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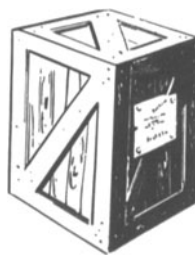
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Further information about these items can be obtained direct from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement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

**Erratum:** There is given below information to correct an error regrettably published last month.

AUGUST 1971

On page 678, New Products item, "The Norimat, a super-8 projector . . ."

col. 2, line 6

For: \$399.50

Read: \$339.50

**The Model 70 optical sound reproducing system** has been added to the Series 8000 Theatre System line produced by Electro Sound, Inc., 725 Kifer Rd., Sunnyvale, CA 94086. Model 70 accommodates sound sources from two projectors, plus a non-sync source for intermission entertainment. Low noise preamplifiers with sophisticated equalization circuitry are used for optimum frequency response; two 1000-W power amplifiers provide low-distortion reproduction of the soundtrack. Features include a dual exciter lamp power supply (dc for normal operation and ac for standby); mode switching (changeover) assembly; circuit breaker/power amplifier switching assembly; station control/master gain units and monitor speaker and amplifier. Major components of the system are contained in a wall-mounted, front-opening cabinet rack to facilitate installation and maintenance. The price is \$2,400. A wiring kit is available at a price of \$100.

**A tunable active filter set** called Type LH4 Analog Filter has been announced by Spectrum Instruments, Inc., 35 Grand St., New Rochelle, NY 10801. The filter is on a 19-in rack panel 3½-in high and offers switch selection of low pass, high pass, band pass or band reject functions. The filtering characteristic or mode (Butterworth, simple RC and OT (optimum-transient)) are switch-selectable. The OT configuration suppresses the overshoot typical of the Butterworth and the undershoot of the RC mode when handling square wave, pulse or other signals containing abrupt transitions. The filter set is all silicon solid state and has a self-contained regulated power supply for line operation and a cutoff tuning range of 20 to 200,000 c/s. It is priced at \$445.

**The Varotal 30**, a newly developed Rank Taylor Hobson zoom lens for broadcast TV, has been announced by Rank Precision Industries, Inc., 260 North Route 303, West Nyack, NY 10994. The new lens is based on a new optical principle using a three-member zoom system instead of the conventional two. However, the optics are arranged so that only two mechanical movements are necessary. The extra optical parameters result in shorter movements which are more linear and make the mechanical action smoother. The new lens has an 18-in minimum object distance and a horizontal angular field of view up to 56°. The types of glass used in the lens have been specially selected for light transmission qualities. Combined with newly developed anti-reflective coatings they keep light transmission level around 80% and keep this level over a wide spectrum. There are three plug-in modules for zoom, focus and iris and new demand units for both zoom and focus. Plug-in zoom and focus drives are interchangeable. A range extender on the Varotal 30 gives an angular field of view ranging from 30° to 3° instantly without shifting the focal plane or the center of gravity. The range extender can be controlled from behind the camera.

**The Cooke Varotal 35mm**, a new Rank Taylor Hobson motion-picture zoom lens designed for use in the production of both motion-picture and television films utilizing professional 35mm cine reflex type cameras, has been announced by Rank Precision Industries, Inc., 260 North Route 303, West Nyack, NY 10994. The lens has a minimum focal length of 20 mm, a minimum object distance of 28 in from the film plane, and a basic zoom range of 1:5. It has a wide angle of acceptance (58° horizontally) and an extremely short focusing capability. The new lens is equipped with a system of interchangeable rear end units to be used where greater focal lengths are required, such as in outdoor filming, avoiding the degradation in picture quality which frequently occurs when supplementary lenses are used. The maximum aperture of the Cooke Varotal is f/2.8 with an effective transmission T stop of T/3.2 through a semi-automatic iris diaphragm. The lens is 5½ in in diameter, 12½ in long and weighs about 7½ lb. It can be controlled automatically or manually.

**The Kinoptik 100mm f 8 telephoto lens** has been announced by Karl Heitz, Inc., 979 Third Ave., New York, NY 10022. The lens has 10 elements and focusing ranges from infinity down to 10 ft for a reproduction ratio of 1:4. The angle of view is 2.5° and the diaphragm stops down to f/64. The lens is 19 in long and weighs 13 lb. Each lens is individually tested on a collimator. It is available in Alpha, C, Arriflex and other mounts. The price is \$2,995.

**A dichroic beam splitter** has been introduced by Rank Precision Industries, 260 N. Rt. 303, West Nyack, NY 10994. The beam splitter has been optimized for lead oxide TV camera tubes. The spectral



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transmission values are: blue, 80%; green, 70%; and red, 80%. The aperture is  $f/2.2$  and the image format is 16mm diagonal and 21.4mm diagonal. The beam splitter is custom made and is priced from \$1,200 to \$2,800 depending on the customer's specifications.

A parabolic mirror for infrared scanning is available from Rank Precision Industries, Inc., 260 N. Rt. 303, West Nyack, NY 10994. The use of aspheric surfaces for refractive and reflective systems has been found useful in the infrared field, the announcement stated. There are two main reasons why aspheric surfaces are becoming increasingly used: (1) When exotic materials such as silicon and ger-

manium are required for refractive optical systems there is a lack of homogeneity. Reflective systems, such as Schmidt, Cassegrain, Gregorian and Newtonian optics, overcome this problem. (2) The use of aspherics for refractive systems allows the designer to deal with fewer elements, cutting both costs and volume. The Rank parabolic mirrors are custom made and are priced from \$50 to \$5,000 depending upon the customer's specifications.

The new Ultrafast  $f/1.8$  TV zoom lens has been announced by Wollensak Inc., 850 Hudson Ave., Rochester, NY 14629. The line includes a 10:1 and a 6:1 version in both manual and motorized models. The lenses are reported to have good resolu-

tion and extreme wide angle coverage. The price range is from \$585 to \$1,465.

The Technor Adapter Lenses for the Model 1000 and Model 1200 super-8 sound projectors have been announced by Technicolor, Inc., Commercial and Educational Div., 299 Kalmus Dr., Costa Mesa, CA 92627. With the lenses the projectors can be placed almost anywhere to get the right size of projection image. For example, an image can be shown on a screen 5 to 80 ft away from the projector and its width varied from less than two feet to 11 feet. The lenses are designed so that they easily slip over the existing lens system. Five models of the new lenses are available, each priced at \$69.95 except the AL28 which is priced at \$89.95.

# Cable Television

## Proceedings of the Symposium

After two decades, cable television is undergoing a metamorphosis. It is evolving from a community antenna service for isolated rural locations to a new medium of communications — the broadband communications network. Because of its multi-channel characteristics, CATV acts as a catalyst for new services, promising diversity of programming, pinpoint delivery to specific audiences, retention and recall of information and entertainment programs, and a wealth of non-entertainment services.

The *Proceedings* of the two-day Symposium on Cable Television, held during the 108th Technical Conference in New York City on October 8 and 9, 1970, presents some of the possibilities that exist in this vast new market.

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The Autowind Film System, a device that automatically rewinds the film as it is being projected, eliminating the need for separate rewinding, has been announced by Christie Electric Corp., 3410 W. 67 St., Los Angeles, CA 90060. The system makes it possible to use only one projector for 4½ hours of showing. The system consists of two or three reels individually controlled by plug-in solid state modules which continuously adjust the speed of both the take-up and feed reels. Drive motors are 115 V ac. Included is a proximity sensor for programming and a sensor that will stop the projector and system if film damage should occur. Two reel sizes are available, 52 in in diameter for 4½ hours continuous showing and 40 in in diameter for 2½ hours showing. An optional third reel can be used for simultaneous film make-up for the next show change or for special showings which can be shown without disturbing the made-up show. The price range is from \$4000 to \$5000. The Autowind System is shown above with a Xenolite Illumination Console (*Journal*, p. 339, Apr. 1971).

A special purpose cathode-ray tube, Type D601, for projection display, has been introduced by Rank Precision Industries, Inc., 260 N. Rt. 303, West Nyack, NY 10994. It is designed for applications where high-brightness displays of large area are required, such as flight simulators for the aircraft industry. The tubes are 17 in long, 5 in in diameter and weigh 2 lb. The tubes are available in four versions, differing only in the phosphor screens (red, green and blue for color TV and white for monochrome). The faceplate is convex for integration in Schmidt optical systems. The D601 tube is priced at \$520.

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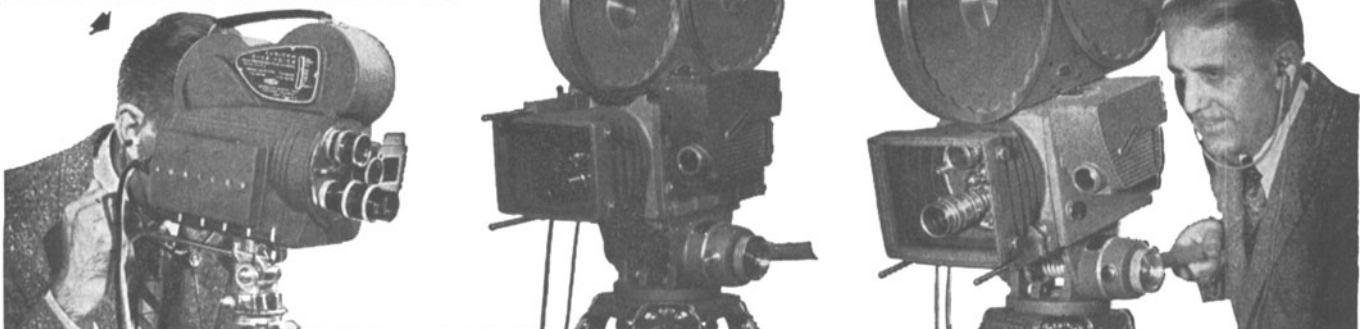


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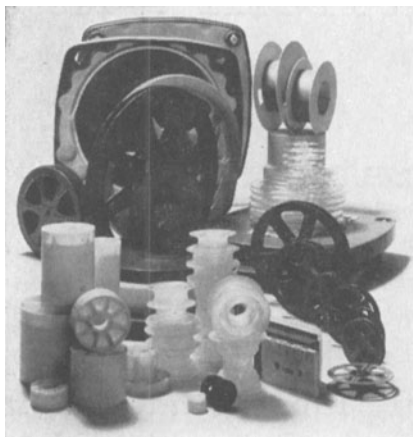
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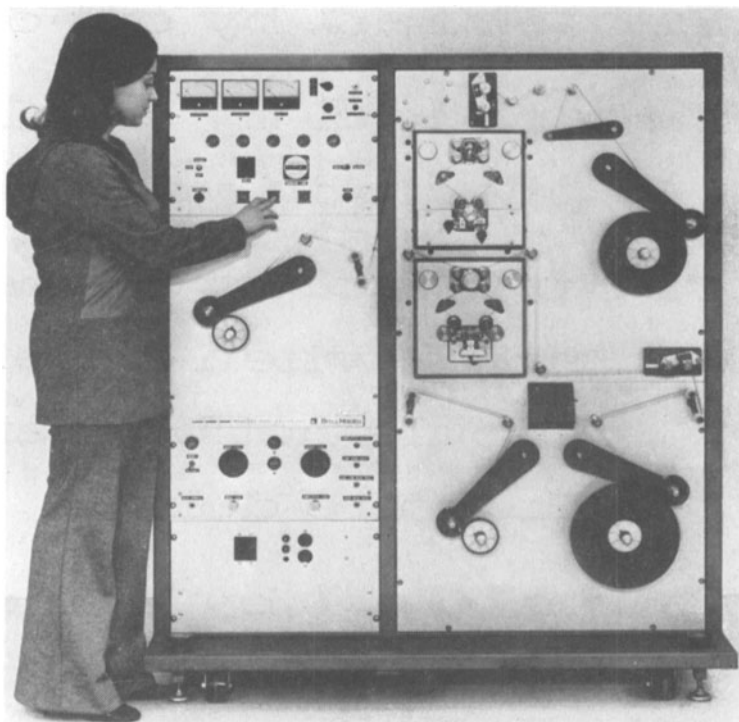
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A super-8 magnetic sound transfer console with a new On-the-Drum recording system has been announced by Bell & Howell, Professional Equipment Div., 7100 McCormick Rd., Chicago, IL 60645. The new configuration permits constant monitoring of the sound transfer quality. The sound transfers can be made at a speed of 200 ft/min. A simple threading path is provided by the single drum, single

sprocket transfer system. Safety features are incorporated to prevent operation in the event of film breakage, speed mismatch, etc. Pushbutton controls are back-lighted. The console is available in standard models operating at 200 ft/min or dual mode models operating in either solo mode at 200 ft/min or slave mode at 60 to 240 ft/min. Prices begin at \$21,500.

The Featherlite Quartz Lighting Kit designed for use on location for TV or motion pictures has been announced by Century Strand Inc., 3411 W. El Segundo Blvd., Hawthorne, CA 90250. The kit includes two 600-W quartz focusing spots, one 600-W focusing broad and three 600-W quartz lamps, three stainless-steel adjustable stands with extendable legs, one heavy-duty gaffer grip, three 10-ft 3-wire cords and switches with three 15-ft extension cables and one aluminum carrying case to stow beneath an aircraft seat. The kit is priced at \$384.

The Mini-Flex, a device for recording data on motion-picture film and identifying the scene being photographed, has been announced by the inventor, Robert M. Koniar, 1322 1/2 Ninth St., Alamogordo, NM 88310, by means of a Notice of Invention for Sale or Licensing. The device, for which a patent application has been made, consists of a small, rectangular sheet of Mylar plastic with a frosted finish which is cemented to clear Plexiglas backing. The Mylar sheet has imprinted lines to define spaces in which data are written with a pencil under printed headings. A tab permits inserting the device by hand into the front frame of a matte box on a 16mm or 35mm camera. Using an appropriate conventional lens, focusing is adjusted to the closest position, the slate is exposed and the information is recorded on the film. The Mini-Flex is small enough to be car-

ried in the pocket and the pencil markings on the slate can be erased for reuse.



The Attache 35 projector, a self-contained unit in a compact, lightweight case, has been announced by Bell & Howell, Audio-Visual Products Div., 7100 McCormick Rd., Chicago, IL 60645. The Attache 35 uses Bell & Howell Autoload 35mm filmstrip cartridges which can be "fast rewind" at any point in a presentation to reshoot a program or present a new program. The cartridges can hold up to 170 frames. The film is advanced in synchronization with sound by means of inaudible pulses recorded on cassette tapes. The cassette tapes can also be rewound at high speed. They contain 60 min of narration. Filmstrip images are projected on a 9- by 12-in screen mounted in the cover of the case. The unit weighs 19 lb. It measures 5 1/2 by 12 by 18 in. The price is \$350.

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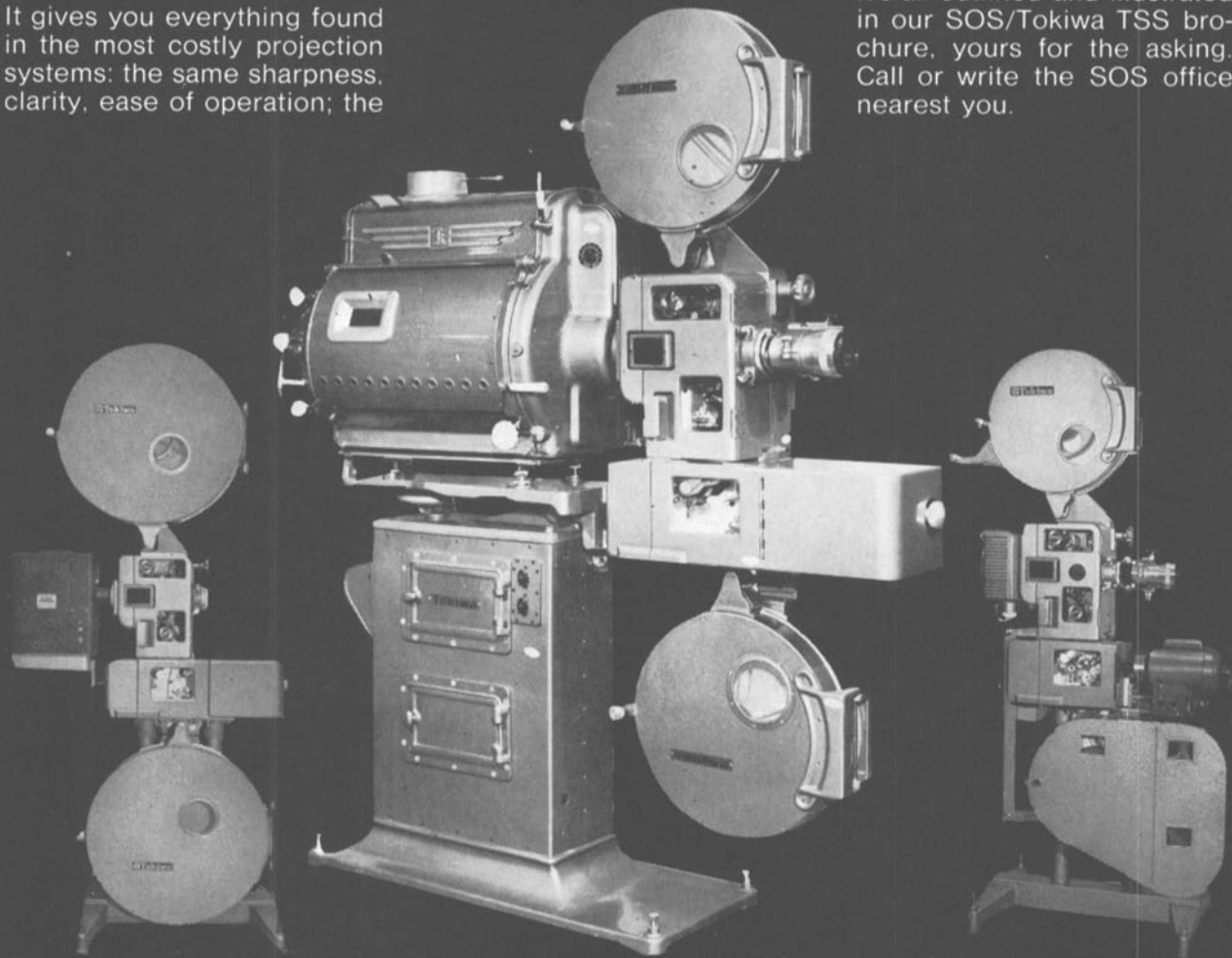
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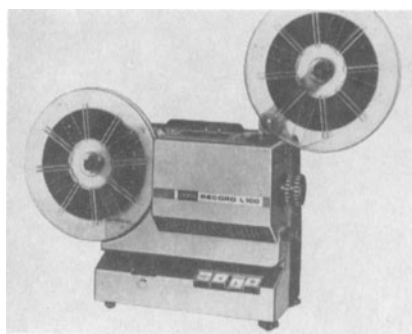
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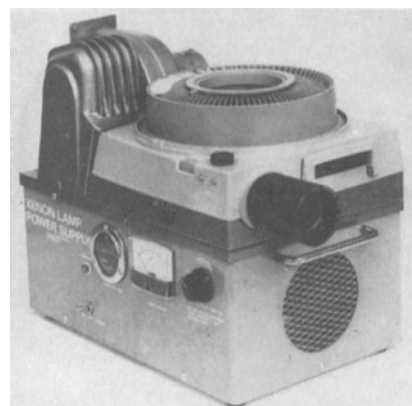
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A new super-8 cartridge-loading sound projector with stop-motion control has been announced by Technicolor, Inc., Commercial and Educational Div., 299 Kalmus Dr., Costa Mesa, CA 92627. The portable (29-lb) projector can be easily converted from rear screen to front projection. It is equipped with a two-speaker sound system. The stop-motion feature is operated by a simple switch to allow close study of any frame in the film. The screen provides a 7- by 9½-in picture. The projector, designated Model 1400, is priced at \$499.95.



The Record super-8 motion-picture projectors featuring silent running, automatic loop setting and reel-to-reel threading have been announced by Karl Heitz, Inc., 979 Third Ave., New York, NY 10022. The projectors, measuring 11 by 9 by 6 in and weighing 10 lb, accept up to 400-ft reels. A special Infinator reel provides for continuous projection of endless films. Illuminated pushbuttons offer forward, reverse, single-frame and stop. Speeds can be varied continuously from 26 to 2 frames/s. Four models are available, the Record L with a pre-centered 8-V 50-W halogen mirror lamp, Record L 100 with a 12-V 100-W cold light mirror lamp with automatic voltage protection and the Record D and D 100 dual models for projection of either super-8 or 8mm films. The price range is from \$129.50 to \$189.50.

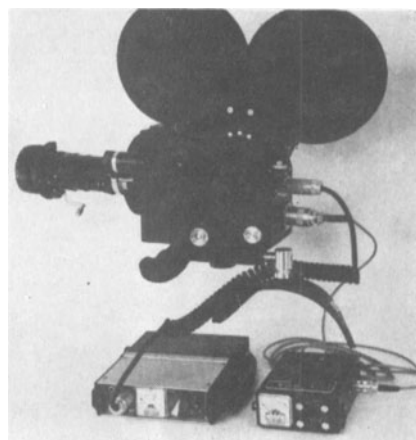


The Atlantic Model EKK-40 slide projector, a Kodak Carousel converted to xenon light, has been announced by Atlantic Audio-Visual Corp., 630 Ninth Ave., New York, NY 10036. The system includes a Kodak Carousel, ignition device and power supply in one unit. The projector provides 3500 lm and operates from a 117-V 15-A outlet with a single ON/OFF switch. Xenon lamp ignition is automatic. The light

output brightness is variable from 20 A to 40 A making it possible to select the appropriate illumination for different sizes of screen or densities of slides. The projector is capable of plug-in remote operation. The optical system includes a special dichroic heat reflection filter to allow illuminating the slides continuously without overheating. The size of the projected picture can be as large as 20 by 20 ft. Price of the EKK-40 is \$1,895.

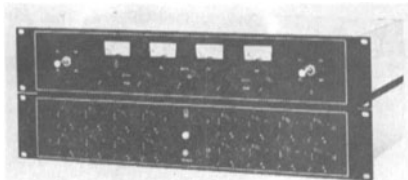
The Model 488Z super-8 projector for projecting either silent or magnetically striped sound motion pictures has been announced by Bell & Howell, Consumer Products Group, 7235 N. Liner Ave., Skokie, IL 60076. When using super-8 film to which a magnetic sound stripe has been added, the operator can use the projector to add narration, music or sound effects. Voices and music can be mixed and music or voices can be faded in or out by means of the mixing control. The machine is automatic-threading and it also accepts commercially available super-8 films with sound on the magnetic stripe. Other features include 17 to 30mm f/1.6 lens, reverse projection, speed adjustment of 18 or 24 frames/s, volume control and 400-ft reel capacity. The price is about \$249.95.

A new Slide Cube projector, Model 975Q, has been added to the Bell & Howell Slide Cube projectors (*Journal*, p. 311, Mar. 1970), it was announced by the Bell & Howell Consumer Products Group, 7235 N. Linder Ave., Skokie, IL 60076. Each Slide Cube cartridge holds up to 40 color slides. A scan/search system permits rapid editing and sorting slides. By holding the cycle button down the slides continue to pass through the system without being projected on the screen, enabling the operator to view and skip slides without the audience being aware of it. Other features include an f/3.5 projection lens with a 20° elevation, a quartz-halogen lamp and a slide recall that can be activated to recall the slide previously shown. The projector measures 9 by 9 by 8 in. The price is \$89.95.



The SSIII 16mm single/double system sound camera in an improved version has been announced by General Camera Corp., 471 Eleventh Ave., New York, NY 10018. The improved version has a re-engineered drive system with an independent counter and transport mechanism designed to reduce the camera's low noise level still fur-

ther. The improved SSIII is priced at \$3,325. Earlier versions of the camera can be retrofitted at a price of \$495.



The MQ 184 Mini Quad Panner System, a device designed to add full quadrafonic mixdown capability to any 16-track console, has been announced by Quad-Eight Electronics, 11810 Vose St., North Hollywood, CA 91605. The 16 inputs are positioned in four quadrants by concentric pan pots. The new pots have circuits identical to the joystick variety; however, they offer the added features of compactness and economy. In addition the concentric knobs can be calibrated to allow easy return to logged positions. Two joystick pan pots increase the input capability to 18, providing for final mixdown additions of tape echo or special solo tracks. Four echo return pots are provided as well as four balance pots and master gain control. The system is a unity gain device intended to operate at a nominal +4 dBm in and out. SNR is 70 dB. Input impedances are 600  $\Omega$  unbalanced, including the four echo returns. The four outputs are 600  $\Omega$ , transformer isolated. Power requirements are 115 or 230 V ac, 50 or 60 Hz. The MQ 184 is 7 in high, 19 in wide and 10 in deep. It is priced at about \$2,795.

A new two-speaker system for the Model 1300 super-8 cartridge loading projector has been announced by Technicolor, Inc., Commercial and Educational Div., 299 Kalmus Dr., Costa Mesa, CA 92627. The additional speaker is located on the top front of the table model machine and it redistributes the sound when the projector is used in a rear projection mode. When the unit is converted to front projection the front-mounted speaker directs the sound forward. Model 1300 with the additional speaker is priced at \$499.95.

A stereo microphone mixer, Model M-688, has been announced by Shure Brothers, Inc., 222 Hartrey Ave., Evanston, IL 60204. The mixer accepts four high or low impedance microphones through four inputs, plus a stereo auxiliary high level input, each with its own volume control. Three microphone inputs have front panel switches for left or right channel output. The fourth microphone input has a pan control which allows this input to be directed to the left channel, the right channel, or anywhere in between. A stereo master volume control simultaneously adjusts the level of all inputs. If additional inputs are needed, the unit can be paralleled with a Shure M67 Mixer or another M688 via mix bus jacks. The M688 has a stereo high level high impedance output plus a left right (mono) microphone level output (Hi or Lo Z). It is priced at \$114.

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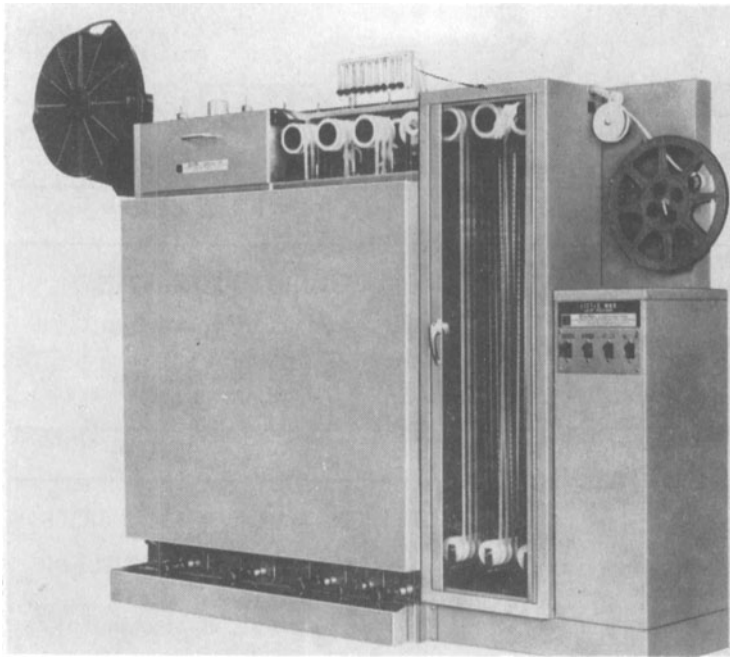
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**Little Max**, a new Cintel Color Processor, has been announced by IIF Photo Systems, 11801 W. Olympic Blvd., Los Angeles, CA 90064. Features include a convenient control panel and take-up reel located at one end. A demand drive system utilizing new spring-centered rollers is designed to provide light tension through all stages of processing. The dryer cabinet has RII and temperature control. The Little Max is

free-standing and weighs about 700 lb. It is 63 in long, 21 in wide and 55 in high. It is available in two versions, for the CR-100 process (15 min dry-to-dry) or for the ME-4 process (28 min). Each version is priced at \$6,950.

The **Rotex Ultra**, a simplified silver recovery system that has no knobs or dials and requires no adjustments or calibra-

tions, has been announced by The Snook Corp., 751 Loma Verde Ave., Palo Alto, CA 94303. The system has a silver recovery capacity of up to 2 oz of silver per hour. It can be used with either batch or terminal recovery service. Features include a sulfide suppression circuit designed to reduce sulfiding. The system can be used with most automatic film processors. The silver laden cathode can be removed by loosening two screws. The Rotex Ultra measures 1 by 1 ft and is 2 ft high. It is priced at \$895.

A real time audio spectrum analyzer, **Model 8050A**, has been announced by the Altec Division of LTV Ling Altec, Inc., 1515 South Manchester Ave., Anaheim, CA 92803. The instrument covers the frequency range from 40 Hz to 16 kHz with 27 parallel bandpass filters. Detectors following the filters convert the ac filter outputs to dc levels proportional to the rms value of the ac signals. An internal scanner sequentially connects the 27 detector outputs to the cathode-ray tube display screen of the instrument through a log converter and simultaneously generates a linear ramp at the "X" deflection. The gain of the preamplifier circuit is continuously variable from -20 dB to +20 dB, permitting shift of the 20-dB display from the range of 70 to 90 to 110 to 130 dB. An overload lamp on the front panel of the instrument indicates preamplifier overloads as brief as 100  $\mu$ s. The unit contains a built-in power supply to operate a condenser-type microphone. The price is \$3,018.

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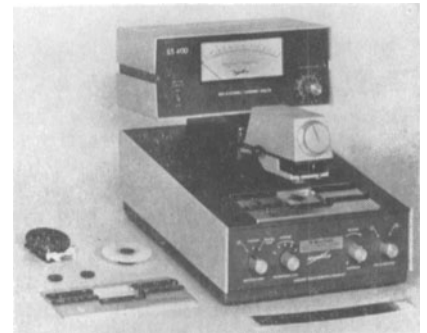


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The **Bell & Howell/Sargent Welch Solid State Transmission Densitometer** has been announced by Bell & Howell, 7100 McCormick Rd., Chicago, IL 60645. The instrument measures the density of all color and black-and-white motion-picture films. It measures ANSI diffuse density for negative/positive and reversal emulsions including silver, silver sulfide and dye soundtracks. It features modular construction and a dual-modulation system for stability. It includes status A, status M or status D filter sets. The price is \$1,865.

A new "special effect" gate developed by the Oxberry Div. of Richmark Camera Service has been announced by The Optical House, 25 W. 45 St., New York, NY 10036. The film is passed through a controlled liquid environment maintained by a vacuum-liquid circulating system. A set of filters in the liquid path separates all particles above micron size to provide for a dirt-free aperture area. The gate win-

dow is made of an optically flat thick glass to minimize the effects of dust and dirt on its outer surface and is specially coated to maximize light passage. The new gate is said to be the first in which the film is immersed in liquid during photography. It can run film forward, reverse or freeze frame to make possible various optical effects. It was developed for use with 16mm and super-16 film.

A device designed to permit direct-coupled audio power amplifiers to be used in multiple-speaker sound distribution systems has been announced by Marantz Co., P.O. Box 99, Sun Valley, CA 91352. Designated the Marantz LT-70, specifications include 8  $\Omega$  with 50  $\Omega$  loading; output level of 70.7-V rms into 50  $\Omega$  balanced; power rating of 100 W rms, nominal 30 Hz to 15 kHz and frequency response of  $\pm 0.5$  dB 30 Hz to 15 kHz. The line matching transformer and its associated decoupling circuitry are mounted in a heavy-duty chassis which can easily be adapted for rack mounting. The price is \$99.

A series of equalized delay line modules for color video signals with delays of 5 ns to 4 ns, designed jointly by Matthey Printed Products and British Broadcasting Corp., have been announced by the distributor, Television Equipment Associates, P.O. Box 1391, Bayville, NY 11709. The 75- $\Omega$  modules have been designed for use instead of bulky coaxial cable, attendant equalizers and high-gain amplifier circuits in the delaying of color video signals. Each video module incorporates its own equalization circuit and the units can be cascaded. Price range is from \$22 to \$154 with discounts for various quantities.

The Matthey variable delay unit, UN14/511, has switches which provide selection of any delay time from 10 to 165 ns with a  $\pm 4$  ns trim with BNC connectors. Intended primarily to facilitate timing on a temporary basis for remotes, it can also be used to determine delay requirements for permanent installations. The delay unit can be cascaded with Matthey fixed delay modules of 200 ns, 500 ns and 1000 ns. The fixed delay modules can also be cascaded with each other to provide delays of up to 4 ns. Price of the UN14/511 is \$72.

The Dynasciences Editor-Programmer, which provides tape-to-tape assemble and insert editing on most 1- and  $\frac{1}{2}$ -in videotape recorders as well as 2-in quad machines, has been announced by Dynasciences Corp., Video Products, Township Line Rd. at Blue Bell Rd., Blue Bell, PA 19422. The machine provides the control and data storage capability to program "Start Insert" (or assemble) and "End Insert" edit points on the record tape and "Start Transfer" edit point on the playback tape. Preview record and playback tape edit points are shown independently or in combination, which provides the operator with a visual preview of the end-product edit without altering the record tape. The operator can independently advance or retard any edit point any desired number of frames to adjust edit transitions and record the edit as observed in the last preview. The Edi-

tor-Programmer is priced in the range of \$3,000.



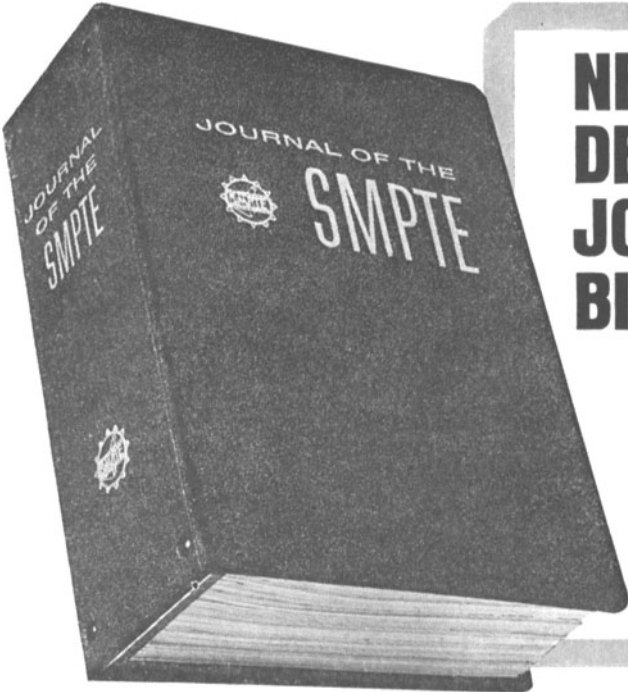
The Electronic Q Board, a device used in videotape production work to record tape identification and cue timing, has been announced by Laird Telemedia, Inc., 2125 South West Temple, Salt Lake City, UT 84115. The board provides both aural and visual cue marks for a full 10-s count-down. A large, center-located 7-bar read-out permits a zoom to full screen numeral, following identification. A local speaker alerts talent and studio personnel. Separate laminated message surfaces protect the permanent format but permit ready changes in title information. The unit has no moving parts. The time base is derived from 50- or 60-Hz power line frequency. Local controls include speaker volume and a local reset switch. The price is \$395.

The EVR cassette shipping case has been announced by Plastic Reel Corp. of America, 640 South Commercial Ave., Carl-

stadt, NJ 07072. The case can be imprinted with subject title and can be stored on end. The case closes tightly with the firm's Positive Action Locking System and features shock resistant construction. It measures 9 by  $1\frac{1}{4}$  in. The price is \$2.25.




The Minilite, a lightweight (less than 1 oz) headset designed to insure against ear-canal chafing and irritation, has been announced by Television Equipment Associates, Box 1391, Bayville, NY 11709. The earphone housing can be positioned slightly away from the ear or the specially-shaped soft ear-mold rests lightly against the bowl of the ear to provide a high signal level with good intelligibility. The unit can be attached to eyeglass frames or worn with a non-metallic headband. The price is \$98 with price reductions for quantity orders.



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