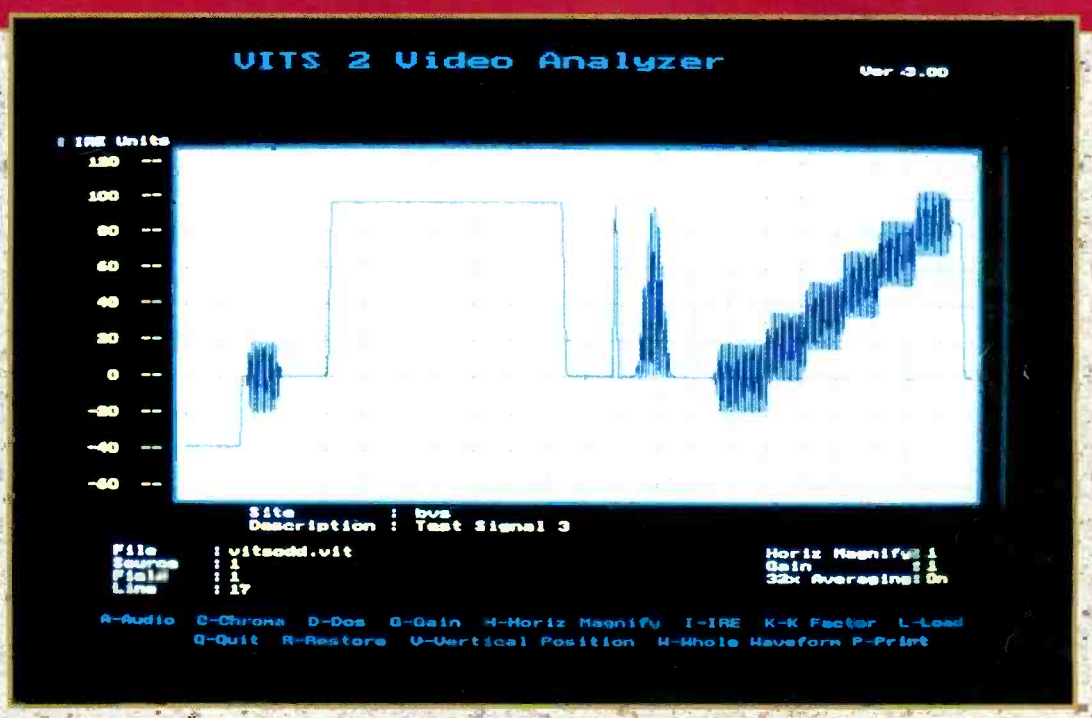
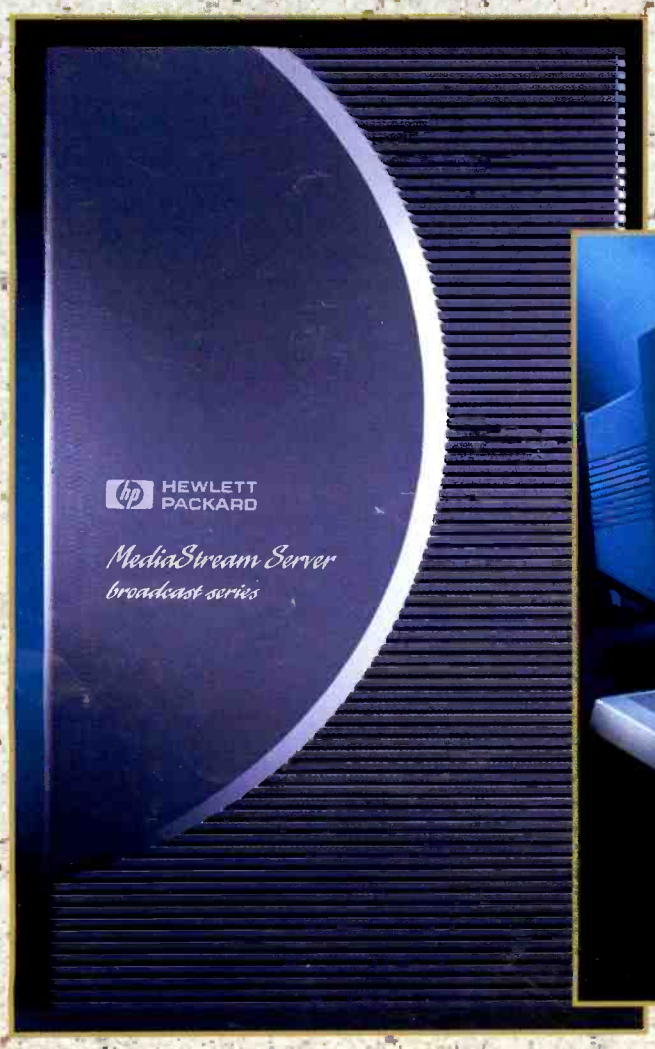
BROADCAST ENGINEERING®

An INTERTEC®/ K-III Publication
Vol. 2 No. 1

Product Source





KCAL-TV/California 9 Wins Edward R. Murrow Award for News Excellence

WHEATSTONE is proud to be a continuing part:

SP-5 console S/N 15688 delivered July 1985
SP-5 console S/N 15691 delivered July 1985
SP-5 console S/N 15754 delivered September 1985
SP-5 console S/N 15818 delivered October 1985
SP-5 console S/N 15927 delivered October 1985
TV-600 console S/N 22121 delivered October 1994
TV-600 console S/N 23436 delivered October 1995

KCAL/TV-9 is owned and operated by the Walt Disney Company

Wheatstone Corporation

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Circle (1) on Action Card

Harris SigmaCD Developed For Digital TV Transmission

Harris SigmaCD™ UHF transmitters are the first developed specifically for digital terrestrial TV transmission. Beyond providing significant performance improvements over today's best analog transmitters, SigmaCD models are capable of delivering high-definition television or multiple services of unprecedented quality simultaneously– all in one 6 MHz band! The key to SigmaCD's performance and capability is Harris' CD 1, the first commercially-viable exciter to implement the ATSC-tested vestigial sideband system for ATV. For more information and a copy of a paper, The Harris VSB Exciter for Digital ATV, please fax 217-222-0581.

Circle (37) on Action Card

S-15 -- Most Compact, Flexible SNG Vehicle

Harris' new S-15 is designed to be the most rugged, flexible and compact SNG vehicle on the road. Based on a medium-size 4-wheel drive vehicle, the S-15 uses a new 1.2 meter Ku-band carbon fiber antenna which weighs up to 30 percent less than previous-generation antennas. The S-15 also uses Harris' DSE 1400 digital SNG exciter which produces a better signal than its analog predecessors with substantially reduced power requirements. For more information, please fax 217-222-0581.

Circle (38) on Action Card

New Antennas Ideal For Multi-Channel Operation

Harris' new UltraPower UHF Deltawing and UHF Cavity Backed Radiator (CBR) antennas are ready for multiple channel operation. Both are ideal for combined NTSC/NTSC, NTSC/ATV or ATV/ATV operation, alleviating anticipated tower space shortages. The horizontally-polarized UltraPower has a power rating >240 kW. The UHF CBR antenna, with a power rating >120 kW, can be custom-polarized to match precise requirements, from horizontal, vertical or circular polarization to various levels of elliptical polarization. For more information and a copy of a paper, Can AVT Coverage Be Improved with Circular, Elliptical, or Vertical Polarized Antennas?, please fax 217-222-0581.

Circle (39) on Action Card

Sage ENDEC – Perfect For New EAS Requirements

The Sage ENDEC is an ideal solution for U.S. broadcasters who need to have equipment that meets new EAS requirements on line by Jan. 1, 1997. The microprocessor/DSP-based encoder/decoder is easy to install, operate and maintain, and also has an automatic program interrupt feature that will make it ideal for unattended operation. Sage also offers full-featured remote control; a multi-station relay panel, and a multiband receiver that allows ENDEC to monitor up to six analog and six digital sources simultaneously–well in excess of EAS' new two-source monitoring requirement. For TV, Sage is integrating Video Data Systems VDS-840 genlock character generator which will crawl the EAS message on the screen with the audio. To learn more, please fax 217-222-0581 or phone the Broadcast Center at 800-622-0022.

Circle (40) on Action Card

Top SNG Performance And Full Field Production Capability

Now Harris' popular S-23 satellite news gathering vehicle can be configured to offer even more than top SNG performance. A new version, the S-23SFP, combines Harris' digital SNG system with a mobile television production system. A recently-completed S-23SFP included three BTS LDK-93 cameras; a BTS DD-10 production switcher; a Pinnacle Flash File Still Store with Shot Box; a Chyron 2-Channel MAX!; a Leitch 16 X 16 Serial Digital Video Router; three Digital Betacam VTRs; a Beta SP VTR; a 3/4-inch U-matic VTR; an SVHS VTR, and a GVG VPE-341 Editor. For audio and intercommunications, the system also featured an 18-input Amek/TAC Audio Console, and a SKYCELL satellite phone system. The truck could be powered by available shore power or an on-board 30kW diesel generator. To discuss your specific needs, please phone our systems team at 606-282-4800.

Circle (41) on Action Card

Harris analog. Harris digital. Harris solutions.

The number-one choice for what you need today, and for the future.

Whether you require a TV transmitter or a custom-integrated broadcast system, Harris has the experience and the knowledge to design and implement exactly what you need. Analog or digital, retrofit or a new facility, UHF or VHF, satellite or wireless cable, Harris does it all.

From RF transmission, satellite reception, automation, control and monitoring, to digital-ready analog or full digital systems, Harris has proven its global capabilities.

The world's highest transmitter standards.

With more than 60 "firsts" in broadcast technology, Harris is well known for its transmitter and antenna solutions. Harris Platinum Series® VHF TV Transmitters with their 5-year warranty, Harris Sigma™ Series and Ultravision™ UHF TV Transmitters, and Harris Antennas, including the world's first HDTV model, are often the yardstick by which other equipment is measured. We integrate these and other top-quality Harris products with the finest equipment from many leading manufacturers. This insures that you never have to settle for less — or pay for more than you really need — to have the system you want.

Broadcasters worldwide rely on Harris.

The vast resources of Harris can provide every kind of broadcasting system, with every advanced feature available, to help make your facility more efficient and more profitable.

Harris can provide everything from ENG vehicles or SNG vehicles employing the latest video and audio compression standards, to total all-component serial digital television networks, digital-ready teleports, and nationwide television systems.

Continuous Harris support.

From your first contact with Harris, to the training of your personnel and life-long service, you will know why Harris is the number one worldwide.

For analog or digital broadcasting solutions you can count on, call Harris.

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Circle (42) on Action Card

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Vol. 2 No. 1

Product Source

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ON THE COVER

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Broadcast Video Systems: VITS 2

Utah Scientific: SC-3

Acrodyne: Au60D

Hewlett-Packard: MediaStream Server

Orban: DSE 7000

Leader: LV 5100D

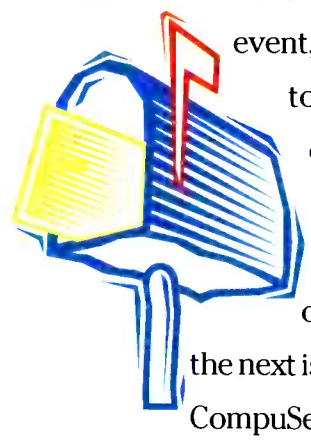
See information on page 6.

From the editor...

Welcome to the second annual *Broadcast Engineering Product Source*. With this issue, BE readers have a unique resource for information on new technology and a wide variety of new products.

Whether it's a new desktop system or a new transmitter, you'll find helpful information within these pages. The products selected for coverage in this issue were gleaned from manufacturers' literature collected during the 1996 NAB Convention.

For most readers, this will represent their first in-print look at exhibits from this year's show. If you missed the event, you are holding a glimpse of what took place. For complete NAB show coverage, don't miss the June issue of *Broadcast Engineering* magazine.



Let me know what other types of information you'd like included in the next issue. You can direct e-mail to me on CompuServe, 74672,3124 or on the Internet at be@intertec.com.

FAXback responses go to 913-967-1905 and snail-mail can be sent to *Broadcast Engineering*, 9800 Metcalf Ave., Overland Park, KS 66212-2215.

Brad Dick

Brad Dick, editor

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FOCUSED ON THE FUTURE

Circle (5) on Action Card

Product Source

ON THE COVER:

Leader Instruments: LV 5100D

Leader Instruments announces the release of an improved version of the LV 5100D, a waveform monitor that meets the needs of digital-component and mixed digital-analog component facilities. It handles two serial inputs and one 3-wire analog input, and switches automatically to operate in 525/60 or 625/50 systems.

Features include full EDH facilities with readout of the time of detected errors, and the status of ANC, embedded audio, TRS, EAV, SAV, APCRC, FFCRC and EDH flags. The operator may assign internal and external alarms to any or all of the status readouts.

Monitor modes include waveform (overlay and parade), component vector, picture (from the Y or G signal and including the line-select strobe), and a stereo audio phase/amplitude display with an electronic scale. Menu controls select YCbCr or GBR for waveform and monitor output, setup operating choices, line-select, cursors, calibration, preset/remote, dc restorer operating parameters and clock/calendar settings. A rear-panel jack provides an active serial feed of the selected A or B input.

Circle (100) on Reply Card

Acrodyne: Au60D

Acrodyne's Au60D 60kW UHF TV transmitter is the result of many years of evolutionary design. The Diacrode tube used in the power amplifier is a tetrode and should meet the needs of varying broadcast environments. In addition to the Au60D, Acrodyne offers a 120kW, 180kW and higher output systems.

Au Series UHF TV transmitters are digital ready and feature ultra-high efficiency; expected tube life of more than 20,000 hours; low-cost tube replacements; cost-effective common amplification; high-performance, full-feature exciter; small 60kW footprint; low maintenance; and 2.5kW built-in back-up at 60kW.

Circle (101) on Reply Card

Orban: DSE 7000

A powerful digital effects upgrade from **Orban** involves the RAM-based, 8-track DSE 7000 digital audio workstation. The upgrade package include a replacement DSP board with 24-bit internal processing and version 6.0 software. Available effects types, each with presets tailored for broadcast applications, include Orban parametric equalization, Optimod compression, digital delay, and Lexicon digital reverberation. The effects upgrade will be standard on all new DSE 7000 units shipped this year.

The standard multieffects upgrade package provides eight digital effects modules — each equivalent in power to an outboard rack unit — which may be inserted at any of 12 patch points inside the DSE: channel inserts, submaster or master output. Any effects function (parametric EQ, compression, delay or reverb) may be assigned to each module as needed. For efficient effects setup, all factory presets are designed for broadcast applications.

Circle (102) on Reply Card

360 Systems: Shortcut

With **360 Systems'** Shortcut editor, broadcast call-in editing just got a lot faster. This unit delivers all of the features you'll need to capture and edit audio for talk radio, call-in clips, news actualities and spots. Unlike PC-based editors, Shortcut doesn't need a computer, mouse, monitor or special plug-in cards. Its portability is packed into less than 10 pounds and includes a mic preamp, built-in stereo speakers, and a headphone jack for private monitoring.

Features include 16-bit linear recording; digital and analgo I/O; hot keys for instant access to edited cuts; password protection; real-time editing; a bleep button for overwriting obscenities; hard disk storage of up to three hours of 20kHz stereo audio; and a high-resolution waveform display.

Circle (103) on Reply Card

Hewlett-Packard: MediaStream Server

Hewlett-Packard announces its newest generation of digital broadcast video servers, the HP MediaStream Server-Broadcast Series. The server provides a complete digital storage and playback solution and delivers approximately twice the performance of the current platform, with up to six channels and 50 hours of video in a single package.

This new server is also expandable and includes full networking capabilities, a fault-tolerant architecture, industry-standard MPEG-2 video compression and an open platform for application development. Further features include a modular design and six channels of AES/EBU digital audio for every video channel.

Circle (104) on Reply Card

Broadcast Video Systems: VITS 2

VITS 2 from **Broadcast Video Systems** is a video analyzer designed to monitor video quality remotely. Any line of the video field, including the VBI, can be sampled, digitized and sent by modem to a PC with a VGA display capability. Once received at the PC, the signal can be displayed as an analog waveform on the computer monitor. To facilitate measurement, the display can be filtered, amplified or expanded.

K factor or IRE measurements can be performed with internally generated graticules. Up to four video and audio inputs can be selected from the computer's keyboard. A signal-to-noise measurement readout is also included.

Circle (105) on Reply Card

Utah Scientific: SC-3

Utah Scientific has unveiled its SC-3 advanced router control system. The system has been designed to complement the company's UTAH-300 router. The control panel bus runs at 2MHz, and 2-level tie line management allows facilities to incorporate existing matrices and makes multiformat switching transparent to the user. The SC-3 also incorporates a *RealTime Switch*, allowing the UTAH-300 router to switch in real time for advanced applications.

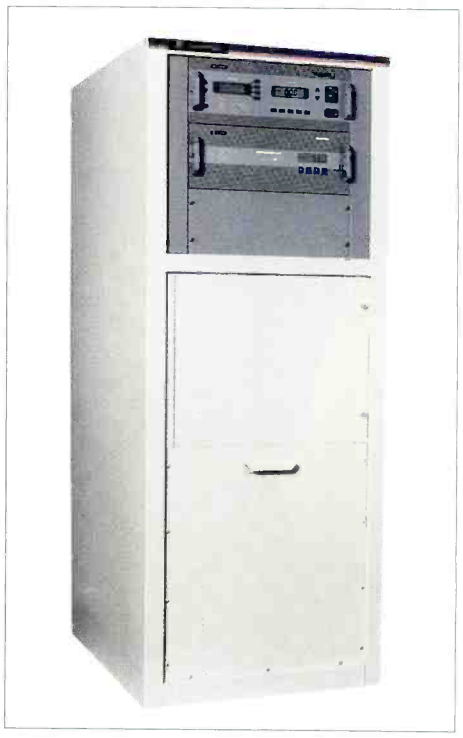
Windows GUI interface options include operation under Windows 95, Windows NT, Windows 3.1, O/S2, Sun Solaris and SGI. The SC-3 provides network ports, including an Ethernet control port for connection to an industry standard LAN, allowing network control, serial lines and telephony connections.

Circle (106) on Reply Card

Sony: DLE-100

The **Sony** DLE-100 is non-linear live editing system specifically designed to provide highlights clips/segments and slow-motion playback. Designed for live applications, such as sports programs and outside broadcast events, the 2-channel DLE-100 allows simultaneous recording, editing and playback with virtually instantaneous access to all recorded video. Editing operations and playback-to-air can be performed while recording a live program. Also, the non-linear operation eliminates the traditional shuttle of videotapes during live broadcasts, providing the user faster access and playback of video.

Circle (107) on Reply Card



Harris Broadcast: Z5CD

Harris Broadcast Division has introduced the first higher power solid-state FM transmitters to be available at the same price as vacuum tube models. Harris Platinum Z line starts with the Z5CD, a 5kW transmitter equipped with the Harris DIGIT digital FM exciter. Developed with the latest Z-axix/3-D design tools, Platinum Z transmitters used field-proven, fifth-generation, solid-state technology to provide maximum reliability and performance.

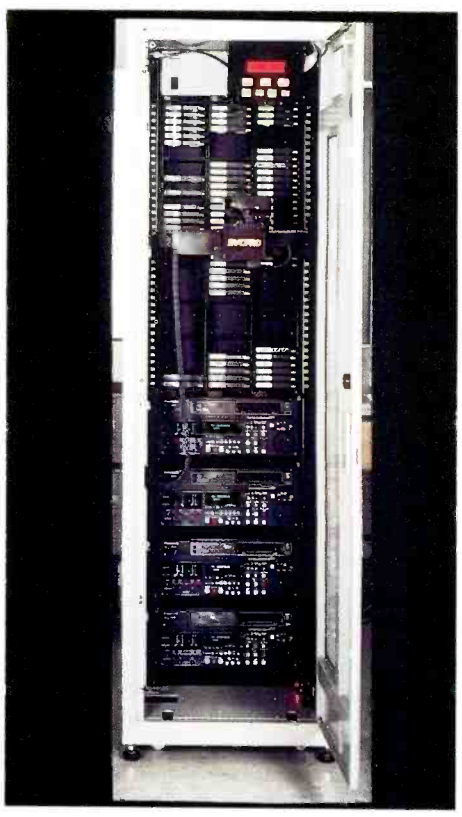
The Z5CD replaces a single RF power amplifier tube with multiple solid-state modules that operate in parallel. Modules are based on technology that has achieved an MTBF of more than 250,000 hours. Hot-pluggable modules can be safely removed or inserted during transmission, and the Z5CD will continue to operate at reduced power even if a module is removed for maintenance. Dual regulated power supplies are standard, and Platinum Z transmitters are available with optional dual exciters and IPAs.

Circle (108) on Reply Card

Prime Image: Compon

Prime Image's Compon time base corrector/synchronizer allows for seamless mixing of component and composite signals for switcher effects and other processing that requires mixing video signals of various types from different sources. The Compon transcodes YUV (YRB), Y/C and composite signals to YUV (YRB), Y/C and composite. This rack-mounted unit is available in NTSC, PAL or PAL-M standards. Because it is fully digital, video signals maintain their quality throughout the process.

Circle (109) on Reply Card



Panasonic: Smart-Cart

The Smart-Cart from **Panasonic** is a true multichannel system that can provide a completely different set of commercials and programs to two separate stations. The standard system, consisting of two internal DVCPRO VTRs and 180-cassette capacity, can download spot material to a disk cache system and dub new material into the cache. Smart-Cart is capable of controlling four external VTRs and the disk cache. In its standard configuration, the spots needed for the day's log would be downloaded to the cache system and played back from the cache while the programs would be played back from external VTRs, controlled by the Smart-Cart.

Panasonic also offers the DVCPRO Smart-Cart in conjunction with the Tektronix Pro*file*. This hybrid combination of Pansasonic "archival" robotic tape storage with Pro*file*'s disk-based "release" for spot messages produces a combination of tape affordability and the random-access efficiency of a computer-based disk system.

Circle (110) on Reply Card

Wheatstone: SP-8

Wheatstone Corporation has introduced its SP-8 TV audio console, a high-performance console designed for mid-market TV stations. The console incorporates many of the features of Wheatstone's higher-end audio consoles in a lower cost model. Technology available in Wheatstone's high-end TV-600 audio control console, such as an 8-input-per-channel overbridge, a complete switch selectable internal logic structure, mix-minus capability, and group muting are all available on the SP-8.

Wheatstone gathered input from domestic and international users in the production of this console. The SP-8 has both a dedicated relay-operated machine control port for overseas clients, and traditional U.S.-type opto-isolated control ports for flexibility.

Circle (111) on Reply Card

See spot.

See spot run.

See spot run without aggravating the entire audience because it's **too damn loud.**

Who needs the aggravation? With the new OPTIMOD-TV DIGITAL you never have to worry about poorly mixed programs, complaints from irate viewers, or advertisers devising diabolical new ways to "punch" their sound. The 8282 handles it all quietly, digitally, and automatically. The OPTIMOD-TV is fully progammable to optimize audio processing of your programs. And with built-in presets, general programming, news, sports, film, fine arts and other broadcasts will always sound great at home. Never too loud, too soft, or too spotty.

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Circle (8) on Action Card

Product Source

Pesa Switching Systems: Jaguar Video

This analog video matrix from **Pesa Switching Systems** provides wide bandwidth performance, with the capability of switching 125MHz. Each Jaguar video matrix is housed in a compact 6RU chassis. The analog video matrix provides terminated inputs capable of up to 2.0Vp-p input levels. Each Jaguar frame provides two connectors for each output. RGB, RGS and Y/C versions are also available if needed. An optional output monitor is available for analog video if needed.

The Jaguar digital video matrix is compatible with digital composte, digital component and compressed digital HDTV video formats. The digital video matrix provides automatic equalization for up to 240 meters of cable for data rates up to 270Mbits/s and up to 150 meters of cable for data rates up to 360Mbits/s. This switcher also features auto select reclocking on outputs and an optional output monitor.

Circle (112) on Action Card

Vela Research: Argus

The Argus MPEG-2 encoding system from **Vela Research** is available in multiple configuration to accommodate a range of compression applications. Argus supports MPEG-1 SIF, MPEG-1 advanced SIF, and MPEG-2 ½ D-1for multimedia applications and corporate information networks. An MPEG-2 full D-1 version is also available for broadcast applications, video-on-demand and ad insertion. Argus accepts composite, Y/C, YUV and serial D-1 video inputs for both NTSC and PAL. Two analog or AES/EBU digital audio inputs are also supported. Further availability includes closed-captioning and the use of a Windows NT 3.51 graphical user interface.

Circle (113) on Action Card

Fujinon: Ah70x9.5ESM

Fujinon's Broadcast & Communications Products Division has introduced the Ah70x9.5ESM, with a focal length range of 9.5mm to 665mm (1,330mm with 2X extender deployed), which the company says is the highest zoom ratio field production lens offered for TV applications.

From wide angle to extreme telephoto, the Ah70x9.5ESM provides minimum object distance of 2.7m. Maximum aperture is f/1.6 from 9.5mm to 313mm and f/3.4 at 665mm, and maximum photometric aperture is T1.78. The lens, which is sealed to keep out dust, contains a desiccant compartment to remove condensation caused by extreme changes in temperature.

Circle (114) on Action Card

ADVERTISEMENT

Introducing
The DSA309
Digital Studio Analyser

All Format Digital Video Analyser: Tests component and composite serial digital video signals in both 525 line and 625 line formats.

Real Time Measurements: Continuous real time, on-line measurements of all key parameters permits live monitoring of:

- **Serial Jitter**
- **Signal Amplitude**
- **Color Levels**
- **Non-Recommended Value Errors**
- **EDH Errors**
- **Parity Bit Errors**
- **TRS Errors**
- **Bit Activity**
- **Reserved Code Errors**

Real Time Color Level Monitoring: Monitors component digital video in real time for RGB or NTSC/PAL color space infractions.

Extensive Error Logging: Permits system performance monitoring and documentation by logging system errors on either the built-in LCD display, external printer, or on the built-in 3.5" disk drive.

Alarm Interface: Provides immediate notification when user defined thresholds are exceeded.

Comprehensive Digital Displays: Complemented by simulated analog waveforms, these displays help bridge the gap between analog and digital testing, creating a user friendly interface for both operations and engineering staff.

Easy To Use: The touch screen interface and easy to use menu system permits full instrument utilization while minimizing user reference to the manual.

Designing Excellence

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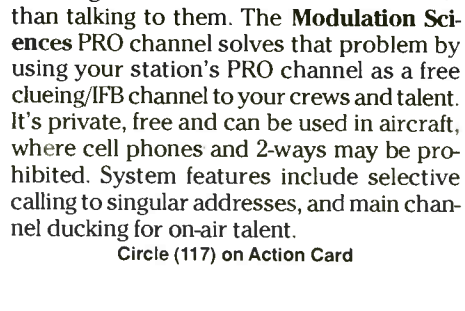
Direct (605) 339-0100 Fax (605) 339-0317

For a comprehensive information packet, call 1-800-769-AAVS (2287).

Circle (30) on Action Card



Soundcraft: Ghost

The Ghost console from **Soundcraft** offers 4-band equalization with two fully parametric mids, 10 aux buses (two of which are configured for stereo), MIDI muting system, time code synchronization, machine transport control and four MIDI data faders.

The Ghost also allows for remote control of digital multitrack tape recorders via MIDI machine control — and video recorders via the Sony 9-pin professional standard. Performance features include low noise mic amp, with phantom power and phase switch on every channel; four stereo returns (allowing for 56 inputs from a 24-channel desk at mixdown); time code reader/generator (triggering mute snapshots); LED meterbridge option; and 24-channel expander option.

Circle (115) on Action Card

Pixel Instruments: FD1900

The FD1900 from **Pixel Instruments** is a low-cost delay of up to 5.46 seconds for analog audio signals. Performance is essentially transparent, and it is intended for obscenity screening and general purpose audio delays. Delay values can be entered in seconds or video fields.

Circle (116) on Action Card

Modulation Sciences: PRO channel

Getting the crew into the field is often easier than talking to them. The **Modulation Sciences** PRO channel solves that problem by using your station's PRO channel as a free clueing/IFB channel to your crews and talent. It's private, free and can be used in aircraft, where cell phones and 2-ways may be prohibited. System features include selective calling to singular addresses, and main channel ducking for on-air talent.

Circle (117) on Action Card

Why Settle For Less Than 100% Digital?

The Hitachi SK-2600 is the only *fully digital triaxial camera system* in the world.

Fire, floods, world upheavals — whatever the year 2000 brings, the "2600" is the camera you'll want to shoot it with. This is the camera that will not only make you look good today, but will keep on making you look good 10 to 12 years into your buying cycle — well into the new millennium.

We start with a completely digital triaxial system and add such advanced technologies as a 4:3 aspect ratio, easily switchable to 16:9. Of course we offer flesh tone detail that keeps your talent as youthful as your system. Our six-vector color corrector allows you to paint and fine tune individual colors to make matching extremely easy. The unique LSI processor processes RGB in a single wafer, eliminating cross talk and noise. And only with digital technology can you set up one camera the way you like and transfer the information precisely to all other cameras for an exact match.

These ahead-of-their-time features are just part of the reason that, whatever the next millennium brings, if you own a 2600, the one thing it won't bring you is regrets.

Hitachi's SK-2600 Offers You All These Breakthrough Technological Advantages:

Full digital transmission system

4:3 aspect ratio, easily switchable to 16:9

Flesh tone detail for a softer, more youthful look

Six-vector color corrector and true linear matrix operating simultaneously

Single LSI does RGB processing for ultra-pristine image

13 to 18 bit digital processing

Precision digital file transfers

Extreme range of detail in viewfinder, even in low-level lighting

For the full story and a free copy of our white paper, "Advanced Digital Camera Technology For The New Millennium," call 800-762-6405.

Not just digital, Hitachi digital.

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Circle (9) on Action Card

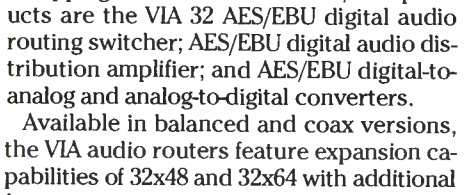
Product Source

Sennheiser: SET1081/1083

The SET1081-U and SET1083-U wireless systems from **Sennheiser** feature 16 switchable UHF channels for up to eight channels of operation. The EM1031-U, a true diversity receiver, is at the heart of both RF systems. With a frequency response of 40Hz to 20kHz and equipped with the Sennheiser HiDyn plus noise reduction system, the EM1031-U features automatic squelch control and circuitry that incorporates PLL synthesization. Several systems may be used simultaneously by combining two EM1031-U's in a 19-inch rack installation with the supplied rack mount adapters.

Apart from the receiver, the 1081 system contains a dynamic supercardioid radiomicrophone. This portable transmitter, the BF1081-U, offers switchable sensitivity, an output power of 50mW, and a frequency response of 80Hz to 18kHz. The 1083 system contains a pocket transmitter, the BF1083-U, which can be hidden in the clothing or attached to a belt. It connects to the system's miniature clip-on lavalier microphone, the MKE2-1053. Operating time is eight hours. Frequency response is 80Hz to 20kHz, and output power is 50mW.

Circle (118) on Reply Card



Leitch: AES/EBU products

Topping the list of **Leitch's** AES/EBU products are the VIA 32 AES/EBU digital audio routing switcher; AES/EBU digital audio distribution amplifier; and AES/EBU digital-to-analog and analog-to-digital converters.

Available in balanced and coax versions, the VIA audio routers feature expansion capabilities of 32x48 and 32x64 with additional frame and input distribution. A range of control options is available with these routers, including programmable control panels and Windows-based software.

The distribution amplifiers offer one input to eight outputs, auto cable equalization, data reclocking, jitter reduction and extensive error indication. Both the 110W and 75W DAs also feature automatic compensation for cable loss up to 2,000 feet.

D/A and A/D conversion is available in both balanced and coax versions. The D/A units convert a standard 20-bit AES 3-1992 digital signal to analog audio. The A/D converter, scheduled for availability midyear, eliminates the need for a distribution amplifier after conversion and cuts down on the amount of equipment and rack space needed.

Circle (119) on Reply Card

Rorke Data: MAXARRAY

Continuing **Rorke Data's** tradition of offering quality peripherals for digital video, audio and high end prepress markets, this 4-drive, split-bus, dual-channel PCI accelerator provides data throughput to 40MB/s on high-end Mac, PC and Unix workstations. Designed to conserve valuable PCI slots for other boards, the MAXARRAY uses the latest in Fast/Wide SCSI-3 hard-drive technology to provide performance, compatibility and maximum future flexibility.

Circle (120) on Reply Card

Jensen Tools: JTK-99

Jensen Tools offers the JTK-99 kit with an expanded assortment of electronic tools for a broad range of audio, video and broadcast applications. This kit is ideal for servicing TV systems. It contains more than 90 service tools, with more than half of them covered by Jensen's lifetime guarantee. Available in three different rugged case styles, vacuum formed or rotationally molded from extra thick, high-density polyethylene, this kit is among more than four dozen kits developed by Jensen.

Circle (121) on Reply Card

United Ad Label: Presentation materials

United Ad Label announces two new materials and five new formats. Fluorescent and gloss laser materials are available for improving the quality and effectiveness of your presentations. The new formats are CD labels, CD jewel case inserts, optical disk face labels, Betacam set labels and DAT set labels.

The company also announces a comprehensive selection of packaging solutions for audio/video professionals, including vinyl presentation cases for packaging single or multiple audio and VHS tapes, audio and CD polyboxes, VHS library tape cases, plastic VHS slipcases, paperboard packaging for VHS and Betacam tapes, and corrugated mailers for CDs, audio and VHS tapes.

Circle (122) on Reply Card

Cartoni: ActionPro

Cartoni introduces ActionPro, a lightweight head offering true fluid drag and professional features for sophisticated Hi8 and Super-VHS cameras weighing up to 12 pounds. Cartoni's fluid modules are employed for both pan and tilt modes. A variable friction device offers selectable fluid drag from free-wheeling to lock-off.

Counterbalance is achieved by the fluid module alone for cameras weighing up to three pounds. For heavier cameras, a double spring module can be engaged and set to any of three settings to compensate for various payloads.

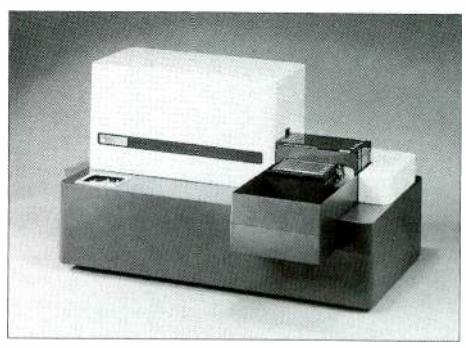
Feature positive-locking tilt, orientable pan bar, spirit level and built-in shoulder strap, the ActionPro head is supporeted by an aluminum standard tripod with 75mm ball base and rubber feet. The system is complete with fluid head, quick-release sliding camera plate, tripod and integral mid-level spreader.

Circle (123) on Reply Card

Multidyne: FTX-95/FRX-95

Multidyne's FTX-95 fiber-optic video and digital stereo audio transmission system offers specifications that exceed RS-250C short-haul requirements. The signal-to-noise (S/N) ratio exceeds 72dB, and the differential gain and phase less than 0.5% and 0.5°. The 18-bit stereo digital audio delivers a S/N ratio of more than 85dB. A bidirectional or 2-channel system fits into a compact 1RU space. The transmit and receive units are available in a portable package.

Circle (124) on Reply Card



Research Technology International: PULSAR

Research Technology International (RTI) has unveiled a series of four conveyor degaussers. The PULSAR 5300 degaussers erase as many as 500 cassettes per hour automatically and unattended by using an optional tape hopper. Also, multiple cassette formats may be automatically processed at one time by using the hopper. PULSAR's discharge design provides fast erasure, low average magnetic field, continuous duty operation and standard 117VAC operation. Models are also available to erase virtually any metal or oxide videotape format up to 1,650Oe.

Circle (125) on Reply Card

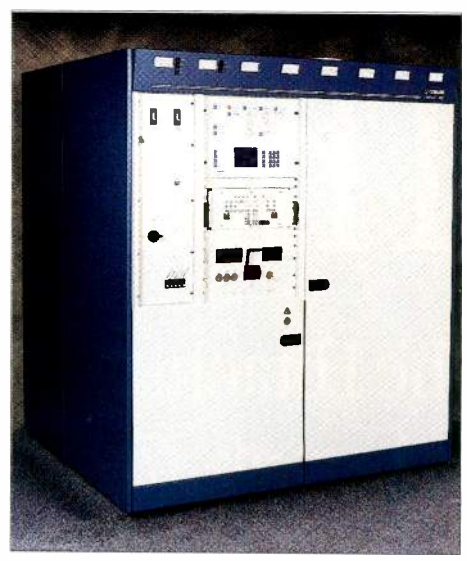
Barco: DVM

Barco launches the Digital Video Monitor (DVM), which is the first digital-only monitor of its kind. The DVM is ideal for general purpose, digital viewing applications that do not require an abundance of inputs and features. The DVM is one solution for digital viewing problems found specifically in studio and OB van environments.

The monitor incorporates a D/V converter into its design and automatic alignment procedure, making it a self-contained unit. This single-unit device ensures quality control, and an Optical Digital Loop (ODL) feature provides capabilities that other monitors connected to separate digital input devices cannot.

The DVM comes as a rack-mountable, 14-inch monitor with one serial digital component input. An infrared or wired remote control operates the system. Custom software allows for easy setup of all monitor functions and customization of the monitor profile. The DVM also comes with a standard CVM 3000 auto setup probe, allowing monitor output levels to be consistently calibrated within three minutes.

Circle (126) on Reply Card



Comark: IOX

To address the growing low power international market, **Comark** is releasing another version of the IOX line. The system incorporates all of the features of the standard IOX, including the microprocessor "Intelligent" transmitter controller. Available for most international standards and operating voltages, the compact IOX transmitter offers a 20% smaller footprint by including the single exciter (dual exciter option is also available) and the Class A solid-state drivers in the amplifier cabinet.

Comark offers the option of three types of tubes — water-cooled 30-, 40- and 60kW tubes from EEV and Philips and the latest EEV 20kW air-cooled IOT. This transmitter consumes less power and requires less air-conditioning.

Circle (127) on Reply Card

Asaca/Shibasoku: CM147

The CM147 (14-inch, 700-line CRT) from **Asaca/Shibasoku** is a Grade 1 broadcast-quality monitor for critical video signal monitoring applications in studio control, editing, telecine, color correction or engineering QA. The CM147 comes standard with a true YIQ NTSC decoder and 3-line comb filter for color noise reduction without sacrificing diagonal resolution. Four input options slots are provided for installing NTSC, PAL or SECAM decoders, a D-1 interface and a D-2/D-3 interface.

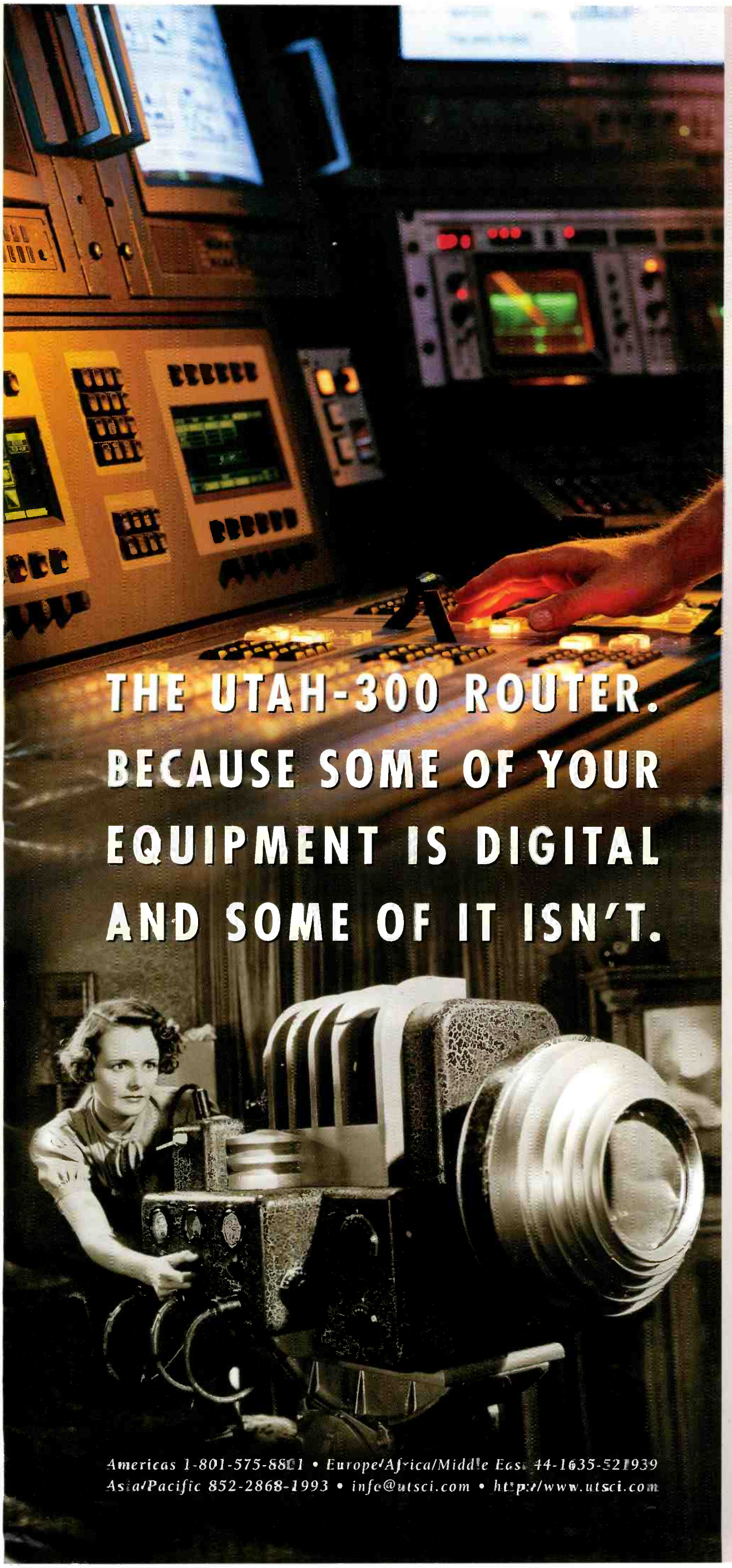
All functions are digitally controlled by an internal CPU. Monitor setup controls are displayed with an on-screen menu. The menu choices include preset data, color temperature, auto setup, input options and markers. Three user configurations can be stored, and each user sets the input channel, signal system and format, and color temperature settings. Three composite inputs, sync, RGB, Y/R-Y/B-Y and Y/C inputs are standard.

Circle (128) on Reply Card

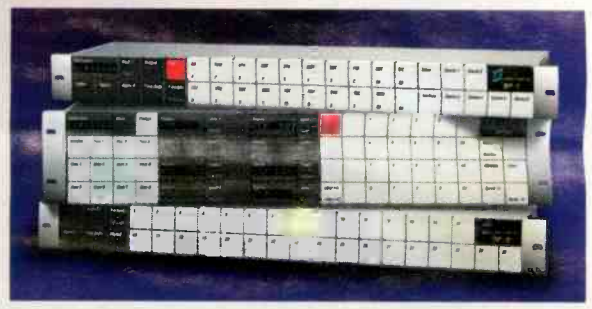
Florical Systems: SpotCacher

SpotCacher, which runs on Windows NT with a graphical user interface, is a hierarchical storage management system (HSM). The **Florical Systems** unit is configured specifically for the needs of television and cable operations involving multiple presentation channels and multiple origination sources. Through the use of a 3-hour cache, or digital video file server, tape operations can be reduced by more than 80% for a typical single-channel TV station. The SpotCacher is capable of managing up to four tiers of storage with both vertical and horizontal movement of material: tape library shelves, automated tape library robots, digital video file servers and digital video caches. One SpotCacher will handle up to 64 presentation channels.

Circle (129) on Reply Card



At Utah Scientific, we recognize that you need to approach the digital future one step at a time. That's why we designed the UTAH-300 routing switcher. The UTAH-300 handles analog, digital or both in the same frame. Combine this with our new SC-3 Control System and you have a routing system that's powerful and flexible enough to take on today's realities while preparing you for tomorrow's challenges. That means you can upgrade to a digital routing system without retiring your equipment prematurely. It means you have the assurance the UTAH-300 solution will be there to provide the switching and control requirements of the future.



Utah SC-3 Control System

- Analog and digital in the same frame
- Backward compatibility
- Windows programming screens
- Open control protocols
- Ethernet control port
- Third party control capability
- Two level tie line option
- *RealTime Switch*™

Call your Utah Scientific representative at 1-800-246-6744 ext. 5016 for your free UTAH-300 Planning Book. The UTAH-300. So advanced it actually works with your old stuff.

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Circle (14) on Action Card

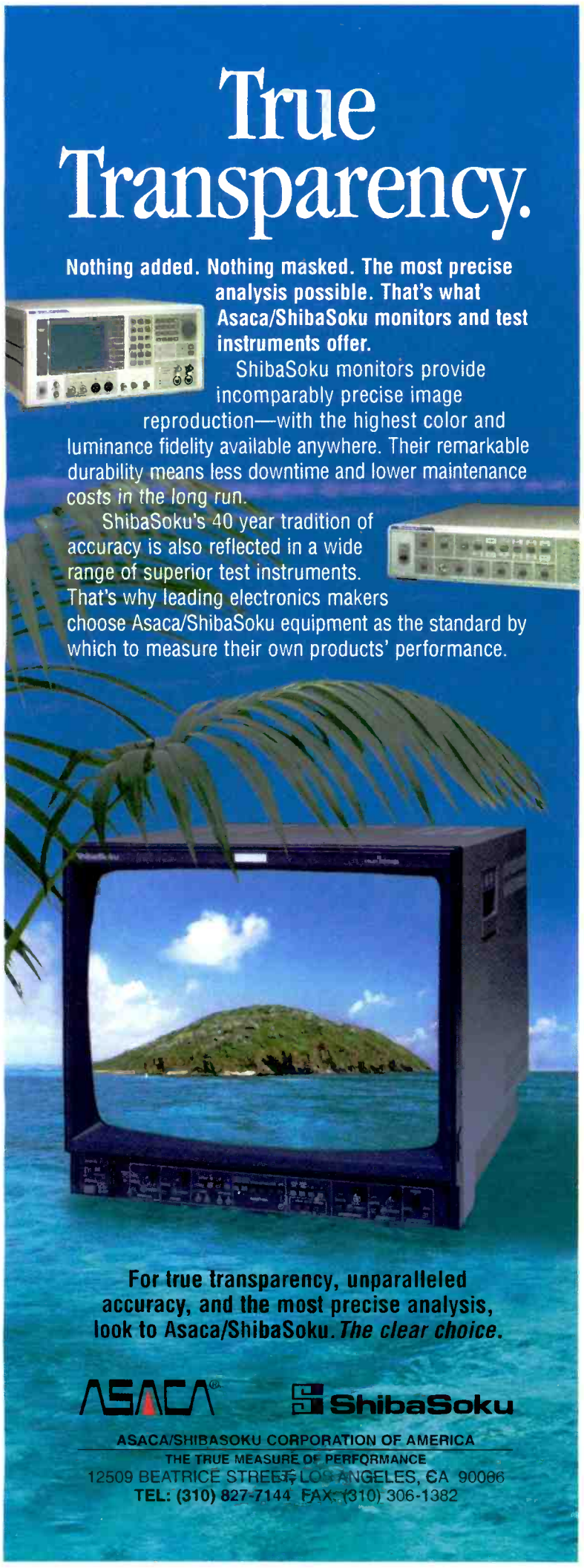
Product Source

Drastic Technologies: VVCR

Version 2.0 of the VVCR digital disk recorder from **Drastic Technologies** represents the company's dedication to automation, audio post editing and traditional video editing. In terms of picture quality, VVCR delivers a visually lossless image at a compression ratio of 2.5:1. For rough-cut editing and to maximize storage, ratio of up to 20:1 are selectable. New is this version are RAID 3 support, multihead capabilities, network data transfer and removable storage media. Also distinguishable in this product is the use of time code. Time code used by VVCR is independent of disk layout and is not limited by the actual storage time. MIDI and optional LTC controls are accessible on the rear panel, and the VVCR can be plugged into any standard edit controller, animation controller or desktop video production system.

Circle (130) on Action Card

ADVERTISEMENT



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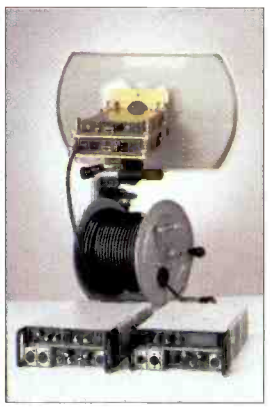


Nucomm: PT5/RX5

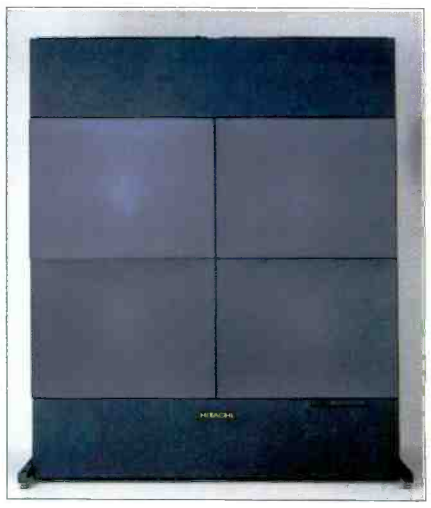
Nucomm now manufactures the microprocessor-controlled PT5/RX5 portable microwave video links in all bands between 1.3GHz and 15.4GHz. Each transmitter and receiver is a dual-unit configuration, consisting of an RF unit and control interface unit. The two units are interconnected with a single triax cable up to 250 meters long. The PT5 control interface unit baseband video and audio channels are summed on a 70MHz carrier and diplexed with a 12MHz AM transceiver data channel onto the triax cable. The duplex data channel communicates the control, alarm and monitoring functions. DC power is fed on the cable from the control unit. Alternatively, the PT5 control unit will accept a 70MHz input in place of video/audio.

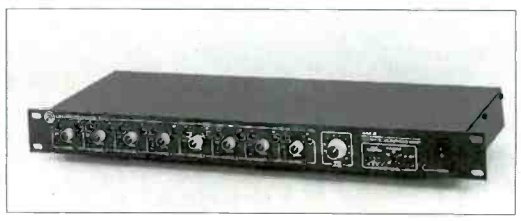
Circle (131) on Action Card

Hitachi: MV100HP

The Multimedia Systems Division of **Hitachi Home Electronics** is introducing a 100-inch color monitor with 1,000 lines of resolution per cube, 500 foot lamberts of brightness, and depth of just 27 inches. The MV100HP is composed of four 50-inch UltraVision cubes and provides crisp, bright images for large groups at wide viewing angles. The unit comes equipped with composite video, RGB and S-video inputs. Built-in speakers provide 40W of MPS stereo sound. The four UltraVision cubes are joined by an exclusive framing system that virtually eliminates picture loss. The system comes complete with 100-inch projection display, videowall processor, connecting cables and illuminated, handheld remote control.

Circle (132) on Action Card





Lectrosonics: AM8TC

The **Lectrosonics** AM8TC automatic microphone mixer, a part of the LecNet digital series, features high- and low-frequency tone controls on each channel. It can be configured for use in sound reinforcement, teleconferencing or recording, preserving the basic benefits of NOM attenuation and minimal re-circulated sound. The AM8TC is supplied with its own dedicated software to prevent background noise and non-speech sounds from interfering with the auto mixing function. The unit also includes a serial port for computer monitoring and control. Connections for remote level control switches are provided for individual channels and the overall mixed outputs. Multiple units can be "daisy chained" for more than eight channels.

Circle (133) on Action Card

NVision: NV3256D

NVision has introduced the NV3256D data router with dynamic ports. The NV3256D, which is based on the same dynamic port architecture that was designed and patented for the NV3128D, can be configured to 64 port increments, up to 256 ports. It allows single connection to all devices (RS422 or RS232), and any device can be selected as controlled or controlling without the need of 'Y' cables, toggle switches or 9-pin patch keys.

Circle (134) on Action Card

ParkerVision: CameraMan

In an effort to develop systems for applications that require a fully automated broadcast-quality camera, **ParkerVision** introduces the 3-CCD CameraMan. Standard features include a choice of 13X or 17X zoom lens option; gen-lock capability; high-resolution, ½-inch 3-CCD (IT-Power HAD) with 750 TV lines; minimum illumination of 5 lux, f/1.4; S/N ratio of 60dB; *Whisper*DRIVE Plus quiet operation; RS-232 integration and RS-485 multicamera network control; and 125 location presets per camera system with ±0.125° accuracy.

Optional features include integrated *auto*TRACK capability with wireless audio; Windows interface, front-end control with shot profile recall, CCU and multicamera control capability; and hard-wired multicamera control joystick.

In addition, the CameraManSTUDIO system features post-production A/B or A/X edit control; Windows 95 interface; control of up to six cameras; six video inputs; and a 4-channel stereo audio mixer.

Circle (135) on Action Card

Frezzolini Electronics: Mini-Arc

Frezzi Energy Systems introduces the Mini-Arc, a miniature HMI, high-output, daylight temperature light, in a self-contained unit. Color balanced at 5,500°K, the Mini-Arc is ideal for outdoor shooting and delivers the equivalent light output of a 100W tungsten halogen lamp. The Mini-Arc, which weighs 1.5 pounds, has a bulb lifetime of 500 hours and is 400% more efficient than a quartz light. It also comes equipped for indoor shooting, whereby a dichroic filter converts the unit to a tungsten balanced light and still provides the HMI advantage of low power consumption and high light output.

Circle (136) on Action Card

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EXPANDABLE

BULLETPROOF

Looking for a broadcast server to get you on air today — and keep you there? You should give the HP MediaStream broadcast server a shot.

Our bulletproof architecture is engineered to maximize dependability today. And minimize problems adapting to a changing industry. A single server provides 6 channels and nearly 50 hours of storage. And HP servers can be easily networked — allowing you to add even more channels and storage as you go. Plus, our open-systems approach ensures compatibility with a wide variety of third-party hardware and software vendors.

Combine all that with HP's 24-hour service and support, and you're looking at the most reliable server money can buy.

But don't just take our word for it. Ask the engineers at KCRA in Sacramento. Or MTV Europe in the U.K. Because from Arizona to South Africa, broadcasters around the world count on the HP's broadcast server every day. And it hasn't let them down.

It's engineered to meet your broadcast needs well into the future. But at $100,000, it's priced to fit your budget today.

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If you're looking to invest in a server you can count on, take a look at the HP MediaStream broadcast server. Then give it your best shot.

There is a better way.

Starting at

$100 K

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HEWLETT® PACKARD

Circle (16) on Action Card

An Evolution In UHF Television Transmitters!

Now, Acrodyne delivers the benefits of tetrode technology for all UHF power requirements.

In 1980, Acrodyne pioneered UHF transmission by putting the first full service common amplification 5kW UHF TV Transmitter on the air. Since then, Acrodyne's tetrode-equipped UHF television transmitter product line has evolved to higher and higher power outputs. In 1995, we designed, introduced, and sold the first transmitter using the Diacrode®, a 60kW common amplification (80kW peak visual) double-ended tetrode device – the most powerful single-tube UHF transmitter available. Over the years, our users have logged over 2 million hours on these transmitters.

Acrodyne tetrode transmitters are high efficiency, high performance systems. The simple designs, combined with the tube efficiencies, long life (20,000 hours typical), and low costs, result in the lowest predictable transmitter operating costs compared to other technologies. And, the linearity of tetrodes also makes them ideal choices for future digital transmissions.

Evolutionary UHF television transmitters... transmitters whose time has come.

For complete details, contact Acrodyne today.

ACRODYNE

More Power To You.

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BROADCAST engineering

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I am interested in these items	Immediate Need	Have Sales-person Call	Name Nearest Dealer	Send Literature	For Future Reference
#					
#					
#					
#					

Circle reader service numbers below for more information:

1	14	27	40	53	66	79	92	105	118	131	144	157	170	183	196	209	222	235	248
2	15	28	41	54	67	80	93	106	119	132	145	158	171	184	197	210	223	236	249
3	16	29	42	55	68	81	94	107	120	133	146	159	172	185	198	211	224	237	250
4	17	30	43	56	69	82	95	108	121	134	147	160	173	186	199	212	225	238	251
5	18	31	44	57	70	83	96	109	122	135	148	161	174	187	200	213	226	239	252
6	19	32	45	58	71	84	97	110	123	136	149	162	175	188	201	214	227	240	253
7	20	33	46	59	72	85	98	111	124	137	150	163	176	189	202	215	228	241	254
8	21	34	47	60	73	86	99	112	125	138	151	164	177	190	203	216	229	242	255
9	22	35	48	61	74	87	100	113	126	139	152	165	178	191	204	217	230	243	256
10	23	36	49	62	75	88	101	114	127	140	153	166	179	192	205	218	231	244	257
11	24	37	50	63	76	89	102	115	128	141	154	167	180	193	206	219	232	245	258
12	25	38	51	64	77	90	103	116	129	142	155	168	181	194	207	220	233	246	259
13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260

PLEASE WRITE LEGIBLY FOR NUMBERS ABOVE 260

6RT

1 Do you wish to receive/continue to receive *Broadcast Engineering* FREE?

❑ YES ❑ No

Signature required _____

Title _____ Date _____

6RT

2 Which type of facility or operation best describes your primary business classification? (Check only ONE box.)

- 20 ❑ TV Station (including Networks & Low-Power TV)
- 26 ❑ Combination TV & Radio Station
- 39 ❑ Cable (including Networks)
- 45 ❑ Telcoms
- 28 ❑ Business TV (including Non-Broadcast TV)
- 29 ❑ Recording Studio
- 30 ❑ Teleproduction Facility/Independent Program Producer
- 40 ❑ Post-Production Facility
- 31 ❑ Microwave, Relay Station or Satellite Company for TV and Cable
- 32 ❑ Federal, State, Municipal Government
- 33 ❑ TV Consultant (Engineering or Management)
- 34 ❑ TV Dealer, Distributor or Manufacturer
- 41 ❑ Medical Facility
- 42 ❑ Law Enforcement/Training Facility
- 43 ❑ Military Broadcast or Video Production Facility
- 44 ❑ Defense Contractor
- 35 ❑ Other (please specify): _____

3 Which of the following best describes your title? (Check only ONE box.)

A. Company Management:
- 01 ❑ Chairman of the Board
- 02 ❑ President
- 03 ❑ Owner
- 04 ❑ Partner
- 05 ❑ Director
- 06 ❑ Vice President
- 07 ❑ General Manager (other than in charge of Engineering or Station Operations)
- 08 ❑ Other Corporate/Financial Official

B. Technical Management & Engineering:
- 09 ❑ Technical Director/Manager
- 10 ❑ Chief Engineer
- 11 ❑ Other Engineering or Technical Title

C. Operations & Station Management/ Production & Programming:
- 12 ❑ Vice President Operations
- 13 ❑ Operations Manager/Director
- 14 ❑ Station Manager
- 15 ❑ Production Manager
- 16 ❑ Program Manager
- 17 ❑ News Director
- 18 ❑ Other Operations Title

D. Other (please specify): _____

4 Which statement best describes your role in the purchase of equipment, components and accessories? (Check only ONE box.)

- A ❑ Make **final decision** to buy specific makes, models, services or programs
- B ❑ **Specify** or **make recommendations** on makes, models, services or programs
- C ❑ Have **no part** in specifying or buying

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11	24	37	50	63	76	89	102	115	128	141	154	167	180	193	206	219	232	245	258
12	25	38	51	64	77	90	103	116	129	142	155	168	181	194	207	220	233	246	259
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2 Which type of facility or operation best describes your primary business classification? (Check only ONE box.)

- 20 ❑ TV Station (including Networks & Low-Power TV)
- 26 ❑ Combination TV & Radio Station
- 39 ❑ Cable (including Networks)
- 45 ❑ Telcoms
- 28 ❑ Business TV (including Non-Broadcast TV)
- 29 ❑ Recording Studio
- 30 ❑ Teleproduction Facility/Independent Program Producer
- 40 ❑ Post-Production Facility
- 31 ❑ Microwave, Relay Station or Satellite Company for TV and Cable
- 32 ❑ Federal, State, Municipal Government
- 33 ❑ TV Consultant (Engineering or Management)
- 34 ❑ TV Dealer, Distributor or Manufacturer
- 41 ❑ Medical Facility
- 42 ❑ Law Enforcement/Training Facility
- 43 ❑ Military Broadcast or Video Production Facility
- 44 ❑ Defense Contractor
- 35 ❑ Other (please specify): _____

3 Which of the following best describes your title? (Check only ONE box.)

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- 02 ❑ President
- 03 ❑ Owner
- 04 ❑ Partner
- 05 ❑ Director
- 06 ❑ Vice President
- 07 ❑ General Manager (other than in charge of Engineering or Station Operations)
- 08 ❑ Other Corporate/Financial Official

B. Technical Management & Engineering:
- 09 ❑ Technical Director/Manager
- 10 ❑ Chief Engineer
- 11 ❑ Other Engineering or Technical Title

C. Operations & Station Management/ Production & Programming:
- 12 ❑ Vice President Operations
- 13 ❑ Operations Manager/Director
- 14 ❑ Station Manager
- 15 ❑ Production Manager
- 16 ❑ Program Manager
- 17 ❑ News Director
- 18 ❑ Other Operations Title

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Winsted: K8120

As editors have tried to incorporate 20-inch video monitors into their rack consoles, they've been stymied by the facts that monitor manufacturers haven't designed them to be rack mounted and that rack furniture manufacturers have used the EIA width of 19 inches as their standard. **Winsted Corporation** introduces the model K8120, a 3-bay rack system with a center monitor bay that holds the larger monitor on a 22-inch-wide shelf. The wide shelves are available as System/85 modular components so that users can design their own setup and incorporate sloped or vertical modules.

Circle (137) on Action Card

Standard Communications

Standard Communications' Omni Global VU CAM830/830I series control access module is designed as an upgrade for the Omni Broadcast MT830 satellite receiver. The control access module is intended to allow the operation of up to 30 receivers, located at multiple off-site locations, or at the broadcast facility. The CAM830 can be field retrofitted in any existing MT830 satellite receiver installation, or it can be installed as a factory ordered accessory.

The module has the ability to delete, copy and insert channels through menus or key commands via any IBM compatible PC. The international version (CAM830I) demodulates PAL, SECAM and NTSC video standards, whereas both versions have the capacity to select different satellite feeds and transponders at anytime by using the automatic timer menu.

Circle (138) on Action Card

Ortel: L Band Fiberoptic Interfacility Link

The L Band Fiberoptic Facility Link from **Ortel** is a wideband, microwave, fiber-optic interfacility link between satellite earth terminal antennas and satellite receivers. Whether cable operators or network broadcasters need an alternative to coax over distances of 100 or 1,000 feet, this link is cost-effective where coax sustains performance degradation.

The L Band link consists of a 3100 series transmitter and a 4100 series receiver. The link connects to a 1,310nm single-mode fiber, with the DC power for the 3100 series transmitter passed along to LNB or LNA on the RF center pin. The 4100 series receiver is powered by the satellite receiver, also along the RF center pin. For flexibility in choosing antenna sites, the L Band link can transport all satellite signals over long distances without repeaters or equalizers.

Circle (139) on Action Card

ASC'S VR DISK-BASED BROADCAST SYSTEM

ASC Audio Video Corporation: VRX

ASC Audio Video Corporation introduces an automation system, the VRX, that integrates with its VR line of disk-based broadcast systems. With VRX, a single user can control many station operations, such as commercial insertion and network delay, and integrate with non-linear editing operations, on multiple channels from an advanced Windows 95 or -NT based console. The VRX controls multiple virtual recorders, standard videotape recorders, and router and master control switchers. Furthermore, the VRX allows operators to import playlist schedules from traffic and export "as-run" logs to billing via Ethernet TCP/IP or floppy disk. Specifications include PCI bus architecture, two RS-422 ports, 16MB memory, two RS-232 ports and SVGA display.

Circle (140) on Action Card

Snell & Wilcox: TPP-100, MSA-100

The TPP-100 from **Snell & Wilcox** is an MPEG-2 transport stream player that enables simple and immediate visual identification of non-compliant MPEG-2 decoders. It plays back any bitstream loop up to 144Mbits/s and plays back synthetically created legal MPEG-2 bitstreams designed to stress MPEG-2 decoders. The TPP-100 supports major formats and interfaces, and seamless looping of source material prevents decoder reset. The MSA-100, a transport stream analyzer, conducts real-time or off-line analysis of MPEG-2 data streams. The real-time operation enables immediate continuous assessment of MPEG-2 transport stream paratmeters, and the off-line mode enables selective capture of data for more detailed analysis. The system can isolate channels or parts of channels for in-depth analysis, working with any level, any profile MPEG-2.

Circle (141) on Action Card

Musicam USA: StudioFone

Musicam USA, formerly CCS Audio Products, has added several second-generation advances to its FieldFone product line and arrived at StudioFone, a bidirectional POTS (Plain Old Telephone Service) codec for rack-mountable remote audio over a single phone line. In addition to software configured to achieve 20Hz-6.7kHz of audio bandwidth and signal-to-noise ratio exceeding 75dB, the StudioFone has two mixing inputs, each switchable for mic or line sensitivity; built-in talkback feature; front-panel monitor speaker and headphone jack that are fed by two level controls to monitor send and return audio; and automatic muting of the front-panel speaker for headphone use.

Circle (142) on Action Card

Chyron: Infinite Freedom

chyronGraphics, the graphics division of **Chyron Corporation**, introduces Infinite Freedom, an integrated digital production and design studio. The Infinite Freedom system integrates the iNFiNiT!, MAX!> or MAXINE! character generators; Liberty paint and animation software; IMAGESTOR! still-store management system; a digital disk recorder (from Sierra Design, Abekas or Accom), and the iNFiNET! graphics file server with networking capabilities. Designed for production and live on-air applications, Infinite Freedom allows users to make instant changes with real-time, high-impact workstations. Digital disk recorders supported by Infinite Freedom are scalable from three to 48 minutes of uncompressed digital recording capability.

Circle (143) on Action Card

MYAT: E-STAR

The E-STAR N-way power combiners from **MYAT** are available in 3- to 8-port models for VHF, UHF and FM. These hydridless combiners offer greater efficiency than conventional coaxial combiners and feature fault-tolerant design, which keeps the inputs matched even when one or more ports are removed or faulted. The E-STAR combiners have no moving parts and are unaffected by temperature changes.

Circle (144) on Action Card

Tascam: DA-60MKII

Retaining the features of the orginal DA-60, such as confidence monitoring, memory start and rehearsal, **Tascam's** DA-60MKII, a 4-head, time code DAT recorder, is designed for film and video post-production. The DA-60MKII includes an improved servo system that allows continuous time code recording in the assemble mode. It also has an improved signal-to-noise ratio, extended dynamic range and built-in chase lock synchronizer supporting Sony P2 protocol. Because the servo system also allows for jam sync recording of time code, the operator can record time code where it previously stopped.

Circle (145) on Action Card

Videotek: SDC-101

The SDC-101 from **Videotek**, a serial digital component video color corrector, provides controls in the digital domain on gain, offset, white stretch, gamma, black stretch, hue shift, white clip and black clip. The unit also provides error identification on gamut, EAV, EDH and SAV, among others. Features include an increase to 50 programmable, user-defined memories with SMPTE time code triggers, optional editor control capability via an RS-422 interface, and optional remote control unit. A 3-vector processor allows full color correction of total or separate RGB or Y, Cb, Cr video components.

Circle (146) on Action Card

If You Have Bottom Line Responsibility for a TV News Operation...

Slash your cellular phone charges by 200% to 400%!

Most news related cellular costs are for cueing (IFB). The FCC authorized a one-way channel for every TV station's private use. No usage charges - you already own the channel! This technology has been slow to develop because no one could make it work right. Where others failed, Modulation Sciences succeeded.

The industry leader in TV stereo technology has just introduced a second generation PRO channel system, PROceiver II and PRO Channel Generator II. With features like extended fringe area coverage, selective calling and a unique three year warranty.

Stations have reported savings so great that they have amortized the cost of the PRO equipment in less than three months!

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Circle (20

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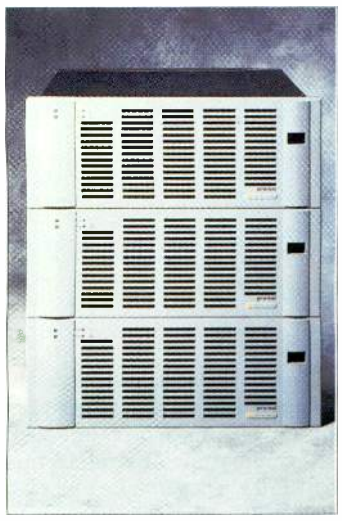


Pro-Bel: XD series

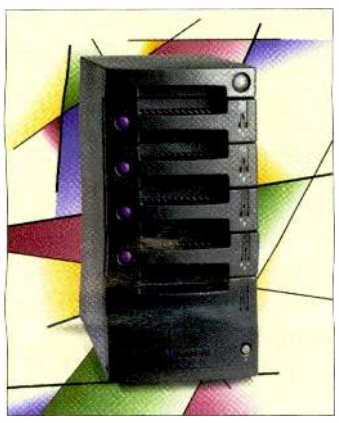
Accommodating digital video and audio formats, the **Pro-Bel** XD series of digital routers features field expansion to 1,024x1,024 without chassis modifications or the addition of DAs or combiners. Based on 64x64 and 64x128 chassis sizes, the digital video routers offer full compliance with SMPTE 259M-ABCD, providing transparent operation for all 143-, 177-, 270- and 360Mbit/s NRZI data with the inherent features of automatic cable equalization and clock regeneration. Operation with multiformat signals is extended to permit dual 525- and 625-line synchronized switching. Video data rates are pre-assignable on a source-by-source basis, or alternatively dynamically configured via the optional auto standard rate module.

Circle (147) on Action Card

Studer: 980

The 980 series of broadcast consoles from **Studer** supports current and future multichannel audio systems, including 4-channel Dolby Surround, future Dolby Surround Digital (DSD), 5.1 5-channel with optional subwoofer channel, and 5-channel high-definition TV formats. The 980 series features an input stage with eight auxiliary outputs, direct channel out and n-1 mix-minus output per channel. Up to eight group and six master channels can be addressed. The patented input transformer design minimizes distortion and maintains constant impedance over the audio range. The console can be supplied with either VCA or direct faders.

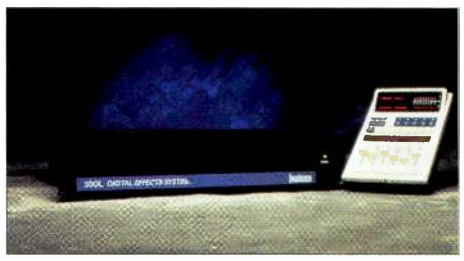
Circle (148) on Action Card



MountainGate: Renegade RAID Storage System

MountainGate has introduced its Renegade Redundant Array of Independent Disks (RAID) System. Renegade is a flexible, high-capacity storage system that offers fault-tolerant data protection configurable to support RAID levels 0,1,3,5, (0 & 1) and JBOD. Featuring up to 42GB of RAID storage, Renegade also offers the versatility and convenience of two optional removable drives for increased storage and transportability.

Circle (149) on Action Card



Lexicon: 300L

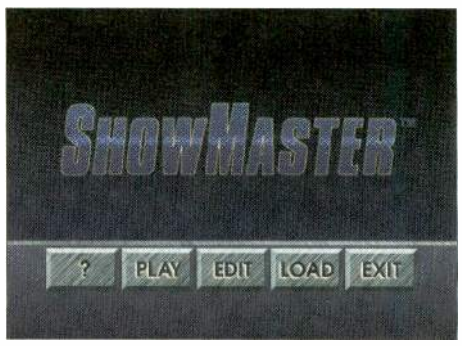
The **Lexicon** 300L digital effects system is a version of the 300 processor (still available), which supports the LARC remote controller. All operations on the 300L are controlled by the LARC. Version 3.5L software allows existing 300s with version 3.x software to be controlled by a LARC. The single rack-space LR4 FrameLink enables one LARC remote controller to control up to four mainframes (any combination of 300L, 480L and 224XL). With its new operational interface, the 300L comes with more than 150 reverb, ambience, delay/pitch effects, compression/expansion and mastering programs.

Circle (150) on Action Card

Studer Editech: VideoMix

Studer Editech has added a video track to its PostTrio digital post-production studio. PostTrio records and plays from eight to 24 channels of audio, and now has one channel of non-linear video called VideoMix. Hard-lock between video and audio is achieved with instant sync during scrub, shuttle and play speeds. VideoMix records and plays variable quality video from on-line to draft. The video track in PostTrio lifts speed restrictions imposed by videotape machines during editing and mixing. A video reference track is recorded once at the start of the session, and from there editing and mixing are disk-based.

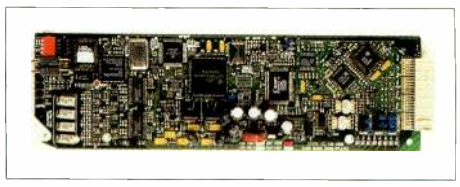
Circle (151) on Action Card



Philips Media: ShowMaster

ShowMaster from **Philips Media** is a multimedia presentation system for CD-i discs, whereby presenters can use their Windows PCs to combine photographs, slides, graphics, sound and MPEG-1 full-motion video into adaptable CD-i presentations. The ShowMaster system includes ShowBuilder, to design and build the CD-i presentation disc, and the ShowMaster application template for presentation playback. Also included are audio and video conversion tools to change your materials into ShowMaster-supported formats as well as CD recording software to create write-one discs.

Circle (152) on Action Card



Leitch: ADM series

Enhancing its Digital Glue products, **Leitch** has launched a series of audio demultiplexing and monitoring products. Called the ADM series, the products demultiplex audio from a serial 4:2:2 or 4fsc video signal, providing analog and AES/EBU audio output. For a DA-sized module, this capability is unique to the industry. Available in two versions, ADM-6800 and ADM-6804, the series can extract four channels of audio and has four reclocked serial digital video outputs. Two types of control are possible for these ADMs: a main swap that routes specific de-embedded audio channels to specific outputs, and a monitor swap for swapping the analog outputs without affecting the AES digital output routing.

Circle (153) on Action Card

Storage Concepts: Concept 910 series

The Concept 910 series from **Storage Concepts** is designed to handle demanding digital data storage requirements, with guaranteed performance and data integrity. Dual-bus architecture, with a separate EDFB bus, provides a second data path for sustained data rates up to 50MB/s, independent of the host bus. This technology enables storage for video-on-demand and interactive markets, including television.

Circle (154) on Action Card

Sierra Video Systems: Mirage

Mirage from **Sierra Video Systems** is a 10-bit, stand-alone keyer and mixer with serial digital video inputs and outputs. It features full 4:4:4:4 real-time internal processing to produce outstanding chroma and luminance keys. All of its production power is contained in a 1RU package. Mirage features the wireless mouse-driven HeadsUp control system, a built-in mini-production switcher and motion tracking technology.

Circle (155) on Action Card

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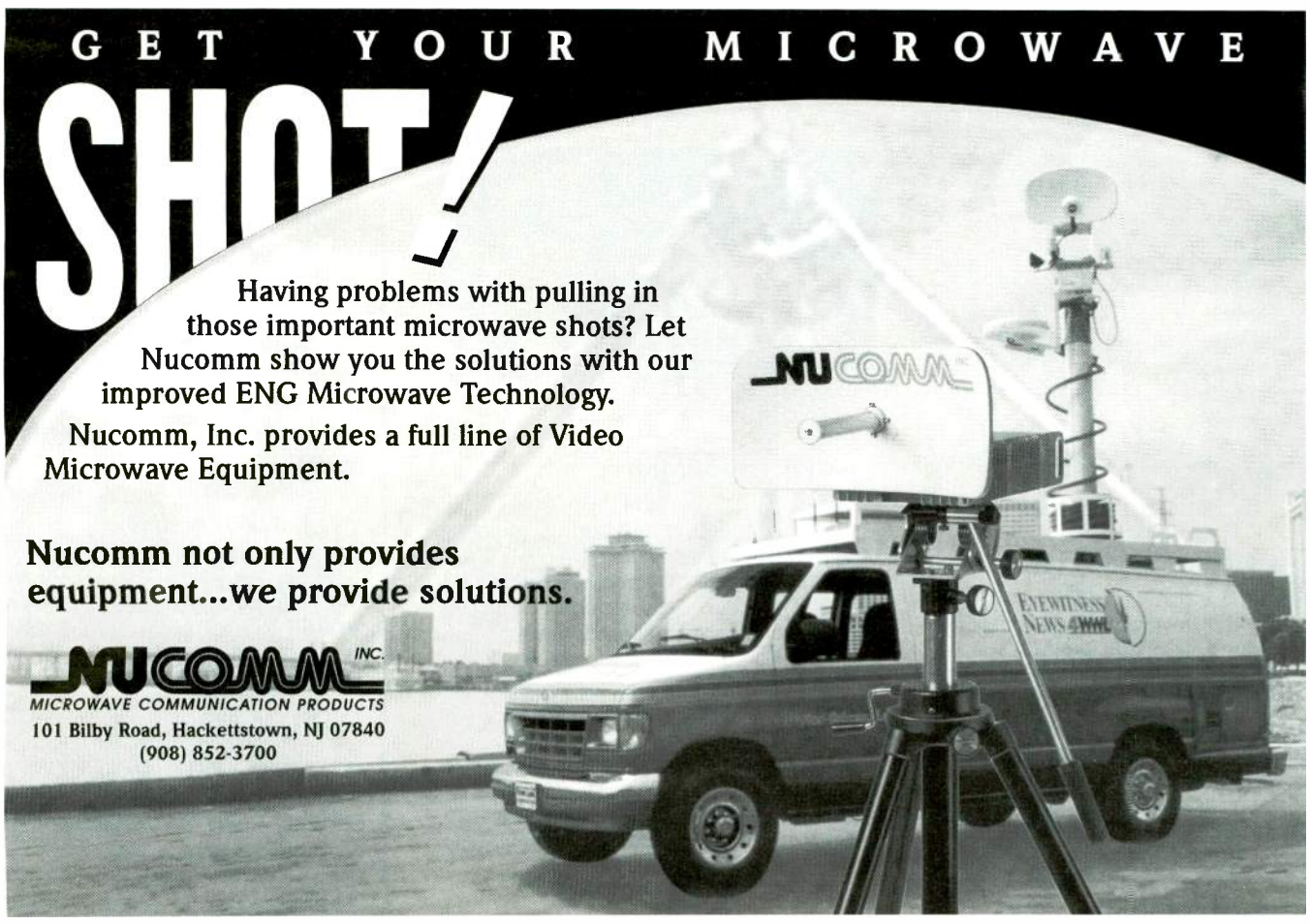

Circle (21) on Action Card

A Drastic difference: What you should expect from a DDR

Imagine being able to take a traditional tape based linear studio and turn it into a nonlinear production environment without sacrificing those powerful on-line production tools editors have become accustomed to. This is what a properly designed, digital disk recorder (DDR) can do. The advantages of nonlinear technology in a production/post production environment are well known. What is new is the demand for a DDR to operate as a standalone unit as well as integrating into a standard production environment easily and completely. Therefore, three major criteria for an intelligently designed DDR emerge: **quality, function,** and **integration.** However, very few DDRs truly meet those expectations, with the exception of the VVCR from Drastic Technologies.

By design, a Digital Disk Recorder should provide the highest possible quality when storing audio and video data. One of the key factors that distinguishes Drastic Technologies from other DDR manufacturers is image quality. Since the DFFS (Drastic's Fast File System) makes possible a data throughput of up to 8MB per second, VVCR leads the industry by delivering a visually lossless image at a compression ratio of 2.5:1. For rough cut editing, and to maximize storage, ratios of up to 20:1 and off-line modes are also selectable. VVCR plays and records NTSC and PAL Composite, Component, S-VHS, or D1 video, at full CCIR-601 resolution, along with two (optionally four) channels of balanced audio.

Function can be defined by how a DDRs handles data, and of course how the user can access and manipulate that data. The true test of this marriage is how closely the product conforms to the operating standards expected by professionals. Other DDRs "fuse" audio and video tracks, limiting function to a crash record. VVCR is sophisticated enough to record, re-record and relocate video or audio material to any timecode location. It is uniquely capable of insert edits due to its fully independent audio and video tracks.

Drastic Technologies' VTR emulation provides protocol for over fifty common VTRs. How a DDR treats timecode is also an important component of VTR emulation. Unlike other DDRs, timecode used by VVCR is independent of disk layout and is not limited by the actual storage time. It therefore provides completely seamless random access across the entire video storage medium. The user can also record this material at variable compression rates, anywhere within VVCR's unique twenty-four hour virtual timecode.

VVCR's front panel provides standard VTR controls including variable play speeds, full frame or field pause and a timecode window. The front panel allows access to the menu system to select functions like loop record, time delay, closed caption recording, multi-format (PAL/NTSC) video recording, and even an onboard time based correcter. Other features include multi-head capabilities, and network data transfer support. These and other functions make VVCR extremely versatile and practical.

It's not only quality and function that make VVCR a perfect fit, the industry standard rear panel connections help too. VVCR is the only DDR to offer MIDI, GPI, RS-232 and dual RS-422 and optional LTC connections. Integration is easy because VVCR can be plugged into any standard edit controller, animation controller or video production system. VVCR can also operate with Windows based VTR controllers. Professionals work with a multitude of devices in addition to a DDR, therefore maintaining efficiency is paramount. VVCR is the only DDR that recognizes this and attempts to complement the working environment rather than dictate it.

The easy-to-use menu system provides access to all the features a user needs, without purchasing expensive upgrades or learning complicated software. Other manufacturers offer a system that is "expandable" forcing the user to purchase separate or proprietary components for many basic applications. VVCR uses industry standard SCSI-2 and SCSI-2 FastWide hard drives so extra storage can be purchased on an as-needed basis. For storage expansion, VVCR also supports RAID 4 as well as removable media. Because VVCR requires no proprietary drive options, VVCR continues to be one of the most cost effective solutions available.

Drastic Technologies has been developing nonlinear VTR and digital animation solutions for over three years. Experience with applications including VTR control and emulation, digital video compression and animation production tools has increased the demand for Drastic's custom development. Drastic Technologies' strong background in these areas along with MIDI systems and automation, audio post editing and traditional video editing systems have culminated in the design and implementation of the VVCR.

Smart.

Any way you look at it.

VVCR The smart high quality Digital Disk Recorder that meets the needs of professionals today and tomorrow.

VVCR has the smarts to provide a standard, fully functional front panel and industry standard rear panel connections.

The standard RS-232/422 serial connections allow VVCR to be plugged into any standard edit controller, animation controller or desktop video production system. Optional LTC, MIDI and GPI control also help VVCR integrate into any environment.

Of course, what is inside is smart too. VVCR plays and records in PAL or NTSC Composite, Component, S-VHS, or D1 video, at full CCIR 601 resolution, along with two or four channels of balanced audio.

VVCR delivers a visually-lossless image at a compression ratio of 2.5:1. Ratios of up to 20:1 are selectable for rough cut editing and to maximize storage.

VVCR combines the familiar aspects of a traditional VTR with the freedom of a nonlinear recorder. With smart features like nonlinear playback, still store, and variable play speed and loop record, the applications are limitless.

DRASTIC TECHNOLOGIES

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DRASTIC VVCR

Circle (22) on Action Card

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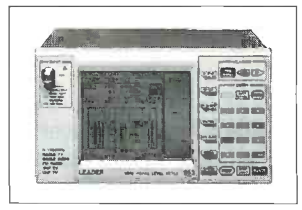
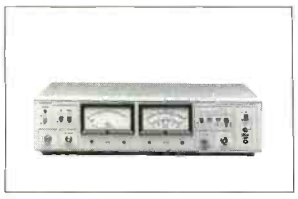
Models 5222/5212 NTSC/PAL Waveform Monitor and Vectorscope

Model 5222 NTSC/PAL/SECAM Waveform Monitor's eight channel operation in A/B groups of four allows comparisons in component operations, and syncs from CH1 or CH4 in either group plus external reference. Component operations use overlay and parade waveforms with timing (bowtie) display. Extensive menu control of setups with extra features such as 0.5% cursors, picture display, dual filter and GBR, YGBR. The NTSC/PAL Vectorscope, Model 5212's overlay display of 3 (actually 4) vector sets simplifies phase matching, and semi-automatic systems speed high resolution readout of DG or DP. Mode keys select VECTor, DG, DP or X/Y, the latter for stereo phase/level monitoring. Remote control via the 5222 with unblanking for vector line select. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1 800-645-5104 or in NY 516 231-6900.



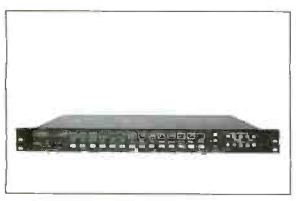
Model 953 1-GHz CATV Spectrum Meter

An advanced FM, VHF, UHF, CATV level meter featuring both analog bargraph and spectrum displays with digital readouts on an LCD screen, frequency coverage is from 5 to 1030 MHz. The unit contains all U.S. broadcast and cable channel formats, and can be programmed for customized channel schemes for each local cable operator. In the spectrum mode, the frequency range is from 5 to 1030 MHz. The bargraph mode sets up single and multiple-channel displays to cover one to a maximum of 128 channels per display field and covers video, sound and NICAM carriers. Auto-search and auto-ranging sets up optimum measuring conditions for any situation, and up to 50 setup programs may be easily tailored and stored to meet the needs of individual systems. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1 800-645-5104 or in NY 516 231-6900.



LE 1852 CD/CD-ROM Jitter Meter

An instrument that meets the need for jitter measurements associated with CD and CD-ROM drives, servers and disc production, the LE 1852 provides simultaneous measurements of both jitter and EFM RF level and features play speeds of X1, X2 and X4 (X2.2 and X3 available on special order). Jitter detection operates in both peak and Sigma-weighted modes, and RF level reads out in peak-to-peak volts to indicate the 3T and 11T bit levels and their ratio to one another. Throughput is speeded by use of go-no-go indicators whose thresholds are adjustable. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1 800-645-5104 or in NY 516 231-6900.



LT 425D NTSC Video Pattern Generator

A precision test source for digital-component facilities, the LT 425D offers one parallel and four serial outputs (one digital black.) AES/EBU digital audio may be embedded in the serial data stream, but is also available as a separate output. Test signals are tailored to digital operations and include the SDI checkfield and a programmable moving marker and switched stills for compression tests. A programmable 20-character source ID, calendar and clock rounds out the full list of operating options. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1 800-645-5104 or in NY 516 231-6900.

Developing and establishing maintenance and test programs for today's multi-format, sophisticated broadcast and post production facilities are becoming tasks of enormous importance. In a world full of transition considerations, implementation nightmares and multi-format conversion compatibility concerns, moving from an analog facility to the digital domain is an engineering challenge that cannot be easily dismissed. Technology changes and obsolescence considerations add to the overall scheme, making the job of running an effective broadcast and post production facility a true challenge. On top of all this, we are asking our engineering and operations staff to keep working at top speed — to never miss a beat — while they learn the new digital video transmission standards. The differences in testing philosophy between digital and analog systems are vast. Bridging the gap between analog and digital systems, and successfully integrating digital islands within an analog world, has been a costly and cumbersome task until now ...

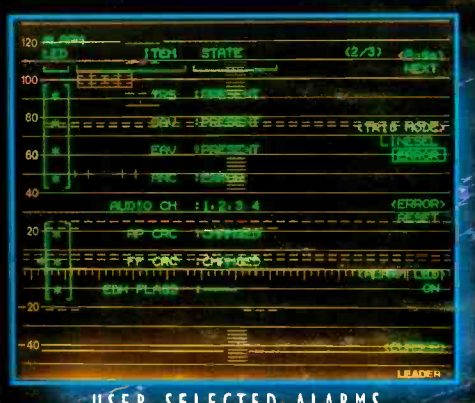
Models 5864A/5854/413S EFP/ENG Instruments

Designed for EFP and ENG (Electronic Field Production and Electronic News Gathering), this group of instruments adds full monitoring means to field operations. Model 5864A Waveform Monitor handles two channels for camera, camcorder or video link operations. Controls are simplified to include H Mag (X1-X5), 2H or 2V DISPLAY, FLAT or LUM FILTER, gain 1V or 2.25V full scale and A/B INPUT select. Model 5854, a two-channel vectorscope, provides precision checkout of encoder alignment, camera balance and genlock phase. Selectors pick A or B inputs for display or phase reference. Gain is fixed or variable, and includes a 5X gain boost for balance checks. Model 413S provides a reference source of video and audio for system checks, tape leaders and source ID. Signals include 100% flat white field, EIA, SMPTE and SNG color bars. The latter is designed for satellite operations. An XLR connector feeds balanced audio at 400 or 1000 Hz at 0 dB. Of particular value is a programmable 8-digit source ID that may be placed at two on-screen locations. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1 800-645-5104 or in NY 516 231-6900.

INTRODUCING
THE LV 5100D COMPONENT DIGITAL AND ANALOG COMBINATION WAVEFORM MONITOR & VECTORSCOPE

Designed specifically for use with mixed digital and analog component video systems, the LV 5100D's multi-functional design provides ease of use for operations staff as well as detailed signal analysis features for engineering personnel. Two serial data inputs facilitate monitoring and testing the digital video side while one analog (3 wire) input permits monitoring and testing the analog side. Stereo analog audio monitoring is also provided. This micro-processor controlled instrument provides the utmost in flexibility — from component analog video tests to EDH monitoring and viewing detailed HEX data on the digital side — the LV 5100D represents the state-of-the-art in video testing technology. Features include:

- Two serial and one analog (three wire) component inputs for monitoring signal sources in multi-format environments.
- 525 and 625 line compatibility for added flexibility.
- Waveform monitoring (both for the digital and analog inputs in the traditional Y, Cb, Cr or GBR formats simplifies testing operations and bridges the knowledge gap between the analog and digital world.
- Waveform display modes include overlay, parade and timing with full line selection capabilities for detailed signal inspection. Sweep rates include the traditional 1V, 2V, 1H and 2H for added flexibility.
- Component vector display mode facilitates color space testing.
- EDH error code monitoring as well as monitoring of TRS, EAV, SAV, APCRC, FFCRC and ancillary data provide unsurpassed digital video testing abilities.
- User selectable alarms facilitate automated warnings in the event of digital video signal failure.
- A monochrome picture display is available on the CRT for quick program material identification. A three wire component monitor output is also available facilitating a connection to an external monitor. A strobe is available on both pictures when using the unit on line select mode to assist in the identification of the line(s) being tested.
- Detailed digital video signal analysis can be performed using a hex readout of the 1716 data points for a selected line.
- Stereo-audio monitoring with electronic graticule permits audio monitoring and testing.
- A comprehensive set of cursors facilitate easy and error-free waveform readings.



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Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, New York 11788
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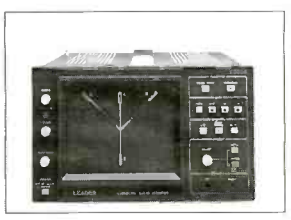
Model 5835 Stereo Audio Monitor

Stereo audio operations require tight control of relative L and R amplitude and phase to preserve directional response, and to prevent serious degradation of the mono (L+R) signal in the event of accidental inversion of one audio feed. The 5835 provides the means of monitoring amplitudes and relative phase, and will set off an alarm in the event of a significant, prolonged L-R component resulting from inadvertent polarity inversion. The CRT is blanked for prolonged silent intervals to prevent CRT spot burn. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1 800-645-5104 or in NY 516 231-6900.



Model 5836A Surround-Sound Monitor

A multi-channel audio monitor to meet the monitoring needs of surround-sound productions, Model 5836A displays the surround-sound image in several formats and accepts up to five channels for left/center/right/surround, and left/center/right/left-surround/right-surround systems. In addition, an X-Y (Lissajous) phase display may be selected between any pair of channels. For more information, contact Leader Instruments Corporation, 380 Oser Avenue, Hauppauge, NY 11788. 1 800-645-5104 or in NY 516 231-6900.

ADVERTISEMENT

Winsted Consoles Now Feature Fabrics

Winsted's popular System/85 Console line now features a fabric covering option that allows you to match your studio decor while visually and acoustically softening your environment. Although there are four standard colors from which to choose, Winsted will custom design a System/85 console with any fabric you specify giving you a nearly unlimited choice of colors.

System/85 consoles feature welded front and rear frames and use an interlocking tie-bar system for added strength. The modular parts connect with heavy-duty bolts for maximum versatility and an entire system only takes minutes to assemble. A full array of accessory items complements the System/85 line and even blank fill panels can be covered with fabric for a finished appearance.

The system shown above is the model K8698 three bay slope console with burgundy (Garnet) fabric. Other standard fabric colors are silver, blue/grey (Emery) and black (Hunter).

The new colored fabric options are described in Winsted's newest catalog. The 136 page catalog is available free by calling 800-559-6691 or by writing to The Winsted Corporation at 10901 Hampshire Av. So., Minneapolis, MN 55438-2385.

Circle (51) on Action Card

New Digital Desk Corner Design Saves Space

Winsted has expanded their Digital Desk line to include several new styles including a space saving corner design. These multifunctional workstations are ergonomically designed to integrate with your video system, and you can further enhance your workplace by accenting the desk with one of five different colors of accent trim inserts that fit into the grooves of Digital Desk's special contour edge molding.

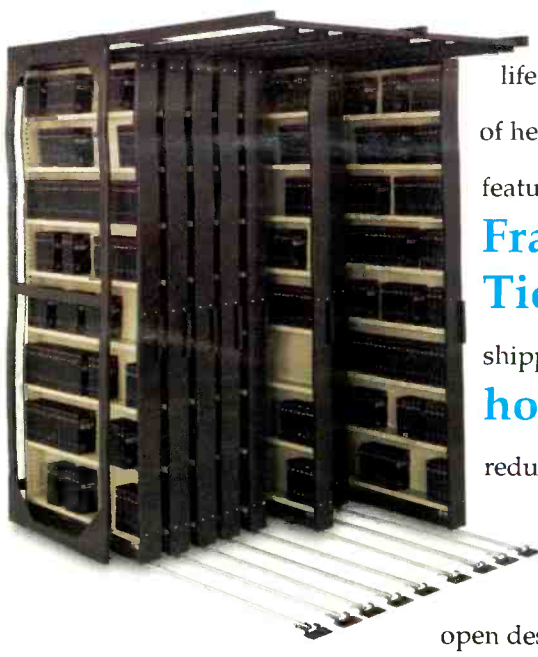
Several models of corner design Digital Desks are available including those with or without monitor shelf or with or without recessed monitor well. Digital Desks feature mar-resistant black granite laminate tops and a cable management system to keep the edit station looking neat and tidy. New accessories include retractable cup holder, mini tower support well, paper tray and pullout keyboard tray.

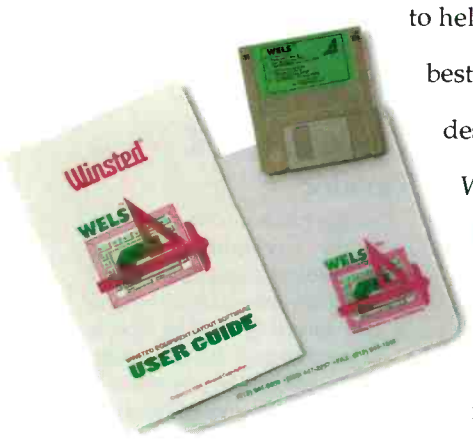
Look for over 20 models of Digital Desks in the new 136 page Winsted furniture catalog available free by calling 800-559-6691 or by writing to The Winsted Corporation at 10901 Hampshire Av. So., Minneapolis, MN 55438-2385.

Circle (52) on Action Card

Straight Talk About Furniture

From the most basic single bay console to sophisticated production consoles, Winsted maintains its dedication to the flexible design advantages of expandable **Modular** components. They also know that the long life of expensive electronics depend on the durability of heavy gauge all-steel construction and exclusive features such as front and rear **Welded Frames** and **Interlocking Tie-bars.** Winsted is known for shipping 90% of its orders **Within 24 hours** and, shipping costs are drastically reduced because Winsted ships its easy-to-assemble systems knocked down. Linear or non-linear video production sometimes requires a more open desk design. Winsted offers an **Elegant and Efficient** solution with its new **Digital Desk** line. These desks are especially designed to put all your electronic equipment within easy reach. Winsted doesn't stop with providing the finest furniture available. A simple phone call brings you **Free Design Service** to help develop the system that works best for you. Or, you may prefer to design your own system using Winsted's exclusive WELS **Software Program** that makes designing a system as simple as clicking an icon. For the latest copy of Winsted's informative **FREE Catalog** call toll-free at **1-800-559-6691.**





Circle (50) on Action Card

New Broadcast And Video Furniture Catalog Available

The Winsted Corporation is offering a new catalog of broadcast and video editing furniture. The new 136-page full color catalog includes a helpful component and accessories section featuring a step-by-step design plan for creating customized rack console systems. Complete information, specifications and pricing are also included on Winsted's extensive line of video cabinets, consoles, multimedia desks and tape storage systems.

Featured in the catalog are a number of new products including a greatly expanded Digital Desk™ series for multimedia editing and production; an exclusive series of 22" wide monitor racks, plexiglas doors for Winsted's economy vertical equipment racks, and lockable wood doors for consoles. A new series of modular multimedia components was added to help in designing a wide variety of compact mobile video centers. A series of LAN systems in both portable work station and vertical support styles is introduced for the first time in this catalog.

Information on Winsted's Free Design Service and Winsted Equipment Layout Software program (WELS) is provided in the catalog. The new 1996 catalog is available free by calling 800-559-6691 or by writing The Winsted Corporation at 10901 Hampshire Ave. So., Minneapolis, MN 55438-2385.

Circle (53) on Action Card

Winsted Announces Mounting Solution For 21" CRT Monitors

Winsted Corporation has solved the increasingly prevalent problem of how to mount monitors that are too large for the industry's standard 19" wide EIA racks. The 21" CRT monitors are popular in many non-linear editing suites as a computer menu monitor or the main preview monitor, but because of their size, are too wide and not even designed to be rack mounted. They can, however, easily fit into Winsted's new 22" wide System/85 module. The module is a part of a variety of Winsted consoles including five bay, four bay and three bay systems or it can be ordered as a component in a Winsted design-your-own System/85 modular system. The rack bays are available in the standard vertical style or one that slopes for improved monitor viewing. Information on Winsted's new 22" wide consoles is available in their new 1996 catalog and the catalog is available free by calling 800-559-6691 or by writing to The Winsted Corporation at 10901 Hampshire Av. So., Minneapolis, MN 55438-2385.

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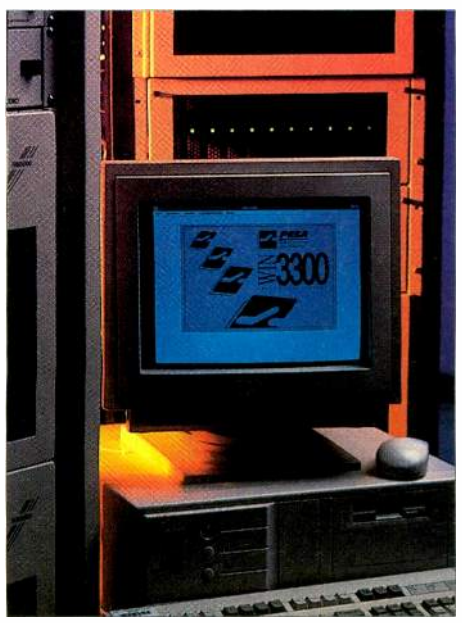


Pesa Switching Systems: 3300 series

Pesa Switching Systems' 3300 series offers a software and hardware controller package built to optimize controller needs with minimal investment. The 3300 controller can be configured for eight levels, each containing up to 192 inputs and 192 outputs. It also features virtual matrix mapping, which allows users to create up to 224 sources and 224 destinations, using inputs or outputs only on levels required for the respective sources or destinations.

Circle (156) on Action Card

Scitex Digital Video: ImMix Sphere

Scitex Digital Video has unveiled its ImMix Sphere line of collaborative post-production workstations. The Sphere line consists of two Realtime-All the Time digital non-linear finishing systems, VideoSphere and StrataSphere; a real-time board and software solution, MicroSphere; and a versatile acquisition/distribution workstation, DigiSphere. VideoSphere is a complete system that delivers two real-time streams of video and four real-time pairs of stereo audio for an unlimited array of keyframable real-time effects.

Circle (157) on Action Card

Pacific Bell: Advanced Video Service

Advanced Video Service (AVS) from **Pacific Bell** is a digital, fiber-optic network that delivers audio, film and video to industry professionals in remote locations, allowing them to view, edit and produce in real time. AVS is the umbrella name that encompasses a host of video connectivity services, such as Advanced Broadcast Video Service, Advanced Video Service-Component Digital and the planned AVS-High Definition and AVS MPEG-2 services.

Circle (158) on Action Card

Force: inFO Biway

Force introduces the model 2764 inFO Biway. This single-fiber videoconference transceiver offers 2-way, full-motion video, audio and data (V/A/D) signal transmission over a single-mode optical fiber. The inFO Biway combines an uncooled, power-stabilized semiconductor laser diode transmitter, a silicon PIN diode photodetector, a video/monaural audio/RS-232 data diplexer and a 1,300nm/1,550nm wavelength-division multiplexer in a single package.

Circle (159) on Action Card

Louth Automation: Windows Client

Louth Automation introduces its ADC-100 automation system, Windows Client. This workstation has all of the functionality of a DOS client, plus the ability to integrate more applications on a single computer. Windows Client allows ADC-100 master control operators to configure how they want to display their screens and windows. "Drag and drop" makes editing faster, and 16 playlists can be accessed on a single Louth LCP-20 control panel.

Circle (160) on Action Card

Pacific Bell: Hollywood Digital Virtual Bay

The Hollywood Digital Virtual Bay, a FasTrak video service from **Pacific Bell**, allows editors, directors and advertising agencies to collaborate on projects from three separate locations, with all parties viewing in real time. This service permits the transmission of NTSC video, with four 15kHz channels of audio, point-to-point over a secure, fiber-optic circuit. Unaffected by distance or adverse weather, Pacific Bell's network equipment digitizes the analog signal, then compresses and transmits the information at a speed of 45MB/s.

Circle (161) on Action Card

Odetics: SpotBank 6.0

SpotBank 6.0 software from **Odetics** enhances the company's digital disk-based spot insertion and automation system. Improvements include a smoother graphical interface, additional digital-disk recorder options and improved frame accuracy for multichannel playback. SpotBank 6.0 offers direct access to the media database from the playlist, eliminating a two-step process and automatically updating the playlist information from the database window. It also adds the Tektronix Profile with RAID 3 disk array to the list of supported digital disk recorders.

Circle (162) on Action Card

Tektronix: Live Event System

Designed for the fast pace and accuracy involved in the production of live events, the Live Event System from **Tektronix** enables producers to record events while replaying material. It provides control of both instant and slow-motion replay. The Live Event System was custom-built on the Tektronix Profile Professional Disk Recorder and includes a familiar operator control panel and a flexible graphical user interface to facilitate the logging and selection of chips.

Circle (163) on Action Card

QuVis: QuBit

QuVis introduces QuBit, a digital video recorder that addresses converging needs of both computer animators and broadcast professionals. QuBit can record, capture, store, play back and process audio, video and still images with expanded bandwidth and high resolution. The standard QuBit recorder provides user-selectable recording quality from D-1 to film resolution; industry- standard video I/O; user-accessible, built-in computer processor and digital signal processors; and industry-standard computer I/O.

Circle (164) on Action Card

JVC: Digital-S

The Digital-S line from **JVC Professional Products** is a 4:2:2 component digital recording and editing system. Digital-S is downwardly compatible with S-VHS and can be integrated into existing S-VHS and Betacam editing suites through an industry standard RS-422A control interface. Because it records two lines of uncompressed video, it can be used to record closed-captioning. With its analog and digital inputs and outputs, Digital-S complements both tape and disk-based nonlinear editing systems.

Circle (165) on Action Card

Pioneer New Media Technologies: DiscBank

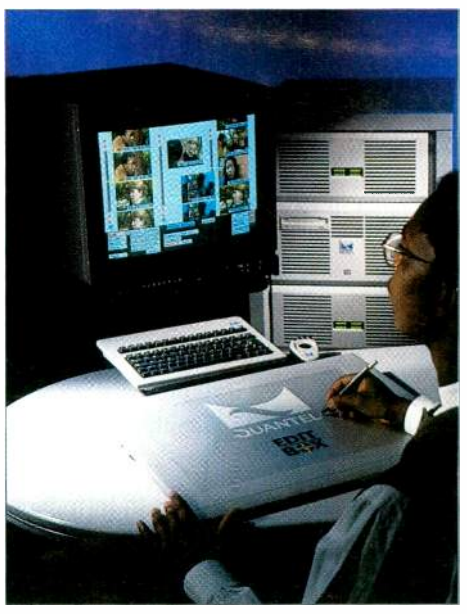
To meet the ever-changing needs of the broadcast industry with its new video storage product, **Pioneer** has designed DiscBank, a more reliable system that will help ensure the quality and consistency of TV spots. The DiscBank offers superior picture quality, lower operational costs and long-term storage options. This system is capable of automated record and playback, providing more than 60 hours at 8Mbps or 325GB of storage from a single storage unit.

Circle (166) on Action Card

Clear-Com: AB 100

A complete communications system for on-air talent, the AB 100 announcer's console from **Clear-Com** eliminates the "rats nest" of beltpacks, mixers, amplifiers and adapters usually found gaffer-taped together in the sports announcer's booth. The small tabletop console integrates all of the inputs, outputs and controls needed at the announce position, including a broadcast-quality microphone preamp, intercom station, IFB receiver, and a silent "cough" button. The AB 100 was the standard audio console for the Fox network's premier season of football coverage.

Circle (167) on Action Card



Quantel: Editbox 96

Quantel's Editbox is a non-linear, on-line editing system that offers non-compressed, component digital quality. Editbox 96, which has several features not on the original model, offers improved editing functionality, mix/fx capability, paint-for-editing and connectivity, faster keying, moves and color correction.

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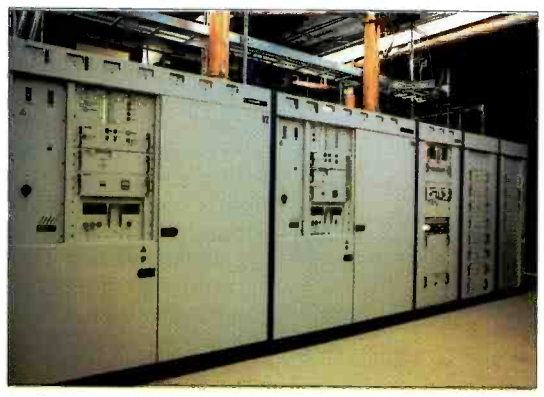
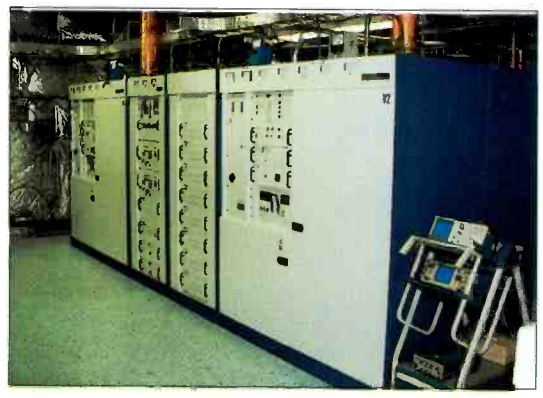


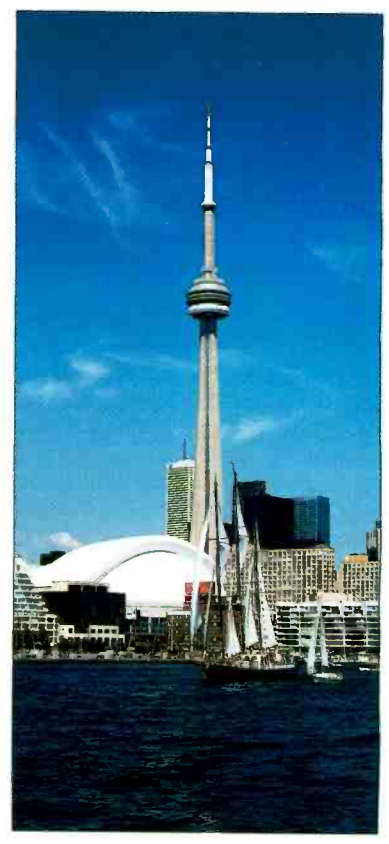
KPDX - TV 49, Portland, Oregon



WHRO - TV 15, Norfolk, Virginia

The World Leader in UHF TV Transmitters.

WVIR - TV 29, Charlottesville, Virginia



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Product Source

AAVS: DSA309

Designed to fill the needs of both engineering and operational staff, the DSA309 from **AAVS** provides a single solution for all serial digital testing needs. Using the same patented technology found in other AAVS products, the DSA309 provides data on system performance, including signal amplitude, direct jitter readout, TRS formatting, and full EDH monitoring. The DSA309 also includes new technology that allows full monitoring of luminance and chroma levels of a component digital signal. These features take the DSA309 beyond the role of just a troubleshooting tool and allow it to be a real-time Q.C. tool.

Circle (169) on Action Card

Barco: Vivaldi

Barco's Vivaldi turns a simple VGA monitor into a powerful broadcast monitor that allows the display of four digital broadcast quality images at the same time with no compromise of individual picture resolution. The product will equip any VGA monitor with typical broadcast quality features that include auto setup, scan delay, blue-only, tally display, auto-alignment, pulse cross and a programmable Under Monitor Display of up to 10 characters for each of the four images.

Circle (170) on Action Card

Canon: IS-20B

The IS-20B image stabilizer adapter from **Canon** is designed for front mounting on Canon's J20aX8B and H20aX6 ENG zoom lenses. It incorporates **Canon**'s Vari-Angle Prism technology, virtually eliminating the shaking and vibration commonly associated with shooting from a moving vehicle, shooting on the run, hand shaking or high wind conditions. Features of the IS-20B include an 8mm wide angle to 160mm telephoto with the J20aX8B, and maximum relative aperture of 1:1.7.

Circle (171) on Action Card

Accu-Weather: UltraGraphix-32

Accu-Weather has upgraded its UltraGraphix-32. It still has a Windows operating system, but now the UltraGraphix-32 creates and displays flythroughs.

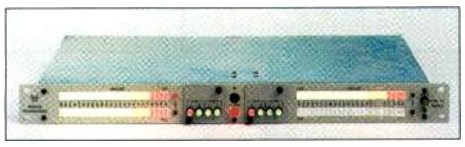
Accu-Weather's VirtualWeather flythroughs have detailed high resolution and can be created with less than an hour of rendering time. Other features include full-resolution, 32-bit graphics; hands-free, one-key operation; and CD-ROM features.

Circle (172) on Action Card

Rorke Data, Future Equipment Design: VMOD-100

Rorke Data and **Future Equipment Design** have introduced an updated version of their VMOD-100, the VMOD-100 Pro digital video disk (DVD). This version features an identical half-rack footprint, a variety of I/O options and master/slave expandability for up to 320 minutes of video capacity, but it focuses primarily on the cable, broadcast and large-venue video operators who require higher picture quality. Compression ratios have been reduced to provide picture resolutions comparable with Betacam SP analog VTRs.

Circle (173) on Action Card



Wohler Technologies: MLH/MSH series

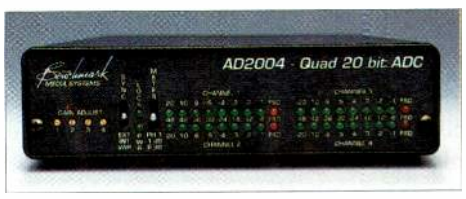
The MLH/MSH series monitoring units from **Wohler Technologies** provide a comprehensive package of level metering and overrange/underrange alarms in a single rackspace cabinet. Two-, 4- and 8-channel units are offered, all three in both analog and digital input versions. They feature an audible and visible alarm system, with the fault conditions determined by user-adjustable, signal-level thresholds and time delays, each parameter set independently per stereo pair.

Circle (174) on Action Card

AKG: K333 IR and K444 IR

Designed especially for professional broadcasters seeking the equivalent of a wired headphone performance in a high-performance wireless model, the K333 IR and K444 IR wireless infrared headphones aim to offer the sound quality and comfort of all **AKG** products. These two models give the audio professional a complete choice when it comes to matching headphone models with particular types of music.

Circle (175) on Action Card



Benchmark Media Systems: AD2004

The AD2004 from **Benchmark Media Systems** is a 4-channel, analog-to-digital converter that sets benchmarks for 20-bit, audio A/D conversion. Intended for studios that record in 20 or more bits, the AD2004 features a low intrinsic jitter (<11ps), and jitter attenuation that exceeds 50dB at all frequencies above 50Hz, with sidebands and idle tones below -135dB even when phase-locked to external AES sync.

Circle (176) on Action Card

Ciprico: 7000 series

The 7000 series is the industry's first RAID available that offers a host interface compatible with full-speed fiber channel. Like any **Ciprico** RAID, the 7000 is designed to operate at the limits of its host interface, capable of sustained data transfer rates of more than 90MB/s. Unlike other high bandwidth disk arrays, the 7000's host interface handles more bandwidth than its eight data drives can supply.

Circle (177) on Action Card

Electric Image: ElectricImage Broadcast

The **ElectricImage** Broadcast is designed for special visual effects, TV titles, multimedia and CD-ROM development. A Macintosh special-effects pioneer, ElectricImage offers an entire line of products for the digital video effects, multimedia and Internet industry professional and student. The products allow special-effects artists to create motion-picture quality effects at a broadcast price while doing away with CGI artifacts, such as poor anti-aliasing, questionable image quality and inexorably long render times.

Circle (178) on Action Card

Matrox: DigiSuite

Matrox DigiSuite is a complete family of digital video boards and 32-bit Windows development tools that OEMs and systems integrators can put together in myriad configurations to meet their exact requirements. The products are designed to perform in demanding professional video applications. The DigiSuite products include DigiMix, a digital video/graphics mixer; DigiMotion, a motion-JPEG codec/digital audio mixer/SCSI controller; and DigiVid, a multichannel analog video I/O board.

Circle (179) on Action Card

Intraplex: Model 4464

The **Intraplex** model 4464 digital audio codec transceiver is designed to facilitate high-fidelity audio broadcasts over new switched digital networks. The codec provides MPEG-2 audio at a nominal 15kHz or 20kHz bandwidth in both directions of an ISDN link, in a single unit that includes a built-in terminal adapter with S/T and U interfaces. Features of the model 4464 include a compact size, 2-way operation, and a user interface with one-touch call setup.

Circle (180) on Action Card

Videotek: VTM-100

The VTM-100 TV signal monitor from **Videotek** is a combination waveform/vectorscope instrument and provides convenient measurement capability that can be displayed on any picture monitor. A version of the VTM-100 has been released with several features, including an imaging keying mode added to the display, which keys the output into the picture in addition to mixing. Drop-down menus allow adjustable mixing or keying of display and picture, and display of waveform, vector, waveform/vector overlay and dual audio.

Circle (181) on Action Card

Storage Concepts: Videoplex

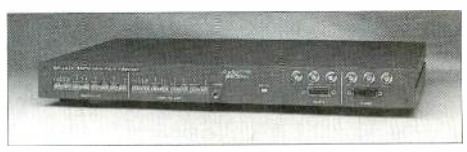
Videoplex, a line of video servers from **Storage Concepts**, delivers full video-on-demand performance that can adjust to the specific needs of it users. Videoplex configurations start with support of eight TV sets or monitors, and can expand to 320. Each display can show the same program, different videos or different parts of the same video simultaneously. The server line features continuous real-time output, instant response, random frame access, and more.

Circle (182) on Action Card

Softimage: Software Developers Kit

Softimage, a subsidiary of Microsoft, has introduced a developers program that features extensive technical and marketing support and the Softimage Developers Kit (SI-SDK). The kit, which supports both Windows NT and Silicon Graphics platforms, gives developers direct access to animation and modeling, rendering and motion capture controls. Applications can run as stand-alone programs or be fully integrated into Softimage 3D for Windows NT and Silicon Graphics IRIS systems.

Circle (183) on Action Card



Audio Precision: SIA-2322

Audio Precision has introduced the SIA-2322 digital serial interface adapter for its System Two audio analyzer. The SIA-2322 is a configurable interface that allows a variety of external serial digital audio devices to be connected directly to the System Two for digital audio measurements. Because it provides complete interface programming flexibility, the SIA-2322 serves as a universal interface for digital communication with the many different serial configurations available.

Circle (184) on Action Card

Digipath: Sahara 16x series

Digipath has introduced the Sahara 16x series of routing switchers, which are modularly designed for "select-a-size" growth and trouble-free maintenance. Expansion is accomplished by plugging in additional PCB modules. This plug-in design also facilitates maintenance and minimizes repair downtime. Also from Digipath is the 1RU 16x series, which is available in models of analog and serial digital video.

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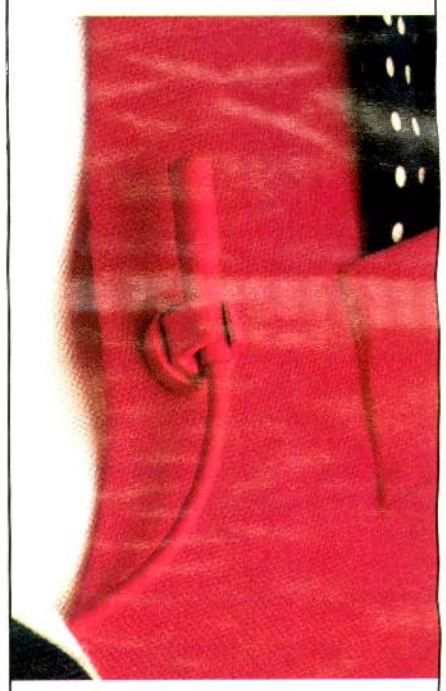

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Four receivers share a common antenna and power supply for convenient portability in the field. Modular configuration allows easy removal of receivers for separate use. UHF and VHF versions available. Powered by internal rechargeable batteries, external 12V DC or internal 9V batteries.

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Four wireless receivers share a common antenna and power supply system in a high performance, compact assembly. Ideal for studio applications or ENG vans and remote site productions. Accepts battery or externally powered Lectrosonics receivers. Available in VHF or UHF versions. Modular configuration permits easy removal of receivers for use separately or for servicing.

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How to deal with frequency congestion.

The new UCR190 UHF receiver opens up additional RF spectrum to alleviate VHF frequency congestion that often occurs in ENG operations. By making use of additional spectrum in the UHF bands, many more systems can be utilized without interference.

A 5-pole helical resonator front-end and exclusive UNICHANNEL® IF filters provide the sharpest narrowband selectivity in the industry. The dual-band compandor lowers noise and distortion to exremely low levels.

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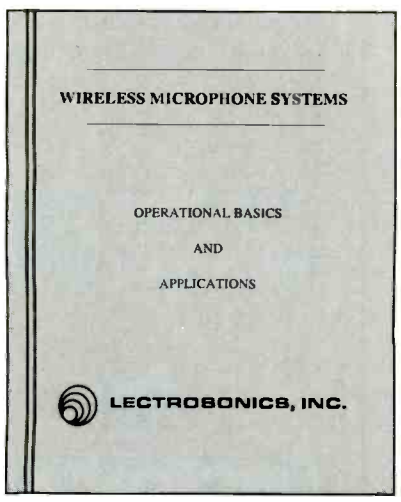

This is the definitive reference book for professional wireless microphone systems. 55 pages of valuable information explaining the "hows and whys" of wireless mic systems. Excellent for experienced pros and newcomers alike.

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Circle (49) on Action Card

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For high-end field production, the 195 Series compact receivers define the state of the art. The 195 Series wide-band UHF system utilizes ±75KHz deviation for outstanding dynamic range and signal to noise ratio. An exclusive dual-band compandor and pulse counting detector produce audio quality well suited to the most demanding digital recording techniques. The balanced XLR audio output is adjustable from mic level up to +8dBm studio levels to match any requirement.

The single antenna UCR195 model is well-suited to outdoor applications where multi-path reflections are minimal. The UCR195D diversity receiver alleviates dropouts caused by multi-path reflections that often occur at close range.

More transmitter output power, plus higher receiver sensitivity than any other brand we've tested, all adds up to more operating range than you will probably ever need. Compare these systems with any other wireless system, at any price. Compare operating range, audio quality and mechanical packaging, and discover why Lectrosonics is the leader in wireless microphone systems for professional markets worldwide.

Belt-pack and plug-on transmitters are available to match whatever microphones are required. All housings and panels are made of machined aluminum for a precise fit and lasting ruggedness. Shock mounted crystals and surface mount components withstand the toughest field use. All circuits are solidly regulated and temperature compensated.

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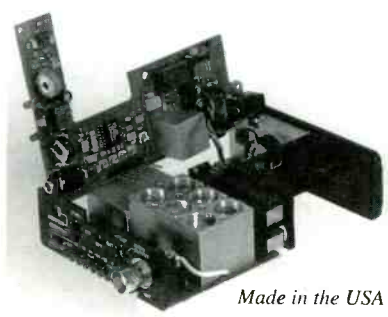

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Circle (27) on Action Card

Product Source

Sony: DNV-5

The DNV-5 Betacam SX dockable VTR from **Sony** provides a cost-effective step into the digital domain for portable analog camera users. For field acquisition, a docking adapter can be used with the DNV-5 to provide a standard SDI (serial digital interface) output for extended recording times with a DVW-250 recorder (124 minutes of Digital Betacam recording) and other uses. As part of the Betacam SX 4:2:2 Studio Profile family, the DNV-5 can record on common Betacam metal tapes in addition to standard SX tape. The unit has the same featured functionality as the recorder in the Betacam SX camcorder line.

Circle (186) on Action Card

Panasonic: Postbox Version 2.0

Panasonic's Postbox, a video composing and editing system, is a fully integrated, nonlinear post-production facility packed into a single plug-and-play box. Features include M-JPEG image quality, character generator with roll/crawl, paint system, more than 300 real-time transition effects, and luminance and chroma-keying. Among new features in Version 2.0 are different quality levels for digitizing simultaneously; the ability to re-digitize and delete data without losing the AV clip or sequence clip; consolidation of unnecessary segments; audio adjustment; digital data tape backup; 3-D parameters; variable motion, at speeds from -1,000% to +1,000%; autosave; and multiple marks, where several "in" and "out" points can be set along the timeline, especially for timing music, sound effects and edit points.

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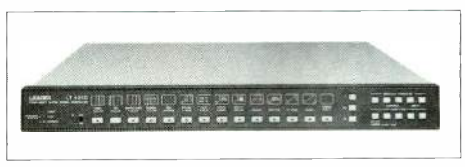
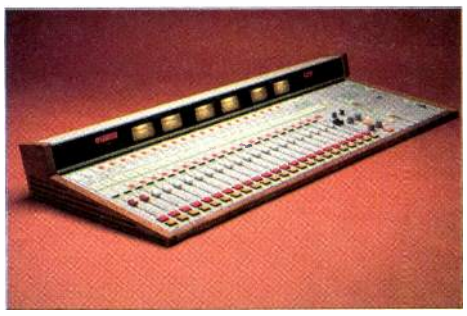


Leader Instruments: LT 425D

The LT 425D from **Leader Instruments** is a 4:2:2 generator designed for digital component and digital audio facilities. Outputs include four serial feeds, one parallel feed and a dedicated digitial audio (AES/EBU 110V) balanced feed. Digital audio is available from this feed and embedded into the video data stream simultaneously. The unit offers full EDH facilities and operates in 525/60 and 625/50 systems. Standard test signals include full field, 100%/50% flat field, pulse bar, multiburst, multipulse, 10-step staircase, line sweep, timing (bowtie), oversized, digital-limt and shallow ramps, and an SDI (pathological) check field.

Circle (188) on Action Card



Wheatstone: D-500

Wheatstone claims that its D-500 is the first fully digital audio console capable of handling analog, digital or mixed format digital signal sources. The console features fully digital internal processing and delivers analog and/or digital output. The D-500 can be provided with RS-232 ports for each channel, providing control between the D-500 and each of the source machines it commands. Both channel and machine status can be reported to an external PC, allowing the console to integrate with a larger system. The D-500 also has a master RS-232 control port that allows for modem transfer for software upgrades, machine control revisions and diagnostics. The master port can be used to remotely control the console (for example, when broadcasting from a remote news site), and it allows for a direct communication link to station management and traffic departments.

Circle (189) on Action Card

Fujinon: 18X lenses

The Broadcast and Communications Products Division of **Fujinon** introduces a family of 18X hand-held zoom lenses. There are two models in the series, and each has a 2X extender and macro capability. The A18X9, for 2/3-inch cameras, has a focal length range of 9mm to 162mm, a maximum aperture of f/1.8, and weighs 2.8 pounds. The S18X6.7, for ½-inch format cameras, has a focal length range of 6.7mm to 121mm, a maximum aperture of f/1.4, and weighs 2.75 pounds. Both lenses have a minimum object distance of 0.9m.

Circle (190) on Action Card

Orban: Optimod-FM 2200

Orban's Optimod-FM 2200 is a digital audio processor with eight programmable presets; 2-band processing with HF enhancement; protection processing; preventable peak overmodulation; all-digital stereo encoder/generator; analog input/output (standard); digital AES/EBU input/output (optional); remote control; non-volatile memory; and LED input/output gain reduction meters.

Circle (191) on Action Card

HHB Communications: Portadat PDR1000 upgrade

HHB Communications has introduced an upgrade to Portadat PDR1000 recorders. The upgrade will grant the machines PDR1000TC industry standard specification, equipping them to record, generate and reference to time code in all existing international standards. All Portadat PDR1000TC time-code recorders supplied after April 10, 1995, will feature back-up power that enables the time-code generator to continue running while the user changes batteries or power supplies. This modification is provided to existing PDR1000TC owners free of charge.

Circle (192) on Action Card

PAG: AR series

The AR series of autoranging microcomputer-controlled fast-chargers, from **PAG**, will fast-charge NiCd batteries from any manufacturer within the ranges of 4V to 14V, 1Ah to 7Ah capacity or 12V to 30V, 1.7Ah to 10Ah capacity. The autoranging facility adapts the charge program to fast-charge a battery of any voltage or capacity within the wide acceptance of the charger. All 4-channel models will sequentially charge batteries of mixed voltages and capacities, automatically selecting the correct charge rate for each channel in use.

Circle (193) on Action Card

Thomson Broadcast Systems: MPEG-2 equipment

Thomson Broadcast Systems has developed a line of digital broadcast equipment. The DBE 2110 is an MPEG-2 TV service encoder and integrated video compressor that allows encoding, multiplexing and scrambling for one TV program. The DBX 2200 is a MPEG-2 multiplexer that is capable of selecting only relevant services in the incoming multiservice streams. The digital broadcast line also includes the DBM 2310 QPSK satellite modulator and the DBM 2330 QAM cable modulator.

Circle (194) on Action Card

Pixel Power: Collage CG

Pixel Power introduces Collage CG, a character generator and still-store system that provides instant composition and real-time editing of text, shapes, cutouts and pictures. Designed to grow with the needs of the user, Collage CG is controlled from the keyboard and mouse, while the operating menus are shown on the edit output. The user interface and dynamic capability have caused Collage CG to be adopted by many leading broadcasters worldwide, including the BBC.

Circle (195) on Action Card

Quantel: Clipbox

Quantel's Clipbox is a video server that offers simultaneous true random access for all server ports. It requires no copying and no consolidation, yet offers 100% store and 100% performance available at all times. Clipbox has eliminated the bottlenecks associated with live programming, giving the fastest path from original footage to transmission of the edited result. It is designed to deliver the advantages of the disk age, rather than acting as just a straight replacement for tape.

Circle (196) on Action Card

Tektronix: TG2000

Tektronix has introduced a precision TV test signal generation platform that is designed for multiformat environments. The TG2000 signal generator platform features a modular architecture that positions it to meet demanding signal applications and to keep pace with expanding technical requirements. With up to eight analog and digital generator slots, the platform can generate multiple signals and formats independently and simultaneously. The platform offers accurate test signals, making it well-suited to serve as a facility reference generator.

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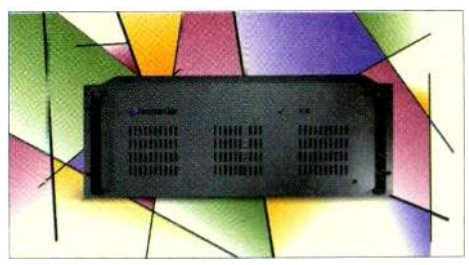

MountainGate: Disks recorders

MountainGate has acquired uncompressed video and real-time digital video disk recording technology from Recognition Concepts Inc. (RCI). As a result of the agreement, MountainGate will manufacture, market and distribute the RCI line of video disk recorders and real-time disk recorders, which provide large-capacity, uncompressed storage solutions. With this addition, MountainGate now offers compressed and uncompressed storage options.

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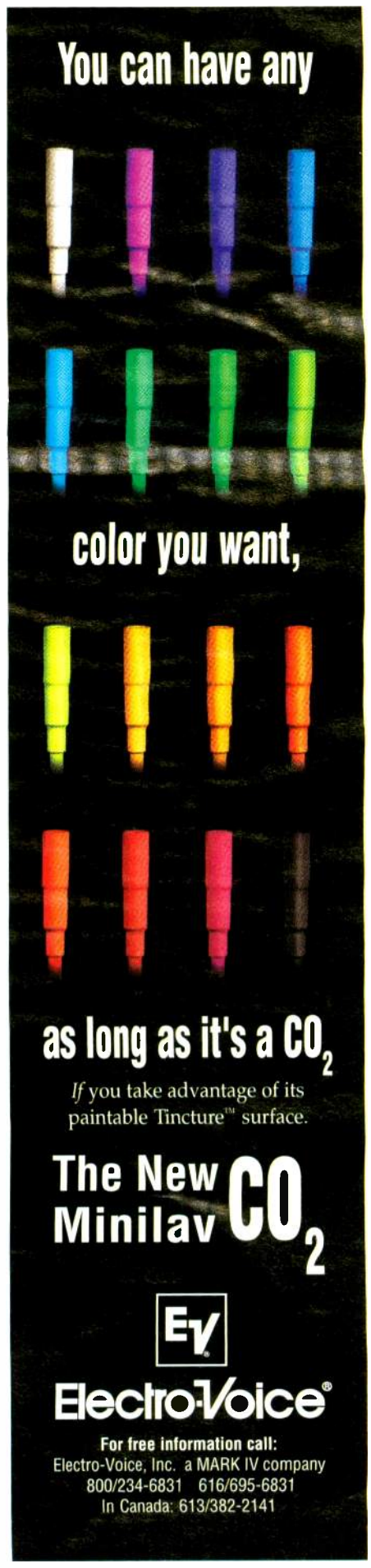

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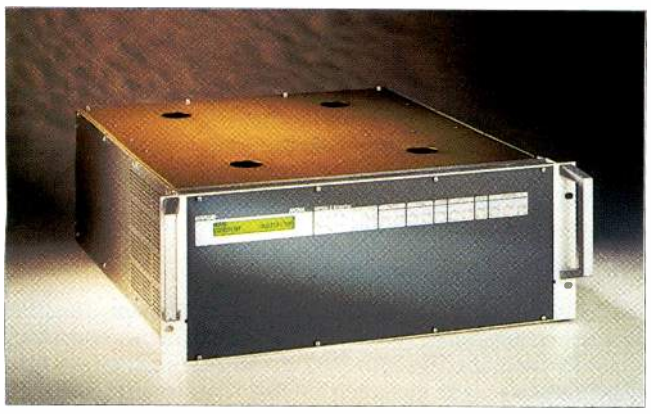
Product Source



Barco: Nova

Barco has introduced Nova, the first DVB-compliant MPEG-2 encoder with remote monitoring and back-up capabilities. Nova handles analog and digital video and audio signals. Video and audio inputs are A/D selectable from the front panel of the encoder. They include composite, S-VHS, Betacam SP or SDI as video source format, and analog or AES/EBU as audio input. Nova directly connects to a dedicated telecom line through a G.703 interface and provides additional channel coding to prevent transmission errors.

Circle (199) on Action Card

Snell & Wilcox: NRS500

Snell & Wilcox introduces the NRS500, a high-performance digital noise reducer. The NRS500 uses multidimensional filtering that requires several fields of storage for sophisticated analysis and processing. The multifield video analysis of the NRS500 identifies and eliminates random noise by correlating information from successive fields. It analyzes input video to find repeat fields and cuts, then optimizes the noise reduction stage by dynamically controlling the parameters. The noise reduction filter also offers transversal filtering.

Circle (200) on Action Card

Videonics: TitleMaker 2000

Videonics has introduced the Titlemaker 2000, a broadcast-quality video character generator. The TitleMaker 2000 features 92 font and size combinations, a preview output, a set of independent pages that can be saved for different jobs or users, rapid page access, advanced scrolling and background, and letters and borders that can be created with an array of colors and patterns. The 2000 supports more than 40 languages.

Circle (201) on Action Card

Snell & Wilcox: Kudos IQ

Kudos IQ Modular from **Snell & Wilcox** is a modular system developed especially to solve multiformat interface problems and facilitate the transition from analog to digital. Kudos IQ was designed on the principle of universality. All modules are designed to a uniform size and fit into a common 3RU or 1RU enclosure, using a common power supply and delivering high packing density. The system also enables any combination of analog, digital, video or audio modules to be fitted into the same enclosure.

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Hitachi: Shotfinder

The Shotfinder system from **Hitachi** automatically identifies scene changes on a videotape or non-linear recording. Shotfinder employs Hitachi's Intelligent Motion Picture Administration Cognitive Technology to scan, identify and display a "thumb-nail" image and time code for individual scenes from virtually any video recording media. The technology streamlines image retrieval and editing by automatically recognizing changes between multiple video frames.

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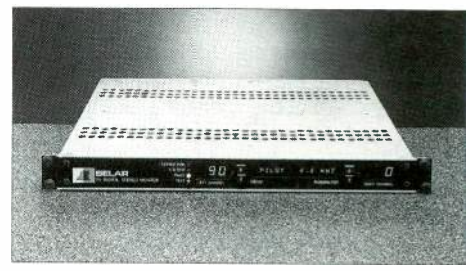

Belar Electronics: TVM-230

The **Belar** TVM-230 is a DSP-based, microprocessor-controlled digital BTSC TV stereo monitor/analyzer. The TVM-230 digitizes the composite baseband signal and decodes the stereo multiplex portion, using digital signal processing techniques. Unlike an analog design, a DSP-based design is immune to variations caused by temperature or the aging and tolerance of components. By employing linear-phase FIR filters, the TVM-230 eliminates phase distortion in the recovered audio. This permits accuracy in measuring modulation peaks on the left, right, L+R and L-R signals.

Circle (204) on Action Card

Tektronix: WFM601M

The WFM601M from **Tektronix** is another member of the WFM601 series. The WFM601M serial component measurement set is a comprehensive instrument that addresses operational monitoring and technical test applications, as well as installation and maintenance. The WFM601M evaluates serial digital component signals from source to destination. It accepts a serial component video signal data stream, analyzes the stream for conformity to accepted standards, and indicates any data errors that may have occurred during signal transmisson. It features the Tektronix real-time, full-field analog CRT display.

Circle (205) on Action Card

Scitex: Abekas ASWR8150

This compact switcher from **Scitex**, based on the Abekas Dveous twin-channel processor, offers a full-featured DVE to meet the demands of professional multilayering post-production. The composite input module for the 8150 features a decoder ASIC that is designed to provide high performance and to allow the user to connect an existing composite source to the component digital switcher. The switcher provides sophisticated features, including SuperShadow, UltraWarp and SurfaceFX.

Circle (206) on Action Card

Odetics: Spectrum

Spectrum, a broadcast enterprise-management solution from **Odetics**, is designed to provide total automation of multichannel spot insertion and program on-air presentation. Spectrum, which builds on Odetics' CacheMachine system and the concept of hierarchical video management, uses a digital disk cache and a centralized spot tape archive. The TCS90 automated video library is used by Spectrum to serve tape archive spots to multiple client channels. Each client channel runs an individual playlist and has a channel of digital disk recorder cache.

Circle (207) on Action Card

ATL Products: Digital Tape Library

ATL Products, a subsidiary of Odetics, has released a computer-grade automated digital tape library (DTL). The compact library provides cost-effective storage and lossless archiving of video data. With DLT, users can store compressed data from disk recorders without going back to video. The technology is designed to improve picture quality and lower station operating costs.

Circle (208) on Action Card

Videotek: VSG-204D

Videotek has released its first product in a series of digital sychronization and test generators. The VSG-204D is a digital sync and test generator with 10 serial digital video test signals available at the push of a button. This 1RU package features free run or gen-lock capability, 525/60 or 625/50 operation and four analog black burst outputs. Also included are separate output phase adjustments on three of the black burst outputs.

Circle (209) on Action Card

Digital Graphix: Composium II

Digital Graphix introduces the Release 5.03 of its Composium II digital compositor and videographic workstation. The Composium II integrates multilayer digital keying, real-time digital effects, keyframe-based editing, paint, video typography and a digital still-store library into a single system, working at the highest level of component digital image quality. Composium II offers an enhanced user interface, increased edit list capacity and more powerful edit control, with support for a 16:9 widescreen option.

Circle (210) on Action Card

Pinnacle Systems: 601 Alladin

Designed for digital post-production and broadcast environments, the 601 Alladin digital I/O module from **Pinnacle** features four CCIR 601 inputs with one key input and a CCIR 601 program key output. The system allows real-time, 4-input digital switching with integrated 3-D digital effects, character generator, graphics creations and still storage at a low cost. Both 601 and Windows NT support are available on Alladin systems or as upgrades for existing users.

Circle (211) on Action Card

FREZZI AR304 CHARGER

This new four channel, autoranging model fast charges *any* four batteries in the range of 12 to 30V (2-10Ah), via XLR4(M) connectors, sequentially. This fast charging technology which was previously only available to lower voltage battery users now enables the charging of higher voltage batteries in 1 to 2 hours. Measures only 9.5"x5.5"x3" and weighs less than 2.5 lbs.

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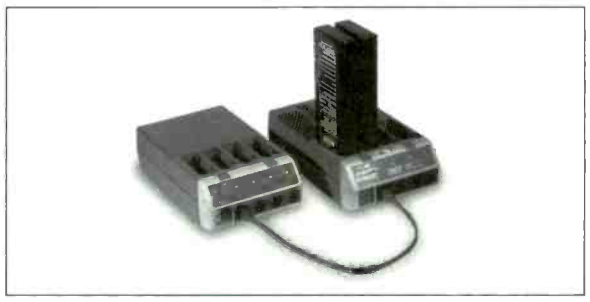
Circle (33) on Action Card



FREZZI AR124NP FAST CHARGER

The AR124NP accepts four NP1 batteries, and four BP90 batteries via direct connection. With optional adapters, it charges any battery in the range of 4.8 to14.4 Volts (1to7 AH). The AR124NP prevents overcharging, automatically maintains peak capacity, uses a recovery program for over-discharged batteries and operates anywhere in the world.

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FREZZI SUN PANEL

Today's most advanced and portable solar panel to date. The Frezzi Sun Panel is field tested and military qualified. Rugged, compact (9"x12"x0.5"), and lightweight(1.5 lbs). The Frezzi Sun Panel charges NP1s in 2 hours and will output 15 Watts of DC power in continuous sunlight. Adapter cables are available for all standard batteries .

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Circle (31) on Action Card

FREZZI MFIC MINI-FILL

Frezzi's popular Mini-Fill light is now available with built-in dimmer control and has won Videomaker's product of the year award. The MFIC Mini-Fill with pulse width modulation, provides the performance of a 50 to 100 Watt light for added flexibility in different shooting environments. Originally designed by Frezzolini for the first televised Mount Everest climb (ABC Network) the Mini-Fill has become a light of choice among broadcasters.

FREZZOLINI ELECTRONICS INC 5 Valley St. Hawthorne, NJ 07506; (800)345-1030; Fax (201)427-0934

Circle (34) on Action Card

FREZZI NPX1 BATTERY

Frezzi's NPX1 batteries are computer verified. They are compatible with all equipment that uses NP1 type batteries. Frezzi's NPX1 is readily fast chargeable and is a high capacity eleven cell NiCd battery. This battery extends the running time of cameras even those with high lock out voltages. Overload protected via self resetting cut out, Frezzi's NPX1 is suited for use with Frezzi's latest advanced microcomputer controlled autoranging fast chargers.

FREZZOLINI ELECTRONICS INC 5 Valley St. Hawthorne, NJ 07506; (800)345-1030; Fax (201)427-0934

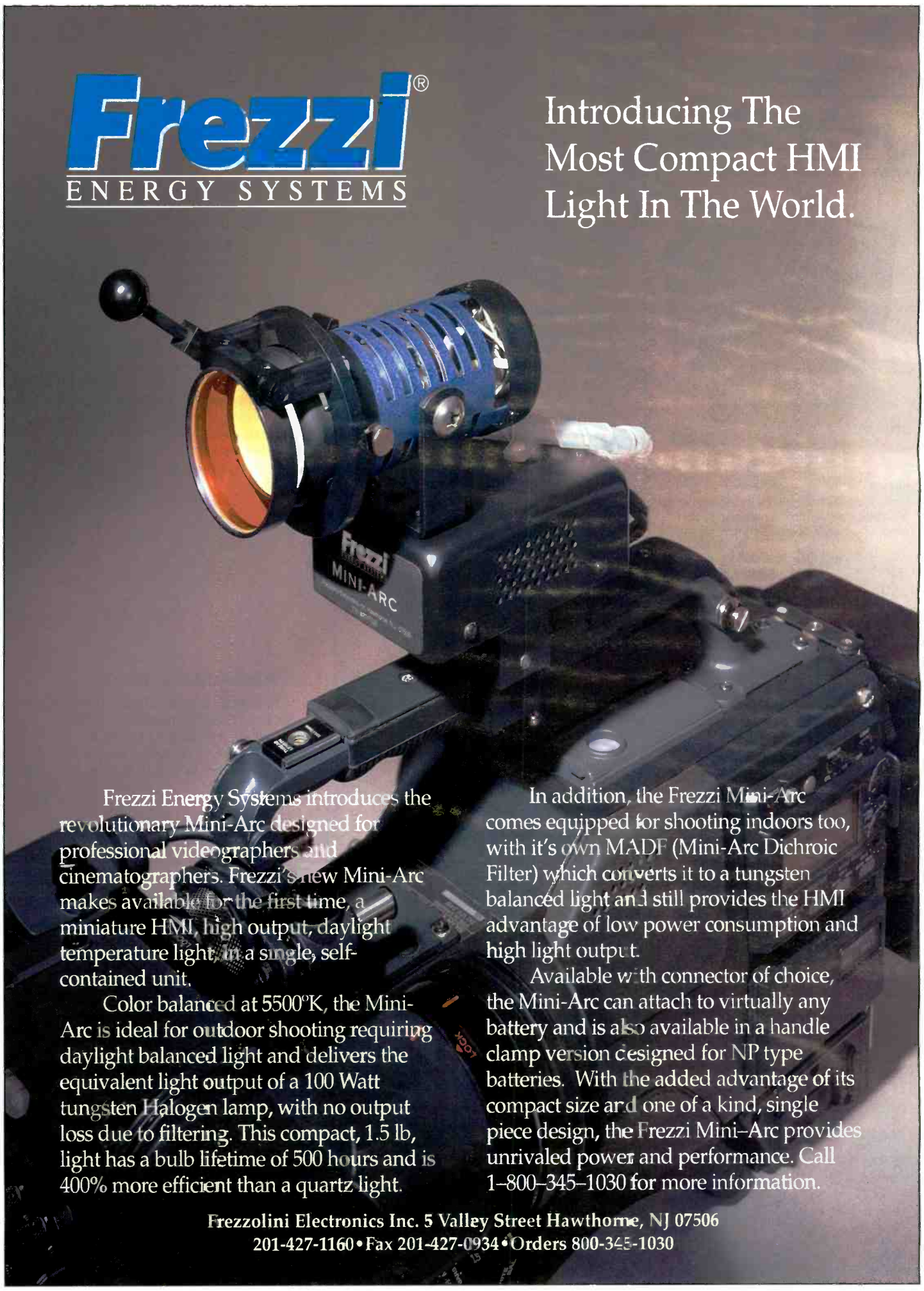
Circle (35) on Action Card

FREZZI MFNP1-HC

A new Mini-Fill combined with the NP-1 battery holder and universal clamp. Ready to mount directly to your professional camera. Simply attach and plug in any NP-1 battery. The most cost effective on-camera professional light.

Sony is a registered trademark of Sony Corporation

FREZZOLINI ELECTRONICS INC 5 Valley St. Hawthorne, NJ 07506; (800)345-1030; Fax (201)427-0934



Circle (36) on Action Card

Product Source

Interactive Images: Plum

Interactive Images has introduced Plum, its non-linear editing product, and has bundled it with Adobe Premiere 4.2 for Windows. Plum offers editors several features, including CCIR 601 720x480 video resolution sampled at 59.94 fields/sec (NTSC) and 720x576 video resolution sampled at 50 fields/sec (PAL); variable compression ratio from 3:1 to 50:1; global acceleration of all transitions; and Plum Play, which reduces disk drive space requirements by 65% and supports full-length movies.

Circle (212) on Action Card

Pioneer: Video Browse Server, Commercial Insertion System and DVD Authoring

Using a hybrid system of hard and optical disc storage, the Video Browse Server offers an improved system for viewing archived footage and dramatically reduces the time spent editing. **Pioneer's** Commercial Insertion System is designed to offer superior picture quality, low operational costs and increased long-term storage options. Pioneer is also one of the major developers of the DVD-format that will standardize audio, video and data on a disc the same size as a current audio CD.

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Circle (11) on Action Card

SyntheSys Research: DVA184

SyntheSys Research has released the DVA184 digital video analyzer, which measures the quality of a serial digital video signal for the broadcasting, manufacturing and high-end post-production arenas. The DVA184 can generate still-test images and log error events, as well as complete error frames. It can also generate more than 200 multiformat test patterns in 143-, 270- and 360Mb/s formats. The DVA184 also contains Jitter Spectrum, which reports the frequencies of jitter, allowing users to find the problem.

Circle (214) on Action Card

Electro-Voice: CO2

In an era where it's "better to be heard and not seen," **Electro-Voice** introduces the CO2 omnidirectional mini-lavalier microphone with features designed partly for broadcast use. The CO2 has a frequency response of 50Hz to 20kHz, tailored to provide well-balanced sound. The omnidirectional pattern reduces mechanical handling and wind noise, maintaining uniform output. With a sensitivity of -61dBv and a dynamic range of 128dB, the CO2 will handle virtually any source with maximum signal-to-noise ratio.

The standard 8-foot cable was designed to meet the rigors of production. It provides more than 10 times the strength of typical lavalier microphone cablem, which translates into higher reliability in the field. The CO2 is available with a phantom power electronics module. For wireless configurations, a TA4F connector or pigtails can be ordered.

Circle (215) on Action Card

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Circle (12) on Action Card

Canon: Canobeam

Canon has introduced Canobeam, a next-generation, bidirectional optical wireless broadcast transmission system. Canobeam has sound comparable to a CD and offers immediate setup for up to four video paths. Requiring no license, Canobeam is designed to be a time-saving, money-saving system that offers flexibility, path security, freedom from interference, and remote operation with uninterupted monitoring of all video and audio channels. Canon has incorporated an advanced auto-tracking adjustment system that ensures flawless operation even from locations that are prone to sway and vibration.

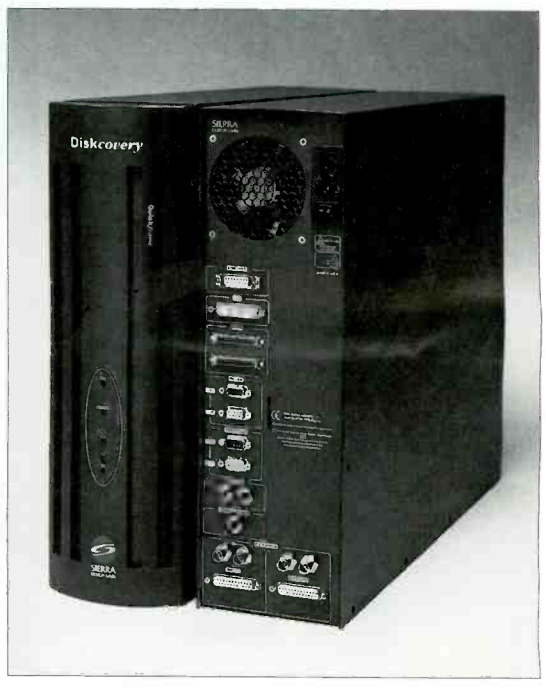
Circle (216) on Action Card

Hitachi: Digital Triax, Digital Optical Fiber

Two digital transmission systems from **Hitachi** enable SK-2600 cameras to transmit digitally from the camera head to the output of the CU-2000 camera control unit. Digital triax was developed because of the ease of maintenance and low cost of triaxial cable. It is designed for use in the studio environment, where modest cable lengths are the norm. More extreme cable lengths are accommodated with the digital optical fiber system. Both systems use digital component transmission in a Y, R-Y, B-Y format and provide complete transparency between the camera and the digital control unit. At the CU-2000, digital component signals are digitally transcoded into serial digital outputs in D-1 or D-2/D-3 formats.

Circle (217) on Action Card

Sierra Design Labs: Diskcovery



The Diskcovery provides a desktop DDR that features 4:2:2:4 and 4:4:4 options, full RS-422 implementation, including frame-accurate VTR control, an interpolator for smooth slow motion and color video monitoring output. **Sierra Design Labs'** system can be configured for 8- or 10-bit, 525 or 625, depending on user applications. Compatibility, flexibility and integration are evident in the product's design. The unit's small chassis, built to minimize noise levels, can be placed vertically as a tower near a desktop workstation or mounted horizontally in a 3-rack-unit space.

Circle (218) on Action Card

Tektronix: 4.0 Software

Tektronix has introduced 4.0 version software for its Lightworks and Lightworks Turbo editing systems. This software provides a comprehensive set of software tools for the film and off-line video editing marketplace. Incorporating an expansion of supported storage, the 4.0 also features a rendered effects package, a real-time effects package, full VITC reading of film and video labels and an auto-synchronize function.

Circle (219) on Action Card

Digipath: 2RU 32x series

For users who want the growth potential of matrix sizes from16x16 to 32x32, Digipath has released its compact 2RU 32x series of routers. This analog series can house up to four motherboards, with each motherboard accommodating up to a 16x16 matrix, which can be populated with **Digipath's** plug-in PCB modules for optimum size choice. With the 2RU series, there is no need for extender boards because the motherboards slide in and out on a track.

Circle (220) on Action Card

Videonics: PowerScript

The **Videonics** Power-Script supports PostScript and uses digital video technology to produce fully anti-aliased characters, animation and graphics with 17.5ns effective pixel resolution. Equipped with a full-frame TBC and synchronizer, the PowerScript is designed to offer professional users post-production creativity with added convenience and flexibility. The system includes an all-metal, rack-mountable central processing unit, a keyboard and a mouse.

Circle (221) on Action Card

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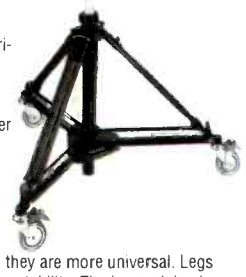
- Frictionless leak proof fluid damping with three levels of drag
- Vibrationless vertical and horizontal brakes
- Built in bubble for horizontal leveling

HOT POD TRIPOD SERIES

Especially developed for use in ENG, the Hot Pod tripod is the fastest in the world. The central locking system is activated on all three legs at the same time, while the pneumatic center column easily makes it possible to have the lens at a height of over 7 feet. The elevation force of the center column is factory set and doesn't require any setup. When moving to another location it can be carried by its handle located at the center of gravity.



ENG TWO-STAGE TRIPOD SERIES

Sachtler two-stage tripods have an enlarged height range (lower bottom and higher top position) so they are more universal. Legs can be locked in seconds with Sachtler's quick clamping. There are also heavy duty versions for extra stability. The heavy duty aluminum has a 20mm diameter tube vs. 16mm and the heavy duty carbon fiber has a 24mm diameter tube vs. 22mm. All heavy duty two-stage tripods have a folding tripod handle.

NEW ! Sachtler CADDY Systems

Now Sachtler quality is available to low budget users. The price of a CADDY system includes the new 7-step dampened CADDY fluid head, ultra-light but rugged carbon fiber tripod, lightweight spreader and either a soft bag or cover.The CADDY fluid head features an adjustable pan arm, 7 step adjustment for quick counter balance and the self-locking Sachtler Touch and Go System.

CAD 01
Single-Stage ENG Carbon Fiber System:
- CADDY Fluid Head
- ENG Single-Stage Carbon Fiber Tripod
- SP 100 Lightweight Spreader
- Transport Cover 100

CAD 2A
2-Stage ENG Carbon Fiber System:
- CADDY Fluid Head
- ENG 2-Stage Carbon Fiber Tripod
- SP 100 Lightweight Spreader
- Soft padded ENG Bag

MILLER

Fluid Heads & Tripods

The silky, smooth action of each Miller Fluid Head is the product of the finest quality cast and machined parts functioning together in a fluid environment. They are engineering masterpieces, built to operate under extreme conditions. They're engineered to exceptionally fine tolerances and their mechanisms are protected effectively against ambient moisture and dust.

Miller 20 - Series II Fluid Head

- Continuously adjustable fluid drag control
- Sliding/Quick Release camera platform
- Weighs only 4 lbs. will handle cameras up to 22 lbs.
- Counterbalance system designed to compensate for nose heavy or tail heavy camera configurations, and permits fingertip control of the camera throughout the tilt range.
- Includes independent pan and tilt locks, bubble level, dual pan handle carriers and integrated 75mm ball levelling.

#601-Lightweight Tripod

- Weighs only 4.5 lbs., supports up to 30 lbs.
- Minimum height down to 24", maximum height to 57".
- Extremely portable, folds down to 33"
- Engineered from thermoplastic moldings, diecast alloy & hard anodized tubular alloy.
- Fast one turn, captive leg locks
- Includes 75mm (3") ball levelling bowl

#649-2-Stage Tripod

- Two extension sections on each leg. Operates at low levels as well as normal heights without the use of mini legs.
- High torsional rigidity, no pan backlash
- Weighs 6.6lbs., supports 50 lbs.
- Very portable, folds to 27"
- Includes 75mm (3") ball levelling bowl

System 20 Catalog #338
- Miller 20 II fluid head • 601 tripod
- 410 on-ground tripod spreader **1549.00**

System 20 Catalog #520
- Miller 20 II fluid head • 601 tripod
- 510 above ground tripod spread **1549.00**

System 20 ENG Cat. #339
- Miller 20 II fluid head •649 2-stage tripod 410 on-ground tripod spreader **1895.00**

System 20 ENG Cat. #522
- Miller 20 II fluid head •549 2-stage tripod
- 512 above ground tripod spread **1895.00**

Vinten

THE ADVANCED RANGE OF VISION LIGHTWEIGHT HEADS AND TRIPODS

Vision SD 12 and SD 22

Pan and Tilt Heads with Serial Drag

The Vision SD 12 and SD 22 are the first heads with the "Serial Drag" pan and tilt system. The system consists of a unique, permanently-sealed fluid drag and an advanced lubricated friction drag. So for the first time, one head gives you all the advantages of both fluid (viscous) and lubricated (LF) drag systems – and none of their disadvantages. Achieve the smoothest pans and tilts regardless of speed, drag setting and ambient temperature. The Serial Drag system provides the widest range of infinitely variable precise settings with repeatable, consistent drag in each pan and tilt direction.

Features:
- Simple, easy-to-use external control for perfect balance.
- Patented spring-assisted counter-balance system permits perfect "hands-off" camera balance over full 180° of tilt.
- Instant drag system breakaway and recovery overcome inertia and friction for excellent "whip pans"
- Consistent drag levels in both pan and tilt axis.
- Redesigned flick on, flick off pan and tilt caliper disc brakes.
- Greater control, precision, flexibility and "touch" than any other head on the market.
- Touch activated, time delayed illuminated level bubble.
- Environmental working conditions from as low as -40° to as high as +60°C.
- SD 12 weighs 6.6 lbs and supports up to 35 lbs.
- SD 22 weighs 12.7 lbs and supports up to 55 lbs.

Vision Two Stage ENG and LT Carbon Fibre ENG Tripods

The ultimate in lightweight and innovative tripods, they are available with durable tubular alloy (Model #3513) or the stronger and lighter, axially and spirally wound carbon fiber construction (Model #3523). They each incorporate the new torque safe clamps to provide fast, safe and self-adjusting leg clamps that never let you down. Two stage operation gives them more flexibility when in use as well as greater operating range.

- "Torque Safe" requires no adjustment. Its unique design adjusts itself as and when required, eliminating the need for manual adjustment and maintenance and making for a much more reliable clamping system.
- New hip joint eliminates play and adds rigidity.
- They both feature 100mm levelling bowl, fold down to a compact 28", and support 45 lbs.
- The #3513 weighs 6.5 lbs and the #3523 CF (Carbon Fibre) weighs 5.2 lbs.

Vision 12 Systems

All Vision 12 systems include #33643 SD 12 dual fluid and lubricated friction drag pan/tilt head, single telescoping pan bar and clamp with 100mm ball base.

SD-12A System
- 3364-3 SD-12 Pan and tilt head
- 3518-3 Single stage ENG tripod with 100mm bowl
- 3363-3 Lightweight calibrated floor spreader.

SD-12D System
- 3364-3 SD-12 Pan and tilt head
- 3513-3 Two-stage ENG tripod with 100mm bowl
- 3314-3 Heavy-duty calibrated floor spreader

SD-12LT System
- 3364-3 SD-12 Pan and tilt head
- 3523-3 Two-stage carbon fibre ENG tripod w/100mm bowl
- 3363-3 Lightweight calibrated floor spreader
- 3425-3A Carry strap
- 3340-3 Soft case

Vision 22 Systems

All Vision 22 systems include #3386-3 SD-22 dual fluid and lubricated friction drag pan and tilt head, single telescoping pan and clamp with dual 100mm/150mm ball base.

SD-22E System
- 3386-3 SD-22 Pan and tilt head
- 3219-52 Second telescoping pan bar and clamp
- 3516-3 Two-stage EFP tripod with 150mm bowl.
- 3314-3 Heavy-duty calibrated floor spreader

SD-22 LT System
- 3386-3 SD-22 Pan and tilt head
- 3219-52 Second telescoping pan bar and clamp
- 3523-3 Two-stage carbon fibre ENG tripod w/100mm bowl
- 3314-3 Heavy-duty calibrated floor spreader
- 3425-3A Carrying strap
- 3341-3 Soft case

SD-22 ELT System
- 3386-3 SD-22 Pan and tilt head
- 3219-52 Second telescoping pan bar and clamp
- 3383-3 Two-stage carbon fiber EFP tripod w/150mm bowl
- 3314-3 Heavy-duty calibrated floor spreader

Panasonic

AG-EZ1 3-CCD Digital Videocassette Camcorder

Heralding a new era in video, the AG-EZ1 is the world's first camcorder to incorporate 6mm DVC (Digital Video Cassette) technology. The biggest leap in video since S-VHS and Hi8 were introduced six years ago, DVC is a revolutionary video format that delivers such high quality —it literally rivals broadcast cameras. Utilizing DVC the AG-EZ1 records an extraordinary 500 lines of horizontal resolution—nearly 25 percent more than S-VHS, Hi8 or laserdisk, and 50 percent better than a live television broadcast. And because it's digital, picture quality is not only sharper but unbelievably clean. Audio is also recorded digitally, resulting in quality equal to that of CDs. In addition to it's digital capabilities, the AG-EZ1 also features a 3-CCD pickup system,180,000 pixel color viewfinder, 10:1 power and 20:1 digital zoom, full automatic and manual controls and a large LCD panel.

AG-DP800H SUPERCAM S-VHS 3-CCD Digital Signal Processing Camcorder

- Three high-density 380,000 pixel CCDs with half-pitch pixel offset achieves over 750 lines of horizontal resolution, a S/N ratio of 60dB and remarkable sensitivity of f8 at 2000 lux. Additionally the Frame Interline Transfer (FIT) CCDs minimize vertical smear, so you maintain impressive picture quality even in very bright illumination.
- Digital Signal Processing circuitry provides four valuable benefits
  1) Consistently reliable up-to-spec performance.
  2) Fine adjustment of a wide range of parameters.
  3) Memory storage and instant recall of specific settings.
  4) More flexible and higher quality image processing, as well as easier maintenance.
- Some of the DSP circuits and their functions:
  - CHROMA DETAIL - This function compensates for poor resolution in the high chroma areas of the picture.
  - DARK DETAIL - Determines optimum degree of contour enhancement in dark areas to deliver crisp, natural-looking images
  - HIGHLIGHT COMPRESSION - Expands the dynamic range of the highlighted areas and prevents halation. The highlight compression circuit allows a wide dynamic range producing detailed images even against bright backlight or daylight.
  - FLARE CORRECTION CIRCUIT - Compensates for unsteady black caused by light or by a subject's movements.
- Six Scene File modes. There are two user modes for custom digital parameter settings including Horizontal Detail, Vertical Detail, Chroma and Dark Detail, and Color Correction. The four preset modes are normal, fluorescent, special and sparkling.
- In addition to regular AGC (Automatic Gain Control), Supercam has a Super High Gain mode. At F1.4 this enables shooting under illumination as low as 2 lux while retaining detail and color balance.
- Synchro Scan function allows flicker-free shooting of computer monitors. Electronic shutter increments can be set variably from 1/61 seconds to 1/253 of a second.
- Built-in internal time code generator lets you record with SMPTE LTC/VITC (Longitudinal/Vertical Interval) time code
- Two hi-fi stereo audio channels with a dynamic range of 80 dB, as well as two linear audio channels with Dolby NR. Normal/Hi-Fi recording is selectable. Uses XLR connectors to further ensure high-quality sound.
- Has a 26-pin connector on the back that outputs a composite or component video signal. This enables convenient backup recordings using an additional VCR equipped with a 26 or 14-pin connector
- Phantom power can be supplied to an optional microphone. Power can be switched off to prevent battery drain when not in use.

JVC

GY-X2B 3-CCD S-VHS CAMCORDER

- Newly designed three 1/2" CCD image sensors deliver 750 lines of horizontal resolution and superb signal-to-noise ratio of 62dB
- New micro-lens technology provides exceptional sensitivity of F8.0 at 2000 lux and LOLUX mode lets you shoot with almost no light! Shoot superb footage with excellent color balance at a mere 1.5 lux
- Variable Scan View allows flicker-free shooting of a computer monitor.
- Quick Record Mode - when turned on the camera is set to the auto iris even if lens is set at manual. Also activated is (ALC) Automatic Level Control and EEI Extended Electronic Iris which provides both variable gain and variable shutter. Now you can shoot continuously from dark room to bright outdoors without having to adjust gain, iris or ND filter.
- Full Time Auto White circuit lets you move from incandescent to fluorescent to outdoor lighting without changing white balance or the filter wheel. • Genlock input allow synchronization with other cameras.
- Dual output system allows camera output to be connected directly to an external recorder

GY-X3 3-CCD S-VHS Camcorder

By employing professional camera technology in new economical ways, the new GY-X3 delivers all the performance you expect from a 3-CCD camera: higher resolution, better sensitivity, lower noise and mor e natural color resolution—without a hefty price tag. It features a full-size head drum, 550 lines of horizontal resolution, 60 dB signal-to-noise ratio, sensitivity of F8 at 2000 lux and minimum illumination of 4 lux. It also has XLR balanced audio inputs, time code generator (CTL), 1.5" viewfinder, powerful 14:1 servo zoom lens and much more.

Features:
- Non-detachable 14:1 professional servo zoom lens has a motorized iris that smoothly adjusts to varying lighting conditions. The zoom and iris can be manually operated for additional control.
- In low-light conditions, you can choose from a variety of gain settings up to +24 dB with minimal increase in noise. In addition a Maximum Gain Mode allows you shooting in near darkness. Achieves an incredible 100% video level in light as low as 4 lux
- Automatic Level Control lets you pan from a brightly lit to a dimly lit area in one take, without adjusting gain settings. The GY-X3 automatically detects and applies the correct amount of gain so you can concentrate on getting the shot.
- Full Time Auto White function analyzes the light sources' color temperature and continuously corrects changes. Follow a bride from outdoor sunlight through a fluorescent lit hallway into a reception room and never have to adjust the white balance. Also indispensable when shooting outdoor sunset weddings.
- Extended Electronic Iris provides a continuously variable shutter without using ND filters. Allows smooth continuous point and shoot work from dark hallways to bright outdoor settings.
- 1.5" high resolution viewfinder displays tape remaining, date and time and battery condition. Key parameters like audio levels can also be superimposed over the picture if desired.
- Two-channel Hi-Fi audio recording (with separate XLR balanced inputs) plus a linear audio track
- Variable Scan Mode for flicker-free shooting of computer CRTs
- Designed to be as comfortable as it is affordable. Weighing only 12.8 lbs. including lens and viewfinder, the camera is perfectly balanced for exceptional comfort. All controls, including audio level adjustments are at your fingertips.
- Built-in Control Track (CTL) time code generator writes absolute frame address data onto the control track of the tape. When the tape is played back in the JVC Edit-Desk system (see below), the time code data is accessed, thus ensuring accurate logging and editing. In addition, the GY-X3 logs each new recorded scene in the "user bit" portion of the time code. This Scene Finder function lets you quickly locate the next or previous scene with the Edit-Desk system. Scene numbers are also displayed in the LCD display of the camera.

KY-27C 3-CCD Color Video Camera

- New ⅔" broadcast-quality 380,000 pixel CCDs with advanced electronics deliver resolution of 800 horizontal lines and reduced smear.
- High sensitivity of F9.0 at 2000 lux allows a truly usable minimum illumination of 1 lux with JVC's exclusive LoLux dual pixel readout sampling technique.
- LoLux mode allows shooting scenes that were previously impossible due to insufficient lighting. CCDs are maximized for low light sensitivity equivalent to an electronic gain of 24dB, then the dual pixel readout system is added which provides an additional 6dB. Together they provide +30dB without the noise and picture degradation normally associated with this much gain.
- Signal-to-Noise ratio of 63dB assures virtually "noise free" images.
- Auto knee circuitry extends a scene's light to dark dynamic range reproduction by up to five times without overexposure.
- Has large 1.5-inch viewfinder with 600 lines of resolution and SMPTE color bars. Status system provides audio levels, accumulated or remaining recording time, VTR operation, battery voltage and camera setup. Zebra pattern indication and safety zones with a center marker are also provided.
- Variable scan function enables a precise shutter speed from 1/60.2 to 1/196.7 of a second in 256 increments to be set, matching a computers scan rate. Almost any computer display can be clearly recorded.
- Camera head allows direct input of genlock signal and timing adjustment. A wide range optional remote controls, RS-232 interface, multicore and triax CCU's are available.
- Docks directly to the JVC BR-S422U, BR-S411UB and BR-S420CU professional S-VHS recorders. Optional adapters for docking to Hi-8 and Betacam SP are also available.

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JVC PROFESSIONAL

BR-D40 Digital Dockable Recorder

BR-D50 Digital Player

BR-D51 Digital Player w/S-VHS Playback

BR-D80 Digital Editing Recorder

BR-D85 Editing Recorder with Digital I/O and Pre-Read Editing

High Quality Digital Editing Is Here and It's Affordable!

The first affordable, broadcast quality digital video recording and editing system, the Digital-S series reproduces images that not only are superior to any analog or digital 4:1:1 format but rival even the highest priced digital systems. It offers the robustness and reliability of a 1/2-inch format and combines 4:2:2 component processing with a very mild 3.3:1 compression ratio to achieve and sustain excellent quality through multi-generation dubbing.

The quality of Digital-S applies equally to acquisition and editing, plus it has the flexibility to easily integrate into any digital or analog format—tape or disc. So whether you purchase the entire system or one component at a time, its flexibility allows you to utilize your existing equipment, while upgrading at your own pace

Digital-S starts with the versatile BR-D40 Dockable Recorder. Built with the same attention to detail, quality and features as the rest of the Digital-S components, it's designed to produce the highest quality raw footage. To ensure perfect, frame-accurate in-camera edits, JVC equipped it with automatic editing which utilizes a built-in time code reader/generator.Editing the tapes from multi-camera or iso-cam shooting is also facilitated with the BR-D40's time code input and output slave-lock function.

You can edit your tapes with a choice of two powerful editing recorders. The top-of-the-line BR-D85 with pre-read and digital I/O or the more economical BR-D80 without pre-read capability and optional digital I/O. Completing the line is the BR-D50 Player and the flexible BR-D51 Player with S-VHS playback. Both players accept the optional SA-D50U digital I/O interface card.

Broadcast Quality Digital Video

- Utilizes 4:2:2 digital component processing to add a richness and warmth unobtainable with any lesser system. In addition, only 4:2:2 digital component signals will stand up to the rigors of sophisticated chroma-keying, multi-generational editing, special effects, blue-screen compositing, matting, ATV up/down conversion, and multiple transconversion between compression systems.
- To reproduce the finest colored details and subtlest contrasts while significantly minimizing artifacts Digital-S employs an extremely mild compression ratio. Set to 3.3:1 with DCT-based intra-frame coding, Digital S yields a data rate of 50 Mbps, plus it pumps out horizontal resolution of 720 pixels or 540 TV lines. Also provides an incredibly high S/N ratio of 55dB.
- Audio quality is just as impressive as the video. Audio is recorded by 2-channel, 16-bit PCM signals with a sampling frequency of 48kHz. The audio is superior to compact disc and also allows frame accurate editing. Either of the PCM audio channels can be edited independently
- Standard analog inputs/outputs provide outstanding performance for the majority of applications. When virtually perfect dubs are required they use the industry standard SMPTE 259M for digital video and AES/EBU for digital audio. The one true digital video standard in use today, SMPTE 259M permits long cable runs and is used for direct professional connection to digital switchers, disk-based recorders & digital tape recorders.

Robust 1/2-inchFormat

- To help achieve its super-high image quality, Digital-S uses a robust, 1/2-inch metal particle cassette tape. Although the same dimensions as VHS, the cassette housing features a newly developed dust-proof structure which increases the life of your tape as well as your images. Tape speed is 57.8 mm/s for a recording time of 104 minutes.
- Digital S features an extra wide track-width of 20 microns for improved stability and reliability. One frame consists of 10 tracks with the video area on either side of the audio track.
- Equipped with error correction circuitry so powerful, that not only does it replace data in the unlikely event of a tape dropout but it continues to play back a picture even with a clogged head. An error indicator located on the front panel informs you of tape condition.

Digital Editing

- Digital-S VCRs are equipped with variable slow motion which can be accessed by standard editing commands. Smooth and noiseless, the image quality of slow motion is equal to regular playback & is available within a range of ±1/3X.
- The longitudinal tracks include two auxiliary audio (cue) tracks & a control track for tracking purposes. The cue tracks allow for easy location of edit points which can be heard at any tape speed.
- Because of its linear control track, Digita-S has a short lock-up time which eliminates long pre-rolls. This feature achieves a stable picture faster, saving precious editing time.
- An auxiliary video (sub-code) area stores two user selectable uncompressed lines of video, which are suitable for recording closed caption or other information located in the vertical blanking interval.

Superior Construction

- All machines are built with a super-durable, die-cast aluminum chasis that maintains true alignment. The drum is made of material with a high silicone content for improved wear resistance.
- To ensure S-VHS compatibility, the drum structure features an upper stationary drum, a middle rotary drum, and a lower stationary drum. To eliminate the need for a thicker air film at the drum inlet and to provide stable head-to-head contact, the thickness of the rotary drum is very narrow. This configuration results in the truest track linearity. The inner drum's tapered shape also reduces tape damage, powder drop, wear and tear.
- In addition to the linear control track, there is an auto-tracking servo system which utilizes tracking signals imbedded into the rotary track to ensure precise tracking and alignment.. The auto-tracking system also uses tape guides with sapphire flanges, (as opposed to steel or ceramic) to maintain perfect tape path alignment far longer. A sapphire tape cleaner provides an edge that keeps tapes amazingly clean

PRE-READ EDITING

(BR-D85 Only)

At one time, digital video pre-read was an exclusive feature of high-end digital systems. But with Digital-S, the BR-D85 Editing Recorder makes it available for the very first time at a very affordable price. The true value of pre-read is that it eliminates the need for an extra VTR. Operable with either digital or analog signals, pre-read lets you perform layering and A/B roll editing with only two VTRs, instead of the traditional setup requiring three units. Plus, it also makes multi-format editing practical. Pre-read not only empowers you with a high-performance editing feature, but it also saves you the cost of an additional VTR.

Operational Conveniences

- Comprehensive analog inputs/outputs (composite, S-video and component), video and audio monitor output, RS-422 interface and VITC/LTC time code.
- Built-in head cleaner automatically wipes the heads when a tape is loaded or ejected.
- Function buttons are large, illuminated and color coded, so locating the right button is never a problem, even in tne dark.
- Jog/shuttle and system timing controls are conveniently located on the front panel. Shuttle wheel allows footage to be searched in color at up ±32X normal speed.
- Proc-amp controls are available remotely through the video control connector.
- An EE mode ensures the highest quality tape capture.
- To safeguard tapes in case of a malfunction, they have a self diagnostic warning system. To further ensure proper operation, an RS-232 diagnostic service service port measures digital data performance during playback. There is also a standard hour meter.
- They also feature flying erase head, rack mount capability and compact size.

Why pay $10,000 to $15,000 for a BROADCAST QUALITY CHARACTER GENERATOR when you can get it for only $2995?

Introducing the new.....

VIDEONICS POWER Script™

Animated Postscript Character & Graphics Generator

A technological and engineering breakthrough, the PowerScript sets new price/performance standards for broadcast video production, multimedia and industrial applications. It delivers the huge range of titles and graphics supported by PostScript display technology, plus animation, effects, transparency and keying. It features anti-aliased, 17.5 ns (nanosecond) pixel resolution and 4:2:2 broadcast-quality video, plus high-speed RISC processing to provide real-time Level 2 PostScript imaging and fast rendering—even with the most complex images. The PowerScript works stand-alone or with a computer, has a built-in TBC, offers a powerful and intuitive interface, and is suitable for the desktop or can be rackmounted.

Powerful Character Generator

- Choose from 35 built-in fonts or download hundreds of PostScript fonts from your computer. With its high-speed RISC processor, it provides real-time PostScript Level 2 imaging—the full power of the PostScript language is at your command.
- Characters can be rotated at any angle, scaled to any size, stretched horizontally or vertically.
- Styles include variable bold and italic, underline and shadow (drop shadow, variable displacement and opacity). Each character can be adjusted separately.
- Text can be positioned anywhere on the screen or automatically centered, vertically or horizontally.
- Left, right, top, bottom and center justification is provided as well.
- Characters are automatically kerned, using the font's standard kerning information.
- Spacing is highly flexible with variable word and letter spacing and line spacing (leading).

Intuitive User Interface

The user interface is fast and intuitive, easily supporting the rapid pace of real life video production.

- Built-in real-time object-based drawing tool and text editor—no external computer or software required. Design can be done ahead of time and displayed later, or can be done on the fly. Display is real time.
- Supplied keyboard and mouse are used with easy on-screen menus to place and modify graphics and text.
- Customizable function keys let you change fonts, colors, and other characters instantly.
- Separate preview output allows you to create and edit titles while another set of titles is being displayed.

Transparency and Colors

- Characters can be made transparent (0-100%) over video, other characters and graphics with 64 levels of transparency.
- Opaque characters can use over 4,000,000 colors , transparent characters can use over 8,000.
- Different colors can be used for fill and outline (variable width), and each letter and each graphic can use different colors.

Roll, Crawl, Animation, Effects

Variable speed roll, crawl and push (slide) in all directions—plus extensive animation capabilities as well.

- Every text object, graphic, and logo can be separately animated. Complex animations include ability to have elements follow paths, bounce, etc.
- Elements can change outline and/or fill color, transparency, position as they move and results are displayed in real time.
- Move individual characters in different directions; make colors change; flash words; make letters and words bounce; spin a letter across the screen.
- Use effects like fades and wipes to transition between titles and video or between two pages of titles.

Two GPI Inputs

The GPI automatically plays a sequence of titles when a pulse appears at one of the two inputs.

Keyer

- Internal linear keyer superimposes characters and graphics on S-video or composite sources.
- Also provides anti-aliased down-stream keying via a separate linear KEY output.

Backgrounds and Graphics

- Titles can be placed on solid color, patterned or graduated backgrounds, or they can be genlocked to incoming video.
- Lines, squares, rectangles, ovals and circles can be created and placed anywhere on the screen.
- Each graphic object can use a different color, transparency, rotation, size, fill and outline.

Imported Logos and Graphics

- Can import and display complex graphics created with standard Macintosh, Windows, DOS, Amiga and UNIX-based programs, such as Photoshop, Corel Draw and Adobe Illustrator. Accepts most PostScript or EPS format graphics without modification.
- Imported images can be any size and can be scaled, skewed, and rotated when placed on screen.
- Transparency and anti-aliasing can be defined when graphic is generated.

Built-in TBC

The PowerScript has a built-in full-frame (dual field) time base corrector that constantly locks the signal to a reference input. If no reference is connected, the signal is synced to an internally-generated RS-170A time base.

Expansion Capabilities

Although the PowerScript operates on its own, you can still add peripherals and connect to a computer or network. Two PCMCIA (accepts Type I, II and III cards) slots allow the addition of non-volatile flash-RAM and Ethernet (file transfer protocol using TCP/IP) cards and an RS-232 serial port allows simple connection to desktop computers. This allows you to add storage capability and to download fonts and graphics from a computer. This means you can save titles to your computers hard or floppy disk, or download fonts and graphics files from a desktop publishing system.

Clock/Calendar

The PowerScript has a built-in clock/calendar that displays current date, time, or elapsed time(stopwatch) counter in a wide range of formats, using any color or font. Clock/calendar can also activate selected titles at predefined times.

Built-in Test Generator

The PowerScript can generate standard video test patterns including color bars, crosshatch, ramp, gray wedge, multiburst and blackburst. Titles can be placed atop any of the patterns.

Other Features

- Split screen titling allows definition of two titling windows with separate rolls and crawls defined in each.
- Small footprint makes it ideal for the desktop, or it can be rackmounted with optional rack kit.

Still not convinced, then call us for a free PowerScript demo tape and see for yourself.

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PHOTO - VIDEO - PRO AUDIO

SONY

SVO-2000 S-VHS Hi-Fi Editing VCR

The new SVO-2000 is a powerful, yet easy-to-use S-VHS Hi-Fi editing recorder. Two SVO-2000 recorders combined with the optional RM-250 Edit Controller forms a cost-efficient cuts-only editing system – with full assemble, video insert, audio dub and program editing capability.

Superb Video and Audio Performance

- S-VHS format delivers 400 lines of horizontal resolution and consistent, clear image reproduction for superior editing results.
- Adaptive Picture Control (APC) System for optimum picture performance. In record mode, APC automatically tests an inserted tape and checks the condition of the video heads. It then adjusts the VCR recording circuitry to capture images that are as clear and crisp as they can be. In Playback mode, APC automatically sets the ideal balance of picture sharpness and clarity.
- Hi-Fi stereo recording system has a wide frequency response of 20Hz to 20kHz and a superb 90dB dynamic range, and individual recording level controls for the left and right channels.

Editing Features:

- The SVO-2000 has a Control-Edit Spin remote terminal that allows it to be controlled externally. Connects directly to RM-250 for easy setup.
- With Control-S input and output terminals, two SVO-2000s can be connected for synchro editing, without the RM-250.
- RM-250 also offers program editing capability, which allows automatic sequential editing of up to 20 pre-assigned scenes.

SVP-5600 and SVO-5800

S-VHS Player/ S-VHS Editing Recorder

SVP-5600 and SVO-5800 features:

- By combining the high resolution (400 horizontal lines) of S-VHS with high quality signal processing techniques like DNR, Digital Field DOC and Chroma Process improvement, they deliver the consistent picture quality so essential to editing. They also incorporate a wide video head gap and track width (58mm) for stable and faithful picture reproduction.
- Each has a built-in TBC plus an advanced Digital Noise Reducer (DNR) for both the chrominance and luminance signals to eliminate noise during playback. At the same time, a field memory incorporated in the noise reducer removes jitter to provide sharp, stable pictures. The field memory, also includes a Digital Field DOC (Dropout Compensator), which replaces signal dropout with information from the previous field.
- They also incorporate Chroma Process Improvement circuitry for excellent color picture quality in the playback mode. This advanced circuitry greatly improves the chroma bandwidth, thus enabling sharper and clearer color picture reproduction.

ADVANCED EDITING FUNCTIONS

- For frame accurate editing, both machines employ a sophisticated servo system, an improved quick response mechanism and built-in LTC/VITC time code capability. This makes them ideal for animation and computer graphic recording, where a frame-by-frame editing function is indispensable.
- They are equipped with industry standard RS-422 9-pin serial interface. The 9-pin connector carries edit commands and time code data between the VCR and the edit controller.
- When connected to an RS-422 equipped edit controller, the SVO-5800 functions as an editing recorder. It performs assemble and insert functions and also provided audio split editing capability of norman audio tracks 1 and 2. In the insert mode, video, audio and time code can be inserted independently, or in any combination.

FOUR CHANNEL AUDIO SYSTEM

- They each incorporate four-channels of high quality video. There are two channels with Hi-Fi (AFM) tracks and two with longitudinal (normal) tracks. The Hi-Fi tracks provide a wide frequency response from 20hz to 20khz and a superb dynamic range of 90db. The normal tracks incorporate Dolby B noise reduction for high quality sound reproduction. XLR connectors are used for the inputs and outputs for all four channels.

MULTIPLE INPUTS AND OUTPUTS

- Both machines employ composite and S-Video connectors. With optional SVBK-170 Component Output Board, they provide component signal output through BNC connectors. With the board, the VCRs can be integrated into Betacam SP editing systems.

USER FRIENDLY OPERATION

- Built-in character generator which superimposes characters on the "video monitor output" signal. This allows time code data, control track, menu setup and VCR function status to be shown on a monitor.
- For more efficient operation they have an on-screen setup menu which allows a variety of customized VCR mode operations. Programmed in the form of a layer structure, you simply go through the menu and initialize VCR operation.
- All parameters of the TBC, such as luminance level, chroma level, setup, hue, Y/C delay, sync phase and SC phase are easily controlled from the front panel, and can be remotely controlled from the optional UVR-60 TBC Remote Control, which also accesses field freeze function in the still mode and allows on/off control of chroma and luminance noise reducer.
- Quick and smooth picture search can be performed by either using an RS-422 equipped edit controller or the optional SVRM-100 Remote Control Unit. Recognizable color pictures are provided at up to10x normal speed in forward or reverse.

FXE-100 ALL-IN-ONE VIDEO EDITING SYSTEM

The new FXE-100 is an A/B roll editing system designed for quicker, easier video editing, and is well-suited for today's professional audio/visual communications. It is at once an edit controller which controls basic VCR functions, a special effects generator which cuts, mixes, wipes and composites the video sources with stunning effects; and an audio mixer with various fading and switching abilities. There is no longer a need to configure multiple devices for video editing.

- Switchable machine control of three RS-422 equipped VCRs or three RS-232 equipped VCRs. Basic VCR functions, such as play, stop, still, fast forward, rewind and record are controlled through these interfaces. Variable speed control is also possible for VCRs equipped with Dynamic Tracking.
- Accepts time code, control track (CTL), and 8mm time code as editing references. These can be set separately for each VCR.
- Performs assemble and insert editing (Video, Audio 1, Audio 2). The first EDIT mode, which allows you to record sufficient time-code for synchronization to a new tape is also featured.
- Features a split audio edit function which allows setting of audio and video in-points separately. This permits you to bring in the audio source before a visual transition.
- Store up to 99 scenes, including effects settings, in memory.
- Edit list data can be saved and downloaded to an IBM-compatible PC, allowing you to review or modify edit data at any time.
- The FXE-100 has two program busses, the A- and B-bus. Each bus provides Player 1, Player 2, Aux inputs and Background Color. Both composite and S-Video signals can be input.
- Taking advantage of the freeze function, two machine editing with effect transitions is realized by freezing the recorder OUT point picture. Also, by selecting the same video source in both A and B bus, wipe or mix In/Out of the digital effects is possible without picture transition. This "Self A Roll" function is another feature which allows effective two machine video editing.

SWITCHER AND SPECIAL EFFECTS GENERATOR

- Multiple wipe patterns, including picture scroll and slides, are programmed in. Wipe patterns are easily accessed, and transition rates can be set. Soft edges or a choice of 15 color borders can be added to most wipes and effects.
- Variety of mix effects, such as mosaic mix, black and white mix, posterization mix and picture-in-picture (PIP). Also fade to black and fade to white effects.
- Digital effects, such as mosaic, paint, pixel trail, multi-picture, monochrome, and zoom. Picture freeze function is also featured in frame or field mode.
- Because all the special effects can be set separately to the video sources of each bus, wipes or dissolves of the sources with the digital effects can be executed. It is also possible to combine multiple effects to create stunning images, such as wiping the multi-picture effect with the paint effect and dissolving color corrected picture with mosaic effects.

ADJUSTABLE TRANSITIONS

Transitions are done using the fade lever, or they can be automatically set. Transition time can be set from 0 to 999 frames. Transition can also be paused and reversed. Other parameters such as GPI timing, wipe selection and pre-roll time can be set.

CHROMA KEYER

The FXE-100 features chroma and luminance keyers to superimpose characters, figures, or video sources onto a background. Clip and gain levels can be adjusted to give clean and sharp key edges. Color correction is done via the joystick for both busses with memory to hold a favorite setting for storage and recall.

WIPE CONTROL

By moving the location stick, you can move the closed wipe patterns such as square, circle and heart, around the screen. This function also enables you to start the wipe transition from any desired position on the screen.

AUDIO MIXING

Audio-follow-video editing can be performed with the FXE-100. Two channels are assigned to each player VCR's input and one channel for the recorder VCR's input. Two channels of AUX inputs and a MIC input are available for mixing background music with voice-over. All audio input levels can be adjusted separately. Two Program output channels and one monitor channel are provided. A switch for -7.5dB and +4.0 dB is provided for flexibility in choosing input levels for VCRs with either RCA or XLR connectors.

USER FRIENDLY OPERATION

- Permits one monitor operation. No need for multiple monitors. Various editing data, such as edit mode and time code address of each VCR, can be monitored on the same screen.

VERSATILE SYSTEM INTEGRATION

- No need to configure multiple devices. By simply connecting three VCRs, a professional video editing system is formed.
- Two frame synchronizers allow perfectly synchronized wipes and dissolves without time base correctors.
- Equipped with two GPIs for control of external devices, such as character generators and audio mixers. Also has a GPI input, allowing it to be controlled from an external edit controller.
- Has four black burst outputs to distribute internally generated sync signal, synchronizing connected devices. There is no need for an external sync generator.

SONY

DFS-300 DME Switcher

The world of video has changed, simple wipes and transitions are no longer the norm. Today, both the video producer and the client expect a blend of dazzling special effects and sophistication. Many desktop systems can deliver these elaborate visuals, but sacrifice ease of use and dependability. The DFS-300 has both desktop versatility and hardware reliability. It features basic transitions such as wipes and mixes, as well as complex DMEs, or digital multi effects. The DFS-300 allows you to insert sophisticated patterns like picture-in-picture, mosaic, mirror, slide and matrix wipe designs. And with the optional BKDF-301 3D Effects board installed, you can perform three dimensional rotations, page turns, image twists, multi-splits and 3D spherical effects—in real time No sitting around waiting for loading or rendering. With it's digital multi-effects, numerous keying options, 3D transitions and user-friendliness, the DFS-300 is in a league of its own.

POWERFUL MULTIPLE EFFECTS

Up to 500 Effects

- There are 330 factory preset 2D effects and wipes stored in the DFS-300 for immediate use. These include wipe, compression, rotation, slide, split, mirror, stream, etc. as standard.
- With the optional BDKF-301 3D board installed, 130 additional preset effects such as twist, page turn, sphere, etc. can be memorized and recalled whenever required.

Powerful User Program

- The DFS-300 provides powerful, yet easy to operate effects programming using the positioner and other controls to build your own effects. Cut, mix, wipe, slide, rotation and many other 2D effects and optional 3D linear and digital effects such as page turn, roll and sphere can be created with the unit's programming function. Up to 20 created effects can be stored for instant recall and that is doubled when the 3D board is installed.

Effects Modification

- To suit individual tastes in creative program production, effects modification is provided for some of the preset effects such as mosaic, posterization, solarization, wave, multi-picture, strobe, frosted glass, cinema mode, etc.
- Fine control over various parameters such as size, density and amplitude further enhances effects editing.

Transitions

- 111 of the most frequently used wipes are available from the preset patterns and 13 of them are directly accessed with a press of the keypad.
- Mixes, wipes, as well as digital effects transitions can be performed manually or automatically with the fader lever. The automatic transitions can be varied from 0 to 999 frames in duration for both foreground and background bus transitions and the Downstream Key transitions.

HIGH PERFORMANCE SWITCHER

Multi-Format Inputs/Outputs

Has four primary video inputs. The first three accept composite, S-video and component signals. The fourth input accepts either component, R/G/B/Sync or a computer generated RGB signal. Independent color correction can be applied to any of the four inputs. There are two program outputs that likewise provide composite, S-video and component signals.

Built-in Matte Generator

Most digital video switchers have only one built-in matte color generator. The DFS-300 has three matte generators for backgrounds, which can be a solid color or one of 31 different textured patterns, border matte and effect matte signals. Also instantly-selectable color bars, grid pattern and solid black. With the optional BKDF-504 Downstream Key installed, you get two more independent matte generators for Downstream Key (DSK matte) and border colors (DSK border matte) with independent adjustment of luminance, saturation and hue parameters.

Luminance Keyer

- Foreground sources such as titles, captions or figures can be self-keyed over a background source and rotated, compressed and positioned optionally in 3D space.
- Any of the preset effects can be applied to the keyed picture.
- External key input also provided to accept a key source signal.
- A box mask is provided for masking an unwanted portion of the foreground picture.

Chroma Keyer

- Superimpose video from a foreground source onto a background source.
- Clip and Hue can be controlled for clear and sharp key edges.
- Any preset effect can be applied to the chroma keyed picture.

Optional Down Stream Keyer

- An optional 8-bit linear DSK (Down Stream Keyer), the BDKF-504 lets you introduce captions, characters, etc. with clear edge quality, after mix/effects processing.
- DSK key input accepts composite, component or RGB signals
- Position and type of the DSK are selectable and a box mask is provided to mask unwanted areas of the picture.

Snapshot Function

The DFS-300 can store up to 99 control panel settings in it's "Snapshot" memory for instant recall of a specific combination of effects and parameter settings. Every parameter such as background color hue, border width, shadow density, etc. can be stored and recalled at any time.

Built-in Color Corrector

For white balance adjustment or to give some special tonal effect, color correction of foreground or background sources can be applied. Hue, offset and chroma gain of the selected signal can be controlled independently.

Other Features

- Four different title modes offer the ability to perform key effects suchas luminance key, chroma key external key or downstream key from a variety of input sources.
- Equipped withthree black-burst outputs to provide synchronization to VCRs, cameras and other equipmenta requiring sync signals. A genlock input allows the DFS-300 to be synchronized to an external timing source.
- When used with a compatible editing controller, the DFS-300 allows two-machine editing with effects. In a simple A-roll system, effects such as a color background or external titles can be keyed in during editing.

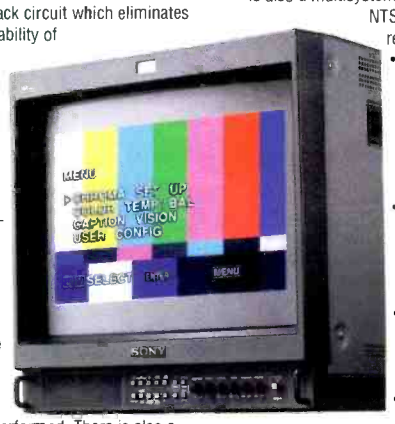
SONY

COLOR MONITORS

PVM-1350

13˝ Presentation Monitor

- Employs a P-22 phosphor fine pitch CRT to deliver stunning horizontal resolution of 450 horizontal lines.
- Equipped with beam current feedback circuit which eliminates white balance drift for long term stability of color balance.
- Has analog RGB, S-video and two composite video (BNC) inputs as well as 4 audio inputs.
- Automatic Chroma/Phase setup mode facilitates the complex, delicate procedure of monitor adjustment. Using broadcast standard color bars as a reference, this function automatically calibrates chroma and phase.
- Chroma/Phase adjustments can also be easily performed with the monochrome Blue Only display. In Blue Only mode video noise can be precisely evaluated.
- Factory set to broadcast standard 6500K color temperature
- On power up, auto deguassing is performed. There is also a manual degauss to demagnetize the screen.
- Provides an on-screen menu to facilitate adjustment/operation on the monitor. The on-screen menu display can be selected in English, French, German, Spanish or Italian.
- Sub control mode allows fine adjustments to be made on the knob control for contrast, brightness, chroma and phase. The desired level can be set to the click position at the center allowing for multiple monitors to all be controlled at the same reference level.



PVM-1351Q

13˝ Production Monitor

Has all the features of the PVM-1350 *PLUS* -

- Is also a multisystem monitor. It accepts NTSC, PAL and NTSC video signals. NTSC 4.43 can also be reproduced.
- Equipped with a SMPTE 259M Serial Digital Interface. By inserting the optional serial digital interface kit BKM-101C for video and the BKM-102 for audio the PVM-1351Q can accept SMPTE 259M component serial digital signals.
- Equipped with RS-422 serial interface. With optional BKM-103 serial remote control kit all of the monitor's functions can be remotely controlled with greater confidence and precision.
- Equipped with input terminals such as component (Y/R-Y/B-Y), analog RGB, S-video, 2 composite video (BNC) & 4 audio terminals for complete flexibility.
- Aspect ratio is switchable between 4:3 and 16:9 simply by pressing a button.
- Underscan and H/V delay capability. With underscan, entire active picture area is displayed. Allows you to view entire image and check the picture edges. H/V delay allows viewing of the blanking area & sync/burst timing by displaying the horizontal and vertical intervals in the center of the screen.
- Color temperature switchable between 6500K/9300K/User preset. 6500K is factory preset. 9300K is for a more pleasing picture. User preset is 3200K to 10,000K.

PVM-1354Q/PVM-1954Q

13˝ and 19˝ Production Monitors

All the features of the PVM-1351Q *PLUS:*

- SMPTE C standard phosphor CRT is incorporated in the PVM-1354Q/1954Q. SMPTE C phosphors permit the most critical evaluation of any color subject. Provides over 600 lines of horizontal resolution.
- The PVM-1354Q mounts into a 19-inch EIA standard rack with the optional MB-502B rack mount bracket and SLR-102 slide rail kit same as PVM-1351Q. The PVM-1954Q mounts into a 19-inch EIA rack with the optional SLR-103 slide rail kit.

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NRG

POWER BELT SERIES

NRG power belts are the ultimate power solution. They provide the power to run lights, camcorders and decks without the fear of shutdown. Advanced high-density nicad power cells provide the lightest weight and longest service life of any power products made. Innovative features such as dual power outputs, power indicator, removable packs, plus accessories like high-speed chargers, solar panels and high-current cables combine to form the complete power solutions for any kind of users.

880 Power-Pro +

- High capacity quick-charge capable 12-volt 10-amp sintered nicad power pack (removable).
- Power chassis with dual 3-pin XLR inputs allows for pack interchange without shutdown.
- 2500-cycle cell life provides lowest cost per cycle.
- Microprocessor-controlled 5-step multi-color power indicator display.
- Belt with cellpack weighs only 4.9 lbs for all day comfort.
- Dual outputs allows simultaneous powering of two devices (eg. camera and light). Output configurations include cigarette lighter and 4-pin XLR in any combination.
- Charge in under 2 hours with the optional 650-III charger.
- Includes Power-Pro+ belt and power chassis, 12-volt 10-amp cell pack, model 600 overnight charger and comprehensive owner's manual. Fits waist size 30"- 40". (Available in large size 40"-52" if needed).

970 Power-MAX

Same features as 880 Power-Pro + Belt ***Plus–***

- Highest capacity quick-charge capable 12 Volt 14-AMP sintered nicad power pack (removable).
- Rugged high-grade, black leather belt case; chassis assembly with dual 3-pin XLR inputs for pack interchange without shutdown.
- Belt with cellpack weighs a comfortable 7.5 lbs.
- Includes Power-MAX belt and power chassis, 14-amp cell pack in 12V or 13.2 volt configuration, model 600 overnight charger, comprehensive owner's manual. Fits waist size 29"-44".
- Also available in 13.2-Volt 14-amp version. The 13.2-Volt version offers 15-20% longer runtimes because industrial VCRs shut off at higher voltage levels.By not shutting off the Power-MAX is allowed to fully discharge, thus the longer running time.

VARA-LITE PRO

Professional DC On-Camera Light

The revolutionary new NRG Vara-Lite Pro combines the ruggedness, light efficiency and versatility of NRG's best selling Versalight Pro (DC only) with a sophisticated electronic light management system. Thanks to on-board control IC's using NRG's Light-Gate technology, light intensity can be infinitely adjusted by the user within a range of 10% to 100% of the lamp's rated power. Now instantly adjust light output to exactly meet changing light requirements. Best of all, the Vara-Light Pro virtually eliminates color shift and dramatically conserves precious battery power by using only the power required for the selected light level.

- Accomodates bulbs from 20W to 100W DC.
- Prismatic dispersion grid provides smooth even light ouput and reduced glare without changing light intensity.
- Sturdy all-metal click tilt mounting bracket with ratchet action. Eliminates shake under action shooting conditions.
- Optional barn doors enhance light control capabilities.
- Front retainer assembly pops off for instant bulb access without the bother of screws.
- Rugged milled aluminum light head disperses heat and provides years of service under adverse conditions.

POWER STATION-2 SERIES

Just plug the PowerStation-2 into any AC outlet in the world and out comes perfectly regulated 12-volt DC power through four 4-pin XLR connectors and one cigarette lighter connector. It uses an advanced pulse-width-modulated power supply which allows for ultra-light weight and small size. It operates with little heat even at full output. The PowerStation-2 is the ultimate multiple-output professional power source for cameras, decks, lights, monitors, and a host of other video accessories.

- 85-264 volts worldwide auto-adjusting input (just plug in).
- Supply is fully protected from overcurrent.
- Ultra-light weight - under 3 lb.
- Outstanding 300,000 hour mean time between failure is far in excess of any other manufacturer.
- Ultra-efficient PWM regulation generates far less heat than linear type supplies.
- Provides the ultimate in performance and reliability in a universally compatible and compact package.

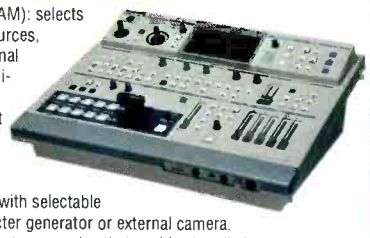
Panasonic

AG-DS540/AG-DS550

Professional S-VHS Source Player/ S-VHS Edit Recorder

- 3-dimensional digital TBC with a correction range of one field. With the VCRs continuously retaining one field in memory, the data is used for 3-D type processing thereby providing excellent dropout compensation.
- Digital Signal Processing for improved picture quality, and for maintaining uniform picture quality during editing. Digital processing circuits include:
  —Chroma Aperture Compensation (CAC): Eliminates color blurring and expands chroma bandwidth.
  —Digital Noise Reduction (DNR): Processes Y & C signals separately to boost S/N Ratio by minimizing noise during playback.
  —Digital Comb Filter: Advanced 3-dimensional system for total Y/C separation providing reduced color and luminance blurring.
- Employs amorphous video heads that have a higher magnetic coercivity than conventional ferrite heads. Expanded frequency response from the amorphous heads enhances picture quality by minimizing color blurring.
- Built-in LTC/VITC (Longitudinal/Vertical Interval) time code reader/generators for absolute frame accurate editing.
- IQ (Intelligent Quest) mechanism delivers precise, high-speed operation. The dual-loading system achieves high-speed response while protecting tapes and heads. The tape transport mechanism uses five direct drive motors, including two reel drive motors.
- Performs audio split editing which lets you set the edit-in and edit-out points separately from those for video.
- Capstan Control System with large capstan spindle allows high-speed search at 32x normal speed (with color picture).
- 4 channel audio – 2 hi-fi stereo channels with dynamic range of 90dB as well as 2 linear channels with Dolby NR. Each audio channel has its own input (AG-D550 only) and output with individual channel-level setting capability and use XLR connectors.
- Provide 16:9 wide aspect compatibility, so they are fully equipped for the next generation of televisions.

WJ-MX50 Digital A/V Mixer



- Four input switcher and any two sources can be routed to the program busses
- Two-channel digital frame synchronization permits special effects in each A/B bus.
- Combination of 7 basic patterns and other effects creates 287 wipe patterns.
- External edit control input for RS-232 or RS-422 serial controls. Also has GPI input.
- Wipe boundary effects: soft/border (bold, 8 background colors available)
- Digital effects: strobe, still, mosaic, negative/ positive, paint, monochrome, strobe, trail, and AV synchro
- Real-Time compression - entire source image is compressed inside a wipe pattern
- "Scene Grabber" – move a pattern, upholding the initially trimmed-in picture integrity.
- Non Additive Mix (NAM): selects between A and B sources, passing only the signal with the highest luminance value.
- Fade-in and fade-out video, audio, titles individually or synchronously faded.
- Down stream keyer with selectable sources from character generator or external camera.
- Incorporates 8 separate memories that enable virtually instant recall of frequently used effects
- 8 preset effects include: Mosaic Mix, Position Stream, Corkscrew, Bounce, Flip, Shutter, Vibrate, and Satellite.
- Audio mixing capability of 5 sources with 5 audio level adjustments.

TASCAM

DA-88 Digital Multi-Track Recorder

The first thing you notice about the eight channel DA-88 is the size of the cassette - it's a small Hi-8mm video cassette. You'll also notice the recording time - up to 120 minutes. These are just 2 of the advantages of the DA-88's innovative use of 8mm technology.

- The ATF system ensures that there will be no tracking errors or loss of synchronization. The DA-88 doesn't even have (or need) a tracking adjustment. All eight tracks of audio are perfectly synchronized. What's more, this system guarantees perfect tracking and synchronization between all audio tracks on all cascaded decks - whether you have one deck or sixteen (up to 128 tracks!).
- Incoming audio is digitized by the on-board 16-bit D/A at either 44.1 or 48KHz .The frequency response is flat from 20Hz to 20KHz while the dynamic range exceeds 92dB.
- Execute seamless Punch-ins and Punch- outs. This feature offers programmable digital crossfades, as well as the ability to insert new material accurately into tight spots. You can even delay individual tracks, whether you want to generate special effects or compensate for poor timing.

ALESIS adat xt

8-Track Digital Audio Recorder

An incredibly affordable tool, the new ADAT-XT sets the standard in modular digital multitrack recording. With new features & enhanced capabilities, the ADAT-XT operates up to four times faster than the original ADAT, offers an intelligent software-controlled tape transport and provides onboard digital editing and flexible autolocation.

Stunning Audio:

- Incorporates ultra-high fidelity 18-bit, 128 X oversampling A/D converters which provide better-than-CD audio quality.
- For outputs, the D/A converters provide 20-bit, 8x oversampling performance for a flatter frequency spectrum, improved phase response and much less low-amplitude distortion.
- Frequency response is 20 Hz to 20kHz ±0.5dB, S/N ratio is greater than 92dB, crosstalk between channels is better than -90dB @ 1kHz.

Flexible Inputs and Outputs:

- Servo-balanced 56-pin ELCO connector operates at +4dB for interfacing with consoles with +4 dB balanced/unbalanced inputs/outputs.
- Also includes unbalanced -10dB inputs/outputs (phono connectors).
- Has an electronic patch bay built-in so it can be used with stereo and 4-bus consoles.
- Multiple Optical Digital I/O can carry up to eight tracks at once completely in the digital domain. The digital I/O combined with the ADAT Synchronization Interface make it completely compatible with any ADAT-format recorder or other devices that use Alesis' proprietary digital protocol.

Digital Editor:

- Make flawless copy/paste digital edits between machines or even within a single unit. A new Track Copy feature allows you to make a digital clone of any track (or group of tracks) and copy it to any other track (or group) on the same recorder. This allows you to assemble composite tracks for digital editing.
- Use two or more ADAT-XTs and the Tape Offset feature lets you copy and paste not only from track to track, but from location to location. Tape Offset assembles the elements of a project with a minimum of repetitive over dubbing. It changes the relative tape position of a slave XT to its master, so you can "fly" audio to different locations on each tape.
- Track Delay feature allows you to delay the time reference of a track by up to 170ms. With Track Delay, you can easily change the groove of a tune. Track Delay is individually adjustable on each channel and is excellent for fixing slight timing errors in recorded tracks (player lags behind or rushes the beat). In recordings with multiple microphones, you can time-align each track, precisely compensating for the spacing between mics with accuracy to 0.0001 seconds.

Intelligent Transport:

- Rewinds and fast-forwards up to to 4X faster than the original ADAT.
- Advanced transport software continuously monitors autolocation performance and the head constantly reads ADAT's built-in sample-accurate time code—even in fast wind modes.
- Newly developed Dynamic Braking software allows the transport to quickly wind to locate points while taking every precaution to treat the tape gently.

Onboard Autolocator with Auto Record:

- Onboard 10-point autolocate system provides quick access to multiple tape locations. Four specialized locate points make your recording sessions quicker and easier.
- Auto Play automatically enters Play the moment any autolocation point is reached, Auto Return automatically rewinds at the end of a loop.
- Auto Record function lets you automate punch-in/punch-out times that are accurate to 1/100th of a second.
- Rehearse Mode allows you to enter or exit record modes without actually laying tracks to tape.
- To record on the fly, you can even use the individual Record Enable buttons to punch in and out of tracks.
- Includes remote control with transport and locate functions, offers a footswitch jack for hands-free punch-in.

Optional Accessories:

- BRC Master Remote Control lets you command up to 128 tracks from a single location, with 460 nameable locate points, SMPTE & MIDI synchronization & extensive digital editing power.
- AI-1 Digital Interface offers sample rate and digital format conversion between the ADAT-XT's Optical Digital Interface and AES/EBU and S/PDIF formats.
- AI-2 Synchronization Interface allows synchronization to video and film. The AI-2 offers compatibility with video recorders and editing systems (including TimeLine's Lynx-2 system) and can issue MIDI Time Code and translate MIDI Machine Control commands to the ADAT-XT.

anton bauer

Logic Series DIGITAL Gold Mount Batteries

The Logic Series DIGITAL batteries are acknowledged to be the most advanced in the rechargeable battery industry. In addition to the comprehensive sensors integral to all Logic Series batteries, each DIGITAL battery has a built-in microprocessor that communicates directly with Anton/Bauer InterActive chargers, creating significant new benchmarks for reliability, performance, and life. They also complete the communications network between battery, charger and camera. With the network in place, DIGITAL batteries deliver the feature most requested by cameramen: a reliable and accurate indication of remaining battery power.

DIGITAL PRO PACS

The Digital Pro Pac is the ultimate professional video battery and is recommended for all applications. The premium heavy duty Pro Pac cell is designed to deliver long life and high performance even under high current loads and adverse conditions. The size and weight of the Pro Pac creates perfect shoulder balance with all camcorders.

- **DIGITAL PRO PAC 14 LOGIC SERIES NICAD BATTERY**
  14.4v 60 Watt Hours. 5 1/8 lbs.
  Run time: 2 hours @ 27 watts, 3 hrs. @ 18 watts
- **DIGITAL PRO PAC 13 LOGIC SERIES NICAD BATTERY**
  13.2v 55 Watt Hours. 4 3/4 lbs.
  Run time: 2 hours @ 25 watts, 3 hours @ 17 watts

DIGITAL TRIMPAC

Extremely small and light weight (almost half the size and weight of a Digital Pro Pac), the powerful Digital Trimpac still has more effective energy than two NP style slide-in batteries. High voltage design and Logic Series technology eliminate all the problems that cripple conventional 12 vold slide-in type batteries. The Digital Trimpac is the professional choice for applications drawing less than 24 watts. Not recommended when using an Ultralight.

- **DIGITAL TRIMPAC 14 LOGIC SERIES NICAD BATTERY**
  14.4 v 43 Watt Hours. 2 3/4 lbs.
  Run time: 2 hours @ 20 watts, 3 hours @ 13 watts.
- **DIGITAL TRIMPAC 13 LOGIC SERIES NICAD BATTERY**
  13.2v 40 Watt Hours. 2 1/2 lbs.
  Run time: 2 hours @ 18 watts, 3 hours @ 12 watts.

GOLD MOUNT BATTERIES

The Logic Series Gold Mount batteries are virtually identical to their respective DIGITAL versions (above) with respect to size, weight, capacity, IMPAC case construction, and application. They are similarly equipped with micro-code logic circuits and comprehensive ACS sensors that communicate directly with all Logic Series chargers, providing the essential data critical for optimum performance, reliability and long life. They do not, however, include DIGITAL microprocessor features such as the integral diagnostic program "Fuel Computer", LCD/LED display and InterActive viewfinder fuel gauge circuit.

- **PRO PAC 14 NICAD BATTERY** (14.4v 60 Watt Hours)
- **PRO PAC 13 NICAD BATTERY** (13.2 v 55 Watt Hours)
- **TRIMPAC 14 NICAD BATTERY** (14.4v 40 Watt Hours)
- **TRIMPAC 13 NICAD BATTERY** (13.2 v 36 Watt Hours)
- **COMPAC 14 NICAD BATTERY** (14.4v 40 Watt Hours)
- **COMPAC 13 NICAD BATTERY**(13.2v 36 Watt Hours)

MP-4D DIGITAL FAST CHARGER w/LCD and DIAGNOSTIC PORT

The most advanced and versatile Anton/Bauer charger. In addition to features such as four-position one-hour sequencing fast charge, five fast charge termination systems, it also has:

- SSP (Selective Sequence Programming) which automatically arranges the charging order among the 4 batteries to assure fully charged batteries in the shortest time possible.
- Multifunction LCD checks each of the four battery positions and indicates charge status, available capacity, battery type/rating, percent of maximum charge, battery serial number, date of manufacture, accumulated charge/discharge cycles and other data.

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EQUIPMENT LEASING AVAILABLE

B&H PHOTO - VIDEO - PRO AUDIO

DIGITAL PROCESSING SYSTEMS INC.

PVR-2500 Digital Video Recorder

The PVR-2500 offers powerful features for awesome animation, morphing and rotoscoping capabilities. With features like 720 x 480 resolution, 10-bit 2x oversampled video encoding, better than D1 scaling, component and S-Video outputs, multi-processor support and integrated FAST SCSI-2 controller, it empowers your computer to rival the finest professional production studios.

- The PVR-2500 is a full-length PCI card with a SCSI-2 interface that connects up to seven dedicated hard drives. Because the SCSI controller is integrated with the PVR-2500, video data never has to move over the PCI bus during playback. This avoids the bottlenecks found in systems which use the computer's hard drive for video storage.
- Designed to run under Windows NT 3.51 on computers employing Pentium, DEC ALPHA or MIPS processors. Perception's software utilizes NT 3.51's native support for multitasking and multiple processors, allowing use with-in the most powerful computers.
- Perception's multi-format virtual file system ensures complete integration with your existing Windows NT applications. Any acquired video or computer generated Perception video clips appear simultaneously in many different file formats including TARGA, SGI, BMP and TIFF. Also compatible with new NT versions of Lightwave 3D, 3D Studio, TOPAS 5.1, SoftImage and Elastic Reality.
- Video output section utilizes 10-bit 2x oversampled encoding and provides broadcast quality CCIR-601 (720 x480) resolution. Its dynamic range is in excess of D1 scaling so that images are brighter, have more color and greater spatial resolution. Outputs component, composite and S-Video via the included breakout cables.
- Use with any compatible sound card while synchronization of audio and video is maintained by the PVR software. Captured audio is stored on the computer's system hard drive, not on the dedicated drives. This approach provides maximum flexibility for manipulating audio and video during editing.
- Can perform real-time interpolation of 30 fps video to 24 fps film rates or vica versa.
- VCR-like controls on the Perception's GUI simplifies the task of batch digitizing and recording. In this mode, it reads SMPTE time code from the source deck.
- Drivers for Windows 3.1 are supplied as well, so third party editing software like Adobe Premier can be used. In fact, the PVR-2500 bundled with the AD-2500 capture card, a sound card, editing software and one or more SCSI hard drives becomes a non-linear editor of unparalled performance at an unbeatable price.

AD-2500 CAPTURE CARD

- The optional AD-2500 is a video capture daughtercard, that transforms the Perception into a digital video recorder. It has component, composite and S-Video inputs for real-time recording, and storage capacity is limited only by the size and number of your hard drives. Captured video can also be exported as sequential RGB files for rotoscoping and other compositing applications.
- The AD-2500 incorporates a sophisticated automatic entropy prediction circuit that analyzes the content of incoming video and dynamically calculates the optimum amount of compression on a field-by-field basis—even during real-time recording. You also have complete manual control over compression level/quality settings.

TRUEVISION TARGA1000/2000

PCI-based Digital Video Capture Boards for Windows

The TARGA 1000 and 2000 is an easy and affordable way to transform your computer into a powerful digital editing system. Along with their high-speed PCI interface, both the TARGA 1000/2000 incorporate all the functions you need to create spectacular multimedia content. They support NTSC and PAL video standards and let you capture, edit and playback full-motion, full-resolution digital video with fully sychronized CD or DAT quality audio. Designed for high performance IBM compatibles, their advanced architecture provides incredible processing speed for video and audio effects, titling and compositing capabilities.

- Allows recording and playback of video directly to/from hard drive at full motion, full frame rates (50 fields/sec - PAL, 60 fields/sec-NTSC). Video is stored and played back at the highest resolution for each format (768 x 576 x 24 bit - PAL, 640 x 480 x 24 bit - NTSC). Compression can be adjusted on the fly to optimize for image quality and/or minimum storage space.
- Genlock using separate sync input for working in professional video suites
- Equipped with composite and S-video inputs and outputs. Also available with component input/output (TARGA 1000 PRO).
- The audio is digitized at 16-bit resolution (at 44.1KHz or 48KHz sampling rates), yielding professional quality stereo sound. Since all audio and video processing is done by onboard DSPs, you are assured of perfectly synchronized sound and images.
- Optimized to work with Winsows NT-based software (Adobe Premiere 4.2, in:sync Speed-Razor MACH III)

TARGA 2000 Additional Features:

- Equipped with composite and S-video inputs/outputs Also available with component input/output (TARGA 2000 PRO).
- Accelerated Windows 3.11 and Windows NT display drivers offer integrated, true-color (24-bit), non-interlaced desktop up to 1152 x 870 pixels.
- Provides a large work area for displaying video, as well as editing application controls. Any part of the display (or even the whole image) can be recorded to tape (video-out-of-a-window).
- View your desktop and video-in-a-window on your non-interlaced high resolution desktop display while the processed video is output at NTSC or PAL resolutions to a video monitor and/or a VCR.

Turnkey TARGA 1000/2000 and PVR-2500 Perception Systems:

• Video capture board (specify) • 220-watt, 6-bay midtower case • PCI motherboard with 256K pipelined burst cache • Pentium 133 MHz processor • Diamond Stealth64 Video 2MB VRAM PCI display card • 32MB of EDO (Extended Data Out) RAM • Quantum 1.28GB IDE system drive • Seagate (Barracuda) 4.2GB SCSI-2 FAST/Wide hard drive • Adaptec AHA-2940UW FAST/Wide SCSI-2 controller card • 3.5" floppy drive • Teac CD-56e 6X EIDE internal CD-ROM drive • Altec-Lansing 300.1 three-piece deluxe speaker system • Princeton Ultra 17+high resolution 17-inch multiscan monitor • Focus 2001A keyboard • Microsoft MS mouse • MS-DOS 6.22 and Windows 3.11 or Windows NT 3.51 operating system software.

***PVR-2500/AD-2500 Windows System with Adobe Premiere 4.2**	**$7295**
***PVR-2500/AD-2500 Windows NT System with in:sync Speed-Razor MACH III**	**$8495**
TARGA 1000 Windows System with Adobe Premiere 4.2	**$7795**
TARGA 1000 PRO Windows System with Adobe Premiere 4.2	**$8295**
TARGA 1000 Windows NT System with in:sync Speed-Razor MACH III	**$8795**
TARGA 1000 PRO Windows NT System with in:sync Speed-Razor MACH III	**$9150**
TARGA 2000 Windows NT System with AVID Real Impact	**$11,250**
TARGA 2000 Windows NT System with in:sync Speed-Razor MACH III	**$11,250**
TARGA 2000 PRO Windows NT System with in:sync Speed-Razor MACH III	**$12,000**

*PVR-2500 System Notes: 1) Does not include Adaptec SCSI-2 controller card (has built-in SCSI-2 port)
2) Includes Seagate Barracuda 4.2GB Narrow hard drive (doesn't accept Wide drives)
3) Includes Stealth64 Video 2MB DRAM PCI display card (Add $100 for 2MB VRAM card)
4) Requires sound card (DSP-equipped card preferably)–see "Expansions and Upgrades"

Expansions and Upgrades for all Systems:

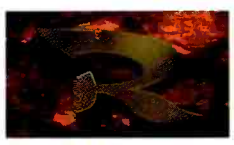
Substitutions

Full Tower Case (10-bay)	add **100.00**	Super Tower Case (12-bay)	add **200.00**
Pentium 150 MHz processor	add **150.00**	166 MHz processor	add **400.00**
Seagate Elite 9.1GB Narrow drive (for PVR-2500)	add **1000.00**	Seagate Elite 9.1GB Wide drive	add **1000.00**
Matrox Millenium 4MB VRAM PCI Display Card	add **250.00**	Matrox Millenium 8MB VRAM PCI Display Card	add **400.00**
MAG Innovision MXP-17F 17" multiscan monitor	add **225.00**	MAG MXP-21F 21-inch multiscan monitor	add **1100.00**
Altec Lansing ACS-500 three-piece surround sound stereo system			add **140.00**

Add-Ons

APC Smart Ups 650 power backup	**349.00**	Conner 4GB QIC/ Wide tape backup IDE/SCSI	**439.00**
Ensoniq SoundScape Elite DSP-equipped 16-bit audio card (for PVR-2500 systems only)			**199.00**
MediaTrix Audio Trix Pro DSP-equipped 16-bit audio card (for PVR-2500 systems only)			**279.00**
Elastic Reality for Windows/Windows NT (includes Transjammer-30 transitions)			**349.00**
Transjammer Vol 1 (with 100 transitions)			**89.00**

in:sync SPEED RAZOR MACH III



Digital Video Editor for Windows NT

The ultimate digital video editing software, Speed-Razor MACH III allows you to edit full screen, 60 fields per second, CCIR 601 broadcast-quality video. Designed for the DPS PAR DR-2100/ Perception PVR-2500 and Truevision's TARGA 1000/2000 video capture cards, Speed-Razor MACH III is the fastest and most powerful tool for editing and compositing video clips, animations, stills, music and sound effects. Experience straight cut editing in real time and effects which fly on the fastest machines out there: Alpha,Intel, MIPs-based and PowerPC-based workstations, making this the fastest, most flexible software you've ever seen. Running under Windows NT, it offers three times faster than Windows 3.1 on the same machine and up to ten faster when used on Alpha-based systems.

Speed-Razor features infinite video, audio, transition and effects tracks and comes with Razor Blades—transitions and effects to enhance your production. There are preset tumbles, fades and wipes which you can easily customize and save as new presets. In addition, there are special image effects which are unquestionably the highest quality of any system—analog or digital. Speed-Razor sports anti-aliased 3D DVEs, an infinite channel chroma keyer and an excellent character generator. Use the effects or transitions which come with the package, layer them to create new ones, make your own grayscale bitmaps to use as transitions, or use third party plug-in effects—the flexibility is yours.

EDITING FEATURES:

- Real-time straight cut editing (this does NOT require a new file to be made and requires less space onthe hard drive to edit)
- The only video editor with the ability to cut to the field
- Work in Thumbnail or Final Output resolution mode (you set the resolution for each)

COMPOSITING:

- Infinite number of layers of video clips, still and animations can be composited together
- Handles any resolution from Betacam (720 X 480) up to Omnimax film (4000 X 4000)
- Video clips can be combined using an alpha channel, key color transparency, still or traviling mattes

FILE FORMATS:

- Reads and writes ANI files (created by DPS' PAR), PVD files (Perception), DVM files (TARGA 1000 and 2000) and sequences of TARGA files
- Convert files between any of the following formats: ANI, PVD, DVM, AVI, BMP, TGA, FLC, FLI, WAV
- Project-based Library for organizing your work

There are two user definable resolution modes (thumbnail and final) to facilitate editing. The thumbnail mode allows you to use Speed Razor in the field on a laptop computer then transfer the project file back at the edit suite and automatically recapture and re-render the entire project at final resolution. Speed-Razor also features RS-422 control and even does batch capture (new batch capture module allows you to automate video capture via SMPTE time code), so digitizing video and audio is simple and painless. In fact, with the innovative "Virtual Editing" function you can actually edit your project, complete with effects and transitions—before you've digitized a single frame of video.

AUDIO:

- Handles audio up to DAT (48 kHz) quality
- Infinite number of audio tracks for multi-layer audio mixing

EFFECTS:

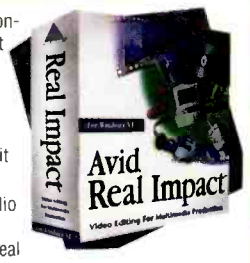
- Blur (circular, gaussian, fast), tint, brightness adjustment, chroma key, crop, displacement, emboss, freeze frame, glass texture, greyscale, invert, loop, matte, pixelate, repeat fields, scale, transparency, strobe, turn red/green/blue
- 3D DVE (translates and/or rotates an image in three dimensions on the X, Y and Z axis)
- Sets a color channel to an assignable value)
- Titles (full blown CG using any Windows font in any color with automatic drop shadow)
- Sub-pixel rendering for incredibly smooth motion
- Effects can be applied to infinite sources

TRANSITIONS:

- Includes over 100 grayscale image transitions, crossfades, luminance fades, fade to/from black, fade to/from white, push, twirl, twist in/out tumbles, flip, turn, scale (zoom)
- Transitions can be applied between infinite inputs.

Real Impact

Windows NT-based Video Editor for TARGA 1000 and 2000



With the introduction of Real Impact, Avid provides Windows users with the same professional image quality, intuitive cut/copy/paste editing, and instant random access capabilities that have won 2 Emmy awards—for thousands of dollars less than outsourcing an average video. Designed exclusively for Truevision's TARGA 2000, Real Impact lets you create professional-quality video with audio, graphics, animations, special effects and titles—with the speed, flexibility and creative freedom you need. Create sales, training and product videos right on your PC quickly and easily—without compromising quality. Produce video in 24-bit color, with CD-quality sound and perfect lip sync.

Easy to Use: A true 32-bit application (Windows NT 3.51), Real Impact's intuitive interface and extensive on-line help get you productive right away. It's powerful editing features let you work with video, audio, graphics, animations and titles with the simplicity of cut, copy and paste.

Video Capture: Digitize video and audio—without dropping a frame. Your video is full-screen, full-motion, 60 fields-per-second and your audio in sync. With its Dial-a-Quality image feature, Real Impact allows you to adjust image quality for differing system, storage & delivery requirements.

Create a Storyboard: Extensive media management with built-in media library and database let you easily find the video and audio clips that you want. Instant access makes previewing edits simple and immediate. And, with timeline editing, you just click and drag to experiment with different cuts, rearrange clips and assemble your story. There are 32 levels of undo/redo.

Add Graphics, Titles and Special Effects: Create and seamlessly incorporate audio, graphics and animations into your video using popular Windows-based applications. Real Impact supports AVI video files, WAV audio files, FLC animation files as well as BMP, JPEG, PCX, TGA and TIFF graphics files.

Add Audio: Polish your audio with music and narration. Adjust pan and volume in real time. Simultaneous playback of four audio tracks makes audio editing quick and easy. View your four audio tracks in sync with the video immediately, no waiting for tracks to compile.

Digital Media Interchange: Compatible with the Open Media Framework (OMF) Interchange, a file format for the seamless integration of digital data among applications and across platforms. Through OMF, you can import video and audio files from other OMF-compatible applications like Avid's Media Composer.

Output to Tape, CD-ROM or Over a Network: Gives complete control over video distribution. There's no long rendering process, creating professional quality tape is a snap. Embedding video in multimedia presentations for distribution on disk or CD-ROM is as simple as the click of a mouse. Supports third-party MPEG tools to create MPEG files for network distribution.

Avid's Support Advantage: Real Impact is backed by Avid's world-class customer service. Toll-free telephone support and bulletin board service are just some of the benefits.

FEATURES:

Video

- Real-time JPEG compression / decompression and playback at 60 fields per second
- Supports RS-422 control protocol and SMPTE time code.
- Edit two tracks of video for layered effects.

Audio

- Edit up to four tracks of 44.1 KHz, 16-bit CD-quality audio.
- Real-time pan and volume adjustments, digital audio scrub.
- Waveform for precise audio editing.

Import/Export

- AVI video files, WAV audio files, FLC animation files.
- OMF Interchange files.
- BMP, JPEG, PCX, TGA and TIFF graphics files.

Special Effects

- Filter effects with previews and adjustable parameters.
- Transition effects include wipes, dissolves, zooms, pushes and squeezes.
- Layered effects include picture-in-picture, luminance and chroma key.

Integrated Title Generator

- 32-bit processing (24-bit color and 8-bit alpha channel).
- Support for TrueType fonts and international character sets.
- Drop shadows, transparency and color blends.
- NTSC and PAL-safe color palettes.

Media Management

- Media library for organizing digital clips.
- Database with search capabilities.
- Customized views for easy clip access and retrieval.

A note about our turnkey systems:

In addition to the systems listed on this page, we can further customize any system to fit particular needs. We carry a large variety of 2X and 4X CD-ROM recorders (HP SureStore 4020I, Sony Spressa, FWB Hammer CD-Rs), RAID subsystems (ATTO, FWB) and portable storage devices (Iomega, Syquest) to name a few. Tell us what you need and our salespeople will custom design a system for you. And if you happen to be in NewYork, please come and . . .

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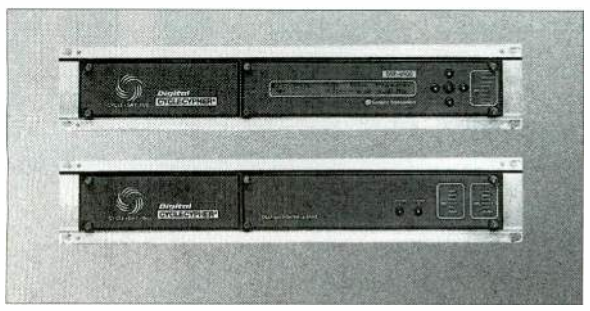

Cycle Sat: DSR-4000

As part of a $2.5 million agreement with General Instrument Corporation, **Cycle Sat** will purchase GI's DSR-4000 series digital broadcast television MPEG-2 receiver/decoders to upgrade its existing TV broadcast affiliate Cyclecypher installations throughout the United States. Cycle Sat is GI's first customer in the broadcast industry to adopt new digital technology. Cycle Sat was attracted to the DSR-4000 because of its flexibility and ability to be deployed in a short period of time, which enables the use of digital compression technology to enhance distribution capabilities.

Circle (222) on Action Card

ASC: VR-300

ASC Audio Video Corporation introduces the VR-300 virtual recorder, which features two channels of video — for simultaneous recording and playback or dual playback — and four channels of audio. By choosing their own compression rates, broadcasters can control the system's channel and storage capabilities. At 3:1 compression, for example, the VR-300 can support 24 channels and 100 hours of online storage. At higher compression ratios, the VR-300 can support 48 channels and 200 hours of online storage. Furthermore, all VR systems use RAID fault tolerance technology for protecting recorded video. Features include PCI bus architecture, 32MB memory, independent video key channel with luminance or chroma-key capability, and increased video range (0-109 IRE).

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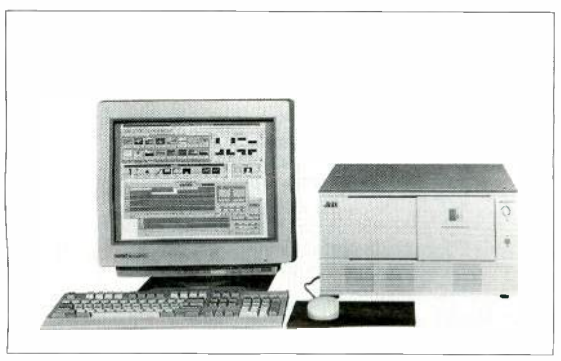


JVC: MW-S1000U

The MW-S1000U media workstation from **JVC** is a non-linear editing system, capable of producing real-time, 4:2:2 digital 2-D and 3-D effects, graphics and chroma-key. Digital or analog audio editing is also available with such advanced features as real-time audio EQ. The system can be configured as a hybrid non-linear system, especially designed to work in tandem with JVC's Digital-S, but is also compatible with other analog and digital tape formats. The MW-S1000U can be configured from input to output with either an all-serial digital, analog component, Y/C or composite video path. It uses four independent 2-D switcher/DVE channels for real-time effects, and a separate optional 3-D channel is also available. The non-linear configuration comes with an analog video I/O that connect with many analog videotape recorders. A standard M-JPEG codec can be changed to a DV codec or Digital-S codec.

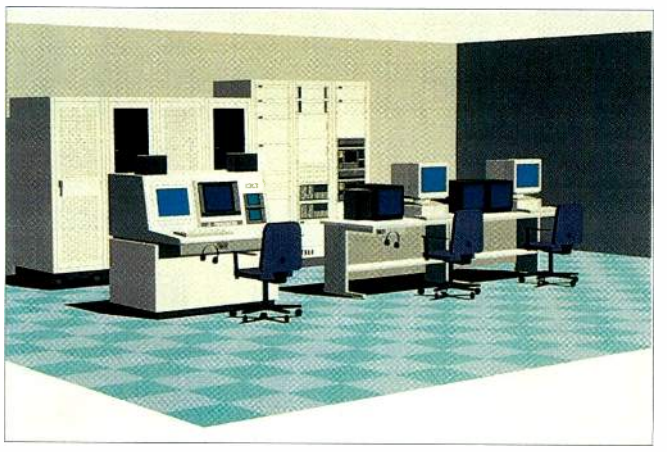
Circle (224) on Action Card

MountainGate: Stampede

The Stampede Mini Array and Stampede Ultra Array docking stations from **MountainGate** allow flexibility in removable mass storage. Committed to protecting the user's investment, the Stampede Disk Array products offer a low-cost, entry-level disk array that can be expanded into a high-performance, high-capacity RAID system as business and data storage requirements grow. MountainGate combines high capacity with flexibility to enhance the value in this family of disk arrays.

Circle (225) on Action Card

Hitachi: Video File Server



Hitachi Denshi America is introducing a video file server that uses Hitachi custom software for the handling of all commercial insertions. The server enables direct transmission of programs and commercial insertions. With the server, filing, previewing and editing can be performed during on-air operation. It uses the MPEG-2 video compression scheme and a RAID disk array for recording. The server can record from five to 30 hours, depending on options selected.

Circle (226) on Action Card

Philips: LDK 700, DCR 750

A digital camcorder and editing studio video recorder designed for the DVCPRO format are available from **Philips**. The LDK 700 camcorder features broadcast-quality video and better than CD-quality digital sound. It records images in 10-bit digital signal processing. Picture acquisition is aided by a high-resolution, 410,000-pixel FIT sensor. Other features include digital PCM audio (-85dB) and built-in SMPTE time code generator. In the studio, the DCR 750 editing studio VTR offers analog video composite/component inputs and outputs, optional 4:2:2 serial digital components inputs and outputs, and RS-422, RS-232C and parallel interfaces. A recorder/editor with digital slo-mo playback, 50x normal speed visible search and 100x normal speed fast-forward/rewind, the DCR 750 also features a built-in SMPTE time code generator reader.

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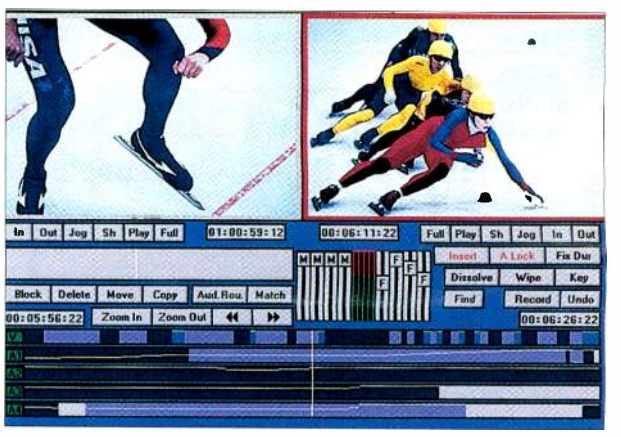
ASC: VR NLE



The VR NLE, a non-linear editing system from **ASC Audio Video Corporation**, lets multiple users edit news while accessing and sharing the same storage. Bumpers, IDs and graphics are available for users to create a rundown and modify it within seconds. After news segments, promos and commercials are dropped in the VR Playlist, they're ready to air instantly. The VR NLE works in conjunction with ASC's VRX automation system and supports multicamera productions with up to 16 source cameras. With an on-screen entry, the operator can create instant replays or slow-motion capability for sports, setting cue points and recuing within 250ms; and storing pre-game interviews, crucial plays, statistical graphics, biographies and highlights.

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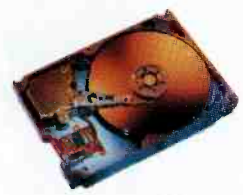

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