s to one pulse every 2 s, 1-2-4 6-8 and 12 pulses/s. Other features include solid-state digital control logic.

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2. Mail subscriptions	9,474*	9,973†
C. Total paid circulation (Sum of 10B1 and 10B2)	9,474*	9,973†
D. Free distribution by mail, carrier or other means: samples, complimentary, and other free copies	443*	2,068†
E. Total distribution (Sum of C and D)	9,917*	12,041†
F. Copies not distributed		
1. Office use, left over, unaccounted, spoiled after printing	1,148*	999†
2. Returns from news agents	None	None
G. Total (Sum of E, F1 and 2—should equal net press run shown in A)	11,065*	13,040†

\*Average no. copies each issue during preceding 12 months.

†Actual no. copies of single issue published nearest to filing date.

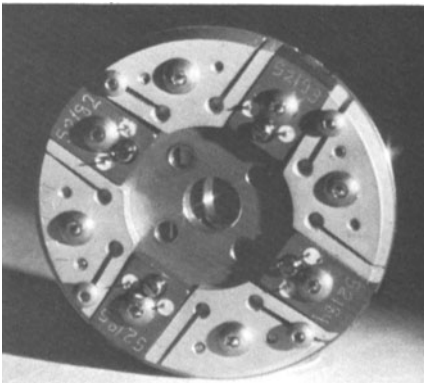
I certify that the statements made by me above are correct and complete.

Thomas E. King, Editor

2000-ft film capacity and fast power rewind. The sound model (optical) of the Selecta-Frame 5 is priced at \$2450. The silent model is priced at \$1950. A number of optional features are available.



The TT-100 dual digital tape timer has been announced by Convergence Corp., 17935 Sky Park Circle, Irvine, CA 92714. It has individual 8-digit tape time displays for two videotape recorders. Two pushbuttons for each 8-digit display provide for preset and clear of the display digits. Large 7-segment LED characters display hours, minutes, seconds and frames of tape time for each VTR. The TT-100 can display control track or SMPTE time code information. The instrument is designed for use with all Convergence ECS-100 Superstick series editing systems. When it is used on the ECS-102 insert or ECS-103 multi-source system, the displays may be preset and cleared from the insert panel of the ECS-102 or the keyboard of the ECS-103. Multiple TT-100s may also be interconnected for additional display configurations. The price of the TT-100 dual digital tape timer is \$1600.



**Megamite™**, a new long-life tip material developed by Videomax, an Orrox Company, 3303 Scott Blvd., Santa Clara, CA 95050, for use in the firm's XM series of quadruplex video heads, has been announced. The new material, a polycrystalline ferromagnetic spinel, is said to contribute significantly to head longevity and also to improve the performance of quad VTRs because it is unaffected by different tape coatings and is resistant to miniscule surface blemishes. The video tip is thermodynamically and electromagnetically optimized for quad machine operation. Megamite video heads are available from Videomax in RCA low-band, high-band and super-high-band configurations, with other quad formats currently under development.



The YFI comb filter separator, produced by Yves Faroudja, has been announced by Telegen Inc., 800 Welch Rd., Suite 354, Palo Alto, CA 94304. The device is designed to provide separate luminance and chrominance components from a standard NTSC-encoded signal. It features full bandwidth luminance without ringing or band rejection around the 3.5-MHz subcarrier fre-

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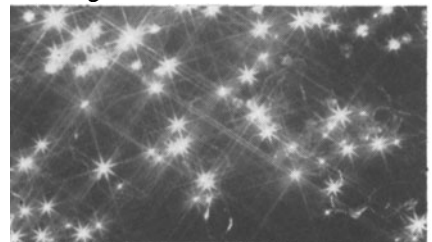
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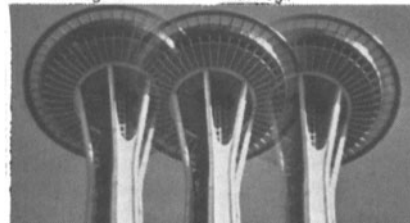


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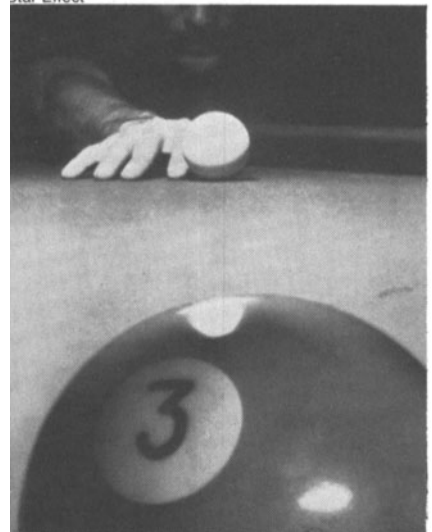


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**The AVS-100 Audio Video Switcher** has been announced by Convergence Corp., 17935 Sky Park Circle, Irvine, CA 92714. It is a five-input/one-output video switcher with audio follow. A rack-mounted unit, it selects video and audio signals from the source VTRs and from black and auxiliary sources. Designed as an option for all Convergence ECS-103 Superstick Multi-Source editing systems that do not have the SE-100 switcher/effects system, it allows the user to select all inputs at the ECS-103 keyboard. It is automatically controlled in response to keyboard-initiated sequences. The unit includes a direct plug-in digital interface for any ECS-100 Superstick editor. The price is \$2000.

A **19-in color television receiver, XR-19SR**, designed primarily for industrial and educational use, has been announced by Sharp Electronics Corp., 10 Keystone Pl., Paramus, NJ 07652. The receiver has a built-in 2-W audio amplifier to drive an external speaker for large group applications. Its horizontal time constant has been modified for VTR applications. The conventional rabbit-ears antenna has been removed and replaced with a 75-Ω jack for RF output. Features include the Automatic Color System ACS-5 which automatically sets color, tint, contrast, brightness and fine tuning at the push of a single button. The price is about \$540.

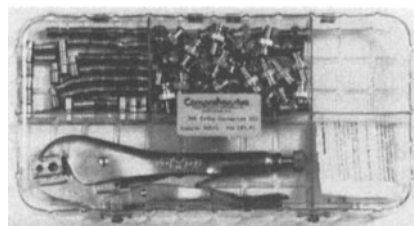


**The Delta Time Oscilloscope Model 1742A** has been announced by Hewlett-Packard, 1501 Page Mill Rd., Palo Alto, CA 94304. In the delta time mode, the oscilloscope measures the time between two events on either channel A or B or between an event on one channel and an event on the other. Measurements of high-speed digital timing, transition times, propagation delay, and clock phasing can be made rapidly and accurately. The unit has a continuous trigger view

capability which permits either the external or internal trigger source to be simultaneously displayed with the two vertical channels. Model 1742A is priced at \$2650. An optional 3<sup>1</sup>/<sub>2</sub>-digit autoranging digital multimeter which displays time in seconds, milliseconds or microseconds is available. It can also be used to measure ac and dc voltage and current as well as resistance. The price is \$325.



**The Bilora 4157 tripod with fluid head**, for use with super-8 and portable television cameras, has been announced by the Photo Products Division of Ehrenreich Photo-Optical Industries, 101 Crossways Park West, Woodbury, NY 11797. With the pan head in place the tripod can be lowered to 14 in from ground to platform, and with the legs and center column fully extended it can be raised to a maximum height of 52.7 in. It weighs 5 lb 7 oz with the fluid head and 4 lb 1 oz without the head. The price is \$123.



**Crimp connector kits** for crimping cable to connectors have been announced by Comprehensive Video Supply Corp., 148 Veterans Dr., Northvale, NJ 07647. Each kit contains 50 connectors and a crimp tool together with detailed instructions and a handy storage box. The kits come in two versions -- Model UCK-1 with UHF crimping tool and connectors, priced at \$84.95, and Model BCK-1 with BNC crimping tool and connectors (shown above), priced at \$119.95.

A **new zoom lens** designed to fit domestic or European Kodak slide projectors has been announced by D.O. Industries, 317 Chestnut St., East Rochester, NY 14445. Designated the

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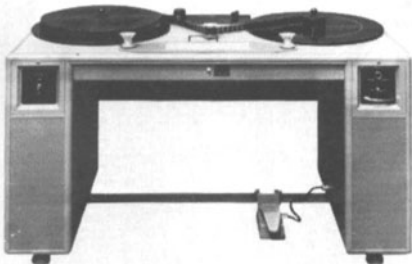
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Navitar NZ-70125, the lens has an  $f/3.5$  aperture with a range of focal lengths from  $2\frac{3}{4}$  to 5 in. The zoom lens can cover all  $24 \times 36$  mm formats including super-slides. The design involves a new formula which does not require converters or other image-altering add-ons. The lens is available with mounts for either the American-made Ektagraphics or the European-made S-AV Ektagraphic projectors; however, the projector mounts can be easily changed in the field. The NZ-70125 zoom lens is priced at \$160.



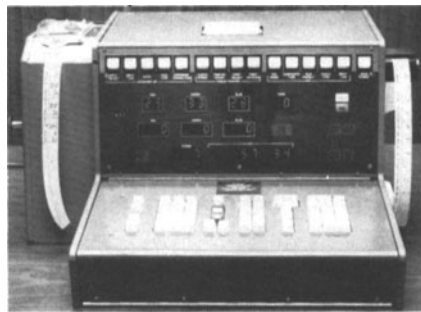
An automatic film rewind table, the Mark III, has been announced by Acmade International, Oakside, Oxford Rd., Uxbridge, UB9 4DX, Middlesex, England. The table can handle rolls of 16mm or 35mm film and tape up to 3000 ft. It can rewind at a rate of 1000 ft/min. The machine is started by pushbutton and at the end of the rewind automatic braking is applied. An illuminated panel is provided to enable the film to be inspected and a foot control pedal allows the speed to be infinitely varied. The price is £767.



A frame count cueing system, the CE-FCC-2, has been announced by Carter Equipment Co., 15430 Condon Ave., Lawndale, CA 90260. The unit can be used on both optical and continuous contact printing machines at speeds up to 800 ft/min in all film formats. The frame count cuer tape reader/film counter unit signals cues (light change signals) at proper locations along the length of a motion-picture negative as it is transported through a motion-picture printer. Locations are measured from a sync mark at the start of the negative and are recorded as "milestones" (sync mark to scene change) or "batch" (scene to scene change) distances. These distances are punched into an 8-channel 1-in-wide paper tape in a BCD format as either feet and frame or frame only information. The tape is read, one location at a time, and the location is stored and displayed in the memory display.

As the film is transported through the printer, frames are counted and the film counter incremented (or decremented, depending on transport direction) accordingly. The Frame Count Maximum thumbwheel switches set the counter for the number of frames per foot according to the film type being used in the printer. Two more sets of thumbwheel switches inside the FCC unit control the release of the CUE signal. There are

two sets of (2) digit hexadecimal thumbwheels, one for each speed of a standard continuous printing machine. Price, including pickup device for most conventional printers, is \$3650.



A single-package computerized motion-picture printer-control tape-punching system, Model CE-CTPS-4, has been announced by Carter Equipment Co., 15430 Condon Ave., Lawndale, CA 90260. The electronic display panel contains separate displays for conventional color tapes, frame count cue tapes (or composite tapes) and keyboard corrections. The keyboard utilizes solid state switches and is constructed so as to prevent information entry that is in conflict with the preselected program. All component control electronics as well as the main logic program are mounted on individual circuit cards. The CTPS-4 may be interfaced directly to a video analyzer to create a timing/frame count cueing/tape punch printout system in real time, or it may be coupled through data storage retrieval interfaces to permit time-sharing from several inputs. The unit weighs 72 lb and measures  $25 \times 13 \times 20$  in. Voltage requirements are 115/220 V, 50/60 Hz, using 2 A. The system is

priced at \$10,950. Both display panel and keyboard can be provided in foreign language versions as a special order item.



The Spectra® Photometer/Radiometer, Model 301, has been announced by Photo Research, Division of Kollmorgen Corp., 3000 North Hollywood Way, Burbank, CA 91505. The instrument uses a single probe to measure illuminance, luminance, irradiance, radiance and integrated energy for both continuous and pulsed light sources. A direct-reading LCD (liquid crystal display) features a floating-point decimal so no multiplying factor is required. Absolute values are read directly over six decades of light intensity. Model 301 measures pulse sources with pulse widths  $1 \mu\text{s}$  or longer as well as integrated energy measurements of continuous light sources for exposure control or dosimetry. Model 301 is simple to operate and has auto-ranging capability that provides the final measured value immediately. No multiplying factors need be applied. Readout is keyed to a measurement parameter switch to insure correct units. Auto-

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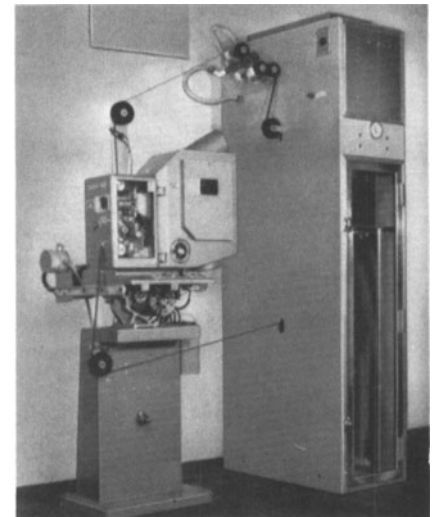
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matic ambient light compensation prevents errors due to background light so measurements of pulsed light sources need not be made in a dark room. A Meter Hold pushbutton on the probe retains transient meter readings for inspection. The instrument weighs 5 lb. Prices are around \$1300 to \$1400.



A closed loop system, Model 22, accommodating a 10- to 20-min 16mm or 35mm film and designed to be used with any type of movie projector, has been announced by Treise Engineering, Inc., 1941 First St., San Fernando, CA 91340. It is designed to keep the film clean and to minimize projector pull. The system consists of a cabinet with two separate chambers. The lower chamber contains the loop system while the upper chamber houses the drive motor, blowers and filters. Mounted on the outer wall of the cabinet is an air vacuum squeegee. In operation, the film loop winds continuously through the system and the projector. As the film passes through the loop system it moves up and down from one roller to another so that the entire length of the film is held in suspension. The film at no time touches itself. Any dirt that may be floating around in the cabinet is pressurized downwards and forced out through holes located near the bottom. After it leaves the cabinet the film is cleaned by passing through the air vacuum squeegee. The loop is power-driven in order to minimize film pull. The loop starts before the projector starts so that shafts and rollers are in motion first. A slight pull from the projector is enough to cause the film to move forward on free-wheeling ball-bearing rollers. The system is available in four different versions — 10- or 20-min 16mm and 10- or 20-min 35mm. Prices begin at \$6500.

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