

# 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 Microcam™**, a handheld color electronic camera weighing 8 lb has been developed by Thomson-CSF Laboratories, Inc., 37 Brownhouse Rd., Stamford, CT 06902, in cooperation with the CBS Television Network. A companion 3-lb electronic hip pack which can be worn around the waist makes it possible to operate the camera in any situation, such as fast-breaking news events. The camera uses 20 W, enabling it to operate on standard flashlight batteries in an emergency. The solid-state electronic camera's size and unusually light weight is expected to broaden opportunities for women in broadcast journalism. Use of the Microcam will make it possible for television news teams to be able to broadcast a news story in real time for the viewer as it is happening.



An advantage of the Microcam's recording directly onto videotape is that it requires no processing in the laboratory before broadcasting. Other features include specially-designed horizontal and vertical comb filter image-enhancing techniques built into the camera to monitor the color segments of the television picture as it is transmitted to sharpen the

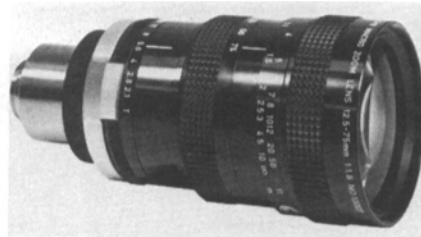
image and provide the viewer with crisper pictures on the television set. Price of the Microcam is expected to be less than \$30,000.



**The XC-2000 color camera**, a single-tube camera with a self-contained camera control unit, has been announced by Sharp Electronics Corp., 10 Keystone Pl., Paramus, NJ 07652. The camera has an enclosed lens system with a built-in cable-drive zoom and focus, a Standard/Macro control and remote iris-setting readout. Special effects guidelines are scribed on the cathode-ray tube for accurate effects positioning. Other features include automatic light compensation, single-color balance control, self-balancing cradle mount and an independent two-way intercom channel with adjustable operator level control. The price is about \$4000.

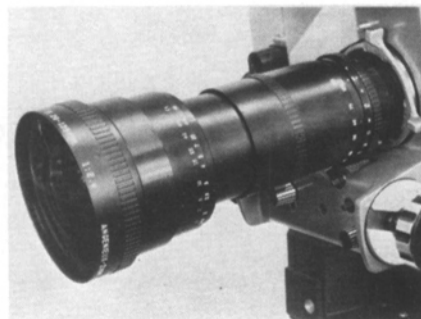


**Two new zoom lenses (6X and 10X)** designed especially for electronic newsgathering applications have been announced by Lenzar Optics Corp., 210 Brant Rd., Lake Park, FL 33403. Both lenses provide an angle of view of 56° at 14.8mm. The 6X zoom has an angle of 17° at 90mm and the 10X yields 6° at 150mm. They both have  $f/1.8$  apertures. The lenses cover a maximum image diagonal of  $\frac{1}{2}$  in and can be used on 16mm motion-picture cameras. Both lenses are reported to have a resolution of 1200 TV lines (approx. 60 line pairs/mm) and a focusing range of 5 ft to infinity (18 to 30 in with an optional close-up adapter). The lenses are supplied with "C" mounts. Price of the 6X lens is \$1250. The 10X lens is priced at \$1995.



**The C 6 X 12 Macro Zoom Lens**, an interchangeable  $T/2.1$ , 12.5-75mm macro zoom lens for use with all 16mm cameras has been announced by Canon U.S.A., Inc., 10 Nevada Dr., Lake Success, New York, NY 11040. The lens, which is  $4\frac{7}{8}$  in long, is available in "C", Arriflex, new Arriflex, Eclair and CP mounts. It can focus as close as  $3\frac{1}{8}$  in from its front element. The same macro-focusing feature that makes this possible, provides the filmmaker with a number of unusual capabilities including "optical dolly" and continuous rack focusing from extremely close to distant subjects.

With the optical dolly the lens changes its focal point while maintaining constant field size. By simply setting the macro ring and using the zoom lever to follow focus, a subject can be tracked while moving forward or backward without changing its apparent size. In other applications, use of the macro ring provides smooth, continuous rack focus from extremely close to distant subjects. The lens is priced at \$1300.

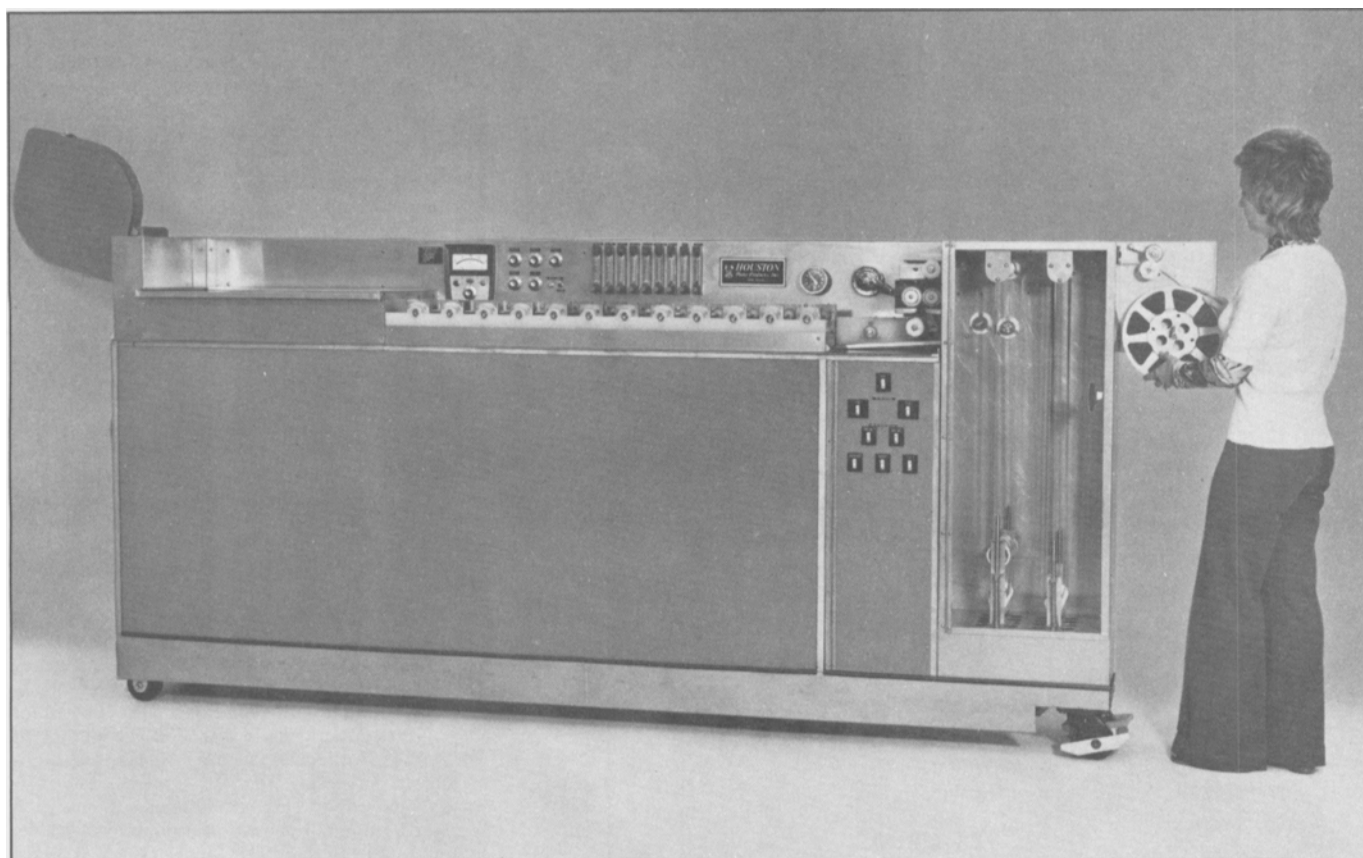


Availability of the **Angenieux 20-120mm  $T/2.9$  HEC zoom lens** for professional 35mm cinematography has been announced by Cinema Products Corp., 2037 Granville Ave., Los Angeles, CA 90025. The lens, available exclusively from Cinema Products, has a minimum focusing distance of 3 ft (1 m) and a wide focal length range covering an angle of 68.5° at the 20mm position to 13° at the 120mm position. Other features of the zoom lens include a high-efficiency multilayer coating, newly developed by Angenieux, which provides improved light transmission and a substantial reduction of flare. The lens is supplied in the XR35 mount which fits any BNC camera, and comes complete with follow-focus gear, zoom bracketry compatible with the J-4 zoom-control motor, and carrying case. The price is \$14,250.

**The Beaulieu 4008ZM2 super-8 camera** equipped with the Angenieux 6-80mm  $f/1.2$  XL zoom lens has been announced by Hervic Corp., 14225 Ventura Blvd., Sherman Oaks, CA 91403. The announcement noted, however, that only 100 units will be available for distribution in the United States. Features of the camera include: existing light filming capability; increased filming speeds from 2 to 80

# Good news for newscasts.

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frames/s; macrocinematography from within two feet of the front element of the lens allowing full use of available light without the intrusion of camera lens shadows. The camera is priced at \$1695.



The Canon Crystal Unit for the Scoopic 16M 16mm camera, providing the capability of shooting sync sound, has been announced by Canon U.S.A., Inc., Professional Motion Picture Products Div., 10 Nevada Dr., Lake Success, NY 11040. The solid-state module measuring 0.9 x 3 x 4.8 in mounts on the camera's accessory shoe or can fit into the cameraman's pocket connecting to the camera via 6-ft coil cord. Power is derived directly from the camera. Modification of the 16M, accomplished at any Canon Factory Service Center, is required for use with the Crystal Control Unit. Price of the unit including the modification is \$395.

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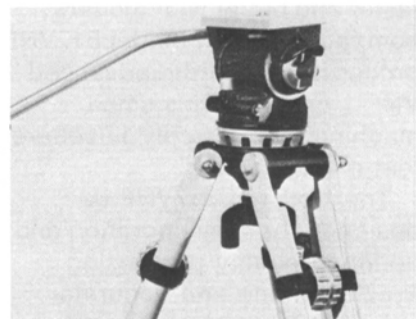
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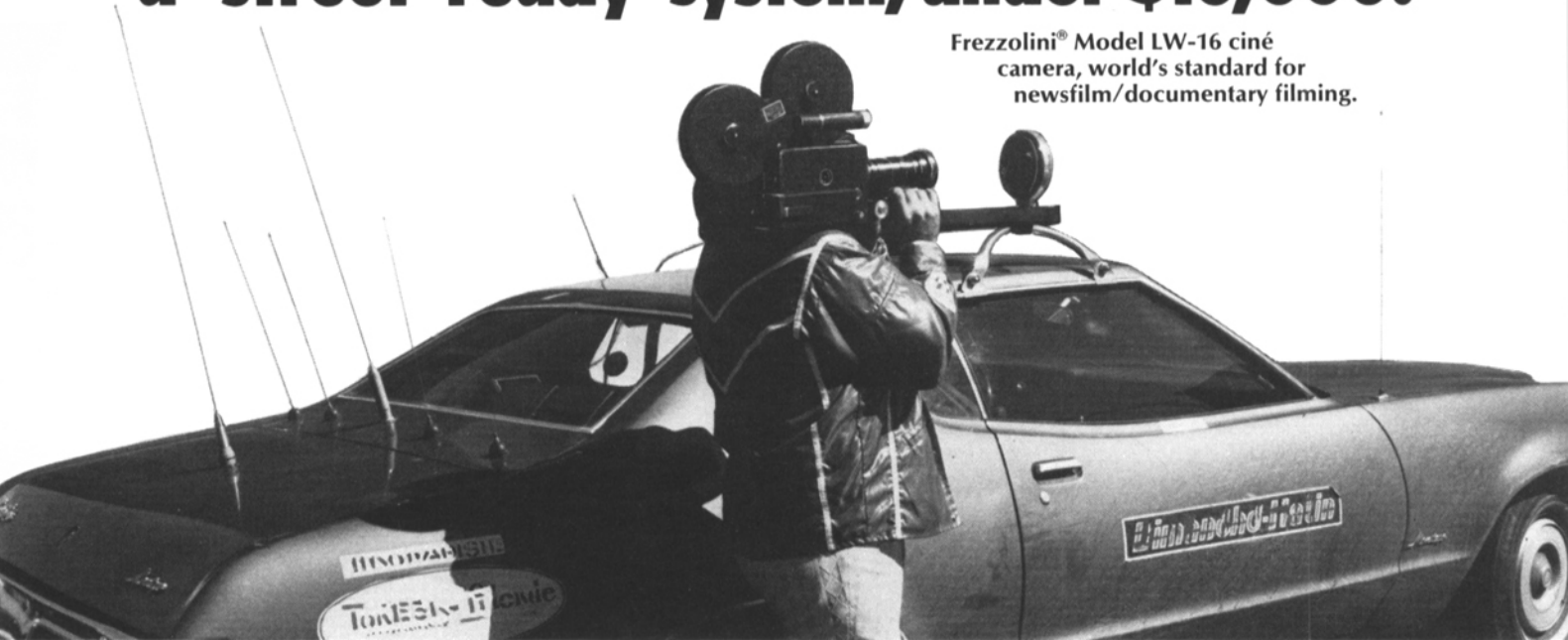
Crystal Sync Generators for double-system motion-picture recording are the initial products of a new company, Tobin Cinema Systems, 3227 49th Ave. SW, Seattle, WA 98116. All of the units have a sine-wave output of low harmonic content for trouble-free recording and a high crystal frequency (3.932160 MHz) for high stability. Two models of the generators are available. Model TX-2 is in a die-cast case with self-contained battery power. Model TX3-N, designed for plug-in installation in Nagra IV series recorders, includes the crystal-stop function for optional radio slating. The normal product is for North-American use with a 60-Hz output, but other frequencies, such as 50 Hz, are available on special order. IC CMOS circuitry is employed for a high-performance-to-cost ratio and minimal power consumption. Model TX-2 is priced at \$87; Model TX3-N is priced at \$132.



Availability of the Miller-Universal Model 2030 fluid tripod head manufactured by Miller-Universal in Australia has been announced

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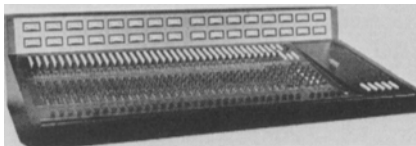
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by Cinema Products Corp., 2037 Granville Ave., Los Angeles, CA 90025. The tripod can carry 20 lb through 30 lb of camera weight and can be safely locked at a 90° tilt. Features include leakproof and dustproof sealing. It can operate in a temperature range of -20°C through +75°C. Other features include: the Autoslip automatic self-operating and adjusting free pan; and a concentric tilt lock/tension device, hydrostatic or mechanical self-equalizing. The tripod is supplied with a lightweight segmented ball compatible with 2-in radius standard ball tripod cups. The head alone weighs 8 lb. The Model 2030 fluid head with wooden tripod legs is priced at \$825. The head alone is priced at \$625.

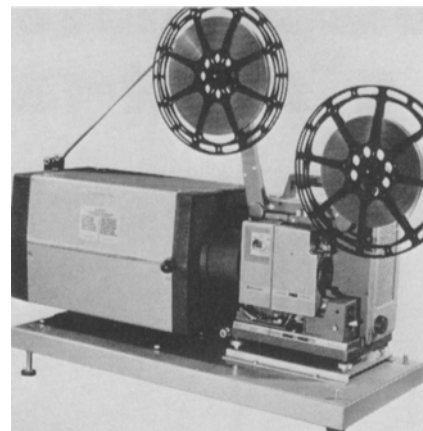
**Battery packs** ranging from 6 V to 30 V to meet the power requirements for various motion-picture and portable video cameras as well as sun guns have been announced by Cine 60, Inc., Film Center Bldg., 630 Ninth Ave., New York, NY 10036. The battery packs are compact, utilizing nickel cadmium batteries. The price range is from \$190 to \$550. The company also manufactures battery belts.



A new audio control system designated Model 1032-32 has been announced by Spectra Sonics, 770 Wall Ave., Ogden, UT 84404. The console provides inputs for 32 microphones, 32 line, 32 tape, seven line level direct to control room monitor and four echo returns. There are 32 direct outputs, four echo send, four quad, two stereo, one mono, four control room monitors, two studio and Cues A, B and C outputs. A 15-frequency graphic type equalizer is included on all 32 inputs and also on the echo return. The 32 VU meters are switchable to provide full monitoring to include control room monitor, quad, echo, stereo, mono and Cue C. A Model 800 Signal Generator is incorporated for level setting and calibration. The talkback facility is on all 32 direct outputs and also in studio, quad, stereo, mono and all three cue functions. Tape remote controls are provided for five tape recorders/reproducers and a 480-point jack bay field for 96 inputs, 52 outputs, 32 buss/amplifier internal patching, 12 multiple, seven tapes, four echo return inputs, 16 spares, 66 blanks for potential added applications and four Model 800 Signal Generator outputs. Price of Model 1032-32 is \$56,567.06.

Two new lightweight head-worn microphones for studio and remote professional broadcasting applications have been announced by Shure Brothers, Inc., 222 Hartrey Ave., Evanston, IL 60204. Model SM10 consists of a headband and microphone; Model SM12 has a headband, microphone and earphone and permits the user to receive as well as to transmit. Both units have unidirectional pick-up patterns to reject unwanted background noise and miniature windscreens to block out wind noise and explosive breath sounds. Each unit weighs less than 3 oz and is made of stainless steel, aluminum and high-impact thermoplastic. Model SM10 is priced at \$72;

Model SM12 is priced at \$96. An accessory cough button, Model A10CH is available at a price of \$24.



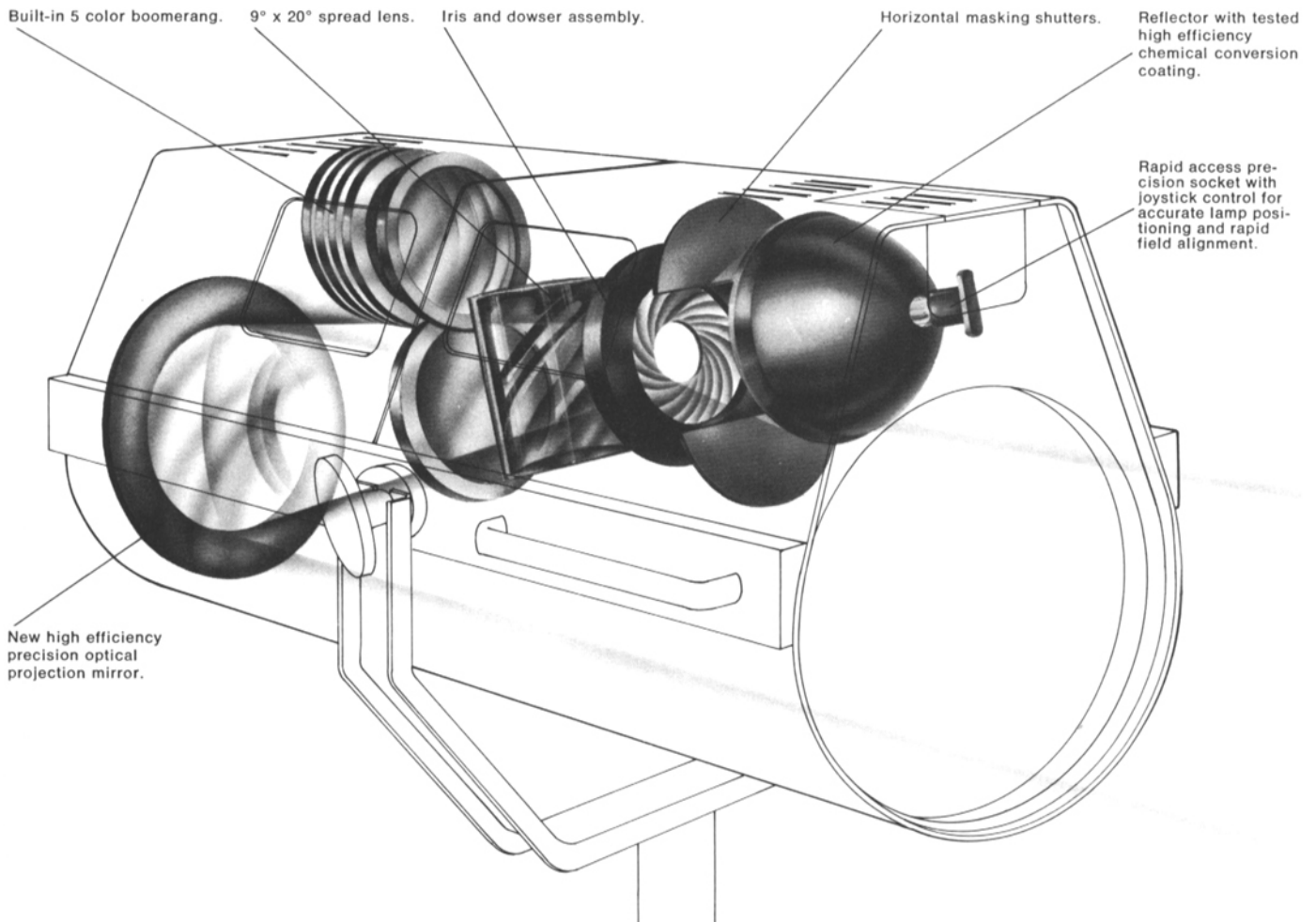
The Lume-X 16mm projector system has been announced by Strong Electric Corp., Holograph Div., P.O. Box 1003, 87 City Park Ave., Toledo, OH 43797. The system uses the Strong Electric 700/1000-W lamphouse having a solid-state power supply operating from 115-V. The projector is a Bell & Howell Model 1590A. The lamphouse is equipped with a cold reflector and a dichroic insertion filter to provide a high projected-light-to-aperture-heat ratio. The Lume-X 16mm projector system is priced at \$3625.



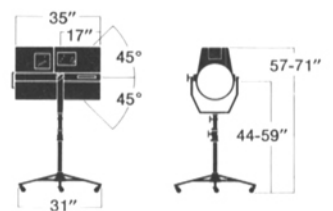
A new 16mm professional pedestal projector has been announced by Eiki International, Inc., 27882 Camino Capistrano, Laguna Niguel, CA 92677. Designated the EX-6000 features include: improved film take-up with a specially-designed torque motor; three-minute rewind time for 5000 ft of film with a separate torque motor; professional, theatrical-type optical framing; and a pushbutton electrical film advance to test threading. A single module includes both camtank and gate assembly to simplify service or exchange. The projector has an electrical dowser operation to shut off the light source automatically when the drive motor stops and a universal voltage switch for

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110, 115, 220 and 240 V. It has also a 24° variable adjustment to tilt the projector up or down. The price of the basic EX-6000 with a 1000-W xenon lamp is \$5999.

A new xenon light source developed by Varian Associates for the Eiki 2000 series 16mm sound projectors has been announced by Eiki International, Inc., 27882 Camino Capistrano, Laguna Niguel, CA 92677. The lamp delivers 2500 lm at 1000 W and has a life of 1000 h. The lamp's element and mirror are encased in metal with an advanced window made of industrial sapphire. The Eiki projector equipped with the new Varian lamp, designated the V-2000-A2, has all the features of the EX-2000 including optical and magnetic sound capability, self-threading, an 8-in speaker in a removable front cover and a 2000-ft reel capacity. It is also available with a 5000-ft capacity. The projector with the new Varian lamp is priced at \$4548.

Two new accessories for Eiki 16mm sound projectors have been announced by Eiki International, Inc., 27882 Camino Capistrano, Laguna Niguel, CA 92677.

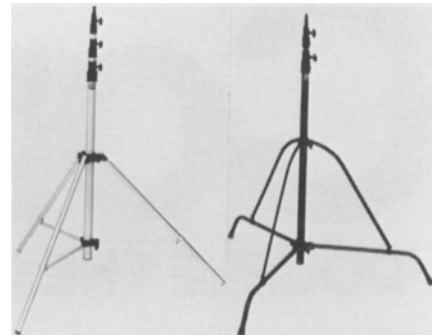
A self-contained 5000-ft arm system that operates independently with any projector provides a base for the projector and separate arms not attached to the projector. Each arm is equipped with a torque motor for easy, safe take-up and rewind. The price is \$350.

A CCTV Modification Kit that utilizes a synchronous motor module as a direct plug-in exchange for the standard induction motor in-

cludes toothed pulleys and a timing belt. New Eiki 16mm projectors supplied with the synchronous motor are priced at \$300 more than conventional projectors. A five-blade shutter for CCTV applications is available at a price of \$8.94.

The Strong Universal, a new 500-W xenon-arc slide projector utilizing the Eastman Ektagraphic 2 × 2 slide mechanism has been announced by Strong Electric Corp., Holophane Div., P.O. Box 1003, 87 City Park Ave., Toledo, OH 43697. The unit is reported to project the maximum amount of light at 5500 K that the slide film can withstand through the use of a cold reflector and an insertion dichroic filter. Fan cooling and vertical orientation of the electrodes are used to achieve long bulb life. A built-in automatic slide-sequence control is adjustable from 1 to 30 s. The Strong Universal is priced at \$2550.

The Xenon Super Trouper, a follow spotlight using a 1600-W xenon bulb in connection with a cold metal reflector, has been announced by Strong Electric Corp., Holophane Div., P.O. Box 1003, 87 City Park Ave., Toledo, OH 43697. The spotlight operates from single phase 230-V ac supply lines through a solid-state transformer/rectifier. The unit includes: a six-color boomerang, variable focal length lens system; horizontal masking control; nichrome iris; dimming control; ammeter, and elapsed time meter. In one mode of adjustment a beam of 10 million cp can be produced in a 4° beam. The Super Trouper is priced at \$5700.



The Great American Stand, a name designating a line of eight lighting stands and accessories, has been announced by The Great American Market, P.O. Box 178, Woodland Hills, CA 91364. Designed for motion-picture, television and still applications, the stands are available in various models including Bent Leg stands; the Compact (which folds into a 21-in package and weighs 2 lb); the Master and Master Roller (castered) which extend to 135 and 138 in; the Cine; and the Studio which accepts loads up to 60 lb. Accessories include light booms, cables, weights, etc. Prices for the stands range from \$49 to \$89.

A new time-code reader/display instrument designed to facilitate professional editing of videotape has been announced by CMX Systems, 3303 Scott Blvd., Santa Clara, CA 95050. The instrument reads the SMPTE-sponsored Time Code from any source, and displays it as a digital readout visible from 40 ft in a normally lighted room. The SMPTE 80-bit edit code in drop or non-drop modes is displayed in hours, minutes, seconds and frames. Real time operating speed ranges from 1/5X to 50X. Editors working with either quadruplex or helical tape are enabled to search and pinpoint specific frames of selected scenes. The Manual Hold switch enables holding the time (hours, minutes, seconds and frames) to be held on the display. The Auto Hold becomes active when the incoming code falls below 1/5 real time. The unit is plug-compatible with any editing system. The price is about \$1990.

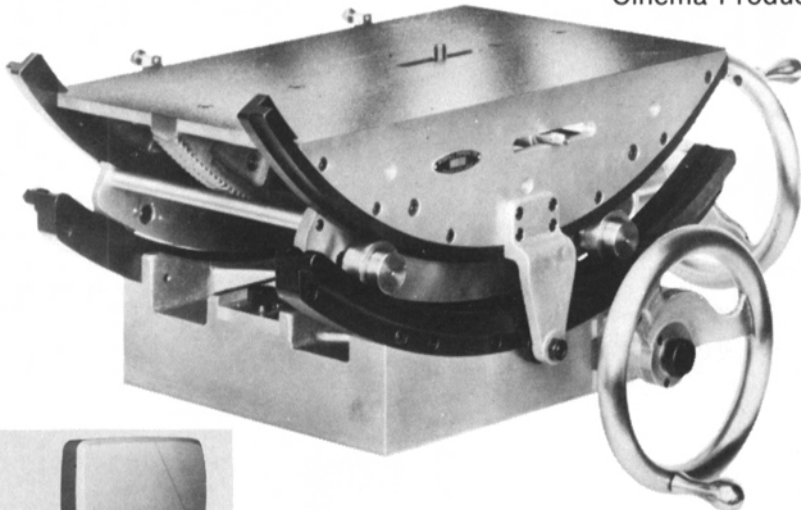


The XWM-2000 Waveform Monitor designed especially for the nonbroadcast user has been announced by Sharp Electronics Corp., 10 Keystone Pl., Paramus, NJ 07652. First in a series of production accessory products for use with the XC-2000 color camera (see above), the XWM-2000 is the result of computer-assisted design techniques and makes extensive use of C-MOS and Phase-Locked Loop technology. It has a 5-in (diagonally measured) display. Features include: internal or external synchronization, two separate video inputs with loop through and termination, Y-Pass filter and selectable 1 V p-p or 4 V p-p sensitivity. Display modes include: 2H lines, 2V fields, H blanking, internal calibration (1 V and 4 V square wave) and sync generator test. The price is about \$750.

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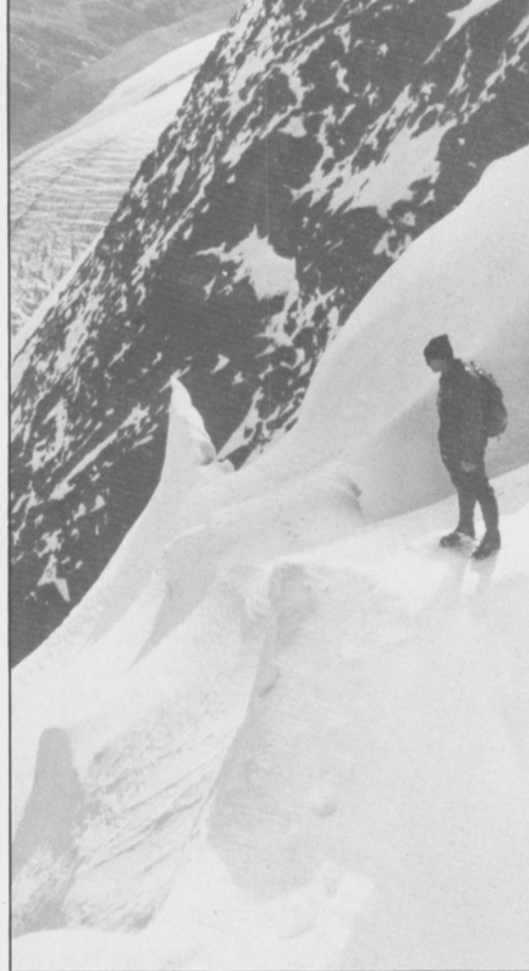
Cinema Products XR35 studio camera and Cooke Varotal 20-100mm (T3.1) zoom lens, shown mounted on Worrall gear head.

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The IDI Communicator, a personal, portable, full-duplex intercom system designed to provide constant, two-way cable-free voice contact between members of operating crews over distances of about 100 yd (90 m), has been announced by Image Devices Inc., 811 NW 111 St., Miami, FL 33168. The unit provides open-line communication in which, if desired, no buttons need be pushed. The complete unit in a leather carrying case with a shoulder strap and belt loop weighs 2.2 lb (1 kg). The headset has a sensitive and noise-cancelling microphone permitting low-level pickup down to soft, whispered conversations. The audio response covers a range from 300 to 5000 Hz. Excluding the antenna and controls the dimensions are 6½ × 3¾ × ⅞ in (16 × 9.4 × 5.4 cm). The IDI Communicator is priced at \$1990 a pair.



The Telepro 300, one of a series of digital programmers for videocassette recorders, capable of presenting automatically without interruptions cassette-recorded programs of greater than 60 min in length, has been announced by Channelmatic Electronics, 1234 Adobe Lane,

El Cajon, CA 92021. The programmers cycle either two or three videocassette recorders (switch selectable) and provide necessary control signals for "hands off" operation. A program change is commanded by a single cue tone added by the user at the end of each program. An optional cue-tone generator allows the signal to be added to the auxiliary audio track of the tapes. Models are available, with either electro-mechanical or electronic (digital) timers, having the capability of pre-selecting numerous program-repeat times during a 24-hour period. An option allows an auxiliary video and audio source to be inserted during the intermission period. Designed primarily for CATV/hotel/motel/apartment pay-TV movie applications, the Telepro programmers can be used for industrial training and educational applications. Price of the Telepro 300 is \$1120.



The Model 8655A Synchronizer-Counter has been announced by Hewlett-Packard, 1501 Page Mill Rd., Palo Alto, CA 94304. The new instrument can be phase-locked to a Hewlett-Packard 8654A or 8654B signal generator to produce a 10-MHz to 520-MHz source with the frequency precision required to test state-of-the-art crystal-controlled receivers. The 8655A is not only a phase-lock frequency stabilizer, it is also a 520-MHz frequency counter with RF leakage suppressed adequately for tests around high-sensitivity receivers. Pushing the LOCK button on the 8655A phase-locks the interconnected 8654 signal generator to the frequency shown on the 6-digit LED display; 500-Hz lock resolution is attainable. The FM rate with the 8654B may be from 50 Hz to more than 25 kHz while synchronism is held. The 8655 crystal drifts less than 0.1 ppm per hour or 2 ppm in 90 days. A higher stability timebase is optional if needed. With a 5-min warmup, the instruments typically hold lock for 45 min. Price of the HP 8655A Counter-Synchronizer is \$2075. The 8654A AM Signal Generator is \$1900 and the 8654B AM/FM model is \$2275.



A new 3½-digit, five-function autoranging digital multimeter has been announced by Hew-

# Picture a textbook twenty feet wide

All of the advantages of utilizing video as a teaching aid are greatly magnified by the use of large screen projection. Presentation of bright, natural color pictures increases impact and encourages subject retention. The new General Electric PJ5000 Color Video Projector introduces major advances in simplicity, reliability and performance in large screen television projection for education.

This solid-state, high-brightness light valve video projector is engineered for remote control operation, with improved picture quality, new power efficiency and increased ease of operation, maintenance and service.

GE's exclusive single gun, single optical path system projects the complete range of colors *simultaneously*. All other types of color TV projection systems require the alignment of three separate images to produce a color picture. The PJ5000 offers precise color registration, so critical to many subjects like science, medicine and the arts, insures teaching effectiveness in both front and rear screen applications.

Because of its single optical path, the PJ5000 projector also provides the same life-like color pictures to everyone in the audience on screens from 2 feet to 20 feet wide. In addition to projecting information from all standard video sources such as an off-air TV tuner, video tape, video cassette, live camera, closed-circuit, data-network, video film chain, etc., the versatile PJ5000

can be coupled to your computer facilities through suitable interface equipment. It can project Alpha-numeric data, graphic displays and computer generated images, in real time, for instant review and analysis.

The PJ5000 is designed to deliver high quality performance with simple operation. Its compact, self-contained Control Unit can be removed

from the Projector for remote set-up and operating control, at distances up to 200 feet, with the addition of an accessory control cable. RGB channel controls are color-coded, to simplify use. The sweep reversal switches allow convenient projected image changeover for front or rear screen projection. The built-in RGB color bar generator makes set-up adjustments positive and easy. Innovative electronic techniques are employed in the advanced circuitry of the PJ5000. Extensive use of standard EIA components promotes availability of replacement parts when required. Excellent power efficiency with a wide range of regulation is also achieved which permits full projector performance with low line

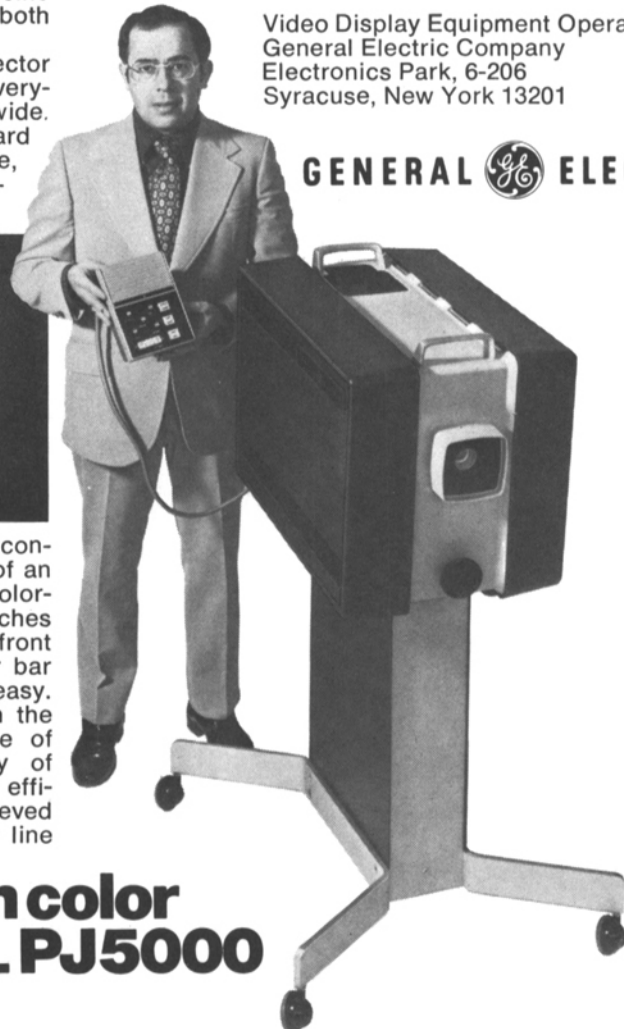
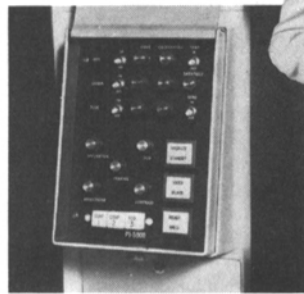
voltages of 105 volts. Normal input power required is low . . . 1,170 watts compared with 1,750 watts, or greater, for other professional video projectors. It operates from standard 120v/20 amp appliance outlets. Also, because the light valve requires only 7.2 kv for proper operation, there is no x-ray radiation.

The PJ5000 is easily transportable. Projector weight is 135 pounds and it is ready to move from your classroom to auditorium, to field house, to offices and to your labs. Wherever effective television display and high impact are needed.

The PJ5000 Projector is warranted to be free of defective materials and workmanship for one year. The single gun light valve is warranted for 1500 operating hours or one year on a prorated basis.

To learn more about this dynamic teaching aid, call (315) 456-2562, today or write to:

Video Display Equipment Operation  
General Electric Company  
Electronics Park, 6-206  
Syracuse, New York 13201



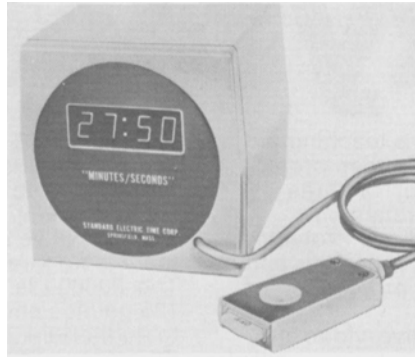
GENERAL  ELECTRIC

## New GE large screen color television projector... PJ5000

Hewlett-Packard, 1501 Page Mill Rd., Palo Alto, CA 94304. Voltages can be measured from  $\pm 100 \mu\text{V}$  to  $\pm 1000 \text{ V}$  dc and from  $300 \mu\text{V}$  to  $700 \text{ V}$  rms ac. Resistance can be measured from  $1 \Omega$  to  $11 \text{ M}\Omega$ . Current can be measured from  $100 \mu\text{A}$  to  $1.1 \text{ A}$  dc and  $300 \mu\text{A}$  to  $1.1 \text{ A}$  ac. Autozero, autopolarity and autoranging are built in. The design of the instrument is based on the Hewlett-Packard development of fine-line, tantalum nitride resistor technology enabling the elimination of more costly discrete precision resistors. The multimeter is available in two models, the 3476A, ac line-powered only, and the 3476B, ac line powered and also having rechargeable nickel cadmium batteries. Both units are 6.5 cm (2.3 in) high, 16.8 cm (6.6 in) wide and 20.6 cm (8.1 in) deep. Model 3476A, weighing 0.71 kg (1 lb 9 oz), is priced at \$225. Model 3476B, weighing 0.91 kg (2 lb), is priced at \$275.

A 4½-digit, five-function digital multimeter designated Model 3465A has been announced by Hewlett Packard, 1501 Page Mill Rd., Palo Alto, CA 94304. The instrument covers a dc measurement range from  $\mu\text{V}$  to  $1 \text{ kV}$  with a mid-range accuracy of  $\pm[0.02\%$  of reading (rdg.)  $+ 0.01\%$  of range (rge.)]. The ac measurement range is  $10 \mu\text{V}$  to  $500 \text{ V}$  with a mid-range accuracy of  $\pm(0.15\%$  of rdg.  $+ 0.05\%$  of rge.) over a 40 Hz to 20 kHz bandwidth. The ac and dc current measurement range is from  $10 \text{ nA}$  to  $2 \text{ A}$ . The dc current accuracy for the  $10 \text{ mA}$  range is  $\pm(0.1\%$  of rdg.  $+ 0.01\%$  of rge.). The ac current measurements are made over a frequency band of

40 Hz to 20 kHz with a mid-band accuracy of  $\pm(0.25\%$  of rdg.  $+ 0.025\%$  rge.). The resistance range is  $10 \text{ m}\Omega$  to  $20 \text{ m}\Omega$  with a mid-range accuracy of  $\pm(0.02\%$  of rdg.  $+ 0.01\%$  of rge.). Open-circuit voltage on the  $\Omega$  terminal when set to its lowest range does not exceed  $5 \text{ V}$ , thus preventing damage to most solid-state devices. The price is \$425 with D-cell batteries only; \$480, ac only; and \$500 with rechargeable NiCad batteries.



A solid-state digital timer for measuring elapsed time in photographic processing laboratories has been announced by Standard Electric Time Corp., 89 Logan St., Springfield, MA 01101. The 0.55-in (1.4-cm) numerals showing minutes and seconds are visible from a distance of about 40 ft (12.2 m). The start, stop and reset functions are controlled by a remote switch on a 6-ft (1.8-m)

cord. The instrument measures elapsed time up to 100 min and then repeats. Low voltage control circuits are used to eliminate any possibility of electric shock. The timer (Model STD-12-2) is priced at \$165.

The Model 5363A Time Interval Probes, said to have more accurate trigger point definition, wider dynamic range and low-circuit loading, have been announced by Hewlett-Packard, 1501 Page Mill Rd., Palo Alto, CA 94304. The system consists of two low-capacitance active probes and associated electronics in a separate box. Any electronic counter can be used but preferably the counters should have input amplifiers with at least 100 MHz bandwidth and at least 10 ns resolution when measuring single-shot events. Any trigger voltage from  $-10 \text{ V}$  to  $+10 \text{ V}$  may be set in 10-mV steps manually by simply setting the digital dials. Remote setting of the trigger voltage is possible from the Hewlett-Packard Interface Bus (HP-IB). For automated waveform analysis in production testing, the probes can be controlled by a desk-top calculator. Option 011 adds the programming ability of the calculator and HP-IB to the probes and counter. Model 5363A is priced at \$1500. Option 011 is priced at \$250.

An FM microwave color TV receiver for use by ground stations to receive broadcasting satellite services programming has been announced by Varian Associates, Salem Rd., Beverly MA 01915. The receiver, designated the VSX-9951, is modularly built allowing selection of any of the most widely used downlink frequencies of 2.5, 4.0, and 12.0 GHz. The unit is contained in two separate housings—an outdoor frequency converter and an indoor receiver. The outdoor converter is housed in a weather-proof enclosure capable of operating in temperatures ranging from  $-50^\circ\text{C}$  to  $+60^\circ\text{C}$ . The converter reduces the frequencies broadcast from the satellite to 120 or 70 MHz. The indoor receiver, suitable for 19-in rack mounting, converts these frequencies to audio and video baseband output with appropriate de-emphasis for quality input (dynamic range of 25 dB) to a TV monitor. Price of the VSX-9951 is \$6500.

The Optek 1400, a television demodulator designed for use in making measurements and evaluating television transmitter performance, has been announced by Broadcast Communications Devices, Inc., 5526 East La Palma Ave., Anaheim, CA 92807. Featuring advanced design in detection and filter circuitry, the instrument permits precision demodulation of the television video signal. It has been designed especially for applications where a precision reference is required to drive other equipment used for automatic correction of errors in the transmitted video signal. The price is \$1095.

Also announced was the Optek 7400, an automatic magnetic tape degaussing system which permits erasure of magnetic tape to levels exceeding  $-90 \text{ dB}$  at the touch of a button. The system can handle audio, video or digital tapes of any width with reel sizes up to 16 in (40.64 cm) in diameter. Features include a flux pattern to maximize erasure for any tape format. Tape handling is minimal because the reel cycles through the flux field, returns to its starting point and shuts off automatically in less than a minute. The price is \$1500.

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# See it at the **N I A B**



## The Rank Cintel Flying Spot Color Telecine

Flying Spot Telecines' been popular for years in 625 line countries, but has not – till now – been available at a reasonable price on the 525 market.

Rank Cintel have used the latest technology to engineer the MK III, which is more than just another flying spot telecine. It's equally at home on both 525 and 625 standards, and the dual gauge transport accepts both 16mm and 35mm film.

It's the perfect machine for film-to-tape transfers and the quality conscious user.

Here's a few of the features:-

- No camera, perfect color registration every time. Quick, easy line up.
- Excellent resolution and sig. noise ratios.
- Color or mono, positive or negative, at the turn of a switch.
- Less than 100 milliseconds run up for both sound and vision.
- Sprocketless silent capstan drive, minimum film wear.
- Economical – the only consumable is the single low cost scanning tube.
- Simple to lace up. No free loops to form.
- Dual standard 525/60 and 625/50.

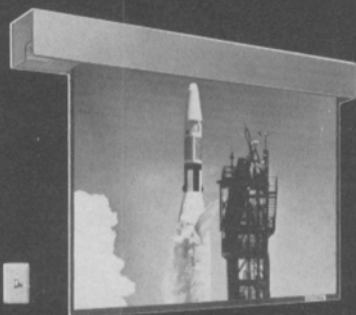


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The **Optek Type 1010B Video Noise Meter** is designed to permit rapid accurate measurement of signal-to-noise in any standard video waveform using only a general purpose oscilloscope with a bandwidth of at least 5 MHz. The noise on a signal is compared with itself and with a variable calibrated reference. The results are converted to a logarithmic scale and displayed on the digital meter as SNR in dB. Typical applications include evaluation and measurement of television cameras, videotape recorders, etc.

**Tela Cable**, an electrical instrument used to identify cables and detect grounds, shorts and defects, has been announced by Tela Cable Inc., P.O. Box 3984, Centredale, RI 02911. Weighing less than 3½ lb, it is suitable for one-person operation. The instrument sends out pulsating visual signals which the technician picks up with a test probe. The number of signals inform the operator how to mark each wire or cable for identification. An indicator light on the instrument panel indicates discovery of a short, ground or other defect. Tela Cable can check up to 30 wires or cables simultaneously. The price is \$119.95.



A specialized light source, the **VIX-150**, a miniature, integrated optics, high-pressure, short-arc xenon illuminator with a weight of about 4 oz, has been announced by the Eimac Div. of Varian Associates, 301 Industrial Way, San Carlos, CA 94070. It provides a compact source of high-intensity, broadband illumination covering the ultraviolet, visible and infrared regions of the electromagnetic spectrum. It is used in clinical, laboratory, photographic, research and manufacturing applications where a source of high-intensity radiation is required. It is an arc-type light source in which the electrodes, reflector and output window have been sealed into a single pressurized unit. Features of the VIX-150 include tungsten-alloy electrodes; a parabolic reflector cast into the ceramic body of the lamp; and an output window, made from a single sapphire crystal thermally matched to the mating metal parts of the lamp.

Among other applications, the VIX-150 is

the light source for the Kramer Scientific Model 1125 microprojection system which can cast images of microscopic specimens directly onto a remote viewing screen enlarged to diameters as large as 8 ft. Price of the VIX-150 is \$175 or \$158 for orders of 10 or more. Other VIX illuminator systems are available with wattages ranging from 300 to 800 W.

The new **DH2000 Series** of integrated photomultiplier devices has been announced by DuMont Electron Tubes and Devices Corp. (a subsidiary of Thomson-CSF), 750 Bloomfield Ave., Clifton, NJ 07015. The units are designed for OEM applications in laser scanning and light measurement systems. Other applications are in sensing, measurement, and control systems and devices for industrial and laboratory use. The units accept standard head-on photomultiplier tubes up to 2-in in diameter. The housing acts as a light-tight enclosure and provides electromagnetic and electrostatic shielding. Three models are available: the DH2050 with an integrated, voltage-programmable power supply; the DH2025 with an integrated, manually-adjustable power supply, both priced at \$243; and the DH2010 with a potted interdynode resistor network for use where external phototube power is available. It is priced at \$75.68.

The **Crisp-Matic Model 01-A Image Enhancer and Noise Reducer** has been announced by Yves Faroudja Inc., 800 Welch Road, Suite 354, Palo Alto, CA 94304. The device has been designed to improve significantly the subjective quality and signal characteristics of television images coming from low- and medium-priced videotape recorders using the "color under" principle. The device uses special circuitry (patent pending) to accomplish the image improvement through unique signal processing. The aim of the design is to restore full subjective bandwidth by improving the rise time of image edges, by reducing crosstalk between luminance and chrominance and by correcting for the luminance/chrominance delay inherent in cassette-type videotape recorders. The Crisp-Matic is said to improve the SNR of the composite signal by approximately 3.0 dB. Applications include Electronic Newsgathering, tape dubbing and duplication enhancement of large screen displays as well as any VTR playback.

Housed in a portable case measuring 43.5 cm (17 in) x 9 cm (3¼ in) the device can be used as a stand-alone unit or rack-mounted in a 19-in rack. The Crisp-Matic is priced at \$2500.

The **VPA-3000, an automatic processor** designed for videotape users, including helical longitudinal and quad as well as for non-tape broadcast applications at the studio or transmitter, has been announced by Versa-Count Engineering, 553 Lively Blvd., Elk Grove Village, IL 60007. The VPA-3000 is designed to select automatically the proper internal circuits to process a wide variety of video inputs regardless of its time constant in order to deliver optimum oscillator tracking from ½ line down to 1 ns. No internal adjustments are needed when changing the input from helical to quad VTRs. An instant lock mode is provided to follow extremely poor tapes in terms of tension and dihedral errors and to follow such errors line by horizontal line. The processor incorporates AGC of video, multiple sync outputs and a number of other automatic features. The VPA-3000 is priced at \$3600.

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