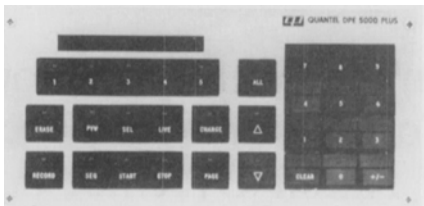


New Products & Developments



The DPE 5000/Plus, latest in a series of options retrofitable to existing DPE digital production effects systems, has been announced by Micro Consultants, Inc., P.O. Box 10057, Palo Alto, CA 94303. The basic DPE 5000 digital effects system includes circuitry to accept any NTSC color television signal together with standard sync inputs; preprogrammed DEC LSI-11 minicomputer; infinite compression; variable positioning of full frame and compressed pictures; freeze; fixed and variable border generation; position, size and transition rate preselect; horizontal and vertical squeeze; effects key and chroma key tracking; and control panel.

The DPE 5000/Plus (2-input system) includes a control panel for five inputs; a combiner unit for combining up to five processed inputs into a single output, a framestore unit mounted in a 17½-in-high rack and the Auto-sequence effects recall system. The 5000/Plus system comprises five separate framestores, one in the basic 5000 and four more in the Plus. The 5000/Plus can be configured with any number of extra stores from one (two pictures) to four (five pictures). The original LSI-11 minicomputer continues to control the Plus system, as with the basic unit, but this time the various instructions are computed for each of the independent framestores and routed via a common bus system.

Each of the five pictures can be controlled independently of one another. For example, one image can be tumbling at the same time as another is spinning, a third may have the border on, a fourth can be frozen while a fifth is changing size, all at the same time.

The basic DPE 5000 system is priced at \$79,500. The DPE 5000/Plus (2-input system) is priced at \$68,000.



The TR-800 Type "C" 1-in helical scan videotape recorder is a new recorder designed and manufactured by RCA Broadcast Systems, Camden, NJ 08102. It was designed as "the basic component of a complete videotape recording system which takes advantage of the special capabilities of the 1-in format," the announcement stated. The recorder itself includes full Type "C" record, playback, simulplayback and monitoring capabilities. The TR-800 incorporates a microprocessor-based system for operator interface and system control. The recorder's operational capabilities, including video, sync, and multiple audio channels, can be addressed from one control center with indicators providing visual confirmation. In addition, full remote control capabilities are built into the TR-800 to meet operational needs from a simple side-by-side slave configuration to the

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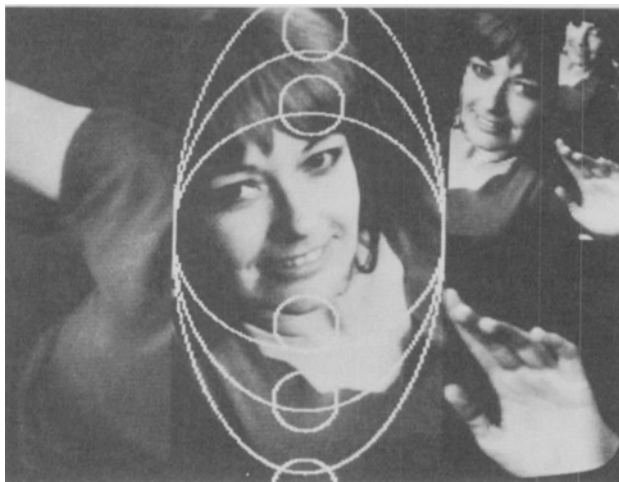
- put video in, get either digital or video out
- put digital in, get digital or video out

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- resolution to 256x512 pixels
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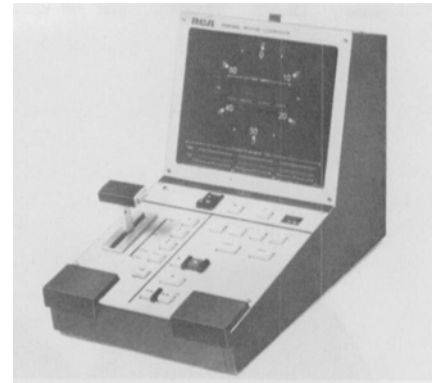
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most computer-addressable multimachine complex.

Features include a built-in previewable editor which provides basic microprocessor-controlled insert edits and automatic or manual add-ons. The price is \$45,000.

Options include the TBC-8000 digital time base corrector (\$24,000); the "Super-track" (\$11,000) which, in conjunction with the TBC-8000 time base corrector, can produce broadcast quality pictures from tape running in reverse, still frame, or forward; the Multi-Rate Video Controller (MRVC) (\$11,500) which adds instant replay capabilities for sports applications without the need for a separate slo-mo machine; the Super

Search Editor (\$3250) which adds additional capabilities, including nine independent search-to-cue points, keyboard entry and playback VTR control, modifiable edit points through the keyboard, a store direct mode to capture edit points on the fly and an out transfer mode; and the AE-800 editing system (with local control) (\$13,000) which can be located either in the TR-800 console or in a remote position. The AE-800 provides synchronization of playback machines at variable speeds in forward and reverse. It has a cathode ray tube display for edit data and offers six preview modes, split audio and video edits, auto and manual update modes, master recall mode, programmable relay closures and a special animation mode.

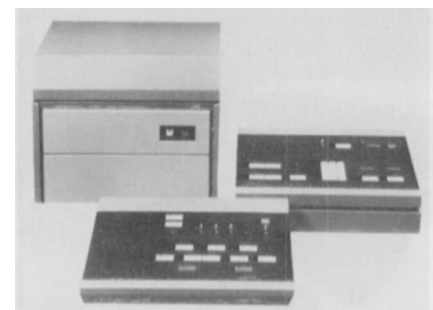


The AE-600 time code editing system has been modified to interface with the TH-200 1-in helical scan videotape recorders operating in the NTSC television standard, it was announced by RCA Broadcast Systems, Camden, NJ 08102, which also announced availability of a Dynamic Tracking Remote Controller to provide instant replay capabilities for the TH-200 recorder.

Originally designed for use with RCA's TR-600 quadruplex videotape recorder, the AE-600 provides sophisticated time code editing for broadcast and teleproduction applications. The AE-600 systems can be designed to accommodate various tape machine configurations, including editing systems for 1-in machines only, TR-600 quadruplex machines only, or integrated systems with a mix of TR-600 and TH-200 recorders. The AE-600 is priced at \$16,000.

The TH-200 recorder employs dynamic tracking for noise-free broadcast quality playback of video over a range of seven selectable tape speeds. For TH-200 recorders equipped with dynamic tracking and an AE-600 editing system, a new optional programmable motion remote panel, priced at \$5500, provides for automatic control of the selectable tape speeds for different program segments or for special effects during an editing session. With the motion remote panel, two different event times and two different tape speeds can be preselected and entered into memory for recall during editing.

With the Dynamic Tracking Remote Controller (shown above), the TH-200 recorder can provide a choice of broadcastable video using either continuously variable speeds from 1/5 normal speed in reverse to two times normal speed, or preselected speeds within the same range. Four separate cue memory registers store cue and tape time information to provide start and end points for instant replay operations. The price is \$12,000.



A magnetic videodisk system, a two-piece NTSC system designated the VM-1200, has been introduced in the United States by US JVC Corp., 58-75 Queens Midtown Expwy.,

Case History #437

Electronic News Gathering is one of the toughest environments a microphone will ever encounter. Every mike we've seen has compromised the demand for low handling noise, fine audio quality and virtual indestructibility.

Credit the NBC Electronic Journalism Department/Operations and Engineering in New York for putting the Electro-Voice DO56 shock-mounted omni in the field. Although originally designed as an on-camera entertainment and MC's microphone, NBC found the DO56 to be the microphone that provides an audio signal commensurate with video in real-life crisis situations. In these situations audio often takes a back seat to video,

Electro-Voice DO56 Shock-Mounted Omnidirectional Microphone

resulting in a final product that doesn't accurately reflect the broadcaster's professional standards. NBC discovered that the DO56 takes the

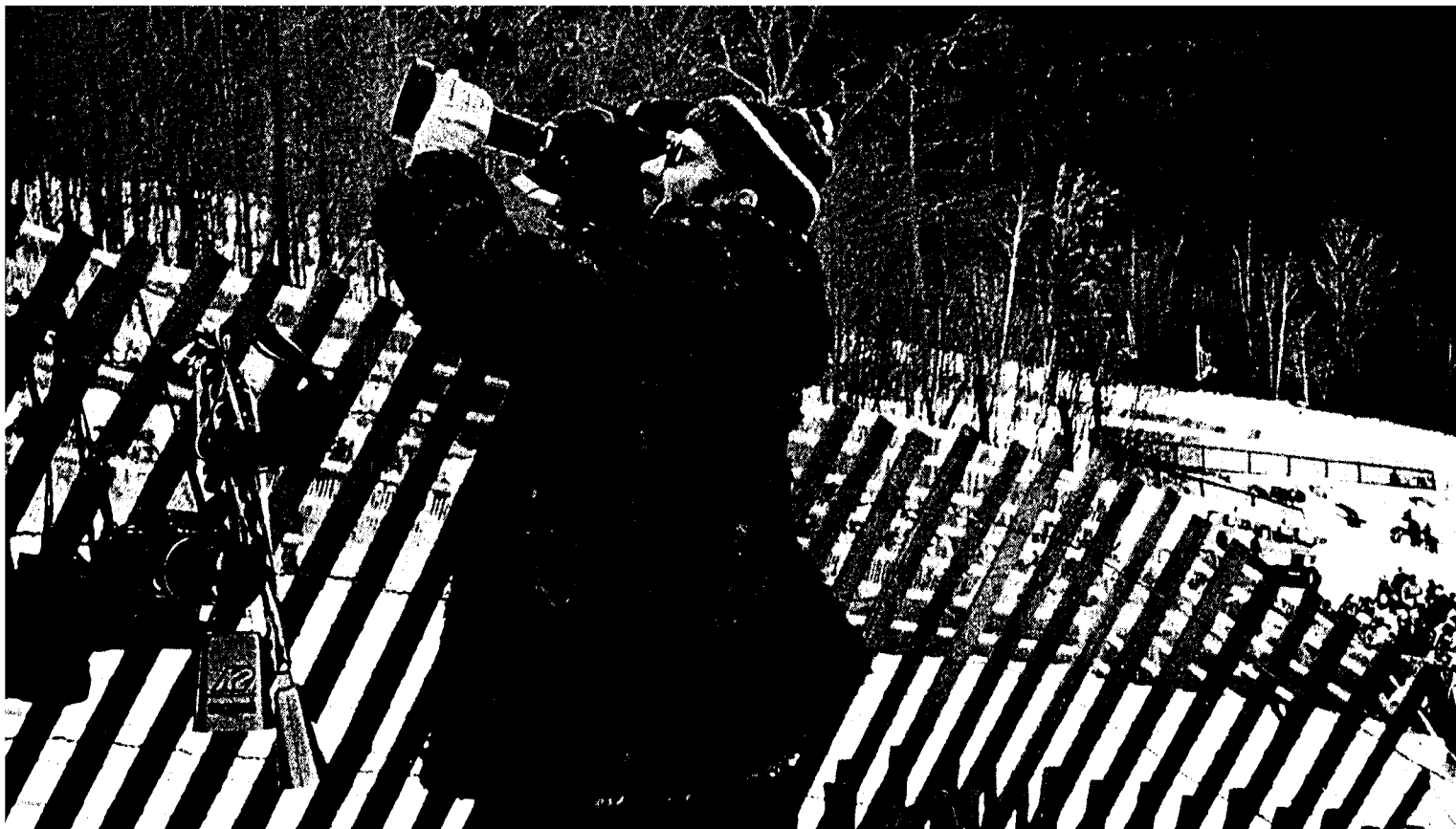
pushes, the shoves, the rubs and finger taps in stride. And when handling *really* gets rough, the DO56's unique internal shock mount virtually eliminates the bell-like clang transmitted by other shock-mounted mikes.

Congratulations to the NBC Electronic Journalism Department in New York. You found the solution - the DO56.

For an in-depth description of this and other case histories, get on the Electro-Voice "Mike Facts" mailing list. Write on your letterhead to Mike Facts, c/o Electro-Voice, 600 Cecil Street, Buchanan, MI 49107.

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“GSMO’s reliability is perfect for the rugged conditions we have to work in: from Lake Placid to the oil fields of Venezuela...”

Gerry Souter, Senior Audio Visual Coordinator
Motorola Communications and Electronics Inc.



Since Motorola provided the two-way radios, pagers, and communications systems to the United States team at the 1980 Winter Olympics, Gerry Souter was sent to Lake Placid as a one-man-band required to shoot both stills and motion pictures of the events and Motorola's equipment in use.

“Naturally I looked for the most lightweight, quick-change cassette-load 16mm camera available,” says Souter. “GSMO answered my needs in every way, and I was very pleased with the results of my choice.”

“During two weeks of shooting, the GSMO was always ready to go. Much of my footage was shot at 64 fps, and the GSMO came up to speed instantly as the slalom skiers and bobsleds zigzagged past. The on-board battery never failed. Not even when the temperatures dipped way down into the teens.”

“I had been warned about the difficulties of loading coaxial magazines: how tricky and unforgiving they were if you were a frame off in building your loop. But I found GSMO magazines to be the easiest I've ever worked



with. Simple and straightforward from my first practice roll to the last, which I loaded sitting in the snow surrounded by other photographers cursing broken film and freezing fingers!

“Neither moisture build-up in the crowded humid buses, nor resting on a plastic bag in the snow while tripods were set up had any effect on the operation of the GSMO or any of its accessories.”

“GSMO's reliability is perfect for filming in the rugged conditions we have to work in: from the Winter Olympics at Lake Placid to the oil fields of Venezuela, including steel mills, fire departments, mountain top antenna sites, etc.”

“GSMO is the ideal primary location camera for companies like Motorola!”



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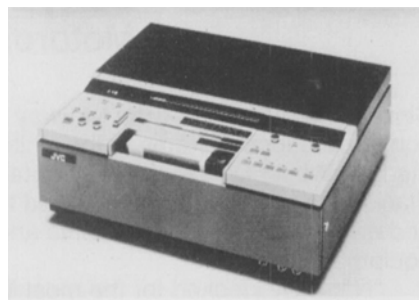
Maspeth, NY 11378, according to a recent announcement which noted that the VM-1200 has been in use in Japan since the middle of 1979. The system, which consists of the 1200 recorder and a control unit, can record a signal and immediately play it back at normal, variable slower speeds, still-frame, or frame-by-frame shifting, all in both forward and reverse.

Potential applications include sports and motion analysis, post production, animation, and industrial and medical time and motion studies.

The VM-1200 records on an 8-in magnetic coated aluminum alloy disk. It has a mechanism for retracting the video heads to prepare the unit for storage or transport. It also automatically switches off all power to the system. Recording on the VM-1200 is continuous until stopped by an operator. The heads record on both sides of the disk, one above and one below. One head remains stationary while the other steps to the next interior track. The stationary head performs the recording or playback.

Each field is recorded on the disk as a circular track. One complete pass from outer to inner tracks records 1200 fields or 600 frames of information corresponding to 20 s of real time recording. The recording process automatically switches at the end of each cycle and then reverses from the inner to the outer tracks. This cycle repeats until stopped by an operator.

The system features a selectable full or two-zone recording ability. Zone A may be used for 10 s independently of Zone B giving the user the choice of normal 20-s recordings or two separate 10-s recordings. All operation of the VM-1200 is performed from the control unit. Options include recording with a synchronized electronic flash or use with a time base corrector. Price range is from \$24,000 to \$26,000 depending on the options selected.



A direct-drive color U-format videocassette recorder, Model CR-6600U, has been announced by US JVC Corp., 58-75 Queens Midtown Expwy., Maspeth, NY 11378. It has direct-drive head drum and capstan as well as direct-drive reel motors on the reel servo system insuring stable tape transport at any speed in either forward or reverse. The CR-6600U has a built-in automatic pre-roll mechanism and blanking switcher so that manual or remote control of the record and pause functions can create clean assemble edits. The unit has an audio limiter circuit for each of two audio channels which functions either automatically or manually. Dual audio recording level meters are provided.

The new recorder has also an external sub-carrier input terminal for TBC connection and a variable speed dial search control which can continuously vary playback speed from zero to five times normal in both forward and re-



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FURTHER INFORMATION can be obtained from the IBC Secretariat, c/o the Institution of Electrical Engineers, Savoy Place, London, UK, WC2R 0BL, Telex: 261176, Telephone: 01-240 1871 (extension 261).

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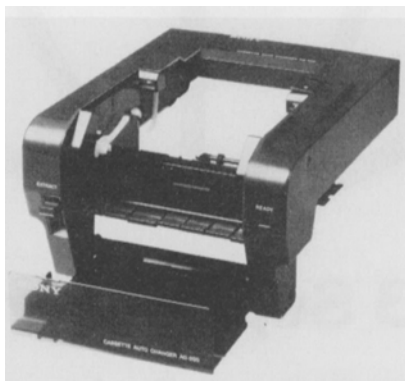
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verse when used with the RM series Automatic Editing Control Units for the RM-70U Remote Control Unit.

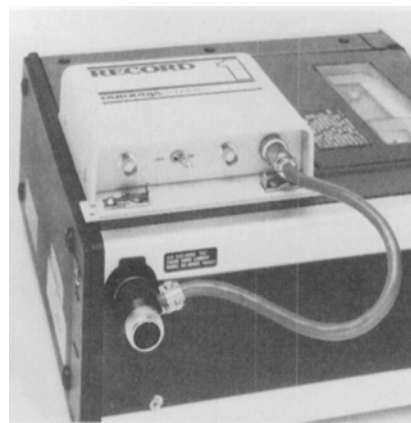
Other features include microprocessor-based logic tape controls, automatic rewind and repeat, pause control, a switchable electronic tape counter, time clock with digital display and a counter search mechanism for locating selected portions of a tape. Price of the CR-6600U is about \$3400.

A 12-in Drexon™ optical memory disk for laser recording, Type D-1201, has been announced by Drexler Technology Corp., 2557 Charleston Rd., Mountain View, CA 94043. The disk has Direct Read After Draw (DRAW) capability. It is intended for applications where the user wishes to both write and read data. It is distinct from videodisk systems where the data can be read but cannot be written. Features include semiconductor laser sensitivity, pre-formatting capability, very high resolution, low defect densities, clean recorded holes and broadband recording and reading capabilities. The broadband performance permits the use of any visible or near-infrared laser for either recording or reading; however, its recording sensitivity is said to be particularly superior in the vicinity of 830 nm, allowing the use of the new, compact, semiconductor lasers in storage equipment design. Price of the Type D-1201 is about \$3500 per disk in quantities of 20.



An automatic videocassette tape changer, Model AG-200, was announced by Sony Consumer Products Co., 9 W. 57 St., New York, NY 10019. The tape changer permits continuous recording and playback of up to three cassettes on Sony Betamax Models LV-1901/D, SL-7200/A, SL-8200, and SL-8600. The easily installed accessory offers a maximum recording capacity of 4.5 h on Beta-I mode or 9 h on Beta-II mode using three L-750 tapes. The price is \$125.

The Image System, which combines automation and image enhancement for small VTRs in a dual package consisting of two units, Record One and Playback One, has been announced by Faroudja Laboratories Inc., 946 Benicia Ave., Sunnyvale, CA 94086. The two units perform complementary television image enhancing functions on videotapes made with 3/4-in or 1/2-in VTRs using the color under principle. The combination of the two units is said to result in a significantly improved output color picture with sharper edges, less ringing and an SNR improvement in both chrominance and luminance of 6 dB. Also, the low level small image details, often lost in color under VTRs, are faithfully reproduced, thus adding to the subjective image



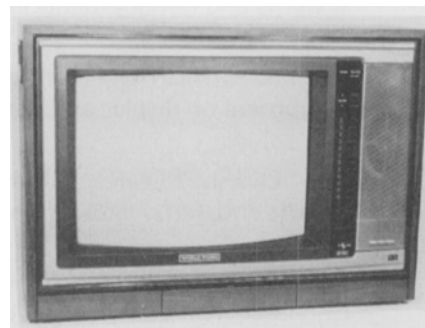
quality of the picture. Also, the Image System includes a new automation feature.

The system uses a pilot "training" signal inserted in a nonpicture part of the input which is recovered by the playback unit and used to control precisely the degree of correction applied to the output, thus requiring no adjustments by the operator.

The Record One of the Image System comes in a rack mount configuration priced at \$2300 and a portable configuration priced at \$2100. Playback One is priced at \$5995.



The Digital Tape I/O Control Unit, designed for flexibility, has been announced by Quantex Corp., 252 N. Wolfe Rd., Sunnyvale, CA 94086. The new unit can manage data transfer between the memory of the Quantex DS-30 Digital Video Processor and up to four synchronous magnetic tape transports utilizing industry standard interfacing. The Digital Tape I/O Control Unit is compatible with ANSI and IBM 7 or 9 track formats. It accepts tape speeds from 12.5 to 45.0 in/s and allows random retrieval of stored images. It also displays error codes to assist the user in correcting recoverable errors. The price is \$2500.

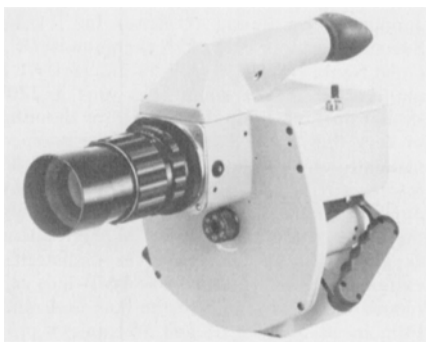


Two new Trinitron® color receiver/monitors, Models RV 3701 (17 in) and RV 3901 (19 in) have been announced by World Video, Inc., P.O. Box 117, Boyertown, PA 19512. The new models incorporate CMOS switching and E to E function to enable simultaneous off

air recording and monitoring the output of the videotape recorder. Features include electronic tuning.

Also new are two utility color monitors, Models RV 3702 and RV 3902, each equipped with an audio amplifier and speaker. Price of the RV 3701 is \$960; RV 3901, \$1025; RV 3702, \$940; and RV 3902, \$1005.

The SWI-100 Switcher, an interface to the Grass Valley 1600 series production switcher, has been announced by Convergence Corp., 1641 McGaw, Irvine, CA 92714. The SWI-100 adds to the Convergence ECS-100 series editing systems the capability of controlling professional production switchers in both on-line and off-line capacities. It allows most of the Grass Valley switchers' effects to be programmed directly from the ECS-103 keyboard. Additional effects such as multiple reentry effects and chroma keys can be accomplished manually at the production switcher console. The price is \$3000.



A Photo-Sonics handheld 70-mm Cine/pulse camera providing high resolution $2\frac{1}{4} \times 2\frac{1}{4}$ pictures has been announced by Instrumentation Marketing Corp., 820 S. Mariposa St., Burbank, CA 91506. The camera has cine rates of 5, 10, 15 and 20 frames/s and combination cine/pulse rates of 2, 4, 6, and 8 cine and 1, 2, 4, 5 pulse. Other features include 100-ft daylight loading spools, variable shutter and five different viewing systems including reflex viewing. It also has a timing light, shutter opening index mark, end of film cutoff switch and automatic viewing iris control. It uses modified ASNI Takumar lenses, 35-mm $f/4.5$ through 600-mm $f/4.0$. Prices start at \$19,000.

The Optical Fiber Refractive Index Profiler, which measures mode dispersion by the refracted near field technique in $1\text{-}\mu\text{m}$ increments across an optical fiber, is a new instrument manufactured by Sira Institute Ltd. of England and distributed in the United States by Boston Electronics Corp., 68 Harvard St., Brookline, MA 02146. The numerical aperture, fiber dimensions, core concentricity and noncircularity can be determined from the measurements. Refractive index variations can be determined to 0.001 or better. Core and cladding diameters can be measured directly. The rate of testing is two fibers per hour. Samples approximately one meter long are used and a wide range of fiber diameters can be accommodated. The Optical Fiber Refractive Index Profiler is priced at about \$45,000.

Listec Television Equipment Corp., 39 Cain Dr., Plainview, NY 11803, has announced four new products: (1) the Plover Remote and



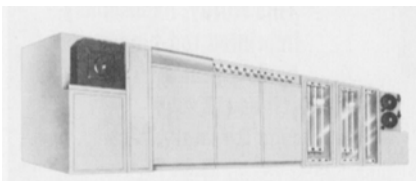
Studio Pedestal; (2) the Mk 7 L.F. Cam Head; (3) the Cygnet Post Head; and (4) The ENG Tripod and Spreader with Tripod Spider.

The Plover pedestal (shown above) is a high range pneumatic pedestal offering a good minimum height range with special features to enable it to be used on remotes with cameras weighing up to 200 lb. The three-stage column detaches from the base for ease of transportation and the base can accept a variety of wheels from pneumatic to hard duthane studio type wheels which are easily interchangeable. The legs are adjustable to allow the pedestal to be tracked through narrow openings. The column is designed to carry various loads without altering the pneumatic pressure. The Plover is priced at \$16,000.

The Mk 7 L.F. cam head is a new pan and tilt head for use with modern studio color broadcast cameras with a weight capacity of up to 200 lb. A whip pan movement can be achieved without alteration to the drag controls. The price is \$2995.

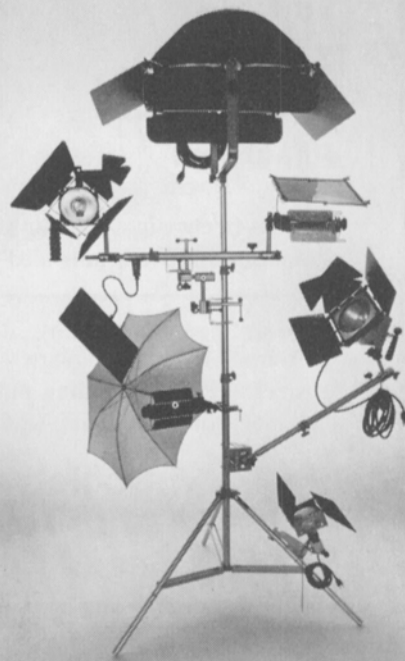
The Cygnet Post Head is a camera mounting designed for lightweight cameras such as ENG, EFP, or cine cameras. The concept is that the camera swings on its own center of gravity as opposed to balancing by means of cams or springs. It is priced at \$1470.

The ENG tripod and spreader is a lightweight tripod and spreader system using aluminum tube and filled nylon mouldings. By using a combination of these materials, the combined unit (tripod and spreader) is light in weight. It can be quickly set up and can also be stowed as a compact unit. The price is \$1150.



The Super Colormaster (SCM) continuous film processor has been announced by Houston Fearless 76, Inc., 833 East Walnut St., Carson, CA 90746. The unit is modular in design and can readily be modified to accommodate new processes and speed requirements. The top rollers of the drive system are installed in a Houston Fearless designed minirack weighing only 7 lb. The film transport is

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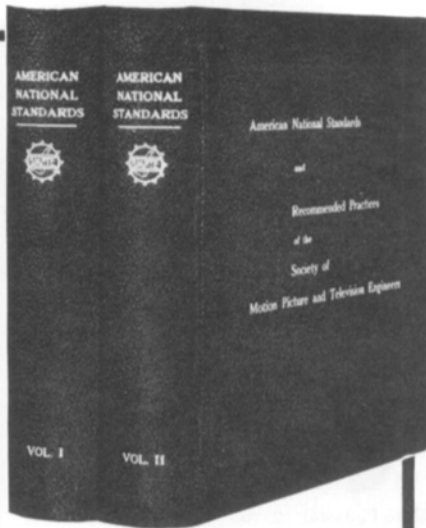
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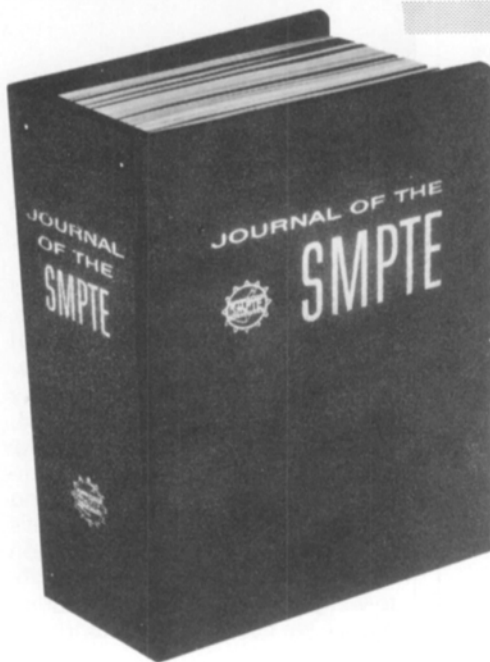
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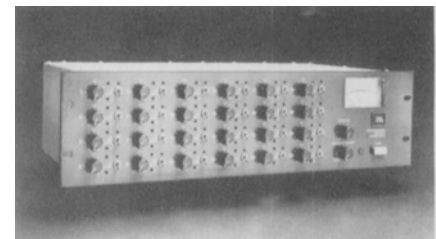
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an HF single shaft, spring loaded demand drive system. Price range of the Super Color-master is \$35,000 to \$78,000.



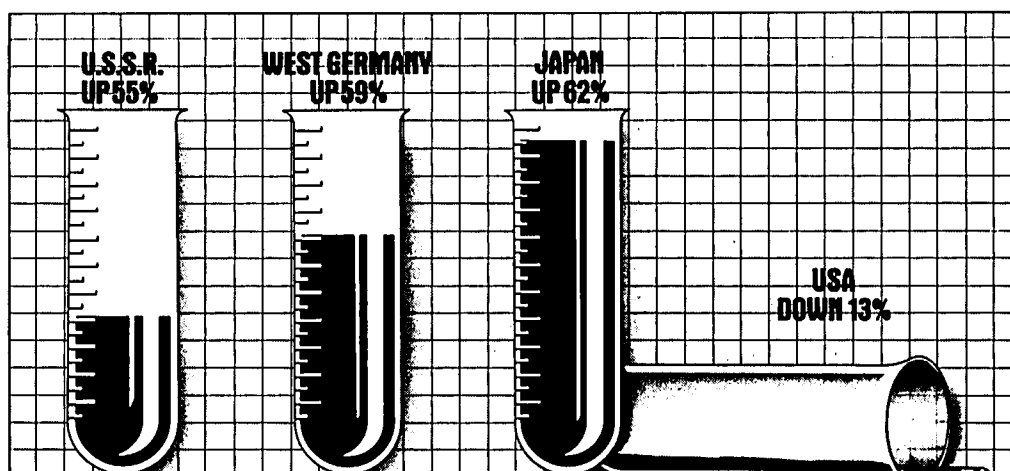
The Eumig 128 XL super 8 camera has been announced by Eumig (U.S.A.) Inc., Lake Success Business Park, 225 Community Dr., Great Neck, NY 11020. A 7-56-mm (8:1)f/1.2 multicoated macro zoom lens plus a 220° shutter opening equip the 128 XL for shooting in very dim light. The lens can be zoomed manually or with the power zoom. A special macro setting permits macro photography down to the front surface of the lens. Adding the PMA (Panoramic Macro Aspheric) lens supplied with the camera gives undistorted extreme wide angle shots. The PMA lens can reduce the focal length of the lens to 4 mm. Film speeds of 1, 9, 18 and 36 frames/s provide for both slow motion and speed-up effects as well as single frame animation and normal speed. For use with the single frame mode there is a connection for an electronic flash. A built-in intervalometer provides versatility for time lapse photography. There are three settings, 2 frames/s, 1 frame/2s, and 1 frame/10 s. Facilities for fades are built in. Price of the 128 XL is about \$466.50.



The automatic microphone mixer, Model 7510, a four-input module expandable to 24-input capacity has been announced by James B. Lansing Sound, Inc., 8500 Balboa Blvd., Northridge, CA 91329. Combining special digital and analog circuitry, the 7510 features automatic mike turn-On/turn-Off and output level correction which allows considerable gain without feedback. Advanced level sensing circuitry provides fast attack. Each individual four-input module is equipped with front panel controls for level, threshold and release time settings. An additional switch allows each channel to be set for Manual, Automatic or Priority modes. In all three operating modes, a digital attenuator automatically reduces output gain by 3 dB for every doubling of activated microphones. Model 7510 with one module is priced at \$1509. Each additional module is priced at \$600.

THERE'S ONLY ONE THING MORE SHOCKING THAN FINDING OUT WHAT THE REST OF THE WORLD IS DOING IN RESEARCH.

FINDING OUT WHAT WE'RE DOING.



The change from 1968 to 1978 in the percentage of scientists and engineers in the labor force engaged in research and development. (National Science Board 1979)

The chart in this ad is rather startling.

It shows that the percentage of scientists and engineers engaged in research in the United States has dropped, at a time when the percentage of researchers in other countries is on the increase.

Right now we need more emphasis on research and development, not less. So that we can deal more effectively with problems like inflation, foreign competition, lagging productivity and skyrocketing energy costs, to name just a few.

We cannot get the quality or the quantity of the research we need, however, unless we make absolutely sure that our colleges and universities continue to be first rate. For our colleges and universities sup-

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ply most of the basic research upon which technological progress is built. Not to mention the people whose intelligence and skills will shape our technology and determine its ends and purposes.

Unfortunately our colleges are being hurt by inflation. Rising costs are eating into their academic budgets to a dangerous extent.

So please make sure that your company is giving as much as it can, as much as it should, to the college or colleges of its choice.

There's something a lot worse than the shock of realizing that you've fallen behind.

That's the shock of realizing that it's too late to catch up.

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