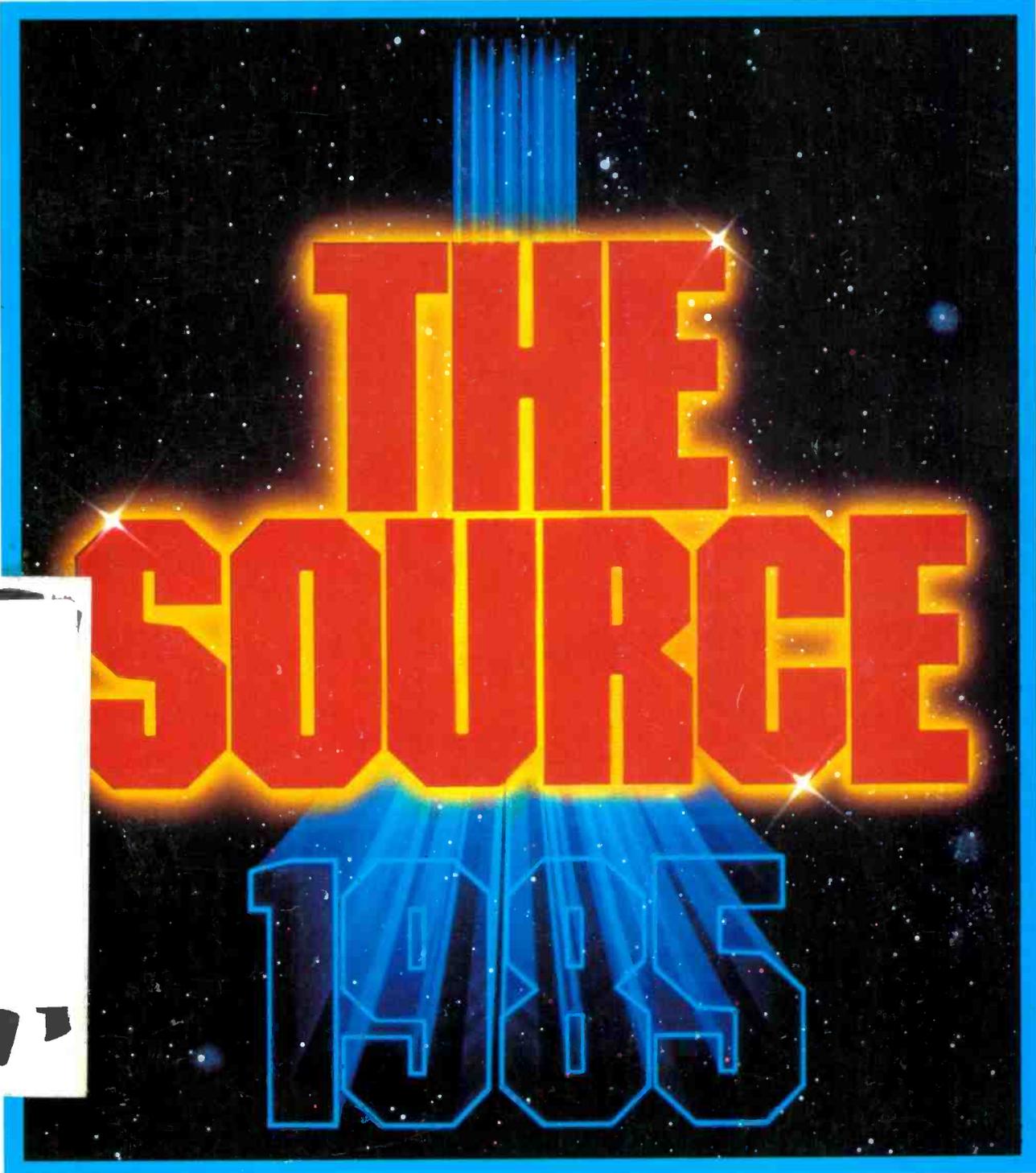


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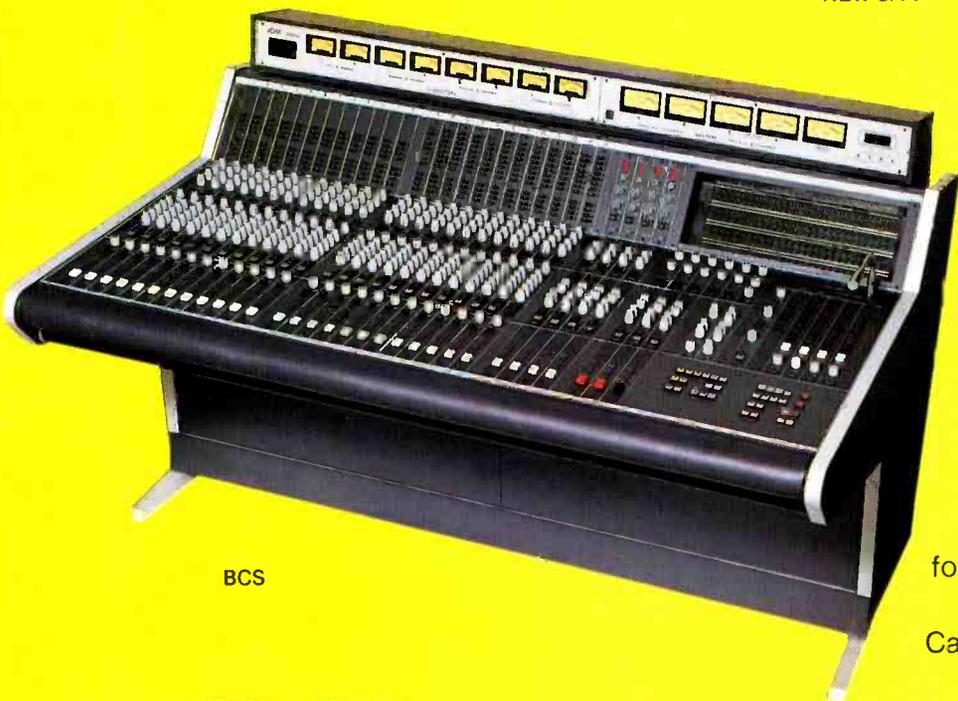
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Ikegami HL-79E Series plays dual role for Midwest units

The Ikegami HL-79E Series camera was selected for use aboard the Midwest M-40 because it can handle two separate functions with superlative results. Although it's renowned as the perfect hand-held camera, the HL-79E Series can easily be converted into a field camera that produces higher quality images than many other manufacturers' top-of-the-line studio models.

**Ikegami delivers
super performance in**

A large, colorful graphic at the bottom of the page consisting of overlapping geometric shapes in shades of purple, red, orange, yellow, and green. On the right side, there is a vertical yellow ladder-like structure.



Ikegami 9-Series color monitors give Midwest "true to life" pictures

Ikegami 9-Series Color Monitors are standard in the Midwest M-40 mobile unit because of their superb resolution and ability to reproduce colors that are amazingly life-like. This performance is unmatched by any other monitor in the world. Since the 9-Series monitors use In-Line Gun CRTs, they provide more than excellent colorimetry and



fantastic resolution. They also offer high stability, unit interchangeability, low power consumption, and convenient pull-out circuit panels. By using the Ikegami 9-Series, the Midwest M-40 can reproduce colors that are true to life.

This exceptionally fine performance is due to Ikegami's painstaking attention to detail. Designed to meet the most rigorous performance standards, the HL-79E Series also offers optional automatic set-up, either via its own set-up computer or by interface into the HK-322 set-up computer for total system integration. With the HL-79E Series, Midwest's M-40 offers you the versatility required to produce network quality productions in any circumstances.

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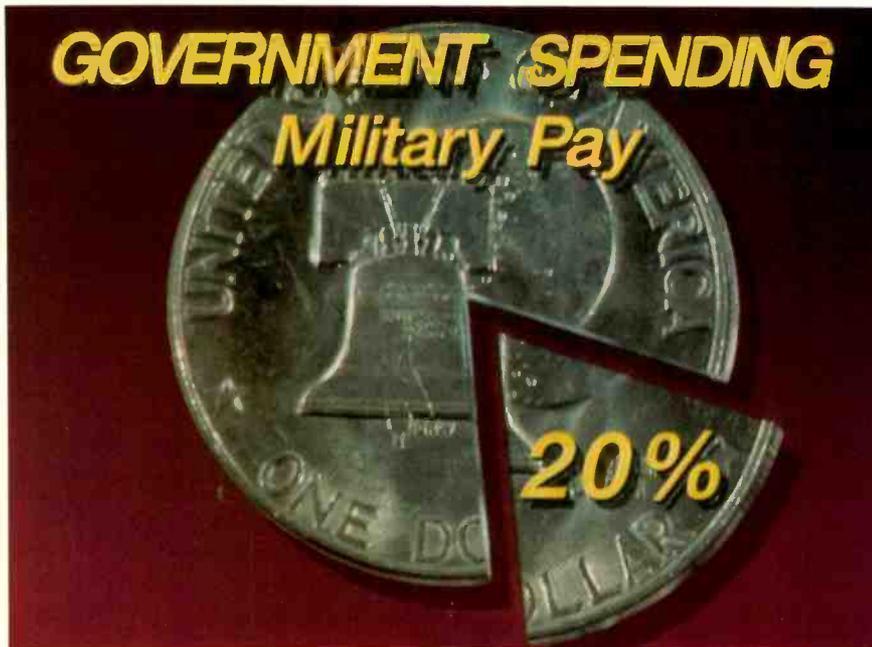


Image produced by Artronix using MCI/Quantel Paintbox.

Duffy BDA/BPME Speech Sees Danger in Escalating Price Tags

Huge price tags for stations acquisitions, and buyouts by nonbroadcasters, are dangerous and a threat to the whole commercial TV system, ABC's new president of communications James Duffy told the annual joint conventions of the Broadcast Designers Association (BDA) and Broadcast Promotion and Marketing Executives (BPME). The remarks were part of his keynote address at Chicago's Hyatt Regency Hotel June 6.

According to Duffy, the escalating price tags for stations show a healthy economic trend in the industry. "I'm concerned, however, when stations simply become pawns on a giant Monopoly board," he noted, "when they are bought and sold on the trading block by financial interests with no history in broadcasting, purely for financial gain and without commitment to the growing tradition in news, community service, and public service that has become such a distinguishing characteristic of broadcast television."

Other BDA/BPME seminars and activities concentrated on the tremendous importance being placed on a station's promotion and in-house graphics department to define the station's presence in the local market. One seminar, for instance, concentrated on ways in which stations can promote movies—even those that weren't box office hits. Bob Galvin, promotion director of KCPO-TV, Seattle-Tacoma, showed how a somewhat dated movie such as *West Side Story* could be presented as a cross between MTV, *Hill Street Blues*, and *Fame* to a generation not familiar with it. He also showed "theme week" ideas ranging from obvious ideas such as "Science Fiction Week" to a more humorous idea such as "Seattle Goes Ape" (in which the station aired *Planet of the Apes* movies).

As usual at the BDA/BPME, the equipment exhibit had a heavy emphasis on electronic graphics of all kinds. ColorGraphics mounted a major exhibit of its ArtStar system, while ADDA demonstrated the graphics compose

New KGO-TV Broadcast Center Opens in San Francisco

After four years of planning and renovation, and a massive equipment reconfiguration which brought several pieces of state of the art gear to San Francisco from service by ABC at the Winter and Summer Olympics last year, KGO-TV has finally gone on-air (5:55 a.m., June 1) from the new 200,000-square-foot ABC Broadcast Center.

At the heart of the new center, which houses KGO-TV, KGO Radio, and ABC News, are two of northern California's largest broadcast studios, each measuring approximately 5000 square feet. Equipment "loaned" to the network and then brought to KGO's new facilities includes two Grass Valley/ISC editing systems, a Datatronic intercom system, a stereo-capable Datatek routing switcher, two Ward Beck audio production consoles, and a number of Ikegami monitors.

Other studio equipment includes six new Ikegami HK-312 studio cam-

eras and 10 one-inch VTRs with seven Ampex VPR-3s just added.

According to chief engineer Jim Van Striver, the guiding force behind the planning was insuring that the facility "would not become obsolete in this age of rapidly changing technology." A major feature of equipment design, which is estimated to total \$12 million, is TV multichannel sound capability—for stereo programming as well as for second-language SAP broadcasts.



Sign-on from the new KGO Broadcast Center. At left, Harry Jacobs, station engineer when KGO-TV first signed on on May 5, 1949. At right, Robert Stodden, now senior technical director for the station.

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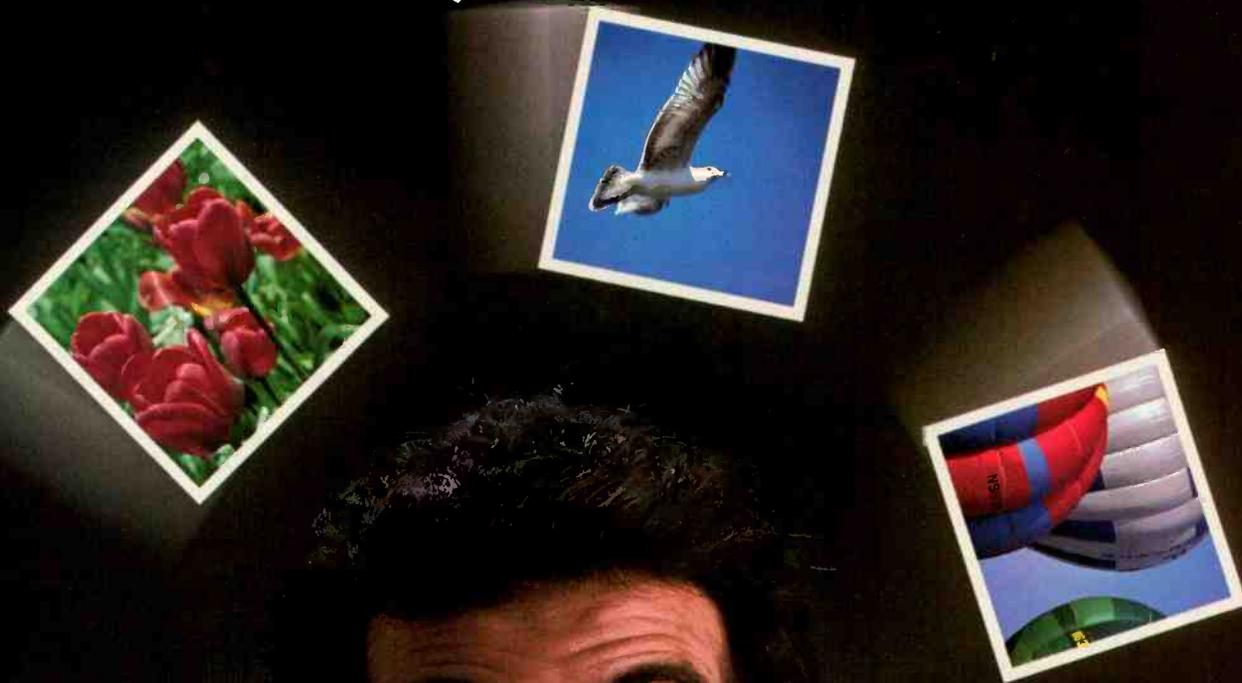


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capability of its ESP still store. Meanwhile, MCI/Quantel had five Paintboxes on the exhibit floor—two in its own booth, and three at various other production companies (Pinnacle, Artronix, and Optimus). At the 3M booth, crowds gathered to witness demonstrations of the Artronix art/paint systems.

The show also drew its usual share of computer graphics production companies, anxious to sell graphics packages and services to broadcasters. In addition

to those with Paintboxes mentioned above, Omnibus, Digital Images, and Cranston/Csuri all had state of the art material.

From Kodak, there was the announcement that the number of prime-time television shows being originated on film has again gone above the 80 percent mark—important news to those in broadcasting considering whether film origination for graphics and special effects makes sense in light of the

growing sophistication of video/electronics equipment.

Concert Music Broadcasters Move to Satellite Distribution

The Concert Music Satellite System, a service of the Concert Music Broadcasters Association, is slated to begin all-satellite feeds of concert music, and could begin transmitting as early as mid-August. Some two dozen programs distributed on reel through the mails, or not at all, will instead be fed directly from channels 13 and 14 of Westar IV.

The three major classical music program suppliers, WFMT Inc., WCRB Productions and WCLV/Seaway Productions, will then switch their feeds from NPR Extended Program Service channels to CMSS channels. Some syndicators will discontinue tape delivery of programs; others will continue tape delivery with a surcharge.

Despite the audio advantages of satellite feeds, stations are now faced with the ominous task of recording hours and hours of concert program material from the satellite and storing them for later use.

Several stations, including Cleveland's WCLV, have solved the problem by turning to digital audio and to video equipment. The stations take the feed through a Sony PCM digital audio processor and record it onto the video track of half-inch VCRs. One PCM can feed two VCRs, but only one can play back at a time, so in order to allow cueing, the feed is also recorded onto the analog audio track of the VCR. The parallel recording also serves as a backup recording should something go wrong with the digital audio.

Stations could save considerable money with such creative solutions, and also avoid tying up their analog recorders and reels. An analog recorder can cost around \$6000, but a PCM or VCR costs only around \$900. Even with two PCMs and four VCRs there would be money saved. Additional savings comes in tape costs. A three-hour analog tape costs about \$30, while a three-hour half-inch videotape costs around \$12.

The only drawbacks to this method are the inability to edit VCRs digitally, and the extra few seconds start-up time

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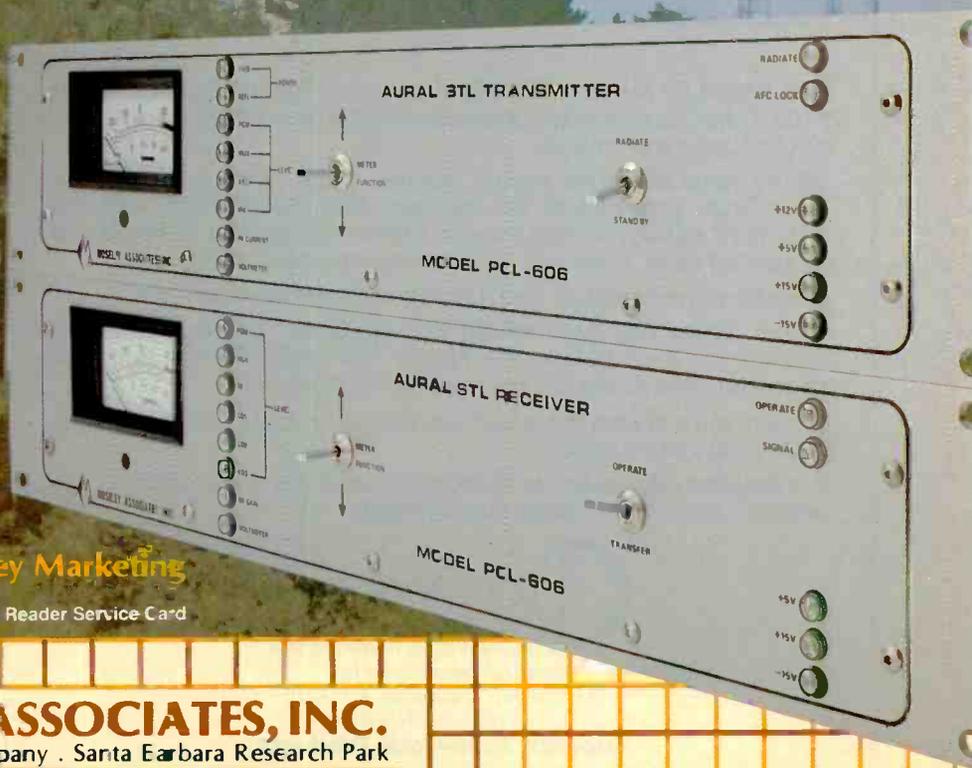
There's a jungle in the Angeles National Forest. Most of the broadcast transmitters for the greater Los Angeles area are at this single site on Mount Wilson. That means intense competition for both bandwidth and audience. The vast majority of Mount Wilson-based broadcasters choose Moseley because the PCL-606 and PCL-606/C Studio-Transmitter Links are tough, proven winners in both respects.

To keep the signal strong and distortion-free, the monaural PCL-606 and composite stereo PCL-606/C use PIN diode attenuators to maintain maximum signal level and dynamic range while preventing overload from out-of-band noise. The receiver is very selective, and the bandwidth is adjustable so that if selectivity is not critical, distortion can be further reduced.

To keep the signal bright and clear, careful IF modulation techniques are employed. Digital demodulation and a series of ultra-phase linear IF filters split the baseband frequency from the two subcarrier frequencies without noticeable noise or distortion. The subcarriers can be used for SCA or remote control data carriage.

The PCL-606 and PCL-606/C are constructed for years of service in rugged environments yet designed for easy maintenance. They feature built-in internal system performance metering for both transmitter and receiver. All service adjustments can be made through the top cover, and modular construction makes repair easy. Continuous broadcast is assured even in case of failure or abnormality shutdown because the receiver automatically switches to a redundant standby unit.

OUTSTANDING LINEARITY
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NEWS

of most VCRs, which can be solved by use of the "pause" button.

FCC Amends Channel Six Protection

In a move that it termed a "more reasonable accommodation of the competing interests," the FCC has amended its channel six protection rules and adopted the amended standards.

While reaffirming its support of rules adopted last October, the Commission

noted a lack of industry acceptance, and instead opted for standards based on a joint compromise agreement submitted by representatives of both channel six stations and noncommercial educational (NCE) FM stations in the 82 to 88 MHz band.

New power limitations for new NCE-FM stations allow predicted interference for no more than 3000 people.

NCE-FM stations existing as of last December 31 may continue to operate

at their current facilities, and the Commission has various options by which they can modify their operations without being subject to the new restrictions. In some cases, power increases are permissible through the use of vertical polarization.

With the formal adoption of new standards, the Commission lifted the freeze on the filing of NCE-FM applications and the processing of TV channel six applications.

NAB Show-in-Print Update

In addition to the new NAB products described in our June issue, there were several other significant product developments at NAB this year.

Tektronix introduced two new test signal generators. The TSG-300 is the first in a new family of component analog products, and provides direct digital test signal generation in a wide range of commonly used formats—without the need for format transcoders. Signals include color bars, linearity, pulse and bar, and multiburst, plus new component test signals. The unit is priced under \$9000.

Tek's TSG-170A NTSC generator combines a cost-effective complement of test signals with a full genlock sync generator—packed into a 1.75-inch rackmount unit. Basic price is \$4800, with SMPTE bars, ID, and audio tone available as a \$1000 option package.

JBL/UREI expanded its 1680 Series of broadcast consoles with a 12 mixing channels model. Also on view was the 1693 console.

The price of the Microtime Genesis I digital effects processor with the new ACT (Artistic Control Terminal) is \$27,990. Genesis I alone sells for \$21,990.

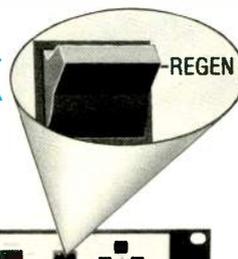
The ColorGraphics NewStar newsroom computer features distributed processing which gives each user station its own computer chip that handles its own tasks on its own time. ColorGraphics claims an up-time of 99.7 percent, based on the fact that it uses redundant hardware and because of the multiprocessor arrangement.

Announced by ESD, and subsequently introduced May 10, was the Front End weather data processor which operates on an IBM XT and interfaces with a variety of weather graphics systems. Its primary function

Eliminate



problems with the flick of a switch



IT'S SIMPLE. Add the "REGEN" option to Ciper Digital's Model 710A Time-Code Reader/Character Inserter and a majority of editing glitches are gone forever.

WHY? Most computer editing glitches relate to the quality of the Time-Code provided to the system. The Model 710A with the "REGEN" option provides the edit system with perfect, *re-timed* and *re-synced* code, irrespective of the original code quality.

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For detailed information or demonstration of this remarkable product, contact our Sales Department:



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If you thought our \$10,000 switcher was big news, wait until you meet the rest of the Model 100 family.



It's been a year since we made history with our Model 100 switcher . . . and it's already the choice of nearly a thousand industry professionals. Its 5 1/4" rack space requirement, single cable interconnect, Grass Valley Group performance — and, of course, its \$10,000 price tag — have made the Model 100 a best-seller.

And now we'd like you to meet the rest of the family: the Model 100CV Component Video Switcher, KEY-MEM™ Effects Memory and AMX-100 Audio Mixer. They're priced to match the Model 100, so as little as \$23,000 can get you a complete video and audio post-production system, including effects memory.

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Circle 112 on Reader Service Card

NEWS

is to reduce escalating weather data costs by continually collecting and processing ESD high-speed weather images and NWS domestic data from the Galaxy 1 Zephyr service—on an unlimited basis. For \$995 per month, a station can get ESD color satellite and weather images, NWS domestic data, and NAFAX or DIFAX.

Keylite PSI introduced a new line of folding softlights, the Modulight Series.

NAB Offers Antenna Dereg Suggestions

The NAB is suggesting that the FCC tread more lightly in the area of AM directional antenna deregulations. The NAB stated that the Commission's deregulation proposal goes beyond the point where AM broadcasters can be assured of no interference from misadjusted or out-of-tolerance AM directional antennas.

The NAB wants the Commission to end the periodic three-year requirement for AM directional antenna partial proofs of performance, but suggested a continuation of the monitoring point measurement requirements for those stations now required to perform them.

To guard against reradiation, the NAB also asked the Commission to consider adding a provision to the monitoring point measurement requirements for those stations now subject to an "as often as necessary" requirement.

In the area of antenna sampling systems, the NAB urged revised design criteria for antenna monitoring to permit the use of new technology, but wants the existing sampling and system specs to remain as minimum standards. It also suggested that policies designed to promote installation and maintenance of type-approved sampling systems remain in the rules.

Local Stations Cop Radio, TV Awards

Programs, commercials and promos produced mostly by local stations have been honored by several sets of awards recently.

The Videotape Production Association's Monitor Awards, broadcast division, the International Radio Festival of New York, and Kodak-sponsored National Press Photographers Association (NPPA) Television News awards honored work by local, and a few network production, teams.

WCCO in Minneapolis won two Monitor awards for a news documentary feature produced in-house, and PBS station WNET in New York was honored.

Also a winner at the Monitors was Detroit's WDIV-TV for best editing in broadcast entertainment.

In Radio, the International Festival presented grand prizes to Los Angeles' KNX-AM for news, and to WTVN-AM of Columbus, Ohio for a promo. Other radio winners included New York's WNEW-FM, WRFM-FM and WRKS-FM, Babylon's WBAB-FM, Salt Lake City's KSL-AM, Philadelphia's WCAU-AM and Chicago's WFMT-FM.

The NPPA award for TV news photography, the Ernie Crisp Award, went to WTCN-TV of Minneapolis, with a second award for the station's photographer/reporter Jim Douglas.

"FOR THE GENERAL BROADCASTER THERE'S NO CHOICE. THE AN-2 STEREO SIMULATOR IS COMPLETELY MONO COMPATIBLE, SOUNDS GREAT AND IS PRICED RIGHT"

*Jim Swick
Assistant Chief Engineer
Maintenance and Design
WTTW Chicago*

"We were the very first TV station to broadcast full-time in stereo and Studio Technologies' Stereo Simulator was with us from the start. As we began experimenting with on-air stereo I was told about the unit. Being an old radio type I was skeptical... make stereo out of a mono signal? Sure. But when I plugged it in I was surprised. It gives you really nice room ambience and sounds great. We've been using it ever since. What's terrific about the AN-2 is that it is fully mono compatible—absolutely

no artifact left when you mix the two channels back together.

We use another AN-2 in our audio studio for 'stereoizing' movie clips for our Sneak Previews series... it's excellent for that.

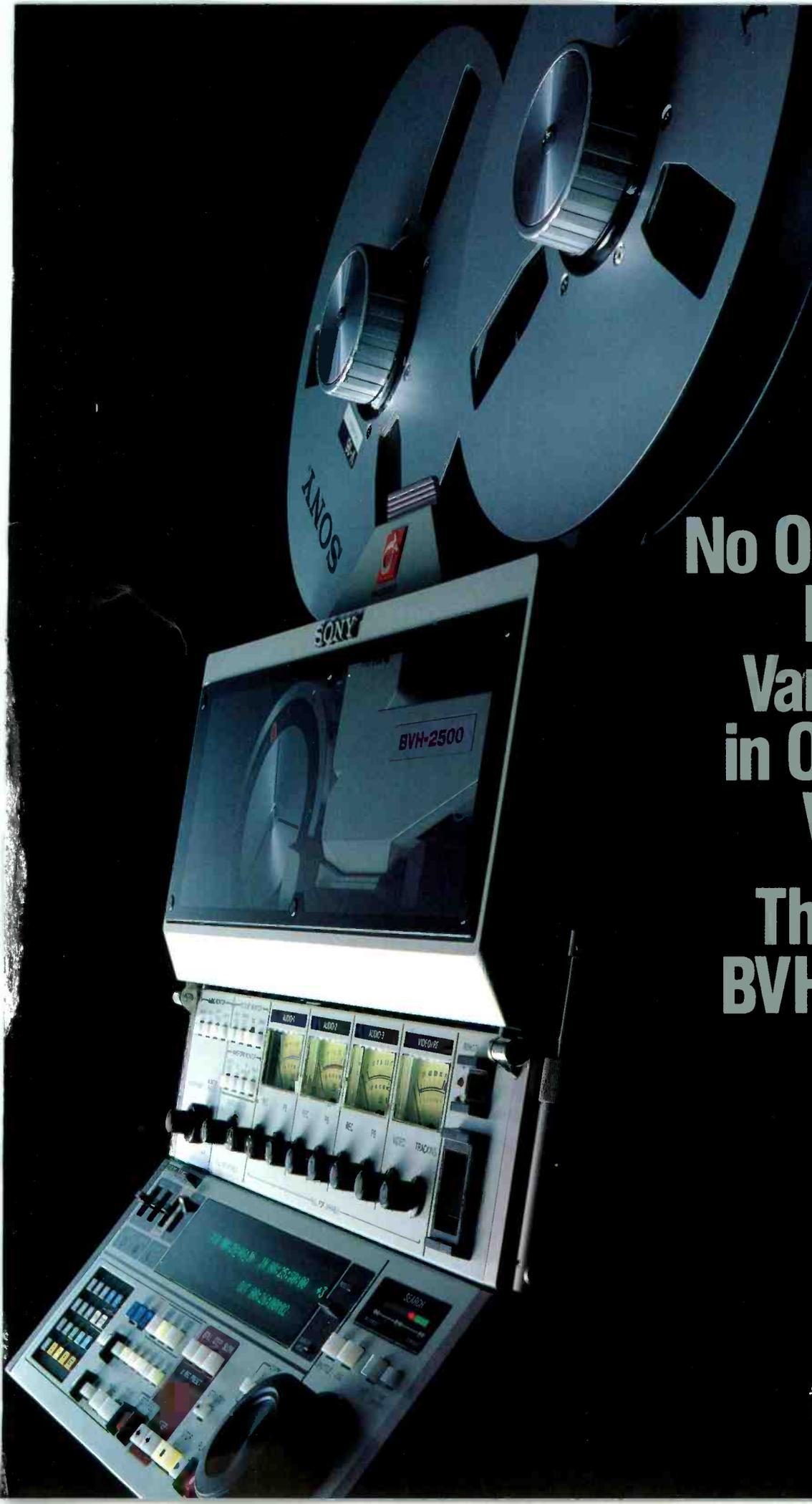
We get a lot of feedback from our 'golden ears' listeners and all comments have been positive about our stereo sound... they really like it!"

For more information on the AN-2 call Studio Technologies, Inc. at 312/676-9177.



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INC.**

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Innovating New Standards. . .



Introducing the New Plug-In TBC

The concept of a plug-in TBC for a 1-inch Type C VTR was first introduced with the BVH-2000 Series VTR. Now Sony has introduced the first plug-in TBC, the BKH-2150, with Dynamic Tracking Playback Capability.

Extensive research and development in digital LSI design has made possible a high performance TBC in only four circuit boards with minimum power consumption.



SPECIFICATIONS

BVH-2700 (NTSC only)

Power requirements	AC 100 to 120V \pm 10%
Power consumption	550W max.
Weight	Approx. 75kg (165.3 lb)
Dimensions (including handle & foot)	Approx. 570(W) \times 680(H) \times 588(D) mm (22.5 \times 26.8 \times 23.2")
Tape speed	73.2cm/sec. Recording mode 24.4cm/sec. at 1/3 normal speed playback mode
Recording time	42 min. with 11.75-inch reel
Fast forward/Rewind time (Transfer time)	Within 110 sec. (with 1 hour tape)
Recommended tapes	Sony's 1-inch High Density Tape or equivalent
Reel size	NAB standard (Max. 11.75-inch type)

BVH-2500

Power requirements	AC 100 to 120/220 to 240V \pm 10%
Power consumption	550W max.
Weight	Approx. 70kg (155 lb)
Dimensions (including handle & foot)	Approx. 570(W) \times 680(H) \times 588(D) mm (22.5 \times 26.8 \times 23.2")
Recording heads	1.5 Head System 1 head for Video track, 1 head for Sync track
Recording time (normal mode)	126 min. with 11.75-inch reel (NTSC) 128 min. with 11.75-inch reel (PAL)
Fast forward/Rewind time (Transfer time)	Within 110 sec. (with 1 hour tape)
Recommended tapes	Sony's 1-inch High Density Tape or equivalent
Reel size	NAB standard (Max. 11.75-inch type)

BVH-2180

Power requirements	AC 100 to 120/220 to 240V \pm 10%
Power consumption	600W max.
Weight	Approx. 77kg (170 lb)
Dimensions (including handle & foot)	Approx. 623(W) \times 715(H) \times 572(D) mm (24.5 \times 28.2 \times 22.5")
Recording heads	1.5 Head System 1 head for Video track, 1 head for Sync track
Recording time	188 min. with 14-inch reel (NTSC/PAL-M) 191 min. with 14-inch reel (PAL/SECAM)
Fast forward/Rewind time (Transfer time)	Within 110 sec. (with 1 hour tape)
Recommended tapes	Sony's 1-inch High Density Tape or equivalent
Reel size	NAB standard (Max. 14-inch type)

BVH-2000

Power requirements	AC 100 to 120/220 to 240V \pm 10%
Power consumption	550W max.
Weight	Approx. 70kg (155 lb)
Dimensions (including handle & foot)	Approx. 570(W) \times 680(H) \times 588(D) mm (22.5 \times 26.8 \times 23.2")
Recording heads	1.5 Head System 1 head for Video track, 1 head for Sync track
Recording time	126 min. with 11.75-inch reel (NTSC/PAL-M) 128 min. with 11.75-inch reel (PAL/SECAM)
Fast forward/Rewind time (Transfer time)	Within 110 sec. (with 1 hour tape)
Recommended tapes	Sony's 1-inch High Density Tape or equivalent
Reel size	NAB standard (Max. 11.75-inch type)

BVH-500A

Power requirements	DC 12V
Power consumption	60W max.
Weight	Approx. 16kg (35 lb 4 oz) without batteries & reels
Dimensions	Approx. 395(W) \times 178(H) \times 425(D) mm (15.6 \times 7 \times 16.7")
Recording heads	1.5 Head System 1 head for Video track, 1 head for Sync track
Recording time	62 min. with 9-inch reel (NTSC/PAL-M) 64 min. with 9-inch reel (PAL/SECAM)
Fast forward/Rewind time	5 min. max. with 9-inch reel
Recommended tapes	Sony's 1-inch High Density Tape or equivalent
Reel size	NAB standard (Max. 9-inch type)
Battery life	Approx. 80 min. with two BP-90 batteries

Design and specifications are subject to change without notice.

SONY
Broadcast

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THE SOURCE

1985

How to use it...

Instant Source Locator p. 24

To find suppliers of the product or service you want, first turn to the *Instant Source Locator Index* and then the *Instant Source Locator* itself—a listing of over 200 product types arranged in seven major categories: Audio; Video, Imaging; Lighting, Power, Support, Set Design, Etc.; RF, Transmitting/Receiving Equipment, Antennas, Towers; Test & Measurement, Logging, Timing; Components, Hardware; and Services. Within each main product category (they're arranged logically), you'll find manufacturers listed alphabetically. The check (✓) indicates that the listing is verified—that the product or service is currently available. The numbers after the manufacturer's name refer to the specific types of product offered.

Listing of Manufacturers p. 63

Once you've located the names of the manufacturers in the ISL, you can learn more details from the *Alphabetical*

Listing of Manufacturers. Address and phone number are followed by a complete listing of the manufacturer's product line, plus, in some cases, the manufacturer's field offices. These listings are also verified.

Broadcast Equipment Reps p. 184

Reps throughout the country are listed in the *Broadcast Equipment Reps* section, arranged alphabetically in five geographical zones.

Reader Service Card p. 191

To get even more information about the products and services which are advertised in *THE SOURCE*, use the *Reader Service Card* found on page 191. You can circle the Reader Service numbers for information on as many manufacturers as you like. And don't forget it—the card is good for an entire year!

Instant Source Locator

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Instant Source Locator

✓ MEANS
IT'S VERIFIED



I. RADIO/AUDIO

I A. Consoles

TYPES:

- (1) Mic mixers (1 output)
- (2) Portable consoles
- (3) Mono studio consoles
- (4) Stereo studio consoles
- (5) Automated consoles
- (6) Audio-for-TV consoles
- (7) Video interface for consoles

SUPPLIERS:

A.F. Associates (4,6)✓; ADM (3-7)✓; ATI (4)✓; Allen & Heath Brenell (2-4)✓; Amek (1-7)✓; Arrakis (1-4)✓; Audio + Design (2,6)✓; Audio Developments (2,4); Audio Kinetics (5)✓; Audio Metrics (4)✓; Audio Processing (2-5); Audisar (1,2)✓; Audiotronics (4,6)✓; Autogram (3-5)✓; Broadcast Audio (4,6)✓; Broadcast Electronics (1-4)✓; Broadcast Systems (4)✓; Carvin (3,4)✓; Coherent Comm. (1,2); Comprehensive Video (1)✓; Comrex (2)✓; Connectronics (2,4)✓; Continental Electronics (4)✓; Dyma (2); Edcor (1)✓; Elecon (1)✓; Enertec (3,4)✓; Fostex (1,2)✓; Gordon, Alan (1)✓; Gotham (4,6)✓; Graham-Patten (6)✓; Hallikainen (3,6)✓; Harris Broadcast (3,4,6)✓; Harrison (1,2,4-7)✓; Howe Audio (2-4,6)✓; Industrial Research (1); Integrated Sound (4)✓; Interface Elect. (2); JBL/UREI (1,2,4)✓; JVC (2,4)✓; LPB (1,3,4,6)✓; Listec (2)✓; Logitek (2-4,6)✓; Matrix Systems (7)✓; McCurdy (1,3,4,6)✓; McMartin (1,3,4)✓; Micro-Trak (1-3,6)✓; NEI (2,4)✓; Neve (2-7)✓; Opamp (2,3,6)✓; Pacific Recorders (2-4)✓; Protech (1); Quad Eight (3-6)✓; Quantum (3,4,6)✓; RAM (1,3,4,6)✓; RTS (1,2)✓; Radio Systems (4)✓; Ramko (1-4)✓; Ramsa/Panasonic (1-4,6)✓; Richmond Sound (1-6)✓; Schafer (1-5)✓; Sescom (1)✓; Shure (1,2)✓; Solid State Logic (4-7)✓; Sound Workshop (4-7)✓; Soundcraft (4,6)✓; Spectra (1); Sphere (2-4,6); Studer Revox (2-4,6)✓; TOA (2)✓; TV Tech. (3,4)✓; Tascam (1,2,4,6)✓; Telfax (1,2); Trident (3-5)8; Ultra Audio (1-3,6)✓; Valley People (1)8; Ward-Beck (2-6)✓; Wheatstone (2-4,6)✓; Yamaha (1,2,4,6)✓

I B. Cart Player/Recorders

TYPES:

- (1) Single decks
- (2) Dual/triple decks
- (3) Multi decks
- (4) Time delay decks
- (5) Phase control matrixing

SUPPLIERS:

Amilon (1); Audi-Cord (1,2); Broadcast Electronics (1-4)✓; Contel (1); Fidelipac (1,5)✓; IGM (3)✓; International Tapetronics (1,2)✓; MacKenzie (1-3); Pacific Recorders (1)✓; Ramko (1,5)✓; Schafer (3)✓; Sono-Mag (3)✓; TV Tech. (1,2)✓; Telectro (1-3); Ultra Audio (1,3,5)✓

I C. Audio Cassette Player/Recorders

Audiotronics; Fostex✓; Koss✓; Nakamichi; Odetics; Pentagon; Sansui✓; Scribe✓; Sharp✓; Studer Revox✓; Superscope; Tandberg✓; Tascam✓; Technics/Panasonic✓; Telex✓; Tiffen✓; Uher✓; Yamaha✓

I D. Open-Reel Decks

TYPES:

- (1) Portable ATRs
- (2) 2-1/4-track studio ATRs
- (3) Multitrack ATRs
- (4) Time delay decks

SUPPLIERS:

Bayly (1-3)✓; Cavox-Tapeathon (1,2); Enertec (2)✓; Fostex (2,3)✓; Nagra (1)✓; Otari (1-3)✓; Scully, L.J. (2)✓; Soundcraft (2,3)✓; Stephens (1-3); Studer Revox (1-3)✓; TV Tech. (1-3)✓; Tandberg (2)✓; Tascam (2,3)✓; Technics/Panasonic (2,3)✓; Telex (2)✓; Uher (1)✓; United Research (2)✓

I E. Digital Audio Recorders

Bayly✓; Compusonics✓; Digital Entertainment✓; IGM✓; MEI✓; Odetics; Sansui✓; Studer Revox✓

I F. Tape Duplicators

Accurate Sound; Cetec Gauss✓; Otari✓; Pentagon; RKO; Tascam✓; Telectro; Telex✓

I G. Magnetic Film Dubbers

Quad Eight✓; Wide Ranger✓

I H. Audio Heads/Head Accessories

TYPES:

- (1) Replacement heads
- (2) Rebuilt heads
- (3) Head cleaners, degaussers
- (4) Alignment, tension gauges

SUPPLIERS:

Allsop (3)✓; Annis, R.B. (3)✓; Audi-Cord (1); Fidelipac (4)✓; Garner (3)✓; Int. Electro-Magnetics (1,2); JRF (1,2); Lauderdale (4); Marathon (3,4)✓; Microtran (3); Minneapolis Magnetics (1)✓; Nagra (1)✓; Nakamichi (3); Nortronics (1,3,4)✓; Odetics (1); Otari (1)✓; Pentagon (4); Protech (3); RE:DB (1,2); Saki (1)✓; Sprague (1-3)✓; TDK (3)✓; Taber (1,3)✓; Tascam (1,3)✓; Tentel (4)✓; Texwipe (3)✓; Ultra Audio (1,4)✓; United Research (1)✓; VIF (3,4)✓



I I. Audio Tape/Tape Accessories

TYPES:

- (1) Open-reel tape
- (2) Carts
- (3) Cassettes
- (4) Sprocketed mag film
- (5) Test tapes, leaders
- (6) Empty reels, carts
- (7) Tape loaders, timers, rewinders
- (8) Tape cleaners, evaluators
- (9) Tape erasers, degaussers

SUPPLIERS:

Agfa-Gevaert (1,3)✓, Allsop (8)✓, Ampex MTD (1,3,6)✓, Annis, R.B. (9)✓, Aristocart (2,5,6)✓, Audico (7)✓, BASF (1,5)✓, Broadcast Cartridge (2,6)✓, Broadcast Electronics (7,9)✓, CMC (9)✓, Capitol Magnetic (2,3)✓, Christie (9)✓, Comprehensive Video (9)✓, Fidelipac (1,2,6,9)✓, Garner (9)✓, International Tapetronics (2,9)✓, King (7)✓, Lauderdale (9), Magnetic Reference (5)✓, Marathon (2,6)✓, Marshall Electronics (3), Maxell (1,2)✓, Microtran (9), Nagra (5)✓, Nakamichi (3), Nortronic (5,9)✓, Odetics (3,9), PD Magnetics (3), Pacific Recorders (7)✓, Peak Audio (7)✓, Pentagon (7), Plastic Reel (6)✓, Polyline (1-6,8,9), Procart (2), Protech (9), RKO (3), Smith-Victor (3)✓, Sony Tape (3)✓, Sound Technology (5)✓, Sprague (9)✓, Superex (9), TDK (1,3,6,9)✓, Taber (8,9)✓, Tangent (1,2,4)✓, Tascam (3,5,6,9)✓, Telex (5)✓, VIF (5)✓, Wide Range (9)✓

I J. Audio Editors/Synchronizers

TYPES:

- (1) Splicing blocks, tape
- (2) Electronic audio editors
- (3) SMPTE time code synchronizers
- (4) Editors for digital audio

SUPPLIERS:

Adams-Smith (2,3)✓, Alpha Audio (2)✓, Amtel (2,3)✓, Audio Kinetics (3)✓, Bayly (2-4)✓, Cipher Digital (2,3)✓, Droid Works (2)✓, Elecon (3)✓, Evertz (3)✓, Fidelipac (1)✓, JVC (4)✓, Lauderdale (1), Marathon (1)✓, Otari (3)✓, Solid State Logic (3)✓, Stephens (1,3), Studer Revox (3)✓, United Media (2,3)✓, Xedit (1)✓

I K. Disc Playing Equipment

TYPES:

- (1) CD/DAD players
- (2) Turntables
- (3) Pickup arms
- (4) Phono cartridges
- (5) Complete consoles
- (6) Record cleaning, care

SUPPLIERS:

ATI (1)✓, Acoustic Research (2)✓, Allsop (6)✓, Astatic (4), Audio Eng. (6), Audio-Technica (3,4,6)✓, Broadcast Electronics (2)✓, Gotham (2-4)✓, Integrated Sound (2,5)✓, JVC (2)✓, LPB (2,3)✓, Lauderdale (6), McCurdy (2)✓, McMartin (5)✓, Micro-Trak (3,5)✓, Philips TV (1)✓, RAM (2)✓, Russco (2,3)✓, Sansui (1)✓, Schafer (1-3)✓, Shure (4)✓, Stanton (4,6)✓, Studer Revox (1)✓, Technics/Panasonic (1-3)✓

I L. Program Automation

TYPES:

- (1) Relay sequencers
- (2) Time insertion sequencers

- (3) Computer controllers
- (4) Automatic satellite switchers
- (5) Complete program automation systems
- (6) Automatic time/weather announcers

SUPPLIERS:

Adams-Smith (1)✓, Amek (1)✓, Audichron (6)✓, Autogram (5)✓, Automated Broadcast Contr. (5)✓, Broadcast Electronics (3-5)✓, Cavox-Tapeathon (1,2,5,6), Computer Concepts (5), Gotham (3,5)✓, Harris Broadcast (3-5)✓, IGM (3-5)✓, MEI (3-5)✓, Media Computing (5)✓, Schafer (1-6)✓, Sono-Mag (4,5)✓, Texscan (2,5,6)✓, Ultra Audio (5)✓, United Media (2,3)✓, VIF (1)✓, Video Components (2)✓

I M. Radio Business/Newsroom Automation

TYPES:

- (1) Business automation software
- (2) Business automation hardware
- (3) Radio newsroom computers

SUPPLIERS:

ANT (3)✓, Anacomp (1), Applelog (1,2)✓, Automated Broadcast Contr. (2)✓, Basys (3)✓, CBSI (1)✓, Cado (1,2), ColorGraphics (3)✓, Columbine (1-3)✓, Computer Business (1,2), Computer Concepts (2), Data Communications (1-3)✓, Ficon (1)✓, Generic Computer (1)✓, Gotham (3)✓, Harris Broadcast (1)✓, Jefferson Data (1-3)✓, Kaman (1,2)✓, Libra (1), Magnicom (1,2), Management (1)✓, Media Computing (3)✓, Nordic (1,2)✓, Radio Computing (1), Radiocom (1,2), Register Data (1,2)✓, Schafer (2)✓, Solway (3), Southwestern Programming (1), Summit (1), Telesource Comm. (3)✓, Terminal Systems (3), VariCom (1)✓

I N. Audio Processing, Noise Reduction

TYPES:

- (1) ALC, AGC amps
- (2) AM compressor/limiters
- (3) FM compressor/limiters
- (4) Parametric equalizers
- (5) Graphic equalizers
- (6) Audio/video sync delay
- (7) Audio noise reduction

SUPPLIERS:

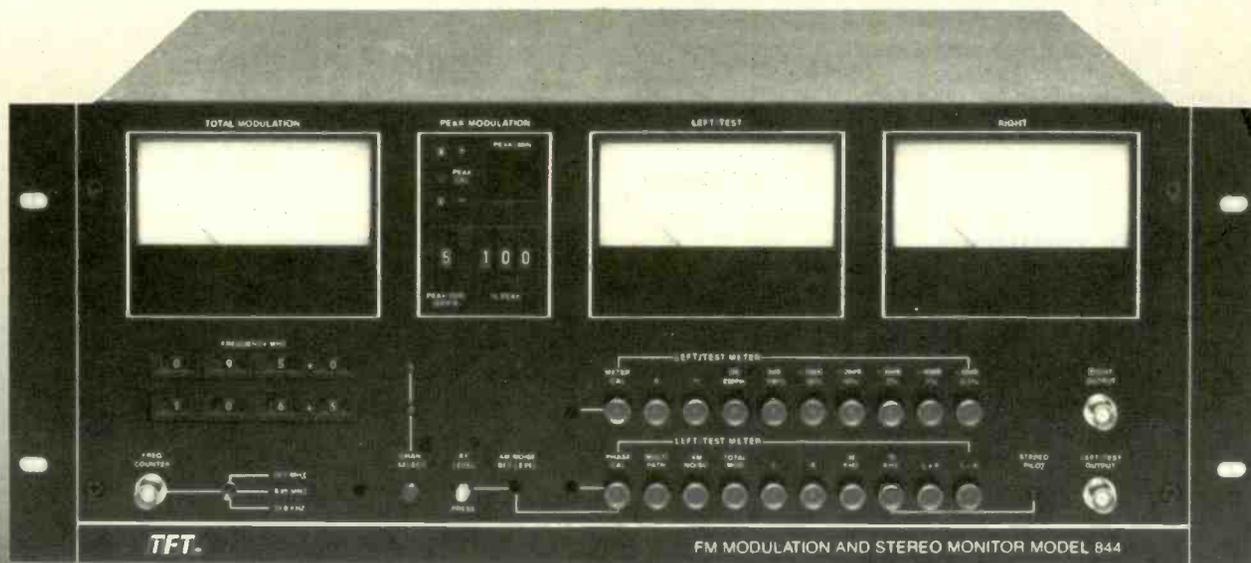
A.R.T. (5), ANT (7)✓, ATI (1-4)✓, Advancing Tech. (1-3), Altec (5)✓, Aphex (4)✓, Ashly (3,4,5,7), Audio + Design (1-5,7)✓, Audio Kinetics (6)✓, Audio Processing (4,5), Audio Technology (7)✓, Bayly (7)✓, Bogen (5)✓, Broadcast Audio (5)✓, Broadcast Electronics (1-3)✓, CRL (1,2)✓, Cetec Ivie (5), Connectronics (4)✓, dbx (1-5,7)✓, Dolby (7)✓, Dorrough (2,3)✓, Elcom Bauer (1-3)✓, Electro-Voice (5)✓, Fostex (3,5)✓, Frequency Devices (5,7), Gotham (3)✓, Harris Broadcast (1-3,7)✓, Harrison (5)✓, Industrial Research (6), Inovonics (1-3)✓, Integrated Sound (5)✓, JBL/UREI (1-5)✓, Kahn (2)✓, Klark-Teknik (2,3,5,6)✓, LPB (2,3)✓, Lear (2,3,5)✓, Lexicon (6)✓, Marcom (1-5)✓, Marti (1-3)✓, McCurdy (2,4)✓, McMartin (1-3)✓, Meyer Sound (4)✓, Modular Audio (2,5)✓, Modulation Sciences (3)✓, NEI (4,5)✓, Neve (2,3)✓, Old Dominion (7), Opamp (1,5,7)✓, Orban (1-5)✓, Pacific Recorders (2,3)✓, Protech (1-3), QSC (1)✓, RAM (2,4)✓, Ramko (2,7)✓, Richmond Sound (1,5)✓, SCV (3-5)✓, Sansui (5)✓, Scientific Audio (4), Sescam (1,4)✓, Shure (1)✓, Solway (7), Spectra (1-3,5), Symetrix (1-4,7)✓, TV Tech. (1-3)✓, Technics/Panasonic (4,5)✓, Thomson-CSF (1-3)✓, Valley People (1-4,7)8, Wavetek Rockland (5), Wheatstone (2-5)✓, White (5)✓, Yamaha (5)✓

I O. Audio Effects

TYPES:

- (1) Digital efx, reverb
- (2) Digital delay

The FM "Truth" Machine



Model 844 FM Baseband/Stereo Monitor

Versatility Personified

- Input 2 stations...yours and theirs.
- 20 front panel test positions.
- Measure Stereo Generator Performance.
- Measure Peak Modulation Digitally.
- Peak Counter "overlooks" extraneous spikes.
- Minimize multipath distortion.
- Measure STL Performance.

TFT, the monitor professionals, bring you the 844 FM "Truth Machine." Everything about your Audio/RF chain is displayed up front or by using out-board equipment plugged into front panel connectors. Do stereo and mono checks; do 19 kHz and 38 kHz measurements...even waveform diagnostics.

All this in one 7" package.

As we approach 1990, you are already there with the TFT 844. It's ready to diagnose your signal, regardless of your processing chain or the sophistication of your RF equipment.

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Circle 148 on Reader Service Card



- (3) Time compression/expansion
- (4) Analog eq, reverb
- (5) Music synthesizers

SUPPLIERS:

A.R.T. (1,2); Aphex (1,3); Audio Digital (2); Cetec Ivie (1,2); Connectronics (4); Eventide (1-3); Fostex (4); Gotham (1); Granite (2); Industrial Research (1); Integrated Sound (3); Klark-Teknik (1,2,4); Koss (2); Lexicon (1-3); Marshall Electronic (1-4); Moog Music (5); NEI (4); Orban (4); SCV (4); Spectra (4); Studio Tech. (4,5); Tascam (1); Ursa Major (1); Yamaha (1,2,5)

I P. Audio Monitors

TYPES:

- (1) Speakers
- (2) Headphones

SUPPLIERS:

AKG (2); Acoustic Research (1); Altec (1); Anchor (1); Audio-Technica (2); Audisar (1); Auratone (1); Aurenheimer (1); BGW (1); Beyer (2); Bogen (1); Carvin (1); Cetec Gauss (1); Clark, David (2); Clearcom (2); Electro-Voice (1); Fostex (1,2); Gotham (1); Integrated Sound (1); JBL/UREI (1); Koss (1); Logitek (1); McKay Dymek (1); Meyer Sound (1); Nady (2); Nakamichi (2); Philips TV (1); R-Columbia (2); ROH (1,2); Ramsar/Panasonic (1); Roscor (1); Sescom (2); Sharp (1); Shure (2); Solway (1); Spectra (1); Stanton (2); Studer Revox (1); Superex (2); Technics/Panasonic (1); Telectro (1); Telex (2); Vidair (2); Westlake (1); Yamaha (1)

I Q. Intercom Systems

TYPES:

- (1) Hardwired
- (2) RF

SUPPLIERS:

A.F. Associates (1,2); Anchor (1); Bogen (1); Cetec Vega (2); Clark, David (1); Clearcom (1); Com-Tek (2); Comrex (2); Farrtronics (1); Fisher Berkeley (1); Gentner (1); Gordon, Alan (2); HM Electronics (1,2); Lear (1); McCurdy (1); McMartin (2); Mobile-Cam (1); Motorola C&E (2); Nady (2); Pacific Recorders (1); Protech (1); RAM (1); RTS (1); Sescom (1); Swintek (2); TVI (1); Technical Projects (1); Telex (1); Theatre Techniques (1); Vidair (1); Video Aids (1); Ward-Beck (1)

I R. Microphones

TYPES:

- (1) Dynamic
- (2) Electret/condenser
- (3) Ribbon
- (4) PZM
- (5) RF
- (6) Lavalier
- (7) Shotgun
- (8) Modular, capsule systems
- (9) Stereo mics
- (10) Mic booms, dollies

SUPPLIERS:

AKG (1,2,6-10); Accurate Sound (10); Allied Broadcast (10); Altec (1,2,6); Astatic (1,2,6,10); Atlas Sound (10); Audio + Design (2,8,9); Audio Eng. (2,3); Audio-Technica (1,2,6,7,10); Audisar (1,2); Beyer (1-3,5-8,10); Bogen (1,2,6); Carvin (1); Cetec Vega (5); Coherent Comm.

(2,5,6); Com-Tek (5); Countryman (2,4,5,9); Crown (2,4,6); Eddor (5); Electro-Voice (1,2,6,7); Fostex (1,3,9); Gordon, Alan (4,10); Gotham (1,7,9,10); HM Electronics (5); Heitz (10); Integrated Sound (1,2,7); JVC (7); Koss (1); Lauderdale (10); Marti (1); Micron (2,5,10); Mole-Richardson (10); Nady (5,6); Odetics (1,2,10); R-Columbia (1,2,5,6); RF Tech. (5); Sennheiser (1,2,5-8); Shure (1,2,4,6,8); Stanton (1); Superscope (2); Swintek (5); TV Equipment (1,2); Tascam (2); Telex (1,2,5,6); Ultimate Support (10); Vidair (1,2)

I S. Audio Amplifiers

TYPES:

- (1) Preamps
- (2) Line amps
- (3) Monitor/power amps
- (4) Amp power supplies

SUPPLIERS:

ANT (1); ATI (1-3); Altec (1-3); Amek (1); Aphex (1,2); Ashly (1,2); Audio + Design (1-3); Audio Metrics (1-3); Audio Technology (2); Audisar (1-4); Auditronics (1,2); BGW (3); Bogen (1-3); Bonneville Media (2); Broadcast Audio (1-3); Broadcast Electronics (1-3); Bryston VT (1-3); Carvin (3); Cetec Ivie (1,3); Channelmatic (2); Circuit Dev. (3); Conex (3); Connectronics (1); Crown (1,3); Datatek (1-3); Eddor (1-3); Enertec (1,2,4); Fostex (2,3); Frequency Devices (4); Gentner (1); Harris Broadcast (1-4); Heath (1,3); Hedco (2); Hewlett-Packard (1,2); Howe Audio (1,3); ITI (2); Integrated Sound (3); Internat. Nuclear (1-4); JBL/UREI (1,3); Jensen Transformers (1); Lauderdale (1); Lear (1-3); Logitek (1-4); Magnetic Programming (1-3); Marti (3); McCurdy (2-4); McMartin (1-3); Micro-Trak (1,3); Modular Audio (1-4); NEI (3); Omicron (2); Opamp (1-4); Pacific Recorders (1,2,4); Peak Audio (1); Protech (1-4); QSC (3); RAM (2-4); ROH (1-4); RTS (1,2); Radio Systems (1); Ramko (1-3); Richmond Sound (1-4); Russco (1,3); SCV (1,2,4); Sansui (1,2); Scientific Audio (3); Sescom (1-4); Shure (1-3); Spectra (1-4); Stanton (1); Straight Wire (1); Studer Revox (3); TM Systems (2,4); TV Equipment (2,3); Taber (3); Tardberg (1-3); Tascam (2); Technics/Panasonic (1,3); Telemet (3); VIF (3); Valley People (1); Ward-Beck (4); World Video (3); Yamaha (2,3)

I T. Distribution/Interface Equipment

TYPES:

- (1) Audio DAs
- (2) Audio routing switchers
- (3) Audio patch panels, jackfields
- (4) Telco interface equipment
- (5) Audio multi boxes, splitters

SUPPLIERS:

ADC (3); ADM (1-3); ANT (2); ATI (1,2,5); Allied Broadcast (1); Amek (1); Amtel (1,2); Arrakis (2); Audio — Design (1); Audio Access. (3); Audio Metrics (1); Audisar (1,4,5); Auditronics (1,3); BSM (1,2); Bonneville Media (1); Broadcast Audio (1); Broadcast Electronics (1,4); Broadcast Systems (3); Central Dynamics (1); Cetec Vega (4); Channelmatic (1); Comad (3); Comrex (4); Conex (2); Connectronics (3); Datatek (1,2,4); Di-Tech (1,2); Dyma (1); Dynair (1,2); ESE (4); Enertec (2); Farrtronics (1,3); Gentner (1-4); Graham-Patten (1); Grass Valley (2); Harrison (2); Hedco (1,2); IMS (2); ITI (3,4); Image Video (2,3); Internat. Nuclear (1); JV Electronics (1,3); Kahn (4); LPB (1); Lauderdale (1); Leitch (1); Lenco (1); Logitek (1); Matrix Systems (1); McCurdy (1,3,4); Micro-Trak (1); Milam (1); Mobile-Cam (1); Modular Audio (1,2); Multidyne (1); Mycomp (1); Neve (1); Old Dominion (4); Omicron (1,2); Opamp (1,2,5); Pacific Recorders (1,2,4); Pesa America (1); Protech (1,2); R-Columbia (4); RAM (1,3); ROH (1,3-5); RTS (1,4); Radio Systems (1); Ramko (1,2); Richmond Sound (1,2); Russco (1,4); SCV (4,5); Scientific

Can the Panasonic® AK-30 stand head to head with the bestselling broadcast camera in the world?



You bet it can. In fact, when you compare picture quality, automatic features and price, you'll discover the Panasonic AK-30 is far and away your best bet.

Compare pictures. You'll notice the AK-30 produces a superrefined video image. The kind of image broadcasters love to see. But that's not surprising with these kinds of specifications: Horizontal resolution is 650 lines center. S/N is a very quiet 62dB (-6dB gain), the highest ratio in the industry. Digital registration is 0.05%, 0.1% and 0.25%. And illumination is a mere 24 lux at f1.4 (+18dB gain).

This high level of performance is achieved with a unique combination of image-enhancing circuitry and high-focus-field Plumbicon* tubes.

You'll also appreciate the AK-30's automatic circuits. Like auto-white balance with memory for setting 2 color temperatures. Presettable black stretch. Auto-black balance, and a knee circuit for variable dynamic range.

Together, they let you customize the image you're shooting for.

Still, the AK-30 has plenty more going for it. Consider its dual outputs. One works with standard NTSC. The other lets you set new standards because it's compatible with component recording. That means you can use it as part of our famous M-format Recam system.

The Panasonic AK-30. Compare it to the world's bestselling broadcast camera. And see why it stands out far ahead.

For more information call your nearest Panasonic regional office: Northeast: (201) 348-7336. Southeast: (404) 925-6772. Central: (317) 852-5973. West: (619) 941-3387. In Canada call: (416) 624-5010.

*Plumbicon is a registered trademark of N.V. Philips for TV camera tubes.

Panasonic
Broadcast Systems

ANOTHER BROADCAST INNOVATION FROM MATSUSHITA ELECTRIC



Systems (1); Sescorm (1)✓; Shure (1,5)✓; Sigma (1)✓; Spectra (1); Straight Wire (1)✓; Studer Revox (4)✓; Switchcraft (3)✓; Symetrix (4)✓; TV Equipment (1)✓; Telemet (1)✓; Telfax (4); Trompeter (3)✓; United Media (2)✓; Utah Scientific (1)✓; Vamco (1); Video Aids (1)✓; Vital (1)✓; Ward-Beck (1-3)✓; Westlake (1,3,5)✓

I U. Other Radio/Audio Equipment

TYPES:

- (1) Rotary attenuators
- (2) Slide attenuators
- (3) VU meters
- (4) PPM meters
- (5) LED displays
- (6) Video monitor displays
- (7) Soundproofing materials
- (8) EBS two-tone systems
- (9) Other radio/audio equipment

SUPPLIERS:

ATI (5)✓; Advancing Tech. (4); Alpha Audio (7)✓; Amek (4)✓; Anchor (9)✓; Annis, R.B. (9)✓; Audio Metrics (5)✓; Audio Processing (3,4); Audio Technology (3-5)✓; Auditorics (4)✓; Autogram (5)✓; B&B (3-5)✓; BBL (9); Bald Mtn. (8); Bayly (3,4,9)✓; Bryston VT (5)✓; Capitol Magnetic (9)✓; Cetec Vega (9)✓; Comrex (9)✓; DeWolfe (9)✓; Dorrugh (9)✓; ESE (5)✓; Emergency Alert (8)✓; Gorman-Redlich (8)✓; Gotham (4-6)✓; Graham-Patten (4,9)✓; Harrison (5)✓; Heath (5); Howe Audio (9)✓; IMS (9)✓; Inovonics (4,6)✓; Internat. Nuclear (8); Jensen Transformers (9)✓; Johnson Elect. (8); Kay Elemetrics (1)✓; Kintek (9)✓; Logitek (5)✓; 3M Stormscope (9)✓; McCurdy (4)✓; McMartin (1,2,8)✓; Meyer Sound (9)✓; Modular Audio (3-5)✓; Opamp (1-3)✓; Orban (9)✓; Pacific Recorders (3,4)✓; Penny & Giles (1,2)✓; Protech (2,5); RAM (4)✓; ROH (3,4)✓; Radio Systems (5)✓; Ramko (3-5)✓; Real World (3,4,6)✓; Roscor (9)✓; Selco (3-5,9)✓; Sescorm (5)✓; Shallco (1,2); Sound Workshop (5)✓; Spectra (2,3); Stanton (9)✓; TFT (8)✓; TM Systems (3); Tech Lab. (1,2); Telemet (3)✓; Ward-Beck (3,4)✓; Wheatstone (9)✓; Winget, D.E. (9)✓; World Video (9)✓



II. VIDEO/IMAGING

II A. Cameras

TYPES:

- (1) Studio (30 mm tubes)
- (2) Field (25 mm tubes)
- (3) ENG (18 mm tubes)
- (4) Lightweight (13 mm tubes)
- (5) Single-tube color cameras
- (6) CCD color cameras
- (7) Recorder/cameras
- (8) HDTV cameras
- (9) Monochrome cameras
- (10) Cine cameras

SUPPLIERS:

Ampex AVSD (3)✓; Arriflex (10)✓; Cinema Products (10)✓; EEV (9)✓; Gordon, Alan (10)✓; Harris Broadcast (1,3)✓; Hitachi (1-6,8)✓; Ikegami (1-3,7-9)✓; JVC (2,3,5,7)✓; Javelin (5,6,9)✓; NEC (6,7)✓; Nisus (4,5)✓; Panasonic (2,3,5-7)✓; Panavision

(3,10)✓; Philips TV (1-3,7)✓; RCA/Broadcast (1,6,7)✓; Sharp (3,5,9)✓; Sony Broadcast (1-3,5,7,8)✓; Teledyne Camera (6,9,10); Thomson-CSF (2,3,7)✓; Toshiba (1-3)✓; Westinghouse (5,9)✓; Zellan (10)✓

II B. Camera Components

TYPES:

- (1) Lenses
- (2) Periscope lenses
- (3) Filters
- (4) Pickup tubes
- (5) Standalone CCUs
- (6) Lens remote control

SUPPLIERS:

AmpereX (4)✓; Anton/Bauer (5)✓; Arriflex (1)✓; Belden Comm. (2)✓; Calvert (4)✓; Canon (1)✓; Century Precision (1,2)✓; Cinema Products (1,6)✓; Comprehensive Video (1)✓; EEV (4)✓; Elicon (6)✓; Film/Video Equipment (1)✓; Fujinon (1,6)✓; Gordon, Alan (1,2)✓; Javelin (1)✓; Listec (2)✓; Panasonic (1)✓; Panavision (1)✓; Photo And Video (1)✓; RCA/New Products (4)✓; Richardson (4); Schneider (1,3,6)✓; Schwem (1)✓; Smith, Warren R. (1,2)✓; Tamron (1)✓; Temtron (4)✓; Thomson-CSF Components (4)✓; Tiffen (3)✓; Video Components (1,6); Zellan (1)✓

II C. VTRs, VCRs

TYPES:

- (1) One-inch B
- (2) One-inch C
- (3) ¾-inch U
- (4) Betacam
- (5) M-format
- (6) Beta
- (7) VHS
- (8) Quarter-inch
- (9) MERPS multicassette deck

SUPPLIERS:

Alpha Video (3)✓; American Horizon (3,7); Ampex AVSD (2,5)✓; Asaca (9)✓; Bosch (1,8)✓; Frezzolini (7)✓; Hitachi (2)✓; Hubcom (9)✓; JVC (3,7)✓; Lake (9)✓; Media Concepts (7); Merlin (1-3,5,7)✓; PEP (7)✓; Panasonic (3,5,7)✓; Pegasus (9)✓; Philips TV (8)✓; RCA/Broadcast (2,5)✓; Recortec (3)✓; Sansui (7)✓; Sharp (7)✓; Sony Broadcast (2-4,9)✓; Thomson-CSF (4)✓

II D. VTR Heads/VTR Accessories

TYPES:

- (1) Replacement heads
- (2) Rebuilt heads
- (3) Head cleaners, degaussers
- (4) Alignment, tension gauges
- (5) VTR refurbishing, rebuilding

SUPPLIERS:

A.F. Associates (5)✓; Allsop (3)✓; Ampex AVSD (1)✓; Annis, R.B. (3)✓; Bowen (5); CMC (1,2)✓; Int. Electro-Magnetics (1); JRF (2,5); KB (1,3); Lauderdale (3); Nortronics (3,4)✓; Pinzone (5)✓; RE:DB (1,2); Saki (1)✓; Spin Physics (1,5)✓; Sprague (1-3)✓; TDK (3)✓; Taber (3)✓; Texwipe (3) ✓

II E. Videotape, Film/Tape Accessories

TYPES:

- (1) Two-inch tape
- (2) One-inch tape
- (3) ¾-inch cassettes
- (4) Half-inch cassettes
- (5) Film stock

EIGHT QUESTIONS YOU SHOULD ASK WHEN BUYING WEATHER RADAR.

1. Where does the data come from?

The National Weather Service is now fully operational with a series of radar transmitters called RRWDS: it's their primary precipitation detection tool. The Alden C2000R is the color radar display system which allows its subscribers to access any of these RRWDS transmitters, on a direct line or dial-up basis.

2. What if I only want three or four sites?

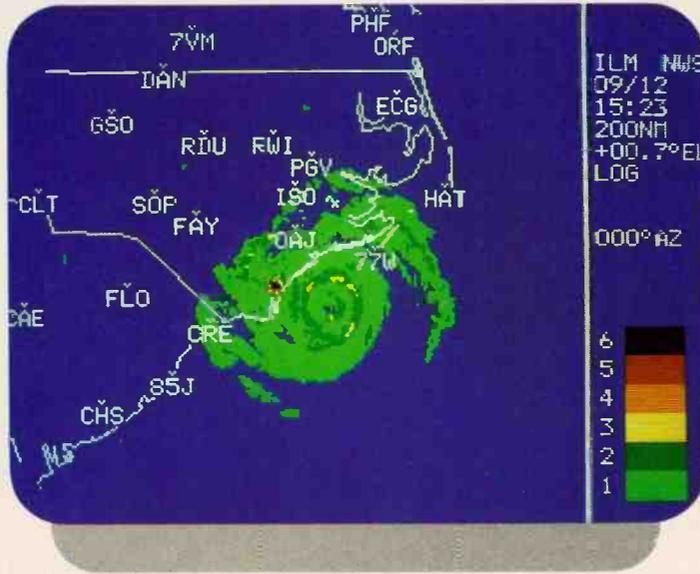
With the Alden system, there's no need to pay for access to the whole country if you only need data from a few radars. You specify the sites you want, and we program your auto-dialer phone to receive these sites. You pay only for the sites you need.

3. Will I get busy signals?

Probably not. The system is designed so multiple users can call simultaneously. And because we know who has access to each radar, we can expand the system as subscribers increase.

4. What about service?

Of course the transmitters are maintained by on-site government technicians. And for Alden equipment, we maintain a nationwide



service network for reliable operation.

5. What features are included?

The Alden C2000R has a number of built-in features that are costly options in other radar display systems. Zoom, range rings, sweep line, NTSC/RGB

compatibility, time lapse and level flashing are included in the standard C2000R. And there's no hookup charge to connect to any radar.

6. Are there options?

You can add additional memory, clutter blanker, alarm, customized backgrounds—even a high-resolution printer for color print or transparency. And for a surprisingly small additional cost, you can convert the C2000R

to the C2000R/S, which lets you receive color weather graphics from private data bases.

7. Can we afford it?

The Alden C2000R is far less expensive than other similarly equipped radar display systems. If you don't need all the features of the C2000R, the cost is even less for our C2000M radar monitoring system. If you've looked at weather display systems in the past, you will be pleasantly surprised at the cost, lease or purchase, of an Alden system.

8. How do I find out more?

Just fill in the coupon, or call Alden, and we'll be happy to set up a demonstration.

Alden Electronics, 127 Washington Street,
Westborough, MA 01581, (617) 366-8851
Please send information on:
 C2000R C2000M C2000R/S

Name _____
Title _____
Company _____
Street _____
City _____ State _____ Zip _____

Add weather graphics capability at a surprisingly low cost with our C2000R/S



ALDEN ELECTRONICS



- (6) Empty reels, carts, cases
- (7) Tape loaders, timers, rewinders
- (8) Tape cleaners, evaluators
- (9) Tape erasers, degaussers
- (10) Film cleaners

SUPPLIERS:

3M Magnetic (1-7,9)✓; Agfa-Gevaert (2-4)✓; Ampex MTD (1-3,6)✓; Annis, R.B. (9)✓; Asaca (8)✓; Audico (7)✓; BASF (4)✓; CMC (9)✓; Calico (1)✓; Christie (9)✓; Comprehensive Video (3,4,8,9)✓; Eastman Kodak (2-4)✓; Elcon (8)✓; Fuji (2-4)✓; Garner (9)✓; JVC (4)✓; King (7,8)✓; Lipsner-Smith (10)✓; Maxell (2,4)✓; N.O.V.A. (8)✓; Neumade (6,7,10)✓; Nortronics (8,9)✓; Odetics (4); PD Magnetics (4); Panasonic (3,4)✓; Plastic Reel (6)✓; RTI (6-10)✓; Recortec (7,8)✓; Smith-Victor (4)✓; Sonar (9); Sony Tape (2-4)✓; TDK (4)✓; TEA (8)✓; Taber (8,9)✓; Taylor (4,6); Wide Range (9)✓

II F. Still/Slow Motion Recorders, Animation

TYPES:

- (1) Digital still store
- (2) Magnetic disk recorder
- (3) Optical disk recorder
- (4) VTR slo-mo systems
- (5) Video animation controllers
- (6) Animation stand motion control

SUPPLIERS:

ADDA (1)✓; Abekas (1)✓; Ampex AVSD (1)✓; Colorado Video (1)✓; Computer Image (5); DRS (3,5)✓; Eigen (5); Elicon (5,6)✓; Euro Equip. (6); For-A (1,4)✓; Forox (6)✓; Gordon, Alan (6)✓; Harris Video (1)✓; Interand (1)✓; Lyon Lamb (5)✓; MCI/Quantel (1,5)✓; NTL (1)✓; Oktel (1,2)✓; Paltext (1)✓; Panasonic (3)✓; Rank (1)✓; Smith, Warren R. (6)✓; Sony Broadcast (4)✓; Total Spectrum (6)✓; Video Components (1); Videomedia (5)✓; Woolley, Frank (6)✓

II G. Telecine/Film Equipment

TYPES:

- (1) Solid-state telecine systems
- (2) Telecine cameras
- (3) 16/35 mm telecine projector
- (4) 35 mm slide projector
- (5) Optical multiplexers
- (6) Telecine color correctors
- (7) Telcine control systems

SUPPLIERS:

A.F. Associates (1,6,7)✓; ABP (7)✓; Applied Digital (6)✓; Audio Kinetics (7)✓; Bosch (1,6)✓; Buhl (5); Corporate Communications (6,7)✓; Dubner (6)✓; For-A (6)✓; Hubcom (1,2)✓; Ikegami (2-7)✓; Kalart (5); Knox (6)✓; L-W (3)✓; Magnasync (3)✓; Multi-Track Magnetics (3)✓; Nytone (4-6); Palmer Films (2,3)✓; Photo And Video (4)✓; Quad Eight (3,4)✓; RCA/Broadcast (2-5)✓; RTI (1)✓; Radmar (3)✓; Rangertone (1-5,7); Rank (1,6,7)✓; Sauppe (4); Steenbeck (1)✓; Telex (3,4)✓; Thomson-CSF (4,6)✓; Zei-Mark (3-5,7)

II H. Electronic Art/Graphics

TYPES:

- (1) Titlers, subtitles
- (2) Character generator/graphics systems
- (3) Digital art/paint systems
- (4) 3D modeling and manipulation
- (5) "Draw on screen" systems
- (6) Bit pad digitizers

- (7) Camera/VTR digitizers
- (8) High-res screen cameras
- (9) Teletext terminals
- (10) Film recorders

SUPPLIERS:

Ampex AVSD (2,3)✓; Aston (2)✓; Aurora (2,3)✓; Bosch (3,4,6)✓; CalComp (10)✓; Channelmatic (2); Chyron (1-7)✓; ColorGraphics (3)✓; Computer Graphics (3,4)✓; Cubicomp (2-5)✓; Digital Techniques (2); Dubner (2-4,6)✓; Elicon (4,6)✓; Evertz (1)✓; For-A (1,2,5)✓; Harris Video (3)✓; Interand (5)✓; Kavouras (2)✓; Knox (1,2)✓; 3M Broadcasting (1-3,7)✓; MCI/Quantel (2-4)✓; MPB (2)✓; Multidyne (1)✓; Mycro-Tek (2)✓; Panasonic (1,2)✓; Pesa America (2)✓; Quanta (1-3)✓; Sigma (1-3,5)✓; Symtec (1-3,6,7)✓; Texscan (1)✓; Thalner (2); Thomson-CSF (1-4,6)✓; United Media (2-6)✓; Vectrix (2)✓; Video Aids (2)✓; Video Associates (2)✓; Video Components (1,2); Xiphias (3)✓

II I. Weather Systems

TYPES:

- (1) Weather graphics displays
- (2) Satellite displays
- (3) Weather radar displays
- (4) Weather symbol inserters
- (5) Weather-based art/paint systems
- (6) Lightning detection and display

SUPPLIERS:

Advanced Designs (1,3)✓; Aiden (1-3)✓; Aurora (5)✓; Chyron (1-5)✓; ColorGraphics (2,3,6)✓; ESD (1-6)✓; Enterprise (3)✓; Integrated Technologies (1,5)✓; Kavouras (1,3,5)✓; 3M Stormscope (6)✓; R-Scan (2,6)✓; Tech. Service (1-3)✓; Texscan (2,3)✓; Vectrix (1)✓

II J. Production Switchers

TYPES:

- (1) Portable units
- (2) Compact, studio/mobile units
- (3) Large, automated systems
- (4) Post-production switchers
- (5) Component switchers

SUPPLIERS:

Ampex AVSD (3,4)✓; Asaca (1,2)✓; Beaveronics (1,2,4)✓; Bosch (3)✓; Central Dynamics (1-4)✓; Crosspoint Latch (2-4)✓; For-A (2,4,5)✓; Grass Valley (1-4)✓; Intergroup Video (1-4)✓; International Nuclear (1-4); Kaitronics (1,2); Lang (1)✓; Listec (1)✓; Matrix Systems (1-4)✓; Omicron (2,4)✓; Panasonic (1,2)✓; Pesa America (2)✓; QSI (2)✓; Ross Video (1-4)✓; Shintron (2,4,5)✓; Toshiba (2)✓; Videotek (2)✓; Viscount (2)✓; Vital (2,3)✓

II K. Special Effects

TYPES:

- (1) Digital efx generators
- (2) Compressor/positioners
- (3) Standalone analog efx
- (4) Colorizers
- (5) RGB chromakeyers
- (6) Encoded chromakeyers
- (7) Title keyers
- (8) Downstream keyers
- (9) Nonadditive keyers

SUPPLIERS:

ADDA (2)✓; Abekas (1)✓; Ampex AVSD (1)✓; Applied Digital (4)✓; Beaveronics (5,8)✓; Broadcast Video (5-9)✓; Central Dynamics (1-5,7-9)✓; Channelmatic (8); Chroma Digital (1,2)✓; Colorado Video (4)✓; Computer Image (3); DRS (2)✓; DSC (1)✓; Echolab (3,5-8)✓; Evertz (7)✓; For-A (1-5,7,8)✓; Graham-Patten (8)✓; Grass Valley (1,2,7,8)✓; Harris Broadcast (1,2)✓; Harris

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Video (1)✓; Horizontal Editing (1); Image Video (8)✓; Intergroup Video (3,5-8)✓; International Nuclear (3-6,8); JVC (3)✓; Knox (4,7-9)✓; Listec (1)✓; MCI/Quantel (1)✓; Microtime (1,3)✓; NEC (1)✓; Omicron (4,5,7-9)✓; Panasonic (7)✓; Quanta (1)✓; Shintron (1,5,6,8)✓; Telemet (5,6)✓; Thomson-CSF (1,6)✓; Toshiba (1)✓; Ultimatte (5)✓; Viscount (1)✓; Vital (1,3,5,7)✓

II L. Master Control Switchers

TYPES:

- (1) Manual
- (2) Automated
- (3) Business automation interfaced

SUPPLIERS:

Ampex AVSD (2)✓; Bosch (2)✓; CCI (1-3)✓; Central Dynamics (1-3)✓; Comad (1,2); Data Communications (3)✓; Dynair (1,2)✓; Grass Valley (1-3)✓; Grumman (2)✓; Image Video (1,2)✓; Intergroup Video (1,2)✓; International Nuclear (1,2); Matrix Systems (1-3)✓; Omicron (1)✓; United Media (2)✓; Utah Scientific (1)✓; Video Components (2); Viscount (1)✓; Vital (1-3)✓

II M. Video Routing Switchers

TYPES:

- (1) Parallel interface
- (2) Serial interface

SUPPLIERS:

ABP (1)✓; Ampex AVSD (2)✓; BSM (1,2)✓; Bosch (1)✓; Central Dynamics (1,2)✓; Channelmatic (1); Datatek (1,2)✓; Di-Tech (1,2)✓; Dynair (1,2)✓; Grass Valley (1,2)✓; Hedco (1,2)✓; Image Video (1,2)✓; Intergroup Video (1,2)✓; Kaitronics (1,2); 3M Broadcasting (1,2)✓; Omicron (1)✓; Pesa America (1)✓; Telemet (1,2)✓; United Media (1,2)✓; Utah Scientific (2)✓; Vamco (1,2); Vital (2)✓

II N. Machine Control/Technical Automation

TYPES:

- (1) Parallel interface
- (2) Serial interface
- (3) Vertical interval systems

SUPPLIERS:

Alamar (1,2)✓; Auburn (1)✓; Audio Kinetics (1,2)✓; Bosch (1)✓; CCI (1-3)✓; CMX (1,2)✓; Central Dynamics (1-3)✓; Channelmatic (3); Datatek (2,3)✓; Dynair (1,2)✓; Engineering Lab (1-3); Grass Valley (1)✓; Horizon (2)✓; Image Video (1,2)✓; Kaitronics (1); Landy (2)✓; 3M Broadcasting (1-3)✓; Matco (2); Mycomp (1,2)✓; Omicron (1)✓; Utah Scientific (2)✓; Vamco (1,2); Video Components (3); Videomedia (1-3)✓

II O. TV Business/Newsroom Automation

TYPES:

- (1) Business automation software
- (2) Business automation hardware
- (3) TV newsroom computers

SUPPLIERS:

ANT (3)✓; Anacomp (1); Basys (3)✓; ColorGraphics (3)✓; Columbine (1-3)✓; Data Communications (1-3)✓; Jefferson Data (1-3)✓; Magnicom (1,2); Management (1)✓; Media Computing (3)✓; Quanta (3)✓; Summit (1); Telesource Comm. (3)✓; Terminal Systems (3); VariCom (1); Videomedia (1,2)✓

II P. Video Post-Production

TYPES:

- (1) Time code synchronizers
- (2) Two-machine editor/controllers
- (3) A/B-roll editors
- (4) Multisource editors
- (5) SMPTE time code generator/readers
- (6) VITC reader/generators

SUPPLIERS:

Adams-Smith (1-6)✓; Ampex AVSD (4)✓; Armtel (1,5)✓; Applied Digital (1)✓; Audio + Design (5)✓; Bosch (2)✓; CMX (1-6)✓; Calaway (3)✓; Cipher (5,6)✓; Convergence (2,3,4,5)✓; Datum (5,6)✓; Droio Works (4)✓; EECO (2,4,5)✓; EEG (5); ESE (5)✓; Elecon (3-5)✓; Evertz (1,5,6)✓; For-A (5,6)✓; Gordon, Alan (5)✓; Grass Valley (3,4)✓; Gray Engineering (5,6)✓; Horizon (4)✓; JVC (2)✓; Jatex (2,5); Laumic (2)✓; Mikrolab (1)✓; Montage (4)✓; Multi-Track Magnetics (1,5)✓; Paltex (1-4)✓; Panasonic (2)✓; Shintron (5,6)✓; Skotel (5)✓; Sony Broadcast (2-4,6)✓; Telcom (5)✓; United Media (1-5)✓; Videomedia (2-5)✓; Vital (1,5)✓; Wide Range (5)✓

II Q. Video Sync and Signal Generators (Also see Test and Measurement section)

TYPES:

- (1) Sync
- (2) Black burst
- (3) Color bars
- (4) SID
- (5) Safe title area
- (6) Video slate board/countdown

SUPPLIERS:

Adams-Smith (1)✓; American Horizon (1,3); Anton/Bauer (2)✓; Barco (5)✓; Bosch (1-3)✓; Broadcast Video (5)✓; Central Dynamics (1)✓; Colorado Video (1)✓; Crosspoint Latch (1-3)✓; EEG (4); Evertz (6)✓; For-A (1-3)✓; Grass Valley (1)✓; Grumman (1)✓; International Nuclear (2); Javelin (4)✓; Landy (5,6)✓; Lang (4)✓; Leitch (1,3,5)✓; Lenco (1-3)✓; 3M Broadcasting (1-3)✓; Magni (1,3)✓; Marconi (1)✓; Multidyne (2,3)✓; Newton (1,3)✓; Omicron (1-3)✓; Pesa America (1)✓; Philips T & M (1,3)✓; Philips TV (1)✓; QSI (2-4,6)✓; Real World (5)✓; Rohde & Schwarz (1,3)✓; Shintron (1)✓; Sigma (1-3)✓; Tektronix (1-3)✓; Telemet (1,3)✓; Thalner (6); Video Aids (1-3)✓; Video Components (1-3,5,6); Videotek (1)✓; Visual Inform. (1)

II R. Digital Video Processing

TYPES:

- (1) TBCs
- (2) Field synchronizers
- (3) Frame synchronizers
- (4) Field/framestores
- (5) TBC/framestores
- (6) Noise reducers
- (7) Image enhancers
- (8) Color correctors (also see Telecine category)
- (9) Video multiprocessors
- (10) Standards converters
- (11) Video/audio sync delay

SUPPLIERS:

A.F. Associates (10)✓; ADDA (1,3-5)✓; Ampex AVSD (1)✓; Andersen (1,3,5,7,8,11); Apert-Herzog (3-5)✓; Asaca (10)✓; Broadcast Video (4,8)✓; Chroma Digital (1,3,5)✓; Colorado Video (4)✓; Crosspoint Latch (1)✓; Digital Video Systems (1-3)✓; Eigen (4,6); Faroudja (6-8)✓; For-A (1,3-8)✓; Fortel (1,7,9)✓; Harris Broadcast (1,3-6)✓; Harris Video (1,3,5,6)✓; Hotronic (1,3-5)✓; KB (7); MCI/Quantel (5,10)✓; McMichael (10)✓; Microtime (1,3,5-8)✓; NEC (3,11)✓; OKI Telecom (10)✓; Paltex (1-5,9)✓; Scientific-Atlanta (1,3)✓; Shintron (3)✓; Siegel (7,8);



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Sony Broadcast (1)✓; Superex (7,9); Tektronix (1-5)✓; Thomson-CSF (7,8)✓; Toshiba (3,11)✓; Video Aids (7)✓; Video Components (5,10); Video Internat. (10)✓; nova (1)✓



II S. Other Video Processing

TYPES:

- (1) NTSC encoders
- (2) Decoders
- (3) Comb filter decoders
- (4) Video delay lines
- (5) Video filters
- (6) Dropout compensators
- (7) Video/cable equalizers

SUPPLIERS:

Allen Avionics (4,5,7)✓; Asaca (1,2)✓; Barco (2,3)✓; Barr & Stroud (5)✓; Bosch (1)✓; Broadcast Video (1,3-5)✓; Coastcom (5); Digital Video Systems (3,6)✓; Fairchild (4); Faroudja (2,3)✓; For-A (1,2,6)✓; Grass Valley (4)✓; International Nuclear (7); Leitch (4,5)✓; Lenco (1,2)✓; Lyon Lamb (1)✓; Magni (2)✓; Omicron (1,7)✓; Siegel (3); TEA (4,5,7)✓; TTE (4,5); Tektronix (2,3)✓; Telease (1,2); Telemet (3)✓; UHF (5)✓

II T. Video Amplifiers

TYPES:

- (1) Proc amps
- (2) Video DAs
- (3) Pulse amps
- (4) Subcarrier amps

SUPPLIERS:

Amtel (2)✓; Apert-Herzog (2)✓; BSM (2)✓; Central Dynamics (1-4)✓; Channelmatic (2,3); Comprehensive Video (2)✓; Datatek (2-4)✓; Di-Tech (2,3)✓; Dynair (2,3)✓; ESE (2)✓; For-A (1,2)✓; Graham-Patten (2-4)✓; Grass Valley (1-4)✓; Grumman (1)✓; Hedco (2-4)✓; Intergroup Video (2-4)✓; International Nuclear (1-4); Javelin (2)✓; Knox (1)✓; Leitch (1-4)✓; Lenco (1-4)✓; 3M Broadcasting (1,2)✓; Mobile-Cam (2)✓; Multidyne (2-4)✓; Mycomp (2)✓; Omicron (2-4)✓; Opamp (2,3)✓; Pesa America (3)✓; QSI (2)✓; Scientific Systems (2,3); Shintron (2-4)✓; Siegel (1); Sigma (1-4)✓; TEA (2,3)✓; Telemet (2,3)✓; Utah Scientific (2)✓; Vamco (2); Video Aids (2,3)✓; Video Components (1-4); Videotek (2)✓; Vital (2,3)✓

II U. Video Monitors

TYPES:

- (1) Monochrome
- (2) NTSC
- (3) RGB
- (4) High resolution
- (5) Wide aspect ratio
- (6) Battery-powered portable
- (7) Video projectors
- (8) Monitor calibrators

SUPPLIERS:

American Horizon (3-8); Amtron (3,4); Asaca (2,3,6,8)✓; Barco (1-6)✓; Bosch (2,3)✓; Bretford/Knox (7); Conrac (1-4)✓; Elector (2,4,7)✓; Electrohome (1-4,7)✓; GE Projection (7)✓; Heath (7); Hitachi (2)✓; Ikegami (1-6)✓; Image Mag. (7); Javelin (1,2)✓; Kalart (7); Lectrotech (2)✓; Lenco (1-3)✓; McMichael (2)✓; Mikrolab (3)✓; Panasonic (1-4,6,7)✓; Sharp (2)✓; Sony Broadcast (2,4,6)✓; TEA (8)✓; Tektronix (2-4)✓; Video Components (1); Videotek (2,3,6)✓

II V. Other Video Equipment

SUPPLIERS:

ADC✓; ANT✓; Abekas✓; American Horizon; Annis, R.B.✓; Audico✓; Audio Video Conslt.; Broadcast Video✓; CCI✓; Cinema Products✓; Computer Labs; Datatek✓; Dynair✓; EECO✓;

Evertz✓; Faroudja✓; For-A✓; Graham-Patten✓; Interand✓; Lang✓; Leitch✓; Microtime✓; Penny & Giles✓; Photo And Video✓; Pinzone✓; Roscor✓; Tektronix✓

III. LIGHTING; POWER; SUPPORT; SCENERY and SET DESIGN; RACKS, CABINETS and CONSOLES

III A. Lighting

TYPES:

- (1) Lamps
- (2) HMI, CSI fixtures
- (3) Quartz fixtures
- (4) Cyc lighting
- (5) Diffusion, efx material
- (6) Lighting stands, rigging
- (7) Lighting control boards
- (8) Dimmer packs

SUPPLIERS:

Anton/Bauer (3)✓; Arriflex (2,3)✓; Avab (2,7,8); B-W (1,3-8)✓; Bardwell (3-6)✓; Bogen Photo (3,6)✓; Cinema Products (3)✓; Cinemills (1-3)✓; Colortran (1,3-8)✓; Comprehensive Video (1,3,5,6,8)✓; Cool Light (1-3)✓; Desisti (1-8)✓; Electro Controls (7,8)✓; Electronics Diversified (7,8)✓; Fantasee (1-8); Frezzolini (1,3,6)✓; GE Lighting (1)✓; GTE Lighting (1)✓; Gagnon LaForest (6); Gordon, Alan (2)✓; Great American Market (1-5,7)✓; Grosh (6); Ideal (8); KB (3); Kliegl (1,3-8)✓; L.T.M. (2,3,4,6)✓; Lee (1-8)✓; Lighting Methods (7,8); Lowel-Light (3,6)✓; Matthews (5,6)✓; Mole-Richardson (1-8)✓; N. American Philips (1-4)✓; Olesen (1,3,5-8); Osram (1,2)✓; Packaged Lighting (1,3-8); Perrott (1)✓; Phoebus (2,3)✓; Polites (6); Rainbo (5,7)✓; Rosco (5)✓; Smith-Victor (1,3,5,6)✓; Stage Lighting (1-8); Strand Century (2,4,7,8)✓; TBA (2,7)✓; TVI (3,4,7,8); Teatronics (7,8); Temtron (1,3)✓; Theatre Service (4,6,7); Theatre Techniques (8); Ultimate Support (6)✓; Union Connector (7,8)✓; VDO-Pak (3); Video Components (1)✓

III B. Power Supplies

TYPES:

- (1) Nicad batteries, chargers
- (2) Silver-zinc batteries, chargers
- (3) Lead-acid batteries, chargers
- (4) Power generators
- (5) AC power dividers
- (6) HMI ballasts
- (7) Ac/dc converters, inverters

SUPPLIERS:

Alexander (1)✓; Alpha Tech. (4); Anton/Bauer (1,2,7)✓; Bogen/Lear Siegler (7)✓; Broadcast Microwave (1,3,7)✓; Chiles, John (1,3); Christie (1)✓; Cine 60 (1)✓; Cinema Products (1)✓; Colortran (1)✓; Comprehensive Video (1,7)✓; Elecon (1)✓; Film/Video Equipment (1,3)✓; Frezzolini (1,7)✓; G & M (1,5,7); Gordon, Alan (1,2)✓; KB (1,3); Lee (4,5,7)✓; Mole-Richardson (4,6,7)✓; Motorola C&E (1)✓; North Wind (3,4,7)✓; Onan (4); PEP (1)✓; Pacific Power (4)✓; Paco (1)✓; Perrott (1-3)✓; Portable Energy (1,3)✓; TTE (7)✓; Teledyne Big Beam (3); Teledyne Energy (4); Topaz (4); VDO-Pak (1); Vanner (3,7); Video Components (1,3)✓

III C. Camera/Microwave Support

TYPES:

- (1) Tripods, heads

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- (2) Pedestals
- (3) ENG braces
- (4) Dollies
- (5) Cranes, jibs
- (6) Camera stabilizing systems
- (7) Helicopters, rigs
- (8) Remote pan/tilt systems

SUPPLIERS:

Arriflex (1,5)✓; Bardwell (1)✓; Birns & Sawyer (1); Bogen Photo (1,4)✓; Bush & Millimaki (1); Canon (1,2)✓; Cinema Products (1,6,8)✓; Comprehensive Video (1,4)✓; Davis & Sanford (1,2,4)✓; Desisti (1,4,5)✓; ENG Helicopter (6)✓; Gordon, Alan (1,3-6,8)✓; Heitz (1,4)✓; Innovative TV (1-4)✓; Javelin (8)✓; KB (1,4); Lee (4,5)✓; Listec TV (1-6,8)✓; Matthews (4,5,8)✓; Miller Professional (1,4)✓; O'Connor (1,2,4)✓; Quick Set (1,2,4,8)✓; Sachtler (1-4)✓; Sky Works (8)✓; Skyworks (8)✓; Smith-Victor (1)✓; Total Spectrum (8)✓; Video Components (1-4,8); Will-Burt (6,8)✓; Zellan (7)✓

III D. Teleprompters

TYPES:

- (1) Monitor based
- (2) Scroll entry
- (3) Keyboard entry
- (4) ENG/EPF portable

SUPPLIERS:

Cinema Products (2,4)✓; Compu=Prompt (1)✓; Listec TV (1-4)✓; Q-TV (1-4)✓; Telescript (1-3)✓

III E. Transportation Cases

TYPES:

- (1) Foam insert
- (2) Padded nylon
- (3) Rack configuration
- (4) Editing/production consoles

SUPPLIERS:

A&S (1,3,4); ABP (1-4)✓; Anvil (1,3)✓; Bal (1)✓; Bogen Photo (1)✓; Calzone Case (1,3,4)✓; Cases, Inc. (1,3); Center Video (4)✓; Comprehensive Video (2,3)✓; Desisti (1)✓; Excalibur (1,3,4)✓; Ferno (3); Fiberbilt (1,3)✓; Gordon, Alan (1,2)✓; Great American Market (1,3,4)✓; Innovative TV (1)✓; Jensen Tools (1)✓; KB (2); Kangaroo (2)✓; Media Concepts (1); Nalpak (1,3); Parsons (1,3); Porta-Brace (2)✓; Star Case (1)✓; Thermodyne (1,3)✓; Video Components (1-4); Viking Cases (1,3,4)✓

III F. Set Design

TYPES:

- (1) Modular news, studio sets
- (2) Scenery construction
- (3) Scenery rigging
- (4) Props, materials
- (5) Set design service

SUPPLIERS:

Albrecht (3); Arben (1,2,4); Fantasee (5); Graphic Express (1-5)✓; Grosh (1-3); Janson (2-4); Osmond (2,3); Rosco (2,4)✓; Syracuse (2,3)✓; TVI (2,3,5); Theatre Service (3,4); Uni-Set (5)✓

III G. Studio Furniture

SUPPLIERS:

ABP✓; Arrakis✓; Audio Broadcast; Bretford/Knox; Comprehensive Video✓; Delcom; Graphic Express✓; Grinnan; Horizon✓; Micro-Trak✓; Radio Systems✓; Ruslang✓; Stantron✓; Ultimate Support✓; Wilson, H.✓; Winsted✓

III H. Cabinets

SUPPLIERS:

ABP✓; AMCO✓; Alpha Video✓; Bretford/Knox; Comprehensive Video✓; Delcom; Emcor✓; Enclosure, Inc.; GKM; Graphic Express✓; Grinnan; Micro-Trak✓; Mobile-Cam✓; Neumade✓; Optima✓; Pacific Recorders✓; RTI✓; Scientific-Atlanta✓; Soundolier✓; Stantron✓; Storeel✓; Wallach; Wilson, H.✓; Winsted✓

III I. Studio Consoles

SUPPLIERS:

ABP✓; Allied Broadcast✓; Alpha Video✓; Centro✓; Comprehensive Video✓; Delcom; Emcor✓; Enclosure, Inc.; GKM; Graphic Express✓; Mark Electronics; Micro-Trak✓; Optima✓; Pacific Recorders✓; Ruslang✓; Scientific-Atlanta✓; Soundolier✓; Stantron✓; Turner✓; Winsted✓

III J. Equipment Racks

SUPPLIERS:

ABP✓; AVCOM; Allied Broadcast✓; Alpha Video✓; Calzone Case✓; Centro✓; Comprehensive Video✓; Delcom; Emcor✓; Enclosure, Inc.; GKM; Mark Electronics; Micro-Trak✓; Mobile-Cam✓; Neumade✓; Optima✓; Pacific Recorders✓; Packaged Lighting; Plastic Reel✓; RTI✓; Ruslang✓; Scientific-Atlanta✓; Soundolier✓; Stantron✓; Tektronix✓; Viking Cases✓; Wallach; Wilson, H.✓; Winsted✓

III K. Cart/Tape Storage

SUPPLIERS:

Allied Broadcast✓; Aristocart✓; Arrakis✓; Broadcast Cartridge✓; Broadcast Supply✓; Calzone Case✓; Comprehensive Video✓; Fidelipac✓; Micro-Trak✓; Pacific Recorders✓; RTI✓; Ruslang✓; Storeel✓; Wallach; Winsted✓

IV. TRANSMITTING/RECEIVING EQUIPMENT; SATELLITE SYSTEMS; ANTENNAS and TOWERS

IV A. Transmitters

TYPES:

- (1) AM
- (2) FM
- (3) VHF
- (4) UHF
- (5) LPTV
- (6) MDS
- (7) Translators

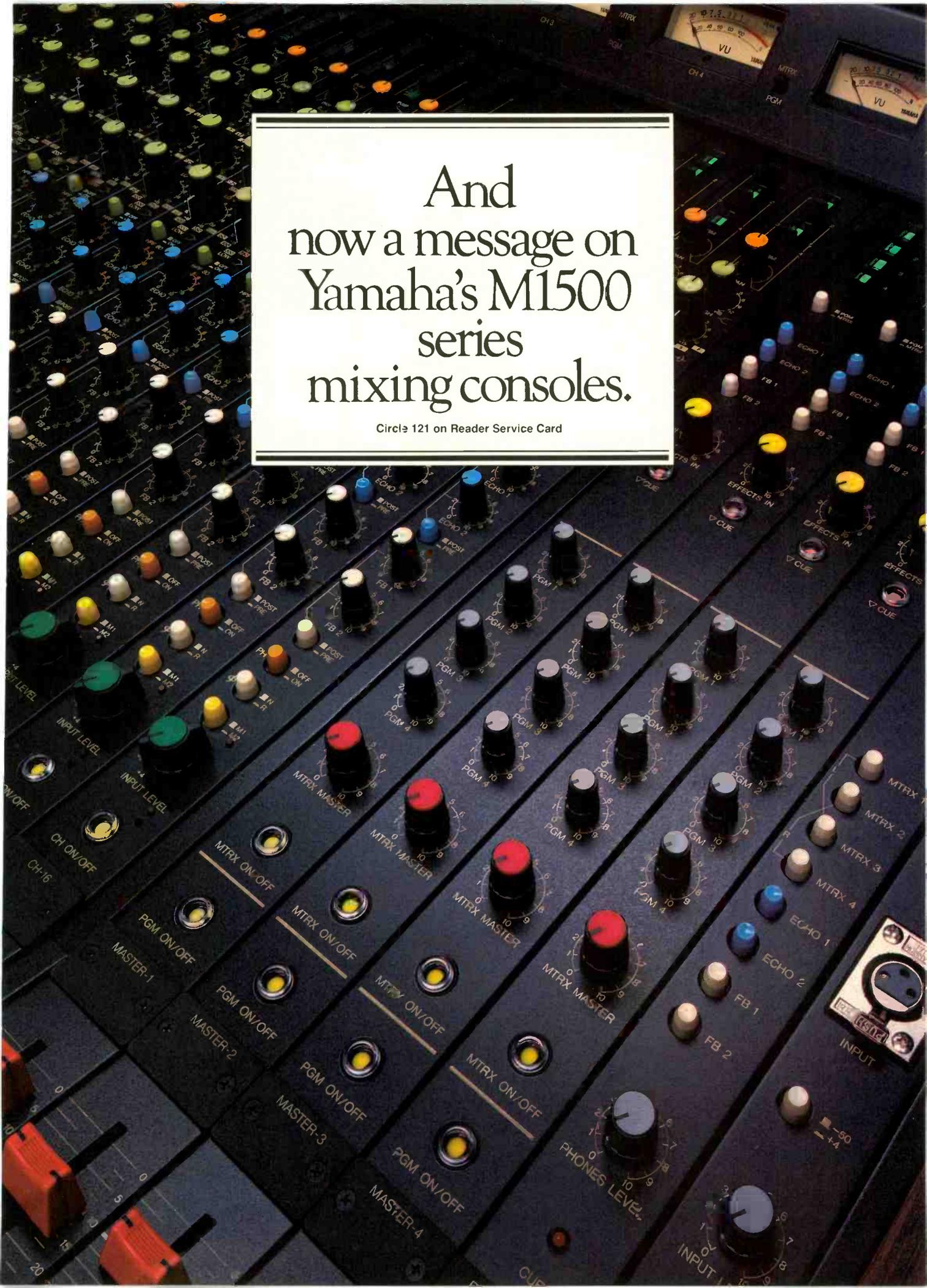
SUPPLIERS:

Acrodyne (3-5,7)✓; Bayly (1-3)✓; Broadcast Electronics (2)✓; CSI (1,2); Comark (1-5,7)✓; Contel (5); Continental Electronics (1,2)✓; Elcom Bauer (1,2)✓; Emcee (3-7)✓; Harris Broadcast (1-4)✓; Info. Transmission Sys. (4-6)✓; Itelco (2-5,7)✓; Larcen (2-4,7)✓; Lora! (2); Marcom (3,5)✓; McMartin (1-4)✓; NEC (2-4)✓; Nautical Electronic (1)✓; Nurad (6)✓; Pesa America (5,7)✓; Philips TV (2-4)✓; QEI (2)✓; RCA/Broadcast (3,4)✓; Radio Systems (1)✓; Rohde & Schwarz (1-5)✓; Teko (2-4,7)✓; Television Technology (1-5,7)✓; Tepco (7); Townsend (3-7)✓

IV B. Exciters, Generators, Modulators

TYPES:

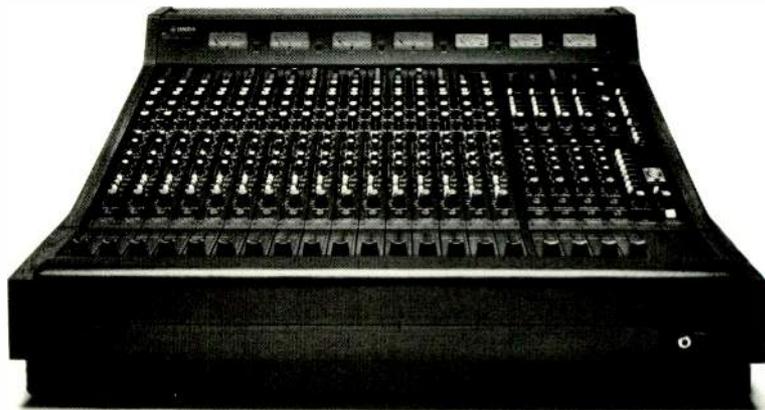
- (1) AM exciters
- (2) AM stereo exciters



And
now a message on
Yamaha's M1500
series
mixing consoles.

Circle 121 on Reader Service Card

M1516A



GENERAL SPECIFICATIONS

FREQUENCY RESPONSE +0, -3dB, 20Hz to 20kHz; +0, -0.5dB, 30Hz to 15kHz.

TOTAL HARMONIC DISTORTION (THD)*

Less than 0.5% @ +10dB, 20Hz to 20kHz. Less than 0.1% @ +20dB, 50Hz to 20kHz.

HUM AND NOISE* (20Hz to 20kHz, 150Ω source, Input Selector set at "-60")

- 128dBm Equivalent Input Noise (EIN);
- 95dB residual output noise with all Faders down.
- 73dB PROGRAM OUT (77dB S/N); Master Fader at nominal level & all Input Faders down.
- 64dB PROGRAM OUT (68dB S/N); Master Fader and one Input Fader at nominal level.
- 73dB MATRIX OUT; Matrix Mix and Master controls at maximum, one PGM Master Fader at nominal level, and all Input Faders down.
- 64dB MATRIX OUT (68dB S/N); Matrix Mix and Master controls at maximum, one PGM Master Fader and one Input Fader at nominal level.
- 70dB FB or ECHO OUT; Master level control at nominal level and all FB or ECHO mix controls at minimum level. (Pre/Post Sw. @ PRE.)
- 64dB FB or ECHO OUT (68dB S/N); Master level control and one FB or ECHO mix control at nominal level. (Pre/Post Sw. @ PRE.)

MAXIMUM VOLTAGE GAIN (Input Selectors set at "-60" where applicable)

PROGRAM & MATRIX 84dB; Channel In to the corresponding output. EFFECTS 20dB; Effects In to PGM Out.
FB & ECHO 94dB; Channel In to FB/ECHO Out. SUB IN 10dB; Sub In to PGM Out.

EQUALIZATION (±15dB maximum)

LOW: 50, 100, 200, 350, 500Hz, shelving. HIGH MID: 1.2, 2, 3.5, 5.7kHz, peaking.
LOW MID: 250, 350, 500, 700, 1000Hz, peaking. HIGH: 10kHz, shelving.

HIGH PASS FILTER 18dB/octave rolloff below 80Hz.

PHANTOM POWER For remote powering of condenser microphones, +40V DC can be switched on via a rear panel Master phantom power switch. When an individual Input Phantom switch is also On, voltage is applied to pins 2 and 3 of that input's balanced XLR connector.

DIMENSIONS/WEIGHT M1516A 34" W x 36 1/2" D x 14 1/2" H 147 lbs. M1524 55 3/4" W x 36 3/4" D x 14 1/2" H 213 lbs.
M1532 55 3/4" W x 36 3/4" D x 14 1/2" H 231 lbs.

*Measured with a 6dB/octave filter @12.47kHz; equivalent to a 20kHz filter with infinite dB/octave attenuation.

The specs shown are for the 16-channel M1516A console. When you need the same outstanding performance but more channels, there's the 24-channel M1524 and the 32-channel M1532. All three mixers have remote rack-mounted power supplies and are ideal for just about any fixed or portable sound reinforcement or broadcast application.

Of course, all three M1500 consoles have legendary Yamaha quality, reliability and craftsmanship. Which explains why you see Yamaha mixers wherever you look. Studios. Concert halls. Clubs. Theatres. Churches. We could go on, but you get the message.

For more information, write: Yamaha International Corporation, Combo Products Division, P.O. Box 6600, Buena Park, CA 90622. In Canada, Yamaha Canada Music Ltd., 135 Milner Ave., Scarborough, Ont. M1S 3R1.





- (3) FM exciters
- (4) TV exciters
- (5) Stereo generators
- (6) Diplexers
- (7) Multiplexers
- (8) Modulators

SUPPLIERS:

Bayly (3,5)✓; Blonder-Tongue (8)✓; Broadcast Electronics (2,3,5)✓; Broadcast Microwave (6,7)✓; CRL (5)✓; CSI (5); Catel (5,8); Cetec Antennas (6)✓; Coastcom (6); Comark (4,6-8)✓; Continental Electronics (1-3,5-7)✓; Delta (2)✓; Elcom Bauer (1,3,5)✓; Harris Broadcast (1-5)✓; Harris/Broadcast Microwave (4); Harris/Satellite Comm. (8); Info. Transmission Sys. (4)✓; Inovonics (5)✓; Javelin (8)✓; Kahn (2)✓; LNR (4)✓; Larcen (3,4,6,7)✓; Leader (5)✓; M/A-COM Telecomm. (8)✓; Magnavox (2)✓; McMartin (1,3,5,8)✓; Micro Comm. (6,7)✓; Micro Controls (3)✓; Microdyne (8)✓; Microwave Filter (6,7)✓; Modulation Sciences (5,7)✓; Moseley (5)✓; Motorola C&E (2)✓; Motorola/AM (2)✓; Nautical Electronic (1,2,5,8)✓; Orban (5)✓; Philips T & M (8)✓; Philips TV (3,4)✓; Powerpak (3,5)✓; QEI (3,5)✓; Rohde & Schwarz (3,4,8)✓; Scientific-Atlanta (4,8)✓; Shively (6,7)✓; Singer Broadcast (3,5)✓; TFT (2,8)✓; Tau-Tron (7); Tectan (6,7)✓; Teko (3,4,6)✓; Telease (8); Telemet (8)✓; Television Technology (3,8)✓; Townsend (4,5)✓; UHF (8)✓; Vector (6); Wegener (5)✓

IV C. RF Power Components

TYPES:

- (1) RF amplifiers
- (2) RF tubes
- (3) RF attenuators
- (4) RF converters
- (5) RF filters
- (6) RF loads
- (7) RF switches

SUPPLIERS:

Andersen (5); Barker (5-7); Bayly (5-7)✓; Bird (3,5-7)✓; Blonder-Tongue (1,3,4)✓; Broadcast Electronics (1)✓; Broadcast Microwave (1,3,5)✓; Calvert (1,2)✓; Catel (1,4); Celwave (5,6)✓; Cetec Antennas (7)✓; Coaxial Dynamics (3,5,6)✓; Comark (1-7)✓; Comprehensive Video (4,7)✓; Continental Electronics (1,5-7)✓; Delta (7)✓; Dielectric (4-7)✓; Dow-Key (7); EEV (2)✓; Elcom Bauer (1)✓; Electro Impulse (3,6); Freeland (2); Harris Broadcast (1,6,7)✓; ITT Jennings (7)✓; Itelco (4,5)✓; Kay Elemetrics (3,7)✓; MU-DEL (5); Magnecraft (7); Matrix Systems (3,7)✓; McMartin (1,5)✓; Micro Comm. (5-7)✓; Microwave Filter (3,5)✓; Microwave Techniques (3,5-7); Nautical Electronic (1)✓; Philips TV (1)✓; Powerpak (1)✓; RCA/New Products (1,2); RF Tech. (1)✓; Richardson (1,2); Shively (5-7)✓; TTE (5); Teko (1,3-5)✓; Telonic (3,5); Temtron (2)✓; Tepco (1,5); Texscan (3-5)✓; UHF (5)✓; Varian Microwave (2); Varian/Eimac (2)✓; Vector (5,6,7); Video Aids (1)✓; Wavetek Indiana (3,5); Westinghouse (y)✓; Wide Band (1)✓

IV D. Fiberoptic Systems

SUPPLIERS:

ANT✓; Andrew✓; Anritsu✓; Anton/Bauer✓; Artel✓; Catel; Commerce Airborne; GTE Comm.✓; Marshall Electronics; Quante✓; RCA/New Products; RE Inst.✓; Siecor✓; Tau-Tron; Times Fiber; Vamp; Western Telecomm.

IV E. Satellite Systems

TYPES:

- (1) Transmit/receive earth stations
- (2) Receive-only earth stations
- (3) Transportable earth stations

- (4) Upconverters, downconverters
- (5) LNAs
- (6) Encryption systems
- (7) MAC systems
- (8) Satellite network controllers

SUPPLIERS:

ANT (6)✓; AT&T (1,2)✓; AVCOM (2); American Horizon (1-6,8); Andrew (1-3,8)✓; Antenna Tech. (1-6,8)✓; Arunta (2,4); Avanteq (2,5); Blonder-Tongue (2,4,5)✓; Broadcast Microwave (2,3)✓; CAT (8); Cable Comm. (1,2,5); Calif. Microwave (1-3); Coastcom (1); Comtech Ant. (1-3)✓; Conifer (2)✓; Conus (1-3,7,8)✓; Dalsat (3)✓; Dig. Video Systems (6)✓; Drake, R.L. (2)✓; Electrohome (2)✓; GEC McMichael (3)✓; Gardner (2,4,5); Harris/Satellite Comm. (1-8); Hubcom (1-3)✓; Intervideo (1-3); Itelco (1-4)✓; LNR (4,5)✓; M/A-COM Telecomm. (1,2)✓; MU-DEL (4); Mark Antenna (1-3); Microdyne (1-3)✓; Microprobe (8)✓; Modulation Associates (1-3,8)✓; Monroe (8); Netcom (1,3,8)✓; Oak Comm. (6)✓; Pinzone (1-5)✓; Prodelin (2); RF Tech. (5)✓; Rohde & Schwarz (2)✓; Satcom (1,2); Scientific-Atlanta (1-7)✓; Soll (8)✓; Standard Comm. (2,4,5); Telease (6); Townsend (1,2)✓; Vertex (1-3,8); Wegener (1,2,4,6,8)✓; Zenith (6)✓

IV F. Microwave Systems

TYPES:

- (1) Intercity
- (2) Portable ENG
- (3) Airborne
- (4) Central receivers
- (5) SMATV systems

SUPPLIERS:

American Horizon (1,2,4,5); Andrew (1,3,5)✓; Broadcast Microwave (1-4)✓; Cablewave (1)✓; Comark (1)✓; ENG Helicopter (3)✓; Enstrom (3); GTE Comm. (1)✓; Harris Broadcast (1-5)✓; Harris/Broadcast Microwave (1,2); Hughes Microwave (1,5)✓; Intl. Microwave (1,2,4); Itelco (1,2)✓; L&R (1,3-5); Loral (1-4); M/A-COM MAC (1-4)✓; Mark Antenna (1,2); Marti (1-4)✓; Micro Controls (1)✓; NEC (2)✓; Nurad (1-4)✓; RF Tech. (1-4)✓; TFT (1,4)✓

IV G. Antennas

TYPES:

- (1) AM
- (2) FM
- (3) TV HP
- (4) TV CP
- (5) Communications
- (6) Antenna tuning units

SUPPLIERS:

Alford (2,3)✓; Andrew (3-5)✓; Antennas For Comm. (5); Blonder-Tongue (3)✓; Bogner (3-5)✓; CSI (6); Cablewave (5)✓; Celwave (2,5)✓; Cetec Antennas (2-4)✓; Comark (2-4,6)✓; Continental Electronics (1,2,6)✓; Dielectric (2)✓; Express Tower (1,2)✓; Harris Broadcast (2-4)✓; Harris/Satellite Comm. (5); Itelco (2)✓; Johnson (2); Larcen (3,4)✓; LeBlanc & Dick (1-4)✓; Loral (5); Mark Antenna (5); Marti (5)✓; McKay (1,5); Micro Comm. (2-5)✓; Nurad (4)✓; Pesa America (1-5)✓; RCA/Broadcast (3,4)✓; SWR (2-4,6)✓; Satcom (5); Scala (2-5)✓; Shively (2-4,6)✓; Sitco (2-4); Telex (5)✓; Tennaplex (2-6); Townsend (3,4)✓; Vertex (5)✓

IV H. Transmission Line

TYPES:

- (1) Rigid
- (2) Foam dielectric
- (3) Coaxial
- (4) Power dividers
- (5) RF connectors

SUPPLIERS:

Alpha Wire (2,3)✓; Andrew (1-3,5)✓; Bird (5)✓; Broadcast Sys-



tems (2,3)✓; Cablewave (2)✓; Cambridge Prods. (5); Celwave (1,3-5)✓; Comark (3-5)✓; Daburn (2,3); Dielectric (1,3-5)✓; Express Tower (1,2)✓; Gabriel (2,3)✓; Itelco (5)✓; Mark Antenna (2); Matrix Systems (3,4)✓; Micro Comm. (1,3-5)✓; Microwave Techniques (1,3-5); Pinzone (1-4)✓; RCA/Broadcast (1)✓; SWR (1,3)✓; Scala (4)✓; Scientific-Atlanta (3)✓; Shively (1,3-5)✓; Times Fiber (3,5); Townsend (1-5)✓; Trompeter (3,5)✓; Vector (4)✓

IV I. Towers

TYPES:

- (1) Tower masts
- (2) Tower rigging, hardware
- (3) Tower lighting

SUPPLIERS:

Allied Tower (1-3)✓; Andrew (1-3)✓; Comark (1-3)✓; Copperweld (2); EG&G (3)✓; Ellis (1,2); Express Tower (1-3)✓; Flash Tech. (3)✓; Hughey & Phillips (3); Kline (1-3); L&R (1-3); LeBlanc & Dick (1-3)✓; Magnum Towers (1-3); Microflex (1-3)✓; Moore (1); N-Pro (1)✓; North Wind (1)✓; Nudd (1-3); Osborne, Allen (y)✓; Racal-Decca (2); Rohn (1-3)✓; Stainless (1)✓; Swager (1-3); Telex (1)✓; Transmission Structures (1); Tri-Ex Tower (1-3); United Ropeworks (2)✓; Utility Tower (1-3)✓; Will-Burt (1)✓; World Tower (1)✓

IV J. Transmitter Remote Control Systems

SUPPLIERS:

American Horizon; Bayly✓; CAT; Coastcom; Comark✓; Continental Electronics✓; Delta✓; Hallikainen✓; Horizon✓; Itelco✓; Marti✓; Micro Controls✓; Monroe; Moseley✓; Old Dominion; Potomac✓; Powerpak✓; Rohde & Schwarz✓; Soll✓; Symetrix✓; TFT✓

IV K. STLs, TSLs

SUPPLIERS:

American Horizon; Andrew✓; Avantek; Bayly✓; Broadcast Microwave✓; Cablewave✓; Comark✓; dbx✓; GTE Comm.✓; Gabriel✓; Hallikainen✓; Hughes Microwave✓; Leonine; Loral; Marti✓; Micro Controls✓; Modulation Sciences✓; Moseley✓; Motorola C&E✓; Nurad✓; Scala✓; TFT✓; Telemet✓; Townsend✓

IV L. SCA Equipment

TYPES:

- (1) AM/FM
- (2) TV
- (3) Terminals

SUPPLIERS:

American Horizon (1,2); Bayly (1)✓; Broadcast Electronics (1,3)✓; CRL (1)✓; CSI (1); Continental Electronics (1,2)✓; Elcom Bauer (1)✓; Emer. Alert (1,2)✓; Johnson (1,3); Leonine (1); Marti (1)✓; Micro Controls (1)✓; Modulation Associates (1)✓; Modulation Sciences (1,2)✓; Moseley (1)✓; Philips TV (1)✓; Powerpak (y)✓; TFT (1,3)✓; Television Technology (1)✓; Townsend (3)✓; Wegener (1)✓

IV M. Slow-Scan Transmitters/Receivers

SUPPLIERS:

Colorado Video✓; Interand✓; NEC✓

IV N. Two-Way Radio Communications

SUPPLIERS:

American Horizon; Celwave✓; Circuit Dev.; Harris/Broadcast Microwave; Leonine; Marti✓; Motorola C&E✓; Nady✓; R-Columbia✓; Swintek✓; Wavetek Indiana

IV O. Remote Pickup Equipment

SUPPLIERS:

American Horizon; Leonine; Marti✓; Micro Controls✓; Moseley✓; Motorola C&E✓; Nurad✓; Old Dominion; Swintek✓

IV P. Other RF Equipment

SUPPLIERS:

American Laser✓; Andrew✓; Broadcast Electronics✓; Calif. Microwave; Conifer✓; dbx✓; Delta✓; Dielectric✓; Dow-Key; Gabriel✓; Lightning Elimination✓; Logica; Micro-Trak✓; Mobile-Cam✓; Modulation Sciences✓; Orban✓; Shively✓

V. TEST & MEASUREMENT, LOGGING, TIMING

V A. Audio T&M

TYPES:

- (1) Audio test signal generators
- (2) Harmonic distortion meters
- (3) IM meters
- (4) Spectrum analyzers
- (5) Real-time analyzers
- (6) Wow & flutter meters
- (7) Other audio T&M equipment

SUPPLIERS:

Amber (1-4)✓; Anritsu (1,4)✓; Audio Precision (1,2,7)✓; Audisar (1)✓; B&B (7)✓; B&K Precision (1,6)✓; Bald Mtn. (1); Bruel & Kjaer (1-6)✓; Cetec Ivie (1,4); Comprehensive Video (1,6)✓; Crown (4,5)✓; Eventide (4,5)✓; Frequency Devices (1); Heath (2); Hewlett-Packard (1)✓; Inovonics (4,5,7)✓; Klark-Teknik (4,5)✓; Leader (1,2,6)✓; Magnetic Reference (1,6,7)✓; Marconi (1,4,6,7)✓; Meyer Sound (4,5)✓; Microprobe (1)✓; Modular Audio (1)✓; NEI (5)✓; Neutrik (1,2); Potomac (1-3,6)✓; RE Inst. (1); Real World (7)✓; Rohde & Schwarz (4)✓; SCV (7)✓; Saleco (4); Sencore (1)✓; Sound Tech. (1-3,7)✓; Spectra Sonics (1); Technical Projects (1-3,7)✓; Tektronix (1,2,4,7)✓; Texscan (4)✓; Ward-Beck (1)✓; Wavetek Rockland (4); White (1,5)✓; Wide Range (7)✓; Xedit (6)✓

V B. Video T&M

TYPES:

- (1) Video test signal generators
- (2) Waveform monitors
- (3) Vectorscopes
- (4) Combination waveform/vectorscopes
- (5) Blanking width meters, displays
- (6) Burst phase meters
- (7) Diff. gain/phase meters
- (8) SCH phase meters
- (9) Video noise meters
- (10) Automatic VITS analyzers
- (11) Other video T&M equipment

SUPPLIERS:

A.F. Associates (5)✓; Anritsu (1,2,7,9,10)✓; Anton/Bauer (11)✓; Asaca (1,9,10)✓; B&K Precision (1-3)✓; Barr & Stroud (1)✓; Broadcast Video (2-5)✓; Bruel & Kjaer (6)✓; Colorado Video (2)✓; Comprehensive Video (1-3)✓; Data Precision (2)✓; Di-Tech (11)✓; Evertz (8)✓; For-A Corp. (1-3,6,7)✓; Grass Valley (8)✓; Grumman (1,10)✓; Heath (3); Hewlett-Packard (1,2,7)✓;

BETTER LATE THAN NEVER!

The McCurdy Audio Digital Delay Unit is one pause that impresses!

Here in one compact unit is show-stopping performance plus all the across-the-board convenience features you've been waiting for. At a price that won't leave you speechless.

This talk show, satellite audio and television audio sync

delayed action specialist will meet or exceed your highest broadcast specifications – and has the credentials to prove it!

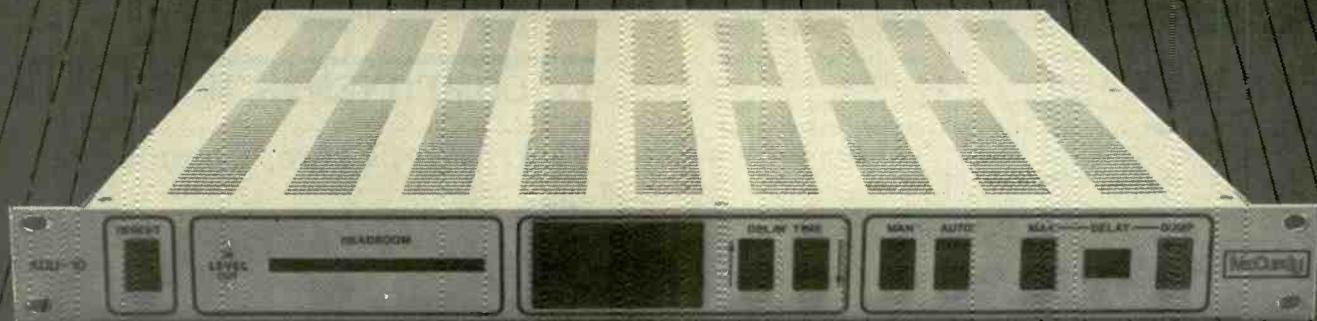
Solid state 16 bit A/D conversions on full 20kHz bandwidth. Adjustable from 0 to 7 seconds in fine increments. 48kHz sampling rate. Auto transparent delay increment mode.

Bar graph signal meters with input/output adjustment. Micro-processor control. Remote serial full function control panels if required.

Even stereo expansion within the same unit for the ultimate in timing and phase.

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Javelin (11)✓; Leader (1-3)✓; Lectrotech (3); Leitch (1,8)✓; Lenco (9)✓; Magni (2,3)✓; Marconi (1,10)✓; Minolta (11)✓; Multidyne (1)✓; NTI (1)✓; Newton (1)✓; Philips T & M (1-3,10)✓; Pinzone (11)✓; Porta-Pattern (11)✓; Real World (5)✓; Rohde & Schwarz (1,2,7,9,10)✓; Sencore (1)✓; Tektronix (1-6)✓; Telemet (1)✓; Temtron (1-3,6)✓; Texscan (1)✓; Videotek (2,3)✓; Visual Inform. (1); Wavetek Indiana (1); World Video (1,8) ✓

V C. RF T&M

TYPES:

- (1) Demodulators
- (2) Modulation monitors
- (3) Antenna monitors
- (4) Field intensity meters
- (5) Sideband analyzers
- (6) RF power meters, wattmeters
- (7) RF calorimeters
- (8) Frequency monitors, controllers
- (9) RF test signal generators
- (10) Impedance bridges
- (11) Phase meters
- (12) Other RF T&M equipment

SUPPLIERS:

AVCOM (12); Anritsu (4,6,8-10)✓; B&K Precision (4,8,9)✓; Belar (1,2,8)✓; Bird (4,6,7,12)✓; Boonton (2,6,9,10); Coaxial Dynamics (6-8,12)✓; Comark (1-11)✓; Delta (3,9,10)✓; Digimax (8); Electro Impulse (6,7); Fluke (8,9)✓; Heath (8); Hewlett-Packard (2,5,8-11)✓; Holaday (12); Interplex (8,9); Kahn (1,2)✓; Kay Elemetrics (9)✓; Leader (9,10)✓; Lectrotech (8); Marconi (2,8,9)✓; McMartin (2,4)✓; Modulation Sciences (2)✓; Motorola/AM (2)✓; Newton (1,9)✓; Philips T & M (1)✓; Potomac (1,3,4,9,11)✓; QEI (2)✓; RE Inst. (9); Rohde & Schwarz (1,2,4-6,9,10)✓; Scientific-Atlanta (1)✓; Sencore (4,10)✓; Sennheiser (10)✓; Systron (8,9)✓; TFT (1,2,8)✓; Tektronix (1)✓; Telemet (1)✓; Telonic (10); Texscan (4,9,10)✓; Video Aids (11)✓; Videotek (1)✓; Wide Band (10,12)✓

V D. General T&M

TYPES:

- (1) Oscilloscopes
- (2) Delayed sweepscopes
- (3) Voltmeters
- (4) Multimeters
- (5) dB meters
- (6) Logic analyzers
- (7) Other general T&M equipment

SUPPLIERS:

Anritsu (6)✓; Audio Precision (3,5)✓; Audio Technology (5)✓; B&K Precision (1-4)✓; Bald Mtn. (5); Boonton (3); Comark (1,2)✓; Comprehensive Video (1,3,4)✓; Data Precision (3,4)✓; Fluke (3-5)✓; Heath (1,2,5); Hewlett-Packard (1,3-6)✓; Leader (1-5)✓; Lectrotech (1); Pacific Power (3,4)✓; Philips T & M (1,6)✓; Rohde & Schwarz (1,3,4,6)✓; Scott (5); Sencore (1,4,5)✓; TM Systems (5); Tektronix (1-7)✓; Texscan (1)✓; Wavetek Indiana (1)

V E. Logging, Monitoring

TYPES:

- (1) Tape-based loggers
- (2) Log printers
- (3) Chart recorders
- (4) Automatic TV monitors
- (5) Automatic radio monitors
- (6) Status/alarm indicators

SUPPLIERS:

Accurate Sound (1); CAT (2,6); CCI (2,6)✓; CSI (6); Dictaphone (1)✓; Hallikainen (2,4-6)✓; Leonine (6); Magnasync (1)✓; Nagra (1)✓; Rohde & Schwarz (4-6)✓; Soll (2,6)✓; Soundscriber (1); Stancil (1)✓; TFT (2,6)✓; Tandberg (1)✓; Telex (1)✓

V F. Clocks, Timing

TYPES:

- (1) Digital clocks
- (2) Timers
- (3) Complete clock/timing systems

SUPPLIERS:

Allied Broadcast (2)✓; Audio Metrics (2)✓; BG (2); Beaveronics (3)✓; Broadcast Aids (1,2)✓; CCI (1-3)✓; Channelmatic (1); Chrono-Log (1-3)✓; ESE (1-3)✓; Evertz (1-3)✓; Gentner (2)✓; Kinematics (1,3); Lauderdale (1,2); Leitch (1,3)✓; Logitek (2)✓; Mallory (2)✓; McCurdy (1)✓; Odetics (1,2); Pacific Recorders (1,2)✓; RAM (1)✓; Radio Systems (2)✓; Sansui (1,2)✓; Thainer (2); Torpey (1-3)✓

V G. Other T&M, Logging, Timing Equipment

SUPPLIERS:

Hipotronics✓



VI. COMPONENTS, HARDWARE

VI A. Wire, Cable, Connectors

TYPES:

- (1) Audio cable
- (2) Video cable
- (3) Lighting/ac cable
- (4) Cable connectors
- (5) Jackfields, patch panels

SUPPLIERS:

ADC (4,5)✓; AMP (4)✓; Alpha Wire (1-5)✓; Audio Access. (5); BIW Cable (1-4)✓; Belden (1,2)✓; Blonder-Tongue (4)✓; Brand-Rex (1-3); Cablewave (4)✓; Calvert (1,2)✓; Canare (1,2)✓; Chester Cable (1,2)✓; Comprehensive Video (1,2,4)✓; Connect-Air (2,4)✓; Corconnectronics (1,4,5)✓; Daburn (1-3); Desisti (3)✓; Dynatech (5); EG & G (3)✓; Fantasee (3); Farrtronics (5)✓; Gentner (5)✓; ITI (5)✓; Ideal (1,3,4); KB (2,4); Lemo (4,5); Marshall Electronics (1,2,4); Matrix Systems (5)✓; Multidyne (1,2)✓; Neutrik (1,4); Olesen (3,4); Omnimount (4)✓; RCA D&SPD (3,4)✓; Roh (1,5)✓; Rudy (1-4); Shure (1)✓; Sigma (2,4)✓; Spectra Sonics (1); Switchcraft (1,3-5)✓; TVI (2,3,5); Tascam (1,2,4,5)✓; Theatre Techniques (5); Tri-Ex Tower (3); Trompeter (2,4,5)✓; Union Connector (3,5)✓; Valtec (2,4); Whirlwind (5); Wireworks (1,2,4,5)

VI B. Tools

SUPPLIERS:

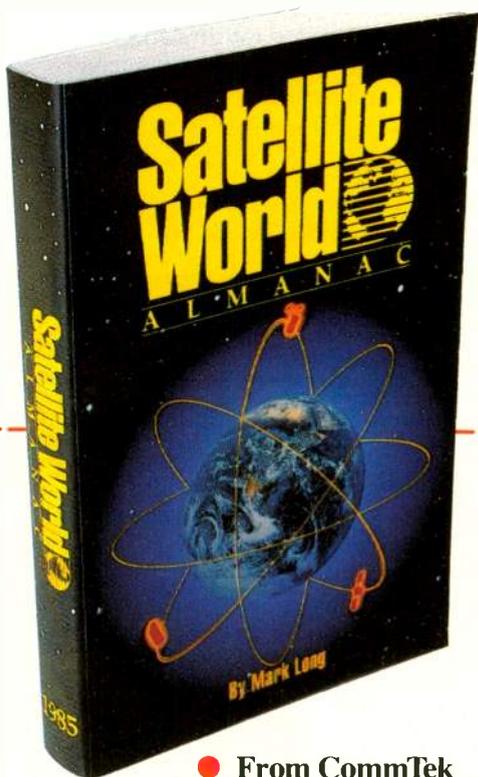
Ideal; Jensen Tools✓; Motorola C&E✓

VI C. Vacuum Tubes

SUPPLIERS:

Comark✓; EEV✓; Econco; Motorola C&E✓; RCA D&SPD✓; Richardson; Thomson-CSF Components✓; Thor

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There's more to than meets

Producing effective multichannel sound isn't easy. Though the procedures borrow heavily from recording studio and film sound techniques, audio for video is a specialist art with a unique set of requirements.

As its early practitioners have discovered, the inherently complex process of stereo teleproduction and post-production can be made even more difficult by cobbling together a collection of modified equipment in the hope of serving these advanced needs.

While makeshift arrangements may satisfy the technical minimums of the task, they introduce tradeoffs in operational flexibility and efficiency which can ultimately affect both production quality and costs.

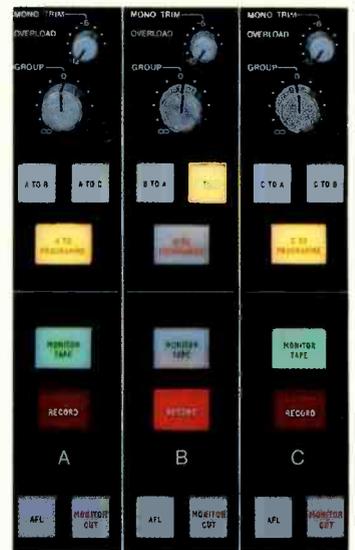
Fortunately there is an alternative, developed for the leading post-production houses and refined in collaboration with major broadcast organizations throughout the world: The SL 6000 E Series Stereo Video System from Solid State Logic.

SSL Puts it all Together

The SL 6000 E Series is a thoroughly integrated system designed specifically for the stereo video environment. Combining the most advanced aspects of multitrack, motion picture and broadcast audio technology, it provides extensive signal processing, routing and mixing capabilities as well as comprehensive machine control and communications—all commanded by a single operator at a logical, unified control panel.

SSL's multichannel mix matrix allows separate stereo music, effects and dialogue mixes to be created at the same time as the stereo program mix. In live production, multiple stereo splits or mix-minuses can be structured at the touch of a button. Mono composites of each mix are always available, and a mono programme feed is provided. Advanced formats such as stereo plus a secondary audio programme or centre-channel dialogue are also supported.

Changeover between live and post-production modes and different output configurations is instantaneous. The rigid architecture of ordinary consoles is replaced with patchfree audio subgrouping and pushbutton signal processor routing, allowing the engineer to customise the signal flow for each project.



Stereo Television the eye.

Meticulous electronic design creates the shortest signal path for each requested function, allowing SSL to maintain a dynamic range and bandwidth that far exceeds the performance of even the best 16-bit digital recorders, converters and routing switchers.

Complete Machine Control



The SSL Stereo Video System also provides the operator with central control of up to five synchronised audio, video and film transports. Cue points are stored and called by timecode, foot/frames or key words.

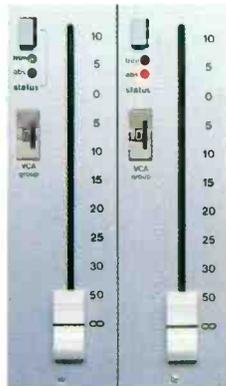
The SSL Studio Computer provides complete list management with floppy disk storage, video display and hardcopy printouts. Distributed processors ensure rapid search and lock-up. There's even a Sync Preset function which automatically calculates offset values between reels and stores these for subsequent setups.

Dynamic Mixing Automation

The machine control functions are integrated with SSL's audio mixing software to provide powerful, versatile and efficient assistance. Engineers can retain their existing mixing methods, or supplement them with simple yet powerful new routines that allow unlimited frame-accurate mix revisions to be performed with outstanding results and uncanny speed.

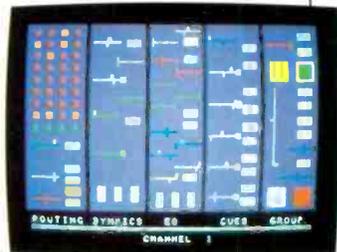
SSL's computer assisted rollback and pickup recording enables mixes to be assembled within the automation itself, using traditional techniques. Video layback can then take place in a single first-generation pass, directly from the multitrack!

Beyond fader automation, the SSL System optionally provides programmable parametric equalisation, dynamic stereo panning, and multiple Events Control of up to 32 external devices — each with its own pre-roll memory.



Total Recall™

SSL's Total Recall computer records the settings of every control on each I/O module. A high resolution display of the stored values interacts with the console, allowing fully detailed setups to be restored to a control accuracy of a quarter dB. Total Recall greatly reduces setup time, maximising productivity and creative continuity.



Stereo Perspectives

Not all stereo channels were designed to serve video requirements. Only SSL provides parametric stereo EQ, filters, compressors, gates and expanders on stereo inputs as standard, along with image width and stereo reverse controls. There is no easier or more effective way to match music, ambience and effects perspectives with television images.



Get the Full Picture

As you can see, there is a lot more to producing stereo television than meets the eye. To help you get the full picture, Solid State Logic has published a forty-page colour booklet which thoroughly explains the functions, applications and operation of the SL 6000 E. If you are involved in television production, outside broadcast, video post-production or music video, we'd like to send you a copy. Just drop us a line or give us a call.

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Customer Orientation

No. 2 in a Series

Subject: The Convergence Principle

204

Editors experienced with sophisticated computerized editing systems know that behind the pictures are numbers — time code numbers, edit numbers, reel numbers.

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the edit and change it you need never know a number.

So if you are the kind of Editor who still thinks of the beginning of Act Two as "MED. SHOT - ELIZABETH" and not as "016 01 VI 00:23:08:03 00:23:09:05 1:10:30:00 1:10:31:02", see the Convergence 204.

204 may be the only number you need to know.

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VI D. Solid State Components

SUPPLIERS:

Motorola C&E✓; RCA D&SPD✓; Richardson; Thor

VI E. Rectifiers

SUPPLIERS:

Dahl, Peter W.✓; EEV✓; Motorola C&E✓; Thor

VI F. Capacitors

SUPPLIERS:

EEV✓; ITT Jennings✓; Motorola C&E✓; Richardson; Surcom✓

VI G. Transformers

SUPPLIERS:

Audisar✓; Bogen✓; Control Concepts; Dahl, Peter W.✓; Edcor✓; Jensen Transformers✓; Microtran; Motorola C&E✓; Neutrik; Protech; Sescom✓; Spectra Sonics; Superior Electric; Topaz; Vamp

VI H. Surge Protectors

SUPPLIERS:

Comark✓; Control Concepts; Dahl, Peter W.✓; Dyma; EEV✓; Lighting Elimination✓; MCG✓; Motorola C&E✓; RCA D&SPD✓; Superior Electric; Thor; Topaz

VI I. Hum Bucking Coils

SUPPLIERS:

ADC✓; Allen Avionics✓; Broadcast Video✓; Edcor✓; Vamp

VI J. Quartz Crystals

SUPPLIERS:

Eidson; Motorola C&E✓

VI K. Other Components, Hardware

SUPPLIERS:

Audisar✓; B&I; Cable Comm.; EEV✓; Jensen Transformers✓; Modular Audio✓; Motorola C&E✓; Omnimount✓; Selco✓; Switchcraft✓

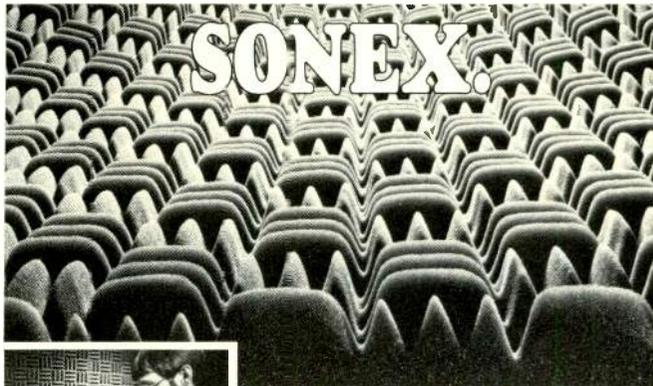
VII. SERVICES

VII A. Video Production Facilities (Stage/Studio Rental)

SUPPLIERS:

Action Video✓; Airfax✓; American Video✓; Astro; BLTV; Burbank Studios✓; CTI; California Image✓; Carleton✓; Center City Video; Channel One; Chicago Video; Cinetronics; Columbia✓; Communications Altatec✓; Creative Tech.; Devlin✓; Digital Images; Digital Video Corp.✓; Digital Video Prod.✓; DuArt; ESPN✓; Editel✓; Fairview; Fax✓; Film House; Florida Prod.;

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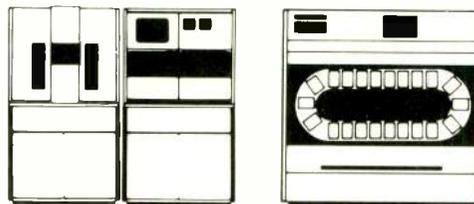
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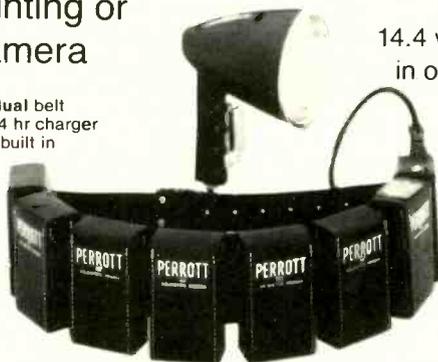
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VII B. Mobile Production Facilities Rental

SUPPLIERS:

A.F. Associates; Airfax; All Mobile; BLTV; Bay Area; CCR; Carleton; Center City Video; Channel One; Chaton; Chicago Video; Communications Altatec; Compact Video; Creative Tech.; Crowe, John; Delcom; Devlin; Digital By Dickinson; Digital Video Prod.; ESPN; Editel; Fairview; Fax; Florida Prod.; GBH Prod.; General TV Network; Golden West; Hawaii; Image Resources; Jefferson Pilot; KQED; KTVY; KVIE; Kartes; LRP; Lodes/Peterson; Louisville; Matrix Video; Medallion; Mobile Video Prod.; Mobile Video Services; Modern Telecomm.; Multi Video Prod.; Multivision; NEP; National Video Center; Niles Comm.; Northwest Comm.; Northwest Teleprod.; One Pass Film & Video; Opryland; Polycom; Prime Time Post; Producers Color; Professional Video; Reeves; Roscor; Rosenberg; Scene Three; Skaggs; Starfax; Sullivan; Sundance; Sunrise Canyon; TBS; TPC; TV Associates; Tele-Image; Telemation; Third Coast Video; Tritronics; UAB; Unitel Video; VCA Teletronics; Varitel; Versatile Video; Vidcom; Video One; Video West; Videocom; WGN; WKYT-TV; WPHL; Wickerworks; Windsor; Wold; YES

VII C. Video Post-Production Facilities

SUPPLIERS:

Action Video; Airfax; Allied Film; Astro; Audio-Video; BLTV; Broadway Video; CCR; CFI; CTI; California Image; Carleton; Carob; Center City Video; Center Video; Channel One; Chicago Video; Cinetronics; Color Film; Columbia; Communications Altatec; Compact Video; Creative Tech.; Devlin; Digital By Dickinson; Digital Images; Digital Video Corp.; Digital Video Prod.; ESPN; Editel; Empire Video; Fairview; Fax; Florida Prod.; GBH Prod.; General TV Network; Golden Apple; Golden West; HBO; Hawaii; Horizontal Editing; Image Resources; Image Transform; International; Interface Video; Internat. Production; J.S.L.; Jamieson; Jefferson Pilot; Jones; KQED; KTVY; Kartes; Kluge; LRP; Laser; Line One; Lodes/Peterson; Louisville; MPCs; Manhattan Bridge; Manhattan Transfer; Matrix Video; Metrotape; Mobile Video Prod.; Mobile Video Services; Modern Telecomm.; Multi Video Prod.; Multivision; NEP; National Video Center; National Video Indust.; Nautilus TV; Nexus Prod.; Niles Comm.; Northwest Comm.; Northwest Teleprod.; One Pass Film & Video; Opryland; Osmond; Pacific Coast; Pacific Video; Palmer Film; Polycom; Pos. Video/Orinda; Pos. Video/San Carlos; Post Group; Prime Time Post; Pro Video; Producers Color; Production Center; Profes-



sional Video; Pyramid Video; Quickscan; RCA Americom; Realtime; Reeves; Roscor; Rosenberg; Rutt Video; Scene Three; Skaggs; Sonar; Southwest Teleproductions; Spectra Image; Sullivan; Sundance; Sunrise Canyon; TPC; TV Associates; Tele-Image; Telemation; Third Coast Video; Today Video; Trans-American Video; Tritronics; Troika; UAB; Unitel Video; VCA Teletronics; Vamp; Varitel; Versatile Video; Vidcom; Video Post; Video Tape Co.; Video Transitions; Video West; VideoWorks; Videocom; Videosmith; WGN; WKYT-TV; WPHL; Westec; Wickerworks; Windsor; YES

VII D. Recording Studios

SUPPLIERS:

Audio-Video; Carleton; Chaton; Continental Recordings; Corelli/Jacobs; Digital By Dickinson; Film House; General TV Network; Golden Apple; Hawaii; Jam; KTVY; Kluge; Manhattan Transfer; MixMasters; National Video Center; Omnimusic; Osmond; Peters Prod.; Rosenberg; Sonar; Sunsound; Unitel Video; Westec; Windsor

VII E. Audio Post-Production Facilities

SUPPLIERS:

Audio-Video; Best; CCR; Carleton; Chaton; Continental Recordings; Digital By Dickinson; GBH Prod.; General TV Network; Golden Apple; Hawaii; Horizontal Editing; Jamieson; KVIE; Kluge; McCurdy; Multivision; National Video Center; One Pass Film & Video; Osmond; Pacific Video; Palmer Film; Peters Prod.; Prime Time Post; Rosenberg; Scene Three; Sullivan; Sunsound; VCA Teletronics; Vamp; Video Post; Westec; Windsor; YES

VII F. Equipment Rental Services

SUPPLIERS:

A/T Scharff; ABP; AVC; Action Video; Aerial Video; All Mobile; Audio-Video; Audiotechniques; Barbizon; Best; Birns & Sawyer; Black's; California Image; Carleton; Center Video; Cercone Vincent; Columbia; Communications Altatec; Digital By Dickinson; Digital Video Corp.; Duncan; Electronic Field; Fitzco; General TV Network; Glentronix; Gordon, Alan; Green; Image Devices; Intercontinental; KVIE; Keylite; L&R; Landy; Leasametric; MPCs; Manhattan Bridge; Microwave Filter; Midwest; Miller Associates; Multi Video Prod.; Multivision; National Video Center; Nautilus TV; Netcom; One Pass Film & Video; Osmond; Realtime; Roscor; Satellease; Solid Elect; Sonar; TV Associates; TVI; Telemation; Tritronics; Vidcom; Videosmith; WKYT-TV; Westec; Windsor

 **MEANS
IT'S VERIFIED**

VII G. Facilities Design and Engineering Services

SUPPLIERS:

A.F. Associates; American Uplinks; Audio Broadcast; Audio Metrics; Audiotechniques; Avonix; Black's; Broadcast Sys-

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VII H. Set/Studio Design Services

SUPPLIERS:

Arben; B-W; Broadcast Systems; Carleton; Center Video; Centro; Cercone Vincent; Columbia; Delcom; Desisti; East Coast Video; Fairview; Fantasee; Fiorentino; GBH Prod.; General TV Network; Golden Apple; Graphic Express; Jamieson; Lerro; MPCS; McCurdy; Osmond; Pacific Recorders; Ross American; TVI; Tele-Measurements; Television Engineering; Windsor

VII I. Engineering Consultants

SUPPLIERS:

A.F. Associates; ANTEK; AT&T; Atlantic Res.; Black's; Broadcast Systems; CAT; CBX; Calif. Microwave; Centro; Commerce Airborne; Compucon; Comsearch; Dalsat; Delcom; Dielectric; Digital By Dickinson; Dyma; East Coast Video; Fiorentino; Fitzco; General TV Network; Golden Apple; Grinnan; Hubcom; Jamieson; L&R; Lightning Elimination; Logica; MPCS; Matrix Systems; McManus; Micro Comm.; Microwave Filter; Miller Associates; Modulation Sciences; Motorola C&E; Nudd; Pacific Recorders; RAM; Radiotechniques; Rees; Roscor; Rosner; Soll; Sound Genesis; Spectrum Planning; Spencer; Tele-Measurements; Television Engineering; Turner; VCA Teletronics; Vamco; Video Post; Westec; Windsor

VII J. Financial Consultants

SUPPLIERS:

ABP; Broadcast Systems; Jamieson; Rosner

VII K. Earth Station Site Selection

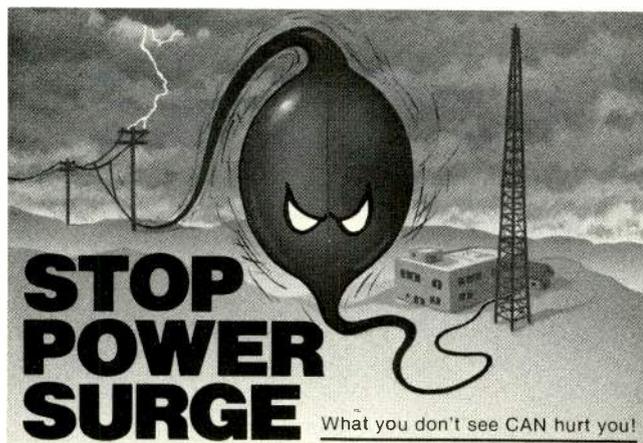
SUPPLIERS:

ANTEK; Broadcast Systems; Calif. Microwave; Compucon; Comsearch; Dyma; General TV Network; Jamieson; L&R; Microwave Filter; Radiotechniques; Rosner; Satellite; Spectrum Planning; Videostar

VII L. Mobile Vehicle Construction

SUPPLIERS:

A.F. Associates; Airfax; All Mobile; BLTV; Bay Area; CCR; Carleton; Center City Video; Channel One; Chaton; Chicago Video; Communications Altatec; Compact Video; Creative Tech.; Crowe, John; Delcom; Devlin; Digital By Dickinson; Digital Video Prod.; ESPN; Editel; Fairview; Fax; Florida Prod.; GBH Prod.; General TV Network; Golden West; Hawaii; Image Resources; Jefferson Pilot; KQED; KTV; KVIE; Kartes; LRP; Lodes/Peterson; Louisville; Matrix Vid-



Installed between the power source and equipment to be protected, the LEA line of Surge Eliminators will prevent equipment loss and downtime due to High Current Surges, Overvoltage Transients and EMP.

They're available in powerline current ratings from 10 to 4,000 amperes for computer, Radio/TV Broadcast, industrial and other loads.

LEA Surge Eliminators:

- Handle up to 50,000 joules of energy
- Dissipate 99% of lightning surges
- Handle surge currents up to 200,000 amperes
- Respond in 5 nanoseconds
- Are available in 1 through 3300 KVA ratings
- Automatically reset
- Use a Multistage SERIES Hybrid design

To get all the details on the complete line of LEA Surge Eliminators, simply call or write today.



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12516 Lakeland Road
Santa Fe Springs, CA 90670

(213) 944-0916
TWX: 910-586-1381

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Instruments Corporation

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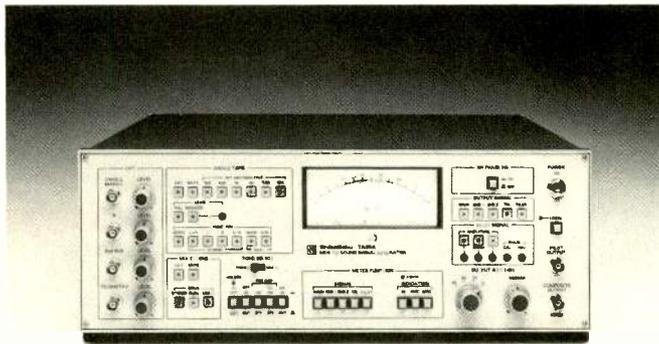
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the
difference.

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Instruments Corporation

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Los Angeles, Boston, Atlanta

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The Main(L + R), 1st Sub Channel (L - R), 2nd Sub Channel (SAP), Telemetry, and Pilot Signals may be used independently or in any combination.

A dbx Noise Reduction Circuit has been built into both the 1st Sub Channel (L - R) and the 2nd Sub Channel (SAP).

A specially designed filter to compensate for delay characteristics due to the dbx circuit has been built into the Main Channel Section (L + R).

Remote Control Operation

Measure Your Performance With The Best
**ASACA/SHIBASOKU TA35A MULTI CHANNEL
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For complete specifications, write:

ASACA

ASACA/SHIBASOKU CORP. OF AMERICA
12509 Beatrice Street, Los Angeles, California 90066
Sales, Service: (800) 423-6347 • (213) 827-7144

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eo; Medallion; Mobile Video Prod.; Mobile Video Services; Modern Telecomm.; Multi Video Prod.; Multivision; NEP; National Video Center; Niles Comm.; Northwest Comm.; Northwest Teleprod.; One Pass Film & Video; Opryland; Polycom; Prime Time Post; Producers Color; Professional Video; Reeves; Roscor; Rosenberg; Scene Three; Skaggs; Starfax; Sullivan; Sundance; Sunrise Canyon; TBS; TPC; TV Associates; Tele-Image; Telemation; Third Coast Video; Tritronics; UAB; Unitel Video; VCA Teletronics; Varitel; Versatile Video; Vidcom; Video One; Video West; Videocom; WGN; WKYT-TV; WPHL; Wickerworks; Windsor; Wold; YES

VII M. Satellite Time Brokers

SUPPLIERS:

American Uplinks; Netcom; Satellease; Videostar; Wold

VII N. Music Libraries

SUPPLIERS:

Action Video; American Image; Associated Prod. Music; Blackstone; Chaton; Columbia; Comprehensive Video; Concept Productions; Conner, Otis; Continental Recordings; Corelli/Jacobs; Hawaii; Jam; Kalamusic; Kluge; Media General; Music Director; Musicworks; National Video Center; Network Production; Omnimusic; Palmer Film; RCA Americom; Soper Sound; Tanner, William B.; Valentino; Videosmith; Windsor

VII O. Video/Film Stock Shot Library

SUPPLIERS:

Action Video; Carleton; Videosmith

VII P. Syndicated Radio Programming

SUPPLIERS:

BPI; Blackstone; Bonneville Broadcast; Broadcast Music; Cavox; Century 21; Concept Productions; Conner, Otis; Kalamusic; Music Director; Musicworks; RPM; Radio Arts; Real Radio; Satellite Music; UPI

VII Q. Other Services

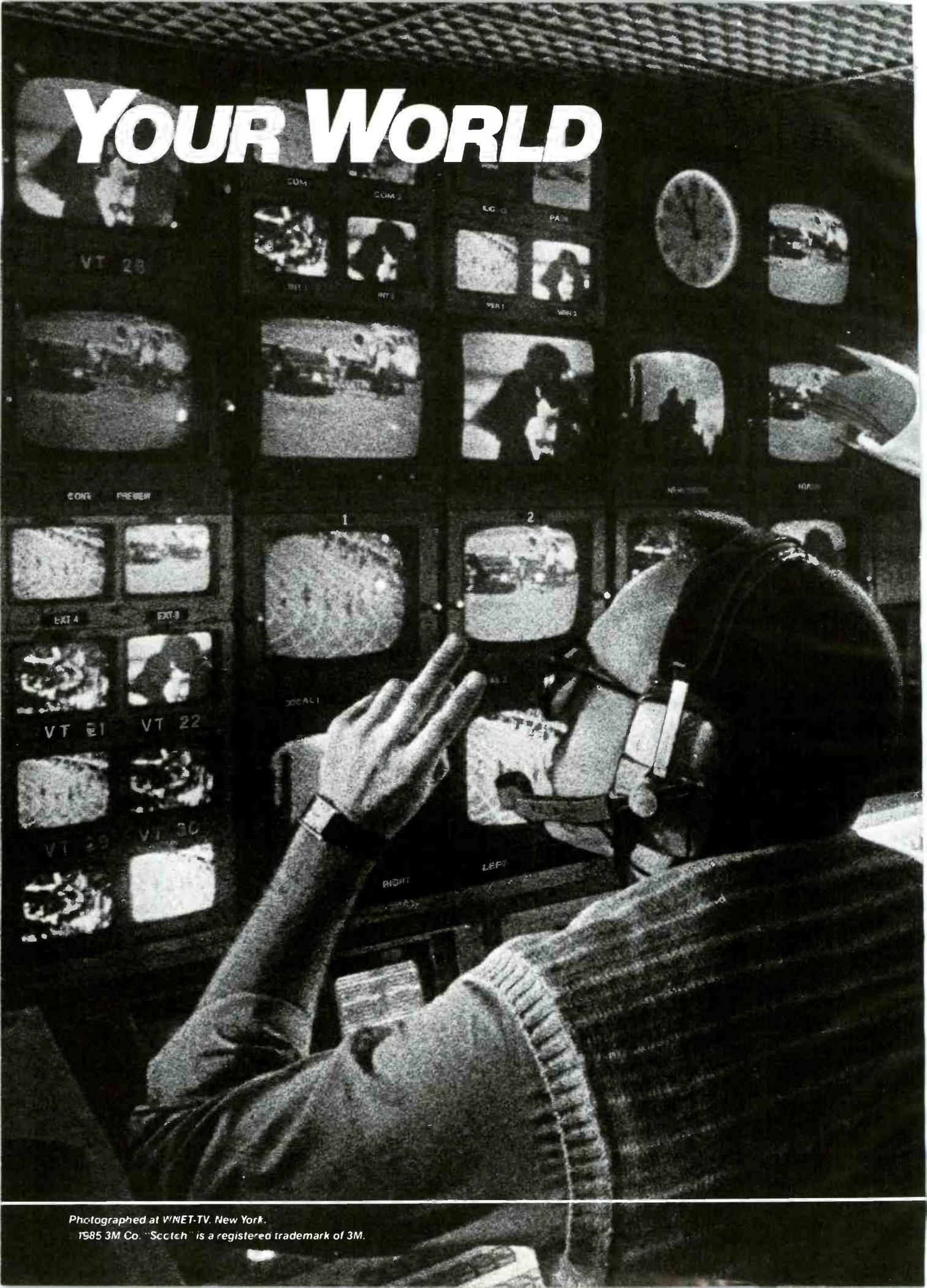
SUPPLIERS:

AT&T; Aerial Video; Airfax; American Horizon; American Image; Associated Prod. Music; Astro; Audio Plus Video; Black's; Bonneville Sat.; Broadcast Aids; Broadcast Cartridge; Bush & Millimaki; CAT; CTI; Calico; Carleton; Cavox; Center Video; Centro; Chester Cable; Color Film; Columbia; Communications Altatec; Communications Graphics; Compact Video; Corelli/Jacobs; Dataworld; Drake-Chenault; Excalibur; Film House; GBH Prod.; Global Video; Hoglund/Palmer; Horizon; Image Transform; Intercontinental; Interface Video; Kleinknecht; Kline; Kluge; McManus; Microwave Filter; Miller Associates; Musicworks; National Video Center; Netcom; New England Satellite; Nudd; Omnimusic; PTS; Pacific Video; Palmer Film; Pyramid Video; Radio Systems; Radmar; Re-Play; Realtime; SFENA; Solid Elect.; Soll; Sussex; WSI; Wold

**FROM THE SCRAMBLE
AT AIR TIME
TO THE SCRAMBLE
AT THE FINISH LINE.**

**NOW, WHATEVER YOUR WORLD,
WE'VE GOT YOUR TAPE.**

YOUR WORLD



Photographed at WNET-TV, New York.

1985 3M Co. "Scotch" is a registered trademark of 3M.

Now it's a network feed. Later, a local production. Record it, replay, erase and record again. Signal after signal. Day after day on the same roll of tape. And with millions watching, every second of every show has to look perfect. But you know you're covered... because you know your tape.

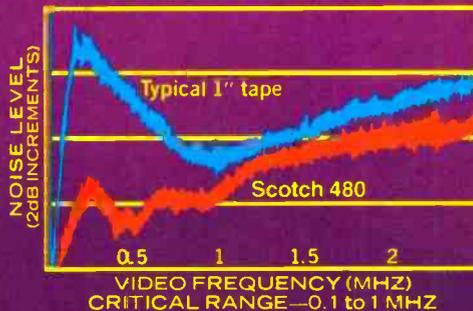
We know you need a versatile videotape that you can work on for weeks and still maintain your original picture quality. That's why we created Scotch® 480, with a uniquely smooth surface technology. Resulting in extremely low color noise and dropout levels—and exceedingly high picture quality. Making 480 the one videotape that can guarantee even the most demanding broadcaster superior

versatility and image durability. Plus, Scotch engineers are always just a call away. Scotch 480. One tough tape that makes us number one in the world of the pro.

OUR TAPE

THE ALL-IN-ONE 1-INCH TAPE.

VIDEO NOISE SPECTRUM



Scotch
AUDIO & VIDEO TAPES

NUMBER ONE IN THE WORLD OF THE PRO

3M

YOUR WORLD

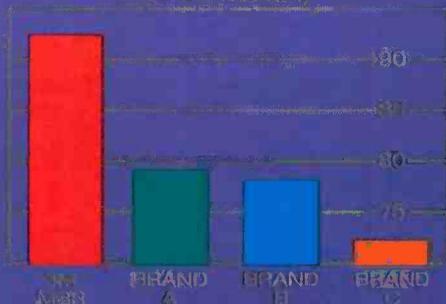


Fifteen minutes to air time, and you have six minutes of videotape to edit into thirty seconds. You don't have any time to worry about whether the machines are aligned perfectly. But you don't have any reason to worry either. Not if you have a tape you can rely on.

We know you need a videocassette that can handle the toughest editing conditions. So we created the Scotch™ 3/4-inch MBR videocassette with a thicker backing to reduce tape "crunching" and edge damage. We also gave it our exclusive Anti-Stat Treatment for fewer transient dropouts. Less color noise and better signal to noise, too.

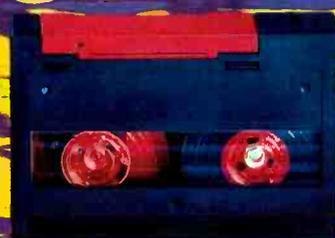
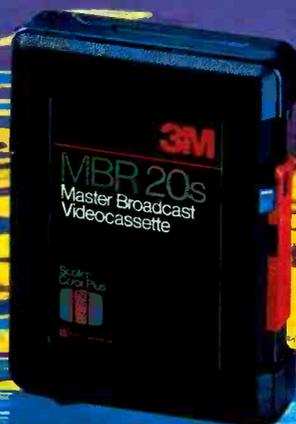
It's available in hanger cases, including Mini U-Matics. With our red doors and hubs for easy Anti-Stat identification. With our engineers just a phone call away. With all the toughness it takes to be number one in the world of the pro.

BASE FILM THICKNESS
(in millimeters)



OUR TAPE

NOTHING ELSE MEASURES UP.



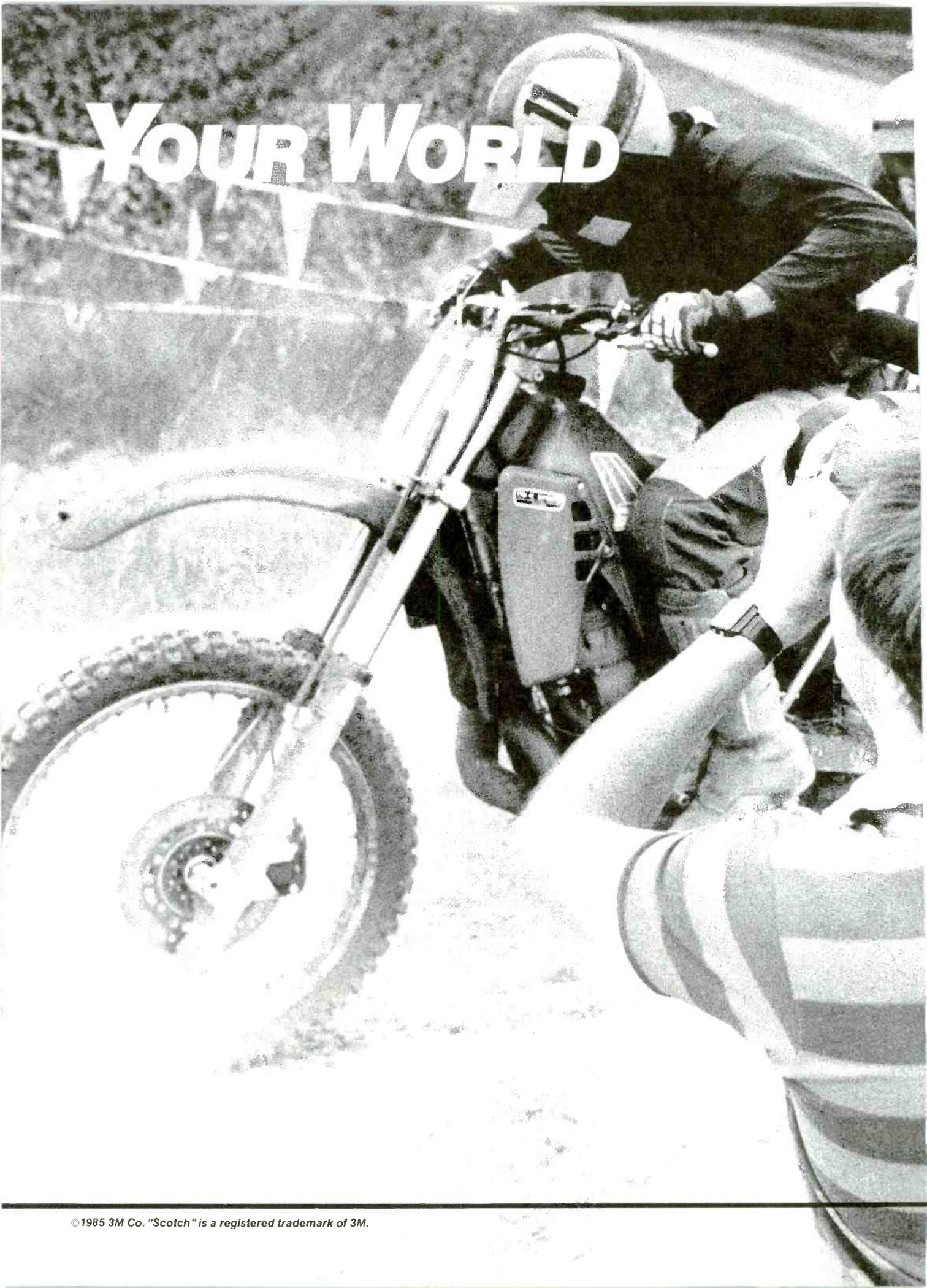
Scotch™

AUDIO & VIDEO TAPES

NUMBER ONE IN THE WORLD OF THE PRO

3M

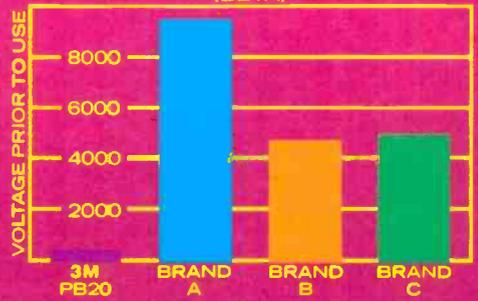
YOUR WORLD



You've waited three hours in the dust and hot sun to get that spectacular finish, only to have your once-in-a-lifetime shots destroyed by transient dropouts caused by particles drawn into your videocassette by a static charge. But that's always been a risk, until now.

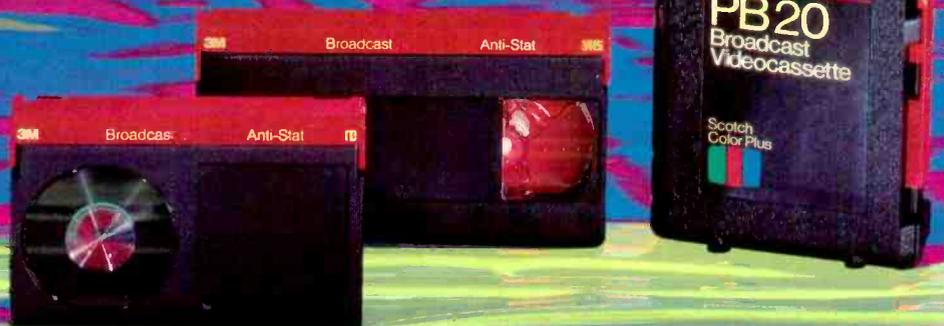
We know you need a 1/2-inch videocassette that can go anywhere without picking up static-drawn souvenirs that will destroy your picture. So we developed the exclusive Scotch™ Anti-Stat Treatment, giving our new 1/2" Broadcast Videocassettes the industry's lowest electrostatic charge levels for unsurpassed dropout performance. With outstanding color reproduction and signal to noise. Hanger cases are available in VHS and Beta, in 10 and 20-minute lengths. All distinguished by our red doors and hubs for easy Anti-Stat identification. All backed by our engineers, just a phone call away. All the more reason we're number one in the world of the pro.

ELECTROSTATIC CHARGE (BETA)



OUR TAPE

ANTI-STAT...ANTI-DROPOUT.



Scotch™
AUDIO & VIDEO TAPES

NUMBER ONE IN THE WORLD OF THE PRO

3M

When you stake your professional reputation on 3M video recording tapes, you're on the right track. At 3M, we won an Emmy Award in 1983 for pioneering the development of video recording tape. We set industry standards for excellence and quality assurance. And we back Scotch™ Video tapes with unmatched service, nationwide. When you have any questions or problems, technical service representatives are just a phone call away. Scotch Audio and Video tapes are NUMBER ONE IN THE WORLD OF THE PRO.

For complete information about our full line of premium broadcast products, call for your free brochure.

1-800

328-1684

Alphabetical Listing of Manufacturers

MEANS
IT'S VERIFIED

ABEKAS VIDEO SYSTEMS ✓

353A Vintage Park Dr., Foster City, CA 94404

415 571-1711

Digital still stores; digital efx generators; digital disk recorder.

Field Offices:

CA Mark Pinkel, 1209 Franklin Ave., Lancaster 93535 805 945-7691

NY Art Shifrin, 73-42 192 St., Fresh Meadows 11366 718 465-0800

See ad on pg. 11

ABP SYSTEMS ✓

400 Roosevelt Ave., Freeport, NY 11520
516 546-4985

Transportation cases; foam insert, padded nylon, rack configuration. Editing/production consoles. Studio furniture; cabinets; studio consoles; equipment racks. Custom machine work. Facilities design and engineering services; mobile vehicle construction; financial consultants. Telecine control systems. Parallel interface video routing switchers.

ACCURATE SOUND CORP.

3515 Edison Way, Menlo Park, CA 94025
415 365-2843

Audio tape duplicators. Mic booms, dollies. Tape-based loggers.

ACCU-WEATHER ✓

619 W. College Ave., State College, PA 16801

814 237-0309

Weather forecasting services; weather graphics displays.

ACOUSTIC RESEARCH ✓

330 Turnpike St., Canton, MA 02021
617 821-2300

Monitor speakers; turntables.

ACRODYNE INDUSTRIES ✓

516 Township Line Rd., Blue Bell, PA 19422
215 542-7000

UHF, VHF & LPTV transmitters & translators. See listing in Rep section

ACQUIS LTD. ✓

18952 McArthur Blvd., Irvine, CA 92715
714 752-6003

International marketing arm for Convergence Corp. video editing products.

ACTION VIDEO PRODUCTIONS ✓

2900 Yellow Goose Rd., Lancaster, PA 17601

717 898-7385

Video production & post-production facilities; equipment rental services; music libraries; video/film stock shot library.

ADAMS-SMITH ✓

34 Tower St., Hudson, MA 01749
617 562-3801

Electronic audio editors; SMPTE time code synchronizers. Relay automation sequencers. Two-machine video editor/controllers, A/B-roll editors, multisource editors, SMPTE time code generator/readers, VITC reader/generators. Sync generators.

See ad on pg. 187

ADC TELECOMMUNICATIONS ✓

4900 W. 78 St., Minneapolis, MN 55435
612 835-6800

Audio patch panels, jackfields. Video patching equipment. Cable connectors; hum bucking coils.

ADDA CORP. ✓

110 Knowles Dr., Los Gatos, CA 95030
408 379-1500

Digital still stores. Compressor/positioners. TBCs, frame synchronizers, framestores, TBC/framestores.

ADM TECHNOLOGY ✓

1626 E. Big Beaver Rd., Troy, MI 48084
313 524-2100

Audio consoles: mono & stereo studio, audio for TV; console automation; video interface for consoles. Audio DAs, routing switchers, patch panels & jackfields.

Field Offices:

MI Rick Fisher, 1611 Playsted, Union Lake 48085 313 360-1477

TX Gordon Peters, Box 912, Arlington 76010 817 478-0050

See ad on pg. Cover 2

ADVANCED DESIGNS CORP. ✓

924 W. 17 St., Bloomington, IN 47424
812 333-1922

Doprad I & II weather radar displays.

ADVANCE INDUSTRIES See L-R COMMUNICATIONS

ADVANCING TECHNOLOGY CORP.

27106 46 Ave. S., Kent, WA 98032
206 854-1004

ALC/AGC amps, AM & FM compressor/limiters, PPM meters. Audio line monitor with VU and audio amp.

AERIAL VIDEO SYSTEMS

801 S. Main, Burbank, CA 91506

818 954-8842

Rentals of microwave equipment & helicopter production packages.

A.F. ASSOCIATES ✓

100 Stonehurst Ct., Northvale, NJ 07647
201 767-1000

Facilities design & engineering services; engineering consultants; mobile vehicle construction. Marconi solid state telecines. Audix sound mixers & intercom systems. AVS standards converters. VTR refurbishing, rebuilding. Blanking width meters, displays.

Field Office:

CA 2465 E. Bayshore #301, Palo Alto 94303 415 321-4823

See ad on pg. 159

AGFA-GEVAERT, MAGNETIC TAPE DIV. ✓

275 North St., Teterboro, NJ 07608
201 288-4100

Magnetite audio cassette tapes; audio mastering tapes, bin loop tapes. Broadcast Plus U-Matic videocassettes; bulk duplicator tapes; half-inch Beta/VHS videocassettes; half-inch duplicator tape; one-inch C videotape.

A&G VIDEO

See MANHATTAN BRIDGE STUDIOS

AIRFAX VIDEO ✓

727 N. Hudson, Chicago, IL 60610
312 944-5577

Video production & post-production facilities; mobile production facilities rental; videodisc design & consulting services.

AKG ACOUSTICS ✓

77 Selleck St., Stamford, CT 06902
203 348-2121

Headphones. Mics: dynamic, electret/condenser, shotgun, lavalier, stereo, modular & capsule; mic booms & dollies. See listing in Rep section

ALAMAR ELECTRONICS ✓

478 W. Hamilton Ave. #207, Campbell, CA 95008
408 866-4615

Parallel & serial interface machine control/technical automation; complete station automation system.

PETER ALBRECHT CORP.

325 E. Chicago St., Milwaukee, WI 53202
414 272-2811

Motorized rigging & controls for TV studio lighting & scenery systems.

ALDEN ELECTRONICS

40 Washington St., Westboro, MA 01581
617 366-8851

Weather systems: satellite displays, radar displays, graphics displays. Satellite weather data receivers.

See ad on pg. 31

ALEXANDER MFG. CO.

1511 S. Garfield Pl., Mason City, IA 50401
515 423-8955

Nicad batteries, chargers.

ALFORD MFG. CO.

32 Sixth Rd., Woburn, MA 01801
617 935-8611

Antennas: FM, TV HP.

ALLEN AVIONICS

224 E. Second St., Box 350, Mineola, NY 11501

516 248-8080

Video delay lines, filters, video/cable equalizers. Hum bucking coils.

See ad on pg. 132

ALLEN & HEATH BRENELL USA

5 Connair Rd., Orange, CT 06477
203 795-3594

Consoles: portable, mono & stereo studio.

ALLIED BROADCAST EQUIPMENT

Box 1487, Richmond, IN 47375
317 962-8596

A-Line Studio Atmosphere control console furnishings, audio cart racks, equipment racks. Architectural Series on-air warning lights; Strobe Series on-air and telephone warning lights. DAs; phono preamps; mic booms; studio timers; lighted inspection lenses; cart labels; dub centers; turntable isolation mounts.

Field Offices:

GA Mark Drummond, Shannon Towers #314, 4405 Mall Blvd., Union City 30291 404 964-1464

IL Tom Harle, 5097 N. Elston Ave. #303, Chicago 60630 312 794-0224

TX Pat Hurley, Chaddick Ctr. #309, 1201 E. 15, Plano 75074 214 423-8667

WA Cal Vandergrift, 112 S. 344 St. #312, Federal Way 98003 ... 206 941-5453

ALLIED FILM & VIDEO

7375 Woodward Ave., Detroit, MI 48202
313 871-2222

Film-to-tape & tape-to-film transfers; videotape duplication services; video post-production facilities; film developing.

Field Offices:

CA 620 Third St., San Francisco 94107 415 777-1700

DC 717 Second St. N.E., Washington 20002 202 546-2228

FL 45 N. Texas Ave., Orlando 32805 305 298-0012

TX 6305 N. O'Connor Rd. #111, Bldg. 4, Irving 75039-3510 214 869-0100

ALLIED TOWER CO.

12450 Old Galveston Rd., Webster, TX 77598

713 486-7691

Tower masts, rigging, hardware, lighting.



ALL MOBILE VIDEO

630 Ninth Ave., New York, NY 10036
212 757-8919

Mobile production & post-production facilities rental; equipment rental services.

ALLSOP

Box 23, Bellingham, WA 98227
206 734-9090

Allsop 3 audio and video head cleaners, degaussers; tape cleaners, evaluators; record cleaning, care products.

ALPHA AUDIO

2049 W. Broad St., Richmond, VA 23220
804 358-3852

Sonex soundproofing material; Sound-Tex acoustical materials. Boss computerized audio editing system.

See ad on pg. 49

ALPHA TECHNOLOGIES

1305 Fraser St. #D-5, Bellingham, WA 98226

206 647-2360

CATV standby power supply systems.

Field Offices:

AZ 7305 E. Evans Rd., Scottsdale 85260 602 948-4484

CAN 7033 Antrim Ave., Burnaby, BC V5J 4M5 604 430-1476

ALPHA VIDEO & ELECTRONICS

28 East Mall Plaza, Carnegie, PA 15106
412 923-2070

Custom cabinets, studio consoles, equipment racks. Alphatized modified Sony 3/4-inch VCRs. Turnkey systems.

ALPHA WIRE CORP.

711 Lidgerwood Ave., Elizabeth, NJ 07207
201 925-8000

Transmission line: foam dielectric, coaxial. Audio, video & lighting/ac cable; cable connectors; jackfields, patch panels. Heat shrinkable & non-heatshrink insulation; custom cable designs.

ALTEC LANSING

10500 W. Reno, Oklahoma City, OK 73128
405 324-5311

Graphic equalizers. Monitor speakers. Mics: dynamic, electret condenser, lavalier. Preamps, line amps, monitor/power amps.

AMBER ELECTRO DESIGN

4810 Jean Talon W., Montreal, Que., Canada H4P 2N5

514 735-4105

Audio test signal generators, harmonic distortion meters, IM meters, spectrum analyzers.

See listing in Rep section

AMCO ENGINEERING CO.

3801 N. Rose St., Schiller Pk, IL 60176
312 671-6670

Cabinets.

AMEK CONSOLES

10815 Burbank Blvd., N. Hollywood, CA 91601

818 508-9788

Portable, stereo studio & audio-for-TV consoles; Massenburg & A.K. Mastermix console automation; CMX & GVG video interface for consoles. Relay automation sequencers. Audio DAs. PPM meters.

AMERICAN HORIZON

1491 N. Fruitridge Ave., Terre Haute, IN 47804

812 466-7227

VHS, 3/4-inch U VCRs. Sync & color bar generators. Video monitors: RGB, high resolution, wide aspect ratio, battery-powered portable, video projectors, monitor calibrators. Video enhancement equipment. Transmit/receive, receive-only & transportable satellite earth stations; upconverters, downconverters, LNAs, encryption systems, satellite network controllers. Intercity & portable ENG microwave systems; central microwave receivers; SMATV systems. Transmitter remote control systems. STLs, TSLs. FM & AM SCA equipment. Two-way radio communications; Marti remote pickup equipment. Satellite downlinking services.

AMERICAN IMAGE PRODUCTIONS

3030 Jackson Ave., Box 366, Memphis, TN 38151

800 251-2058

Music libraries; ID packages; TV promotional spots for radio stations.

AMERICAN LASER SYSTEMS

106 Fowler Rd., Goleta, CA 93117

805 967-0423

Optical infrared (atmospheric) video transmission system.

See listing in Rep section

AMERICAN UPLINKS

Box 699, Idaho Springs, CO 80452
800 525-9999/in CO 303 567-4628

Transportable satellite uplink; facilities design and engineering services; engineering consultants; mobile vehicle construction; satellite time brokers.

AMERICAN VIDEO FACTORY

4150 Glencoe Ave., Marina del Rey, CA 90291

213 823-8622

Video production facilities.

AMERITEXT

2025 I St. #220, Washington, DC 20006
202 955-5743

VBI teletext equipment for origination, transmission, decoding.

AMILON CORP.

49-12 30 Ave., Woodside, NY 11377
212 274-1794

Endless loop cart decks.

AMP SPECIAL INDS.

Box 1776, Southeastern, PA 19399
215 647-1000

BNC, taper pin, pin & socket connectors.

If you're looking for a new routing switcher...

...try Di-Tech's Expandable · In-The-Field · Output Oriented 5850 Series!



More and more industry leaders have been switching to Di-Tech's expanding selection of routing switchers. We design the most reliable switchers to meet every need, every budget and every application. Our newest, the Model #5850 series, features:

- 40x20 Expandable AFV MATRIX with up to 3 levels of audio per input (within the same frame)
- No special IC's or Hybrids
- Serial RS422, RS 232, Coax or Parallel BCD Control
- Numerical and/or alpha numerical single bus control panels
- Numerical and/or CRT X-Y Controllers
- The 5850 can be used to expand Di-Tech's current in-the-field 5840 series switcher

Call, write or telex for more information on the 5850 series, or request our free catalog today. Whether it be for radio, television, mobile vans or production studios, Di-Tech has the high quality, reliable, easy-to-operate answer to your present and future needs!



Illustrated below are just a few of Di-Tech's X-Y Master Controllers and Single Bus Control Panels.



di-tech

48 JEF RYN BOULEVARD DEER PARK, N.Y. 11729

TEL. #(516) 667-6300 TELEX #971806

AMPEREX ELECTRONIC CORP.

Providence Pike, Slatersville, RI 02876
401 762-3800
Plumbicon camera pickup tubes.

Field Offices:

CA Sandy Camicia, 3000 Scott Blvd. #107,
Santa Clara 95054 408 727-6132
CO Ron Barnes, 3110 S. Wadsworth #302,
Denver 80227 303 989-7310
GA Lee Nowell, 3731 N. Crest Rd. #7, At-
lanta 30340 404 458-2519
IL Greg Smith, 360 Beinoris Dr., Wood
Dale 60191 312 860-7373
NY Ed Cirri, 230 Duffy Ave., Hicksville
11802 516 931-6200
TX Greg Gambill, 13772 N. Central Exy.
#1228, Dallas 75243 214 231-3481

AMPEX CORP., AVSD

401 Broadway, Redwood City, CA 94063
415 367-2296

One-inch C & M-format VTRs. Replacement video heads. Digital still stores, digital art/paint systems; character generator/graphics systems. Large, automated production switcher systems; post-production switchers. Digital efx generators. Automated master control switchers. Serial interface video routing switchers. Multisource video editors. TBCs. ENG cameras.

Field Offices:

CA Roger Miller, 500 Rodier Dr., Glendale
91201 818 240-5000
GA Paul Hansil, 1872 Montreal Rd., Tucker
30084 404 491-7112
IL Dick Coomes, 719 W. Algonquin Rd.,
Arlington Heights 60005 312
593-6000
MD Rollin Stanford, 10215 Fernwood Rd.,
Bethesda 20817 301 530-8800
NJ Frank Rush, 5 Pearl Ct., Allendale
07401 201 825-9600
TX Frank Nault, 3353 Earhart Dr.,
Carrollton 75006 214 960-1162

See ad on pg 87

AMPEX CORP., MAGNETIC TAPE DIV.

401 Broadway, Redwood City, CA 94063
415 367-3809

Open-reel audio tape, audio cassettes, empty reels & carts. Videotape: two-inch, one-inch, ¾-inch cassettes, empty reels, carts & cassettes.

See ad on pg 95-97

AMTEL SYSTEMS

400 W. Cummings Pk., Woburn, MA 01801
617 938-8551

Electronic audio editors; audio DAs, routing switchers. Evertz, Amtel SMPTE time code synchronizers; Evertz SMPTE time code generators/readers. Video DAs.

AMTRON CORP.

2260 De La Cruz Blvd., Santa Clara, CA
95050

408 688-4445

Ultra high-resolution RGB color monitors.

ANACOMP, CMS DIV.

6610 N. Shadeland Ave., Indianapolis, IN
46220

800 428-9287/17-842-1830

Radio & TV business automation software.
Radio music location system.

ANCHOR AUDIO

913 W. 223 St., Torrance, CA 90502

800 262-4671

Monitor speakers; hardwired intercoms.
Battery-powered field playback audio
systems.

See listings in Rep section

ANDERSEN LABORATORIES

1280 Blue Hills Ave., Bloomfield, CT 06002
203 242-0761

TBCs, frame synchronizers, TBC/frame-
stores, image enhancers, color correctors,
video/audio sync delays. Video delay lines.
CATV/satellite RF filters. RF synthesizers, os-
cillators, pulse-compression systems, SAW
correlators, compressive receivers.

ANDREW CORP.

10500 W. 153 St., Orland Park, IL 60462

312 349-3300

Fiber optic transmission systems. Satellite
earth stations: transmit/receive, receive-
only, transportable; satellite network control-
lers. Intercity & airborne microwave systems,
SMATV systems. Trasar TV HP & CP anten-
nas; communications antennas. Rigid trans-
mission line; Heliac foam dielectric & coaxial
transmission line, RF connectors. Grasis
tower masts; tower rigging, hardware, light-
ing. STLs, TSLs. Equipment shelters.

Field Offices:

CA 701 Welch Rd. #1126, Palo Alto 94304
415 323-3139
1037 W. 9 St., Upland 91786
714 946-7777
CO 451 E. 58 Ave. #2585, Denver 80216
303 295-1042
GA 6205 Barfield Rd. N.E. #245, Atlanta
30328 404 256-0881
MA 393 Totten Pond Rd., Waltham 02154
617 890-0888
MO 301 Duck Rd., Grandview 64030
816 765-4600
NJ 550 N. Maple Ave., Box 297,
Ridgewood 201 652-1310
TX 2701 Mayhill Rd., Denton 76201
817 56 6-2400
VA 1497 Chain Bridge Rd. #102, Box
1063, McLean 22101 703 442-8771

ANGENIEUX

7700 N. Kendall Dr. #303, Miami, FL 33156
305 595-1144

Camera lenses.

ANIXTER-MARK See MARK ANTENNA PRODUCTS

R.B. ANNIS CO.

1101 N. Delaware St., Indianapolis, IN 46202

317 637-9282

Magnetic field indicators. Audio & video
head cleaners, degaussers, tape erasers,
tape degaussers.

ANRITSU AMERICA

128 Bauer Dr., Oakland, NJ 07436

201 337-1111

Fiber optic systems. Audio signal analyzers,
spectrum analyzers. Video test signal gener-
ators, waveform monitors, diff. phase/gain
meters, video noise meters, automatic VITS
analyzers, automatic video analyzers. Field

intensity meters, RF power meters, wattme-
ters, RF test signal generators, impedance
bridges, MSA microwave system analyzers.
Microwave & millimeter power meters. Logic
analyzers, signal generators, frequency
counters.

Field Offices:

CA 50 W. Brokaw Rd. #209, San Jose
95110 408 287-0705
IN 537 Turtle Creek S. Dr. #146, Indian-
apolis 46227 317 787-0761

ANT TELECOMMUNI- CATIONS/SOLWAY

Box 7647, Hollywood, FL 33081

305 962-8650

Radio & TV newsroom computers. Audio
noise reduction; preamps; audio routing
switchers. Audio NR for one-inch VTRs. LAN
fiber optic systems. Satellite encryption
systems.

ANTEK (ANALYSIS TECHNOLOGIES)

Box 821603, Dallas, TX 75382

214 422-2654

Engineering consultants; earth station site
selection.

ANTENNA TECHNOLOGY CORP.

8711 Pinnacle Peak Rd. #C-103, Scottsdale,
AZ 85255

602 264-7275/800 264-7275

Simulcast receive-only satellite earth stations
& multibeam antennas; LNAs. Turnkey earth
station installations & engineering.

ANTENNAS FOR COMMUNICATIONS

334 Cypress Rd., Ocala, FL 32672

904 687-4121

Communications antennas.

213 827-7144

Videotape cleaners, evaluators. Portable &
compact studio/mobile production switch-
ers. Sync, black burst, color bar & multiburst
generators. NTSC encoders. Video moni-
tors: NTSC, RGB, battery-powered portable,
monitor calibrators. Audio test signal gener-
ators, harmonic distortion meters. Video test
signal generators, video noise meters, auto-
matic VITS analyzers. Standards converters;
image pickup system; automatic video cart
system; color decoders.

ANTON/BAUER

1 Controls Dr., Shelton, CT 06484

203 929-1100

Ultralight & Black Beauty quartz lighting fix-
tures. ProPac & Lifesaver nicad batteries,
chargers; silver-zinc batteries, chargers; ac/
dc converters, inverters. LightLink fiber optic
systems. MicroControl standalone CCUs.
MicroPhase black burst generators. Diag-
nostic battery evaluation unit; silver cell
equalizer.

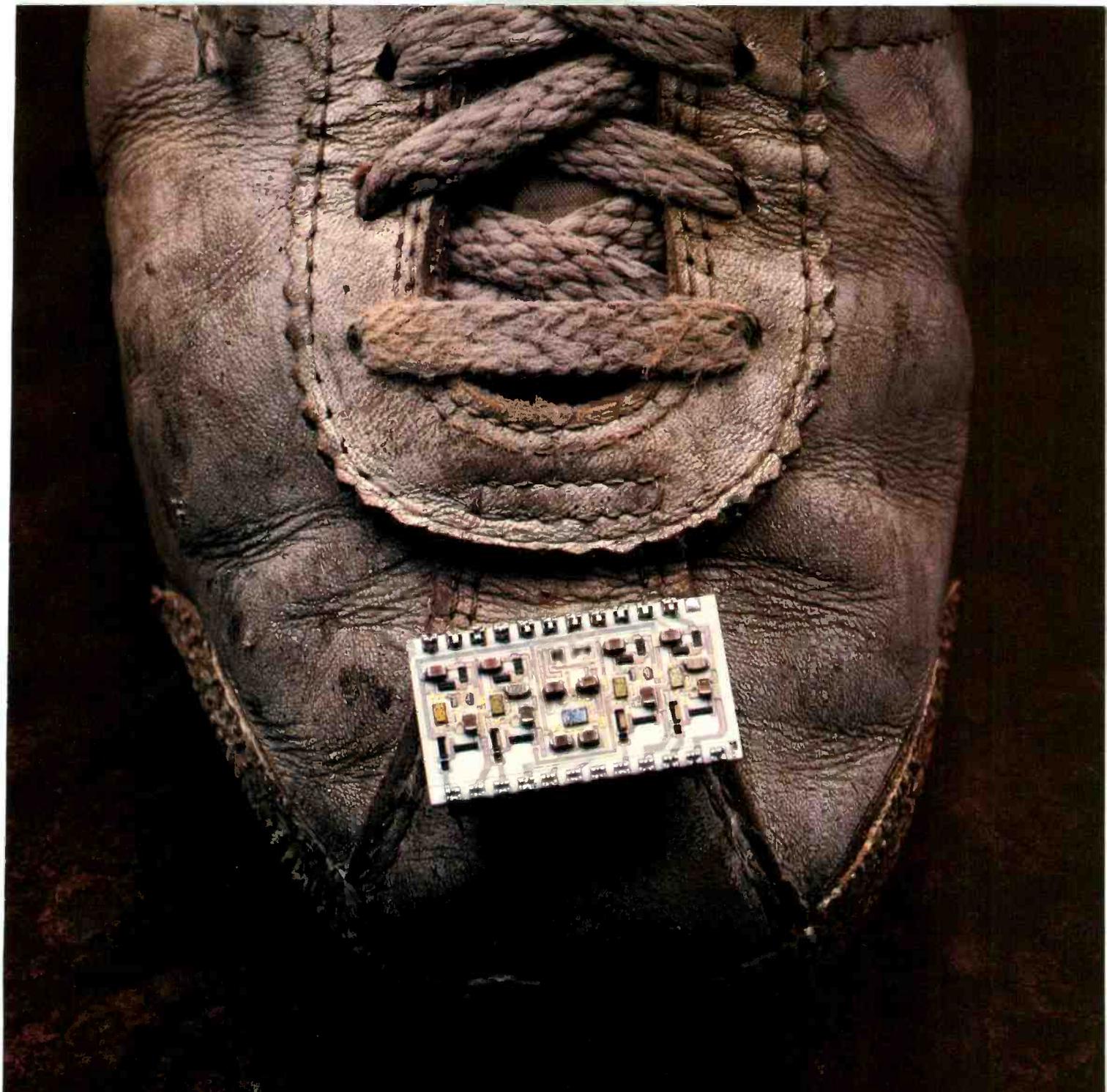
See ad on pg. 163

ANVIL CASES

4128 Temple City Blvd., Rosemead, CA
91770

800 423-4297/in CA 800 242-4466

Foam insert & rack configuration transporta-
tion cases.



HOW WE BECAME THE FRONTRUNNER IN THE ROUTING SWITCHER BUSINESS.

While everyone else was making minor refinements, we went back to the drawing boards. We took the best that modern hybrid technology had to offer and designed it into our Series H Switching Systems.

The result is a new state-of-the-art in every respect. We offer the best performance specs available. Reliability is unquestioned. Maintenance is reduced.

And expansion is easier than ever.

There's a 300% increase in crosspoints-per-rack-unit. So what used to fill an entire room can now fit inside a closet.

And The Series H is available in the configuration you need to make the system practical.

Best of all, we can offer these advantages at a price that's actually

less than the price of conventional switching systems.

If you'd like us to prove how far out in front we are, call us toll-free at 1-800-328-1684. In Minnesota, call toll-free 1-800-792-1072. Outside the continental U.S., call International Operations collect at 1-612-736-2549.

We'll give you the best run for your money.

Professional Audio/Video Equipment

3M hears you...

3M

Circle 137 on Reader Service Card

APERT-HERZOG CORP. ✓
7007 Realm Dr. #B3, San Jose, CA 95119
408 225-1425
Frame synchronizers, field/framestores, TBC/framestores. Video DAs. STEP audio/video edit point selector. TDAC travelling D/A converter.

APHEX SYSTEMS ✓
13340 Saticoy St., N. Hollywood, CA 91605
213 765-2212

Aphex aural exciter. Compellor compressor/leveller/peak limiter; Dominator FM processor; parametric equalizers. Mic preamps, line amps. Voltage-controlled attenuators.

APPLELOG ✓
357 N. Main St., Butler, PA 16001
412 283-1500
Radio business automation hardware & software.

APPLIED DIGITAL TECHNOLOGY ✓
39 W. 14 St., New York, NY 10011
212 929-2360
Relecon color correcting & video processing computer system.

APPLIED RESEARCH & TECHNOLOGY/A.R.T ✓
215 Tremont St., Rochester, NY 14608
716 436-2720
Graphic equalizers; digital audio efx, reverb, digital delay, Pitch Transposer music synthesizer.
See listings in Rep section

ARBEN DESIGN
600 W. Roosevelt, West Chicago, IL 60555
312 231-5077
Modular set design systems for news & studio sets, scenery construction, props, set design service, prefabricated hard cysc.

ARISTOCART, DIV. WESTERN INTL. ✓
1960-505 Burrard St., Vancouver, BC, Canada V7X 1M6
604 687-2844

Audio cartridges, test tapes, empty reels & carts. Cart/tape storage.
See ad on pg. 118

ARRAKIS ✓
204 N. Link Ln. #3, Fort Collins, CO 80524
303 224-2248
Mic mixers; portable, mono & stereo studio consoles. Audio routing switchers. Studio furniture; cart/tape storage.

ARRIFLEX CORP. ✓
500 Rte. 303, Blauvelt, NY 10913
914 353-1400
Cine cameras. Zeiss motion picture lenses. HMI fixtures; Arrilites quartz fixtures. Arri tripods; CineJib crane.

ARTEL COMMUNICATIONS CORP. ✓
Box 100 West Side Station, Worcester, MA 01602
617 752-5690
Fiberoptic systems.
See listings in Rep section

ARUNTA CORP.
Box 15082, Phoenix, AZ 85060
602 956-7042
Receive-only satellite earth stations; downconverters.

ASACA/SHIBASOKU CORP. ✓
12509 Beatrice St., Los Angeles, CA 90066
213 827-7144
Videotape cleaners, evaluators. Portable & compact studio/mobile production switchers. Sync, black burst, color bar & multiburst generators. NTSC encoders. Video monitors: NTSC, RGB, battery-powered portable, monitor calibrators. Audio test signal generators, harmonic distortion meters. Video test signal generators, video noise meters, automatic VITS analyzers. Standards converters; image pickup system; automatic video cart system; color decoders.
See ad on pg. 54

A&S CASES
1111 N. Gordon St., Hollywood, CA 90038
213 466-6181
Standard & custom foam insert & rack configuration transportation cases, editing/production consoles.

ASHLY AUDIO
100 Fernwood Ave, Rochester, NY 14621
716 544-5191
FM compressor/limiters, parametric & graphic equalizers, audio noise reduction, electronic crossovers, noise gates, audio amps, instrument preamps.

ASSOCIATED PRODUCTION MUSIC
888 Seventh Ave., New York, NY 10106
212 977-5680
Production music libraries.
Field Office:
CA John Osiecki, 6255 Sunset Blvd., #724, Hollywood 90028 213 461-3211
See ad on pg. 176

ASTATIC CORP.
Harbor & Jackson Sts., Box 120, Conneaut, OH 44030
216 593-1111
Moving flux phono cartridges. Mics: dynamic, electret/condenser, lavalier; mic booms, dollies.

ASTON ELECTRONICS ✓
531 N. Murlen Rd., Olathe, KS 66062
913 782-4007
Character generator/graphics systems.

ASTRO VIDEO SERVICES
61 W. Erie St., Chicago, IL 60610
312 280-5520
Video production & post-production facilities; duplication services.

ATI-AUDIO TECHNOLOGIES ✓
328 Maple Ave., Horsham, PA. 19044
215 443-0330
MicroAmp mic mixers; Vanguard stereo studio consoles. Disc-Patcher CD/DAD players. EmphaSizer ALC & AGC amps, AM & FM compressor/limiters, parametric equalizers. Encore, MicroAmp preamps, audio DAs; MicroAmp line amps & monitor/power amps. Audio routing switchers; Matchmaker & Disc-Patcher audio mult boxes & splitters. LED displays.
See ad on pg. 162

ATLANTIC RESEARCH CORP.
5390 Cherokee Ave., Alexandria, VA 22312
703 642-4000
Engineering consultants.

ATLAS SOUND ✓
10 Pomeroy Rd., Parsippany, NJ 07054
201 887-7800
Mic stands & accessories.

ATLAS TOWER CORP. ✓
Box 972, Vinita, OK 74301
918 256-7883
Tower masts, rigging, hardware, lighting.

A/T SCHARFF RENTALS ✓
1619 Broadway, New York, NY 10019
212 582-7360
Audio equipment rental services.

AT&T COMMUNICATIONS ✓
Rte. 202-206, Bedminister, NJ 07921
201 234-7546
Transmit/receive & receive-only satellite earth stations; satellite system design services; engineering consultants.

AUBURN INSTRUMENTS ✓
107 Church St., Watertown, MA 02172
617 923-4747
Parallel interface machine control.

AUDICHRON CO. ✓
3620 Clearview Pkwy., Atlanta, GA 30340
404 455-4890
Automatic time/weather announcement systems.

AUDICO ✓
219 Crossen Ave., Elk Grove, IL 60007
312 640-1030
Audio & videotape loaders, timers, rewinders. Cassette labels.

AUDI-CORD CORP.
1845 W. Hovey Ave., Normal, IL 61761
309 452-9461
Audio cart player/recorders: single-deck, dual/triple deck, time delay. Replacement audio heads.

AUDIO ACCESSORIES
Mill St., Marlow, NH 03456
603 446-3335
Audioline audio patch panels; prewired jackfields. Video jack panels. Miniature & full-size patch cords.

AUDIO BROADCAST GROUP
2342 S. Division, Grand Rapids, MI 49507
616 452-1596
Studio furniture. Audio turnkey facility installations; distributor of audio equipment.

AUDIO & DESIGN/CALREC ✓
Box 786, Bremerton, WA 98310
206 275-5009
Calrec portable & audio-for-TV consoles. Compex, Stresser, Express lines of ALC & AGC amps. Scamp AM & FM compressor/limiters, parametric & graphic equalizers, audio noise reduction, audio DAs. Electret/condenser & modular, capsule mics; Soundfield stereo mics. Scamp preamps, Propak line amps, Ampak 8 monitor/power amps. SMPTE time code generator/readers.

Scientific Atlanta



THE ONLY FULL LINEUP THAT COVERS ALL THE BASES.

SCIENTIFIC-ATLANTA MAKES COMMUNICATION SYSTEMS TURNKEY AND TROUBLE FREE.

The need for reliable and trouble free systems for video, audio and data satellite transmission increases everyday. To meet this need, Scientific-Atlanta offers the most comprehensive line and has become one of the largest suppliers of high quality satellite products in the world.

Whether uplink or downlink, our earth stations are complete, offering: antennas, exciters, receivers, low-noise amplifiers, switching equipment, power amplifiers, plus every accessory.

Ku-Band electronics are now available with the same standard of performance that Scientific-Atlanta has set in its C-Band electronics. And, data communication is available from 56 Kb/s to T-1.

TURNKEY SYSTEM APPROACH.

Scientific-Atlanta can design and install a complete system. Or, we can provide specific components to stand alone or integrate perfectly with an existing system. Such flexibility results in cost-effectiveness because you choose only the features you need. And, once specified, you receive prompt system assembly and shipment.

SINGLE-SOURCE MANUFACTURER.

Scientific-Atlanta is in a unique position to offer responsive and continuous after-sales support. From comprehensive training programs to the fastest possible turnaround for maintenance, replacement parts and repairs.

Our full line of trouble-free products, turnkey system approach, flexibility and responsive customer service have gained the confidence of operators worldwide. That's the reason we've supplied more large earth stations than any other manufacturer in the world.

Scientific-Atlanta has been the leader in earth station technology, sales and performance from the beginning. For more information call Dan Landreth at (404) 449-2844. Or, send in the coupon below.

I want to know more about the Scientific Atlanta full lineup of products.

Name _____

Company _____

Title _____

Address _____

City _____ State _____

Zip _____ Phone() _____

Have a sales representative contact me.

Mail to: Scientific-Atlanta, Department AR,
P.O. Box 105027, Atlanta, GA 30348

AUDIO DEVELOPMENTS

414 N. Sparks St., Burbank, CA 91506
818 842-6260
Mono & stereo battery-operated portable consoles; stereo studio consoles.

AUDIO DIGITAL

1000 S. Bertelsen Rd. #4, Eugene, OR 97402
800 423-1082/503 687-8412
Digital audio signal processor with digital delay module.

AUDIO ENGINEERING ASSOC.

1029 N. Allen Ave., Pasadena, CA 91104
213 798-9127
Mics: BBC ribbon, Schoeps condenser. Recording cleaning, care.

AUDIO KINETICS

1650 Hwy 35 #5, Middletown, NJ 07748
201 671-8668
MasterMix audio console automation; Q.Lock SMPTE time code synchronizers; audio/video sync delay.

AUDIO METRICS (BY RADIO SYSTEMS)

5113 W. Chester Pike, Edgemont, PA 19028
215 356-4700
Stereo studio consoles. Preamps, line amps, power amps. Audio DAs; studio timers. LED metering; tone oscillators. Facilities design & engineering services.

AUDIONICS OF OREGON

934 N.E. 25, Portland, OR 97232
503 239-5343
ATR replacement electronics. Preamps, monitor/power amps. Multichannel audio synthesis.

AUDIO PLUS VIDEO INTL.

1438 N. Gower St., Hollywood, CA 90028
213 856-0152
Digital standards conversion service.

AUDIO PRECISION

Box 2290, Beaverton, OR 97075
503 297-4837
System One audio test & measurement system: audio test signal generators; harmonic distortion meters, level phase & frequency meters, voltmeters, dB meters.

AUDIO PROCESSING SYSTEMS

90 Oak St., Box 8, Newton Upper Falls, MA 02164
617 965-1200
Consoles: portable, mono & stereo studio, console automation. Parametric & graphic equalizers. VU & PPM meters.

AUDIO-TECHNICA U.S.

1221 Commerce Dr., Stow, OH 44224
216 686-2600
Pickup arms, phono cartridges, record cleaning & care equipment. Mics: dynamic, electret/condenser, lavalier, shotgun, omnidirectional, cardioid, super-cardioid, phantom-powered, mic stands & cables. Impedance matching transformers, mic cables, headphones; direct boxes for direct connection of mics to mixing consoles.



AUDIOTECHNIQUES

1619 Broadway, New York, NY 10019
212 586-5989
Equipment rental services; facilities design & engineering services.

AUDIO TECHNOLOGY

Box 94487, Schaumburg, IL 60195
312 882-6481
Audio noise reduction. Audio line amps. VU, PPM, LED level meters, dB meters.

AUDIOTRONICS CORP.

7428 Bellaire Ave., N. Hollywood, CA 91605
213 765-2645
Audio cassette player/recorders. Video status display monitor.

AUDIO VIDEO CONSULTANTS

15751 Roxford Ave. #A, Sylmar, CA 91342
818 362-0393
Remote control interface for VCRs.

AUDIO-VIDEO CORP.

213 Broadway, Menands, NY 12204
518 449-7213
Audio & video post-production facilities; recording studios; equipment rental service; mobile vehicle construction.

AUDISAR

Box 1561, Bellevue, WA 98009
206 454-2040
One-output mic mixers; portable consoles. Monitor speakers. Dynamic & electret/condenser mics. Preamps, line amps, monitor/power amps; amp power supplies. Audio DAs; telco interface equipment; audio multi boxes, splitters. Audio test signal generators. Transformers. Sound projector interface.

AUDITRONICS

3750 Old Getwell Rd., Memphis, TN 38118
901 362-1350
Stereo studio & audio-for-TV consoles. Preamps, line amps. Audio DAs; audio patch panels, jackfields. RTW PPM meters.

AUERNHEIMER LABS & CO.

4561 E. Florence Ave., Fresno, CA 93725
209 442-1048
Monitor speakers.

AURATONE CORP.

Box 698, Coronado, CA 92118
619 297-2820
Monitor speakers.

AURORA SYSTEMS

185 Berry St., San Francisco, CA 94107
415 777-2288
Character generator/graphics systems, digital art/paint systems. Weather-based art/paint systems.

AUTOGRAM CORP.

Box 456, 631 J Pl., Plano, TX 75074
214 424-8585
Mono & stereo studio consoles, Microgram console & program automation. Autoclock LED displays.

AUTOMATED BROADCAST CONTROLS

9155 Brookville Rd., Silver Springs, MD 20910
301 587-3505
Complete program automation systems. Radio business automation hardware.

AUTOMATED BUSINESS CONCEPTS, DIV. CETEC

1110 Mark Ave., Carpinteria, CA 93013
805 684-7186
Radio business computer systems.

AVAB AMERICA

967 Howard St., San Francisco, CA 94103
415 421-3562
HMI fixtures, lighting control boards, dimmer packs, dimmer systems.

AVANTEK

3175 Bowers Ave., Santa Clara, CA 95051
408 727-0700
Receive-only satellite earth stations, LNAs. Microwave STLs.

AVCOM

500 Southlake Blvd., Richmond, VA 23236
804 794-2500
Receive-only satellite earth stations.

AVC SYSTEMS

2709 E. 25 St., Minneapolis, MN 55406
612 729-8305
Equipment rental services; distributor of audio & RF equipment.
Field Office:
IL 747 Church Rd. #A6, Elmhurst 60126
..... 312 279-6580

AVCOM OF VIRGINIA

500 Southlake Blvd., Richmond, VA 23236
804 794-2500
Equipment racks. Satellite receivers. RF spectrum analyzers.

AVONIX VIDEO SYSTEMS

Box 505, Brookfield, WI 53005
414 783-6050
Facilities design & engineering services.

WILLIAM BAL CORP.

947 Newark Ave., Elizabeth, NJ 07207
201 354-9625
Foam insert transportation cases. Videotape cases. Custom case design.

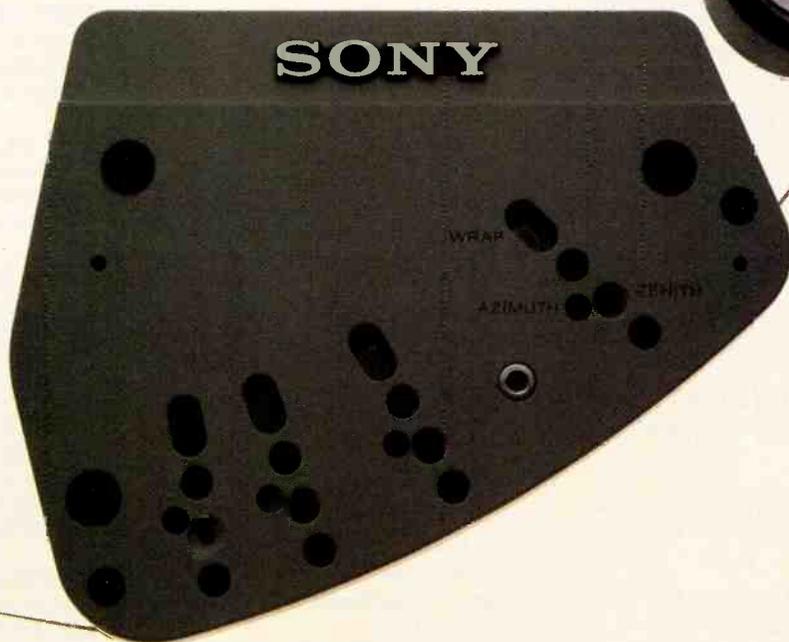
BALD MOUNTAIN LAB

230 Bellevue Rd., Troy, NY 12180
518 279-9753
EBS two-tone systems. Audio test signal generators; dB meters.

BALLY ENGINEERED STRUCTURES

Box 98, Bally, PA 19503
215 845-2311
Remote equipment shelters.

FROM HAIRPIN TURNS TO STRAIGHTAWAYS, THE SPEED OF SOUND HAS NEVER BEEN SO SMOOTH.



For years, sloppy tape transportation and handling have made the audio engineer's day much harder than it had to be.

This tormenting state has come to an end with the introduction of Sony's APR-5000 2-track analog recorder, available in a center-track time code version.

The APR-5000's precise handling and numerous advanced features make the audio engineer's day run much smoother. For example, the APR-5000's 16-bit microprocessor manages audio alignment with a precision that's humanly impossible. And the additional 8-bit microprocessor opens the way for extremely sophisticated serial communications. In tandem, they reach a truly unique level of intelligence.

Not only does the APR-5000 do its job well; it does it consistently. The die-cast deck plate and Sony's long-standing commitment to quality control maintain that the APR-5000 will hardly need time off.

All of which results in a consistent sonic performance that'll stand even the most critical audio professionals on their ears.

For a demonstration of the recorder that transports analog audio to a new fidelity high, contact your nearest Sony office:

Eastern Region (201) 368-5000;
Southern Region (615) 366-0333;
Central Region (312) 773-6000;
Western Region (213) 537-4300;
Headquarters (201) 930-6145.

SONY
Professional Audio



BARBIZON ✓

426 W. 55 St., New York, NY 10019
212 586-1620

Lighting equipment rentals including lamps, HMI & quartz fixtures, lighting stands, connectors, dimmers; rentals of nicad power equipment, generators, HMI ballasts. Distributor of Mole-Richardson lighting equipment.

BARCO INDUSTRIES ✓

2211B Executive St., Charlotte, NC 28208
704 392-9371

Video monitors: monochrome, NTSC, RGB, high resolution, wide aspect ratio, battery-powered portable. Safe title area generators. PCD/ASMD lines of video decoders; comb filter decoders.

Field Offices:

CA 195 Jefferson Dr., Menlo Park 94025
415 328-4380
NH 472 Amherst St. #10, Nashua 03063
603 880-1430

BARCUS-BERRY ✓

5381 Production Dr., Huntington Beach, CA 92649

714 898-9211

Audio signal processor.

BARDWELL & McALLISTER ✓

7051 Santa Monica Blvd., Hollywood, CA 90038

213 466-9361

Quartz lighting fixtures, cyc lighting, diffusion & efx material, lighting stands & rigging. Camera tripods, heads.

BARKER & WILLIAMSON

10 Canal St., Bristol, PA 19007

215 788-5581

RF filters, loads, switches. Communications antennas. Harmonic distortion meters. RF power meters, wattmeters.

BARR & STROUD LTD. ✓

Caxton St., Anniesland, Glasgow, Scotland G13 1HZ

041-954 9601/Telex 778114

Video filters. Video test signal generators.

BARRETT ASSOCIATES

3205 Production Ave., Oceanside, CA 92054
619 433-5600

Used & reconditioned audio & RF equipment.

BASF SYSTEMS CORP. ✓

19 Crosby Dr., Bedford, MA 01730

617 271-4000

Open-reel & cassette audio tape, test tapes. Videocassettes.

BASYS ✓

2685 Marine Way, Mountain View, CA 94043
415 969-9810

Radio & TV newsroom computer systems. Open-reel ATRs: portable, 2-/4-track studio, multitrack. Digital audio recorders. Electronic audio editors, SMPTE time code synchronizers, editors for digital audio. Audio noise reduction. VU & PPM meters. Digital program channels.

BAY AREA MOBILETAPE ✓

1019 E. San Carlos Ave., San Carlos, CA 94070

415 593-7124

Mobile production facilities rental.

BAYLY ENGINEERING, LTD. (AEG-TELEFUNKEN) ✓

167 Hunt St., Ajax, Ont., Canada L1S 1P6
416 683-8200

AM, FM & VHF transmitters. FM exciters, stereo generators. RF filters, loads & switches. Transmitter remote control systems. STLs, TSLs. FM SCA equipment.

B&B SYSTEMS ✓

28111 N. Ave. Stanford, Valencia, CA 91355
805 257-4853

VU, PPM & LED audio level displays. Stereoscope stereo phase error detector.

BBL INDUSTRIES

2990 Gateway Dr. 300, Norcross, GA 30071
800 241-5240

Radio paging terminals.

BEAVERONICS ✓

8 Haven Ave., Port Washington, NY 11050
516 883-4414

Compact studio/mobile production switchers; post-production switchers. RGB chromakeyers, downstream keyers. Complete clock/timing systems.

BELAR ELECTRONICS LABORATORY ✓

Lancaster Ave. at Dorset, Devon, PA 19333
215 687-5550

Demodulators, modulation monitors, frequency monitors & controllers.

See ad on pg. 168

BELDEN COMMUNICATIONS ✓

534 W. 25 St., New York, NY 10001
212 691-1910

Lee filters, gels, resin camera filters.

BELDEN ELECTRONIC WIRE & CABLE ✓

Box 1980, Richmond, IN 47375
317 983-5200

Audio & video cable; cable connectors.

BELL AUDIO SYSTEMS

994 Freeway Dr. N., Columbus, OH 43229
614 846-2766

Audio DAs. Preamps, power amps, PA amps. Audio cart player/recorders.

BELL HELICOPTER/TEXTRON ✓

Box 482, Ft. Worth, TX 76101
817 280-8200

Helicopters.

BEST AUDIO

5422 Farr Ave., N. Hollywood, CA 91601
818 763-2378

Production & post-production equipment rental services; audio post-production facilities; TV audio remote facilities rental.

BEYER DYNAMIC ✓

5-05 Burns Ave., Hicksville, NY 11801
516 935-8000

Mics: dynamic, electret/condenser, ribbon, RF, lavalier, shotgun, modular & capsule systems; mic booms, dollies. Headphones. Audio input transformers.

See ad on pg. 135

BG ENGINEERING

10567 Noland Rd., Overland Park, KS 66215
913 722-2866

Clocks; digital timers for audio cart systems.

BGW SYSTEMS ✓

13130 S. Yukon, Hawthorne, CA 90250
213 973-8090

Monitor speakers. Power amps. Crossovers.

B&I ELECTRONICS

111 Perimeter Rd., Greenville, SC 29605
803 277-5985

Teletype alarms.

BIRD ELECTRONIC CORP. ✓

30303 Aurora Rd., Solon, OH 44139
216 248-1200

RF attenuators, filters, loads, switches. RF connectors. Field intensity meters, RF power meters & wattmeters, RF calorimeters, VSWR meters, RF power monitor/alarms.

Field Office:

CA George Churpek, 621 W. Ojai Ave. #F,
Ojai 93023 805 646-7255

See listing in Rep section

BIRNS & SAWYER

1026 N. Highland Ave., Hollywood, CA 90038
213 466-8211

Tripods; lens adapters. Sales & rentals of 16 & 35 mm film equipment.

BIW CABLE SYSTEMS ✓

65 Bay St., Boston, MA 02125
617 265-2102

Audio, video, lighting/ac, fiberoptic & triax cable; cable connectors.

B&K PRECISION/DYNASCAN ✓

6460 W. Cortland St., Chicago, IL 60635
312-889-9087

Audio test signal generators; wow & flutter meters. Video test signal generators, waveform monitors, vectorscopes. Field intensity meters, frequency monitors & controllers. RF test signal generators. Oscilloscopes, delayed sweepscopes, wideband ac voltmeters, multimeters.

BLACK'S COMMUNICATIONS CONSULTANTS ✓

120 W. Picacho, Las Cruces, NM 88005
505 524-9681

Broadcast equipment computer database; equipment rental services; facilities design & engineering services; engineering consultants.

BLACKSTONE ENTERTAINMENT GROUP

106 Mesa Ave., Manitou Springs, CO 80829
303 685-9563

Music library; syndicated radio programming.

NOW ALL THE WORLD'S A SOUND STAGE.

No matter what you're recording in the field, from Shakespeare-in-the-Park to "Dancing in the Dark," you'll find a Sony portable mixer that brings the creative control and flawless sonic performance of the studio to wherever you happen to be.



Studio quality is no longer confined to the studio.

12 FOR THE ROAD.
The big difference between the Sony MX-P61 and other studio-quality 12-channel mixers is that the Sony can be tucked neatly into a small case and carried to any location—thanks to its switching power supply, transformerless design and, of course, the fact that it's made by the company that's best at making big things small.

Its myriad professional features include transformerless, electronically-balanced inputs and outputs, complete equali-

zation for comprehensive signal control and modular construction for reliability and easy maintenance. Along with the phenomenal sonic performance with which the name "Sony" has been synonymous for decades.

THE 4-CHANNEL MIXER FOR EVERY CORNER OF THE GLOBE.
The incredibly small and light MX-P42 lessens not only your burden, but the complexities of field recording as well.

That's because each input incorporates a fast-acting compressor/expander with gain make-up control. So input levels can be preset separately, then maintained automatically during recording.

HIGH QUALITY FOR LOW BUDGETS.

The family resemblance between the 8-channel MX-P21 and

Sony's more expensive portable mixers is readily apparent:

The MX-P21 is portable, durable, and has an incredible array of features for its size—including phono EQ, fader-start and cascade interface.



The Sony MX-P42 weighs in at a scant 8 lbs., 10 oz.

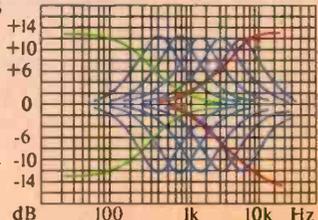
All of which makes the choice between Sony and any other portable mixer a simple one.

Just decide whether you want all your location recordings to be as good as studio recordings.

Or not to be.

For a demonstration or more information, call Sony in the North at (201) 368-5000; in the South (615) 537-4300; Central (312) 773-6000; West (213) 537-4300. Or write Sony Professional Audio Products, Sony Dr., Park Ridge, New Jersey 07656.

SONY
Professional Audio



EQ characteristics of the MX-P61.

©1985 Sony Corp. of America. Sony is a registered trademark of Sony Corp. Sony Communications Products Company, Sony Drive, Park Ridge, New Jersey 07656.



BLONDER-TONGUE LABS

1 Jake Brown Rd., Old Bridge, NJ 08857
201 679-4000

RF amps, attenuators, converters. Modulators. Receive-only satellite earth stations; upconverters, downconverters; LNAs. TV HP antennas. Cable connectors.

BLTV

458 W. 55 St., New York, NY 10019
212 582-4014

Video production & post-production facilities; mobile production facilities rental.

BOGEN DIV., LEAR SIEGLER

Box 500, Paramus, NJ 07653
201 343-5700

Hi-Tek graphic equalizers. Monitor speakers. Hardwired intercoms. Dynamic, electret/condenser & lavalier mics. Preamps, line amps, Hi-Tek monitor/power amps. Ac/dc converters, inverters. Transformers. See listing in Rep section

BOGEN PHOTO CORP.

17-20 Willow St., Fair Lawn, NJ 07410
201 794-6500

Quartz lighting fixtures; lighting stands, rigging. Tripods, heads, dollies. TSE foam insert transportation cases.

BOGNER BROADCAST EQUIPMENT

401 Railroad Ave., Westbury, NY 11590
516 997-7800

TV HP & CP antennas; communications antennas.

BONNEVILLE BDCST. CONSULTANTS

274 County Rd., Tenaflly, NJ 07670
800 631-1600

Syndicated radio programming.

BONNEVILLE MEDIA CONSULTANTS

130 Social Hall Ave., Salt Lake City, UT 84111

801 237-2400

Audio line amps. Audio DAs.

BONNEVILLE SATELLITE CORP.

19 West S. Temple, Salt Lake City, UT 84101
801 534-8030

Turnkey conferencing services; mobile & fixed satellite uplinking.

BOONTON ELECTRONICS CORP.

791 Rte. 10, Randolph, NJ 07869
201 584-1077

Modulation monitors, RF power meters, wattmeters, RF test signal generators, impedance bridges. Voltmeters.

ROBERT BOSCH CORP., VIDEO EQUIPMENT DIV.

Box 31816, Salt Lake City, UT 84131
801 972-8000

VTRs: one-inch B, Quartercam quarter-inch. Solid state telecine systems, telecine color correctors. Digital art/paint systems, 3D modeling & manipulation, bit pad digitizers. Large, automated production switchers.

MEANS IT'S VERIFIED

Master control switchers. Parallel interface video routing switchers. Parallel interface machine control/technical automation. Mach One two-machine editor/controller. Sync, black burst, color bar generators. NTSC encoders. NTSC, RGB video monitors.

Field Offices:

CA 3391 Robertson Pl., Los Angeles 90034

..... 213 559-5637

GA 6095 Boatrock, Atlanta 30336

..... 404 344-5649

IA 1421 W. 1 St., Pella 50219

..... 515 628-1717

IL 3436 N. Kennicott Dr. #110, Arlington Heights 60004

..... 312 253-0247

MD 1502 Pine Bluff Way, Arnold 21012

..... 301 757-7200

NJ Park South W., Plaza 1, Saddle Brook 07662

..... 201 843-2500

UT Box 31816, Salt Lake City 84119

..... 801 972-8000

BOWEN BROADCAST SERVICE

8343 Lynn Haven Ave., El Paso, TX 79907
915 598-1067

Teleho computerized equipment maintenance assistance system. TCR-100 refurbishing, maintenance.

BPI/BROADCAST PROGRAMMING INTL.

2211 Fifth Ave., Seattle, WA 98121
206 728-2741

Syndicated radio programming; program consultants.

BRADLEY BROADCAST SALES

15555-L Frederick Rd., Rockville, MD 20855
301 762-9222/800 732-7665

Distributor of audio, RF, T&M equipment, cases, cable.

BRAND-REX CO.

1600 W. Main St., Willimantic, CT 06226
203 456-8000

Audio, video, lighting/ac cables.

BRETFORD/KNOX

9715 Soreng Ave., Schiller Park, IL 60176
312 678-2545

Video projectors. Studio furniture, cabinets.

BROADCAST AIDS

20 Red Rose Dr., Levittown, PA 19056
215 547-7133

Digital clocks; timers. Electronic maintenance; equipment customizing.

BROADCAST AUDIO CORP.

11306 Sunco Dr., Rancho Cordova, CA 95670

916 635-1048

Audio consoles: stereo studio, audio for TV. Graphic equalizers. Preamps, line amps, monitor/power amps. Audio DAs.

BROADCAST CARTRIDGE SERVICE

15131 Triton Ln. #108, Huntington Beach, CA 92649

714 898-7224

Audio cartridge reconditioning service. Cart/tape storage. Distributor of audio cartridges.

BROADCAST ELECTRONICS

4100 N. 24 St., Box 3606, Quincy, IL 62301
217 224-9600

Audio consoles: mic mixers, portable, mono & stereo studio. Cart players: single-deck, dual/triple-deck, multi-deck, time delay decks. Audio tape loaders, timers, rewinders; tape erasers, degaussers. Turntables. Computer automation controllers, automatic satellite switchers, complete program automation systems. ALC & AGC amps, AM & FM compressor/limiters. Preamps, line amps, monitor/power amps. Audio DAs, telco interface equipment.

FM transmitters. AM stereo & FM exciters; stereo generators. RF amps. FM & TV SCA equipment. TV stereo generators & SAP generators.

BROADCAST INFORMATION BUREAU

100 Lafayette Dr., Syosset, NY 11791
516 496-3355

TV feature film sourcebook.

BROADCAST MICROWAVE SERVICES

7322 Convoy Ct., San Diego, CA 92111
619 560-8601

Microwave systems: intercity, portable ENG, airborne, central receivers. STLs, TSLs. Diplexers, multiplexers. RF amps, attenuators, filters. Receive-only & transportable satellite earth stations.

BROADCAST MUSIC/BMI

320 W. 57 St., New York, NY 10019
212 586-2000

Syndicated radio programming; music licensing.

BROADCAST SUPPLY WEST

7012 27 St. W., Tacoma, WA 98466
800 426-8434

ProRax cart & CD storage racks.

BROADCAST SYSTEMS

8222 Jamestown Dr., Austin, TX 78758
512 836-6011/800 531-5232

ProPak customized audio console. Prewired audio patch panels. Newscart automated video cart machine. Prewired RF input & monitoring system. Foam dielectric & coaxial cable transmission line. Facilities design & engineering services; set/studio design services; engineering consultants; financial consultants; earth station site selection; mobile vehicle construction.

BROADCAST TECHNOLOGY CONSULTANTS

6700 Squibb Rd. #104, Mission, KS 66202
913 677-1483

Newsroom computer system consultants; facilities design & engineering services.

STANTRON

VIDEO CENTER

MODULAR DESK CONSOLES • VTR/VCR RACKS • CABINET CONSOLES • DUBBING RACKS



for
VIDEO
• PRODUCTION •
• POST PRODUCTION •
• DUBBING •
• EDITING •



The **STANTRON VIDEO CENTER** series has been designed primarily for production and post-production facilities • The modular "add-on" features allow for maximum flexibility in designing console arrangements for professional, educational, industrial and communication **VIDEO CENTERS** • "Designed-in" structural strength and aesthetic features, required by users, is "stancard equipment" for every **STANTRON VIDEO CENTER** unit

For a **FREE** copy of the **STANTRON VIDEO CENTER CATALOG #200**, please write or call.

MAILING ADDRESS: **P.O. Box 9158VC • No. Hollywood, CA 91609 U.S.A.**

STANTRON

Unit of Zero Corporation

FACTORY

6900-6918 Beck Ave. • No. Hollywood, CA 91605

Toll Free: 1-800-821-0019

Northern Calif. — Toll Free 1-800-821-0020

Southern Calif. — Please call 1-213-875-0800

TWX: 910-499-2177

BROADCAST VIDEO SYSTEMS LTD.

1050 McNicoll Ave., Unit 15, Agincourt, Ont., Canada M1W 2L8
416 497-1020

Cox RGB & encoded chromakeyers. Title keyers, downstream keyers, nonadditive keyers. Safe title area generators. Cox field/framestores, color correctors, NTSC encoders. Comb filter decoders, video delay lines, video filters. Vertical interval ID & control system. Cox component/RGB converter. EV waveform monitors, vectorscopes, combination waveform monitors/vectorscopes. Blanking width meters, displays. Hum bucking coils.

See ad on pg. 175

BROADWAY VIDEO

1619 Broadway, New York, NY 10019
212 265-7600

Video post-production facilities; audio/video consulting.

BRUEL & KJAER INSTRUMENTS

185 Forest St., Marlborough, MA 01752
617 481-7000

Audio test signal generators, harmonic distortion meters, IM meters, spectrum analyzers, real time analyzers, wow & flutter meters. Burst phase meters. Electret/condenser mics.

Field Offices:

CA 1542 E. Katella, Anaheim 92805
714 978-8066
IL 555 W. Central Rd., Hoffman Estates, 60195
312 358-7582
GA 2030 Powers Ferry Rd. #214, Atlanta 30339
404 951-0115
MD 15944 Shady Grove Rd., Gaithersburg 20877-1375
301 948-0494
MI 12878 Farmington Rd., Livonia 48150
313 522-8600
NJ 1140 Bloomfield Ave., W. Caldwell 07006
201 227-6100
TX 8031 Airport Blvd. #115, Houston 77061
713 645-0167
WA 400 Boren Ave. N., Seattle 96109
206 625-1112

BRYSTON VERMONT LTD.

RFD #4, Box 2255, Montpelier, VT 03602
800 451-4160

Preamps, line amps, monitor/power amps. LED audio level displays.

Field Office:

CAN57 Westmore Dr., Rexdale, Ont. M9V 3Y6
416)746-1800

See ad on pg. 166

BSM BROADCAST SYSTEMS

Box 19007, Spokane, WA 99219
509 448-0697

Audio & video DAs, audio routing switchers. Parallel & serial interface video routing switchers.

BTX

See CIPHER DIGITAL

BUHL OPTICAL CO.

1009 Beech Ave., Pittsburgh, PA 15233
800 245-4574
Optical multiplexers.

THE BURBANK STUDIOS

4000 Warner Blvd., Burbank, CA 91522
818 954-6000

Video production facilities.

RICHARD W. BURDEN ASSOC.

20944 Sherman Way, Canoga Park, CA 91303

818 340-4590

Facilities design & engineering services.

BUSH & MILLIMAKI SERVICES

902 Bob Wallace Ave., Huntsville, AL 35801
205 533-9274

Repair of lenses, cameras, 3/4-inch & half-inch VCRs. Tricolor video collimator. Universal tripods, heads.

BW LIGHTING SYSTEMS

Box 470162, Tulsa, OK 74147
800-331-6042

GE lamps. Quartz lighting fixtures, cyc lighting. Rosco diffusion, efx material. Matthews lighting stands & rigging. LMI lighting control boards, dimmer packs.

CABLE COMMUNICATIONS

5 Hub Dr., Melville, NY 11747
516 694-7110

Transmit/receive & receive-only satellite earth stations; LNAs. Pole line hardware, drop material.

CABLEWAVE SYSTEMS

60 Dodge Ave., North Haven, CT 06473
203 239-3311

Intercity microwave systems. Microwave antennas. STLs. Foam dielectric transmission line. Connectors. Carrier current systems.

CADO SYSTEMS CORP.

2055 W. 190 St., Torrance, CA 905ZIP
213 323-8170

Radio business automation hardware & software; music format control.

CALAWAY ENGINEERING

Box 323, Sierra Madre, CA 91024
213 355-2094

CED video editing system; interfaces for GVG or CMX editing systems.

CALCOMP IMAGING

733 Lakefield Rd., Westlake Village, CA 91361

805 496-3317

Samurai color film recorder.

CALICO VIDEO CO.

8955 Thornton Rd., Stockton, CA 95209
209 952-3333

TCR-100 video cartridges. TCR-100 video cart reloading & remanufacturing.

CALIFORNIA IMAGE ASSOCIATES

3034 Gold Canal Dr., Rancho Cordova, CA 95670

916 638-8383

Video production & post-production facilities; equipment rental services.

CALIFORNIA INSTRUMENTS

5150 Convoy St., San Diego, CA 92111
619 279-8620

Ac power inverters, converters.

CALIFORNIA MICROWAVE

990 Almanor Ave., Sunnyvale, CA 94086
408 732-4000

Satellite earth stations: transmit/receive, receive-only, transportable. PTV scramblers. Facilities design & engineering services; engineering consultants; earth station site selection.

CALVERT ELECTRONICS

1 Branch Rd., E. Rutherford, NJ 07073
800 526-6362

Camera pickup tubes, RF amps, tubes. Audio & video cable, RF cable.

Field Office:

CA 1355 Redondo Ave. #6, Long Beach 90804
213 526-6362

CALZONE CASE CO.

225 Black Rock Ave., Bridgeport, CT 06605
203-367-5766

Foam insert & rack configuration transportation cases; editing/production consoles. Equipment racks; cart/tape storage. See listing in Rep section

CAMBRIDGE PRODUCTS CORP.

244 Woodland Ave, Bloomfield, CT 06002
203 243-1761

RF & UHF connectors.

THE CAMERA MART

456 W. 55 St., New York, NY 10019
212 757-6977

Equipment rental service. East coast distributor of Ikegami EC-35 camera. U.S. distributor of Multidyne products & Milab audio products. Dealer & distributor of broad line video & film equipment.

Field Office:

NY 304 First St., Liverpool 13088
315 457-3703

CANARE CABLE

832 N. Victory Blvd., Burbank CA 91502
818 840-0993

Audio & video cable.

CANON USA

1 Canon Plaza, Lake Success, NY 11042
516 488-6700

Television camera lenses. Tripods, heads, pedestals.

Field Offices:

CA 123 Paularino Ave. E., Costa Mesa 92626
714 979-6000

IL 140 Industrial Dr., Elmhurst 60126

312 833-3070

TX 2035 Royal Lane #290, Dallas 75229

214 620-2641

See ad on pg. 112-113

CAPITOL MAGNETIC PRODUCTS

6902 Sunset Blvd., Hollywood, CA 90028
213 461-2701

Audio carts, cassettes, bulk tape, master disc recording blanks.

Studer Audio: Advanced Recording Systems



The hardware is typically Studer. The software is simply astounding.

The transport mechanics in our new A820 Analog Master Recorder are solid, stable, and precision-crafted in the Swiss tradition. That's all typically Studer. What's new is an ingenious network of software-controlled operating systems.

Future Perfect. The A820 is designed to meet the demands of tomorrow's computer-controlled audio production facilities. Multiple on-board microprocessors control all operating sub-systems, including capstan drive, spooling motors, and audio parameter settings. Most operating features are user programmable, allowing you to tailor an A820 to your exact needs in a matter of minutes. If your needs change, you simply re-program your features. Also, virtually every operating feature of the A820 may be accessed and controlled through an optional RS232/RS422 serial data port.

Gentle on the Wind. The A820 handles your valuable tapes with kid gloves. The DC capstan motor starts, following a defined ramp, only after the pinch roller is engaged. A closed

loop servo system monitors tape tension and reel inertia to provide optimum acceleration and braking. Both tape tension and tape winding speeds are user programmable.

The Wheel Thing. The A820's dual thumbwheel shuttle/edit control makes tape-cut editing a breeze. One wheel fast winds tape in either direction at increasing speeds while the other precisely positions tape for the edit.

Also Noteworthy. The A820 incorporates Studer's new generation of phase compensated audio electronics, available with either transformer or active balanced inputs and outputs. In sound quality, the A820 takes a quantum leap ahead of recorders made just a few years ago. Options for the A820 include a center-track SMPTE time code channel and test generator.

The Payback. The "hardware" in the Studer A820 is made to give you dependable service for years to come. That's the Studer tradition. Plus, with its advanced software, the A820 also does more different jobs,

gets more jobs done in less time, and produces sonically superior results. That's the bottom line in any upgrading program.

For more information on the new A820 Analog Master Recorder, please contact: Studer Revox America, 1425 Elm Hill Pike, Nashville, TN 37210; (615) 254-5651.

STUDER REVOX



CARLETON PRODUCTIONS ✓
1500 Merivale Rd., Ottawa, Ont., Canada
K2C 3G6
613 224-1313

Video production & post-production facilities; mobile production facilities rental; recording studios; audio post-production facilities; equipment rental services; set/studio design services; video/film stock shot library; electronic field production & film production.

CAROB VIDEO
250 W. 57 St., New York, NY 10019
212 957-9525

Video post-production facilities.

CARVIN MFG. CORP. ✓
1155 Industrial Ave., Escondido, CA 92025
619 747-1710

Mono & stereo studio consoles. Monitor speakers. Dynamic mics. Monitor/power amps.

CASES, INC.
1745 W. 134 St., Gardena, CA 90249
213 770-4444

Foam insert & rack configuration transportation cases. Equipment racks.

CAT SYSTEMS
401 E. 74 St., New York, NY 10021
212 988-0290

Satellite network controllers. Transmitter remote control systems. Log printers; status/ alarm indicators. Facilities design & engineering services; engineering consultants; computer consultants.

CATEL TELECOMMUNICATIONS
4800 Patrick Henry Dr., Santa Clara, CA 95054
408 988-7722

Stereo generators, modulators. RF amps, converters. Fiberoptic systems.

DWIGHT CAVENDISH CO. LTD.
2117 Chestnut Ave., Wilmette, IL 60091
312 256-0937

Videocassette duplicating equipment & modules.

CAVOX-TAPEATHON CORP.
502 S. Isis Ave., Inglewood, CA 90301
800 421-1029

Relay sequencers, time insertion sequencers, complete program automation systems, automatic time/weather announcers. Portable & studio open-reel ATRs. Syndicated radio programming services; tape duplicating services.

CBSI/CUSTOM BUSINESS SYSTEMS ✓
Box 67, Reedsport, OR 97467
503 271-3684

Radio business automation software.

CBX ✓
147 E. Olive Ave., Monrovia, CA 91016
818 357-8878

Facilities design & engineering services; engineering consultants; mobile vehicle construction.

CCI/COMMERCIAL COMMUNICATIONS ✓
7353 Lee Hwy., Chattanooga, TN 37421
800 364-5742/615 894-2580

Manual, automated & business automation interfaced master control switchers. Parallel & serial interface machine control/technical automation; vertical interval systems. Video programming & advertising automation equipment for video & film sources, including insertion & verification.

CCR VIDEO CORP. ✓
6410 Santa Monica Blvd., Los Angeles, CA 90038

213 464-7151
Mobile production facilities rental; video & audio post-production facilities.

CECO COMMUNICATIONS ✓
2115 Ave. X, Brooklyn, NY 11235
800 221-0860/718 646-6300

Distributor of full line video equipment, RF tubes, semiconductors, microphones.

Field Office:
CA 2750 Bell Flower Blvd. #118, Long Beach 90815 800 772-2461
213 425-6481

CELESTIAL MECHANIX
612 Hampton Dr., Venice, CA 90291
213 392-8771

TV promotions for radio stations.

CELWAVE ✓
Rte. 79, Marlboro, NJ 07746
201 462-1880

RF filters, loads. FM & communications antennas. Rigid & coaxial transmission line, power dividers, RF connectors. Two-way radio communications.

Field Offices:
AZ 115 E. Watkins St., Phoenix 85004-2925
..... 602 252-8058

FL 44 West, Box 389, Leesburg
32749-0389 904 787-9200

IL 941 N. Plum Grove Rd., Ste. B,
Schaumburg 60195 ... 312 843-7511

See ad on pg. 143

CENTER CITY VIDEO
1503-05 Walnut St., Philadelphia, PA 19102
215 568-4134

Video production & post-production facilities; mobile production facilities rental.

CENTER VIDEO CENTER ✓
5565 N. Elston Ave., Chicago, IL 60630
312 637-1600

Editing, production consoles. Equipment rental services; video post-production facilities; studio/set design services; videotape duplication services.

CENTRAL DYNAMICS ✓
147 Hymus Blvd., Pointe Claire, Que., Canada H9R 1G1
514 697-0810

Portable, compact studio/mobile & large automated production switchers; post-production switchers. Special efx generators, compressor/positioners, standalone analog efx, colorizers, RGB chromakeyers, title keyers, downstream keyers, nonadditive

keyers. Manual, automated & business automation interfaced master control switchers. Parallel & serial interface video routing switchers. Parallel interface, serial interface & vertical interval machine control/technical automation. Digi-Sync sync & signal generator. Proc amps, audio & video DAs, pulse amps, subcarrier amps.

Field Offices:
CA 3760 Cahuenga Blvd. W., N. Hollywood
91604 213 766-8185
GA 11 Corporate Sq. #160, Atlanta 30329
..... 404 633-2100
IL Box 5108, Evanston 60204
..... 312 864-6045

MD Box 364, 16850 Oakmont Ave.,
Washington Grove 20880 301
258-7676

TX Box 293, Flint 75762 .. 214 894-6303
CAN Central Dynamics Ltd., 801 York Mills
Rd. #201, Don Mills, Ont. M3B 1X7
416 446-1543

See ad on pg. 39

CENTRO CORP. ✓
9516 Chesapeake Dr., San Diego, CA 92123
619 560-1578

Mobile vehicle construction; facilities design & engineering services; set/studio design services; engineering consultants; video teleconferencing systems design & construction. Studio consoles, equipment racks.

See ad on pg. 33

CENTURY PRECISION OPTICS ✓
10713 Burbank Blvd., N. Hollywood, CA 91601
818 766-3715
Lenses; periscope lenses.

CENTURY III TELEPRODUCTIONS
651 Beacon St., Boston, MA 02115
617 267-6400
Video production & post-production facilities.

CENTURY 21 PROGRAMMING
4340 Beltwood Pkwy., Dallas, TX 75244
800 527-5959

Syndicated radio programming; music on carts; Supercart service; computerized music scheduling.

CERCONE VINCENT ASSOC.
2741 Noblestown Rd., Pittsburgh, PA 15205
412 922-0900

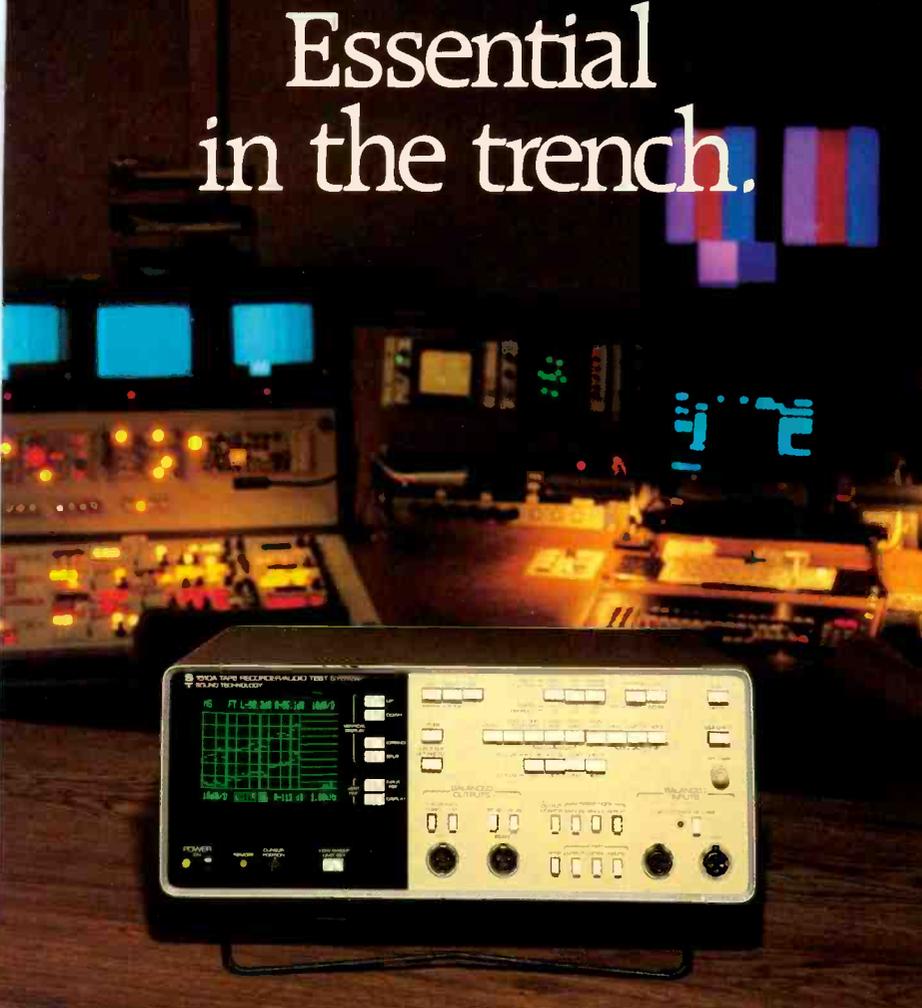
Equipment rental services; facilities design & engineering services; set/studio design services.

CETEC ANTENNAS ✓
6939 Power Inn Rd., Sacramento, CA 95828
916 383-1177
Antennas: FM, TV HP, TV CP. Diplexers; combiners; filters.

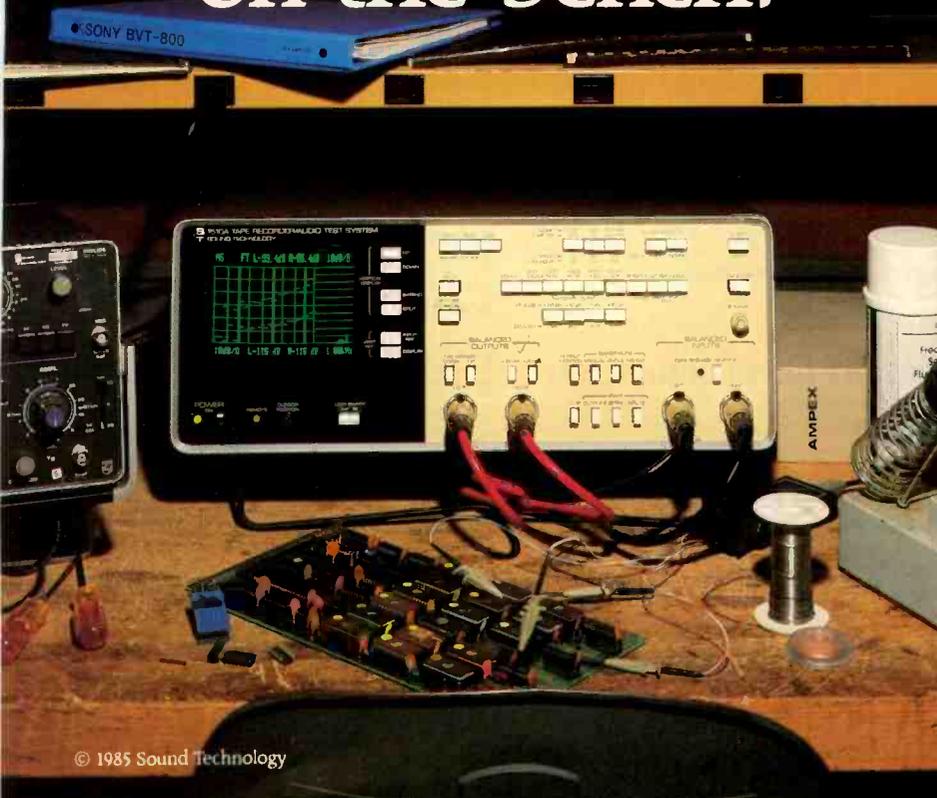
CETEC BROADCAST GROUP
See SCHAFFER WORLD COMMUNICATIONS

CETEC GAUSS
9130 Glen Oaks Blvd., Sun Valley, CA 91352
818 768-4323
Audio tape duplicators. Monitor speakers.

Essential in the trench.



Indispensable on the bench.



THE SOUND TECH 1500 SERIES TEST SYSTEM

With a microprocessor-controlled Sound Tech 1500 Series test set, you can sort out the fiction from the facts—quickly and easily. Audio manufacturers the world over have come to rely on the 1500 Series. As high-tech goes higher and time seems to get shorter, the benefits of having immediate, precise and critical test data gets even greater. And that's where a Sound Tech 1510A comes in—on your bench, or in the trench.

Whether you're a design engineer or you have the technical responsibility for keeping your facilities up and running, the 1510A is designed to perform all the necessary tests for maintenance, troubleshooting and general check-out of any professional audio device like: tape recorders, film machines, mixing consoles, signal processing equipment, turntables—you name it. With the 1510A's exclusive asynchronous I/O, it's practically a mandatory piece of gear for remote location tests for satellite transmission, conventional transmitters or broadcast studio checks.

When a pro needs to know the truth, he can select from over fourteen different test programs that are stored in the 1510A. Because the instrument is modular, you can easily add options like a one-third octave spectral analysis card for noise & flutter measurements, a GPIB IEEE-488 computer communications interface, an MOL level test, and more. Much more.

With the 1510A's built-in CRT, you have easy to read and interpret alphanumeric and graphical data (on applicable tests). If you add our peripheral printer, you can have a hardcopy of anything displayed on the 1510A's CRT display—accurate, verifiable evidence.

Whether you push pencils or faders, there isn't an all-in-one audio test system around that can do everything the 1510A has been designed to do—as fast and as easy.

Contact us now for full technical and applications information. See for yourself why there are more than 1,000 users who already know something you should.

**SOUND
TECHNOLOGY**

1400 Dell Avenue
Campbell, California 95008
(408) 378-6540 Telex: 357445

*Put The Best
To Test!*

CETEC IVIE

1366 W. Center, Orem, UT 84057
801 224-1800
Graphic equalizers. Digital reverb, delay. Preamps, monitor/power amps. Audio test signal generators, spectrum analyzers.

CETEC VEGA

9900 Baldwin Pl., El Monte, CA 91731
818 442-0782
Q System RF intercoms. Pro, Pro Plus RF mics. Telco interface equipment. Audio tone remote control.
See listing in Rep section

CFI VIDEO

959 N. Seward St., Hollywood, CA 90038
213 462-3161
Video post-production facilities.

CHANNELMATIC

821 Tavern Rd., Alpine, CA 92001
619 445-2691
Audio line amps. Character generator/graphics systems; downstream keyers; parallel interface video routing switchers; vertical interval machine control. Audio & video DAs, pulse amps. Programmable digital clock controller.
See listing in Rep section

CHANNEL ONE VIDEOTAPE

3341 N.W. 82 Ave., Miami, FL 33122
305 592-1764
NYC 212 926-6391
Video production & post-production facilities; mobile production facilities rental.

CHATON RECORDINGS

5625 E. Nauni Valley Dr., Scottsdale, AZ 85253
602 991-2802
Recording studios; audio post-production facilities; mobile production facilities rental; music libraries.

CHESTER CABLE

Drawer D, Chester, NY 10918
914 469-2141
Audio, video, RF distribution cable. Cable design consulting.

CHICAGO VIDEO

1250 W. Dundee, Buffalo Grove, IL 60089
312 577-2430
Video production & post-production facilities; mobile production facilities rental.

JOHN CHILES

7622 Main St., Jacksonville, FL 32208
904 764-5281
Nicad & lead-acid batteries, chargers.

CHRISTIE ELECTRIC CORP.

20665 Manhattan Pl., Torrance, CA 90501
213 320-0808
Nicad batteries, chargers. Bulk tape degaussers.
See ad on pg. 120

CHROMA DIGITAL SYSTEMS

2065 Martin Ave. #104, Santa Clara, CA 95050
408 986-8270
Chromafex digital efx generators, compressor/positioners, TBCs, frame synchronizers, TBC/framestores.

CHRONO-LOG CORP.

2 W. Park Rd., Havertown, PA 19083
215 853-1130
Digital clocks, timers, complete clock/timing systems. Time insertion sequencers.

CHYRON CORP.

265 Spagnoli Rd., Melville, NY 11747
516 249-3296
Titlers, subtitles; character generator/graphics systems; digital art/paint systems; 3D modeling & manipulation; "draw-on-screen" systems; bit pad digitizers; camera/VTR digitizers. Weather graphics displays, satellite displays, weather radar displays, weather symbol inserters, weather-based art/paint systems.

CINEMA PRODUCTS CORP.

2037 Granville Ave., Los Angeles, CA 90025
213 478-0711/477-1972
Cine cameras. Ultra T, Todd-AO cine lenses. Video matte boxes; adjustable video zoom lens control. Bubbelite quartz fixtures. Nicad batteries, chargers. Mini-Worrall geared head; Steadicam camera stabilizing system; Mini-Mote remote pan/tilt system. Camra-prompter scroll entry, ENG/EFP portable teleprompters. Mic booms.

CINEMILLS CORP.

3500 W. Magnolia Blvd., Burbank, CA 91505
818 843-4560
Daymax high-intensity bulbs for Strand Century HMIs; DeSisti lighting products; Sunburst HMI fixtures; Lee filters.

CINE 60

630 Ninth Ave., New York, NY 10036
212 586-8782
Nicad batteries, chargers.
See listing in Rep section

CINETRONICS

6300 Mulholland Way, Los Angeles, CA 90013
213 461-3778
Video production and post-production services.

CIPHER DIGITAL

10 Kearney Rd., Needham, MA 02194
617 449-7546
Softouch electronic audio editors. SMPTE time code synchronizers. SMPTE time code generator/readers, VITC reader/generators, high resolution character displays.
See ad on pg. 14

CIRCUIT DEVELOPMENT CO.

50 20 St., Brooklyn, NY 11232
718 768-4555
Three-channel RF monitors. Two-way communications systems including base station repeater & cassette recorder interface. Headphone monitor amp.

CIRCUIT RESEARCH LABS/ CRI AUDIO

2522 W. Geneva Dr., Tempe, AZ 85282
800 535-7648
AGC amps; AM & FM compressor/limiters; stereo four-band compressor. FM stereo generators. FM SCA equipment.

CLARION REMOTE TELEVISION/CRT See MEDALLION VIDEO PRODUCTIONS

DAVID CLARK CO.

360 Franklin St., Worcester, MA 01604
617 756-6216
Headphones. Intercom systems.

CLEAR-COM INTERCOM SYSTEMS

1111 17 St., San Francisco, CA 94107
415 861-6666
Hardwired intercom systems; headphones.

CLEARWATER TELEPRODUCTIONS See MEDALLION VIDEO PRODUCTIONS

CMC TECHNOLOGY CORP.

2650 Lafayette St., Santa Clara, CA 95050
408 980-9800
Replacement & rebuilt heads for quad & one-inch VTRs; audio & videotape erasers, degaussers.
See listing in Rep section

CMX CORP.

2230 Martin Ave., Santa Clara, CA 95050
408 988-2000
Time code synchronizers; two-machine editor/controllers, A/B-roll editors, multisource editors, SMPTE time code generator/readers, VITC reader/generators. Parallel & serial interface machine control.

COASTCOM

2312 Stanwell Dr., Concord, CA 94520
415 825-7500
Video filters. Diplexers. Transmit/receive satellite earth stations. Remote control systems. RF program subcarrier.

COAXIAL DYNAMICS

15210 Industrial Pky., Cleveland, OH 44135
216 267-2233
RF attenuators, filters, loads. RF power meters, wattmeters, calorimeters, frequency monitors & controllers. Digital frequency meters.

COHERENT COMMUNICATIONS

13756 Glenoaks Blvd., Sylmar, CA 91342
818 362-2566
Mic mixers, portable audio consoles. Mics: electret/condenser, RF, lavalier. Time code equipment. Portable video transmitters.

COLORADO VIDEO

Box 928, Boulder, CO 80306
303 444-3972
Slow-scan transmitters/receivers. Digital still stores. Colorizers. Video sync generators. Framestores. Waveform monitors. Distributor of monochrome cameras, lenses, lens extenders.

COLOR FILM CORP., VIDEO DIV.

98 Commerce Rd., Stamford, CT 06904
203 327-7270
Video post-production facilities. Video-cassette duplication, film-to-tape transfers, TV standards conversion.

When the Hitachi HR-230's real-time diagnostic system spots a potential problem during operation, it tells you what happened, and exactly where it happened. And it tells you in plain English.

The HR-230's computer controlled self-diagnostics continually monitors 49 different operational, maintenance, and troubleshooting parameters during both playback and recording. And it gives you the whole story up front on a console display and on the monitor.

Plus, you don't have to keep your eyes glued to the machine. Because the HR-230 stores it all in memory—along with the exact location—so you can go back and check later on.

But the HR-230 has a lot more going for it than just a great memory. Our retracting tape guides and tension arms—along with a non-contact



air scanner system dramatically reduce head and tape wear. It's compatible with all major editing systems. And such features as master/slave operation of up to 48 VTRs through its built-in editor, complete autoseek, pre-aligned replacement scanner, and a built-in TBC save you a lot of time and trouble.

And the HR-230 will save you money. Because nobody offers you so complete a machine for so modest a price.

For a demonstration in your studio, contact Hitachi-Denshi America Ltd., Broadcast and Professional Division, 175 Crossways Park West, Woodbury, NY 11797. Or phone (516) 921-7200 or (800) 645-7500. In Canada, contact Hitachi Denshi Ltd. (Canada), 65 Melford Drive, Scarborough, Ontario M1B 2G6; (416) 299-5900.

 **HITACHI**

Circle 142 on Reader Service Card

THE FIRST 1-INCH VTR THAT TELLS YOU WHERE TO GO.



COLORGRAPHICS SYSTEMS

5725 Tokay Blvd., Madison, WI 53719
608 274-5786

Live-line weather satellite displays, radar displays. ArtStar digital art/paint systems. NewStar radio & TV newsroom computers. Lightning detection & display.

COLORTRAN

1015 Chestnut St., Burbank, CA 91506
818 843-1200

Lamps, quartz fixtures, cyc lighting, diffusion & efx material, lighting stands & rigging, lighting control boards, dimmer packs. Nicad batteries, chargers.

COLUMBIA AUDIO/VIDEO

1741 Second St., Highland Park, IL 60035
312 433-6010

Equipment rental service; video production & post-production facilities; facilities design & engineering services; set/studio design services; music libraries; large-screen computer display.

COLUMBINE SYSTEMS

7 Jackson Bldg., Lev. 3, Plaza of the Presidents, Golden, CO 80401
303 279-4000

Radio & TV business automation software & IBM hardware; radio & TV newsroom computers.

COMAD

1535 Meyerside Dr. #7, Mississauga, Ont., Canada L5T 7M9
904 434-9782

Audio patch panels, jackfields. Manual, automated master control switchers. Parallel & serial interface video routing switchers. Parallel & serial interface machine control/technical automation; vertical interval systems.

COMARK COMMUNICATIONS

Box 275, Colmar, PA 18915
215 822-0777

Comark, Marconi & Eddystone AM, FM, VHF, UHF & shortwave transmitters; UHF, LPTV transmitters, translators. TV exciters, diplexers, multiplexers, modulators. RF amps, tubes, attenuators, converters, filters, loads, switches. M/A-Com intercity microwave. FM antennas; antenna tuning units. Bogner, SWR, Andrew, LeBlanc & Dick TV HP & CP antennas. Coaxial transmission line, power dividers, RF connectors. Pi-Rod, Vert. Technology & Stainless tower masts, rigging, hardware, lighting. Moseley, TFT transmitter remote control systems, STLs.

Comark, Tektronix demodulators. Tektronix modulation monitors, antenna monitors, field intensity meters, sideband analyzers, RF power meters & wattmeters, RF calorimeters, frequency monitors, controllers, RF test signal generators, impedance bridges, phase meters, oscilloscopes, delayed sweep scopes. EEV, Amperex klystrons. LEA surge protectors.

Field Office:

PA Stuart Kravitz, Dir. of Mktg., Comark,
Box 275, Colmar 18915

..... 215 822-0777

COMMERCE AIRBORNE

16425 Hart St. #106, Van Nuys, CA 91406
818 782-4810

Airborne microwave systems. Audio DAs. Engineering consultant.

COMMUNICATIONS

ALTATEC

5205 Airport Blvd. #200, Austin, TX 78751
512 453-4225

Video production & post-production facilities; mobile production facilities rental; equipment rental services.

COMMUNICATIONS GRAPHICS

Box 54110, Tulsa, OK 74155
918 258-6502

Promotional novelties.

COMPACT VIDEO SERVICES

2813 W. Alameda, Burbank, CA 91505
818 840-7000

Mobile teleproduction facilities rental; video post-production facilities; satellite uplink & downlink services; film-to-tape transfers; tape duplication services; video & film sound services.

COMPREHENSIVE VIDEO SUPPLY CORP.

148 Veterans Dr., Northvale, NJ 07647
201 767-7990/800 526-0242

Mic mixers. Audio & videotape erasers, degaussers. Videotape cleaners, evaluators. PortaCom hardwired intercoms. Mics: dynamic, electret/condenser, lavalier, shotgun; mic booms, dollies. Camera lenses. 3M 3/4-inch, half-inch videocassettes. Video DAs. Powerscript, Edit Lister, Associate Producer software for video applications.

Lamps, quartz fixtures, diffusion & efx material, lighting stands & rigging, dimmer packs. Nicad batteries, chargers; ac/dc converters, inverters. Camera tripods, heads, dollies. Padded nylon & rack configuration transportation cases. Studio furniture; cabinets; studio consoles; equipment racks; cart/tape storage.

RF converters, switches. Leader audio & video test signal generators, wow & flutter meters, waveform monitors, vectorscopes, oscilloscopes, voltmeters, multimeters. Audio & video cable, connectors. Computer interface cables. Music libraries.

Field Office:

CA 14731 Franklin Ave., Tustin 92680
.. 800 847-4778 in CA 800 847-4779

COMPUCON

Box 809006, Dallas, TX 75380
214 680-1000

Earth station site selection; engineering consultants; commercial marketing services.

COMPU = PROMPT

940 N. Orange Dr. #209, Los Angeles, CA
90038

213 461-3113

Color computerized monitor-based teleprompter.

COMPUSONICS

7315 E. Packview, Englewood, CO 80111
303 793-0060

Digital audio recording & mixing system.

COMPUTER BUSINESS SYSTEMS

167 Moore Rd., Weymouth, MA 02189
617 337-7799

Radio business automation hardware & software.

COMPUTER CONCEPTS CORP.

8375 Melrose Dr., Lenexa, KS 66214
800 255-6350/913 541-0900

Complete program automation systems. Wang radio business automation hardware.

COMPUTER GRAPHICS LABORATORIES/CGL

405 Lexington Ave., New York, NY 10174
212 557-5130

IMAGES digital art/paint system. 3-DV 3D modeling & manipulation system. CAAS, 3-DV video animation systems.

COMPUTER IMAGE CORP.

2475 W. Second Ave., Denver, CO 80223
303 934-5801

System IV video animation system. Scanimate standalone analog video efx.

COMPUTER LABS, DIV. ANALOG DEVICES

2710 Triad Center Dr., Greensboro, NC
27409

919 668-9511

Video A/D converters for TBCs.

COMREX CORP.

60 Union Ave., Sudbury, MA 01776
617 443-8811/800 237-1776

Portable audio consoles. RF intercom systems. Telco interface equipment. Frequency extenders.

COMSEARCH

11503 Sunrise Valley Dr., Reston, VA 22091
703 620-6300

Engineering consultants; earth station site selection; terrestrial microwave frequency planning; CARS band microwave services; STL engineering.

COMTECH ANTENNA CORP.

3100 Communications Rd., St. Cloud, FL
32769

305 892-6111

Offsat transmit/receive satellite earth stations; receive-only & transportable satellite earth stations.

COM-TEK

357 W. 2700 S., Salt Lake City, UT 84115
801 466-3463

RF intercoms; IFB systems. RF mics.

CONCEPT PRODUCTIONS

1224 Coloma Way, Roseville, CA 95678
916 782-7754

Syndicated radio programming; music libraries.

If there's an OWL™ on your mast, it'll never be hit*

With E G & G StrobeGuard® Obstruction Warning Lights on your broadcast tower, you never have to worry about a hit, or even a near-miss. And with our long-life, high-output flash tubes you can virtually forget about replacement woes.

The money you'll save from not having to repaint your tower will likely pay for the StrobeGuard OWL system within the warranty period. And the light-weight stainless steel design of the new single-enclosure SS-125 adds only 85 pounds per unit to the tower, and greatly reduces wind loading.

Add to this such advantages as plug-in modular circuit construction, simple two-bolt adjustment, self-contained levelling device and you've bought convenience as well as proven performance and reliability. Like all E G & G StrobeGuard OWL systems, the SS-125 handily meets or exceeds applicable FCC and FAA/DOD specifications.

Before you buy another tower lamp or gallon of paint, check out the new StrobeGuard OWL from E G & G. For complete information, call Tom Allain or circle reader service number.

**Since E G & G introduced high-intensity xenon arc obstruction warning lighting in 1968, no StrobeGuard-protected structure has ever been hit. OWL is a trademark for obstruction lighting systems manufactured by E G & G.*

 **EG&G ELECTRO-OPTICS**

35 Congress Street
Salem, Massachusetts 01970
TEL: 617-745-3200 TLX: 681-7405

CONEX ELECTRO-SYSTEMS

Box 1342, Bellingham, WA 98227
206 734-4323

Cue-Amp monitor/power amps; audio switchers. 25 Hz tone sensors & generators.

CONIFER CORP.

Box 1025, Burlington, IA 52601
319 752-3607

Receive-only satellite earth stations. MDS/MMDS/ITFS receivers.

CONNECT-AIR INTL.

50 37 St. N.E., Auburn, WA 98002
206 939-4880

Video cable; cable connectors.

CONNECTRONICS CORP.

652 Glenbrook Rd., Stamford, CT 06906
203 324-3889/800 322-2537

Seek portable & stereo studio consoles. Accessit parametric equalizers, analog audio efx & reverb, audio preamps. Audio cable; Key Technology cable connectors; Accessit jackfields & patch panels.

OTIS CONNER PRODUCTIONS

4801 Spring Valley Rd. # 105, Dallas, TX 75234

214 358-5500

Music library; TV & radio musical ID production packages; special feature programming for radio; original & syndicated commercial music packages.

CONRAC

600 N. Rimsdale Ave., Covina, CA 91722
213 966-3511

Video monitors: monochrome, NTSC, RGB, graphics displays.

CONTINENTAL ELECTRONIC/CONTEL

1620 W. 32 Pl, Hialeah, FL 33012
305 822-1421

Cart player/recorders; LPTV transmitters.

CONTINENTAL ELECTRONICS, DIV. VARIAN

Box 270879, Dallas, TX 75227
214 381-7161

AM & FM transmitters. AM, AM stereo & FM exciters; stereo generators, duplexers, multiplexers. RF amps, filters, loads, switches. AM & FM antennas; antenna tuning units. Transmitter remote control systems. FM & AM SCA equipment. Stereo studio audio consoles.

Field Offices:

AL Dave Hulstman, Box 26509, Birmingham 35226 205 822-1078

CO Ken Perkins, 7846 S. Centaur Dr., Evergreen 303 670-1049

IL John D. Abdnour, Box 575, Streator 61364 815 672-8585

MN Jim Littlejohn, 670 N. Branch Rd., Maple Plain 55359 612 479-2633

NC John Hutson, 28 Park Ave., Asheville 28803 704 274-5298

NY R. Clifford Rogers, Box 157, Schroon Lake 12870 518 532-7488

OR Tom T. Cauthers, 13333 S.E. Marsh Rd., Sandy 97055 503 668-9312

OR Marvin (Muffin) Steelman, 2600 Judy Way, Medford 97501 503 776-0011

TN Barry Ariaz, Box 2117, Hendersonville 37077 615 822-0256

TX Steve H. Schott, Box 2008, Plano 75074 214 423-3644

See ad on pg 168

CONTINENTAL RECORDINGS

210 South St., Boston, MA 02111
617 426-3131

Audio post-production facilities; recording studio; music libraries; jingles.

CONTROL CONCEPTS CORP.

Box 1380, 328 Water St., Binghamton, NY 13902

607 724-2484

Power line conditioners for microprocessor-based equipment; transformers, surge protectors. Facilities design & engineering services.

CONTROL TECHNOLOGY

2950 S.W. 2 Ave., Ft. Lauderdale, FL 33315
305 761-1106/800 327-4121

Distributor of full line audio & RF equipment. See listing in Rep section

CONUS COMMUNICATIONS

3415 University Ave., Minneapolis, MN 55415

612 642-4645

Transmit/receive, receive-only & transportable satellite earth stations; MAC systems; satellite network controllers. Satellite newsgathering services.

CONVERGENCE CORP.

1641 McGaw, Irvine, CA 92714
714 250-1641

Two-machine editor/controllers, A/B roll editors, multisource editors. SMPTE time code readers. Special effects generators.

Field Offices:

NY Steven DiFranco, 250 W. 57 St. #815, New York 10019 212 765-1333

See ad on pg 48

COOL LIGHT

5723 Auckland Ave., N. Hollywood, CA 91601

818 761-6116

Lamps, lighting fixtures.

COPPERWELD BIMETALLICS GROUP

Robinson Plaza 2, Pittsburgh, PA 15205
412 777-3000

Alumoweld strand tower guying material.

CORELLI/JACOBS MUSIC & RECORDING

25 W. 45 St., New York, NY 10036
212 382-0220

Recording studios; sound effects; music libraries.

CORPORATE COMMUNICATIONS CONSULTANTS

4250 Veterans Memorial Hwy., Holbrook, NY 11741

516 737-0903

Telecine color correctors, telecine control systems.

COUNTRYMAN ASSOCIATES

417 Stanford Ave., Redwood City, CA 94063
415 364-9988

Mics: electret/condenser, PZM, RF, TVH lavalier, stereo. Isomax sound reinforcement & podium mics. Conference table mics.

CREATIVE TECHNOLOGY

853 Copley Rd., Akron, OH 44320
216 535-5778

Video production & post-production facilities; mobile production facilities rental.

CROSSPOINT LATCH CORP.

95 Progress St., Union, NJ 07083
201 688-1510

Compact studio/mobile, large automated & computer-controlled production switchers; post-production switchers. Video sync, black burst, color bar generators. TBCs.

See ad on pg 156

JOHN CROWE PRODUCTIONS

6311 N. O'Connor Road # 102 LB 48, Irving, TX 75039

214 556-1816

Mobile production facilities rental.

CROWN INTERNATIONAL

1718 W. Mishawaka Rd., Elkhart, IN 46517
219 294-8000

Electret/condenser, PZM & lavalier mics. Preamps, monitor/power amps. Real time analyzers; Tecron spectrum analyzers.

See ad on pg 4

CSI ELECTRONICS

Box 965, Highland City, FL 33846
813 644-3573

AM & FM transmitters. Stereo generators. Antenna tuning units. SCA equipment. Status/alarm indicators.

CSP

See VECTOR TECHNOLOGY

CTI COMMUNICATIONS

47 Ann St., New York, NY 10038
212 233-0226

Video production & post-production facilities; program development services.

CUBICOMP CORP.

3165 Adeline St., Berkeley, CA 94703
415 540-5733

Picture Maker character generator/graphics systems, digital art/paint systems, Picture Maker 3D modeling & picture manipulation, "draw on screen" systems.

See ad on pg 99

CUSTOM BUSINESS SYSTEMS

See CBSI

CYBERNETIC DATA PRODUCTS

20732 Lassen St., Chatsworth, CA 91311
818 998-0900

Silent Radio broadcast system for distribution of news & advertising to LED display boards; vertical interval inserter.

Steal some of the thunder with 3M Stormscope.[®]

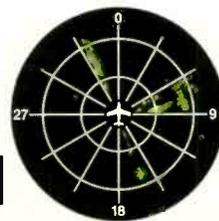
Weather Mapping Systems

Scoop the weather in your community with live, real-time thunderstorm information.

Only the Stormscope Systems model WX-120 gives you all these advantages to help make your weather programs the best on the air:

- Displays thunderstorm activity while it happens—you can be the first to report approaching hazardous thunderstorms.
- Real-time information—with an alarm system to warn of approaching thunderstorm activity.
- Lets you “see” thunderstorm activity up to 220 nautical miles away, monitor its development, track its path, and determine its intensity so you can issue appropriate weather warnings.
- Easy to use and interpret.
- Tested and proven.

For more information call
1-800-328-5727 ext. 6010
(in Minnesota, call 1-800-742-5685,
ext. 6010) or write:



3M
Stormscope[®]
Weather Mapping Systems

6530 Singletree Drive
Columbus, OH 43229
Phone (614) 885-3310

Circle 144 on Reader Service Card

DABURN ELECTRONICS & CABLE CORP.

20 Oak St., Norwood, NJ 07648
201 768-5400

Foam dielectric & coaxial transmission line. Audio, video & lighting/ac cable. Electronic hardware.

PETER W. DAHL CO.

4007 Fort Blvd., El Paso, TX 79930
915 566-5365

Rectifiers; transformers; surge protectors.

DAISAT SATELLITE COMMUNICATIONS

Box 1960, Plano, TX 75074
214 578-7561

Transportable satellite earth station; facilities design & engineering services; engineering consultants.

DATA COMMUNICATIONS CORP./BIAS

3000 Directors Row, Memphis, TN 38131
901 345-3544

BIAS radio and TV business automation software, business automation hardware & newsroom computers. BIAS business automation-interfaced master control automation.

DATA PRECISION CORP.

Electronics Ave., Danvers, MA 01923
617 777-1401

Waveform analyzers; waveform synthesizers; dc voltage standards. Voltmeters, multimeters, capacitance meters, ohm meters, thermometers.

DATATEK CORP.

1121 Bristol Rd., Mountainside, NJ 07092
201 654-8100

Audio preamps, line amps, monitor/power amps; audio DAs, audio routing switchers, telco interface equipment. Parallel & serial interface video routing switchers; serial interface & vertical interval machine control systems; video DAs, pulse amps, subcarrier amps; IDS systems, source ID.

DATAWORLD

4827 Rugby Ave. #200, Bethesda, MD 20814

301 652-8822/800 368-5754

Computer database of FCC engineering information.

DATUM

1363 S. State College Blvd., Anaheim, CA 92806

714 533-6333

SMPTE time code generator/readers; VITC reader/generators; time code character generators.

DAVIS & SANFORD

24 Pleasant St., New Rochelle, NY 10802
914 632-1636

Camera tripods, heads, pedestals, dollies.



dbx

71 Chapel St., Newton, MA 02195
617 964-3210

Audio noise reduction; ALC & AGC amps, AM & FM compressor/limiters, parametric equalizers. Audio noise gate; de-esser. BTSC noise reduction cards. Digital STL for audio & EFP. Satellite compandor.

DELCOM CORP.

6019 S. 66 E. Ave., Tulsa, OK 74145
918 494-9500/800 331-5461

Studio furniture; cabinets; studio consoles; equipment racks. Mobile production facilities rental; facilities design & engineering services; set/studio design services; engineering consultants; mobile vehicle construction; SCAT computerized documentation of video system cabling.

DELTA ELECTRONICS

5730 Gen. Washington Dr., Alexandria, VA 22312

703 354-3350

AM stereo exciters; RF switches; transmitter remote control systems; RF ammeters. Antenna modulators, RF test signal generators, impedance bridges.

See ad on pg 139

DESISTI LIGHTING/DESMAR CORP.

328 Adam St., Hoboken, NJ 07030
201 792-4980

HMI, CSI fixtures, quartz fixtures, cyc lighting, lighting stands & rigging, lighting control boards, dimmer packs. CID lamps, Coemar diffusion & efx material. Irem/DeSisti HMI ballasts. Tripods, heads; Elemack dollies, cranes, jibs. Foam insert transportation cases. Lighting/ac cable. Facilities design & engineering services; studio design services.

DEVLIN PRODUCTIONS

150 W. 55 St., New York, NY 10019
212 582-5572

Video production & post-production facilities; mobile production facilities rental; standards conversions; videodisc mastering services; single field/frame recording services.

DE WOLFE MUSIC LIBRARY

25 W. 45 St., New York, NY 10036
212 382-0220

Production music library & sound effects; recording services.

DEXCEL. See HY-TEK

DICTAPHONE CORP.

120 Old Post Rd., Rye, NY 10580
914 967-7300

Multichannel tape-based loggers; time signal recording for determination, search & recall.

See ad on pg 178

DIELECTRIC COMMUNICATIONS

Tower Hill Rd., Raymond, ME 04071
207 655-4555

RF converters, filters, loads & switches; FM antennas; rigid & coaxial transmission line, power dividers, RF connectors; directional couplers. Facilities design & engineering services; engineering consultants.

DIGIMAX INSTRUMENTS

8560 Production Ave., San Diego, CA 92121
619 578-7171

Frequency counters & accessories.

DIGITAL BY DICKINSON

9 Westinghouse Plaza, Box 547, Bloomfield, NJ 07003

201 429-8996

Digital audio lock to video. Mobile production facilities rental; video post-production facilities; recording studios; audio post-production facilities; equipment rental services; engineering consultants.

DIGITAL ENTERTAINMENT CORP.

225 Parkside Dr., San Fernando, CA 91340
818 898-2341

Mitsubishi digital audio recorders.

Field Offices:

NY 555 W. 57 St., #1530, New York 10019
212 713-1600

TN 2200 Hillsboro Rd. #218, Nashville 37212
615 298-6613

DIGITAL IMAGES

651 Beacon St., Boston, MA 02215
617 267-6400/800 341-7878

Video production & post-production facilities.

DIGITAL SERVICES CORP./DSC

3622 N.E. 4 St., Gainesville, FL 32609
904 377-8013

Illusion digital video efx generators.

Field Offices:

CA Hugh Gillogly, 17206 Pinot Pl., Poway 92064
619 485-1156

IN Morrell Beavers, Rt. 1, Box 47B, Trafalgar 46181
317 832-3212

MN Mike Barsness, 4769 Dakota St. S.E. #1, Prior Lake 55372
612 758-3036

NY John Barker, 325 Central Ave. #219, White Plains 10606
914 761-7928

See listing in Rep section

See ad on pg 107

DIGITAL TECHNIQUES

10 B St., Burlington, MA 01803
617 273-3495

TouchCom interactive graphics & video system.

DIGITAL VIDEO CORP.

369 N. Orange Ave., Orlando, FL 32801
305 425-1999

Video field production & post-production facilities; equipment rental services; interactive disc preparation.

Ampex versatility, long appreciated by over 6100 users of the famous Ampex VPR-2, is part and parcel of its successor, the new VPR-6. But the VPR-6 brings you state-of-the-art performance and even more flexibility with multi-point search-to-cue, comprehensive integral editing, variable speed True-Frame™ playback, stereo audio, serial communications, and precision handling

of everything from short spots to two-hour reels.

With hundreds of machines in service worldwide, the VPR-6 delivers a price-performance-reliability package that makes good business sense to broadcast, production and post-production users, either as a stand-alone performer or teamed with the growing family of Ampex Computerized Editors.

Call your nearest Ampex sales engineer for more information about the VPR-6, and its worldwide Ampex support team.

Atlanta (404) 491-7112 Chicago (312) 593-6000
Dallas (214) 960-1162 Los Angeles (818) 240-5000
New Jersey (201) 825-9600 (In New York: 212) 947-8633
San Francisco (415) 367-2296
Washington, D.C. (301) 530-8800
Canada (416) 821-8840

AMPEX

Ampex Corporation • One Of The Signal Companies 

Ampedextrous!



True-Frame is a trademark
of Ampex Corporation

© 1985 Ampex Corporation

DIGITAL VIDEO PRODUCTIONS

62 S. Franklin St., Wilkes-Barre, PA 18773
717 824-1161

Video production & post-production facilities; mobile production facilities rental.

DIGITAL VIDEO SYSTEMS, SUBSIDIARY SCIENTIFIC-ATLANTA

120 Middlefield Rd., Scarborough, Ont., Canada M1F 4M6
416 299-6888

Digital & dual-channel TBCs, frame & field synchronizers. Comb filter decoders, dropout compensators. A/D & D/A converters, phasers. Encryption/decryption satellite transmission systems.

See ad on pg 123

DIGIVISION

4980 Carroll Canyon Rd., San Diego, CA 92121
619 458-1111

High resolution digital video converter for display devices.

DI-TECH

48 Jefryn Blvd., Deer Park, NY 11729
516 667-6300

Audio & video DAs. Audio & video routing switchers: parallel & serial interface. Pulse amps. Video presence detectors for switcher & transmitter monitoring. Telephone Touch-Tone remote control system for broadcast equipment.

See ad on pg 65

DOLBY LABORATORIES

731 Sansome, San Francisco, CA 94111
415 392-0300

Audio noise reduction systems.

DORROUGH ELECTRONICS

5221 Collier Pl., Woodland Hills, CA 91364
818 999-1132

Discriminate Audio Processor AM & FM compressor/limiters; Dorrough Loudness Meter.

See listing in Rep section

DOW-KEY MICROWAVE

1110 Mark Ave., Carpinteria, CA 93013
805 684-4560

RF & microwave switches.

R.L. DRAKE

Box 112, Miamisburg, OH 45342
513 866-2421

Receive-only satellite earth stations.

DRAKE-CHENAULT RADIO CONSULTANTS

8399 Topanga Canyon Blvd., Canoga Park, CA 91304
213 883-7400

Radio consultants.

THE DROID WORKS

3301 Kearner Blvd., San Rafael, CA 94912
415 457-5282

EditDroid multisource video editor; SoundDroid audio editing/mixing system.

DRS/PRECISION ECHO

3105 Patrick Henry Dr., Santa Clara, CA 95054

408 988-0516

Video Frame Star portable still-frame videodisc recorder. Video animation controllers; Budget Squeezer compressor/positioner.

DuART VIDEO

245 W. 55 St., New York, NY 10019
212 757-3681

Video post-production facility.

DUBNER COMPUTER SYSTEMS

158 Linwood Plaza, Fort Lee, NJ 07024
201 592-6500

Character generator/graphics systems; digital art/paint systems; 3D modeling & manipulation; bit pad digitizers. Telecine color correctors.

VICTOR DUNCAN

6305 N. O'Connor Rd. #100, Irving, TX 75039

214 869-0200

Video & film production equipment rentals, sales & service.

DUNN INSTRUMENTS

544 Second St., San Francisco, CA 94107
415 957-1600

ProColor 35 mm tabletop camera.

DYMA ENGINEERING

367 Main SE, Box 1535, Los Lunas, NM 87031z

800 222-3962/505 865-6700

International portable audio mixer. Audio DAs. Line surge protectors. Facilities design & engineering services; engineering consultants; earth station site selection; mobile vehicle construction; lighting systems design & installation.

DYNAIR ELECTRONICS

5275 Market St., San Diego, CA 92114
619 263-7711

Audio DAs, audio routing switchers. Manual & automated master control switchers; parallel & serial interface video routing switchers; parallel & serial interface machine control/technical automation; video DAs, pulse amps; video equalizers.

DYNATECH DATA SYSTEMS

7644 Dynatech Ct., Springfield, VA 22153
703 569-9000

Video patch panels; coaxial patching equipment.

EAST COAST VIDEO SYSTEMS

112 Ellington St., E. Orange, NJ 07017
212 431-7453

Facilities design & engineering services; set/studio design services; engineering consultants.

EASTMAN KODAK CO.

343 State St., Rochester, NY 14650
716 724-4293

Eastman professional videotape: one-inch, 3/4-inch cassettes, half-inch cassettes.

ECHOLAB

175 Bedford Rd., Burlington, MA 01803
617 273-1512

Standalone analog video efx, RGB & encoded chromakeyers, title keyers, downstream keyers.

ECONCO BROADCAST SERVICE

1318 Commerce Ave., Woodland, CA 95695
916 662-7553

Rebuilt power tubes.

EDCOR

16782 Hale Ave., Irvine, CA 92714
714 863-1529

RF mics; audio preamps, line amps, monitor/power amps. Delta Magnetics transformers, hum bucking coils.

EDITEL/CHICAGO

301 E. Erie, Chicago, IL 60611
312 440-2360

Video production & post-production facilities; mobile production facilities rental.

EDITEL/LA

729 N. Highland, Hollywood, CA 90038
213 931-1821

Video production & post-production facilities; mobile production facilities rental.

EDITEL/NEW YORK

222 E. 44 St., New York, NY 10017
212 867-4600

Video production & post-production facilities; mobile production facilities rental.

EECO

1601 E. Chestnut Ave., Box 659, Santa Ana, CA 92702-0659

714 835-6000

IVES two-machine editor/controllers, A/B-roll editors; EMM multisource editor; SMPTE time code generator/readers; EECODER still-frame encoders, decoders for interactive videodiscs.

EEG ENTERPRISES

1 Rome St., Farmingdale, NY 11735
516 293-7472

SMPTE time code generator/readers. Video source ID. Closed captioning, teletext.

EEV

7 Westchester Plaza, Elmsford, NY 10523
914 592-6050

Leddicon & vidicon camera pickup tubes; monochrome cameras. RF tubes; UHF TV klystrons. Vacuum tubes; rectifiers; capacitors; surge protectors; LCDs.

Field Offices:

CA Kees van der Keyl, 5455 Garden Grove Blvd. #420, Westminster 92683 . 714 895-3948

GA Harry Kozicki, 15 Dunwoody Pk.

#100E, Atlanta 30338 . 404 394-9201

IL Chuck Bocan, 2073 Arleen Ct.,

Schaumburg 60194 . . . 312 843-8417

WA Don Rose, 19001 40 Pl. N.E., Seattle 98155 206 363-2200

See ad on pg 155

EG&G STROBE GUARD

35 Congress St., Salem, MA 01970
617 745-3200

Tower lighting. Lighting/ac cable.

See ad on pg 83

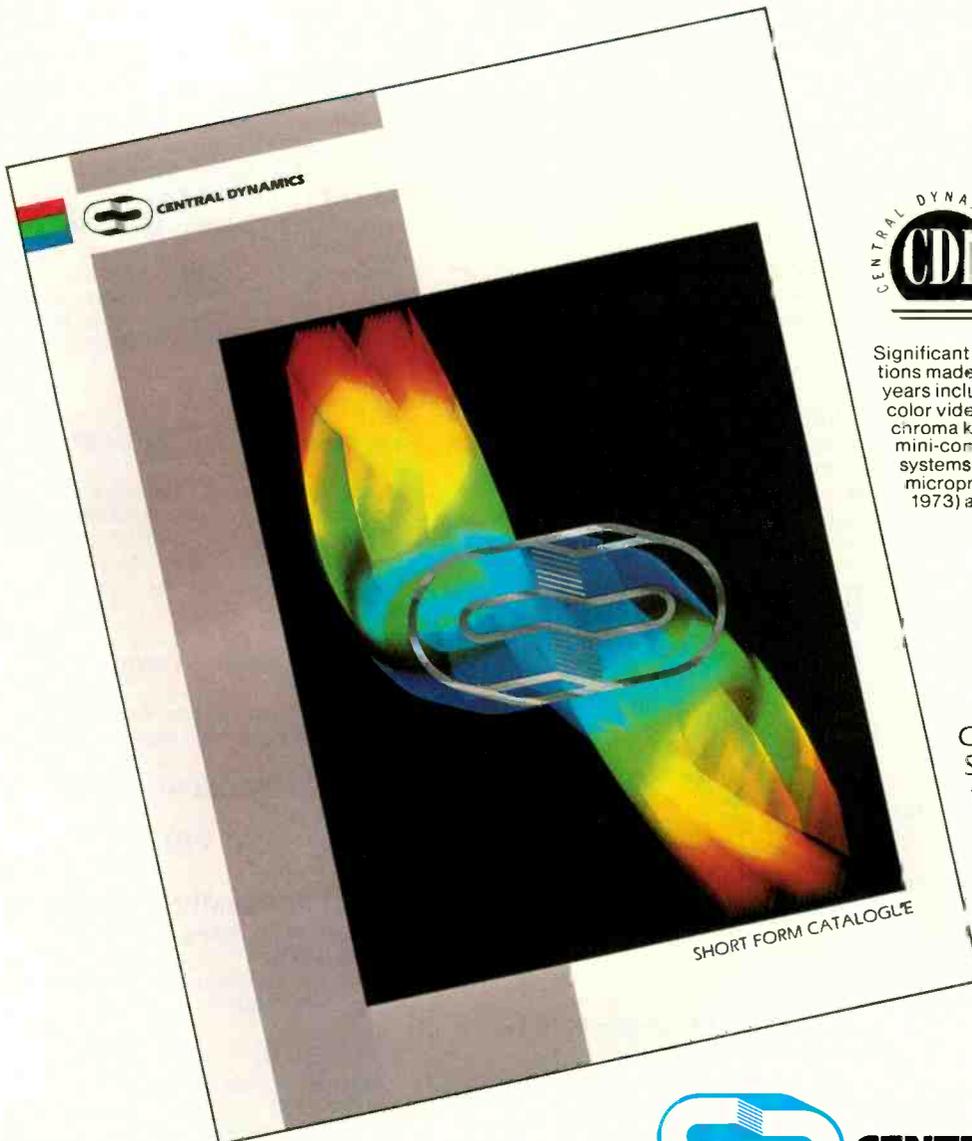


CENTRAL DYNAMICS

A new image for today's challenge.

CDL continues to lead the way for service and high quality, innovative products for the new generation of television productions and transmission.

- Video production switchers
- Routing switchers
- Master control switchers and systems



Significant developments and contributions made by CDL over the past 25 years include the first all-solid-state color video production switcher, RGB chroma keying, the M/E amplifier, mini-computer TV station automation systems, first commercially available microprocessor based system (NAB 1973) and SFX amplifier.



Call or write for our new Short Form Catalogue with the latest production, routing and master control switchers, video production systems and accessories, and terminal equipment.



CENTRAL DYNAMICS

Central Dynamics Ltd., 147 Hymus Blvd., Pointe Claire, Quebec, Canada H9R 1G1 (514) 697-0811 Tlx: 05-821506 Twx: 610-422-3906
Chicago (312) 864-6045 • Los Angeles (818) 766-8185 • Texas (214) 894-6303 • Atlanta (404) 633-2100 • Washington, DC (301) 258-7676 • Toronto (416) 446-1543

Circle 145 on Reader Service Card

EIDSON ELECTRONIC CO.

Box 3751, Temple, TX 76501
817 773-3901
Quartz crystals for AM, FM, TV.

EIGEN VIDEO

Box 848, Nevada City, CA 95959
916 272-3461
Videodisc slow motion recorders. Video animation controllers. Winchester & floppy disk framestores, video noise reducers.

ELCOM BAUER

6199 Warehouse Way, Sacramento, CA 95826
916 381-3750
ALC & AGC amps, AM & FM compressor/limiters. AM & FM transmitters; AM & FM exciters, stereo generators; RF amps; FM SCA equipment.

ELCON ASSOCIATES

1450 O'Connor Dr., Toronto, Ont., Canada M4B 2T8
416 759-5614
Videotape cleaners, evaluators.

ELECON (UNIVERSAL)

903 S. Lake St. #102, Burbank, CA 91502
818 846-6220
Elemix mic mixer; U.VAS SMPTE time code synchronizer. A/B roll videotape editing systems. Elepack nicad ENG batteries.

ELECTOR USA

Box 699, Pinebrook, NJ 07058
201 882-0584
Barco NTSC & high resolution video monitors & video projectors; TV tuners.

ELECTRO CONTROLS

2975 S. 300 W., Salt Lake City, UT 84115
801 487-9861
Celebrity, Celebrity Plus & Premiere lighting control boards; dimmer packs.

ELECTROHOME, LTD.

809 Wellington St. N., Kitchener, Ont., Canada N2G 4J6
519 744-7111
Video monitors: monochrome, NTSC, RGB, high resolution, video projectors. Receive-only satellite earth stations.
Field Offices:
NY 250 Wales Ave., Tonawanda 14150
..... 716 694-3332

ELECTRO IMPULSE LAB

116 Chestnut St., Box 870, Red Bank, NJ 07701
201 741-0404
RF attenuators, loads, baluns. RF power meters, wattmeters, calorimeters.

ELECTRONIC FIELD PRODUCTIONS

44 E. University Dr., Arlington Heights, IL 60004
312 577-1811
Remote TV equipment rentals.

ELECTRONICS DIVERSIFIED

1675 NW 216, Hillsboro, OR 97124
503 645-5533

Lighting control boards (Litestar, Troubadour, TCC, SEC, DCC, Showboard), dimmer packs (Dimmex, SCRimmerette, SCRimmer, SCM, Mark VII, DPC).

ELECTRO-VOICE

600 Cecil St., Buchanan, MI 49107
616 695-6831
Dynamic, electret/condenser, shotgun & lavalier mics. Graphic equalizers. Sentry monitor speakers.
Field Offices:
CA Doug MacCallum, 8234 Doe Ave., Box 3297, Visalia 93277 ... 209 651-7777
MI Jesse Walsh/Garry Templan, 600 Cecil St., Buchanan 49107 ... 616 695-6831
CAN Mark Simmons, 345 Herbert St., Box 520, Gananoqui, Ont. K7G 2V1 ... 613 382-2141
See ad on pg. 121

ELICON

245 Viking Ave., Brea, CA 92621
714 990-6647
Lens remote control; video animation controllers; animation stand motion control; 3D modeling & manipulation; bit pad digitizers.

ELLIS TOWER CO.

Box 23217, Ft. Lauderdale, FL 33307
305 566-6432
Facilities design & engineering services; communications towers; CATV towers, earth stations, buildings.

EMCEE

Box 68, White Haven, PA 18661
717 443-9575
Transmitters: VHF, UHF, LPTV, MDS, ITFS, translators.

EMCOR PRODUCTS

1600 Fourth Ave. N.W., Rochester, MN 55901
507 289-3371
Cabinets; equipment racks; modular equipment consoles.

EMERGENCY ALERT RECEIVER

1 W. 30 St., New York, NY 10001
212 695-4767
SCA receivers; EBS receivers.

EMPIRE VIDEO

216 E. 45 St., New York, NY 10017
212 687-2060
Video post-production facilities.

ENCLOSURE CORP.

4529 Adams Circle, Cornwells Heights, PA 19020
215 638-9550
Cabinets, studio consoles, equipment racks.

ENERTEC/PROFESSIONAL AUDIO

1 Rue Nieuport, B.P. 54, Velizy Villacoublay Cedex, France 78141
3 946 96 50/Telex 697430 ENERSON F
Mono & stereo studio consoles, two/four-track studio ATRs. Preamps, line amps, amp power supplies. Audio routing switchers.
See ad on pg. 91

E-N-G CORP.

2930 Cloverdale Dr., Concord, CA 94520
415 798-4060
ENG microwave-equipped mobile vehicles with telescoping masts.

ENG HELICOPTER PRODUCTIONS, LTD.

9919 Carter Rd., Bethesda, MD 20817
301 469-8109
Helicopter-mounted camera stabilizing systems; complete helicopter microwave & communication system rentals.

ENGINEERING LAB

3019 La Costa Ave., Carlsbad, CA 92008
619 942-2208
Parallel & serial interface machine control/technical automation; vertical interval systems.

ENSTROM HELICOPTER

Box 277, Menominee, MI 49858
906 863-9971
ENG microwave-equipped helicopters.

ENTERPRISE ELECTRONICS

Box 1216, Enterprise, AL 36331
205 347-3478
Weather radar systems.

ENVIRONMENTAL SATELLITE DATA

5200 Auth Rd., Suitland, MD 20746
301 423-2113
Weather graphics displays, weather satellite displays, weather radar displays, weather symbol inserters, Color Connection weather-based art/paint system, LPATS lightning detection & display.

ESE

142 Sierra St., El Segundo, CA 90245
213 322-2136
Digital clocks, timers, complete clock/timing systems. Telco interface equipment; LED audio level displays. SMPTE time code generator/readers. Video DAs.
See listing in Rep section

ESPN

ESPN Plaza, Bristol, CT 06010
203 584-8477
Video production & post-production facilities; mobile production facilities rental.

EUREKA TELEPRODUCTION CENTER
See POSITIVE VIDEO**EURO EQUIPMENT SERVICE**

607 S. Main St., Spring Valley, NY 10977
914 352-4004
Automator Plus computer retrofit system for automation stands.

EVENTIDE

1 Alsan Way, Little Ferry, NJ 07643
201 641-1200
Harmonizer digital audio efx; digital delay; Timesqueeze audio time compression/expansion. Spectrum analyzers, real time analyzers.
See listing in Rep section

F 500 Schlumberger's know how

when technology
provides
simplicity



ENERTEC

Schlumberger

DEPARTEMENT AUDIO-PROFESSIONNEL
1, RUE NIEUPORT - BP 54
78141 VELIZY-VILLACOUBLAY CEDEX FRANCE
TEL (3) 946 96 50 - TELEX 697430 ENERSON F

J.M. Publicité

Circle 146 on Reader Service Card

EVERTZ MICROSYSTEMS ✓
3515 Mainway, Burlington, Ont., Canada
L7M 1A9
416 335-3700
Chaser SMPTE time code synchronizer.
SMPTE time code generator/readers, VITC
reader/generators; video slate board/
countdown generators. SCH phase meters.
Digital clocks, timers, complete clock/timing
systems.

EXCALIBUR INDUSTRIES ✓
12427 Foothill Blvd., Lake View Terrace, CA
91342
818 899-2547
Foam insert & rack configuration transporta-
tion cases; editing/production consoles. Pro-
duction case design.
See listing in Rep section

EXPRESS TOWER CO./EXCO ✓
Box 37, Locust Grove, OK 74352
918 479-6484/85
Tower masts. Facility turnkey installations.
Distributor of AM & FM antennas (Cetec,
Comark); rigid transmission line (Comark,
Myatt); foam dielectric transmission line
(Cablewave).

EXR
3373 Oak Knoll Dr., Brighton, MI 48116
313 227-6122
Audio processing exciter, projector.

**FAIRCHILD CAMERA/CCD
IMAGING DIV.**
4001 Miranda Ave., Palo Alto, CA 94304
415 493-7250
Video delay lines. CCD line sensor for
telecines.

FAIRVIEW VIDEO
222 Haws Ave., Norristown, PA 19401
215 277-6500
Video production & post-production facili-
ties; mobile production facilities rental; facili-
ties design & engineering services;
set/studio design consultants.

FANTASEE LIGHTING
404 N. River, Ypsilanti, MI 48197
313 482-6565
GE, Sylvania lamps; Altman HMI & CSI fix-
tures, quartz fixtures; cyc lighting; Strong
HMI & CSI fixtures; Lee diffusion, efx materi-
al; Atlas, Genie lighting stands & rigging;
Rainbo, Teatronics lighting control boards;
CAE, Teatronics dimmer packs. Set design
service. Lighting/ac cable.

**FAROUDJA
LABORATORIES** ✓
946 Benicia Ave., Sunnyvale, CA 94086
408 245-1492
Video noise reducers, image enhancers, col-
or correctors; decoders, comb filters.

FARRTRONICS, LTD. ✓
580 Dutton Dr., Waterloo, Ont., Canada N2L
4C6
519 746-6200
Hardwired intercom systems; party line inter-
coms; IFB packages. Audio & video patch
panels. Audio DAs.

FAX PRODUCTIONS ✓
4924 Hampden Ln., Bethesda, MD 20814
301 652-7800
Video production & post-production facili-
ties; mobile production facilities rental.

FERNO SALESMAN
70 Weil Way, Wilmington, OH 45177
513 382-1451
Transport carts for audio/video location
work.

FIBERBILT CASES ✓
601 W. 26 St., New York, NY 10001
212 675-5820
Foam insert (Supercase) & rack configura-
tion (Supertrunk) transportation cases.

FICON BROADCAST ✓
Box 150846, Nashville, TN 37215
615 329-2400
Radio business automation software.

FIDELIPAC CORP. ✓
Box 808, 97 Foster Rd., Moorestown, NJ
08057
609 235-3900/800 HOT TAPE
Dynamax single-deck & phase control ma-
trixing audio cart player/recorders; head
alignment & tension gauges; open-reel tape,
carts, empty reels & carts, tape erasers &
degaussers; splicing blocks, tape.
See ad on pg. Cover 3

FILM HOUSE
24 Music Sq. W., Nashville, TN 37203
615 255-4000
Promotional TV spots for radio stations; video
production facilities; recording studios.

**FILM/VIDEO EQUIPMENT SER-
VICE** ✓
Box 10370, 1875 S. Pearl St., Denver, CO
80210
303 778-8616
Wide Eye wide-angle lens attachments. Port-
able Energy Pro ducts nicad & lead-acid
batteries, chargers.

**IMERO FIORENTINO
ASSOC.** ✓
44 W. 63 St., New York, NY 10023
212 246-0600
Facilities design & engineering services; set/
studio design services; engineering
consultants.
Field Office:
CA Robert M. Dahl/Nancy Haas, 7060 Hol-
lywood Blvd. #1000, Hollywood 90028
..... 213 467-4020

FISHER BERKELEY CORP. ✓
5800 Christie Ave., Emeryville, CA 94608
415 655-9696
Ektacom hardwired intercom systems.

FITZCO SOUND ✓
204 N. Midhiff, Midland, TX 79701
915 684-0861
Audio equipment rental service; audio engi-
neering consultants.

**FLASH TECHNOLOGY CORP.
OF AMERICA** ✓
55 Lake St., Nashua, NH 03060
603 883-6500
High-intensity tower beacons; photoelectric
controls; remote monitoring for incandes-
cent lighting.

**FLORIDA PRODUCTION
CENTER**
150 Riverside Ave., Jacksonville, FL 32202
904 354-7000
Video production & post-production facili-
ties; mobile production facilities rental.

JOHN FLUKE MFG. CO. ✓
Box C9090, MS250C, Everett, WA 98206
206 342-6300/800 426-0361
RF test signal generators; frequency coun-
ters. Voltmeters, multimeters, dB meters.

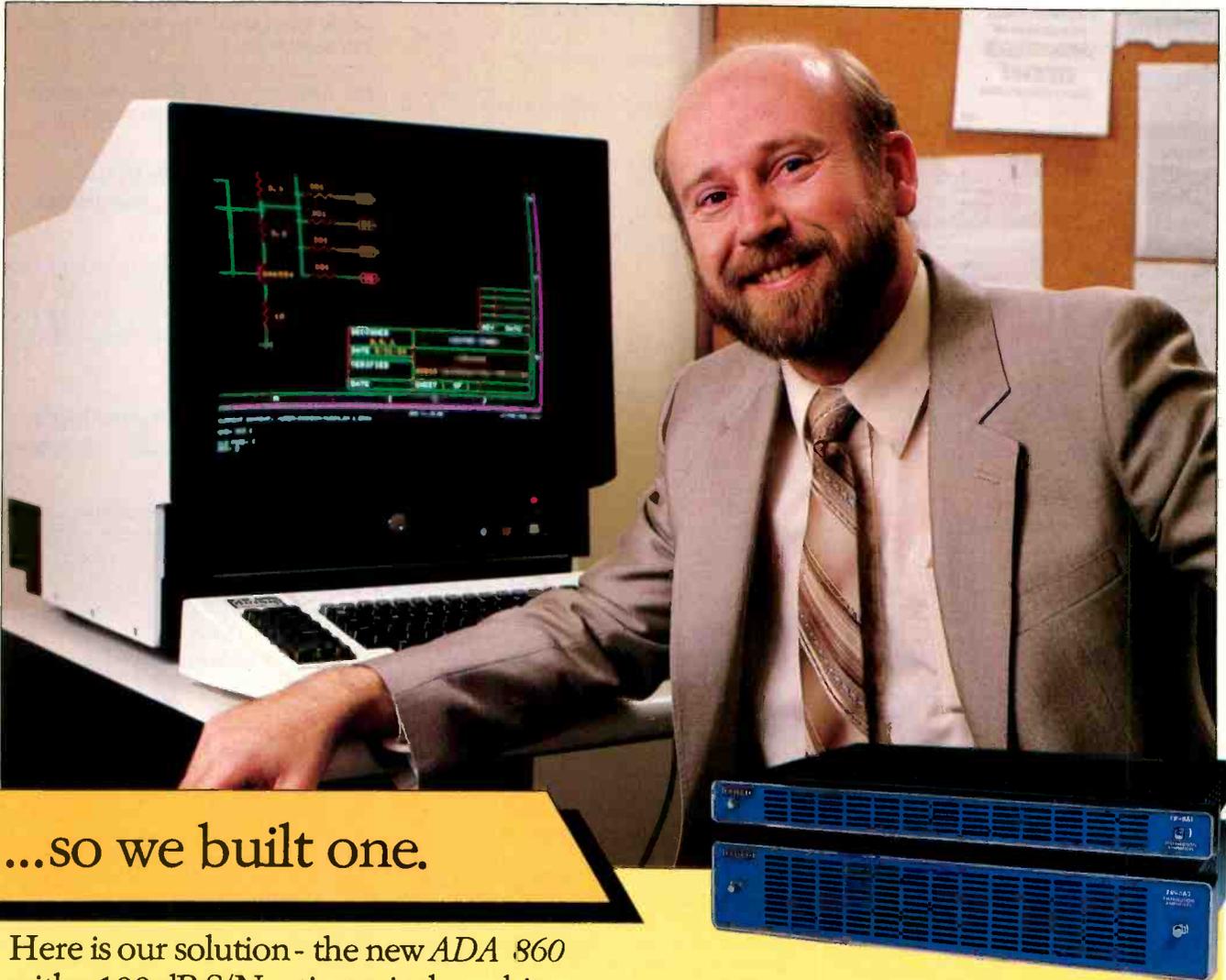
FOR-A CORP. OF AMERICA ✓
49 Lexington St., W. Newton, MA 02165
617 244-3223
Digital still stores, VTR slow-mo systems;
telecine color correctors; titlers, subtitles,
character generator/graphics systems,
draw-on-screen systems; compact studio/
mobile production switchers; post-
production switchers; component switchers.
Digital efx generators, compressor/
positioners, standalone analog efx,
colorizers, RGB chromakeyers, title keyers,
downstream keyers; SMPTE time code
generator/readers, VITC reader/generators;
sync, black burst & color bar generators.
TBCs, frame synchronizers, field/
framestores, TBC framestores, noise reduc-
ers, image enhancers, color correctors.
NTSC encoders, decoders, dropout compen-
sators; proc amps, video DAs; video timers.
Video test signal generators. System
Video waveform monitors, vectorscopes,
burst phase meters, diff. gain/phase meters.
Field Office:
CA 11060-E Artesia Blvd., Cerritos 90701
..... 213 402-5391
See listing in Rep section
See ad on pg. 134

FOROX CORP. ✓
393 West Ave., Stamford, CT 06902
203 324-7400
Animation cameras & stands.

FORTEL ✓
2985 Gateway Dr., Norcross, GA 30071
404 449-4343
TBCs, image enhancers, video multi-
processors.
See ad on pg. 9

**FOSTEX CORP. OF
AMERICA** ✓
15431 Blackburn Ave., Norwalk, CA 90650
213 921-1112
Mic mixers, portable consoles. two/four-
track & multitrack ATRs. Portable, multitrack
integrated cassette recorder/mixer. Audio
compressor/limiters, graphic equalizers.
Analog special efx, reverb. Monitor speakers
& components, headphones. Dynamic, rib-
bon, moving coil & stereo mics. Audio line &
power amps.

Our customers told us finding an audio distribution amplifier to match the excellence of our video was tough



...so we built one.

Here is our solution - the new *ADA 860* with a 100 dB S/N ratio to rival anything in the industry. Now you get Leitch quality in audio. You can select top performing video and an outstanding audio distribution amplifier from one reliable source.

The new *ADA 860* works hard but you'd never know it. The low distortion level makes it virtually transparent. This six output audio distribution amplifier is designed to meet the most exacting requirements. Modular design permits the

kind of flexibility you need to customize your system. The input is over-voltage protected. Maximum output level is +24 dBm. Gain range is -6 to +24dB.

What you've come to expect from Leitch in video, now look for in audio... because the name Leitch has always meant quality.

For more information on the new Leitch *ADA 860*, just circle the handy reply card or contact:

LEITCH

Leitch Video Limited
10 Dyas Road, Don Mills, Ontario
Canada M3B 1V5
(416) 445-9640

Leitch Video of America, Inc.
825k Greenbrier Circle
Chesapeake, VA 23320
(804) 424-7920

Leitch Video of America, Inc.
12520 Loma Rica Drive, P.O. Box 1985
Grass Valley, CA 95945
(916) 273-7541

Circle 147 on Reader Service Card

FREELAND PRODUCTS CO.

Rt. 7 Box 628, Covington, LA 70433
504 893-1243
Rebuilt RF tubes.

FREQUENCY DEVICES

25 Locust St., Haverhill, MA 01830
617 374-0761

Audio equalizers & filters, audio noise reduction. Amp power supplies. Audio tone test signal generators.

FREZZOLINI ELECTRONICS

5-7 Valley St., Hawthorne, NJ 07506
201 427-1160

On-Cam VHS recorder. Quartz lighting fixtures, lighting stands & rigging; GE/Sylvania lamps. Nicad batteries & chargers, ac/dc converters & inverters.

FUJINON

672 White Plains Rd., Scarsdale, NY 10583
914 472-9800

Camera lenses, lens remote control.

FUJI PHOTO FILM USA

350 Fifth Ave., New York, NY 10118
212 736-3335

One-inch videotape; 3/4-inch & half-inch videocassettes.

Field Offices:

CA 1211 E. Artesia Blvd., Carson 90746
..... 213 636-0101
GA 5461 Peachtree Ind. Blvd., Norcross
30092 404 441-2222
IL 1000 Pratt Blvd., Elk Grove Village
60007 312 569-3500
NJ 800 Central Blvd., Carlstadt 07072
..... 201 935-6022
TX 3500 Garden Brook Dr., Dallas 75234
..... 214 243-2537

GABRIEL ELECTRONICS

Box 70, Scarborough, ME 04074
207 883-5161

Foam dielectric & coaxial transmission line; STLs, TSLs; circular, elliptical & rectangular waveguides.

GAGNON LAFOREST

930 Wellington, Montreal, Que., Canada
H3C 1V1
514 861-9257

Verticlimb scenery & lighting rigging.
See listing in Rep section

GARDINER**COMMUNICATIONS CORP.**

3605 Security St., Garland, TX 75042
214 348-4747

Receive-only satellite earth stations, LNAs; receivers, switchers; downconverters, block downconverters.

GARNER INDUSTRIES

4200 N. 48 St., Lincoln, NE 68504
402 464-5911

Tape duplicators. Audio head degaussers. Audio head degaussers; audio & videotape erasers, degaussers.

GBH PRODUCTIONS

125 Western Ave., Boston, MA 02134
617 492-9273

Video production & post-production facilities; mobile teleproduction facilities rental; audio post-production facilities; set/studio design services; teleconferencing services.

GEC McMICHAEL

8620 E. Raintree Dr., Scottsdale, AZ 85260
602 948-7255

Fly-away satellite newsgathering portable downlink. Standards converters. Broadcast color monitors. Clock & logo generators.

GENERAL ELECTRIC CO., LIGHTING BUSINESS GROUP

Nela Pk., Cleveland, OH 44112
216 266-2121

Quartzline tungsten-halogen lamps.

GENERAL ELECTRIC CO., PROJECTION DISPLAY OPERATION

Electronics Park 6-206, Syracuse, NY 13221
315 456-2152

Video projectors.

GENERAL TELEVISION NETWORK

13201 Capital Ave., Oak Park, MI 48237
313 399-2000

Video production & post-production facilities; mobile production facilities rental; recording studios; audio post-production facilities; equipment rental services; facilities design & engineering services; set/studio design services; engineering consultants; earth station site selection; mobile vehicle construction.

GENERIC COMPUTER SYSTEMS

357 N. Main St., Butler, PA 16001
412 283-1500

Radio business automation software.

GENTNER ENGINEERING

540 W. 3560 South, Salt Lake City, UT 84115
801 268-1117

Hardwired intercoms; Audiometrics preamps, audio DAs; audio routing switchers, patch panels; telco interface equipment. Audiometrics timers. Audio jackfields.
See listing in Rep section

GERSTENSLAGER CO.

1425 E. Bowman St., Wooster, OH 44691
216 262-2015

Mobile vehicle construction.

GKM MFG. CORP.

47 Bridgewater St., Brooklyn, NY 11222
718 388-4114

Cabinets; studio consoles; equipment racks.

GLENTRONIX (1977) LTD.

90 Nolan Ct., Unit #7, Markham, Ont., Canada L3R 4L9
416 444-8497

Equipment rental services. Exclusive Canadian distributor of Ross video switchers & special efx systems, Dynatech jackfields, Telcom Research time code generator/readers & synchronizers, Porta-Pattern test charts, CMC head rebuilding program, Scientel sideband analyzers, Torpey clocks & timing systems.

GLOBAL VIDEO COMMUNICATIONS

744 W. Church St., Orlando, FL 32805
305 423-8299

Duplicating services; TV standards conversion.

G & M POWER PRODUCTS

943 N. Orange Dr., Los Angeles, CA 90038
213 850-6800

Nicad batteries, chargers; ac power dividers; inverters, converters. Monitoring devices, analyzers, condition monitors.

GOLDEN APPLE MEDIA

112 W. Boston Post Rd., Mamaroneck, NY 10543

914 381-4141

Video production & post-production facilities rental; recording studios; audio post-production facilities; facilities design & engineering services; set/studio design services; engineering consultants.

GOLDEN WEST VIDEOTAPE

5800 Sunset Blvd., Box 500, Los Angeles, CA 90028

213 460-5999

Video production & post-production services; mobile production facilities rental.

ALAN GORDON ENTERPRISES

1430 Cahuenga Blvd., Hollywood, CA 90039
213 466-3561

Manufacturer & distributor of cine production equipment: portable mic mixers; RF mics; PZM mic accessories, mic booms & dollies; 16 & 35 mm cine cameras, cine camera lenses & periscope lenses; animation stand motion control; SMPTE time code generator/readers; HMI, CSI lighting fixtures; nicad & silver-zinc batteries, chargers; camera tripods & heads, ENG braces, dollies, cranes & jibs, camera stabilizing systems, remote pan/tilt systems; foam insert & padded nylon transportation cases. Equipment rental services.

GORMAN-REDLICH MFG.

6 Curtis St., Athens, OH 45701
614 593-3150

EBS two-tone systems. Weather radio-receivers. Digital antenna monitors.

GOTHAM AUDIO

741 Washington St., New York, NY 10014
212 741-7411

Stereo studio & audio-for-TV consoles. EMT stereo studio consoles, turntables, pickup arms, phono cartridges, digital efx, reverb, FM compressor/limiters. Systex computer automation controllers, complete program automation systems, radio newsroom computers. K&H monitor speakers. Neumann electret/condenser, shotgun & stereo mics, mic booms & dollies. NTP PPM meters, LED displays, video monitor displays.

Field Office:

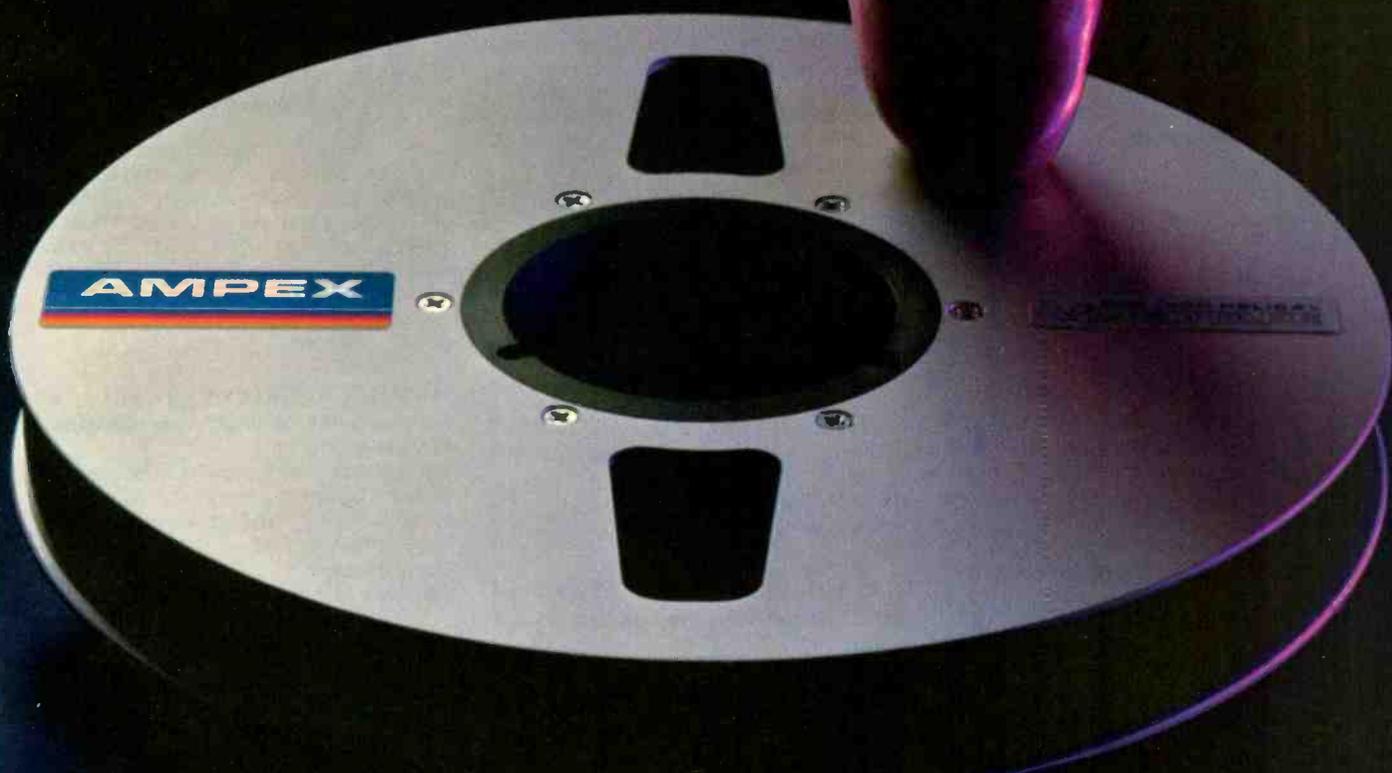
CA 7445 Orion Ave., Van Nuys 91406
..... 818 785-2211

BALANCE

The symmetry gained from the equalization of complementary forces. Symmetry as in the precise blending of sensational chrominance with outstanding signal-to-noise. Symmetry resulting in a video tape of breathtaking balance. Ampex 196.

AMPEX

Ampex Corporation • One of The Signal Companies 



GRAHAM-PATTEN SYSTEMS

Box 1960, Grass Valley, CA 95945
916 273-8412

Audio for TV consoles; audio DAs, remote-controlled DAs; PPM meters. Downstream keyers; video DAs, pulse amps, subcarrier amps.

GRANITE TELCOM CORP.

8 Continental Blvd., Merrimack, NH 03054
603 424-3900

Digital audio delay.

GRAPHIC EXPRESS

3678 Fourth Ave., San Diego, CA 92103
619 298-2834

Modular news & studio sets, scenery construction, scenery rigging, props & materials, set design service. Studio furniture, cabinets, studio consoles. News graphics slide service, lighting design.

THE GRASS VALLEY GROUP

Box 1114, Grass Valley, CA 95945
916 273-8421

Video production switchers: portable, compact studio/mobile, large automated, post-production. Digital efx generators, compressor/positioners, title keyers, downstream keyers. Master control switchers: manual, automated, business automation interfaced. Parallel & serial interface video routing switchers. Audio routing switchers. Parallel interface machine control/technical automation. A/B roll & multisource video editing systems. Video sync generators. Video delay lines. Proc amps, video DAs, pulse amps, subcarrier amps. Isophasing automatic color timing equipment. SC/H phase meters.

Field Offices:

CA 21243 Ventura Blvd. #206, Woodland Hills 91364 213 999-2303/1032
Elwell Ct. #244, Palo Alto 94303 415 968-6680
GA 1644 Tullie Cir. N.E. #102, Atlanta 30329 404 321-4318
IN 810 Bristol St., Elkhart 46514 219 264-0931
MN 3585 N. Lexington Ave. #238, Arden Hills 55112 612 483-2594
NJ 499 Thornall St., Metro-Park II, Edison 08817 201 549-9600
TX 316 Seminary S. Office Bldg., Fort Worth 76115 817 921-9411

See ad on pg 15

GRAY COMMUNICATIONS

Box 3229, Albany, GA 31708
912 883-2121

Mobile vehicle construction; equipment dealer.

Field Offices:

AL 2866 Dauphin St. #A, Mobile 36606 205 476-2050
AR 5105 McClanahan Dr. #J1, N. Little Rock 72115 501 758-3234
FL Box 24336, Tampa 33623 813 885-1411
LA 5441 Pepsi St., New Orleans 70123 504 733-7265
TN 1838 Elm Hill Pike, Apcom Pl. #101, Nashville 37210 615 883-9175

GRAY ENGINEERING LABS

504-P W. Chapman Ave., Orange, CA 92668
714 997-4151

SMPT E time code generator/readers, VITC reader/generators; safe title area generators.

THE GREAT AMERICAN MARKET

826 N. Cole Ave., Hollywood, CA 91368
213 461-0200

Lamps, HMI & CSI fixtures, quartz fixtures, cyc lighting, diffusion & efx material, lighting control boards. Foam insert & rack configuration transportation cases; editing/production consoles. Modular news, studio sets.

DAVID GREEN BROADCAST CONSULTANTS

Box 8782, BWI Airport, Baltimore, MD 21240
301 796-1500/800 547-2346

Test equipment rentals; distributor of audio & RF equipment.

GRINNAN FIXTURE CO.

16041 Georgetown St. NE, Minerva, OH 44657

216 862-2799

Facilities design & engineering services; engineering consultants; mobile vehicle construction; studio cabinets & furniture.

GROSH SCENIC STUDIOS

4114 Sunset Blvd., Hollywood, CA 90029
213 662-1134

Lighting stands, rigging. Modular news & studio sets, scenery construction & rigging.

GRUMMAN CORP.

Sunrise Hwy. #A38-43, Great River, NY 11739

516 435-6001

Sync Proc video proc amp, sync generator, color ID, VITS/VIRS inserter. Machine control systems with remote control. AIS automatic advertising & program insertion system. Automatic video test signal generators, analyzers, VITS inserters. Facilities design & engineering services.

GTE COMMUNICATIONS SYSTEMS CORP.

2500 W. Utopia Rd., Phoenix, AZ 85027
602 582-7000

Fiberoptic systems. Intercity microwave equipment. Microwave & telco STLs. CATV transmission equipment.

GTE LIGHTING PRODUCTS

Sylvania Lighting Center, Danvers, MA 01923

617 777-1900

Sylvania lamps.

HALLIKAINEN & FRIENDS

141 Suburban Rd., San Luis Obispo, CA 93401

805 541-0200

Mono studio & audio for TV consoles. Transmitter remote control systems; STLs, TSLs. Log printers, automatic TV & radio monitors, status/alarm indicators.

See listing in Rep section

HARRIS CORP., BROADCAST GROUP

Box 4290, Quincy, IL 62305
217 222-8200

Mono & stereo studio audio consoles, audio-for-TV consoles; computer automation controllers, automatic satellite switchers, complete program automation systems; radio business automation software; ALC & AGC amps, AM & FM compressor/limiters, audio noise reduction; audio preamps, line amps, monitor/power amps, amp power supplies.

Studio & ENG cameras; digital efx generators, compressor/positioners; TBCs, frame synchronizers, field/framestores, TBC/framestores, video noise reducers.

AM, FM, VHF & UHF transmitters; AM, AM stereo, FM & TV exciters, stereo generators; RF amps, loads & switches; intercity, portable ENG & airborne microwave systems, central receivers, SMATV systems; FM, TV HP & TV CP antennas.

Field Offices:

CA 333 N. Lantana St. #122, Camarillo 93010 ... TV RF 805 484-0407/Radio 987-7107

DC Vern Russell, 2600 Virginia Ave. N.W. #800, 20037 202 342-3900

See listing in Rep section

HARRIS CORP., BROADCAST MICROWAVE

967 Stierlin Rd., Mountain View, CA 94043
415 969-9100

FV Series heterodyne intercity microwave systems & central receivers; Global, Challenger frequency-agile portable ENG microwave transmitters & receivers; Microstar baseband radios. Ku-band video exciters for satellite uplinks.

HARRIS CORP., SATELLITE COMMUNICATIONS DIV.

Box 1700, Melbourne, FL 32901
800 327-8478

Delta Gain lines of transmit/receive, receive-only & transportable satellite earth stations; upconverters, downconverters, LNAs & LNCs, encryption systems, MAC systems, satellite network controllers. Satellite audio, video & data exciters & receivers; TV channel modulators. Low- & high-rate modems for connecting earth station systems. Communications antennas.

HARRIS VIDEO SYSTEMS

967 Stierlin Rd., Mountain View, CA 94043
415 969-9100

Iris digital still store. Aurora videographics system. Digital efx generators. TBCs, frame synchronizers, TBC/framestores, video noise reducers.

Field Offices:

CA Gary Johnston, 3129 S. Sycamore, Santa Ana 92705 714 850-1894

CT John Burger, 17 Tally Ho Rd., Ridgefield 06877 203 431-9381

FL John Borger, 1451 Owen Dr., Clearwater 33519 813 797-4191

KS Shawn Underwood, 9025 Reeder St. #1602, Overland Park 66214 ... 913 541-0153

BRILLIANCE

The richness of sounds produced in their fullest natural intensity. Richness captured through outstanding signal-to-noise with minimal distortion characteristics. Richness resulting in a video tape of exceptional brilliance. Ampex 197.

AMPEX

Ampex Corporation - One of The Signal Companies 

Circle 150 on Reader Service Card

AMPEX
197

PROFESSIONAL BROADCAST VIDEOCASSETTE 

HARRISON SYSTEMS

Box 22964, Nashville, TN 37202
615 834-1184

Mic mixers; portable, stereo studio & audio-for-TV audio consoles; Autoset console automation, VSI video interface for consoles. Auto Graph graphic equalizers; audio routing switchers; 40-segment PPM/VU displays.

HAWAII PRODUCTION CENTER

1534 Kapiolani Blvd., Honolulu, HI 96814
808 944-5200

Video production & post-production facilities; mobile production facilities rental; recording studios; audio post-production facilities; music libraries.

HBO STUDIOS

120-A E. 23 St., New York, NY 10010
212 477-8600

Video production & post-production facilities.

HEATH CO.

Benton Harbor, MI 49022
616 982-3200

Preamps, monitor/power amps. LED audio level indicators. Video projectors. Harmonic distortion meters. Vectorscopes. Frequency monitors. Oscilloscopes, voltmeters, dB meters. Computer systems including digital weather systems.

HEDCO

Box 1985, Grass Valley, CA 95945
916 273-9524

Line amps. Audio & video self-powered DAs; audio routing switchers. Parallel & serial interface video routing switchers. Video DAs, pulse amps, subcarrier amps; 0.1% terminations & attenuators.

KARL HEITZ, INC.

Box 427, Woodside, NY 11377
718 565-0004

Gitzo camera tripods, heads & dollies, mic booms & dollies.

HEWLETT-PACKARD CO.

1501 Page Mill Rd., Palo Alto, CA 94304
415 857-1501

Automated test & measuring systems. Diff. phase/gain measurement, baseband video measurement system. Modulation monitors, sideband analyzers, frequency monitors & counters, audio & RF generators, impedance bridges, phase meters, network & spectrum analyzers, waveform digitizers. Oscilloscopes, voltmeters, multimeters, dB meters, logic analyzers. TV & computer equipment. Audio preamps & line amps.

HIPOTRONICS

Drawer A, Rte. 22, Brewster, NY 10509
914 279-8091

Automatic voltage regulators; ac/dc high voltage test sets.

See ad on pg. 126

HITACHI DENSHI AMERICA

175 Crossways Park W., Woodbury, NY 11746

516 921-7200

Cameras: studio, field, ENG, lightweight, single-tube color, CCD color. HDTV camera, digital HDTV VTR, HDTV projection display system. One-inch C VTRs, VHS & 1/4-inch VCRs. NTSC video monitors. Waveform monitors, vectorscopes, combination waveform monitor/vectorscopes. Oscilloscopes, delayed sweepscopes, multi-meters, logic analyzers.

See ad on pg. 81

HM ELECTRONICS

9675 Business Pk Ave., San Diego, CA 92131

619 578-8300

Hardwired & RF intercom systems. RF mics.

See ad on pg. 146

HOGLUND/PALMER & ASSOC.

Dept. BM, 150 S. Wacker Dr. #780, Chicago, IL 60606

312 332-3020

Management & human resources programs.

HOLADAY INDUSTRIES

14825 Martin Dr., Eden Prairie, MN 55344

612 934-4920

Broadband field strength meters.

HORIZONTAL EDITING STUDIOS

2625 W. Olive Ave., Burbank, CA 91505

818 841-6750

Video & audio post-production facilities.

HORIZON INTERNATIONAL

3837 E. Wier Ave., #1, Phoenix, AZ 85040

602 437-3800

Serial interface machine control; video multisource editors. Studio furniture. Transmitter remote control & diagnostic system. Facilities design & engineering services; implementation engineering services.

See ad on pg. 119

HOTRONIC

1210 S. Bascom Ave. #128, San Jose, CA 95128

408 292-1176

TBCs, frame synchronizers, field/framestores, TBC/framestores.

HOUSTON INTL. TELEPORT

9000 Southwest Fwy. #314, Houston, TX 77074

713 541-2770

Satellite uplinking & downlinking services.

HOWE AUDIO

2300 Central Ave., Ste. E, Boulder, CO 80301

303 444-4693

Audio consoles: portable, mono & stereo studio, audio for TV. Audio preamps, monitor/power amps. Audio phase correction unit.

See ad on pg. 142

HUBBARD COMMUNICATIONS

10383 Oak St. N.E., St. Petersburg, FL 33702

813 577-7759

MERPS multicassette decks. Solid state telecine systems; telecine cameras. Transmit/receive, receive-only & transportable satellite earth stations. Facilities design & engineering services; engineering consultants; mobile vehicle construction.

HUGHES HELICOPTERS

Centennial & Teal Sts., Culver City, CA 90230
213 305-3226

Broadcast-equipped helicopters.

HUGHES MICROWAVE COMMUNICATIONS PRODUCTS

Box 2999, Torrance, CA 90509

213 517-6100

AML intercity microwave, SMATV systems, STLs, TSLs.

HUGHEY & PHILLIPS

Box 6729, Burbank, CA 91510

213 849-1104

Tower lighting.

IDEAL INDUSTRIES

Becker Pl., Sycamore, IL 60178

815 895-5181

Dimmer packs. Audio & lighting/ac cable, cable connectors. Wire & cable strippers, other hand tools.

IGM COMMUNICATIONS

282 W. Kellogg Rd., Bellingham, WA 98226
206 733-4567

Go-Cart, Instacart multideck cart players. Digital audio recorders. Mark I, IGM SC computer automation controllers; IGM SC automatic satellite switchers. complete program automation systems. Custom system design service.

IKEGAMI ELECTRONICS

37 Brook Ave., Maywood, NJ 07607
201 368-9171

Cameras: studio, field, ENG, recorder/cameras, HDTV, monochrome. Telecine cameras, 16/35 mm telecine projectors, 35 mm slide projectors, optical multiplexers, telecine color correctors, telecine control systems. Video monitors: monochrome, NTSC, RGB, high resolution, wide aspect ratio, battery-powered portable. Portable ENG microwave systems.

Field Offices:

CA 3445 Kashiwa St., Torrance 90505

..... 213 534-0050

FL 6201 Johns Rd. #5, Tampa 33614

..... 813 884-2046

IL 747 Church Rd., Units C4 & C5,

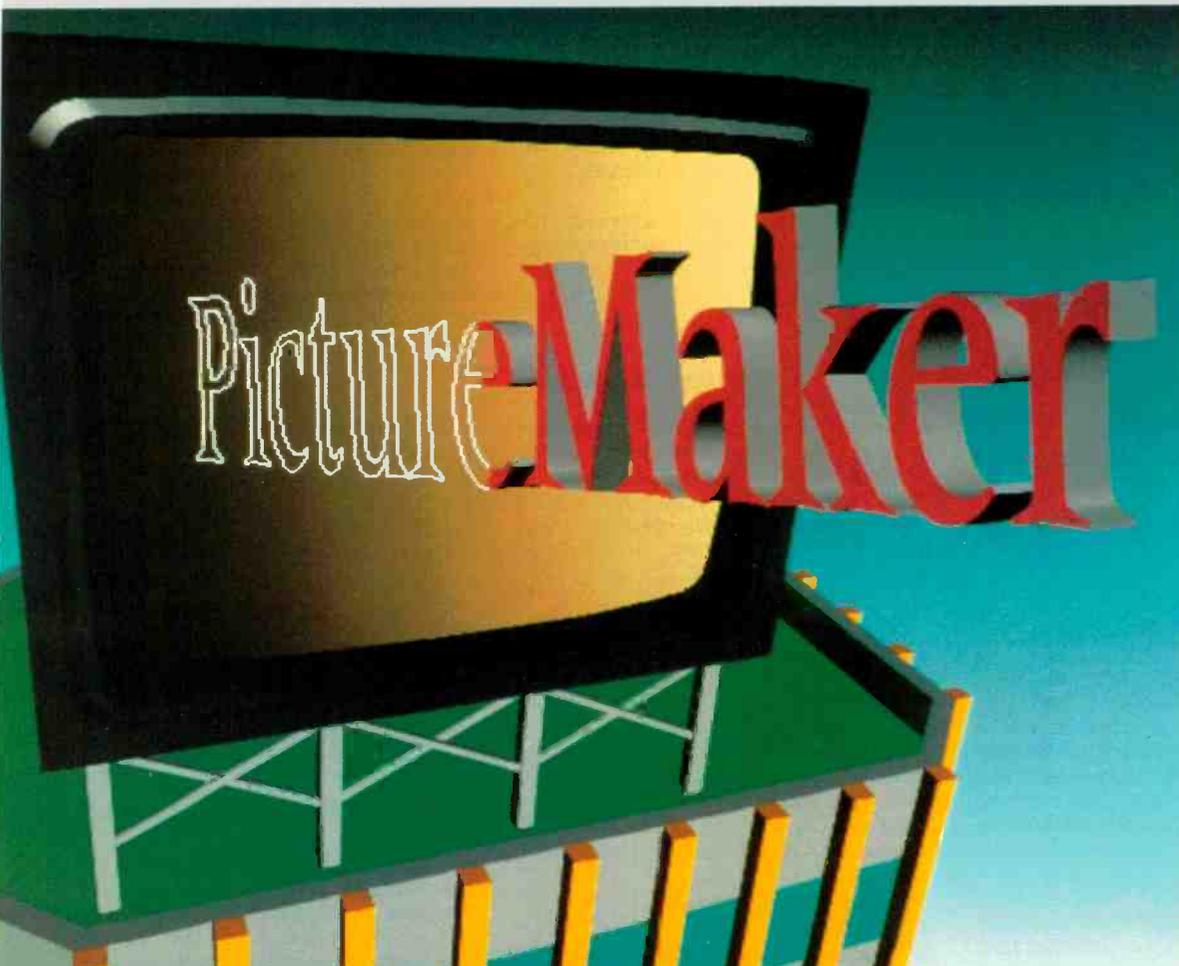
Elmhurst 60126 312 834-9774

TX 13721 Omega Rd., Dallas 75234

..... 214 233-2844

See ad on pg. 2-3

PICTUREMAKER™ 3D VIDEO ANIMATION SYSTEM.



PictureMaker

SOLID DEVELOPMENTS WITH PICTUREMAKER™ — SIGGRAPH UPDATE:

Cubicomp's PictureMaker 3D Video Animation System was a star attraction at the National Association of Broadcasters Conference this year. Since NAB, our sales are positive proof that video producers have found in PictureMaker all the features needed to generate and animate 3D scenes.

PictureMaker is easy to use, with many capabilities:

- **Modeling** — Build sophisticated 3D objects quickly and easily.
- **Animation** — Automatic interpolation between key frames.
- **Sequencing** — Composes and shoots sequences automatically.

- **Titling** — 8 standard fonts included and more available as options, plus the ability to create your own fonts.

- **Paint** — A built-in paint program enables you to create 2D backgrounds and special effects.

If you missed PictureMaker at NAB, or would like a refresher demo of this affordable, practical 3D animation system, come see us in San Francisco at Siggraph, Booth #654, July 23rd to 25th at the Moscone Center.

You'll find out why PictureMaker has become the video producer's choice.



3165 Adeline Street, Berkeley, California 94703 (415) 540-5733 TELEX: 294295

East Coast Regional Office
945 Concord St., Framingham, MA 01701
(617) 875-5214

West Coast Regional Office
Pruneyard Towers II
1999 S. Bascom Ave., Suite 709, Campbell, CA 95008
(408) 559-7711

Circle 151 on Reader Service Card

© 1985 Cubicomp Corporation



IMAGE DEVICES INTERNATIONAL

1825 N.E. 149 St., Miami, FL 33181
305 945-1111

Video & cine, lighting & grip equipment rental service. Camera cranes & generators. Underwater cameras & lights. Portable audio mixer. Cassette player/recorders. Electret/condenser mics.

IMAGE MAGNIFICATION

739 Airway Circle, New Smyrna Beach, FL 32069
904 427-5294

Large-screen video projectors (sales & rentals).

IMAGE RESOURCE CORP. See CALCOMP IMAGING

IMAGE RESOURCES

Box 2519, Winter Park, FL 32790
305 645-4200

Video production & post-production facilities; mobile production facilities rental.

IMAGE TRANSFORM

4142 Lankershim Blvd., N. Hollywood, CA 91602
818 985-7566

Video post-production facilities; film laboratory.

IMAGE VIDEO LTD.

705 Progress Ave. #46, Scarborough, Ont., Canada M1H 2X1
416 438-3940

Downstream keyers. Manual & automated master control switchers. Parallel & serial interface video routing switchers. Parallel & serial interface machine control/technical automation. Voltage monitor. Audio routing switchers; audio patch panels, jackfields. Silence monitor.

Field Offices:

Box 102, Harvest 35749 205 852-9252
2440B Embarcadero Way, Palo Alto 94303
. 205 424-1642

IMS/INTEGRATED MEDIA SYSTEMS

1552 Laurel St., San Carlos, CA 94070
415 592-8055

Audio routing switchers. Digital audio A/D & D/A converters.

INDUSTRIAL ACOUSTICS CO.

1160 Commerce Ave., Bronx, NY 10462
212 931-8000

Facilities design & engineering services.

Field Office:

CA 10971 Garden Grove Blvd., Garden Grove 92643 714 636-5440

INDUSTRIAL RESEARCH PRODUCTS

321 N. Bond St., Elk Grove Village, IL 60004
312 439-3600

Digital audio special effects; audio/video sync delay; automatic mic mixers.

INDUSTRIAL SCIENCES, INC. See INTERGROUP VIDEO SYSTEMS



INFORMATION TRANSMISSION SYSTEMS

375 Valley Brook Rd., McMurray, PA 15317
412 941-1500

UHF, LPTV & MDS transmitters. TV excitors.

INNOVATIVE TELEVISION EQUIPMENT

Box 681, Woodland Hills, CA 91365
818 888-9421

Tripods, heads, pedestals, ENG braces, collies. Microwave support & portable equipment. Molded & fiber transportation cases.

INOVONICS

1305 Fair Ave., Santa Cruz, CA 95060
408 458-0552

ALC & AGC amps, AM & FM compressor/limiters. Gordon Headroom meter (PPM); TVU video monitor level displays. Audio recorder replacement electronics. FM & TV stereo generators. Audio spectrum analyzers, real-time analyzers, reverberation analyzers.

INTEGRATED SOUND SYSTEMS

1227 Walt Whitman Rd., Melville, NY 11747
516 351-2100

Stereo audio consoles. Turntables, complete disc consoles. Graphic equalizers. Audio time compression/expansion. Monitor speakers. Dynamic, electret/condenser & shotgun mics. Monitor/power amps.

INTEGRATED TECHNOLOGIES

3716 Alliance Dr. #B, Greensboro, NC 27407
919 294-0077

Weather graphics displays; weather-based art/paint systems.

INTERACTIVE SYSTEMS CO. See GRASS VALLEY GROUP

INTERAND CORP.

3200 W. Peterson Ave., Chicago, IL 60659
312 478-1700

ImageFile still store. Telestrator character generator/graphics systems, digital art/paint systems, draw-on-screen systems, weather-based art/paint systems, digital efx generators. Discon teleconferencing systems. FastScan slow-scan transmitters/receivers. See listing in Rep section

INTERCONTINENTAL TELEVIDEO

29 W. 38 St., New York, NY 10018
212 719-0202

Video standards conversion facility; video post-production facilities; equipment rental services.

INTERFACE ELECTRONICS

6710 Alder, Houston, TX 77081
713 660-0100

Portable audio consoles.

INTERFACE VIDEO SYSTEMS

1333 New Hampshire Ave. N.W. #LL200, Washington, DC 20036
202 861-0500

Video production & post-production facilities; duplication services.

INTERGROUP VIDEO SYSTEMS

Box 1495, Gainesville, FL 32602
800 874-7590

Production switchers: portable, compact studio/mobile, large automated, post-production. Standalone analog video efx, RGB & encoded chromakeyers, title keyers, downstream keyers. Manual & automated master control switchers; parallel & serial interface routing switchers; video DAs, pulse amps, subcarrier amps.
[See ad on pg. 101](#)

INTERNATIONAL ELECTRO-MAGNETICS

350 N. Eric Dr., Palatine, IL 60067
312 358-4622

Replacement & rebuilt audio heads. Replacement video heads. IEM/Optro graphic equalizers.

INTERNATIONAL MICROWAVE CORP.

65 Commerce Rd., Stamford, CT 06902
203 323-5599

Microwave systems: intercity, portable ENG, central receivers; STLs, TSLs. RF amps.

INTERNATIONAL NUCLEAR CORP.

608 Norris Ave., Nashville, TN 37204
615 254-3365

Preamps, line amps, monitor/power amps, amp power supplies. Audio DAs. EBS two-tone systems. Production switchers: portable, compact studio/mobile, large automated, post-production. Standalone analog efx, colorizers, RGB & encoded chromakeyers, downstream keyers. Manual & automated master control switchers. Parallel & serial interface video routing switchers. Black burst generators. Video/cable equalizers. Proc amps, video DAs, pulse amps, subcarrier amps.

INTERNATIONAL PRODUCTION CENTER

514 W. 57 St., New York, NY 10019
212 582-6530/800 223-0622

Video production & post-production facilities. Videotape duplication services.

INTERNATIONAL TAPETRONICS CORP./3M

2425 S. Main St., Bloomington, IL 61702
309 828-1381

Delta, Omega single-deck cart player/recorders; Delta dual/triple-deck cart player/recorders. ScotchCart audio cartridges; tape erasers, degaussers.

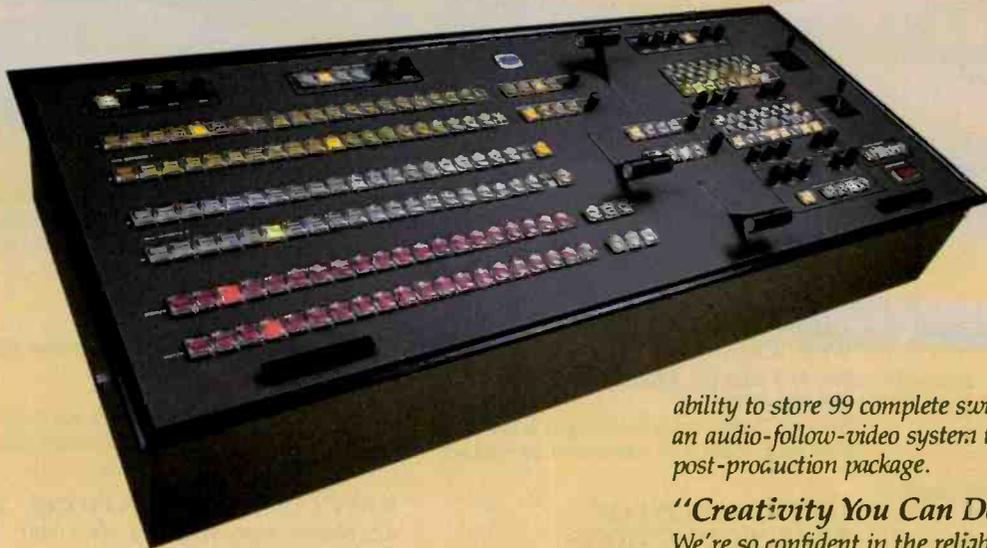
[See ad on pg. 103](#)



A Wizard's Dilemma...

Creativity vs. Technology

Today, creative video communication requires a production switching system capable of integrating graphics, digital effects, computer editing and audio. Trouble is, the technical demands of operating most large production switchers get in the way of creativity.



Intergroup Video Systems has a solution for this dilemma that will bring out the video wizard in you.

The Intergroup 904-20E: Affordable Production Power That's Not An Illusion.

The 904-20E is a production tool designed to enhance creativity, not filter it out. We combine traditional ease of operation and a full complement of standard features. We give you two fully independent mix/effects systems with cascading re-entries into a flip-flop mixer; a downstream key edger for full featured character generators; master fade-to-black with a blanking processor; and a standard serial interface for most editing systems.

With the optional 9026 Autotransition/Event Storage Unit you add frame accurate autotransitions and the

ability to store 99 complete switcher events. There's also an audio-follow-video system to complete your post-production package.

"Creativity You Can Depend On"

We're so confident in the reliability of our systems, we back them with a five-year limited warranty. Call 1-800-874-7590 today and let an Intergroup sales representative solve your dilemma with a 904 switching system.



"Creativity You Can Depend On"

INTERGROUP VIDEO SYSTEMS, INC.
P.O. BOX 1495 / GAINESVILLE, FL 32602 U.S.A.
SALES: (800) 874-7590 / IN FLORIDA (904) 373-6783
TWX 810-825-2307

Circle 152 on Reader Service Card

INTERPLEX ELECTRONICS

70 Fulton Terrace, New Haven, CT 06512
203 624-3103

Dc power supplies. Audio function generators. RF test signal generators. Frequency counters, counter/timers.

INTERVIDEO NETWORK

2029 Century Park E. #1850, Los Angeles, CA 90067
213 552-0580

Satellite earth stations: transmit/receive, receive-only, transportable. Mobile vehicle construction; downlink network tele-conferencing.

ISIS ELECTRONICS

2664 S. Santa Fe Ave., Los Angeles, CA 90058

213 585-5849

Promotional novelties.

ITELCO

1620 W. 32 Pl., Hialeah, FL 33012
305 822-1421

FM, VHF, UHF, LPTV transmitters, translators. RF converters, filters. Transmit/receive, receive-only & transportable satellite earth stations; upconverters, downconverters. Intercity & portable ENG microwave systems. FM antennas. RF connectors. Transmitter remote control systems.

ITI ELECTRONICS

Box 260, Clifton, NJ 07011
201 546-3900

Audio line amps, amps, patch panels, jackfields; telco interface equipment.

ITT JENNINGS

970 McLaughlin Ave., San Jose, CA 95122
408 292-4025

RF switches; capacitors.

JAM CREATIVE PRODUCTIONS

4631 Insurance Ln., Dallas, TX 75205
214 526-7080

Recording studio; music libraries; station ID jingle packages.

JAMIESON & ASSOC.

5353 Gamble Dr., Minneapolis, MN 55427
612 544-9199

Video production & post-production facilities; recording studios; audio post-production facilities; facilities design & engineering services; set/studio design services; engineering consultants; financial consultants; earth station site selection.

THE JANSON INDUSTRIES

1200 Garfield Ave. S.W., Canton, OH 44706
216 455-7029

Scenery construction & rigging, props & materials. Cycloramas.

JATEX

2626 Freewood Dr., Dallas, TX 75220
214 358-0200

Video & audio editing systems; SMPTE & proprietary time code generator/readers.



JAVELIN ELECTRONICS

19831 Magelian Dr., Torrance, CA 90502
213 327-7440

Cameras: CCD, monochrome, color. Camera lenses, extenders. Video DAs. Monochrome & color picture monitors. Remote pan & tilt systems. Video source ID systems. Modulators. Video microscopes.

JBL INC./UREI

8500 Balboa Blvd., Northridge, CA 91329
818 893-8411

Mic mixers; portable & stereo studio consoles; audio-for-TV console filters. ALC & AGC amps, AM & FM compressor/limiters, parametric & graphic equalizers. Monitor speakers. Preamps, monitor/power amps.

Field Offices:

CA Steve Armstrong, Box 2200, 8500 Balboa Blvd., Northridge 91329 . 213 767-1000

MI Tom Roseberry, 3040 Charlevoix Dr. S.E. #101, Grand Rapids 49506 . 616 455-6270

PA Bill Hamilton, 615 Seventh Ave., Folsom 19033 . 215 543-4677

TX Neil Conley, 3117 Murphy, Bedford 76021 . 817 540-3066

JBS STUDIOS

106 N. Avondale Rd., Avondale Estates, GA 30002

404 296-0604

Syndicated radio programming; video production facilities; recording studios; audio post-production facilities.

JEFFERSON DATA SYSTEMS

501 Archdale Dr., Charlotte, NC 28210
704 529-3925

Radio & TV business automation software & hardware; radio & TV newsroom computers.

JEFFERSON PILOT TELEPRODUCTIONS

1 Julian Price Pl., Charlotte, NC 28208
704 374-3823

Video production & post-production facilities; mobile production facilities rental.

JENSEN TOOLS

7815 S. 46 St., Phoenix, AZ 85044
602 968-6241

Tools; foam insert transportation cases.

JENSEN TRANSFORMERS

10735 Burbank Blvd., N. Hollywood, CA 91601
213 876-0059

Mic preamps; audio transformers; discrete opamps.

See listing in Rep section

JOHNSON ELECTRONICS

Box 4728, Winter Park, FL 32793
305 677-4030

EBS two-tone systems. FM antennas. FM & TV SCA receiving equipment. SCA dual subchannel manual & remote switching.

JONES PRODUCTIONS

517 Chester St., Little Rock, AR 72201
800 643-6535

Video production & post-production facilities; home video publishing.

JRF/MAGNETIC SCIENCES

101 Landing Rd., Landing, NJ 07850
201 398-7426

JRF, Saki, Nortronics replacement audio heads; rebuilt heads, custom head assemblies. JRF, Saki rebuilt video heads. Magnetic head refurbishing & custom design engineering.

J.S.L. VIDEO SERVICES

25 W. 45 St., New York, NY 10036
212 575-5082/212 944-9494

Video post-production facility.

JVC CO. OF AMERICA, PROFESSIONAL VIDEO COMM. DIV.

41 Slater Dr., Elmwood Park, NJ 07407
201 794-3900

Cameras: field, ENG, lightweight, single-tube color, recorder/cameras. 3/4-inch U & VHS VCRs. Half-inch VHS mastering videocassettes. Standalone analog video efx; RGB chromakeyers. Two-machine video editor/controllers. Digital audio editors; turntables; shotgun mics.

Field Offices:

CA 1011 W. Artesia Blvd., Compton 90220 . 213 537-6020

IL 2250 Lively Blvd., Elk Grove Village 60007 . 312 364-9300

TX 407 Garden Oaks Blvd., Houston 77018 . 713 694-0666

See ad on pg 151 - 153

JV ELECTRONICS

4734 Bolton Ave., Terrace, BC, Canada V8G 4T9
604 635-5050

Amp power supplies. Audio DAs; Farrtronics audio patch panels, jackfields. Audio monitor selector.

KAHN COMMUNICATIONS

425 Merrick Ave., Westbury, NY 11590
516 222-2221

AM stereo exciters. Demodulators, modulation monitors. AM compressor/limiters. Telco interface equipment.

KAITRONICS CORP.

1540 Gilbreth Rd., Burlingame, CA 94010
415 697-9102

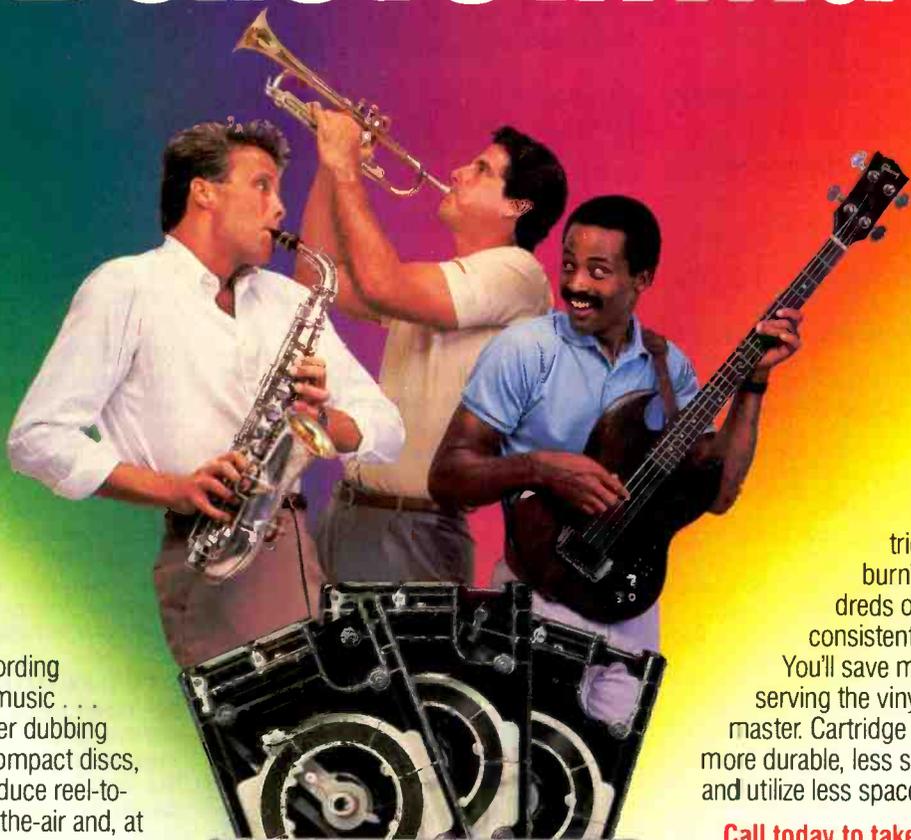
Studio & portable production switchers. Parallel & serial interface routing switchers. Parallel interface machine control/technical automation. Satellite switchers, cable & teleconferencing switchers.

KALAMUSIC

151 S. Rose St. #600, Kalamazoo, MI 49007
616 385-5110

Syndicated radio programming; music library.

We Believe in Music



Almost half the United States broadcast industry has discovered the performance, operational and cost advantages of recording their critical audio . . . music . . . onto cartridges. Whether dubbing from vinyl records or compact discs, these broadcasters produce reel-to-reel sound quality over-the-air and, at the same time, experience all the advantages of cartridges. Here's why they, and we believe in music . . . you can too!

Quality Makes Carting Music a Reality

International Tapetronics Corporation/3M cartridge machines and today's premium cartridges, such as the ScotchCart® broadcast cartridge, allow sound reproduction with virtually no audio degradation.

Easier to Use

Unlike vinyl records, compact discs or reel-to-reel tapes, cartridges automatically recue after each play. Cartridges can also be easily preloaded into multiple machines providing valuable extra time for announcers. Plus, labeled cartridges are easier to read, file and locate.

Flexible Programming with Less Errors

An all-cart format reduces operator and format errors, such as playing the wrong cut off an album, compact disc or reel-to-reel tape. It also allows prerecording and editing of program segments facilitating precise program control.

Sound Better and Save Money

A vinyl record played 40 times loses its sound quality, especially when made

of recycled materials. Cartridges eliminate "cue burn" and provide hundreds of plays with consistent audio quality.

You'll save money just by preserving the vinyl as a library master. Cartridge machines are also more durable, less subject to damage and utilize less space than turntables.

Call today to take advantage of carting music on ITC's complete line of cartridge machines.

- 9CB Cartridge Machines, "The Best"
- DELTA Cartridge Machines, "Today's Most Popular Cartridge Machines"
- OMEGA Cartridge Machines, "Affordable Performance You Can Trust"

When newer technology emerges, it will come from International Tapetronics Corporation/3M, "The Leader in Reliability and Service."

In the U.S. call Toll Free **800-447-0414**, or collect from Alaska and Illinois 309-828-1381. In Canada, call Maruno Electronics, Ltd. 416-255-9108. In most countries outside the United States and Canada, information on ITC equipment can be obtained through local distributors.

International Tapetronics Corporation/3M
2425 South Main Street
P.O. Box 241
Bloomington, Illinois 61702-0241

3M hears you . . .

KALART VICTOR CORP.

Hultenius St., Plainville, CT 06062
203 747-1663
Optical multiplexers. Telebeam large-screen TV projector.

KAMAN SCIENCES

1500 Garden of the Gods Rd., Colorado Springs, CO 80933
303 599-1470
Radio business automation hardware & software.
See ad on pg 1

KANGAROO VIDEO PRODUCTS

10845 Wheatlands Ave. Ste. C, Santee, CA 92071
619 562-9696
Padded nylon transportation cases.

KARTES VIDEO COMMUNICATIONS

10 E. 106 St., Indianapolis, IN 46280
317 844-7403
Video production & post-production facilities; mobile production facilities rental.

KAVOURAS

6301 34 Ave. S., Minneapolis, MN 55450
612 726-9515
TritonX satellite weather displays, weather-based art/paint systems, character generator/graphics systems. Radac weather radar displays. RAM (real-time atmospheric monitoring) weather database.
See ad on pg 138

KAY ELEMETRICS CORP.

12 Maple Ave., Pine Brook, NJ 07058
201 227-2000
Rotary attenuators. RF attenuators, switches. RF test signal generators.

KAY INDUSTRIES

604 N. Hill St., South Bend, IN 46617
219 234-0171
Rotary phase converters for radio & TV transmitters.

KB SYSTEMS

10407 62 Pl. W., Everett, WA 98204
206 355-8740
Replacement video heads; head cleaners, degaussers. Image enhancers. Quartz lighting fixtures. Nicad & lead-acid batteries, chargers. Tripods, heads, dollies. Padded nylon camera & VTR cases. Video cable, cable connectors.

KEYLITE PSI

333 S. Front St., Burbank, CA 91502
818 841-5487
Video production facilities; equipment rental services.

KILOVAC

See DOW-KEY

**KINEMATRICS/TRUE TIME DIV.**

2343 Santa Rosa Ave., Santa Rosa, CA 95407
707 528-1230
Digital clocks, complete clock/timing systems.
Field Office:
CA 222 Vista Ave., Pasadena 91107 .213 795-2220

KING INSTRUMENT CORP.

80 Turnpike Rd., Westboro, MA 01581
617 366-9141
Audio & videocassette loaders; videotape evaluators.

KINTEK

224 Calvary St., Waltham, MA 02154
617 894-6111
Stereo synthesizers.
See ad on pg 164

KLARK-TEKNIK ELECTRONICS

262A Eastern Pkwy., Farmingdale, NY 11735
516 249-3660
Brooke Siren AM & FM compressor/limiters. Graphic equalizers, audio/video sync delay. Digital & analog audio efx, reverb; digital delays. Spectrum analyzers, real-time analyzers.
See listing in Rep section

GEORGE KLEINKNECHT, INC.

940 Eighth Ave., New York, NY 10019
212 246-2350
Electrical contractor specializing in transmitter, microwave & broadcast studio installations.

KLIEGL BROS.

32-32 48 Ave., Long Island City, NY 11101
718 786-7474
Lamps, quartz fixtures, cyc lighting, diffusion & efx material, lighting stands & rigging, lighting control boards, dimmer packs.

KLINE IRON & STEEL CO.

Box 1013, Columbia, SC 29202
803 779-7080
Tower masts, tower rigging & hardware, tower lighting. Tower design, fabrication, & installation.

KLUGE COMMUNICATIONS

5350 W. Clinton Ave., Milwaukee, WI 53223
414 354-9490
Video production & post-production facilities; recording studios; audio post-production facilities; music libraries; film laboratory.

KNOX VIDEO PRODUCTS

8547 Grovemont Circle, Gaithersburg, MD 20877
301 840-5805
Telecine color correctors. Titlers, subtitlers, character generator/graphics systems. Color Box colorizers, title keyers, downstream keyers, nonadditive keyers. Video proc amps.

KOSS CORP.

4129 N. Port Washington St., Milwaukee, WI 53212
414 964-5000
Dynamic & electrostatic headphones & speakers. Digital delay systems. Cassette players. Audio/video cleaning products.

KQED PRODUCTIONS

500 Eighth St., San Francisco, CA 94103
415 553-2137
Video production & post-production facilities; mobile production facilities rental.

KVIE VIDEO

2480 Garden Hwy., Sacramento, CA 95833
916 929-5797
Video production & post-production facilities; audio post-production facilities; equipment rental services.

KTVY PRODUCTIONS

Box 14068, Oklahoma City, OK 73113
405 478-1212
Video production & post-production facilities; mobile production facilities rental; recording studios.

LAIRD TELEMEDIA

2424 S. 2570 West, Salt Lake City, UT 84119
801 972-5900
Titlers, subtitlers, character generator/graphics systems. 16/35 mm telecine projectors, 35 mm slide projectors, optical multiplexers. Equipment racks.
See ad on pg 161

LAKE SYSTEMS CORP.

55 Chapel St., Newton, MA 02160
617 244-6881
La-Kart video cart automation system for Beta, M-format, 3/4-inch U, one-inch C formats.
See ad on pg 129

LANDY ASSOCIATES

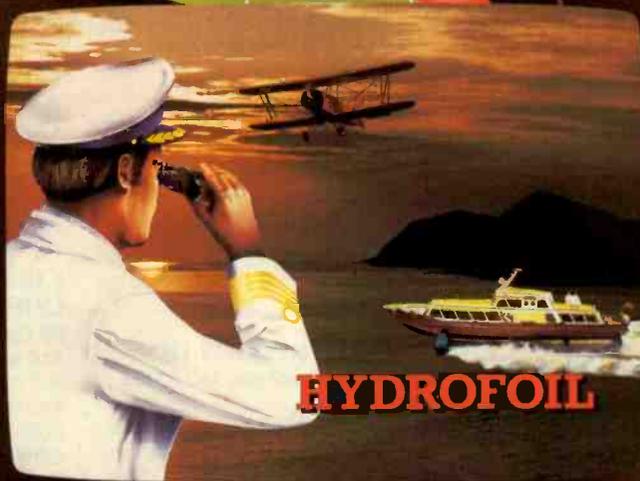
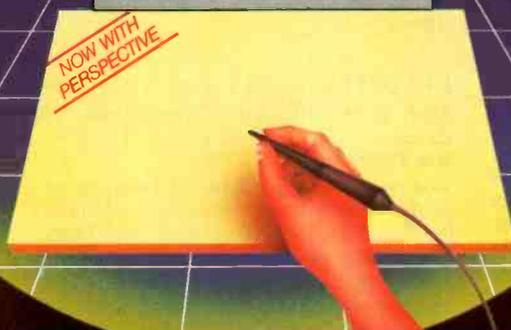
1890 E. Marlton Pike, Cherry Hill, NJ 08003
609 424-4660
Serial interface machine control. Safe title area generators; video slate board/countdown generators. Equipment rentals; facilities design & engineering services.
MA 1605 Trapelo Rd., Waltham 02154
717 890-6325

LANG VIDEO SYSTEMS CORP.

700 Warrington Ave., Redwood City, CA 94063
800 222-LANG/ in CA 415 364-1287
Two-Shot, One-Shot portable integrated ENG video switchers with audio mixer, SID, monitoring. Video source ID. Video/audio switch with color bar & ID generator.

QUANTEL

A totally integrated graphic studio at your fingertips



Paintbox™ has become the world standard for video art and graphics. It is the graphics designers' choice because everything that can be done in a traditional graphics studio — and more — can be done on Paintbox. With breathtaking quality. Let your creativity run free with Paintbox. Only from Quantel.

Paintbox is a trademark of Quantel

Step Closer to the Digital Studio

QUANTEL

MCI/QUANTEL
PO Box 50810

3290 West Bayshore Road
Palo Alto, California 94303

Phone: 415) 856-6226

Telex: 334420 MCI PLA

Fax: 415) 493-5282

Circle 154 on Reader Service Card

LARCAN COMMUNICATIONS EQUIPMENT

6520 Northam Dr., Mississauga, Ont., Canada L4V 1H9
416 678-9970

FM, VHF & UHF transmitters; translators. FM & TV exciters; diplexers, multiplexers. TV HP & CP antennas.

Field Office:

MD Lewis F. Page, 14440 Cherry Ln. Ct. #201, Laurel 20707 ... 301 490-6800

LASER EDIT

540 N. Hollywood Way, Burbank, CA 91505
818 842-0777

Videodisc off-line editing services.

LAUDERDALE ELECTRONIC LABS

16 S.W. 13 St., Ft. Lauderdale, FL 33315
305 764-7755

Audio alignment, tension gauges; bulk audio & video erasers, tape cleaners & evaluators. Splicing blocks, tape. Record cleaning, care. Mic stands, booms & dollies. Preamps. Audio DAs. Video head cleaners, degaussers. Digital clocks, timers.

LAUMIC CO.

306 E. 39 St., New York, NY 10016
212 889-3300

Sales & rentals of video editing equipment.

LEADER INSTRUMENTS

380 Oser Ave., Hauppauge NY 11788
516 231-6900

Stereo generators. Audio test signal generators, harmonic distortion meters, wow & flutter meters; video test signal generators, waveform monitors, vectorscopes; RF test signal generators, impedance bridges; oscilloscopes, delayed sweepscopes, voltmeters, multimeters, dB meters.

See ad on pg. 53

LEA DYNATECH

12516 Lakeland Rd., Santa Fe Springs, CA 90670

213 944-0916

Perfect Power Source transformers; Surge Eliminator/Kleanline surge protectors; lighting dissipation arrays. Engineering consultants.

See ad on pg. 52

LEAR SIEGLER, BOGEN DIV.

Box 500, Paramus, NJ 07653
201 343-5700

Preamps, line amps, monitor/power amps. Compressor/limiters, graphic equalizers. Hardwired intercoms.

LEASAMETRIC

1164 Triton Dr., Foster City, CA 94404
415 574-4441

Test equipment rental services.

LEBLANC & DICK COMMUNICATIONS

1440 Cherry Ln. Ct. #201, Laurel, MD 20707
301 498-2200

AM, FM, TV HP & CP antennas. Tower masts, rigging, hardware, lighting.

LECTROTECH

5810 N. Western Ave., Chicago, IL 60659
312 769-6262

Color picture monitors. Vectorscopes. Frequency monitors & counters. Oscilloscopes.

LEE LIGHTING AMERICA, LTD.

534 W. 25 St., New York, NY 10001
212 691-1910

Lamps, CSI fixtures, quartz fixtures, cyc lighting, diffusion & efx material, lighting stands & rigging, lighting control boards, dimmer packs. Generators, power dividers, converters, inverters. Camera dollies, cranes.

LEITCH VIDEO LTD.

825K Greenbrier Cir., Chesapeake, VA 23320

804 424-7920

Video sync, color bar & safe title area generators. Field & frame synchronizers, field/framestores. Video delay lines, video filters, video/cable equalizers. Proc amps, video & audio DAs, pulse amps, subcarrier amps. Vertical interval processor. Vertical interval processors, vertical interval adder/deleter. Video test signal generators, SCH phase meters. Digital clocks, complete clock/timing systems.

See ad on pg. 93

LEMO USA

Box 11006, Santa Rosa, CA 95406
707 578-8811

Connectors, jackfields.

LENCO, ELECTRONICS DIV.

300 N. Maryland St., Jackson, MO 63755
314 243-3147

RS-178 sync, black burst, color bar, multiburst & stairstep ramp generators. NTSC encoders & decoders, video delay amps. Proc amps, audio & video DAs, pulse amps, subcarrier amps. Monochrome, NTSC & RGB monitors. Video noise meters.

LEONINE TECHNOLOGY

Box 32550, San Jose, CA 95152
408 729-3838

STLs, TSLs, FM SCA equipment, two-way radio communications; remote pickup equipment. Status/alarm indicators.

LERRO ELECTRICAL CORP.

3125 N. Broad St., Philadelphia, PA 19132
215 223-8200

Facilities design & engineering services; set/studio design services; mobile vehicle construction.

LEXICON

60 Turner St., Waltham MA 02154
617 891-6790

Audio/video sync delay. Audio digital efx & reverb, digital delay, time compression/expansion.

See listing in Rep Section

LIBRA PROGRAMMING

1945 E. 7000 South, Salt Lake City, UT 84121

800 453-3827

Radio broadcast computer software applications.

LIGHTING METHODS

Box 1411, Rochester, NY 14603
716 546-8710

Designer, Idea Concept lighting control boards; RD digital dimming system.

LIGHTING ELIMINATION & CONSULTANTS

13007 Lakeland Rd., Santa Fe Springs, CA 90670

213 946-6886

Lightning protection grounding systems. Surge protectors. Facilities design & engineering services; engineering consultants.

See ad on pg. 189

LINE ONE VIDEO

220 E. 23 St., New York, NY 10010
212 696-5440

Video production & post-production facilities.

LIPSNER-SMITH CO., SUBSIDIARY RTI

4700 Chase Ave., Lincolnwood, IL 60646
312 675-8473

Ultrasonic film cleaners for film-to-tape transfers; high speed film rewinders.

LISTEC TV EQUIPMENT CORP.

39 Cain Dr., Plainview NY 11803
516 694-8963

Richmond Sound portable audio consoles. Warren Smith periscope lenses. PolarVideo portable production switchers & digital efx generators. Vinten tripods, heads, pedestals, ENG braces, dollies, cranes, jibs, camera stabilizing systems, remote pan/tilt systems. Listec monitor-based, scroll entry, keyboard entry & ENG/EFP portable teleprompters.

Field Office:

CA 1619 Cosmic Way, Glendale 91201
818 247-9247

See ad on pg. 167

LNR COMMUNICATIONS

180 Marcus Blvd., Hauppauge, NY 11788
516 273-7111

Satellite video exciters; upconverters, downconverters; FET & parametric LNAs.

LODES/PETERSON PRODUCTIONS

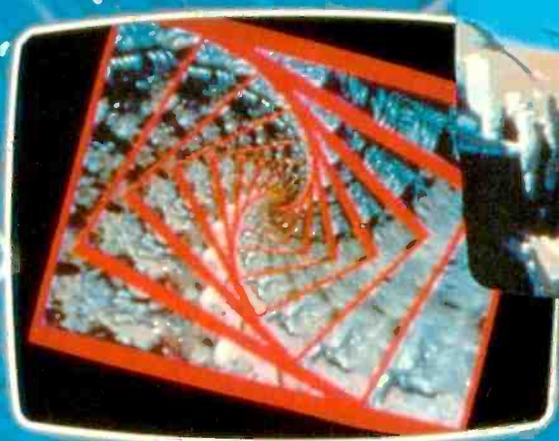
10125 J St., Omaha, NB 68127
402 592-7230

Video production & post-production facilities; mobile production facilities rental.

LOGICA

666 Third Ave., New York, NY 10017
212 599-0828

Teletext hardware & software; engineering consultants.



Illusion

Illusion™...the affordable full optical digital video effects system that puts cost in its proper perspective.

This powerful full frame system provides a full range of optical effects including...

- posterization
- mosaics
- rotation about 3 axes.

Optional accessories include...

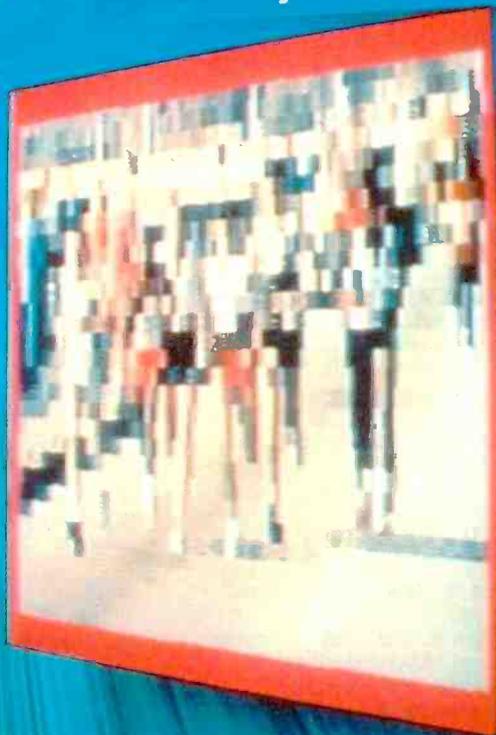
- perspective with variable vanishing points and
- key manipulation.

Illusion has many other unique effects and operating features... ● performs as a dual channel system when in its A/B video switching mode ● bubble memory ● "feedback" effects (upper left monitor shot) are internally generated and do not tie up a switcher M/E.

DSC's 2 year warranty is further assurance that Illusion's stable, fully tested electronics will perform reliably for you.

Call for a demo tape and complete details.

Unretouched monitor photos taken at NAB 1984.



A member of The Chyron Group

Circle 155 on Reader Service Card

LOGITEK

3320 Bering Dr., Houston, TX 77057
 800 231-5870/713 782-4592
 Auditorack portable & mono studio consoles; Perfectionist stereo studio consoles; Custom Audio audio-for-TV consoles. Pyramid monitor speakers. Preamps, line amps, monitor/power amps, amp power supplies. Audio Accessory audio DAs. Bright-VU LED displays. Timers.
 See listing in Rep section

LONG COMMUNICATIONS GROUP

961 Burke St., Winston-Salem, NC 27101
 919 725-2306
 Facilities design & engineering services. Delltronix custom mixers & consoles, intercom systems & transformers.

LORAL MICROWAVE COMM.

9020 Balboa Ave., San Diego, CA 92123
 619 278-4100
 FM transmitters. Microwave systems: intercity, portable ENG, airborne, central receivers. Microwave & telco STLs. Microwave antennas.

LOUISVILLE PRODUCTIONS

520 W. Chestnut St., Louisville, KY 40202
 502 582-7744
 Video production & post-production facilities; mobile production facilities rental.

LOWEL-LIGHT MFG.

475 Tenth Ave., New York, NY 10018
 212 947-0950
 Quartz lighting fixtures; lighting stands, rigging.

LPB

28 Bacton Hill Rd., Frazer, PA 19355
 215 644-1123
 Mic mixers; mono & stereo studio, audio-for-TV consoles. Turntables, pickup arms. AM & FM compressor/limiters. Audio DAs. Highway & travelers information broadcast systems.

Field Office:

CA Richard Burden, 20944 Sherman Way, Canoga Park 91303 ... 213 340-4590

L&R COMMUNICATIONS LTD.

2301 Bridgeport Dr., Sioux City, IA 51102
 712 252-4101
 Intercity & airborne microwave systems; central receivers; SMATV systems. Tower masts, rigging, hardware, lighting. Equipment rental services; facilities design & engineering services; engineering consultants; earth station site selection; mobile vehicle construction.

LRP

311 E. 47 St., New York, NY 10017
 212 759-0822
 Video production & post-production facilities; mobile production facilities rental; film-to-tape transfers.

LTM CORP. OF AMERICA

1160 N. Las Palmas Ave., Hollywood, CA 90038
 213 460-6166
 HMI & CSI fixtures, quartz fixtures, cyc lighting, lighting stands & rigging.

L-W INTERNATIONAL

50 W. Easy St., Simi Valley, CA 93065
 805 522-3284
 Athena 16/35 mm telecine projectors.

LYON LAMB VIDEO ANIMATION

4531 Empire Ave., Burbank, CA 91505
 818 843-4831
 Video animation controllers. NTSC encoders.

3M BROADCASTING & RELATED PRODUCTS DIV.

3M Center, Bldg. 225-3N-03, St. Paul, MN 55144
 612 733-9073

Titlers, subtitlers, character/generator graphics systems, digital art/paint systems, camera/VTR digitizers. Parallel & serial interface video routing switchers. Parallel & serial interface machine control/technical automation, vertical interval systems. Sync, black burst, color bar generators. Proc amps, video DAs.

See listing in Rep section

See ad on pg 67

3M MAGNETIC A/V PRODUCTS DIV.

3M Center, Box 33050, St. Paul, MN 55133
 612 733-1831

Two-inch & one-inch videotape, 3/4-inch & half-inch cassettes. Magnetic film stock, empty reels, carts & cassettes, tape loaders, timers, rewinders, tape cleaners & evaluators.

See ad on pg 55 - 62

3M STORMSCOPE WEATHER MAPPING SYSTEMS

223-3N-10 3M Center, St. Paul, MN 55144
 612 733-8878

Thunderstorm warning & tracking systems.

See ad on pg 85

MacKENZIE LABORATORIES

5507 N. Peck Rd., Arcadia, CA 91006
 818 579-0440
 Audio cart player/recorders: single-deck, dual/triple deck, multideck.

M/A-COM MAC

63 Third Ave., Burlington, MA 01803
 617 272-3100
 Intercity & portable ENG microwave systems. Skypod airborne microwave systems. Microwave central receivers.
 See listing in Rep section

M/A-COM TELECOMMUNICATIONS DIV.

11717 Exploration Ln., Germantown, MD 20874
 301 428-5500
 DATE modulators. TDMA & SCPC transmit/receive satellite earth stations; M/AESTRO receive-only earth stations. Small aperture Ku-band earth terminals for videoconferencing/data broadcasting.

MAGNASYNC/MOVIOLA

5539 Riverton Ave., N. Hollywood, CA 91603
 818 763-8441
 Videola film-to-tape transfer system. Multitrack tape-based logging recorders/reproducers.

MAGNA-TECH ELECTRONIC

630 Ninth Ave., New York, NY 10036
 212 586-7240
 Sprocketed magnetic film transports, dubbers. Film/video synchronizers. Time code generator/readers. Footage counters.

MAGNAVOX

Box 6950, Knoxville, TN 37914
 615 521-4316
 PMX AM stereo system.

MAGNECRAFT ELECTRIC CO.

1910 Techny Rd., Northbrook, IL 60062
 312 564-8800
 Coaxial & RF switches/relays.

MAGNETIC PROGRAMMING

6740G Huntley Rd., Columbus, OH 43229
 614 846-2766
 Audio preamps, line amps, monitor/power amps.

MAGNETIC REFERENCE LAB

229 Polaris Ave. #4, Mountain View, CA 94043
 415 965-8187
 Audio test tapes. Audio test signal generators, wow & flutter meters.

MAGNETIC TECHNOLOGIES

See
MINNEAPOLIS MAGNETICS

MAGNI SYSTEMS

1 Lincoln Ctr. #135, 10300 S.W. Greenburg Rd., Portland, OR 97223
 503-244-9980
 Sync & color bar generators. Decoders. Waveform monitors, vectorscopes.

MAGNUM TOWERS

9370 Elder Creek Rd., Sacramento, CA 95829
 916 381-5053
 Tower masts, rigging, hardware, lighting.

MALLORY TIMERS CO.

3029 E. Washington St., Indianapolis, IN 46201
 317 261-1220
 Timers.

**ONE STOP SHOPPING
FOR ALL YOUR
CONTROL ROOM NEEDS**

UTAH SCIENTIFIC IS THE ONE COMPANY THAT CAN PROVIDE:

ROUTING SWITCHERS

MASTER CONTROL SWITCHERS

STATION AUTOMATION

MACHINE CONTROL SYSTEMS

VIDEO AND AUDIO DA'S

**ALL IN ONE INTEGRATED PACKAGE, WITH SINGLE-SOURCE
RESPONSIBILITY FOR YOUR NEXT FACILITY UPGRADE.**

EACH PRODUCT IS DESIGNED TO PERFORM TO THE SAME DEGREE OF PRECISION AND RELIABILITY THAT HAS MADE OUR ROUTING SWITCHERS THE INDUSTRY'S STANDARD OF COMPARISON, AND EACH IS BACKED BY OUR FIVE YEAR WARRANTY ON BOTH PARTS AND LABOR.

CALL OUR TOLL FREE NUMBER FOR A SALES QUOTATION OR A VISIT FROM YOUR UTAH SCIENTIFIC SALES ENGINEER.

USJUTAH SCIENTIFIC
DYNATECH BROADCAST GROUP

1685 West 2200 South, Salt Lake City, Utah 84119
TOLL FREE (800) 453-8782 PHONE (801) 973-6840
TWX: 910-925-4037
Circle 156 on Reader Service Card

THE MANAGEMENT

Box T, Aledo, TX 76008
817 441-8532
Radio & TV business automation software.

MANHATTAN BRIDGE STUDIOS

156 Tillary St., Brooklyn, NY 11201
718 330-0555
Video production & post-production facilities; equipment rental services; ENG/EFP facilities & equipment.

MANHATTAN TRANSFER

545 Fifth Ave., New York, NY 10017
212 687-4000
Video production & post-production facilities; recording studios.

MARATHON PRODUCTS

334 W. Boylston St., W. Boylston, MA 01583
617 853-0988
ATR head cleaners, degaussers; alignment, tension gauges. Audio carts; empty reels & carts. Splicing blocks & tape.

MARCOM

Box 66507, Scotts Valley, CA 95066
408 438-4273
ALC & AGC amps, AM & FM compressor/limiters, parametric & graphic equalizers. FM exciters; stereo generators. Facilities design & engineering services. Distributor of full line audio, video, lighting, support, RF, T&M equipment, studio furniture, cabinets, cases. See listing in Rep section

MARCONI ELECTRONICS See A.F. ASSOCIATES

MARCONI INSTRUMENTS

3 Pearl Ct., Allendale, NJ 07601
201 934-9050
Sync generators. Audio test signal generators, spectrum analyzers, wow & flutter meters, automatic audio analyzers. Video test signal generators, automatic VITS analyzers, SPG inserters & deleters. Modulation monitors, frequency monitors & controllers, RF test signal generators.

MARK ANTENNA PRODUCTS

2810 S. Wolf Rd., Des Plaines, IL 60018
312 298-9420
Transmit/receive, receive-only & transportable satellite earth stations. Intercity & portable ENG microwave systems. Communications antennas. Foam dielectric transmission line.

MARSHALL ELECTRONIC

Box 438, Brooklandville, MD 21022
301 484-2220
Digital audio efx & reverb; digital delays; audio time compression/expansion; analog efx & reverb.

MARSHALL ELECTRONICS

Box 2027, Culver City, CA 90230
213 390-6608
Audio cassettes. Fiberoptic systems. Audio & video cable, cable connectors.

MARTI ELECTRONICS

Box 661, Cleburne, TX 76031
817 645-9163
ALC & AGC amps, AM & FM compressor/limiters. Dynamic mics. Monitor/power amps. Intercity, portable ENG & airborne microwave systems; central receivers. Communications antennas. Transmitter remote control systems. STLs, TSLs. FM SCA equipment. Two-way radio communications; remote pickup equipment.

MATRIX SYSTEMS CORP.

5177 N. Douglas Fir Rd., Calabasas, CA 91302
818 992-6776
Video interface for consoles. Audio routing switchers. Portable, compact studio/mobile & large automated production switchers; post-production switchers. Manual, automated & business automation interfaced master control switchers. RF attenuators & RF switches. Automatic satellite switchers. Coaxial transmission line, power dividers. Jackfields, patch panels. Engineering consultants.

MATRIX VIDEO SERVICES

727 11 Ave., New York, NY 10019
212 265-8500
Video production & post-production facilities; mobile audio/video production facilities rental.

MATTHEWS STUDIO EQUIPMENT

2405 Empire Ave., Burbank, CA 92705
818 843-6715
Lighting diffusion, efx material, stands & rigging. Dollies, cranes, jibs, remote pan/tilt systems.

MAXELL CORP. OF AMERICA

60 Oxford Dr., Moonachie, NJ 07074
201 440-8020
Audio & videotape, cassettes.

MBB HELICOPTER CORP.

Box 2349, W. Chester, PA 19380
215 431-4150
ENG-equipped helicopters.

MBI/AHB See ALLEN & HEATH BRENNELL

McCURDY RADIO

108 Carnforth, Toronto, Ont., Canada M4A 2L4
416 751-6262
Mic mixers; mono & stereo studio & audio-for-TV consoles. Turntables. AM compressor/limiters, parametric equalizers & filters. Digital audio delay. Hardwired intercom systems; digitally controlled intercom. Line amps, monitor/power amps, amp power supplies. Audio DAs, patch panels. Low frequency extenders. PPM meters. Digital clocks, master & slave clocks. Audio post-production services; radio & TV studio design.
See ad on pg 43, 115

MCG ELECTRONICS

12 Burt Dr., Deer Park, NY 11729
516 586-5125
Surge-Master surge protectors.
See listing in Rep section

MCI/QUANTEL

3290 W. Bayshore Rd., Palo Alto, CA 94303
415 856-6226
DLS, Central Lending Library digital still stores; Harry video animation controller. Cypher character generator/graphics system; Paintbox digital art/paint system; Mirage 3D modeling & manipulation system. Encore, Mirage digital efx generators. TBC/framestores, standards converters.

Field Offices:

CA David Diels, Box 6098, Canyon Lake 92380 714 679-7870
CT David Dever, 300 Broad St. #500, Stamford 06901 203 348-4104
GA Paul Fletcher, 2971 Flowers Rd. S. #106, Atlanta 30341 ... 404 457-1266
MI Larry Biehl, 33701 Oak Point Cir., Farmington Hills 48018 313 553-2360
PA David Hackney, 235 Lawndale Ave., King of Prussia 19406 . 215 277-1022
TX Bob Knowles, 922 Summer Trail, Flower Mound 75028 214 724-0022

See ad on pg 105

McKAY DYMEK

111 S. College, Claremont, CA 91711
714 626-5063
Monitor speakers. AM & communications antennas.

McMANUS ENTERPRISES

Box 6530, San Diego, CA 92106
619 223-1730
Equipment maintenance, overhaul & modification services; facilities design & engineering services; engineering consultants.

McMARTIN INDUSTRIES

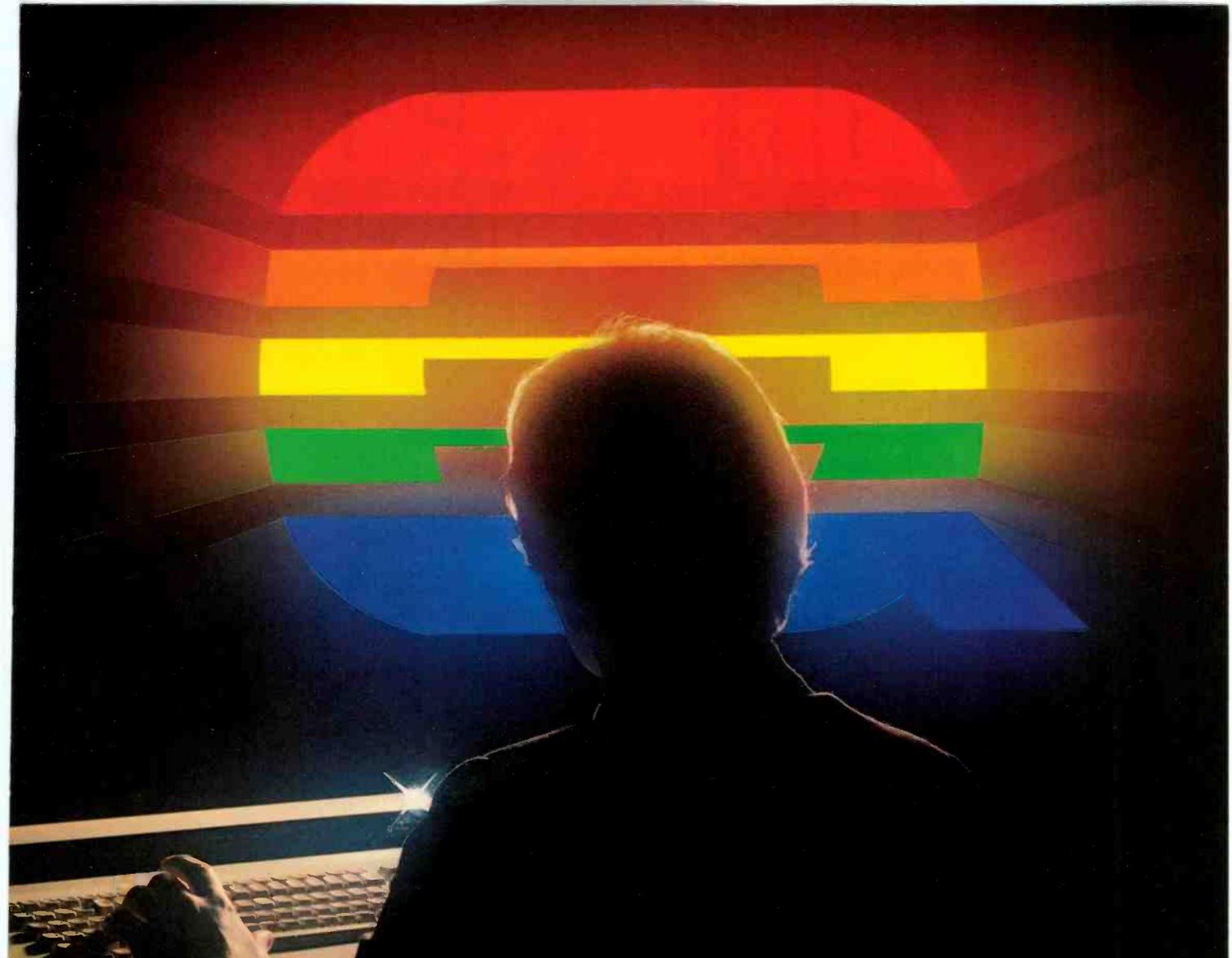
4500 S. 76 St., Omaha, NE 68127
402 331-2000
Accu-Five mic mixers, mono studio & stereo studio consoles. Complete disc playing consoles. ALC & AGC amps, AM & FM compressor/limiters. RF intercom systems. Preamps, line amps, monitor/power amps. Rotary & slide attenuators, EBS two-tone systems. AM, FM, VHF & UHF transmitters. AM & FM exciters, stereo generators, modulators. SAP generators, monitors. RF amps, filters. Modulation monitors, field intensity meters.

MEAD DATA CENTRAL

9393 Springboro Pike, Miamisburg, OH 45342
800 227-9597
Computer-accessed library of wire service stories, newspapers, magazines.

MEDALLION VIDEO PRODUCTIONS

8036 Aviation Pl., Box 71, Love Field Terminal, Dallas, TX 75235
214 263-3586
Mobile production facilities rental.
Field Office:
IL 6720 Palma Ln., Morton Grove 60053 312 470-1664



Q8 challenges the imagination

with...2 Independent or Interactive Channels of
Hundreds of Fonts...and Millions of Colors...
and Automatic Keystroke Sequencing...and
"Unlimited" Roll & Crawl...and Pop-On Animation
...and Fade, Matte & Key ...and Full Studio Timing
...the possibilities are endless.

Q8 QUANTAFONT® Face-Loadable
Teleproduction Graphic Titling System.

a decade of commitment

QUANTA®

Quanta Corporation • 2440 So. Progress Drive, Salt Lake City, Utah 84119 • (801) 974-0992 TWX 910-925-5684

Circle 157 on Reader Service Card

Canon Broadcast

Designed to meet all your

CANON STUDIO and OUTDOOR BROADCAST TV LENSES.

Canon lenses are the mainstay of network and independent television production studios and outdoor broadcast applications. Each is designed to deliver optimum performance indoors or out, in daylight or stadium illumination.

Compare focal lengths, maximum relative apertures and features and you'll know why Canon is the right choice for 30mm, 25mm and 2/3" cameras.



PV40x13.5B1E for 30mm and 25mm cameras
 The Olympian—proven at the 1984 Olympic Games, its 40X reach is perfect for sports and all outdoor broadcast operations.
 Focal length: 13.5-540mm (27-1080mm w/built-in extender)
 Max. Relative Aperture*: 1:1.7 through 270mm
 *25mm format 1:2.8 at 540mm



P18x15B1E for 30mm and 25mm cameras.
 The Widest—a very wide 60° angle of view plus incredible edge-to-edge sharpness, fidelity and sensitivity. Supplied with 1.5X and 2X built-in extenders plus pattern projector.
 Focal length: 15-270mm (30-540mm w/2X extender)
 Max. Relative Aperture*: 1:2.1 through 218mm
 *25mm format 1:2.7 at 270mm



J20x8.5B1E for 2/3" cameras.
 Two Assignments—use a 13X zoom for ENG, use the J20x8.5B1E for studio or outdoor broadcast assignments—with the same 2/3" camera.
 Focal length: 8.5-170mm (17-340mm w/2X extender)
 Max. Relative Aperture: 1:1.6 through 130mm
 1:2.1 at 170mm



J15x8.5B1E for 2/3" cameras.
 2/3" Economy—full utility for all studio situations combining a 15X zoom ratio with a M.O.D. of under two feet, a 54° angle of view and high sensitivity throughout the range.
 Focal length: 8.5-128mm (17-256mm w/built-in extender)
 Max. Relative Aperture: 1:1.6 at all focal lengths

CANON LENSES FOR PORTABLE CAMERAS.

Great for news, great for sports. Whether you're covering big news or the big game, Canon has a quality lens that delivers studio performance indoors or out, under all shooting conditions.

From the incredible J18x9B1E which provides up to 324mm with its built-in 2X extender, to the economical J15x9.5, there's a Canon lens designed to meet your needs.

Television Lenses.

needs. Now and in the future.



P12x14BIE for 30mm and 25mm cameras. Studio Standard—the preferred choice in studios across the country, combining high sensitivity with incredible edge-to-edge sharpness.

Focal length: 13.5-162mm (27-324mm w/2X extender)
Max. Relative Aperture*: 1:1.6 throughout the entire zoom range

*25mm format



PV14x12.5BIE High Resolution Lens for 30mm and 25mm cameras. A Unique Design—featuring extensive use of Fluorite lens elements, this lightweight, compact 14X studio lens provides high sensitivity and critical sharpness at all focal lengths.

Focal length: 12.5-175mm (1.5X and 2X extenders built-in)
Max. Relative Aperture*: 1:1.6 at all focal lengths

*25mm format



J25x11.5BIE for 2/3" cameras. Greater Reach—a 25X zoom lens designed specifically for 2/3" cameras. The power and scope of 1" systems, the economy and efficiency of your 2/3" cameras.

Focal length: 11.5-288mm (23-576mm w/2X extender)
Max. Relative Aperture: 1:1.6 through 220mm

1:2.1 at 288mm



J18x9BIE for 2/3" cameras. Greater Reach, Lighter Weight—nothing matches the 18X zoom power of this lens—and it weighs less than 4 lbs.! It increases the flexibility of any portable camera.

Focal length: 9-162mm (18-324mm w/2X extender)
Max. Relative Aperture: 1:1.7 through 116mm

1:2.4 at 162mm



J13x9BIE for 2/3" cameras. The Portable Standard—used by cameramen around the world under all conditions, the J13x9BIE is a proven performer with superior sharpness and sensitivity.

Focal length: 9-118mm (18-236mm w/2X extender)
Max. Relative Aperture: 1:1.6 through 99mm

1:1.9 at 118mm



J15x9.5 for 2/3" cameras. Quality plus Economy—you can't buy more lens for less money. Lightweight and sensitive, it meets the needs of both cameramen and accountants yet lives up to its Canon name.

Focal length: 9.5-143mm
Max. Relative Aperture: 1:1.8 through 112mm

1:2.3 at 143mm

Canon[®]

Optics Division

Canon USA, Inc., Head Office: One Canon Plaza, Lake Success, N.Y. 11042 (516) 488-6700

Dallas Office: 2035 Royal Lane, Suite 290, Dallas, Texas 75229 (214) 620-2641. Chicago Office: 140 Industrial Drive, Elmhurst, Ill. 60126 (312) 833-3070

West Coast Office: 123 Paularino Avenue East, Costa Mesa, Ca. 92626 (714) 979-6000

Canon Canada, Inc., 6390 Dixie Road, Mississauga, Ontario L5T1P7, Canada (416) 678-2730

© 1985 Canon U.S.A., Inc.

Circle 125 on Reader Service Card

MEDIA COMPUTING ✓

4401 E. Kings Ave., Phoenix, AZ 85032
602 992-2338

Complete program automation systems; The Electronic Newsroom radio & TV newsroom computer software systems.

MEDIA CONCEPTS

559 49 St. S., St. Petersburg, FL 33707
813 321-2122

Professional VHS VCRs. Videocassette automation systems. Foam insert transportation cases.

MEDIA GENERAL BROADCAST SERVICE ✓

2714 Union Ave. Ext., Memphis, TN 38112
901 320-4212

Radio program & commercial production services; station IDs; music libraries.

MERLIN ENGINEERING WORKS ✓

2440 Embarcadero Way, Palo Alto, CA 94303

415 856-0900

VTR, VCR modifications for one-inch B, one-inch C, ¾-inch U-Matic, M-format, VHS.

See ad on pg 49, 175

MEYER SOUND LABS ✓

3832 San Pablo Ave., Berkeley, CA 94702
415 486-1166

Parametric equalizers; monitor speakers; digital time correction device. Spectrum analyzers; real time analyzers.

See listing in Rep section

MICRO COMMUNICATIONS ✓

Box 4365, Manchester, NH 03108
603 624-4351

Antennas: FM, TV HP & CP, communications Diplexers, multiplexers. Waveguide UHF & VHF diplexers for stereo. RF filters, loads, & switches. MDS/ITFS antennas, multichannel combiners, diplexers. Rigid, coaxial transmission line; circular & rectangular waveguide; power dividers, RF connectors. Engineering consultants.

MICRO CONTROLS ✓

Box 728, Hwy 174 S., Burleson, TX 76028
817 295-0965

Intercity microwave systems; transmitter remote control systems; STLs & TSLs; FM SCA equipment; remote pickup equipment.

MICRODYNE CORP. ✓

Box 7213, Ocala, FL 32672
904 687-4633

Satellite antennas, receivers & TV modulators. Remote control systems. Complete C-band & Ku-band data communications systems; transportable satellite uplinks; SCPC terminals.

See ad on pg 149

MICROFLECT CO. ✓

Box 12985, 3575 25 St. S.E., Salem, OR 97309

503 363-9267

Tower masts, rigging, hardware, lighting.

MICRON AUDIO PRODUCTS ✓

210 Westlake Dr., Valhalla, NY 10595
914 761-6520

RF mics; Tram electret/condenser mics; Mini-Max mic booms & dollies.

MICROPROBE ELECTRONICS/MEI ✓

910 Sherwood Dr., Unit 19, Lake Bluff, IL 60044

312 295-2606

Digisound digital audio recorders. Computer automation controllers; Satmaster automatic satellite switchers, satellite network controllers; complete program automation systems. Audio mastering controller & tone generator.

MICROTIME ✓

1280 Blue Hills Ave., Bloomfield, CT 06002
203 242-4242

Genesis 1, ACT 1 digital efx generators; ACT 1 standalone analog efx. TBCs, frame synchronizers, TBC/framestores, video noise reducers, image enhancers, color correctors.

Field Offices:

CA Dan Sofie, El Cajon 92021
619 569-1344

GA Jerry Rankin, Liburn 30247
404 979-4437

IL Dave Everett, Hoffman Est. 60195
312 934-9191

NJ Ray Bouchard, Lawrenceville 08648
609 896-3716

TX Steve Krant, Richardson 75080
214 644-0232

See ad on pg 137

MICRO-TRAK CORP. ✓

620 Race St., Holyoke, MA 01040
413 536-3551/800 358-8729

Mic mixers; portable, mono studio & audio-for-TV consoles. Pickup arms, complete disc playing consoles. Preamps, monitor/power amps. Audio DAs. Studio furniture; cabinets; studio consoles; equipment racks; cart/tape storage racks.

MICROWAVE FILTER CO. ✓

6743 Kinne St., E. Syracuse, NY 13057
800 448-1666/315 437-3953

Diplexers, multiplexers. RF attenuators, filters. Equipment rental services; facilities design & engineering services; engineering consultants; earth station site selection; seminars; books & videotapes on satellite communications, terrestrial interference; field service.

See ad on pg 52

MIDWEST CORP. ✓

1 Sperti Dr., Edgewood, KY 41017
606 331-8990

Mobile vehicle construction; equipment rental services; facilities design & engineering services. Distributor of video equipment.

Field Offices:

FL Lloyd Hicks, 8875 N.W. 23 St., Miami 33172
305 592-5355

GA Ron Bradley, 522 Armour Cir. N.E., Atlanta 30324
404 875-3753

IN Al Rerko, 4105 Vincennes Rd., Indianapolis 46268
317 872-2327

KS Rod Herring, 12876 W. 109 St., Overland Pk. 66210
913 469-6810

KY Mark Dauer, 1804 Cargo Ct., Louisville 40299
502 491-2888

MD John Handley, 4720B Boston Way, Lanham 20706
301 577-4903

MI Ed Ziemba, 1328 Wheaton Ave., Troy 48083
313 689-9730

MO Larry Mason, 11642 Lilburn Pk. Rd., St. Louis 63146
314 569-2240

NC Jim Slate, 2848 Interstate 85 S. #E, Charlotte 28208
704 399-6336

OH Brad Nogar, 7500 Wall St., Cleveland 44125
216 447-9745

PA John Humphrey, 535 Rochester Rd., Pittsburg 15237
412 364-6780

TN Jerry Willingham, 156 Space Pk. S., Antioch Pike, Nashville 37211
615 331-5791

VA Fred Wood, 1395 Air Rail Ave., Virginia Beach 23445
804 464-6256

WV Dave Foglesong, 1020 Grosscup Ave., Dunbar 25064
304 768-1252

See ad on pg 6 - 7

MIKROLAB ✓

4121 Redwood Ave., Los Angeles, CA 90066
213 306-0120

Monitor speakers with built-in amps. Micrometers. VU meters.

See ad on pg 189

L. MATTHEW MILLER ASSOC. ✓

48 W. 21 St., New York, NY 10010
212 741-8011

Equipment rental services; facilities design & engineering services; engineering consultants. Distributor of video equipment.

MILLER PROFESSIONAL EQUIPMENT ✓

10816 Burbank Blvd., N. Hollywood, CA 91601

818 766-9451

Milequip camera tripods, heads, dollies.

MINNEAPOLIS MAGNETICS ✓

9969 Valley View Rd., Eden Prairie, MN 55344

612 944-7660

Replacement audio heads.

MINOLTA CORP. ✓

101 Williams Dr., Ramsey, NJ 07446
201 825-4000

Light meters, illuminance meters, luminance meters, color temperature meters, chroma meters, TV monitor analyzers.

MITSUBISHI PRO AUDIO GROUP

See DIGITAL ENTERTAINMENT CORP., QUAD EIGHT/WESTREX

MIXMASTERS

4877 Mercury St., San Diego, CA 92111
619 569-7367

Recording studios.

RELAY-ABILITY

The McCurdy VAS-100 10X1 Switcher is all-electronic solid state switching at its best!

Whatever you're looking for in broadcast quality audio/video switching – advanced design, superior performance, ease of operation – you'll find it here. And more.

Your operators will appreciate the host of convenience features. 10X1 video/2 audio switching and tally relay output (both user specified). Serial

remote control board. Standard memory retention.

One panel control of multiple switchers. Integral local relegendable pushbuttons. Loop thru video inputs. Bridging audio inputs. And compact single unit housing.

You'll like the competitive pricing, cost-efficient operation, ease of expansion and low maintenance.

The McCurdy VAS-100 10X1 Switcher. The Switch Hit of 1985.



McCurdy

McCurdy Radio Industries

108 Carnforth Road, Toronto, Ontario, Canada M4A 2L4 Tel: (416)751-6262 Telex: 06-963533
1051 Clinton Street, Buffalo, New York 14206 Tel: (212)772-0719
In Europe: Seltech International, Rose Industrial Estate, Bourne End, Bucks. SL8 5AT England
Tel: (06285)29131 Telex: 848960

Circle 159 on Reader Service Card

MOBILE-CAM PRODUCTS

Box A-82103, San Diego, CA 92138
619 692-3208

Mobile vehicle construction. Hardwired intercom/IFB systems. Audio & video DAs. Multi-Box battery-powered device for multiple audio & video ENG feeds. Aluminum mobile vehicle cabinets, equipment racks, roof racks, antenna mounts, electric reels, alternators, engine speed controls. Camera cradles, quick-release camera/VTR cables, padded nylon VTR & accessory bags.

MOBILE VIDEO SERVICES

2139 Wisconsin Ave. N.W., Washington, DC 20007
202 944-2800

MEANS IT'S VERIFIED

Video production & post-production facilities; mobile production facilities rental; local microwave common carrier.

MODERN TELECOMMUNICATIONS/ MTI

1 Dag Hammarskjold Plaza, New York, NY 10017

212 355-0510

Video production & post-production facilities; mobile production facilities rental.

MODULAR AUDIO PRODUCTS

50 Orville Dr., Bohemia, NY 11716
516 567-9620

AM compressor/limiters, graphic equalizers. Audio preamps, line amps, monitor/power amps, amp power supplies. Audio DAs, audio routing switchers. VU, PPM, LED level displays. Audio test signal generators. Frames.

MODULATION ASSOCIATES

897 Independence Ave., Mountain View, CA 94043

415 962-8000

Transmit/receive, receive-only & transportable satellite earth stations. Upconverters, downconverters; satellite network controllers. FM SCA equipment.

MODULATION SCIENCES

115 Myrtle Ave., Brooklyn, NY 11201
718 625-7333

TSG stereo generators; Sidekick multiplexers, TV Sidekick SAP generators; MTS stereo BTSC decoders. FM compressor/limiters. Wired STLs. Sidekick FM & AM SCA equipment; modulation monitors. Engineering consultants.

MOLE-RICHARDSON CO.

937 N. Sycamore Ave., Hollywood, CA 90038
213 851-0111

Lamps, HMI & CSI fixtures, Molequartz quartz fixtures, cyc lighting, diffusion & efx material, lighting stands & rigging, lighting control boards, Molelectronic dimmer packs. Power generators, HMI ballasts, ac/dc converters & inverters. Mic booms & dollies. Equipment rental services.

MONTAGE COMPUTER CORP.

870 N. Vine St., Hollywood, CA 90038
213 465-5501/5528

Multisource video editors.

MOOG MUSIC

2500 Walden Ave., Buffalo, NY 14225
716 681-7200

Music synthesizers.

TOMMY MOORE, INC.

Box 8597, Fort Worth, TX 76124
817 457-3060

Towers. Prefabricated equipment shelters.

MOSELEY ASSOCIATES

111 Castilian Dr., Goleta, CA 93117
805 968-9621

Transmitter remote control systems. STLs, TSLs. FM SCA equipment. Remote pickup equipment. Stereo generators. See listing in Rep section
[See ad on pg. 13](#)

MOTOROLA, AM STEREO DIV.

1216 Remington Rd., Schaumburg, IL 60195
312 576-2879

AM stereo exciters. AM stereo modulation monitors.
[See ad on pg. 141](#)

SPECIAL FACTORY INTRODUCTORY PRICE

Elecon's battery packs are known for their consistent dependability, durable construction, long life and outstanding electrical characteristics. We're the fastest growing manufacturer in Japan and now becoming the professional's first choice in the U.S. Once you've experienced our packs, you'll understand why. In fact, we are so sure that we're willing to offer them to you at this incredible, one-time-only introductory price.

SPECIAL OFFER

ELEPAK 90—Heavy duty, rechargeable battery pack for ENG equipment. Perfect replacement for Sony BP-90. Includes heavy duty carrying case.

ONLY \$199

ELEPAK NP-1—Compact, high performance rechargeable battery pack for video cameras/recorders, especially Sony Betacam™. Includes soft carrying case.

ONLY \$43

This incredible offer expires August 31, 1985.

Maximum of 20 of each size per customer.

Call for dealer nearest you.
(818) 846-6220.

™ Betacam is a registered trademark of Sony Corporation.

Replacement Battery Packs

ELEPAK 90 Battery pack
with carrying case



ELEPAK NP-1
Battery pack
(case not shown)

**UNIVERSAL
Elecon INC.**
Manufacturer of
Professional Broadcasting Equipment

903 S. Lake St., No. 102 • Burbank, CA 91502 • (818) 846-6220

Circle 160 on Reader Service Card

TASCAM's complete audio system brings video production in-house with ease and economy.



Eliminate Outside Production Costs. Move Inside With Tascam.

You've been thinking about making the move to in-house video. Or expanding your present modest set-up into a fully professional environment. You've had to depend on outside sources for on-line work. And possibly off-line as well. You've been watching money drain out of your budget. Lots of it. Money put to far more profitable use in-house.

Now you can bring your production inside. Allowing yourself the control, time, and creative flexibility your work deserves. TASCAM is ready to help you make the move. Quickly. Easily. Economically.

From training to point-of-purchase videos, from the assembly line to the board room, TASCAM recorder/reproducers and mixers give you the dependability, quality and versatility essential to keeping pace with the rigorous demands of SMPTE production and post-production.

Our 58 recorder/reproducer syncs you into video interlock with a single connector. This rugged 1/2" 8-track gives you the performance capabili-

ties and engineering depth of a 1" machine. But at a fraction of the cost. Full microprocessor 3-motor servo control provides unsurpassed editing speed and precision, taking you rapidly to the point you're after and stopping on the dime.

Our 58's unique Omega Drive ensures smooth tape handling and uniform tape tension. It keeps tape from stretching or bouncing no matter how often you start and stop. And assures clear, clean signal reproduction.

The 58 links superbly to a complete TASCAM system. Our M520 mixer gives you the fast signal routing, logical, easy-to-use board layout, and full creative control vital to your professional video productions.

And when you're ready for layback, our 52 provides exceptional mastering capabilities, with the same dependability, accurate SMPTE control, and precise audio performance as the 58.

For less elaborate productions, our 4-track 44B keeps SMPTE up to speed for fast editing. Or integrate it as a mastering machine for layback from multi-track.

When you've got to balance sophisticated audiocapabilities against your

budget constraints: Don't! TASCAM offers the uncompromising audio quality and sturdy reliability of equipment costing much more. At any

price, TASCAM is the professional's total audio system for video interfacing. At this price, what are you waiting for? Your TASCAM dealer has full details or write TASCAM, TEAC Professional Division, 7733 Telegraph Road, Montebello, CA 90640 (213) 726-0303.

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Compatible with any professional system.

TASCAM
TEAC Professional Division

MOTOROLA C&E ✓

17-22 Whitestone Expy., Whitestone, NY 11357

212 746-1100

RF intercom systems. AM stereo exciters. STLs, TSLs. Two-way radio communications. Remote pickup equipment. Tools; vacuum tubes; solid state components; rectifiers; capacitors; transformers; surge protectors; quartz crystals. Nicad batteries, chargers. Engineering consultants.

MPB TECHNOLOGIES ✓

1725 Transcan. Hwy., Dorval, Que., Canada H9P 1J1

514 683-1490

Vista 90 character generator/graphics system.

See listing in Rep section

MPCS VIDEO INDUSTRIES ✓

514 W. 57 St., New York, NY 10019
212 586-3690

Video production & post-production facilities; equipment rental services; facilities design & engineering services; studio design services; engineering consultants.

MU-DEL ELECTRONICS

2426 Linden Ln., Silver Springs, MD 20910
301 587-6087

RF filters, multicouplers. Satellite upconverters, downconverters; LNAs.

MULTIDYNE ELECTRONICS ✓

Box 528, Locust Valley, NY 11560
516 671-7278

Titlers, subtitles. Black burst & color bar generators. Audio & video DAs, pulse amps, subcarrier amps. Video test signal generators. Audio & video cable.

MULTI-TRACK MAGNETICS, DIV. MATRIX CORP. ✓

3 Industrial Ave., Upper Saddle River, NJ 07458

201 327-9400

Magnetic film dubbers & recorders. Solid state telecine systems, 16/35 mm telecine projectors. Time code generators; hard-lock synchronizers for film/tape sync. Facilities design & engineering services.

MULTI VIDEO PRODUCTIONS

341 Broad St., Clifton, NJ 07013

201 742-2999

Mobile production facilities rental; video post-production facilities; equipment rental services.

MUSIC DIRECTOR PROGRAMMING SERVICE ✓

Box 103, Indian Orchard, MA 01151

413 783-4626

Music libraries; syndicated radio programming.

THE MUSICWORKS ✓

Box 111390, Nashville, TN 37211

800 251-9000/in TN 615 790-1200

Music libraries; syndicated radio programming; programming & sales consultants.

MYCOMP TECHNOLOGIES CORP. ✓

130 McCormick #112, Costa Mesa, CA 92629

714 545-5111

Sericon parallel & serial interface machine control/technical automation. Audio & video DAs.

See listing in Rep section

MYCRO-TEK ✓

Box 47068, Wichita, KS 67212

316 945-5087

Mycro-Vision character generator/graphics system.

MZB & ASSOCIATES ✓

4203 Beltway, Dallas, TX 75234

214 233-5535

Mobile vehicle construction.

NADY SYSTEMS ✓

1145 65 St., Oakland, CA 94608

415 652-2411

Headphones. RF intercom systems. RF & lavalier mics. Two-way radio communications.

NAGRA MAGNETIC RECORDERS ✓

19 W. 44 St. #715, New York, NY 10036

212 840-0999

Portable ATRs. Replacement ATR heads. MRL test tapes, leaders. Tape-based loggers. Audio time code.

Field Office:

CA 1147 N. Vine St., Hollywood 90038 ...
213 469-6391

See ad on pg 158

You'll get
**HIGHER EFFICIENCY
FLATTER RESPONSE
LOWER NOISE
LESS DISTORTION**

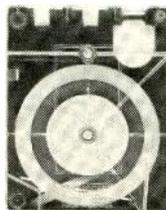
with

ARISTOCART

because

We use our own superb quality **ARISTOCART HOLN 2006** tape and we see to it that each individual unit we ship meets or exceeds current NAB specifications.

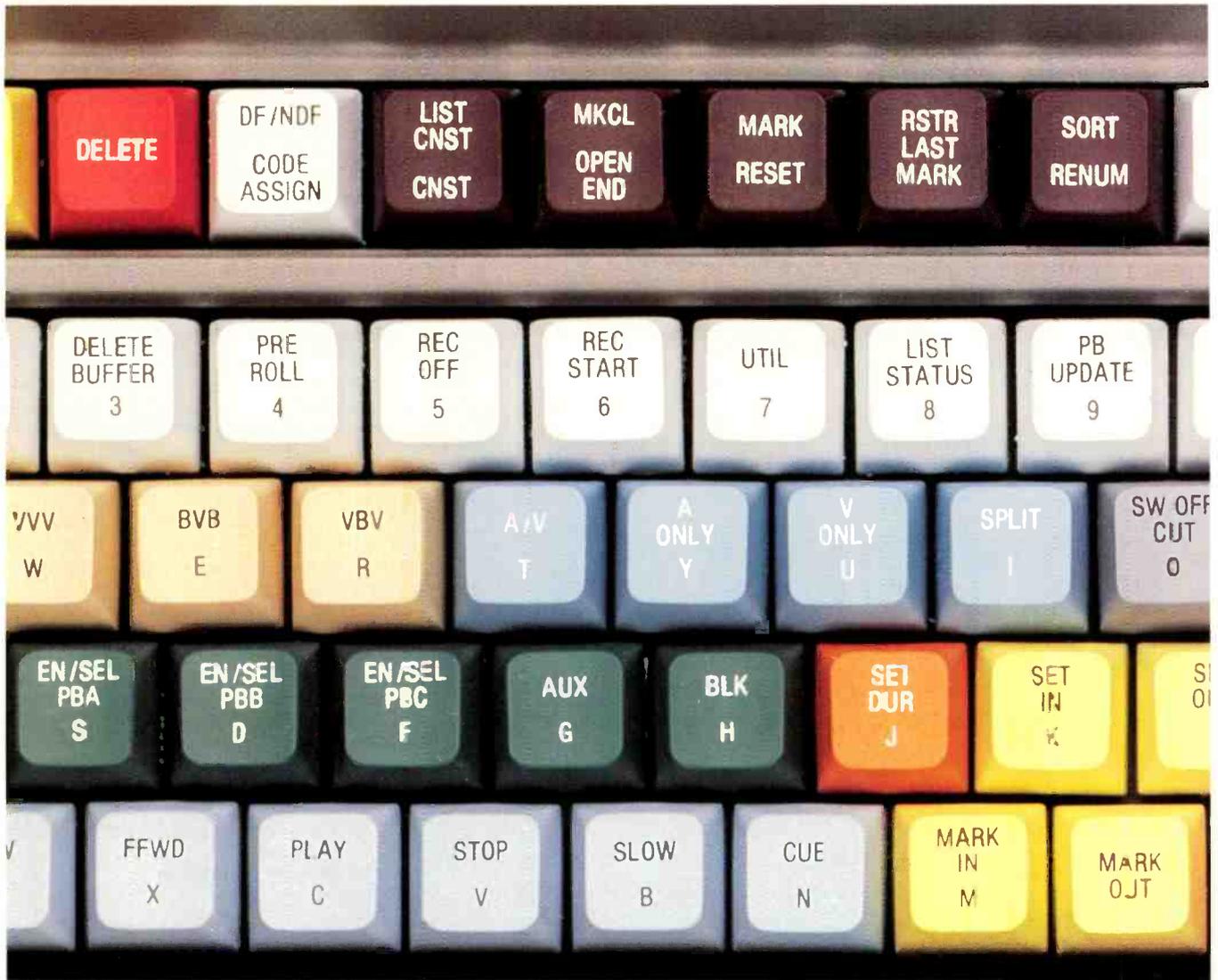
No other broadcast cartridge supplier takes this sort of time and care with their product.

**our guarantee**

If any **ARISTOCART** cartridge should fail to meet NAB AM/FM performance specifications on a properly aligned cart machine, we will replace it at our sole expense.



MANUFACTURED BY ARISTOCART DIV. WESTERN INTERNATIONAL COMMUNICATIONS LTD.
505 BARRARD STREET, VANCOUVER, B.C., CANADA V7X 1M6 TEL: (604) 687-2844 TELEX: 04-54639

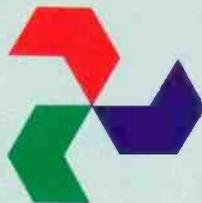


KEY PERFORMANCE



Performance and Design simplicity enhance Command Decisions.

Horizon International introduces System Four, a computer assisted video editing system that combines creative engineering and user experience to produce a unique video editing system. System Four offers a five year warranty, is user compatible with CMX, ISC and Mach 1, has edit list for 850 events, includes a printer, and has provision for optional paper tape. It controls a combination of video and dual audio tracks from keyboard or track ball. The Horizon's System Four has bi-lingual capability in Spanish or English. This straight line approach to performance editing provides a key decision for a realistic investment.



Select
Representative Territories
Available

HORIZON international • 3837 East Wier Avenue, Ste. 1 • Phoenix, Arizona 85040 • Phone 602/437-3800 • Telex 322043

NAKAMICHI USA CORP.

19701 S. Vermont Ave., Torrance, CA 90502
213 538-8150

Rack-mount audio cassette player/recorders. Headphones. Head demagnetizers; blank cassette tape.

NALPAK VIDEO SALES

1937C Friendship Dr., El Cajon, CA 92020
619 258-1200

Tripod cases, dollies. Foam insert & rack configuration transportation cases. Magnum Ear-Mic audio accessory. Test charts & slides. Cable reels.

NATIONAL VIDEO CENTER

460 W. 42 St., New York, NY 10036
212 279-2000

Video production & post-production facilities; mobile production facilities rental; recording studios; audio post-production facilities; equipment rental services; music libraries; videoconferencing services; video & audio duplication.

NATIONAL VIDEO INDUSTRIES

15 W. 17 St., New York, NY 10011
212 691-1300

Video post-production facilities.

NAUTICAL ELECTRONIC LABS

RR #1, Pantallon, NS, Canada B0J 3J0
902 823-2233

AM transmitters. AM & AM stereo exciters, stereo generators, modulators. RF amps

Field Office:

ME Nautel Maine Inc., 201 Target Ind. Cir., Bangor 04401 207 947-8200

NAUTILUS TELEVISION NETWORK

Box 1783, DeLand, FL 32720
904 228-2884

Video production & post-production facilities; production equipment rentals; tape duplication; film-to-tape transfers.

NEC AMERICA, BROADCAST EQUIPMENT DIV.

130 Martin Ln., Elk Grove Village, IL 60007
312 640-3792

CCD color cameras, recorder/cameras. DVE System 10 digital efx generators. Frame synchronizers, video/audio sync delays. FM, VHF & UHF transmitters. Portable ENG microwave systems. Slow-scan transmitters/receivers.

Field Offices:

CA Frank Stolten, 110 Rio Robles, San Jose 95134 408 433-1259

NJ Lawrence Litchfield, 21 Brandywine Terr., Morristown 07960 201 540-0819

See listing on Rep section

See ad on pg. 51, 125

NEI

934 N.E. 25 Ave., Portland, OR 97232
503 232-4445

Mic mixers; stereo studio consoles. Parametric & graphic equalizers. Analog efx, reverb. Monitor/power amps. Real time analyzers.

NETCOM

1702 Union St., San Francisco, CA 94123
415 921-1441

Video production facilities; equipment rental services inc. large-screen video projectors; engineering consultants; mobile vehicle construction; satellite time brokers; satellite program transmission services; turnkey satellite transmission facilities.

Field Office:

DC 1278 National Press Bldg., 20045 202 638-6338

NETWORK PRODUCTION MUSIC

4429 Morena Blvd., San Diego, CA 92117
619 272-2011/800 854-2075

Music & sound effects libraries.

NEUMADE PRODUCTS CORP.

720 White Plains Rd., Scarsdale, NY 10583
914 725-4900

Empty videotape reels, carts & cases; videotape loaders, timers & rewinders; Neuvator II film cleaners. Cabinets, equipment racks.

BATTERY PROBLEMS SOLVED

by CASP

Charger • Analyzer • Sequencer • Power Supply

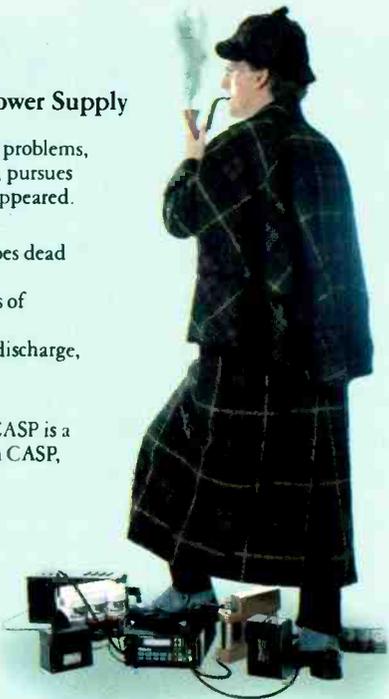
CASP is a mystery solver to a myriad of battery problems, a virtual Sherlock Holmes. CASP, like Holmes, pursues the case until the last battery problem has disappeared.

THE CASE:

- Do you want to *murder* when your battery goes dead unexpectedly?
- Are you *entangled in a web* of different types of batteries and their associated chargers?
- Is time *escaping* you during lengthy charge, discharge, recharge and analyze sequences?
- Are your batteries *haunted* by memory?

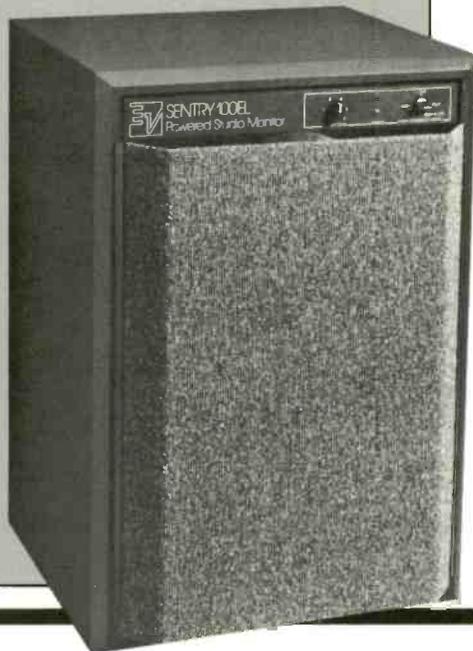
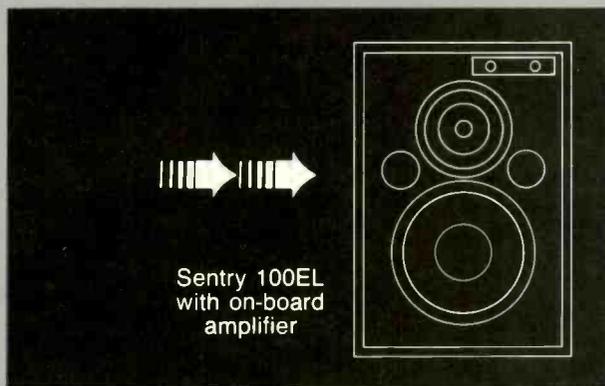
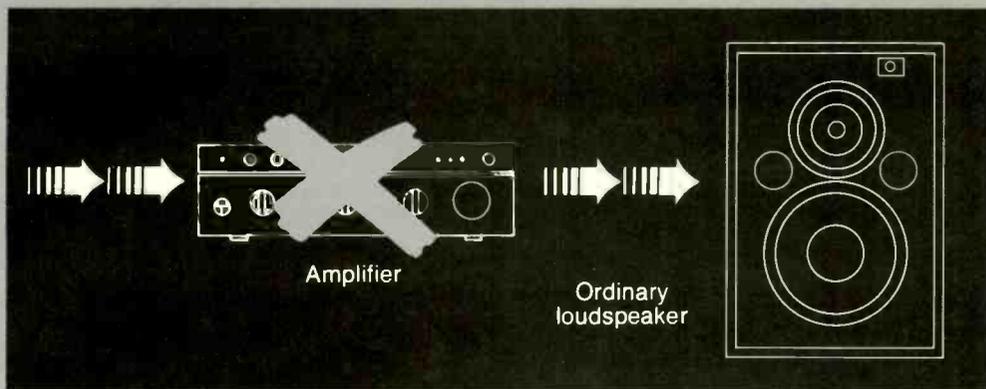
CASP solves these mysteries and many more. CASP is a super sleuth in solving battery problems. With CASP, battery problems have been banished forever.

Christie Electric Corp.
Communications Support Div.
20665 Manhattan Pl.
Torrance, California 90501
213-320-0808 • 800-421-2955



CHRISTIE

ELECTRIC CORP.



Finally, a Monitor System with the Power to Make Things Easy

Imagine a monitor speaker that provides its own power. Fits in tight spaces. Simplifies setup. And reproduces sound with test-equipment accuracy.

If you can imagine all that, you've just pictured the **Sentry 100EL powered monitor system** from Electro-Voice. Designed and created for your monitoring convenience, the 100EL combines the superb audio reproduction of the Sentry 100A with an integral, 50-watt amplifier.

With speaker and amplifier in one compact, rack-mountable package, this monitor system solves problems like limited rack space, equipment transport on remotes or cramped spaces in video editing booths.

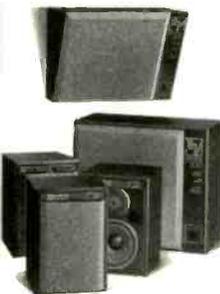
Also, by requiring less hardware—fewer cables and connectors—the 100EL keeps setup simple

and reduces potential interconnect problems. And there's no possibility of power loss caused by resistance from a lengthy speaker cable.

The on-board amplifier in the 100EL makes it ideal for single-channel monitoring. Why buy one speaker and an extra amplifier channel, when the Sentry 100EL does the job all by itself? And because amplifier power is perfectly matched to the speaker system, there's no chance of damage from inadvertent signal overload.

But convenience and trouble-free operation are only part of the package. Like all Sentry designs, the 100EL offers uncompromised accuracy. So you can be certain of quality sound.

The Sentry 100EL - with the power to make your job easier. For more information, write Electro-Voice, Inc., 600 Cecil Street, Buchanan, MI 49107.



EV Electro-Voice®
SOUND IN ACTION™

Circle 165 on Reader Service Card

RUPERT NEVE, INC. ✓

Berkshire Industrial Park, Bethel, CT 06801
203 744-6230

Portable, mono & stereo studio, audio-for-TV
consoles; console automation; video inter-
face for consoles. ALC & AGC amps; AM &
FM limiter/compressors. Audio DAs.

Field Office:

CA B. Morgan Martin, 7533 Sunset Blvd.,
Hollywood 90046 213 874-8124
See listing in Rep section

NEW ENGLAND SATELLITE SYSTEMS

45 Drury Lane, Worcester, MA 01609
617 757-2531

Transportable satellite earth station rentals;
site surveys; permanent installation services.



NEWTON ELECTRONICS ✓

340 E. Middlefield Rd., Mountain View, CA
94043
415-967-1473

Video sync & color bar generators. Video test
signal generators. Demodulators, RF test
signal generators.

NEXUS PRODUCTIONS ✓

10 E. 40 St., New York, NY 10016
212 679-2180

Video post-production facilities.

NISUS VIDEO ✓

6329 Lomas Blvd. NE, Albuquerque, NM
87110

505 268-4587

Lightweight (13 mm tube), single-tube &
CCD ENG cameras retrofitted with adjust-
able rotary shutters.

NORDIC SOFTWARE ✓

4910 Dudley St., Lincoln, NE 68504
800 228-0417

Media Master radio business automation
hardware & software package.

NORPAK CORP.

10 Hearst Way, Kanata, ONT, Canada K2L
2P4

613 592-4164

Videotex & teletext transmitting & receiving
equipment.

NORTH AMERICAN PHILIPS LIGHTING ✓

1 Westinghouse Plaza, Bloomfield, NJ
07003

201 429-3000

Lamps, HMI & CSI fixtures, quartz fixtures,
cyc lighting.

NORTHEAST PRODUCTIONS/ NEP ✓

Wilkes-Barre/Scranton Airport, Avoca, PA
18641

800 233-4777/in PA 717 824-6666

Mobile production facilities rental; video
post-production facilities; satellite uplinking
& downlinking facilities.

Field Offices:

NY Howard Rogers, NEP Sharpshooters,
Inc., 56 W. 45 St., New York 10036 . .
212 823-1100

PA Chester Sawicki, Northeast Satellites
Div., Scranton 717 826-1616

NORTHWEST TELEPRODUCTIONS ✓

4455 W. 77 St., Minneapolis, MN 55435
612 835-4455

Video production & post-production facili-
ties; mobile production facilities rental.

NORTH WIND POWER CO. ✓

Box 556, Moretown, VT 05660

802 496-2955

Wind energy systems. Lead-acid batteries &
chargers, generators, inverters & convert-
ers. Towers.

NORTRONICS CO. ✓

8101 10 Ave. N., Minneapolis, MN 55427
612 540-0401

Replacement audio heads. Audio & video
head cleaners & degaussers, alignment &
tension gauges. Audio test tapes & leaders.
Videotape cleaners & evaluators, audio &
videotape erasers & degaussers.

N.O.V.A. CORP. ✓

5801 Uplander Way, Culver City, CA 90230
213 641-2046

Videotape cleaners, evaluators.

NOVA SYSTEMS ✓

20 Tower Lane, Avon, CT 06001
203 677-5252

TBCs.

A SURE CURE FOR FLASHOVER



electrically transparent *Phillystran*[®] TOWER GUYS

Phillystran is now protecting more than a thousand broadcast
towers preventing white-noise arcing across ceramic insulators
(they aren't required) eliminating problems with on-off cycling
due to static discharge on steel guys.

With Phillystran HPTG, tower-guy maintenance and costly re-guying
are problems of the past.

For all the Facts—including "Electrical and Mechanical Analysis of
Synthetic Tower Guys"—call/write

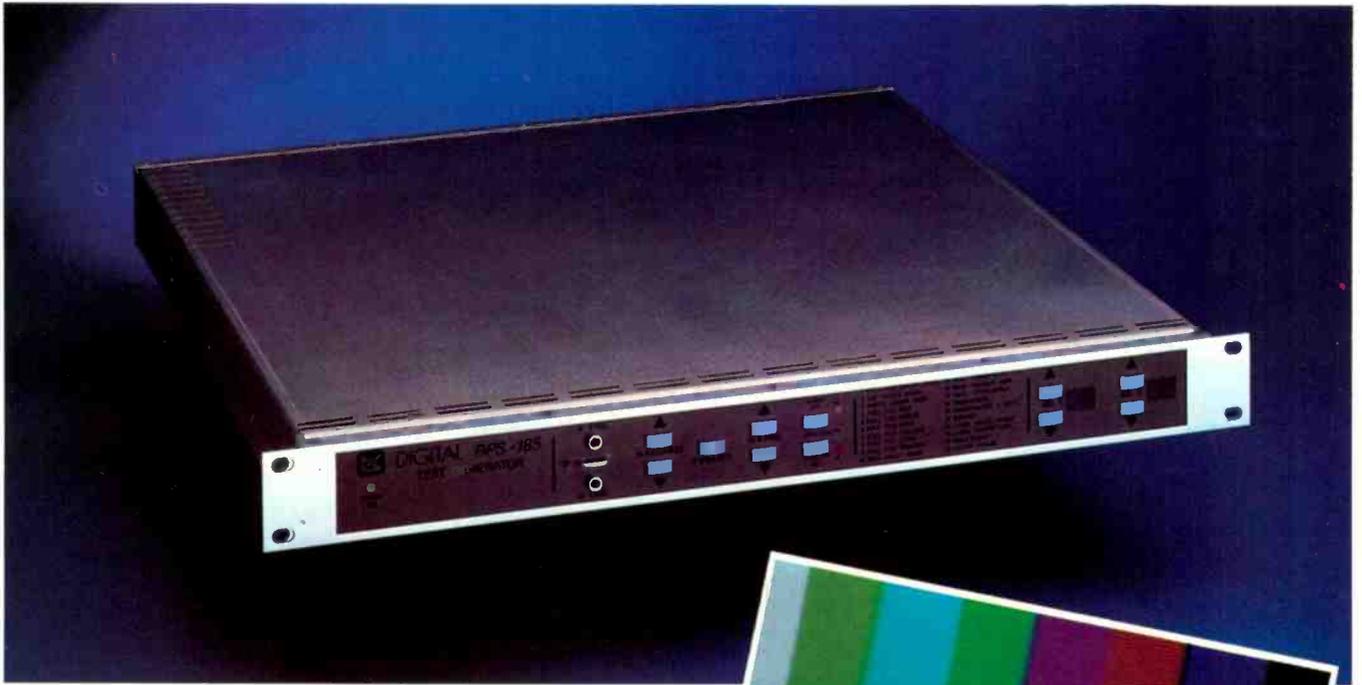


Phillystran[®]

UNITED ROPEWORKS (U.S.A.) INC.
20 COMMERCE DRIVE, P.O. BOX 306
MONTGOMERYVILLE, PA 18936 U.S.A.
(215) 368-6611 TELEX: 846342

Circle 166 on Reader Service Card

DPS-185



The test generator that's making waves for DVS

Digital Video Systems' DPS-185, test generator features thirty two test signals, as well as six standard sync drives plus black burst signal.

These thirty two selectable signals are available on two independent, buffered output. Its seven segment, digital display allows for easy recognition of the signals being generated. This rugged, compact, lightweight test generator was designed to ensure simplification of maintenance, alignment, and service procedures.

Features:

- Thirty two test signals
- Two independent outputs
- Seven auxiliary outputs
- Genlockable
- One dedicated colour black output
- RS-170A specs.

Digital Video Systems Corp.
120 Middlefield Road,
Scarborough, Ontario
Canada M1S 4M6

(416) 299-6888 Telex: 065-25344



DIGITAL

a subsidiary of Scientific-Atlanta

N-PRO

10022 Hazelwood Dr., Oregon City, OR 97045
503 656-5500
Hydraulic ENG vehicle masts.

NTI AMERICA

1680 N. Vine St. #202, Los Angeles, CA 90028
213 462-8945
Digital video test signal generators. Video color time coder. Digital still store.

FRED A. NUDD CORP.

Box 475, 1743 Rte. 104, Ontario, NY 14519
315 524-2531
Tower masts, rigging, hardware; Hughey/Phillips tower lighting. Tower installation, repair & modification.

NURAD

2165 Druid Park Dr., Baltimore, MD 21211
301 462-1700
Microwave systems: intercity, portable ENG, Super Pod airborne, central receivers. Silhouette TV CP antennas. STLs, TSLs. Remote pickup equipment.

NYTONE ELECTRONICS

2424 S. 900 West, Salt Lake City, UT 84119
801 973-4090
Flying spot scanner (slide-to-video), optical multiplexers, telecine color correctors.

N-Z VIDEO SYSTEMS

513 Greer Ave., Sikeston, MO 63801
314 471-7145
Facilities design & engineering services; mobile vehicle construction.

OAK COMMUNICATIONS

16935 W. Bernardo Dr., Rancho Bernardo, CA 92127
619 485-9300
Decoders, converters & addressable systems for STV, PTV & CATV.

O'CONNOR ENGINEERING LABS

100 Kalmus Dr., Costa Mesa, CA 92626
714 979-3993
Tripods, heads, Hydroped pedestals, dollies.

ODETICS

1515 S. Manchester, Anaheim, CA 92802
714 774-5000
Digital audio recorders. Cassette player/recorders, duplicators. Replacement audio heads. Cassettes. Bulk erasers. Dynamic & condenser mics, mic booms. Videocassettes. Digital clocks, master/slave clocks, timers.

OKI TELECOM

1 University Pl., Hackensack, NJ 07601
201 646-0011
Digital standards converters.

OKTEL CORP.

490 Division St., Campbell CA 95008
408 374-5165
Digital still stores, magnetic disc recorders.

OLD DOMINION BROADCAST ENGINEERING SVCE.

1101 Front St., Richmond, VA 23222
804 321-4506
Audio noise reduction. Telco interface equipment. Custom transmitter remote control systems. Wideband audio remote pickup equipment.

OLESEN

1535 Ivar Ave., Hollywood, CA 90028
213 461-4631
Lamps, lighting fixtures, diffusion & efx material, lighting stands, lighting control boards, dimmer packs. Ac cables & connectors.

OMICRON VIDEO

9700 Owensmouth Ave., Chatsworth, CA 91311
818 700-0742
Compact studio/mobile production switchers; post-production switchers. Colorizers. RGB chromakeyers, title keyers, downstream keyers, nonadditive keyers. Manual master control switchers. Parallel interface video routing switchers. Sync, black burst & color bar generators. NTSC encoders, video/cable equalizers. Pulse amps, subcarrier amps. Audio line amps, audio & video DAs, audio routing switchers.
Field Office:
CA 22251 Roscoe Blvd., Canoga Park 91304 818 888-2167

OMNIMOUNT SYSTEMS

10850 Van Owen St., N. Hollywood, CA 91605
213 766-9000
Audio/video equipment mounting assemblies; cable connectors.



NEW SCHNEIDER LENSES...

...Continuing a tradition of quality and reliability.



The Schneider tradition continues with two lenses that excel in their specific environments.

One is ideal for the studio, the new Schneider 14.5X wide-angle lens. It combines excellent color correction, minimum distortion and overall superior optical performance.

The other, the 14X ENG/EPF lens, has earned its well deserved reputation as a superb performer in electronic news gathering and field production. It is available with an add-on super-wide aspheric attachment and a full selection of EPF accessories.

Contact us for a demonstration.

SCHNEIDER CORPORATION OF AMERICA
400 Crossways Park Drive, Woodbury, NY 11797; (516) 496-8500. TLX: 960102

Jos. Schneider Optische Werke Kreuznach GmbH & Co. KG
PO Box 947, D-6550 Bad Kreuznach, Fed. Rep. of Germany ☎ (0671) 6010 TLX: 42800

IMAGINE MAKING A MILLION DOLLAR DECISION RIGHT NOW

How do you decide on a brand new, high power television transmitter that costs nearly \$1 million?

It isn't easy. Especially when you have to live with that decision for the next decade. And maybe longer.

At NEC, we've been manufacturing and installing television transmitters for nearly 30 years. So we've signed on more than 1,400 systems in every corner of the world.

Now, we'd like to introduce you to two more...

The first, PCN-1400 Series VHF Transmitters, includes a powerful new one tube 35 kw system, available in the U.S. for the first time.

All our new V's give you 50% improvement in MTBF (now 30,000 hours). With 30% fewer exciter parts to repair and replace. And stereo without modification. They're 100% solid-state up to 10 kw, and only one tube to 35 kw.

Up the dial, you'll find our 4th and most futuristic generation of IF modulated UHF transmitters.

The PCU-900 Series.

These new U's range from 10 kw to 120 kw, with maximum output power to 240 kw (parallel running). And feature new, high efficiency Amperex or EEV Klystrons. To cut your power consumption, maintenance, and replacement costs.

So, why fret and fuss? Just call NEC for expert advice on some of the world's most advanced, most reliable UHF and VHF transmitters.

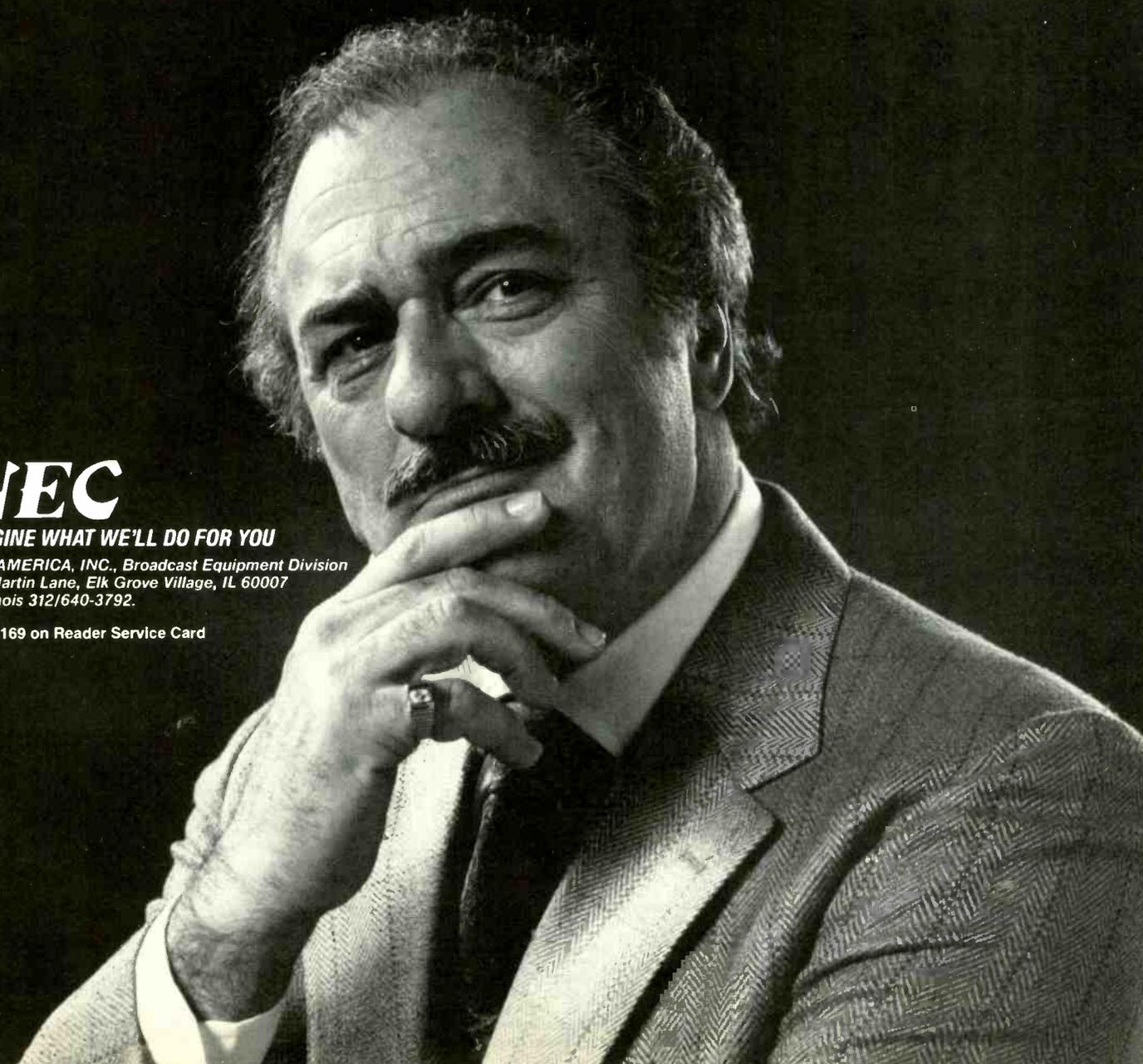
For more information, call Joe Engle toll free at 1-800-323-6656.

NEC

IMAGINE WHAT WE'LL DO FOR YOU

NEC AMERICA, INC., Broadcast Equipment Division
130 Martin Lane, Elk Grove Village, IL 60007
In Illinois 312/640-3792.

Circle 169 on Reader Service Card



OMNIMUSIC

52 Main St., Port Washington, NY 11050
516 883-0121

Recording studios; music libraries; original music scores.

ONE PASS FILM & VIDEO

1 China Basin Bldg., San Francisco, CA 94107
415 777-5777

Video production & post-production facilities; mobile production facilities rental; audio post-production facilities; equipment rental services.

OPAMP LABS

1033 N. Sycamore Ave., Los Angeles, CA 90038
213 934-3566

Portable, mono studio & audio-for-TV con-

soles. ALC & AGC amps, graphic equalizers, audio noise reduction. Preamps, line amps, monitor/power amps, amp power supplies. Audio & video DAs. Audio routing switchers. Rotary & slide attenuators, VU meters. Pulse amps.

OPRYLAND PRODUCTIONS

2806 Opryland Dr., Nashville, TN 37214
615 242-2483

Video production & post-production facilities; mobile production facilities rental.

OPTIMA ENCLOSURES, DIV. SCIENTIFIC-ATLANTA

2166 Mountain Industrial Blvd., Tucker, GA 30084
404 939-6340

Racks, equipment enclosures, cabinets.

URBAN ASSOCIATES

645 Bryant St., San Francisco, CA 94107
415 957-1067

ALC & AGC amps; Optimod AM & FM compressor/limiters; parametric & graphic equalizers. Analog efx, reverb. Stereo synthesizers. Stereo generators for FM & TV. Optimod TV audio processor.

See ad on pg. 145

ALLEN OSBORNE ASSOC.

756 Lakefield Rd. Bldg. J, Westlake Village, CA 91361

805 495-8420

Hilomast telescoping microwave masts.

See ad on pg. 188

OSMOND STUDIOS

1240 E. 800 North, Orem, UT 84057
801 224-4444

Scenery construction, scenery rigging. Video production & post-production facilities; recording studios; audio post-production facilities; equipment rental services; set/studio design services.

OSRAM CORP.

Box 7062, Jeanne Dr., Newburgh, NY 12550
914 564-6300

HMI lamps & lighting fixtures.

OTARI CORP.

2 Davis Dr., Belmont CA 94002
415 592-8311

Portable, two-/four-track studio & multitrack open-reel ATRs. Tape duplicators. Replacement audio heads. SMPTE time code synchronizers.

See listing in Rep section

PACIFIC COAST VIDEO

635 1/2 Chapala, Santa Barbara, CA 93101
805 965-5015/213 876-3503

Video production & post-production facilities.

PACIFIC POWER SOURCE CO.

15122 Bolsa Chica St., Huntington Beach, CA 92649

800 854-2433/in CA 800 472-8465

Solid state ac power systems; uninterruptible ac power systems.

See listing in Rep section

PACIFIC RECORDERS & ENGINEERING

2070 Las Palmas Drive, Carlsbad, CA 92008
619 438-3911

Newsmixer portable audio consoles. BMX & AMX mono studio consoles; ABX stereo studio consoles. Tomcat & Micromax single-deck cart player/recorders. Cartcue tape loaders, timers & rewinders. AM & FM compressor/limiters. Hardwired intercom systems. Preamps, line amps, amp power supplies. Audio DAs, NTP audio routing switchers, telco interface equipment. VU & PPM meters. Cabinets, studio consoles, equipment racks, cart/tape storage. Clocks, timers. Facilities design & engineering services; set/studio design consultants; engineering consultants.

#1 in the Broadcast Industry

PESCHEL AUTOMATIC VOLTAGE REGULATOR

HERE'S WHY:

- Highest Efficiency
- Reliability & Serviceability
- Compact, lightweight design
- Dry type, convection cooled
- Individual phase control
- Transient Suppression
- Regulator bypass switch
- Loss of phase, overvoltage protection
- Reduced voltage turn on



Open Letter to the Broadcast Industry

After five years of manufacturing regulators, Hipotronics has captured nearly 100% of the broadcast market in applications above 50 kVA. We have concentrated on this industry and it shows. Almost all transmitter manufacturers (especially in UHF) now resell our regulators with their transmitters, and many stations have chosen our regulators as well. We are always the sole regulator exhibitor at the NAB convention.

We are committed to the broadcast industry and to providing the best possible voltage regulator with the features you have asked for. If you are already a customer, thank you. If not, let us help you with your power requirements. I look forward to talking with you soon.

Sincerely,

Michael T. Peschel
Product Mgr. & Engineer
PAVR



FOR LITERATURE WRITE
ON COMPANY LETTERHEAD
TO: HIPOTRONICS, INC., RT 22
BREWSTER, NEW YORK 10509
OR CALL: 914-279-8091

 Wheatstone Broadcast Group

High Quality Stereo is Here

WHEATSTONE CORPORATION is committed to the design and manufacture of high technology audio consoles. If you're considering a new console, contact the Wheatstone Broadcast Group.

- Stereo Production
- Editing
- Transfer
- On-Air
- Video Truck

Circle 171 on Reader Service Card



PACIFIC VIDEO

809 N. Cahuenga Blvd., Los Angeles, CA 90038
213 462-6266

Video & audio post-production facilities; videodisc mastering services; graphics production.

PACKAGED LIGHTING SYSTEMS

Box 285, Grant and Elm Sts., Walden, NY 12586
914 778-3515

Lamps, quartz fixtures, cyc lighting, diffusion & efx material, lighting stands & rigging, Stage-Master lighting control boards & dimmer packs. Lighting equipment racks.

 **MEANS
IT'S VERIFIED**

PACO ELECTRONICS U.S.A.

714 W. Olympic Blvd., #706, Los Angeles, CA 90015

213 747-6540

Nicad batteries, chargers.

See ad on pg. 160

W.A. PALMER FILMS

1475 Old Country Rd., Belmont, CA 94002
415 592-9170

Video/film recording camera; 16 mm interlock projector. Video & audio post-production facilities; music libraries; film laboratories.

PALTEX

2752 Walnut Ave., Tustin, CA 92680
714 838-8833

Time code synchronizers, two-machine editor/controllers, A/B roll editors, Esprit & Edit-Star multisource editors. Gemini TBCs, field synchronizers, field/framestores, video multiprocessors.

PANASONIC

1 Panasonic Way, Secaucus, NJ 07094
201 348-7000

Cameras: field, ENG, single-tube color, CCD color, Recam recorder/cameras, lenses. 3/4-inch U, M-format, VHS VCRs. 3/4-inch & half-inch videocassettes. Optical disc recorders. Titlers, subtitles; character generator/graphics systems. Portable & compact studio/mobile production switchers. Title keyers. Two-machine editor/controllers. Monochrome, NTSC, RGB, high resolution, battery-powered portable video monitors; video projectors.

See ad on pg. 29

PANASONIC PRO AUDIO

See RAMSA, TECHNICS

PANAVISION

18618 Oxnard St., Tarzana, CA 91356
818 881-1702

16 mm cine cameras; Panacam electronic cinematography camera. Camera lenses.

PARSONS MFG. CORP.

1055 O'Brien Dr., Menlo Park, CA 94025
415 324-4726/800 221-0823

Transporter line of foam insert & rack configuration transportation cases.

Field Office:

CA 9682 Telstar Ave. #104, El Monte 91731 818 443-3277

PATCH BAY DESIGNATION CO.

Box 6278, 4742 San Fernando Rd., Glendale, CA 91205

818 241-5585

PatchPrints custom labels for patch bays, control panels, mixers, etc.

PD MAGNETICS

600 Heron Dr., Pureland Industrial Complex, Bridgeport, NJ 08014

609 467-2500/800 922-0555

Audio cassettes. Half-inch videocassettes.

PEAK AUDIO

3107 Bedlington Pl., Holland, PA 18966
215 860-0303

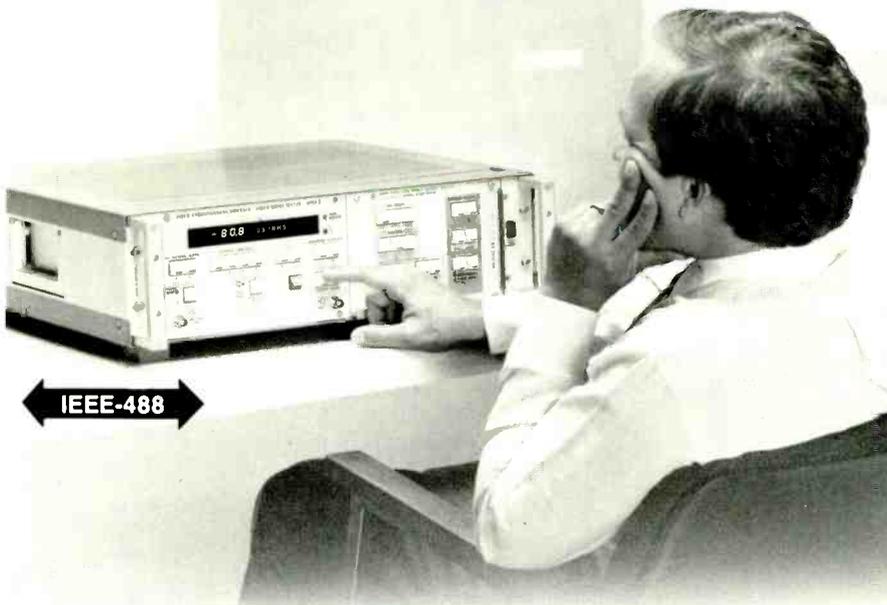
Timesaver audio tape loaders, timers, rewinders. Economist, Perfectionist audio preamps.

PEGASUS SYSTEMS

100 Stonehurst Ct., Northvale, NJ 07647
201 767-1000

Pegasus commercial compilation system.

Relax...



Noise Measurements Made Easily and Accurately!

The Rohde & Schwarz full capability Model UPSF2 Video Noise Meter (40 Hz to 10 MHz) takes all the trouble out of making TV transmission noise voltage measurements.

- Weighted or unweighted measurements.
- Free choice of test point, any line or full field.
- Measurement of true rms and peak values.

- Auto switchover to 625-line or 525-line systems.
- Autoranging over 80 dB.
- Chroma noise measurements (AM and PM components).
- Conformance to both IEEE and IEC standards.

*Relax...and
Send for our '85/86
Sound & TV
Broadcasting
Catalog.*



ROHDE & SCHWARZ
polarad

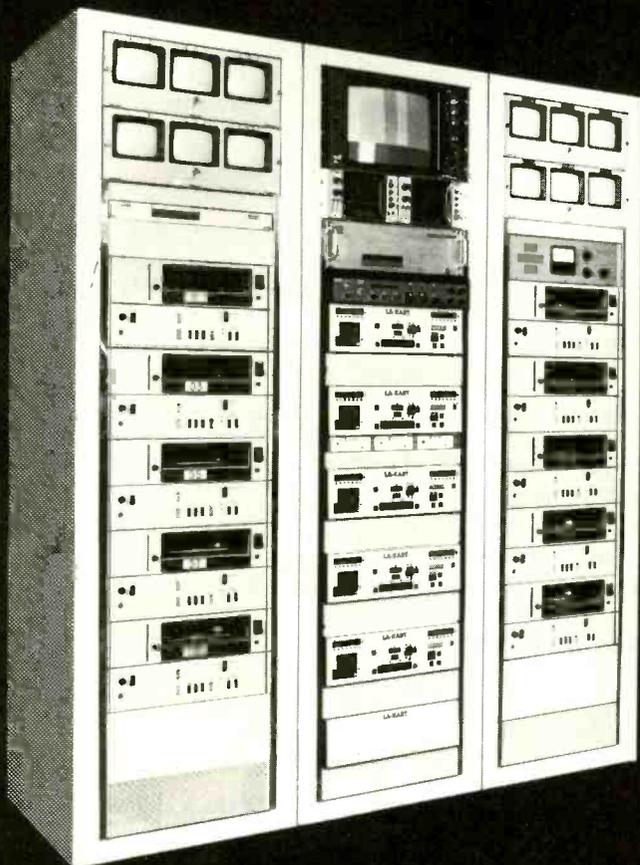
13 Nevada Drive, Lake Success, NY 11042
(516) 488-7300 • Telex 96-0072



Circle 172 on Reader Service Card

DO A VIDEO CART COMPARISON BEFORE YOU BUY

Check all LA-KART's features below—
then check our competition.
We're sure you'll choose LA-KART.



SMFTE Time Code
Modular Construction
Stereo
Bilingual
Delay System
68,000 Microprocessor
Automatic Directory Reading
Disc Drive
Manual or Automatic
Compatible with Columbine
Connects to Master Control
Component Switching & Processing
Printout
70 Individual Segments on Each Tape
1000 Events
Random Access
Touch Terminal Screen
1/2" Type M
1/2" Type Beta
3/4" U-matic
Redundant
Custom Station Design & Software
Available for Immediate Delivery
Complete Turnkey Capabilities

LA-KART[®]
LAKE SYSTEMS CORPORATION

The Leader in Video Cart Systems

Lake Systems Corporation, 55 Chapel Street, Newton, MA 02160 617 244-6881 TWX: 710 335-1639

Circle 173 on Reader Service Card

PEIRCE-PHELPS

2000 N. 59 St., Philadelphia, PA 19131
215 879-7171

Facilities design & engineering services; mobile vehicle construction; turnkey television systems.

Field Offices:

CA Phil Gantt, 3000 W. MacArthur Blvd., Santa Ana 92704 714 556-4478
MD Fred Bergstrasser, 12288 Wilkins Ave., Rockville 20852 301 984-7979
PA Hal Morrison, 490 St. John's Church Rd., Camp Hill 17011 . . 717 761-0240

PENNY & GILES

1640 Fifth St. #224, Santa Monica, CA 90401

213 393-0014

Rotary & slide attenuators. Joystick controllers.

PENTAGON INDUSTRIES

5115 N. Sheridan Rd., Chicago, IL 60640
312 271-8300

Audio cassette player/recorders, changers & duplicators. Alignment gauges, tape rewinders.

PEP

25 W. 54 St., New York, NY 10019
212 246-2490

Nicad batteries & chargers, ac adapters. VHS interface for Sony editors. Frezzi On-Cam VTR system.

PERROTT ENGINEERING LABS

7201 Lee Hwy., Falls Church, VA 22046
703 532-0700

Nicad, silver-zinc & lead-acid batteries, chargers; ac power supplies. Lamps. Power supply repair & service.

See ad on pg 50

PESA AMERICA

6073 N.W. 167 St., Unit C4, Miami, FL 33015
305 556-9638

Audio DAs. Character generator/graphics systems. Compact studio/mobile production switchers. Video routing switchers. Sync generators. Pulse amps. UHF & VHF low-power transmitters, translators.

PETERS PRODUCTIONS

9590 Chesapeake Dr., San Diego, CA 92123
619 565-8511

Audio post-production facilities; recording studios; promotions & advertising services.

PHILADELPHIA RESINS

See UNITED ROPEWORKS

PHILIPS TELEVISION SYSTEMS

900 Corporate Dr., Mahwah, NJ 07430
201 529-1550

CD/DAD players. Monitor speakers. Studio, field & ENG cameras; recorder/cameras. Quarter-inch VCRs. Sync generators. FM, VHF & UHF transmitters. FM & TV exciters. RF amplifiers. FM SCA equipment. Mobile vehicle construction.

Field Offices:

CA Michael W. Hartt, 3760 Cahuenga Blvd. W., N. Hollywood 91604 818 766-8184
MD Robert Mahoney, 801 Howard Grove Rd., Davidsonville 21035 301 956-3065/6
MN Jeffrey N. Clarine, 15611 Fish Point Rd., Prior Lake 55372 612 447-6036
TX Michael J. Mackin, Rte. 2, 801 E. Woodglen, Lewisville 75067 . . . 817 455-2249

PHILIPS TEST & MEASURING INSTRUMENTS

85 McKee Dr., Mahwah, NJ 07430
201 529-3800/800 631-7172

Sync & color bar generators. Color analyzers. VITS inserters & generators; pattern generators; sync/component video generators. Frequency counters; IF & RF modulators. Waveform monitors, vectorscopes, automatic VITS analyzers. Demodulators. Oscilloscopes, logic analyzers.

Field Office:

CA 12882 Valley View St. #9, Garden Grove 92645 213 594-8741/714 898-5000

THE PHOEBUS CORP.

2800 Third St., San Francisco, CA 94107
415 550-1177

HMI & quartz lighting fixtures.

PHOTO AND VIDEO ELECTRONICS

1620 Hillside Ave., New Hyde Park, NY 11040

516 328-6606

Pave Perispheric wide-angle macro lens. Liesegang 35 mm slide projectors.

THIS IS NO TIME TO CHANGE BATTERIES IN YOUR WIRELESS MICROPHONE.



You've been there.

The once-in-a-lifetime shot missed because of a dead battery. The shoot with the half-day setup, botched by dropouts. Critical takes whose reshoots took you over budget. All in all, wireless often did a lot more to you than for you.

But that was before Sennheiser.

Now, the name you trust most in condenser and dynamic microphones is the one to count on for wireless. With a new family of subminiature body pac UHF and VHF transmitters and receivers.

Like all Sennheisers, they're technologically in a class by themselves. With sophisticated circuitry including a DC-to-DC converter for longer, more consistent performance on standard AAA cells. So

you change batteries less often, while you enjoy cleaner, crisper, dropout-free performance.

But there's a lot more. Sennheisers are the smallest transmitters—and receivers—on the market. They're incredibly easy to use. They combine light weight with outstanding ruggedness (in fact, you can stand on them without breaking them). And that's still only the beginning.

But don't take our word for it. Bring your eyes and ears to a Sennheiser dealer for a demonstration. Or contact us for more information. You owe it to your reputation.

 **SENNHEISER®**

Sennheiser Electronic Corporation (N.Y.)
48 West 38th Street • New York, NY 10018 • (212) 944-9440
Manufacturing Plant: D-3002 Wedemark, West Germany
© 1985, Sennheiser Electronic Corporation (N.Y.)

Circle 174 on Reader Service Card

TEK'S NEW 1710B: THE BRIGHTEST IDEA IN WAVEFORM MONITORING.

**One-of-a-kind capability
in a new waveform monitor
that's easy to use and afford!**

The Tek 1710B has all the essentials for reliable, consistent monitoring of your video signal. For example, it includes the first-ever burst phase indicator found in a waveform monitor. This special new color display indicates if burst is properly set: a green light means it's right!

**Operating simplicity
anyone will appreciate.** The

front panel controls of the 1710B are logically grouped and labeled for fast, easy handling. And the high quality Tektronix CRT offers a sharp, bright trace so it's easy to see.

You get outstanding versatility and Tek quality in a convenient, compact package that fits in half a rack. DC power operation can be installed and used with a battery pack for fully portable operation in the field.

**If you see a place for a
cost-effective waveform
monitor in your operation,
you owe it to yourself to see
the 1710B.** Available in both NTSC and PAL versions, the 1710B is our most economical answer yet to improving picture quality through video waveform monitoring.

For a look, contact a Tektronix Professional Video Dealer, or your local Tektronix Sales Engineer, listed in major-city directories.



BEHIND THE SCENES
IN QUALITY TELEVISION

Tektronix
COMMITTED TO EXCELLENCE

PIHER
See PESA AMERICA

PINZONE COMMUNICATIONS PRODUCTS

Box 540, Newbury, OH 44065
304 296-4493

TCR-100 refurbishing, rebuilding; TCR-100 diagnostics computer. VIMCAS vertical interval multichannel audio system. Transmit/receive, receive-only & transportable satellite earth stations; upconverters, downconverters; Dexcel LNAs. Cablewave rigid, foam dielectric & coaxial transmission line, power dividers

PLASTIC REEL CORP. OF AMERICA

Brisbin Ave., Lyndhurst, NJ 07071
201 933-5100

Plio-Magic empty audio & videotape reels, carts, cases. Moduline equipment racks.

Field Offices:

CA 8140 Webb Ave., N. Hollywood 91605
213 504-0400
IL 65 E. Illinois St., Chicago 60611 312 541-6464

POLARAD ELECTRONICS
See ROHDE & SCHWARZ

CONSTANTINE N. POLITES & CO.

833 Guenther Ave., Yeadon, PA 19050
215 626-4643
Scaffolding couplers for lighting grids.

POLYCOM TELEPRODUCTION

201 E. Erie St., Chicago, IL 60611
312 337-6000

Video production & post-production facilities, mobile production facilities rental.

POLYLINE CORP.

1233 Rand Rd., Des Plaines, IL 60016
312 298-5300

Open-reel audio tape, carts, cassettes, sprocketed mag film, test tapes & leaders, empty reels & carts, tape cleaners & evaluators, erasers & degaussers. Distributor of videotape.

PORTABLE ENERGY PRODUCTS

1875 S. Pearl St., Denver, CO 80210
303 778-8616

Nicad & sealed lead-acid batteries, chargers.

PORTA-BRACE/K&H PRODUCTS

Box 246, N. Bennington, VT 05257
802 442-9118

ENG equipment carts; recorder cases; padded nylon camera cases; camera rain covers; production cases.

PORTA-PATTERN

Box 38945, 750 N. Highland Ave., Los Angeles, CA 90038
213 461-3561

Video test charts, slides, films, transparencies.

POSITIVE VIDEO/SAN CARLOS

1250 San Carlos Ave., San Carlos, CA 94070
415 595-4041

Video post-production facilities.

Field Office:

CA 15 Altarinda Rd., Orinda 94563 415 254-3902

THE POST GROUP

6335 Homewood Ave., Hollywood, CA 90028
213 462-2300

Video post-production facilities.

POTOMAC INSTRUMENTS

932 Philadelphia Ave., Silver Springs, MD 20910

301 589-2662

Modulation & power controllers. Transmitter remote control systems. Audio test signal generators, harmonic distortion meters, IM meters, wow & flutter meters. Demodulators, antenna monitors, field intensity meters, RF test signal generators, phase meters, audio program analyzer. Data acquisition & logging system.

See ad on pg. 174

POWERPAK SYSTEMS

1200 Everman Pky, Ft. Worth, TX 76140
817 293-1761

FM exciters, stereo generators. RF amps. Transmitter remote control systems. FM SCA equipment.

PRECISION ECHO

See DRS



Video Delay Lines

ALLEN AVIONICS Video & Pulse Delay Lines replace 75 ohm coaxial cable, provide a more suitable method of achieving precise short delays. The units reduce size, weight, installation costs, save time & effort in making delay changes.

Part No.	Delay Range (Nano-Sec.)	Delay Steps (Nano-Sec.)	Method of Variation	Maximum Insertion Loss (at 100 KHz) (db)	Amplitude Flatness At Any Delay Setting 100 KHz to 5.5 MHz (db)	Max. Rise Time (Nano-Sec.)	Package Size (Inches)
VAR005	3-7	Continuous	Trimmer	.20	.2 Max.	N.A.	3 3/8 x 1 1/2 x 1 1/4
VAR011	0-11	Continuous	Trimmer & Toggle	.20	.25	N.A.	4 3/8 x 2 3/8 x 1 1/16
VAR256	0-256	Continuous	Trimmer & Toggle	.15	.4	18	4 3/8 x 2 3/8 x 1 1/16
VP0010	0-10.5	.5	Toggle	.15	.2	3	4 3/8 x 2 3/8 x 1 1/16
VP0127	0-127	1.0	Toggle	.15	.3	14	4 3/8 x 2 3/8 x 1 1/16
VP0255	0-255	1.0	Toggle	.15	.3	16	4 3/8 x 2 3/8 x 1 1/16
VP0317	0-317.5	2.5	Toggle	.15	.3	20	4 3/8 x 2 3/8 x 1 1/16
VP0635	0-635	5.0	Toggle	.50	.4	25	4 1/16 x 3 1/16 x 2 1/16
VP1100	0-1100	10.0	Rotary	1.25	.4	30	4 1/16 x 3 1/16 x 2 1/16
VP1270	0-1270	10.0	Toggle	*3.00	.4	30	4 1/16 x 3 1/16 x 2 1/16
VP2075	0-2075	25.0	Toggle	*3.00	.5	40	7 3/8 x 4 1/16 x 2 3/16
VS0315	0-315	5.0	Strap	.25	.4	28	4 x 2 x 1 1/4
VS0635	0-635	5.0	Strap	.60	.5	33	5 x 2 x 1 1/4
VS1275	0-1275	5.0	Strap	1.25	.5	33	5 x 3 x 1 1/4
VS2075	0-2075	25.0	Strap	2.50	.5	40	6 1/2 x 3 1/2 x 2

RACK MOUNTABLE UNITS

VRM0255	0-255	1.0	Slide Switch	.40	.4 Max.	20	1 1/4 x 4 1/8 x 4
VRM0637	0-637.5	2.5	Slide Switch	*1.00	.4	28	1 1/4 x 4 1/8 x 6
VRM1275	0-1275	5.0	Slide Switch	*3.00	.4	33	1 1/4 x 4 1/8 x 9
VRM2270	0-2270	10.0	Slide Switch	*3.00	.5	40	1 1/4 x 4 1/8 x 9
VRS0317	0-317.5	2.5	Strap	.40	.5	26	1 1/4 x 4 1/8 x 4
VRS0635	0-635	5.0	Strap	.75	.5	35	1 1/4 x 4 1/8 x 6
VRS1270	0-1270	10.0	Strap	1.50	.5	37	1 1/4 x 4 1/8 x 9
VRS2260	0-2260	20.0	Strap	3.00	.5	40	1 1/4 x 4 1/8 x 9

*±.2db variation at any delay setting.



RACK MOUNTABLE VIDEO & PULSE DELAY LINES

A complete Rack Mountable series of Video & Pulse Delay Lines, with the capability of replacing up to 1450 feet of cable, is now being marketed by Allen Avionics. (See listing in table at left.)

Impedance: 75 ohms.

Pulse Distortion: Less than 4% with an input pulse rise time of 20 nanoseconds.

Working Voltage: 100 volts maximum. 50 volts maximum for Rack Mountable series.

Return Loss: 20db minimum. 15db minimum for VP2075, VS2075 and Rack Mountable series.

Delay Tolerance: 5% or 1 nanosecond, whichever is greater.

We also specialize in Delay Equalized Lowpass Filters for the Video Industry

CALL/WRITE For Delay Lines & Filters Catalog

ALLEN AVIONICS, INC.

224 EAST SECOND ST., MINEOLA, NY 11501
Phone: 516-248-8080

TELEVISION TECHNOLOGY CORPORATION



A good place for your RADIO station to look for equipment.

Television Technology has been manufacturing TV and FM Translators and Low Power Television Transmitters since 1967. In that time we have gained a reputation for simple and reliable designs that offer the highest level of performance available from existing component technology.

But, Television Technology Corporation is also a RADIO equipment company. Our Wilkinson Radio Division offers a complete line of FM Transmitters from 10 watts to 60 kilowatts, including the FM-3500J, 3.5 kilowatt FM transmitter, the first of a complete line of transmitters we think will change a lot of ideas about what's important in a broadcast transmitter. Wilkinson also offers simple, reliable AM Transmitters from 125 watts to 100 kilowatts.

Television Technology also offers a complete line of audio consoles, cartridge machines, and reel to reel decks made by our AMPRO/Scully Division.

So when you're looking at new equipment for your radio station, don't forget the television company that thinks a lot about radio, too.

TELEVISION TECHNOLOGY DIVISION – TV & FM Translators & LPTV

WILKINSON ELECTRONICS DIVISION – AM & FM Transmitters &
Line Surge Protectors

AMPRO/SCULLY DIVISION – Audio Consoles & Audio Tape Equipment

SATELLITE TECHNOLOGY DIVISION – Satellite Earth
Terminal Systems and Transmission Systems



Wilkinson Radio Division

2360 Industrial Lane
Broomfield, Colorado 80020
(303) 465-4141
TWX: 910-938-0396

Circle 177 on Reader Service Card

PRIME TIME POST
See CCR VIDEO

PROCART

7012 27 St. W., Tacoma, WA 98466
206 565-4546
Audio cartridges.

PRODELIN

Box 1729, Hickory, NC 28603
800 438-3331
Satellite antennas.

PROFESSIONAL PRODUCTS

4964 Fairmont Ave., Bethesda, MD 20814
301 657-2141
Facilities design & engineering services;
equipment distributor.

PROTECH AUDIO CORP.

Flowerfield Bldg. #1, St. James, NY 11780
516 584-5855
Mic mixers. Audio head cleaners, degausers.
ALC, AGC amps; AM & FM compressor/limiters.
Hardwired intercom systems. Preamps, line amps, monitor/
power amps; amp power supplies. Audio DAs,
audio routing switchers. Slide attenuators;
LED audio level displays. Audio transformers.

PROTON CORP.

737 W. Artesia Blvd., Compton, CA 90220
213 638-5151
Video off-line monitors.

PRO VIDEO, DIV. CINETAPE

801 N. La Brea Ave., Hollywood, CA 90038
213 934-8836
Video post-production facilities.

PTS CORP.

5233 S. Hwy. 37, Bloomington, IN 47401
812 824-9331
Repair of VCRs, satellite receivers, professional
tuners.

PYRAMID VIDEO

480 Natl. Press Bldg., Washington, DC 20045
202 783-5030
Video production & post-production facilities;
ENG production crews & equipment rentals;
video duplication services; satellite & microwave
transmission services, uplinking, downlinking,
telco transmit & receive.

QEI CORP.

Box D, Williamstown, NJ 08094
609 728-2020
FM transmitters. FM exciters, stereo generators.
Modulation monitors.
See listing in Rep section

QSC AUDIO PRODUCTS

1926 Placentia Ave., Costa Mesa, CA 92627
714 645-2540
ALC & AGC amps. Monitor/power amps.
See listing in Rep section

QSI SYSTEMS

12 Linscott Rd., Woburn, MA 01801
617 938-1403
Black burst, color bar & SID generators, video
slate board/countdown generators. Video DAs.
Demodulators. Tape-based loggers. Compact,
studio/mobile production switchers.
See listing in Rep section

Q-TV

104 E. 25 St., New York, NY 10010
212 460-9050
Teleprompters: monitor-based, scroll entry,
keyboard entry, ENG/EFP portable.

QUAD EIGHT/WESTREX

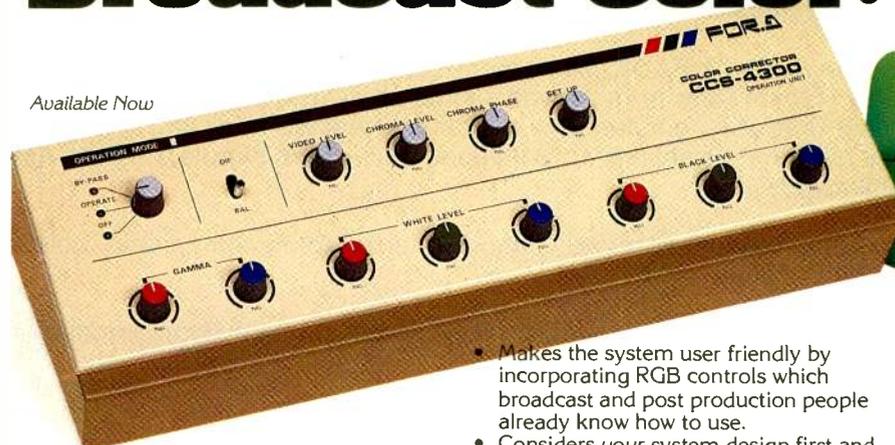
225 Parkside Dr., San Fernando, CA 91340
818 898-2341
Superstar stereo studio consoles, Westar
audio-for-TV consoles, Compumix console
automation. Westrex 16/35 mm magnetic
film dubbers; projectors.
Field Offices:
NY 555 W. 57 St. #1530, New York 10019
212 713-1600
TN 2200 Hillsboro Rd. #218, Nashville
37212 615 298-6613

QUALITY VIDEO SUPPLY

76 Frederick St., Hackensack, NJ 07602
201 488-8336
Distributor of video accessories.

Broadcast-Color: Correct

Available Now



Advanced color correction and video processing techniques are used in the new FOR-A CCS-4300 Color Corrector to solve a variety of color balance and level problems in on-line broadcast production, post production editing and duplication systems.

No compromise because FOR-A's design:

- Uses an exclusive technique to maintain the highest signal quality — check the specs!

- Makes the system user friendly by incorporating RGB controls which broadcast and post production people already know how to use.
- Considers your system design first and provides: a by-pass delay equal to the processing delay, burst phase and chroma controls, plus the capability for remote cables up to 1,000 feet — all insuring easy system integration.

The CCS-4300 is easy to use:

- Simple and independent adjustment of RGB Black and White balance and gamma correction.
- Full proc amp signal control
- Three operating modes: Correction-On, Correction-Off and By-Pass.

- Balanced and Differential correction modes.
- Presets for all controls

Plus the FOR-A performance edge with:

- 0.25 Differential Phase and 0.5% Differential Gain
- Full bandwidth well beyond 4.2 MHz
- Less than 1% K-Factor

Off color? Make it proper . . . professionally with the CCS-4300.



FOR-A CORPORATION OF AMERICA 49 Lexington St., Newton, MA 02165
East Coast: (617) 244-3223 West Coast: (213) 402-5391

THE IMPORTANCE OF MICROPHONE ACCURACY IN BROADCAST AUDIO

A distinctive voice remains as important to a successful broadcast announcer as a recognizable visual presence. Microphones are the critical first step in the broadcast audio chain. Acting as a highly accurate sound "lens," they must be sensitive enough to faithfully transmit all of the subtle personal nuances and inflections that distinguish one announcer's voice from another.

Today's sophisticated broadcast productions demand more from microphones. Differences in relative mic performance are more readily apparent, and an inferior microphone stands out like the proverbial sore thumb.

In the most basic sense, any microphone need only capture the sound source exactly and convert it to electrical energy — no more, no less. Obviously, microphones necessarily have different characteristics based on differing transduction technologies and designs. But at Beyer, we believe that the superiority of a microphone is in large part based on how accurately it transduces the source material — with no excuses based on

size or applications.

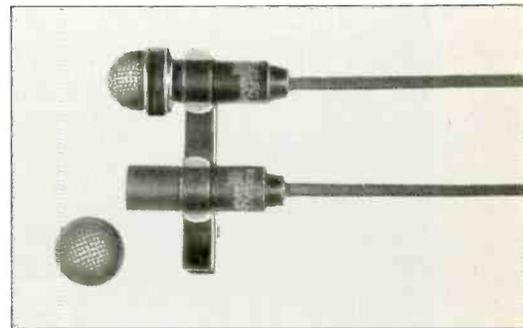
In broadcast, Beyer's concept of "accuracy" means the difference between a microphone that can focus in on a specific voice and produce a totally realistic, professionally acceptable performance, and a mic that simulates a performance by only capturing the bare outline or "silhouette" of an announcer's voice. We've dedicated the most complex and sophisticated technology in existence to reinforce the truth of this basic premise.

Sensitive and natural-sounding, the MCE5 picks up the "whole truth" of audio broadcast sound because of an unusually wide frequency range (20Hz to 20kHz) and exceptionally fast transient response for any mic, let alone one that is virtually invisible on camera. Because the MCE5 has a uniform omnidirectional pickup pattern, mic placement is not critical and the announcer's head can move without going "off mic." Handling noise is kept to an absolute minimum so the MCE5 picks up the voice, not the rustling sounds of the announcer's expensive silk tie.

The MCE5 is available in various terminations for the widest range of broadcast applications including wireless. Underscoring our longterm commitment to the broadcast industry, the MCE5 is one of a family of reliable Beyer broadcast products designed for ENG, EFP and Film/Radio/Video studio production. It has been widely adopted by discerning broadcast engineers in the U.S. and Europe.

For those engineers who feel that announcers' voices should be as recognizable as their faces, the Beyer MCE5 proves that this level of accuracy exists in a lavalier design.

Beyer Dynamic Inc., 5-05 Burns Avenue, Hicksville, NY 11801.



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ACCURACY IN AUDIO

beyerbroadcast 

QUANTA CORP. ✓

2440 S. Progress Dr., Salt Lake City, UT 84119
801 974-0992

Quantanews TV newsroom computers. Microgen titlers, subtitles; Quantafont character generator/graphics systems; Quanta-paint digital art/paint systems. Quanta Video Effects digital efx generators.

Field Offices:

CT Peter Glassberg, 57 North St. #207, Danbury 06810 203 797-1179
IL Brent Bullock, 866 Yorkshire Ln., Crystal Lake 60014 815 455-7000
OH Quanta Intl., 16006 Waterloo Rd., Cleveland 44110 216 692-3410
OK Mel Williams, 1535 S. Memorial Dr. #124, Tulsa 74112 918 627-4151
NC Roy Thomas, 3008 Morningside Dr., Raleigh 27607 919 781-8193

See listing in Rep section

See ad on pg. 111

QUANTE CORP. ✓

3350 Scott Blvd., Bldg. 15, Santa Clara, CA 95054

408 727-2077

Fiberoptic systems; audio & video encoders.

QUANTUM AUDIO LABS ✓

1909 Riverside Dr., Glendale, CA 91201
213 841-0970

Mono & stereo studio, audio-for-TV consoles.

QUICKSCAN SYSTEMS LTD. ✓

9465 Wilshire Blvd., Beverly Hills, CA 90212
213 876-6596

Stillframe video electronic publishing method (by license); video post-production facilities.

QUICK-SET ✓

3650 Woodhead Dr., Northbrook, IL 60062
312 498-0700

Tripods, heads, pedestals, dollies, remote pan/tilt systems.

RACAL-DECCA CANADA

71 Selby Rd., Brampton, Ont., Canada L6W 1K5

416 457-8720

Austin tower base & guy insulators. Austin transformers. Static drain resistors; special feed-through bushings.

RADIOCOM

335 E. 70 St., New York, NY 10021
212 794-9702

Computerized radio traffic & billing.

RADIO COMPUTING SERVICES

2 Overhill Rd., Scarsdale, NY 10583
914 723-8567

Radio business automation software.

RADIO SYNDICATION NETWORK

See REIMAN SYNDICATION

RADIO SYSTEMS ✓

5113 W. Chester Pike, Edgemont, PA 19028
215 356-4700

Stereo studio consoles. Preamps. Audio DAs. LED level displays. Studio furniture. Phase II low-power AM transmitter. Studio timers.

RADIOTECHNIQUES

402 Tenth Ave., Haddon Heights, NJ 08035
312 298-7980

Facilities design & engineering services; engineering consultants; earth station site selection.

RADMAR ✓

1263-13 Rand Rd., Des Plaines, IL 60016
312 298-7980

16 mm telecine projectors. Videotape duplication services.

RAINBO PRODUCTS ✓

410 N. River, Ypsilanti, MI 48197
313 482-6591

Lighting head assembly color changer; Horizon memory manual lighting controller.

RAM BROADCAST SYSTEMS ✓

346 W. Colfax, Palatine, IL 60067
312 358-3330

Audio facilities design & engineering services; engineering consultant. U.S. distributor for McCurdy Radio products.

"COLOR-INCIDENCE"



Model SCH-385

DEFINITION: the simultaneous occurrence of the same color-field on two separate video signals.

ETYMOLOGY: a term used to describe an important event for editing and special-effects.

APPLICATION: if you need to assure proper color-framing, in a simple and precise way, you need the model SCH-385!

Specify Sigma . . . for timing solutions



SIGMA ELECTRONICS INC.

1184 ENTERPRISE ROAD, P.O. BOX 448
EAST PETERSBURG, PA 17520-0448
(717) 569-2681

A TOUGH ACT TO FOLLOW

Genesis 1™ With ACT 1™ \$27,990



Genesis 1 ACT 1, Microtime's high quality, low-cost digital effects system increases creative capabilities to your imagination's limit. Create through self-prompting, icon-driven menus and instructions for sequences involving moves, freeze, flips, tumbles, posterize, shadow, variable aspect ratio, XY mosaic, strobe, and source change.

Genesis 1 ACT 1 offers:

- 3-Axis joystick control
- Keyframe creation of sequences
- Smooth curvilinear movement
- Frame accurate duration of a sequence
- Routing switcher interface for dual input switching when flipping and tumbling
- Three levels of sequence storage:
RAM, internal and portable

Genesis 1 ACT 1... A user-friendly digital effects system for your video productions. An ACT not to be missed at \$27,990.

 **MICROTIME**

A Subsidiary of ANDERSEN GROUP

Microtime, Inc.
1280 Blue Hills Avenue
Bloomfield, CT 06002 USA
Tel: (203) 242-4242
TWX: 710-425-1165

Northeast, Ray Bouchard (609) 896-3716
Central, David Everett (312) 934-9191
Southcentral, Steve Krant (214) 644-0232
Southeast, Jerry Rankin (404) 979-4437
Western, Daniel Sofie 1-800-243-1570

Genesis 1 and ACT 1 are trademarks of Microtime, Inc.

Circle 181 on Reader Service Card

RAMKO RESEARCH

11355A Folsom Blvd., Rancho Cordova, CA 91670

916 635-3600/800 821-2545

Mic mixers, portable audio consoles, DC Series mono & stereo studio consoles. Primus, Phasemaster single-deck cart player/recorders, Phasemaster real-time phase correcting cart player. AM compressor/limiters, audio noise reduction. Preamps, line amps, monitor/power amps. Audio DAs, audio routing switchers. VU, PPM & LED audio level displays.

See ad on pg. 140

RAMSA/PANASONIC PRO AUDIO

1 Panasonic Way, Secaucus, NJ 07094
201 348-7397

Mic mixers; portable, mono & stereo studio, audio-for-TV consoles. Modular console for post-production. Monitor speakers. Power amps.

RANGERTONE RESEARCH

115 Roosevelt Ave., Belville, NJ 07109
212 753-5430

Solid state telecine systems, telecine cameras, 16/35 mm telecine projectors, 35 mm slide projectors, optical multiplexers, telecine control systems.

RANK PRECISION INDUSTRIES

13340 Saticoy St., N. Hollywood, CA 91605
818 765-7265

Slide File digital still store. Solid state telecine systems, flying spot scanners, telecine color correctors, Amigo telecine control systems, Ferrit sound dubber.

Field Offices:

IL 411 E. Jarvis Ave., Chicago 60018
312 297-7720

NY 260 N. Route 303, W. Nyack 10094
914 353-1914

RCA AMERICOM

4 Research Way, Princeton, NJ 08540-6684
609 987-4000

Satellite transmission services; post-production services.

RCA BROADCAST SYSTEMS DIV.

Box 900, United States Ave., Gibbsboro, NJ 08026
609 435-2800

Studio & CCD color cameras, recorder/cameras. One-inch C VTRs, M-format VCRs. Telecine cameras, 16/35 mm telecine projectors, 35 mm slide projectors, optical multiplexers. G-Line VHF & UHF transmitters. TV HP & CP antennas. Rigid transmission line. Facilities design & engineering services; mobile vehicle construction.

Field Offices:

CA J. Castaneda/C. Carrell, 4040 Vineland

Ave. #204, Studio City 91604 ... 213
468-4081

CA C. Patterson, 888 Shellwood Way,
Sacramento 95831 ... 916 395-3582

CO R. Blauvelt, Box 762, Carbondale
81623 ... 303 963-1293

GA J. Kelly/P. Higginbotham, 3395
Northeast Expy., Atlanta 30341 ... 404
452-2340

IN 9240 N. Meridan St. #102, Indianapolis
46260 ... 317 267-6395

MN D.G. Schulte, 4601 Excelsior Blvd.
#323, Minneapolis 55416 ... 612
920-6395

NJ R.F. Varda/D.H. Mewhinney, 1099 Wall
St. W., Lyndhurst 07071 ... 201
460-5580/930-4661

PA C. Koriwchak, 148 Brookdale Cir.,
McMurray 15317 ... 412 941-5570

RI P.B. Taylor, 18 Hope Ave., Warwick
02889 ... 401 738-7722

TX B. Laughlin/R. Phillips, 17000 Dallas
Pkwy. #102, Dallas 75248 ... 214
931-1683

VA N. Luddy, 1901 N. Moore St., Arlington
22209 ... 703 558-4233

WA M. Ellison, 701 Dexter Ave. N. #100,
Seattle 98109 ... 206 285-2375

WI R.R. Yokes, 612 Port Washington Rd.,
Grafton 53024 ... 414 377-8430

RCA D&SPD

2000 Clements Bridge Rd., Deptford, NJ
08096

609 853-2243

RF cable, connectors; vacuum tubes; solid
state components; surge protectors.

New weather technology, continually advancing.

New ideas, new technologies, new horizons: with Kavouras
you'll always broadcast the best.

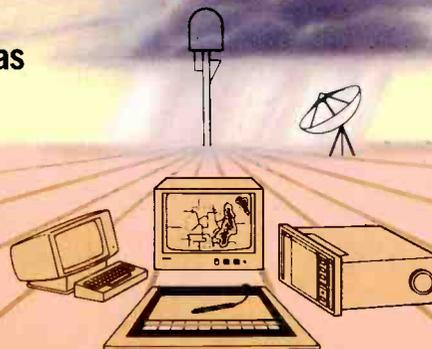
Weatherlink, the Kavouras satellite data communications system, delivers information to you before you know it — always there, whenever you want it. Vast amounts of data are quickly transmitted at an exceptional savings.

RADAC delivers real-time radar images from Kavouras radar data transmitters at all of the 127 NWS radar sites, plus more in Canada.

RAM, the Kavouras meteorological division, offers customized products and services — 24 hours a day, 365 days a year.

Triton Doppler adds the capability to see close-range turbulent weather, imperative in severe storm detection.

Triton-X is the heart of the system. Unsurpassed internal power lets you generate graphics, overlays or maps; animate history; and display the best on-air graphics available.



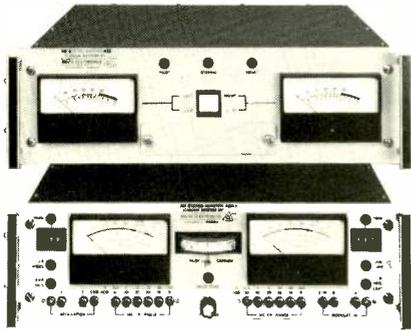
Kavouras is a real-time information source dedicated to excellence in meteorological products. We offer state-of-the-art systems to deliver and shape this information, providing you with superior service, quality and operational ease. Kavouras is constantly working for you, because we're committed to the continued advancement of weather technology.

Kavouras

6301 34th Avenue South, Minneapolis, MN 55450
612/726-9515 1-800-328-2278

ADVANCED WEATHER TECHNOLOGY **BOOTH #1635, NAB**

DELTA BROADCAST PRODUCTS



ASE-1/ASM-1

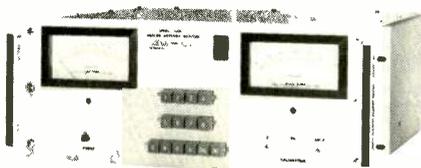
AM Stereo without compromise. The AM Stereo Exciter and Modulation Monitor provides a C-QUAM™ quadrature modulated stereo signal featuring low distortion and channel separation greater than 35 dB throughout the audio spectrum. The ASE-1 generates a signal to produce a phase modulated transmitter carrier. An L+R audio signal AM's this carrier to produce the C-QUAM signal, the only signal completely compatible with all C-QUAM, multimode and envelope detector receivers.

C-QUAM is a registered trademark of Motorola Inc.



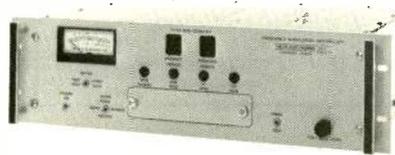
RCS-1V

This Remote Control System calls you when it needs help! The RCS-1 combines microprocessor technology with easy operation. Features include direct interface boards for antenna monitors, patented remote modulation bargraphs, automatic logging, and synthesized speech telephone interface. Additional input and control boards to expand remote control capabilities can be added at any time.



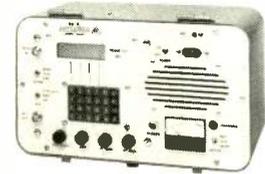
DAM-1/AAM-1

The Digital and Analog Antenna Monitors measure the parameters of directional antenna systems. Readings are: relative current; and current ratio and current phase to a reference antenna. The DAM-1 accepts samples from 12 towers with a $\pm 1^\circ$ phase and $\pm 2\%$ current accuracies displayed on digital readouts. The AAM-1 can monitor up to 8 antennas with ratio and phase measurements displayed on front panel meters.



AMC-1/FMC-1

The only modulation control systems which provide a completely closed loop around the transmitter. The Amplitude and Digital Modulation Controllers sample actual modulation levels after the PA output network assures precise adjustment for optimum modulation levels. Both the AMC-1 and FMC-1 keep count of over-modulation bursts for signal control through a linear attenuator.



RG-3/RG-4

High output/super sensitive Receiver/Generator. The Receiver/Generators combine a two-watt RF output and a correlation detector circuit that virtually eliminates interference problems. The RG-3 operates in the 500 kHz to 1.65 MHz frequency range while the RG-4 operates in the 100 kHz to 30 MHz range. Both can be used with the OIB series bridges for accurate null detector readings.



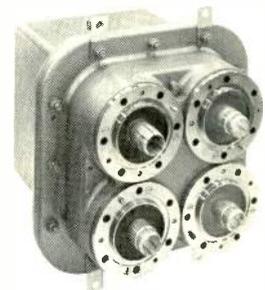
APC-1

Your insurance against over- and under-power operation. The Automatic Power Controller continuously monitors the transmitter output power, making automatic power adjustments via the transmitter loading control. The APC assures proper power levels at all times.



OIB-1/OIB-3/CPB-1

Full power impedance measuring. The Operating Impedance Bridges measure the impedance of radiators, networks and the like while operating under normal power. The OIB-1 measures VSWR and impedance up to $400 \pm j300$ ohms. The OIB-3 extends the range to $1000 \pm j900$ ohms, and has an RF amplifier for improved nulling. The Common Point Impedance Bridge is permanently installed for continuous monitoring of the common point during network adjustment. An optional TCA ammeter can be installed in its front panel.



6730E/6740B

Fast, efficient coaxial transfer switches. The coaxial transfer switches are designed to switch transmitters, transmission lines, antennas, dummy loads and auxiliary equipment quickly and easily. Either manually or remotely controlled, the switches are fully interlocked to prevent switching with RF power applied. The 6730E switch uses 1-5/8 inch connectors, the 6740B switch uses 3-1/8 inch connectors.



TCA/TCT

Simplifies antenna current and phase sampling. TCA Ammeter Systems provide accurate, modulation-free current readings on a variety of meter types. Toroidal Current Transformers provide current and phase samples, and are available with three output voltage ranges, as well as high voltage models.

DELTA ELECTRONICS

5730 General Washington Drive
P.O. Box 11268 • Alexandria, Virginia 22312
Telephone: (703) 354-3350 • TWX: 710-832-0273 • Telex: 90-1963



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Fiberoptic systems.
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90505 213 373-8514

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415 864-1444
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**REAL WORLD
TECHNOLOGIES GROUP** ✓
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92626
714 957-1061
UniVUer VU & PPM meters, video monitor audio level displays. Safe title area generators. MonSter stereo coherency meter. Blanking width verifier. Facilities design & engineering services; mobile vehicle construction. See listing in Rep section

RECORTEC ✓
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Videotape loaders, timers, rewinders; videotape cleaners, evaluators. Modified high-band 3/4-inch VCRs.

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Field Offices:
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TX 10,000 Richmond Ave. #695, Houston 77042 713 974-7337

REEVES TELETAPE ✓
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212 573-8888
Video production & post-production facilities; mobile production facilities rental.

REGISTER DATA SYSTEMS ✓
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912 987-2501
Radio business automation hardware, software.

RE INSTRUMENTS CORP.
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216 871-7617
Digital fiberoptic systems. Audio test signal generators. RF test signal generators.

**RE-PLAY VIDEO CARTRIDGE
SVCE.** ✓
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412 885-0959
TCR-100 two-inch video cartridge reloading service.

**RESEARCH TECHNOLOGY
INTL./RTI** ✓
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312 677-3000
Empty videotape reels, carts, cases; VT Series videotape timers, rewinders; tape cleaners, evaluators, erasers, degaussers. TV-2000 solid state telecine system. Ultrasonic film cleaners. Splicers. Cabinets; equipment racks; cart/tape storage.

Simply awesome.

NEW: The RS-1616 Switcher, Router, Amplifier and Mixer.

The most powerful combination of flexibility and performance available today and with features that won't be found in any other system. Expandable from 8 in X 2 out to 128 in X 64 out. Stereo & Mono — Individual input amps, gain selectable, mic thru +27dBm — +27dBm headroom —

Programmable "all call" output over-ride — Unlimited input mixing to any outputs — No crosstalk — -80dB crosstalk — .0023% distortion — Response, DC-500kHz — -90dB S/N. In addition, the means of control are limited only by your imagination (BCD, 3 wire party line, personal computers, etc.). You can "roll your own" or use one of the many controls from RAMKO.

Three year warranty with suggested list starting as low as \$1249.

Call today, toll free (800) 821-2545 for further information and the name of your nearest dealer or Rep.

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(916) 635-3600 TELEX: 176493 RAMKOSAC



RAMKO RESEARCH
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Sherwood CRD150



Volkswagen SC73ETR



Sparkomatic SR425



Chrysler



Nissan Maxima



Sparkomatic SR420



Sparkomatic SR430



Concord HPL550



Volkswagen SC99ETR



Audiovox



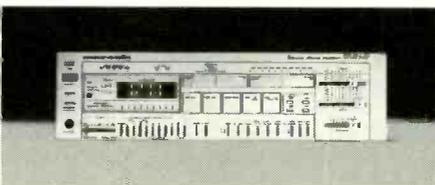
Delco UT4



Delco UX1



Ford



Marantz SR940



Pioneer KEA433

For more information, call Dick Harasek at 312 576-2879.

MOTOROLA AM STEREO. THE WINNING SYSTEM.



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RF mics. RF amplifiers. LNAs. Microwave systems: intercity, portable ENG, airborne, central receivers.

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Saticon & sulfide vidicon camera pickup tubes. RF tubes, RF power transistors, power semiconductors, RF power amps. Vacuum capacitors.

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Mic mixers; portable, mono & stereo studio, audio-for-TV consoles, console automation. ALC & AGC amps, graphic equalizers. Preamps, line amps, monitor/power amps, amp power supplies. Audio DAs, audio routing switchers.

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Audio & computer tape duplicators. Audio cassettes.

Field Office:

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212 764-6603

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404 455-7940

Preamps, line amps, monitor/power amps, amp power supplies. Audio DAs, audio patch panels & jackfields, telco interface equipment, audio multi boxes & splitters. VU & PPM meters. Anchor speakers; Beyer, Setcom & Rascal headphones. AKG dynamic mics. Audio cable.

ROHDE & SCHWARZ/ POLARAD

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Sync & color bar generators. AM, FM, VHF, UHF & LPTV transmitters. FM & TV exciters, modulators. Receive-only earth stations. Transmitter remote monitoring equipment.

Spectrum analyzers. Video test signal generators, waveform monitors, diff. phase/gain meters, video noise meters, automatic VITS analyzers. Demodulators, modulation monitors, field intensity meters, sideband analyzers, RF power meters & wattmeters, RF test signal generators, impedance bridges. Oscilloscopes, voltmeters, multimeters, logic analyzers. Automatic TV monitors, automatic radio monitors, status/alarm indicators.

See ad on pg. 128

ROHN

Box 2000, Peoria, IL 61656
309 697-4400

Tower masts, rigging, hardware, lighting.

ROSCO LABORATORIES INTL.

36 Bush Ave., Port Chester, NY 10573
914 937-1300

Lighting diffusion material, gels & filters. Scenery materials, props.

ROSCOR CORP.

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312 539-7700

Mobile vehicle construction; mobile production facilities rental; video post-production facilities; equipment rental services; facilities design & engineering services; engineering consultants. Monitor speakers; audio tone system. Monitor tally system.

WARREN ROSENBERG VIDEO SVCES./WRVS

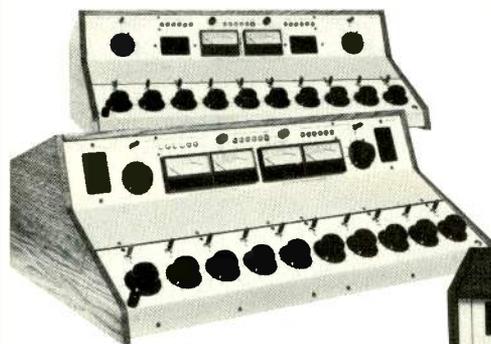
308 E. 79 St., New York, NY 10021
212 744-1111

Video production & post-production facilities; mobile production facilities rental; recording studios; audio post-production facilities.

Simply
Reliable

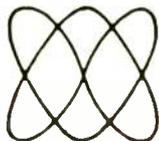
We Have Your
Console!

Expandable
... at any time



7000

Our premier consoles are designed for simplicity and reliability. The **7012** and **7012A** consoles continue to be today's choice, allowing broadcasters excellent sound quality with efficient VCA control, all at a cost well below what others charge for less. 12 channels, 22 inputs, full stereo, with your choice of metering functions. Clearly an excellent console for today's broadcast needs.



7512A

This console continues the **Howe** tradition of simple-to-operate, reliable products, but adds features to make the operator's job even easier. These include: remote control for machines, a clock and timer, 2 talkback circuits, and much more. Comprehensive operator control and superior sound quality make the **7512A** an exceptional choice.



9000

The latest in the legacy of quality consoles from **Howe**, the **9000** is available from 8 to 22 channels tailored to your needs. There is no costly mainframe, but full modular capability is built in. 3 inputs per channel, mix-minus on all channels, sealed membrane switches for channel and machine control, and unmatched audio performance. These features and more combine to give the broadcaster outstanding flexibility.

howe audio productions, inc.

2300 Central Avenue • Suite E • Boulder, CO 80301 (303) 444-4693 • For more information (800) 525-7520

If you need rigid line, here's where to get it fast.

CELWAVE rigid coaxial transmission line is available in sizes from 7/8 inch to 3 1/8 inches in 50 ohm impedance and 6 1/8 inches in both 50 and 75 ohm impedances.

Not only available, but in most cases, we can ship from stock. You will rarely have to wait more than two weeks.

You can order twenty foot lengths or any shorter length cut to your specifications. You can request that line be fitted with flanges on both ends, one end or with-

out the flanges. Hardware and other installation accessories are also available from stock. Aluminum outer conductor is available, as well.

Quality? You can count on it. Every inch is constructed of high conductivity, hard drawn copper tubing and fitted with pin-type

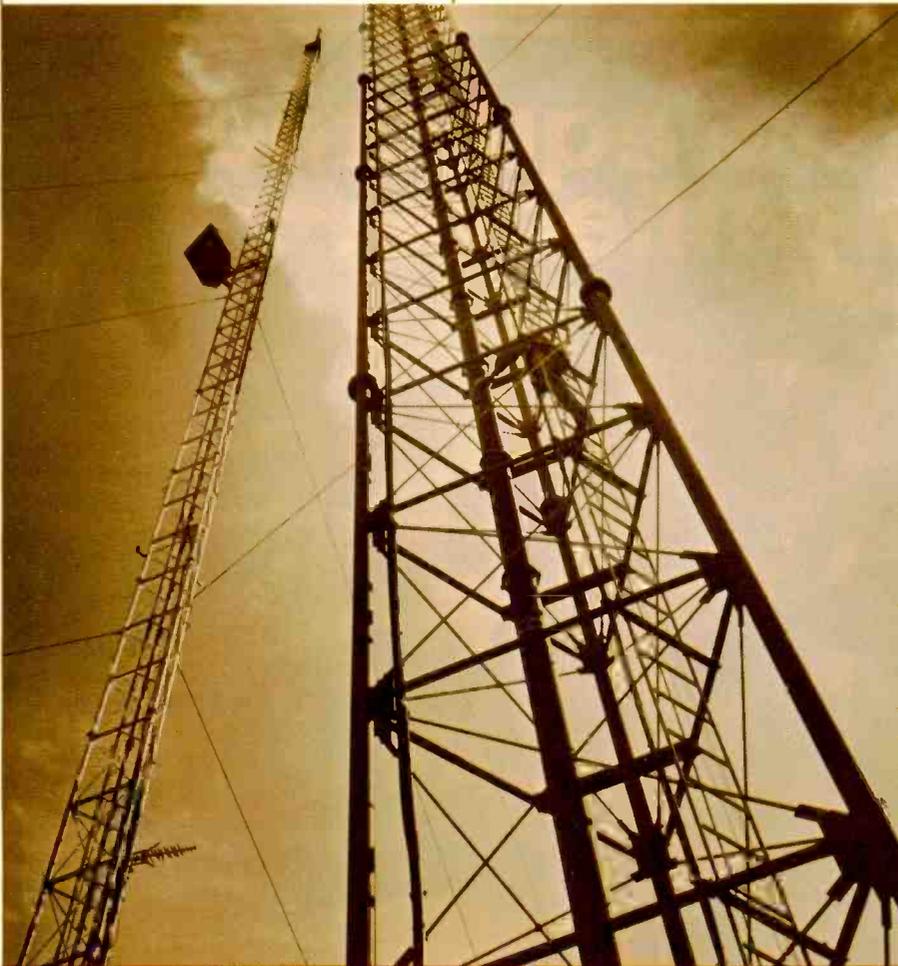


Teflon dielectric insulators produced to exacting standards.

And, all rigid line, flanges and conductors are manufactured in accordance with Mil-L-3980, EIA Standard RS-225 and international IEC recommendations.

While purchasing rigid line for system upgrading and repair may be a simple matter, you may encounter layout and design problems in new installation. We can help here too, with appropriate technical and engineering assistance. Just ask.

Write, telephone or TWX for Catalog 779 with all the details: CELWAVE, Route 79, Marlboro, NJ 07746, (201) 462-1880, TWX: 710-722-3861.



CELWAVE

ROSNER TELEVISION SYSTEMS

250 W. 57 St., New York, NY 10107
212 246-2850

Facilities design & engineering services; engineering consultants; earth station site selection; mobile vehicle construction.

ROSS AMERICAN LOGIC SYSTEMS

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Syndicated radio programming.

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818 843-7022

Hardwired intercom systems. Mic mixers, portable consoles. Preamps, line amps, monitor/power amps. Audio DAs, telco interface equipment

See ad on pg. 150 -152

JOHN B. RUDY CO.

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Wire, cable, connectors, cable assemblies.

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Studio furniture; studio consoles, equipment racks; cart/tape storage.

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SACHTLER CORP. OF AMERICA

400 #112, Arlington Heights 60005
312 439-6320

TX Mark Smith, 13773 N. Central Expy.
#1414, Dallas 75243 . . . 214 699-1964

See ad on pg. 147

SATCOM TECHNOLOGIES

2912 Pacific Dr., Norcross, GA 30071
404 448-2116

Transmit/receive & receive-only satellite earth stations. Communications antennas.

SATELLEASE

223 W. Erie, Chicago, IL 60610
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Satellite networking services; transmission/reception services; satellite time brokers; earth station site selection; equipment rental services.

SCALA ELECTRONIC CORP.

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503 779-6500

FM, TV HP & CP, communications antennas. STL & TSL antennas. Power dividers.

SCENE THREE

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Video & film production & post-production facilities; mobile production facilities; audio post-production facilities.

We test your equipment, not your patience.

Technical Project's new microprocessor controlled MJS401D, Audio Measurement System is a powerful cure for test frustration, leaving engineers with more time and energy for solving problems. Here's the prescription:

- **FAST** Accurate, clear, multi-standard Noise and Level measurement.
- **FAST** Totally Automatic THD measurement.
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- **FAST** Unique "below noise" crosstalk measurement.
- **FAST** ±1.5dB Expanded Scale magnifies variations.
- -107 to +45dB range to measure any device.
- Linear volts scales too.
- Function interlock recalls settings, speeding repeated measurements.
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- Optional IEEE-488 for automatic testing.

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Palatine, IL 60078

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Telex 280502 PRONON PALT



Optimod / op'tə-mod /

Op-ti-mod *n* [> Early Orbanian; deriv. of *optimum modulation*]

1. A broadcast audio processor built by Orban Associates to the highest standards of quality and reliability, incorporating patented circuitry to achieve a cleaner, brighter, louder airsound.

2. OPTIMOD-AM, Model 9100A; a high fidelity stereo or mono processor which achieves extraordinarily natural audio quality along with high loudness, remarkable source-to-source consistency, and FM-like brightness.

3. OPTIMOD-FM, Model 8100A/1 compressor/limiter/stereo generator; the industry's dominant choice for optimum FM processing, with or without the optional Studio Chassis and Six-Band Limiter Accessory Chassis.

4. OPTIMOD-TV STEREO SYSTEM; Model 8182A, a stereo processor that maintains consistent air sound with widely varying source material, rides gain, controls excessive loudness, maintains the correct amount of bass. Model 8182A/SG Stereo Generator for BTSC Multichannel Stereo TV sound. Model 8182A/SAP Separate Audio Program Generator. Model ACC-20 Pro Channel Generator.

5. OPTIMOD; a registered trademark.

Orban Associates Inc., 645 Bryant Street, San Francisco, CA 94107, Toll Free (800) 227-4498, In California (415) 957-1067, Telex: 17-1480

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See ad on pg 124

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415 935-1226
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Transmit/receive, receive-only & transportable satellite earth stations. Upconverters,

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downconverters; LNAs; scrambling & encryption systems; satellite network controllers. TV exciters, modulators. Coaxial transmission line; power dividers. Demodulators. TBCs, frame synchronizers. Optima cabinets, studio consoles, equipment racks.

- Field Offices:
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 - CA 1701 Junction Ct. #100, San Jose 95112 408 993-8300
 - CO 103 Inverness Dr. E., Englewood 80112 303 790-0585
 - FL 814 W. Emmett St., Box 2143, Kissimmee 32741 305 846-0055
 - GA 4025 Pleasantdale Rd. #110, Atlanta 30340 404 449-2530
 - IL Yorktown Office Ctr., 621 E. Butterfield Rd. #219, Lombard 60148 312 963-6375
 - IL Copper Bend S., 926 S. 59 St., Belleville 62223 618 233-7203
 - IN 11350 N. Meridian #530, Carmel 46032 317 846-7142
 - MA 220 Ballardvale St., Wilmington 01887 617 658-4310
 - MD 5100J Philadelphia Way, Lanham 20706 301 577-4830
 - MI 24555 Southfield Rd. #103, Southfield 48075 313 569-5111

- NJ 2100 Rte. 208, Fair Lawn 07410 201 794-3100
- OH 3570 Warrensville Ctr. Rd., Cleveland 44122 216 321-7595
- TX 901 International Pkwy. #141, Richardson 75081 214 238-1116
- TX 8031 Airport Blvd. #100, Houston 77061 713 640-2310
- CAN 1640 Bonhill Rd. #6, Mississauga Ont. L5T 1C8 416 677-6555

See ad on pg 69
SCIENTIFIC AUDIO ELECTRONICS/SAE
1734 Gage Rd., Montebello, CA 90640
213 726-9999
Parametric equalizers. Impulse (transient) noise reduction system. Audio power amps. Forced-air cooling systems.

SCIENTIFIC SYSTEMS
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201 255-2230
Audio & video DAs, pulse amps.

L.J. SCULLY MFG. CORP. ✓
138 Hurd Ave., Bridgeport, CT 06604
203 368-2332
Two-/four-track studio ATRs.

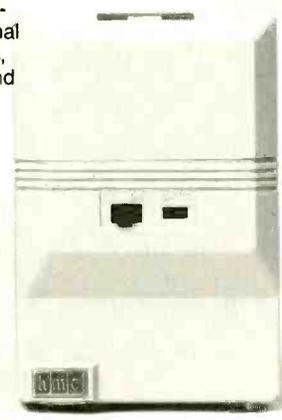
SCV ✓
414 N. Sparks St., Burbank, CA 91506
818 843-7567
FM compressor/limiters; parametric & graphic equalizers. Analog efx, reverb. Preamps, line amps, amp power supplies. Telco interface equipment; audio multi boxes, splitters. Audio phase checker.

YOU'VE SEEN THE REST, BUT, THIS IS THE BEST!

Professional Wireless Systems — a Step Ahead

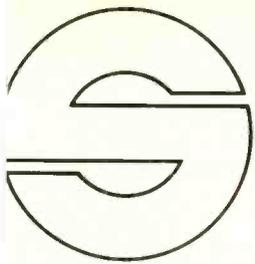
The best wireless microphones should sound identical to the mic, hard-wired . . . **HME systems do!** Dynamic range, frequency response, and system gain are set for transparent performance.
The best wireless mic should provide years of reliable performance . . . **HME systems do!** Our unique Auto-Loc discriminator allows the receiver to actually track the transmitted RF signal to eliminate RF-related distortion.
The best wireless mic body-pac should be compact and ultralight, almost unnoticeable

. . . **HME systems are!** Our Cyclac housing and miniaturized circuitry allow a transmitter weight of only 2.5 ounces.
The best wireless microphones are available now . . . from **HM Electronics, Inc.**
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San Diego, CA 92131
(619) 578-8300
Telex: 350-771

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sachtler

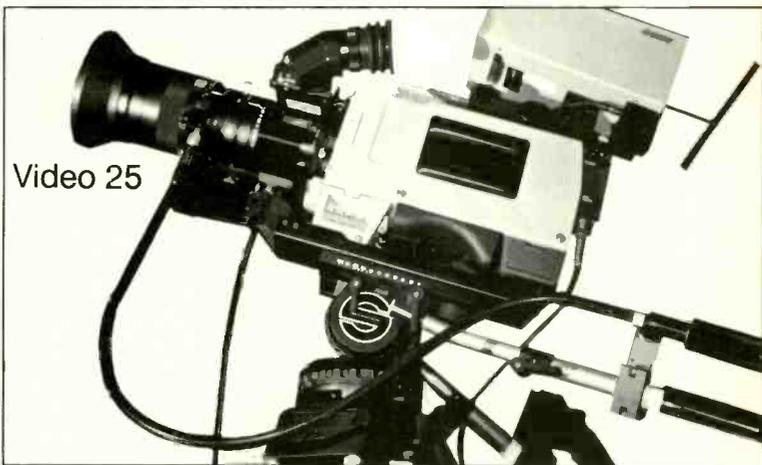
Panorama



Video 20



Video 25



Video 30



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offering

Dial-in – up to seven – steps of drag,
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built in compensation for center of
gravity displacements,

camera-adequate or dynamic counter-
balancing, adjustable on the spot
for all your possible requirements,

extreme positive, operational locks,
not effecting camera orientation
when operated,

a leak-proof by design fluid system
with guaranteed (for years) trouble free
operation,

an all-in-one piece unit for easy handling
and transport,

that is available when and where you need it
worldwide.

Its the Sachtler headline offering all
these features, dont ask for less!

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or write to

Sachtler Corporation of America
400 Oser Avenue, Hauppauge NY 1178/8
Phone (516) 2310033, Tx 140170,

a subsidiary of Sachtler GmbH
Dieselstr. 16
D-8046 Garching/München
Phone (89) 3204041, Telex 5215340

Circle 217 on Reader Service Card

SEA-CAM

6080 S.W. 28 St., Miami, FL 33155
305 665-5694
Underwater video productions.

SEARCH & COMPARE

600C E. Montana, Las Cruces, NM 88002
505 525-2956
Pro video, pro audio & audio/video buyers guides on floppy disk.

SELCO PRODUCTS CO.

7580 Stage Rd., Buena Park, CA 90621
213 921-0681/714 521-8673
VU & PPM meters, LCD displays, collet & push-on knobs.

SENCORE

3200 Sencore Dr., Sioux Falls, SD 57107
605 339-0100/800 843-3338
Audio & video test signal generators. Field strength meters, impedance bridges. Oscilloscopes, multimeters, dB meters.

SENNHEISER ELEC. CORP.

48 W. 38 St., New York, NY 10018
212 944-9440
Headphones. Mics: dynamic, electret/condenser, RF shotgun, lavalier & modular. Audio analyzers. Impedance bridges.
See ad on pg. 130-164

✓
**MEANS
IT'S VERIFIED**

SESCOM

1111 Las Vegas Blvd. N., Las Vegas, NV 89101
702 384-0993
Mic mixers. ALC & AGC amps, parametric equalizers. Preamps, line amps, monitor/power amps, amp power supplies. Audio DAs. LED displays. Transformers.

SETCOM CORP.

1400 Stierlin Rd., Mountain View, CA 94043
415 965-8020
Headphones. Hardwired intercom systems.

SFENA CORP.

26 17 Aviation Pkwy., Grand Prairie, TX 75051
800 527-1777
Installation & service of camera & helicopter stabilizing systems.

SHALLCO

Smithfield Ind. Pk., Box 1089, Smithfield, NC 27577
919 934-3135
Daven/Shallco rotary attenuators, Slidex slide attenuators.

SHARP ELECTRONICS

10 Sharp Plaza, Paramus, NJ 07652
201 265-5548
Studio, ENG/EFP, single-tube & monochrome cameras. Pro VHS VCRs. NTSC color monitors. Audio cassette player/recorders & duplicators. Disc playing equipment. Monitor speakers.

Field Offices:

CA 20600 S. Alameda St., Carson 90810
213 637-9488
GA 6478 I. 85, Norcross 30093
404 448-5230
IL 430 E. Plainfield Rd., Countryside 60525
312 432-9292

SHINTRON CO.

144 Rogers St., Cambridge, MA 02142
617 491-8700
Compact studio/mobile production switchers, post-production switchers, component switchers. Digital efx generators, RGB & encoded chromakeyers, downstream keyers. SMPTE time code generator/readers, VITC reader/generators. Frame synchronizers. Video DAs, pulse amps, subcarrier amps.
See ad on pg. 50

CART 'EM UP ON AA-4!

From AOR to CHR, Country to Jazz—Whatever the format, this cart's for you. For outstanding high frequency sensitivity and headroom, compatibility with all cart machines, the multi-format AA-4 delivers the sound that audiences turn on.

**AUDIO PAK AA-4.
FOR STATIONS WHO CARE
HOW THEY SOUND.**

Capital Magnetics Products
 6902 Sunset Boulevard
 Los Angeles, CA 90028
 213/461-2701
 800/421-4163 (outside Calif.)

We Make Eight Different Satellite Antennas So You Won't Have To Pay For What You Don't Need



3-meter

One simple fact governs the cost of your satellite communications antenna, whether it's for television and radio broadcasting, cable television, or private communications.

The fact is this: The bigger the antenna, the bigger the price tag.

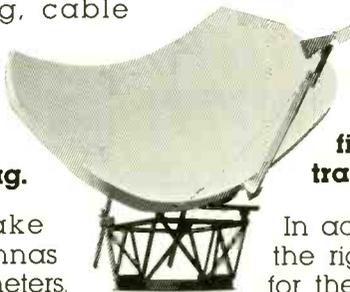
That's why we make eight different antennas ranging from 1.2 to 7 meters. Plus a unique conical horn antenna designed for areas of high terrestrial microwave interference.



1.8-meter

High surface accuracy, great strength

Just like you, we're concerned about price. But since we're in the business of providing broadcast-quality communications systems, we can't afford to skimp—and neither can you. Our advanced construction methods provide precise surface tolerances that insure optimum performance even at Ku-



OS-4 Offset-fed (meets 2" spacing)

band frequencies. And all of our dishes and mounts are engineered to withstand wind

loadings in excess of 125 mph.

C-or Ku-band fixed or transportable

In addition to having the right size antenna for the job, we offer a host of options, including C-or Ku-band antennas for uplink and down link, motorized or hand-cranked mounts, a programmable position controller that stores the position and polarization of up to 16 satellites, a multiple satellite feed system, and transportable versions of our 3-, 3.66-, and 5-meter antennas.

Supervised installation and electronic alignment



7-meter

When you buy a Microdyne



3.66-meter & motorized polar mount

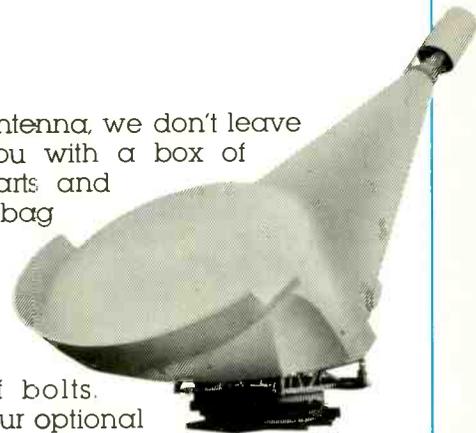
antenna, we don't leave you with a box of parts and a bag

of bolts. Our optional delivery package includes supervised antenna installation and electronic alignment to the satellite of your choice. So when the truck that brings your antenna leaves, you'll know the system works.

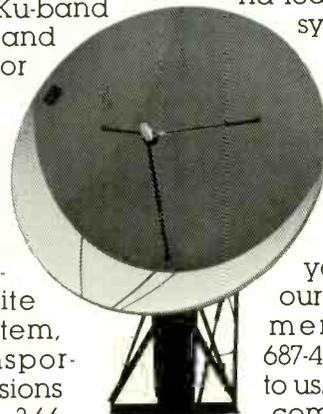
Call or write for more information

Let us show you how easy it is to save money by not buying what you don't need. Call our Sales Department at (904) 687-4633, or write to us. We'll send complete specs on our full line of fiberglass antennas for satellite communications.

Microdyne Corp. P.O. Box 7213, Ocala, FL 32672 • (904) 687-4633 TWX: 310-858-0307



CH-14 conical horn



5-meter & motorized polar mount



1.2-meter

Microdyne  Corporation

SHIVELY LABS, DIV. HOWELL LABS

85 Harrison Rd., Bridgton, ME 04009
207 647-3327

Diplexers, multiplexers. RF filters, loads, switches. Antennas: FM, TV HP & CP, antenna tuning units. Rigid & coaxial transmission line, power dividers, RF connectors. Directional couplers, AM/FM isocouplers, pressurization units, RF patch panels.

SHOOK ELECTRONIC ENTERPRISES

6630 Topper Pky., San Antonio, TX 78233
512 653-6761

Mobile vehicle construction.

SHURE BROS.

222 Hartrey Ave., Evanston, IL 60204
312 866-2200

Mic mixers, portable consoles. Phono cartridges. ALC, AGC amps. Headphones. Mics: dynamic, electret/condenser, PZM, lavalier, modular & capsule systems; mic booms & dollies. Preamps, line amps, monitor/power amps. Audio DAs, audio multi boxes & splitters. Mic cables.

See ad on pg. 35

SIECOR/OPTICAL CABLE

489 Siecor Pk., Hickory, NC 28603
704 327-5000

Fiberoptic transmission systems.

SIEGEL ELECTRONICS

Box 33421, San Diego, CA 92103
619 234-6789

Image enhancers, color correctors. Comb filter decoders. Proc amps.

SIGMA ELECTRONICS

1184 Enterprise Rd., E. Petersburg, PA 17520

717 569-2681

Titlers, character generator/graphics systems, digital art/paint systems, draw-on-screen systems. Sync, black burst & color bar generators. Proc amps, audio & video DAs, pulse amps, subcarrier amps. Video cable, cable connectors.

See ad on pg. 136

SIMS VIBRATION DYNAMICS

17724 15 Ave. N.E., Seattle, WA 98155
206 362-0700

Electric Isolator isolation bases for turntables, CD players.

SINGER BROADCAST PRODUCTS

875 Merrick Ave., Westbury, NY 11590
516 683-3000

AM & FM stereo generators. FM exciters. SCA generators.

SITCO ANTENNAS

10330 N.E. Marx St., Portland, OR 97220
503 253-2000

FM, TV HP & CP antennas.

SJOCOM/TELESOUND

1088 Howard St., San Francisco, CA 94103
415 863-4880

Custom & syndicated audio packages for TV promotion.

SKAGGS TELECOMMUNICATIONS SERVICE

5181 Amelia Earhart Dr., Box 27477, Salt Lake City, UT 84127

801 539-1427

Video production & post-production facilities; mobile production facilities rental.

SKOTEL CORP.

1445 Provencher, Brossard, Que., Canada J4W 1Z3

514 465-8990/in US 800 361-4999

SMPTE time code generator/readers.

SKYWORKS

380 Turner Industrial Way, Aston, PA 19014
215 497-5100

Skycam aerial camera remote-control system.

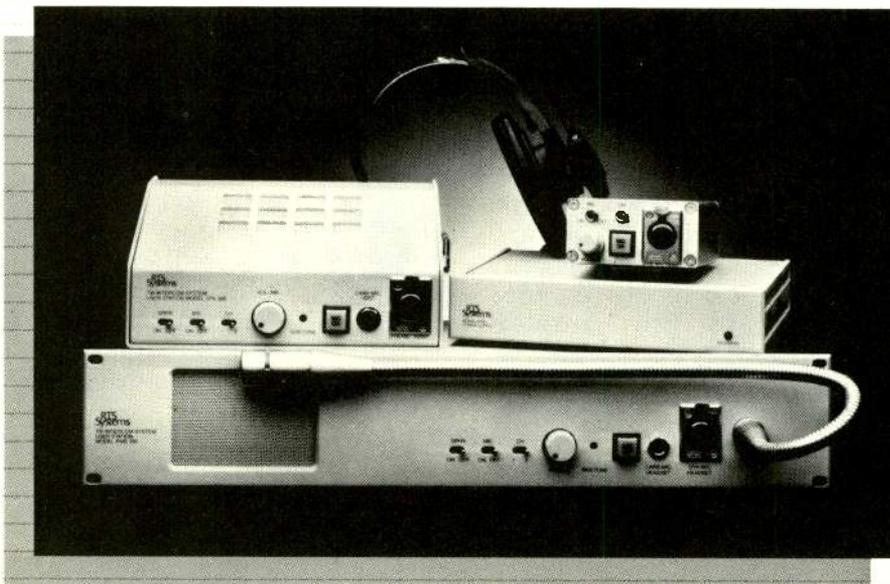
SMITH-VICTOR CORP.

301 N. Colfax, Griffith, IN 46319
219 924-6136

Audio cassettes. Half-inch videocassettes. Lamps, quartz lighting fixtures, lighting stands & rigging, diffusion & efx material. Kenlock tripods.

Between you and everyone else,

THIS IS THE ONE.



This is the TW Intercom System: A high performance conference-line communications system that accommodates an almost infinite variety of system configurations. Its universal design meets the most demanding needs of teleproduction, broadcast, industrial, and commercial applications.

In a few short years, it's become the virtual standard in the field. Up to 75 user stations on line, two-channel operation on standard microphone cable, 12-volt operation, and many other features make it the one system you can take for granted. Call or write for detailed information.

RTS SYSTEMS, INC. • PROFESSIONAL INTERCOMMUNICATIONS • PROFESSIONAL AUDIO PRODUCTS
1100 WEST CHESTNUT STREET • BURBANK, CA 91506 • 818/843-7022 • TWX 910-498-4987 • TELEX 194855

RTS SYSTEMS
INCORPORATED

A Compact Video Company

Circle 194 on Reader Service Card

Committed to 3/4" U



What better way to show a commitment than to introduce the finest, most innovative 3/4" Editing Recorder ever made? The commitment is JVC's. The recorder is the CR-850U.

CR-850U. With a new level of picture quality!

CR-850U. With a new level of convenience!

CR-850U. With a new level of flexibility!

CR-850U. With a new level of reliability!

SMPTE time code... built-in editing control functions... 47 dB signal-to-noise ratio (the highest available!)... Y-688 dubbing for clean transfer without distortion... rack-mountable... full direct-drive transport... unique diagnostic warning system... front panel test points... connections for serial and parallel remote

controllers... all this and more!

The quality, the convenience, the flexibility, the reliability you've asked for!

Here, now, in the unique JVC CR-850U Editing Recorder!

For more information, call, toll-free:

1-800-JVC-5825

JVC COMPANY OF AMERICA

Professional Video

Communications Division

41 Slater Drive, Elmwood Park, NJ 07407

JVC CANADA, Scarborough, Ontario

JVC®

© 1985 JVC Company of America

WARREN R. SMITH, INC. ✓

Drawer C, Ocean Gate, NJ 08740
201 269-6795
Snorkel & telecine lenses. Animatics stands, servo slide positioners, title positioners.

SOLID ELECTRONICS LABS ✓

220 Brookthorpe Cir., Broomall, PA 19008
215 353-9449
Equipment rental services.

SOLID STATE LOGIC LTD. ✓

Churchfields, Stonesfield, Oxford, U.K. OX7 2PQ
44 099 389 8282
Stereo studio & audio-for-TV consoles; console automation, video interface for consoles. Audio/video synchronizing & machine control.

Field Offices:
CA 6255 Sunset Blvd., Los Angeles 90028
..... 213 463-4444
NY 200 W. 57 St., New York 10019
..... 212 315-1111

See ad on pg. 46-47

SOLL, INC. ✓

401 E. 74 St., New York, NY 10021
212 988-0290
Cat satellite network controllers, transmitter remote control systems, log printers, status/ alarm indicators. Facilities design & engineering services; engineering & computer consultants.



H.A. SOLUTECH LTD. ✓

4360 D'Iberville St., Montreal, Que., Canada H2H 2L8
514 524-6893
Automated broadcasting system; adaptive cochannel system.

SOLWAY

Box 7647, Hollywood, FL 33081
305 962-8650
Audio noise reduction equipment. Loudspeakers. Newsroom computers.

SONAR RADIO CORP.

3000 Stirling Rd., Hollywood, FL 33021
305 981-8800
Videoraser videotape erasers, degaussers. Video production & post-production facilities; recording studios; equipment rental services; tape duplication; film-to-tape transfer.

SONO-MAG CORP. ✓

1833 W. Hovey Ave., Normal, IL 61761
309 452-5313
Complete automation systems for radio. Satellite programmers for radio stations. Carousel multiple-play cart reproducers.

SONY BROADCAST PRODUCTS CO. ✓

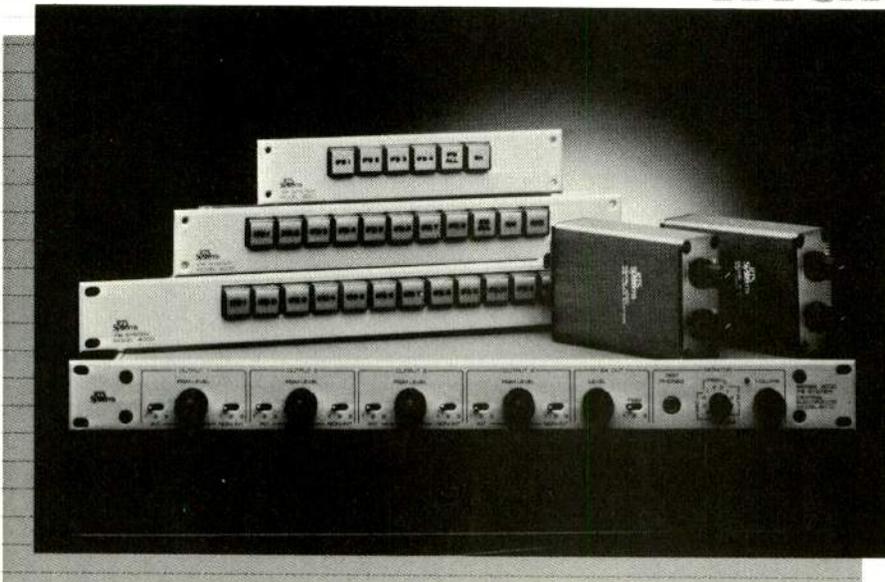
1600 Queen Anne Rd., Teaneck, NJ 07666
201 833-5200
Studio & field cameras; Betacam three-tube & single-tube ENG cameras, recorder/cameras; HDTV cameras. One-inch C VTRs; 3/4-inch U, Betacam VCRs. Betacart MERPS multicassette system. VTR slow-mo systems; Super Motion video system. Two-machine editor/controllers, A/B roll editors, multi-source editors, VITC reader/generators. TBCs. NTSC, high resolution & battery-powered portable monitors.

Field Offices:
CA Robert Manahan, 2820 W. Olive Ave., Burbank 91505 818 841-8711
GA Andy Kryworuchenko, 2300 Peachford Rd., Atlanta 30338 404 451-7671
HI T. Katoh, 1020 Auahi St., Honolulu 96814 808 531-5981
IL David Doherty, 500 Park Blvd., Itasca 60143 312 773-6046
TX Charlie Taylor, 1320 Walnut Hill Rd., Irving 75038 214 659-3600

See ad on pg. 17-22 180-181 71-73

Between you and on-air talent:

THE ESSENTIAL INGREDIENT



News, sports, and other "live" broadcasts require accurate, dependable communication between production staff and the talent on-air. That's where our Series 4000 IFB "program-interrupt" system comes in, crisp and clear. With a modular format for easy custom configuration and expansion, our 'total-system' approach meets the most demanding and complex broadcast situations. We set the standard for IFB systems. Call or write RTS for detailed information.

RTS SYSTEMS, INC. • PROFESSIONAL INTERCOMMUNICATIONS • PROFESSIONAL AUDIO PRODUCTS
1100 WEST CHESTNUT STREET • BURBANK, CA 91506 • 818/843-7022 • TWX 910-498-4987 • TELEX 194855

RTS SYSTEMS
INCORPORATED
A Compact Video Company

320.

The ProCam™ Video Camera
with Plumbicon* tubes at Saticon** price.

JVC's experience—and success—in designing the highest quality and reliability into compact video production cameras is unmatched. Now, continuing this tradition of high performance at an affordable price, JVC has brought a "high-end" teleproduction camera within the financial reach of production people often victimized by modest budgets. This time, it's ProCam 320.

What a package!

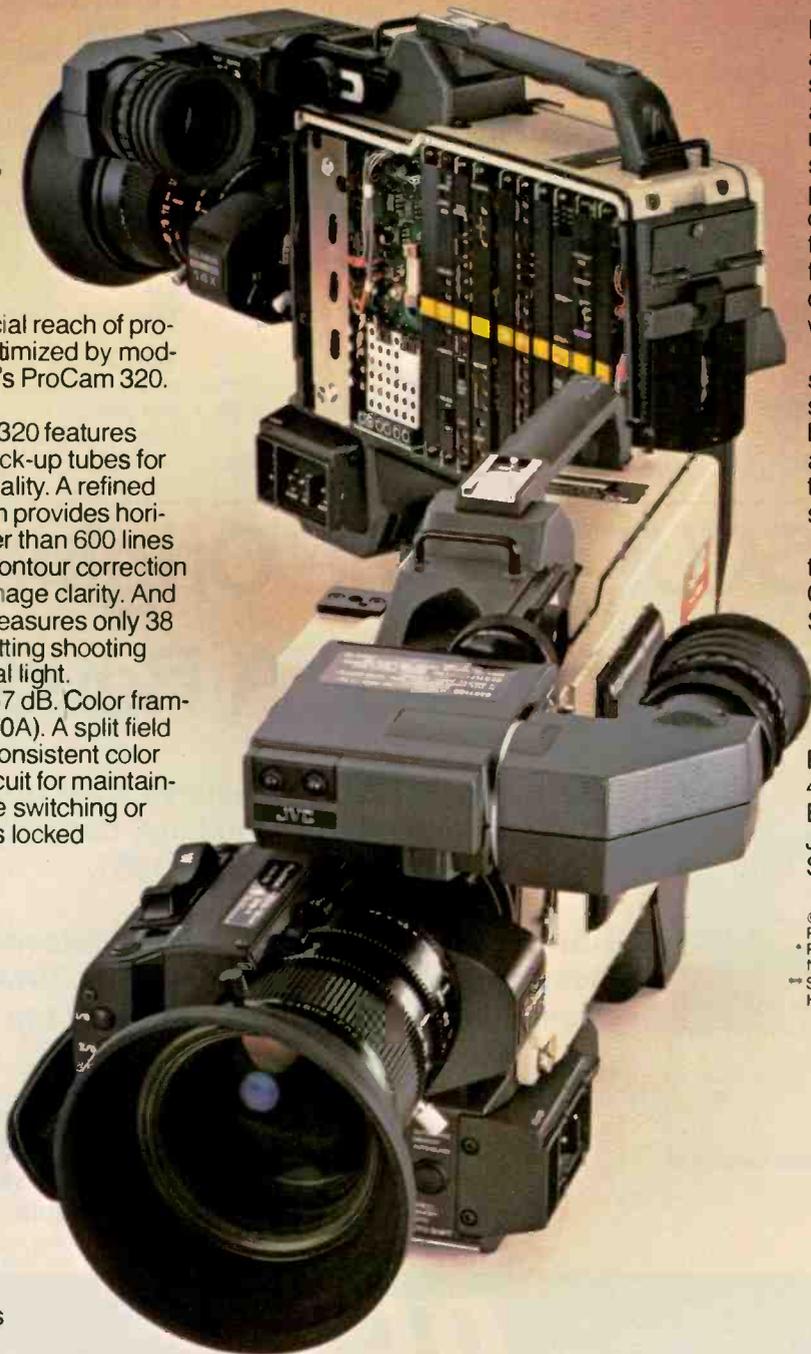
SENSITIVITY. ProCam 320 features three, 2/3" Plumbicon pick-up tubes for incomparable picture quality. A refined f/1.4 prism optics system provides horizontal resolution of better than 600 lines at center. A 2H vertical contour correction circuit further assures image clarity. And minimum illumination measures only 38 lux (3.6 fc) at f/1.7, permitting shooting even in limited or artificial light.

A video S/N ratio of 57 dB. Color framing output signal (RS-170A). A split field color bar generator for consistent color reference. A genlock circuit for maintaining a stable picture while switching or mixing with other signals locked on the same source.

EASY OPERATION.

Several 8-bit data memory chips offer operator conveniences for quick set-up and consistent performance. These include: Auto centering, auto-black balance and auto-white balance, auto black level stabilization and auto beam control circuits. Matrix masking for true color reproduction and automatic protection for the pick-up tubes are a few of the many features standard on this new camera.

VERSATILITY. Easy portability. Outstanding performance in low-level



lighting. High degree of automation. An extensive selection of options and accessories combine to make the ProCam 320 suitable for both studio production, EFP, or ENG; or, indeed, to any application, anywhere, that calls for top quality video production while staying within a tight budget.

PROCAM TECHNICAL SUPPORT. Your ProCam sales representative will be happy to explain the availability and calibre of the ProCam technical support program.

For a demonstration of the ProCam 320 Video Camera, a 320 Spec Sheet, or JVC's complete catalog, call, toll-free:

1-800-JVC-5825

JVC Company of America
Professional Video Division
41 Slater Drive,
Elmwood Park, N.J. 07407
JVC CANADA,
Scarborough, Ont.

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ProCam is a trademark of US JVC CORP.
* Plumbicon is a registered trademark of
North American Philips Corp.
** Saticon is a registered trademark of
Hitachi Denshi, Ltd.



JVC[®]
JVC COMPANY OF AMERICA
Professional Video Division

Circle 197 on Reader Service Card

SONY PROFESSIONAL AUDIO PRODUCTS

Sony Dr., Park Ridge, NJ 07656
201 930-1000

Mic mixers; portable, stereo studio, audio-for-TV consoles. Two-/four-track & multitrack ATRs, audio layback system, center track time code recorder/reproducer. Digital audio recorders. Replacement audio heads. Open-reel audio tape. SMPTE time code synchronizers; editors for digital audio. CD/DAD players. Parametric equalizers. Digital efx, reverb. Monitor speakers. Electret/condenser, lavalier & shotgun mics, mic booms, dollies.

SONY TAPE SALES CO.

1 Sony Dr., Park Ridge, NJ 07656
201 930-1000

Audio cassettes. One-inch videotape, 3/4-inch & half-inch cassettes.

Field Offices:

CA Fred Mackenzie, 700 W. Artesia Blvd.,
Compton 90220 213 537-4300

GA Don Riggs, 2300 Peachford Rd., Atlan-
ta 30338 404 455-0782

IL Michael Cullen, 500 Park Blvd.,
Hamilton Lakes, Itasca 60143 ... 312
773-6000

NJ Robert Grassi, 15 Essex Rd., Paramus
07652 201 368-5000

See ad on pg. 165

SOPER SOUND MUSIC LIBRARY

Box 498, Palo Alto, CA 94302

 **MEANS
IT'S VERIFIED**

415 321-4022/800 227-9980
Production music library.

SOUNDCRAFT ELECTRONICS

1517 20 St., Santa Monica, CA 90404
213 453-4591

Stereo studio, audio-for-TV & live sound reinforcement consoles. Two-/four-track studio ATRs, multitrack ATRs.

Field Offices:

NY 1841 Broadway #511, New York 10023

..... 212 315-0877

CAN 1444 Hymus Blvd., Dorval, Que. H9P

1J6 514 685-1610

SOUND GENESIS

2001 Bryant St., San Francisco, CA 94110
415 285-8900

Engineering systems designer & installer.

SOUNDOLIER

9380 Watson Ind. Pk., St. Louis, MO 63126
314 962-9870

Cabinets, studio consoles, equipment racks.

SOUNDScriber, DIV. NEW ENGLAND ALARM

77 Rte. 125, Kingston, NH 03848
603 642-4441

Logging recorders.

SOUND TECHNOLOGY

1400 Dell Ave., Campbell, CA 95008
408 378-6540

Audio test tapes, leaders. Audio test signal generators, harmonic distortion meters, IM meters, tape recorder/audio test systems. See listing in Reqs section

See ad on pg. 79

SOUND WORKSHOP PROFESSIONAL AUDIO PRODS.

1324 Motor Pkwy., Hauppauge, NY 11788
516 582-6210

Stereo studio & audio-for-TV consoles; console automation, serial video interface for consoles. LED audio level displays.

SOUTHWEST TELEPRODUCTIONS

2649 Tarna Dr., Dallas, TX 75229
214 243-5719

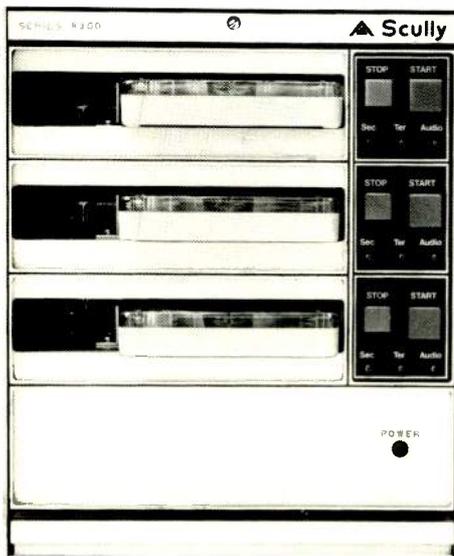
Video post-production facilities.

SPECTRA IMAGE

540 N. Hollywood Way, Burbank, CA 91505
818 842-1111

Video post-production facilities; special efx services.

SCULLY - The Originator of the DELTA Revolution.



ITC would like you to believe they first conceived the modular tri-deck cart machine, but really it was part of the Scully 8300 way back in 1981.

Now that AMPRO/Scully is a Television Technology Company you can have the ORIGINAL revolutionary design. What else would you expect of Scully.

The Scully 8300 offers:

- Three independently removable decks
- Crystal referenced DC Servo Motor
- Non-magnetic stainless steel capstan shaft
- Even MORE affordable

TTC

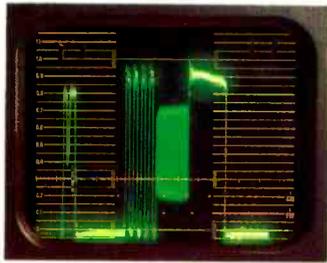
AMPRO/Scully Division

2360 Industrial Lane
Broomfield, Colorado 80020
(303) 465-4141
TWX: 910-938-0396

Why discriminating customers specify Leddicons when buying their new cameras.

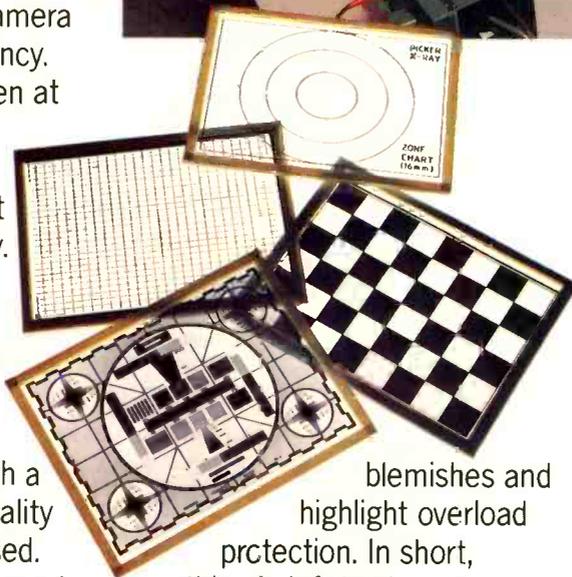
EEV Leddicons are respected by broadcasters the world over for superb color image performance. Many even insist on Leddicons when specifying their cameras - with good reason too!

No other company takes



greater care to ensure camera tube quality and consistency. Meticulous control is taken at every stage of Leddicon production, from raw materials inspection right through to final assembly. Every Leddicon, without exception, undergoes at least 28 separate checks during manufacture.

And final testing is very thorough indeed, with a further eight stringent quality control stages to be passed. These include sensitivity, resolution, signal uniformity, geometry, lag, beam characteristics,



blemishes and highlight overload protection. In short, nothing is left to chance.

Even then, the job is not finished as far as EEV is con-

cerned. That's because we believe in offering our customers a delivery and after-sales service which is the finest in the industry.

Regardless of what your color camera tube requirements may be - for new equipment or fully-interchangeable replacement - talk to the one company that really knows how to meet all your needs.



LEDDICONS[®]

The definition of the best color camera tubes in the world.

® Leddicon is the Registered Trademark of EEV Lead Oxide Camera Tubes

EEV Inc, 7 Westchester Plaza, Elmsford, NY 10523, USA. Tel: 914 592 6050. Telex 6818096.
EEV Canada Ltd, 67 Westmore Drive, Rexdale, Ontario M9V 3Y6, Canada. Tel: 416 745 9494. Telex: 06 989 363
EEV, Waterhouse Lane, Chelmsford, Essex CM1 2QU, England. Tel: 0245 261777. Telex: 99103.

EEV Camera Tubes

SPECTRA SONICS

3750 Airport Rd., Ogden, UT 84405
801 392-7531

Mic mixers. ALC & AGC amps, AM & FM compressor/limiters, graphic equalizers. Monitor speakers. Analog efx, reverb. Preamps, line amps, monitor/power amps, amp power supplies. Audio DAs. Slide attenuators, VU meters. Audio test signal generators. Audio cable. Transformers.

SPECTRUM PLANNING

1850 N. Greenville #122, Richardson, TX 75206

214 361-2126

Facilities design & engineering services; engineering consultants; earth station site selection; RFI measurements.

SPENCER BROADCAST

316 E. El Camino Rd., Phoenix, AZ 85020
602 242-2211/800 221-6941

Facilities design & engineering services; engineering consultants. Distributor full line broadcast equipment.

SPIN PHYSICS, DIV. EASTMAN KODAK

3099 Science Park Rd., San Diego, CA 92121

619 453-5410

VTR replacement heads; quad head refurbishing.

SPRAGUE MAGNETICS

15759 Strathern St. #12, Van Nuys, CA 91406

800 553-8712

Replacement & rebuilt audio & video heads; head cleaners, degaussers. Audio tape erasers & degaussers.

STAGE LIGHTING DISTRIBUTORS

346 W. 44 St., New York, NY 10036

212 489-1370

Stagelite lighting control boards, dimmer packs. SLD quartz fixtures, cyc lighting, lighting stands & rigging. GE Sylvania lamps, Colortran HMI & CSI fixtures, Rosco diffusion & efx material. Optimist fog & smoke machine.

STAINLESS, INC.

Third St., N. Wales, PA 19486

215 699-4871

Antenna towers; Verda lightning deterrent.

See ad on pg 12

STANCIL CORP.

921 N. Highland Ave., Hollywood, CA 90038

213 464-7461

Tape-based loggers.

STANTON MAGNETICS

200 Terminal Dr., Plainview, NY 11803

718 445-0063

Phono cartridges; record cleaning & care. Headphones. Dynamic microphones. Preamps. Announcer's earphone, pre-preamps.

STANTRON/UNIT OF ZERO CORP.

6900 Beck Ave., N. Hollywood, CA 91605

213 875-0800

Studio furniture, cabinets, studio consoles, equipment rack's.

See ad on pg 75

STAR CASE

648 Superior, Munster, IL 46321

219 922-4440

Ultrastar, Superstar & Standard foam-insert transportation cases.

STARFAX

8157 Lankershim Blvd., N. Hollywood, CA 91605

818 768-2905

Mobile production facilities rental.

STEENBECK

9554 Vassar Ave., Chatsworth, CA 91311

818 998-4033

Flatbed film editors; flatbed table with U-Matic transport for video sound editing; solid state telecine system.

STOREEL CORP.

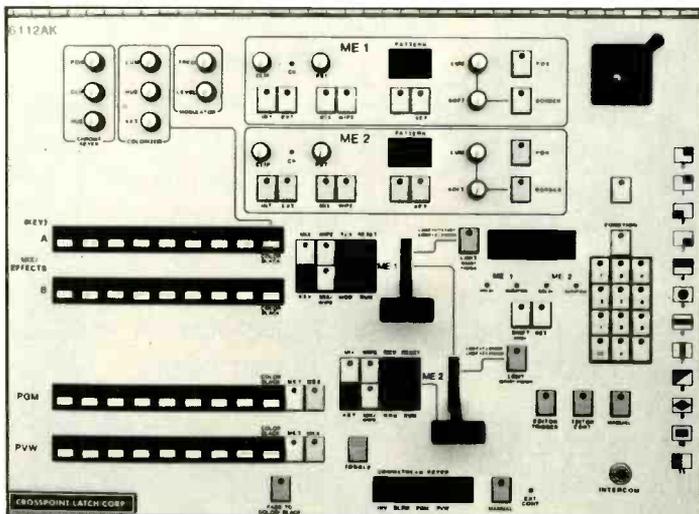
2050-C Carroll Ave. #2, Box 80523, Atlanta, GA 30341

404 458-3280

Stor-Max & Railriders high-density storage cabinets; mobile & static audio cart cabinets.

6112AK MICROPROCESSOR CONTROLLED

TWO FULL MIX-EFFECTS SYSTEMS. EDITOR CONTROL



6112AK \$10,800.

7239 \$12,500.

THREE MODELS

6112 with LED Buttons

6112BH with incandescent lamp buttons

6112AK Microprocessor controlled

- * FADER ARMS CAN BE PROGRAMMED TO CONTROL POSITIONER AND BORDER
- * INDEPENDENT PROGRAMMING FOR EACH MIX-EFFECTS SYSTEM. 999 FRAMES TRANSITION DURATION PLUS 999 FRAMES DELAY.
- * TRANSITIONS CAN BE TRIGGERED SEPARATELY OR SIMULTANEOUSLY.
- * TRUE POSITIONER (NOT A RATE CONTROL DEVICE) SWITCHABLE INTO EITHER M.E., WITH POSITION MEMORY.
- * TWO PATTERN GENERATORS INDEPENDENTLY POSITIONABLE.
- * FULL EDITOR CONTROL WITH ADDITION OF "SMART INTERFACE BOARD".
- * AUDIO FOLLOW WITH Model 6800
- * TWO MIX-EFFECTS SYSTEMS PERMIT MORE EFFECTS TO BE RECORDED IN THE FIRST PASS: REDUCING NUMBER OF GENERATIONS OF TAPE.

CROSSPOINT LATCH HAS THE MOST POWERFUL INTERFACES IN THE INDUSTRY

CROSSPOINT LATCH CORP.

AUDIO FOLLOW MIXER

95 Progress Street, Union, N.J. 07083
Tel: (201) 688-1510, Telex: 9104901990

ERMS:
 ayment - In Advance
 COD Cashiers
 Shipping:
 OB Morton Grove, IL

DISCOUNT VIDEO WAREHOUSE

Quantities Limited
 All Prices Subject to Change
 All Sales Final

nova

490 32H Line Window
 TBC Heterodyne
 Only \$4735
 500 32H Line Window
 TBC-3.58 MHz Sub-
 Carrier Feedback
 \$4850

510 32H Line Window
 TBC-3.58 MHz or
 Standalone ... \$5599



SONY

DVW TAPE SALE

SONY K-SERIES
 KCS-10K \$10.17
 KCS-20K \$11.00
 KCA-30K \$13.62
 KCA-60K \$17.50
SONY 3/4" BRK SERIES
 KCS-10BRK \$11.30
 KCS-20BRK \$12.60
 KCA-30BRK \$15.32
 KCA-60BRK \$19.40
SONY 1" HIGHBAND
 V16-34B \$42.30
 V16-66B \$64.00
 V16-96B \$91.65
SONY 1/2" BETA
DYNAMICRON
 L-250 \$4.81
 L-500 \$5.76
 L-750 \$7.12
3M 3/4" COLOR PLUS-BDCST
 UCA-10 \$12.09
 UCA-10s \$11.21
 UCA-20 \$13.75
 UCA-20s \$12.63
 UCA-30 \$14.27
 UCA-60 \$20.35
 MBU-5s \$12.57
 MBU-18s \$14.17
 MBU-30 \$17.44
 MBU-45 \$21.21
3M 1/2" VHS
 T-30 \$ 5.73
 T-60 \$ 6.22
 T-120 \$ 7.37
3M 1/2" BETA
 L-250 \$ 5.68
 L-500 \$ 6.57
 L-750 \$ 8.30
 TAPES SOLD IN CASE
 QUANTITY ONLY (10
 PER CASE), MINIMUM
 ORDER - 1 CASE.

VP-5000 3/4" Player
 \$1360
 VO-5600 3/4" Recorder
 \$1720
 VO-5800 3/4" Recorder/
 Feeder \$3290
 VO-5850PAC Editing
 System includes
 VO-5850, VO-5800
 RM-440 Controller
 and Cables ... \$9490
 VO-5850 3/4" Edit
 Recorder \$5300
 VO-6800 3/4" Portable
 Recorder \$2720
 RM-440 Edit Controller
 \$1265
 CVM-1271 12"
 Receiver/Monitor
 \$588
 PVM-1271Q 12" Multi-
 Standard/RGB/
 IBM-PC Compatible
 Monitor \$656
 VPH-7220/1020Q 72"/
 100" Video Projector
 \$4260
 VPH-2020Q 200"
 Video Projector
 \$4732
SONY DXC-M3AK
 3 Tube Color Camera
 with 15X Lens
SONY VO-6800 3/4"
 Portable Recorder
SONY CMA-8 AC
 Adaptor
SONY BC-1WA
 Battery Charger
(4) SONY NP-1 Battery
PORTABRACE
 C-6800 VCR Case
SPECIAL SYSTEM
PRICE \$9899
INCLUDING 10 FREE
UCA-20S VIDEO-
CASSETTES

AUGUST'S HOT BUY



DVW MOBILE PRESENTATION SYSTEM

includes
SONY CKV-1900F
 19" Color Receiver

SONY VP-5000
 U-Matic Videocassette
 Player

H. WILSON WT-42
 42" Tuffy Cart
 Special System Price
 \$1885

FOR A

FA-400 Standalone
 Recorder Case for
 TBC with Freeze
 Frame \$4750

FA-410 16H Line Win-
 dow TBC 3.58 MHz or
 Standalone with DOC
 \$5950

FA-420 3.58 MHz or
 Standalone TBC with
 Freeze Frame
 \$6399

EQUIPMENT INSURANCE FROM...

...PORTABRACE

C-4800/HB-20
 Recorder Case for
 SONY VO-4800 with
 Heavy Duty Strap \$132
C-4900/HB-20
 Recorder Case for
 JVC CR-4700/
 CR-4900 and Pana-
 sonic NV-9450 with
 Heavy Duty Strap \$132
C-5000
 Recorder Case for
 PANASONIC NV-8420
 \$109
C-6200
 Recorder Case for
 JVC BR-6200 . \$109
C-6800
 Recorder Case for
 SONY VO-6800 . \$121
QUICK DRAW
CAMERA CASE for
 Single Tube Camera
 \$199
QUICK DRAW
CAMERA CASE for
 Three Tube Camera
 \$228
August Insurance
Dividend
 Purchase any Star.
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 product and receive a
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...STAR CASE

JVC TM-22U
 Superstar Case . \$149
JVC BR-6200U
 w/AC and Accessory
 Compartment Super-
 star Case \$275
SONY VO-6800
 w/Accessory Compart-
 ment Superstar Case
 \$195
SONY VO-5600
 w/Accessory Compart-
 ment Superstar Case
 \$339
...AND ALLSOP
 U-Matic Professional
 Wet-Cleaning System
 *Non-Abrasive
 Material
 *Cleans Heads,
 Guides, Pins and
 Rollers
 *System includes
 Cleaner Cassette
 Solution and Storage
 Case \$49.95
 Refill Kit including Two
 Refills and Solution
 \$29.95
 Also Available in Refill-
 able VHS and Beta
 Cleaning Systems

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PROFESSIONAL
 COMMERCIAL/
 MUSICIAN LAPEL
 MICROPHONE

SYSTEM INCLUDES:
 • WT-50 Transmitter
 • FMR-50 Receiver
 • WLM-50 Electret
 Lapel Mic ... \$725



SYSTEM 30: Model 30
 Fluid Head with one
 handle, model 55 claw
 ball metal tripod with
 spreader \$1875

SYSTEM 50: Model 50
 Fluid Head with two
 handles, Model 55
 claw ball metal tripod
 with spreader . \$2795

Tektronix

1710B Waveform
 Monitor/Burst Phase
 Monitor \$1665
1420 Vectorscope
 \$2285

1740 Waveform/
 Vectorscope
 Combination . \$3299
528A Waveform
 Monitor \$1855

Panasonic

AG-2100 VHS
 Player \$514
AG-2200 VHS Player/
 Recorder with Tuner/
 Timer \$595
AG-6100 VHS Player
 with Bi-Directional Dial
 Search \$1013
AG-6200 VHS Player/
 Recorder with
 Bi-Directional Dial
 Search \$1213
AG-6300 VHS Player/
 Recorder with
 Bi-Directional Dial
 Search and External
 Sync \$1313
BT-S702N Studio
 Dual/Rackmount
 Color Monitor with
 Pulse/Cross and
 Underscan Blue Gun
 \$807
BT-S1300N 13" Studio
 Color Monitor with
 Pulse/Cross, Under-
 scan and Blue Gun
 \$448

NV-8500/AG-6300/
NV-A500 VHS Edit
 System \$4750
2 NV-8500/NV-A500
VHS Edit System
 \$5699
TR-930 9" Black and
White Monitor . \$124
TR-932 Dual 9" Black
and White Monitor
 \$268
VW-52038 Triple 5"
Black and White
Monitor \$555
VW-5370 8" Black and
White Monitor with
Underscan \$185
VW-5372 Dual 8"
Black and White
Monitor with Under-
scan \$382
CT-110MA 10" Color
Monitor \$342
CT-1330M 13" Color
Monitor \$356
CT-1330V 13" Color
Monitor/Receiver
 \$473

PANASONIC
VW-555BN
 "NIGHTHAWK"
 3-Newicon Tube
 Camera
CANON PH15 7B
 15X Servo Zoom Lens
PANASONIC
VW-PS30 AC Adaptor
PANASONIC
VW-PS37 Battery
PANASONIC
VW-BC32 Battery
 Charger

PANASONIC
VW-CA32/10 VCR
 Cable
PANASONIC
NV-8420 Portable
VHS Recorder
PANASONIC NV-B58
 AC/Charger
PORTABRACE
C-5000 VCR Case
SPECIAL SYSTEM
PRICE \$6150
INCLUDING 10 FREE
T-120 VIDEO-
CASSETTES

bogen

"AUTOMATIC" 3066
SYSTEM INCLUDES:
 3066 Cine/Video Fluid
 Head with Two
 Handles
 3051 Automatic Tripod
 3067 Dolly \$392

3069 SYSTEM
INCLUDES:
 3066 Cine/Video Fluid
 Head with Two
 Handles
 3068 Universal Cine/
 Video Tripod
 3067 Dolly \$382

JVC

KY-210UP Three Tube
 Color Camera includ-
 ing AC/Charger,
 Battery, Cable and
 Fujinon 16X Lens
 \$6399
TBR-160U Portable
 Presentation System
 \$1235

BY 110UL/16A Three
 Tube Color Camera
 including AC/
 Charger, Battery,
 Cable and Fujinon
 16X Lens \$4125
GX-S700U Tube Color
 Camera with Genlock
 \$1385

T-100 16H Line
 Window-3.58 MHz
 Subcarrier Feedback
 Case \$4350
T-120 16H Line
 Window-Standalone
 or 3.58 MHz . \$5550
T-120D 16H Line
 Window-Standalone
 or 3.58 MHz with
 Dynamic Tracking
 \$6350
T2E-120 Digital
 Effects System
 Consists of 2 T-120D
 with E-120 Effects
 Processor . \$17,495
T-220 Format Inter-
 change TBC . \$9495
GENESIS I Digital
 Effects System
 \$17550
S-230 TBC/Frame
 Synchronizer
 \$11250

PHONE TOLL FREE

1-800-323-8148

NOW IN ALASKA & HAWAII 1-800-448-0354

P.O. Box 36
 Mount Prospect, IL 60056

In Illinois Phone
 (312) 299-5258

STRAIGHT WIRE AUDIO ✓

2611 Wilson Blvd., Arlington, VA 22201
800 368-2081/703 522-7780
Amplifiers for upgrading & customizing audio consoles & cart machines. Audio DAs.

STRAND CENTURY ✓

Box 9004, Rancho Dominguez, CA 90224
213 637-7500
Sirio Ianiro Fresnels, Iris cyc lights, Light Palette & Mantrix lighting control boards, dimmer packs. Solid state HMI ballasts.
Field Offices:
NJ 20 Bushes Ln., Elmwood Park 07407
201 791-7000
CAN6520 Northam Dr., Mississauga Ont.
L4V 1H9 416 677-7130

STUDER REVOX AMERICA ✓

1425 Elm Hill Pike, Nashville, TN 37210
615 254-5651
Portable, mono & stereo studio, audio-for-TV consoles. Audio cassette player/recorders. Open-reel ATRs: portable, two-/four-track studio, multitrack. Digital audio recorders. SMPTE time code synchronizers. CD/DAD players. Monitor speakers. Monitor/power amps. Telco interface equipment.
Field Offices:
CA Thomas Jenny/Vencil Wells, 14046 Burbank Blvd., Van Nuys 91401
213 780-4234
CA Fred Layn, 954 Hawthorne Dr., Walnut Creek 94596 415 930-9866
IL Brian Tucker, 111 South Dr., Tower Lake, Barrington 60010
312 526-1660

NY Nick Balsamo/Nancy Byers, 155 Ave. of the Americas, New York 10013
212 255-4462
TX Chris Ware, 831 Woodlawn Ave., Dallas 75208
214 943-2239
See ad on pg 77

STUDIO FILM & TAPE ✓

6670 Santa Monica Blvd., Hollywood, CA 90038
213 466-8101
Kodak, Agfa, Ampex, TDK videotape & film.

STUDIO TECHNOLOGIES

7250 N. Cicero Ave., Lincolnwood, IL 60646
312 676-9177
Econoplate analog audio reverb; music synthesizers
See ad on pg 16

JOHN M. SULLIVAN ASSOC. ✓

880 Commonwealth Ave., Boston, MA 02215
617 277-1710
Video production & post-production facilities; remote production facilities rental; audio post-production facilities.

SUMMIT SOFTWARE SYSTEMS

2111-M 30 St. #1126, Boulder, CO 80301
303 494-1761
Radio & TV business automation software.

SUNDANCE PRODUCTIONS ✓

7141 Envoy Ct., Dallas, TX 75247
214 688-0081
Video production & post-production facilities; remote production facilities rental.

SUNSOUND STUDIO

9590 Chesapeake Dr., San Diego, CA 92123
619 565-8011
Recording studios; audio post-production facilities.

SURCOM ASSOCIATES ✓

305 Wisconsin Ave., Oceanside, CA 92054
619 722-6162
Jennings & Cornell Dubilier capacitors.
See ad on pg 176

SUSSEX LEASING CORP. ✓

175 Great Neck Rd., Great Neck, NY 11021
516 482-7373
Financial services for radio & television.

SWIDERSKI ELECTRONICS ✓

1200 Greenleaf Ave., Elk Grove Village, IL 60007
312 364-1900
Distributor of full line video equipment.

SWINTEK ENTERPRISES ✓

587 Division St., Campbell, CA 95008
408 378-8091
RF intercom systems. RF mics. Two-way radio communications; remote pickup equipment.

SWITCHCRAFT ✓

5555 N. Elston Ave., Chicago, IL 60630
312 792-2700
Audio jackfields, patch panels. Audio & lighting/ac cable, cable connectors. Switches, receptacles.
See ad on pg 171

NAGRA KUDELSKI
a passion for perfection

The NAGRA IV-S TC and the NAGRA T-Audio TC are two NAGRA recorders equipped with SMPTE/EBU 80 center track time code for double system audio for film and video production and post-production.

KUDELSKI S.A. CH-1033 Cheseaux/Lausanne Switzerland; phone (021) 91.21.21, telex 459 302

Circle 202 on Reader Service Card

NEITHER TIGHT BUDGETS NOR SHORT DEADLINES WILL DETER THE AFA TEAM FROM DELIVERING THE CUSTOM TELEVISION FACILITY OF YOUR DREAMS!



AND YOU CAN BANK ON THAT!



The reasons are simple. We are experts in designing and fabricating video systems of every size and configuration—from mobile units to production studios, one-inch editing suites, insert stages, corporate video systems, etc. This experience has given us the knowledge of not



only how to do it well and expeditiously but also how to do it in the most cost-effective way.

The fact is, in all likelihood, AFA can build a custom-designed television facility for you for less money in less time than you can do it yourself!

But equally important, from the moment you tell us, "It's a go!"—you will know exactly when your new, custom-designed system can start earning money for you. And you can bank on that!



HERE'S WHAT AFA DOES FOR YOU:

- Project conception and consultation
- Project management
- Development of systems specifications
- Coordination with facility architect, contractor or vehicle manufacturer
- Design and engineering of video, audio, communications and control sub-systems
- Specification and procurement of equipment and materials
- Design and fabrication of custom equipment
- Mechanical installation and pre-wiring
- Custom cabinetry and metal work
- Comprehensive documentation, including electronic and systems functionals and schematics, mechanical drawings, cable schedules, floor plans and rack layouts
- Installation of completed systems
- Final systems testing
- Training of customer's personnel



A.F. ASSOCIATES INC.

ADVANCED SYSTEMS AND PRODUCTS FOR THE VIDEO INDUSTRY
100 STONEHURST COURT NORTHVALE NJ 07647 (201) 767-1000
1438 NORTH GOWER STREET HOLLYWOOD CA 90028 (213) 466-5066

SWR, INC.

548 Donald St., Bedford, NH 03102
603 668-0404
FM, TV HP & CP antennas. Rigid & coaxial transmission line.

SYMETRIX

4211 24 Ave. W., Seattle, WA 98199
206 624-5012
ALC & AGC amps, AM & FM compressor/limiters, parametric equalizers, audio noise reduction. Telco interface equipment.

SYMTEC

15933 W. Eight Mile Rd., Detroit, MI 48235
313 272-2950
Titlers, subtitlers, character generator/graphics systems, digital art/paint systems, bit pad digitizers, camera/VTR digitizers.

SYRACUSE SCENERY & STAGE LIGHTING CO.

1423 N. Salina St., Syracuse, NY 13208
315 474-2474
Scenery construction, scenery rigging.

SYSTEM ASSOCIATES

5801 Uplander Way, Culver City, CA 90230
213 641-2042
Used broadcast equipment broker.

SYSTRON DONNER, INSTRUMENT DIV.

2727 Systron Dr., Concord, CA 94518
415 682-6161
Frequency counters, RF generators.

TABER MANUFACTURING & ENGINEERING CO.

1880 Embarcadero Rd., Palo Alto, CA 94303
415 493-3811
Replacement audio & video heads, lapping service. Taber raser head degaussers, audio & videotape cleaners & degaussers. Power amps.

TAMRON INDUSTRIES

24 Valley Rd., Port Washington, NY 11050
516 883-8800
Video camera lenses

TANDBERG OF AMERICA

1 Labriola Ct., Armonk, NY 10504
914 273-9150
Audio cassette recorder/players. Two-/four-track studio ATRs. Preamps, line amps, monitor/power amps. Tape-based loggers.

TANGENT

8206 N. Dreamy Draw Dr., Phoenix, AZ 85020
602 997-4308
Mic mixers; portable & stereo studio consoles.

WILLIAM B. TANNER CO.

2714 Union Ext., Memphis, TN 38112
901 320-4212
Music library; radio & TV audio production.

TASCAM

7733 Telegraph Rd, Montebello, CA 90640
213 726-0303
Mic mixers; portable, stereo studio & audio-for-TV consoles. Audio cassette player/recorders. Two-/four-track studio ATRs. Audio cassettes, test tapes & leaders, empty reels & carts, tape erasers & degaussers. Digital efx, reverb. Electret/condenser mics. Line amps. Audio & video cable, cable connectors, jackfields & patch panels.

See ad on pg. 117

TAU-TRON

10 Lyberty Way, Westford, MA 01880
617 692-5100
Intraplex multiplexers. Multimode optical bandwidth fiberoptic system.

TAYLOR VIDEO CORP.

1208 W. Isabel St., Burbank, CA 91506
818 843-1781
Image HiFi half-inch videocassettes, Tayloreel empty reels, carts, cases.

TBA TECHNOLOGY

Box 302, Walnut Creek, CA 94596
415 932-8134
Magic Lantern HMI & CSI fixtures; Imagine lighting control boards.

TBS FIELD OPERATIONS

1050 Techwood Dr., Atlanta, GA 30318
404 827-1717
Mobile production facilities rental.

Eliminate Ni-Cad battery pack problems!!

PACO KD-120 can solve problem and give you Maximum performance with the Ni-Cad battery packs.

PACO BATTERY DEMEMORIZER KD-120

- By connecting with SONY BC-210 or Panasonic AU-B120, KD-120 will automatically switch the charger for quick charge after dememorizing the packs.
KD-120 trickle charging system will also be engaged after quick charging.
- As the automatic switch to quick charge engages immediately after dememorizing channel one, overall dememorizing/charging time is not much longer than charging only.

(SPECIFICATIONS)

- MODEL CODE.....KD-120
- DEMEMORIZABLE BATTERY PACK.....Ni-Cad battery pack 12V 1.5Ah-6Ah
- CONNECTABLE CHARGER.....SONY BC-210, Panasonic AU-B120
- INPUT POWER.....AC120V ±10% 50/60Hz 3VA
- CHARGING POWER.....Trickle charge 100mA
- DISCHARGE CURRENT.....4A (fixed current)
- OPERATIONS.....Sequential discharge mode
Automatic switching to quick charge mode after discharge mode, then to trickle charge mode
- EXTERNAL DIMENSIONS.....W9.8"×H3.2"×D12.7"
- WEIGHT.....8.2lbs



PACO Ni-Cad BATTERY PACK DP-1240 12V4.4Ah

PACO ELECTRONICS U.S.A., INC.
714 West Olympic Blvd., Suite 706 Los Angeles, CA 90015
TEL:213-747-6540/TLX:756923/FAX:213-747-3731

THE '1500' CHOICE

The 1500 is...

**Dual Micro-Disks
21 Standard Fonts
35 ns Resolution**

...and MUCH more!!

The new model 1500 by Laird Telemedia is setting the standard in high-quality, low-cost Character Generators of the future. At the heart of the 1500 is a dual microfloppy disk-drive system for quick and easy access to character font and page information. The basic unit includes 35 nsec character resolution, 21 disk-loadable fonts (with an optional 50-font library), and over 65 thousand resident colors. Both page and line information can be centered, and characters can be italicized (forward or backward) at many angles. Edging in the 1500 includes four quadrants of drop shadow, as well as character outline and full character edging.

The 1500 features proportional spacing, roll, crawl, and insert/delete editing capability. The unit also accommodates upgradable options. These along with a truly affordable price of under **\$7000** make the

MODEL 1500

**YOUR
BEST
CHOICE!**

Select colors...

**CHARACTERS
OR
BACKGROUNDS**

...a scan at a time!!

PHOTO OF
ACTUAL TV
RASTER

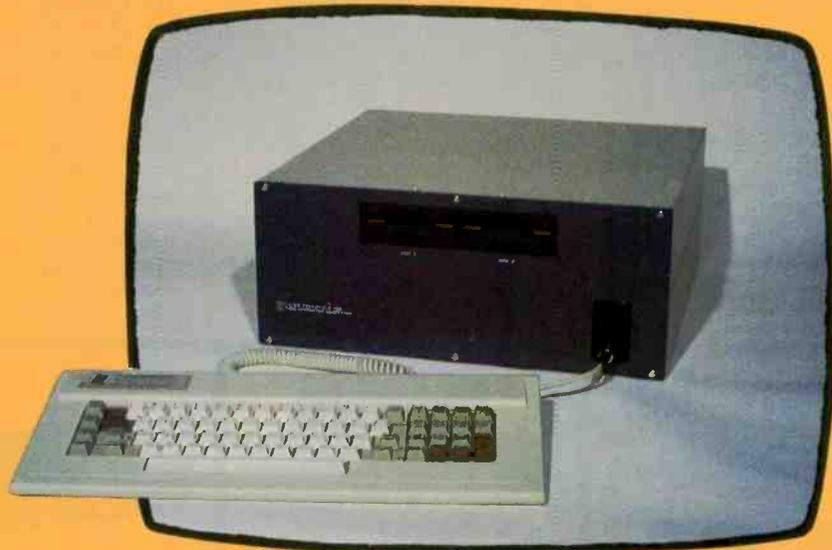
Add Flair...

**Italicize Forward or Backward
with seven different slopes!**

**Proportional spacing with true
character overlap is standard!**

**Select between Full Edging or
Drop Shadow, in four quadrants!**

...to any display!



LAIRD TELEMEDIA INC.®
2424 SOUTH 2570 WEST • 801 972-5900
SALT LAKE CITY, UTAH 84119

Circle 204 on Reader Service Card

TDK ELECTRONICS CORP. ✓

12 Harbor Park Dr., Port Washington, NY 11050
516 625-0100
Open-reel audio tape, audio cassettes, empty reels & carts, head cleaners, tape erasers & degaussers. Video head cleaners & degaussers, half-inch videocassettes.

TEATRONICS

101-D Suburban Rd., San Luis Obispo, CA 93401
805 544-3555
Lighting control boards, dimmer packs.

TECHNICAL PROJECTS ✓

Box 1069, Palatine, IL 60078
800 562-5872/312 359 9240
Hardwired intercoms. DI boxes, impedance balance boxes. Multipurpose audio test sets including audio test signal generators, harmonic distortion meters, IM meters, tape record/audio test systems.
See ad on pg 144

TECHNICS/PANASONIC ✓

1 Panasonic Way, Secaucus, NJ 07094
201 348-7783
Audio cassette player/recorders. Reel-to-reel ATRs. CD/DAD players, turntables, tonearms. Audio equalizers. Monitor speakers. Preamps, monitor/power amps.

TECHNOLOGY SERVICE CORP. ✓

2950 31 St., Santa Monica, CA 90405
213 450-9755
Weather graphics displays, satellite displays, radar displays.

TECTAN ✓

1216 Alamo Way, Pittsburg, CA 94565
415 458-5500
Diplexers, multiplexers.

TEKO TELECOM SRL ✓

Via dell'Industria, 5, I-40068 San Lazzara di Savena BO, Italy 40068
051 456148/Telex 511827
FM, VHF & UHF transmitters; translators. FM & TV exciters; diplexers. RF amps, attenuators, converters, filters. Portable ENG & airborne microwave.

TEKTRONIX ✓

Box 500, D/S 58-699, Beaverton, OR 97077
503 627-2230
Video sync, black burst & color bar generators. TBCs, field synchronizers, frame synchronizers, field/framestores, TBC/framestores. Decoders; comb filter decoders. NTSC, RGB & high-resolution video monitors. Photometers.
Audio test signal generators, harmonic distortion meters, spectrum analyzers, oscillators, programmable audio test system. Video test signal generators, waveform monitors, vectorscopes, combination waveform/vectorscopes, blanking width meters & displays, burst phase meters. Demodulators. Oscilloscopes, delayed sweepscopes, voltmeters, multimeters, dB meters, logic analyzers.

Field Offices:

- AL Jim Edwards, 3322 S. Memorial Pkwy. #203, Huntsville 35801
205 881-2912
- CA Chris Davies, Box 19523, Irvine 92713
714 660-8080
- CA Rich Lyons, Box 8500, Woodland Hills 91365
818 999-1711
- CA Stuart Fox/John Nielson, 3003 Bunker Hill Ln., Santa Clara 95050
408 496-0800
- CO John Kelley/Tom Moore, 393 Inverness Dr. S., Engelwood 80112
303 799-1000
- FL Dave Walters, 3657 Maguire Blvd. #100, Orlando 32803
305 894-3911
- GA Dick Walters/Paul Hogan, Box 6500, Norcross 30091
404 449-4770
- IL Mel Infanzon, 5350 Keystone Ct., Rolling Meadows 60008
312 259-7580
- IN Steve Brant, 6121 E. 30 St., Indianapolis 46219
317 545-2351
- MD Jim Capps, Box 6026, Gaithersburg 20877
301 948-7151
- MA Tom Christenson, 482 Bedford St., Lexington 02173
617 861-6800
- NJ Tom Jordan/Jim Quinn, 40 Gill Ln., Woodbridge 07095
201 636-8616
- NY Bhaskar Pant, 100 Crossways Park W., Woodbury 11797
516 364-9060
- NY 1 Northern Concourse, N. Syracuse 13212
315 455-6661
- OR Warren Beals, 10220 W. Nimbus Dr., Portland 97223
503 620-9100
- PA David Hackney, 450 Sentry Pkwy., Blue Bell 19422
215 825-6400
- PA Ken Kinman, 1051 Brinton Rd. #300, Pittsburgh 15221
412 244-9800
- TX Russ Thalacker, Box 165027, Irving 75016
214 258-0525

See ad on pg. 37-131

TELCOM RESEARCH ✓

1163 King Road, Burlington, Ont., Canada L7R 3X5
416 681-2450
Time code equipment.

TELEASE

11811 Olympic Blvd., Los Angeles, CA 90064
213 473-2600
NTSC encoders, decoders. Audio & video modulators. MAAST encryption systems. Scrambling/descrambling systems for pay TV, DBS, CATV.

TELEDYNE CAMERA SYSTEMS

131 N. Fifth Ave., Arcadia, CA 91006
818 359-6691
CCD color, monochrome & cine cameras. Video to 16 & 35 mm film transfer systems.

TELE-IMAGE

2225 Beltline Rd. #321, Carrollton, TX 75006
214 245-3561
Video production & post-production facilities; mobile production facilities rental.

TELEMAN PRODUCTIONS/DENVER ✓

7700 E. Iloff, Denver, CO 80231
303 751-6000
Video production & post-production facilities; mobile production facilities; equipment rental services.
Field Offices:
AZ 834 N. Seventh Ave., Phoenix 85007
602 254-1600
WA 1200 Steward St., Seattle 98112
206 623-5934

TELE-MEASUREMENTS

145 Main Ave., Clifton, NJ 07014
201 473-8822/800 473-8822
Facilities design & engineering services; engineering consultants; mobile vehicle construction; studio design.

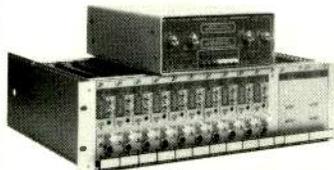
Micro Amp Series™
by



AUDIO TECHNOLOGIES INCORPORATED

328 Maple Avenue
Horsham, PA. 19044
(215) 443-0330

Free Detailed Brochures



**Audio Processors
Modular Distribution
Amplifiers**



Distribution Amplifiers

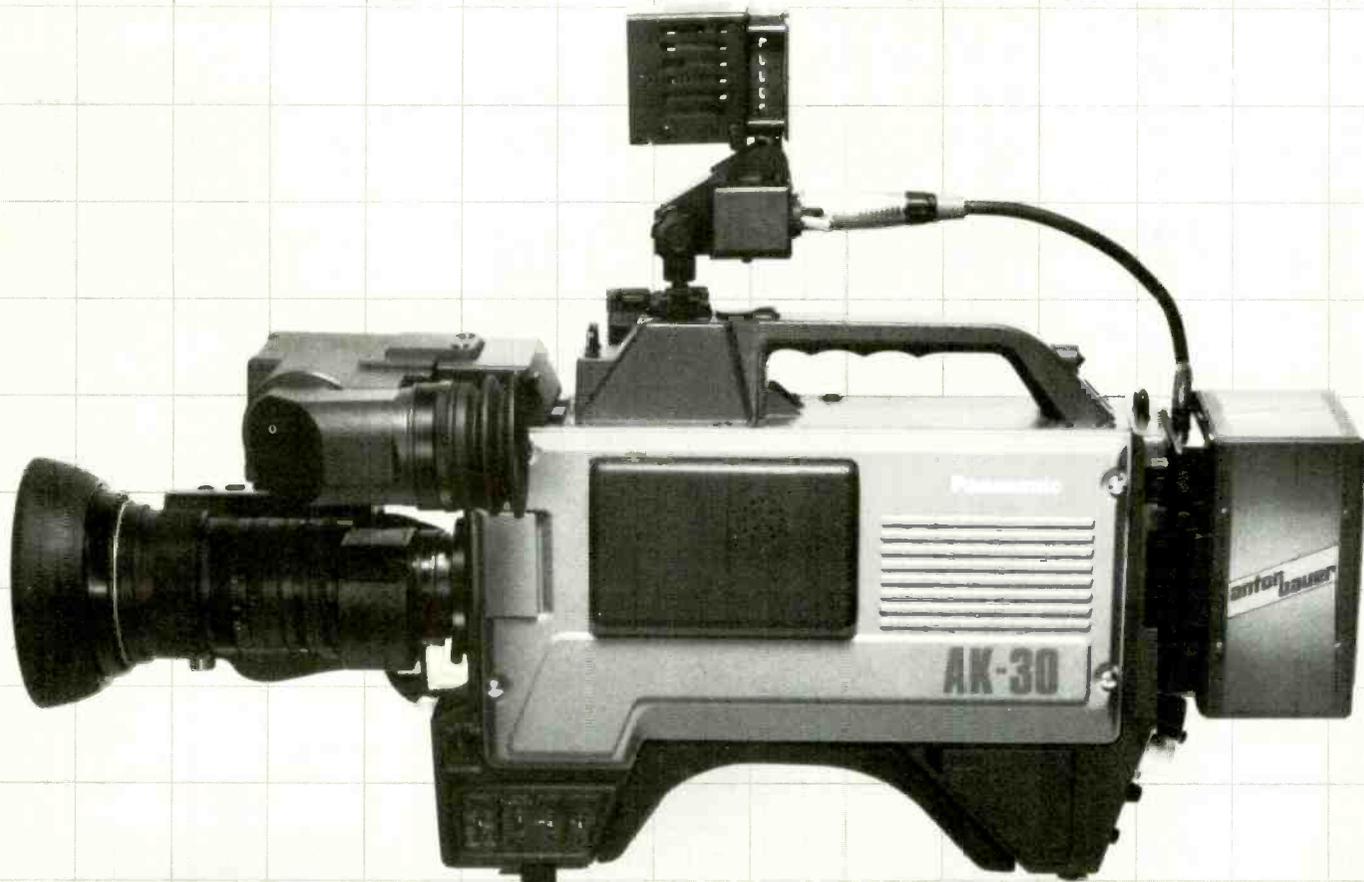


Phono Preamplifiers



**Dual Mike,
Line, & Power
Amplifiers
Rack Mounting**

F·I·E·L·D R·E·P·O·R·T



“Partners in Performance” Panasonic and Anton/Bauer

AK-30 performs in the field.

Picture quality, innovative features and versatility make the Panasonic AK-30 an outstanding performer. At 650 lines (center) horizontal resolution and a S/N ratio of 62dB (-6dB gain)—the highest in the industry—the AK-30 produces a super-refined video image.

The AK-30's circuitry allows you to customize the video image: the auto-white balance remembers two color temperature settings; a knee circuit provides variable dynamic range, and black stretch can be preset.

An impressive list of the AK-30's automatic features includes a centering circuit with selectable preset mode, auto black balance, and a feedback beam control (FBC) circuit to provide the beam current necessary to stabilize scene highlights. For versatility, the AK-30 offers dual outputs for standard NTSC as well as component recording.

Anton/Bauer's Snap-On® system provides powerful field support.

Anton/Bauer batteries are the leaders in the field through reliability and adapt-

ability. The SQ13F, 4AH NiCad battery is warranted by Anton/Bauer for a full two years because it uses premium fast charge cells, individual cell monitoring for total charge protection, unique cold temperature protection and 100% computer tested quality assurance. Coupled with the advanced logic-controlled charging technology of the Anton/Bauer Lifesaver® chargers, the battery system ensures consistently high performance over years of operation. For versatility the SQ13F battery powers VTRs and monitors—including the new Panasonic BTS700N portable monitor—as well as the Anton/Bauer UltraLight lighting system.

New Anton/Bauer UltraLight™ optimal lighting performance.

UltraLight puts high quality portable lighting in a modular, compact and lightweight package. Available in single or dual models, UltraLight can be used interchangeably as a fill, spot or flood light through a wide choice of bulbs and snap-in filters and focus adapters. Extra quick-change lighthouse modules house

alternate or spare bulbs for instant bulb changes in the field without direct handling. An UltraLight Power Adapter snaps directly onto the AK-30's factory installed bracket and allows the SQ13F camera battery to power the lighting system and camera simultaneously. UltraLight can also be operated in the low voltage mode from a compact AC power supply (ULAC) or, with simple bulb and cable changes, from a 30 volt belt, such as Anton/Bauer's 30/13.

Anton/Bauer and Panasonic®—partners in performance.

In the fast-paced video industry, quality and versatility are perhaps the two most critical factors in achieving outstanding performance. Both Anton/Bauer and Panasonic have designed their products specifically to meet these demanding criteria. The proof of their success is in the field.

Write for complete information on the Panasonic AK-30 and Anton/Bauer power and lighting systems.

Panasonic is a registered trademark of Matsushita Electric Corporation of America.



*The quality standard
of the video industry.*

NO OVERLOAD. NO MATTER WHERE YOU USE IT.

In-studio or on-location from a whisper to the roar of a full-blown rock concert, nothing can overload our MD 421. *Nothing.*

**NOW WITH
2-YEAR
LIMITED
WARRANTY**



SENNHEISER®
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Circle 207 on Reader Service Card

STEREO AUTOMATION



Was designed for the TV broadcaster who demands the ultimate stereophonic converter. With many years of audio research in the motion picture industry, Kintek has developed the KT-903, which automatically provides continuous dynamic conversion of mono to stereo and yet bypasses stereo originated programs. Its cognitive speech circuitry centrally focuses the dialogue, making it sound credible. Some additional features are:

- Dynamic Voice And Stereo Width Processor
- Mono/Stereo Sensing Bypass Switch
- Remote Control And Monitor Circuits
- Self Diagnostic Circuits
- Mono Integrity
- Fully Compatible With Broadcast Standards
- Rugged Broadcast Service Design
- Easy Installation And Operation
- 2 Year Warranty

The Kintek KT-903 for quality, reliability, and performance.



Kintek, Inc. 224 Calvary St.
Waltham, MA 02154 617 - 894-6111

Circle 208 on Reader Service Card

TELEMET, DIV. GEOTEL ✓

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516 842-2300

RGB & encoded chromakeyers. Parallel & serial interface routing switchers. Sync, color bar, multiburst & staircase ramp generators. Comb filter decoders. Video & audio DAs, pulse amps. Audio monitor & power amps. VU meters. Modulators. Telco & fiberoptic STLs. Video test signal generators. Demodulators. Sideboard analyzers; envelope delay test set; demodulator testers; thermal equalizers.

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Monitor-based, scroll entry & keyboard entry teleprompters. Foam insert transportation cases for teleprompters.

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TELEVISION ASSOCIATES ✓

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TELEVISION ENGINEERING ✓

580 Goddard Ave., Chesterfield, MO 63017
314 532-4700

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Field Office:

TN 112 21 Ave. #106, Nashville 37203
..... 615 320-0099

TELEVISION EQUIPMENT ASSOCIATES ✓

Box 393, S. Salem, NY 10590

914 763-8893

Dynamic & electret/condenser mics. Line amps, monitor/power amps. Videotape cleaners, evaluators. Video delay lines, filters, video/cable equalizers. Audio & video DAs, pulse amps. Monitor calibrators.

Field Office:

CA 213-9570

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303 465-4141

Wilkinson AM & FM transmitters, FM exciters, RF amps; TTC VHF, UHF & LPTV transmitters, modulators, RF amps. Ampro mono & stereo studio consoles, single-deck cart player/recorders. Scully dual-/triple-deck cart player/recorders; portable, two-/four-track & multitrack ATRs. Wilkinson ALC & AGC amps, AM & FM compressor/limiters.

AT LAST, K SERIES TECHNOLOGY COMES TO 1" TAPE.

Introducing a new breed of 1" tape born of Sony K Series technology. It's our V1-K K Series, and it's generations ahead of other 1" tapes in performance.

We have improved chroma noise and video S/N so you won't hear a lot of

static about picture quality.

And when it comes to runnability and durability you get exactly what you deserve from Sony — excellence.

Plus one of the lowest head wear tapes in the industry. That alone will prevent a lot of headaches.

In the field or in the edit room, no matter what hardware you're using, you should be using our new Sony V1-K K Series 1" tape. Because it's even more of a good thing.

SONY

Industrial Tape Division

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Circle 209 on Reader Service Card

BRYSTON



Bryston's 2B-LP

Bryston has been known and respected for years as the manufacturer of a line of amplifiers which combine the transparency and near-perfect musical accuracy of the finest audiophile equipment, with the ruggedness, reliability and useful features of the best professional gear. Thus, Bryston amplifiers (and preamplifiers) can be considered a statement of purpose to represent the best of both worlds - musical accuracy and professional reliability to the absolute best of our more than 20 years' experience in the manufacture of high-quality electronics.

The 2B-LP is the newest model in Bryston's line, and delivers 50 watts of continuous power per channel from a package designed to save space in such applications as broadcast monitor, mobile sound trucks, headphone feed, cue, and any installation where quality must not be limited by size constraints. As with all Bryston amplifiers, heatsinking is substantial, eliminating the requirement for forced-air cooling in the great majority of installations. This is backed up by very high peak current capability (24 amperes per channel) and low distortion without limiting, regardless of type and phase angle of load. In short, the 2B-LP is more than the functional equivalent of our original 2B in spite of the fact that it occupies only half the volume, and will fit into a single 1.75" rack-space.

The usefulness of the 2B-LP is extended by a long list of standard features, including: Balanced inputs; female XLR input jacks; dual level-controls; isolated headphone jack; and individual two-colour pilot-light/clipping indicator LEDs for each channel. In addition, the channels may be withdrawn from the front of the amplifier while it is in the rack, vastly facilitating any requirement for field-service, including fuse-replacement.

Of course, in keeping with Bryston's tradition of providing for special requirements, the 2B-LP can be modified or adapted to your wishes on reasonably short notice, and at nominal cost.

Best of all, however, the 2B-LP is a Bryston. Thus the sonic quality is unsurpassed. The difference is immediately obvious, even to the uninitiated.

Other amplifiers in Bryston's line include the model 3B at 100 watts per channel and the model 4B at 200 watts per channel! All ratings continuous power at 8 ohms at less than 01% IM or THD

IN THE UNITED STATES

BRYSTON VERMONT
RFD#4, Berlin, Montpelier, Vermont 05602

IN CANADA

BRYSTON INTERNATIONAL MARKETING LTD
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A Giant Step Forward! for Production & Post Production

ULTIMATE-5

"The most comprehensive image compositing system ever"

ULTIMATE-4 has been state-of-the art for eight successive years. A most enviable record in itself—but now the **ULTIMATE-5** takes a quantum leap forward—to even greater flexibility and capability—easier to use, with the ability to satisfy even the most difficult client.

ULTIMATE CORP., 18607 Topham St., Reseda, CA 91335, USA
Telephone (818) 345-5525, Telex 662453

See the ULTIMATE-5 at booth 1642, NAB '85

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TELEX COMMUNICATIONS ✓

9600 Aldrich Ave. S., Minneapolis, MN 55420
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Cart player/recorders. Magnecord two/four-track studio ATRs; ATR preamps. Tape duplicators. Test tapes. Headphones and boom mic headsets. Audiocom hardwired, closed-circuit intercoms. Dynamic, electret/condenser, RF & lavalier mics. 16 mm telecines, 35 mm slide projectors. Communication antennas. Towers & masts. Tape-based loggers.

See ad on pg 177

TEMTRON ELECTRONICS LTD. ✓

15 Main St., E. Rockaway, NY 11557
516 599-6400/800 645-2300

Spectracon camera pickup tubes. Fuji quartz-halogen lamps. RF tubes. Video test signal generators, waveform monitors, vectorscopes, burst phase meters.

TENNAPLEX SYSTEMS

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613 226-5870

Kathrein antennas: FM, TV HP & CP, communications, antenna tuning units. Kathrein TV & FM combiners.

TENTEL CORP. ✓

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Tentelometer tape tension gauges. Head tip protrusion gauge, spindle height & alignment gauges.

TEPCO CORP.

Box 680, Rapid City, SD 57709
605 343-7200

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603 424-5033

Acorn radio & TV newsroom computers. Newsroom software for PCs.

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214 631-2490

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TEXSCAN CORP. ✓

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602 252-5021

Flexicaster time insertion sequencers, complete program automation systems, automatic time/weather announcers. Spectra-Gen titlers, subtitlers. Satellite weather displays, Weatherview weather radar displays. RF attenuators, converters, filters. Spectrum analyzers. Video test signal generators. Field intensity meters, RF test signal generators, impedance bridges. Oscilloscopes.

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46226 317-545-4196
TX 1440 Goodyear Dr., El Paso 79936
..... 800 351-2345
UT 3855 S. 500 West #S, Salt Lake City
84115 801 262-8475

TEXWIPE

650 Crescent Ave., Upper Saddle River, NJ 07458
201 327-5577
Audio & video head cleaners.

TFT

3090 Oakmead Village Dr., Santa Clara, CA 95051
408 727-7272
EBS two-tone systems. AM stereo exciters; modulators. Intercity microwave systems, central receivers. Transmitter remote control systems. STLs, TSLs FM & TV SCA equipment. Demodulators, modulation monitors, frequency monitors & controllers. Log printers, status/alarm indicators.

See ad on pg. 27

THEATRE SERVICE & SUPPLY

1792 Union Ave., Baltimore, MD 21211
301 467-1225
Cyc lighting, lighting stands & rigging, lighting control boards. Scenery rigging, props, materials.

THEATRE TECHNIQUES

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THEATRICAL SERVICES

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 **MEANS
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213 603-1976
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512 473-2020
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THOMSON-CSF BROADCAST

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203 965-7000
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rector. Audimax ALC, AGC amps, Volumax AM & FM compressor/limiters.

Field Offices:

CA Michael W. Clayton, 517 Prospect Terr., Pasadena 91103 ... 818 584-9000
CT Larry Silverman, 25 High St., Westport 06880 ... 203 222-8144
DC George Guiette, 2030 M St. N.W. #402, Washington 20023 ... 202 955-6295
FL Martin J. McGreevy, 5778 Grande Lagoon Blvd., Pensicola 32507 ... 904 492-0666
GA Frank D. Benson, 107 Tuliptree Terr., Peachtree City 30269 ... 404 487-6756
IL Thomas D. Lorenzen, 18474 W. Rae Ln., Gurnee 60031 ... 312 356-5575
KS Emerson Ray, 9517 Moody Pk. Cir., Overland Park 66212 ... 203 965-7000
NY Thomas P. Moore, 312 Hamilton Ave. #10, Syracuse 13204 ... 315 487-6710
TX Mike Richardson, 4721 Spring Creek Rd., Arlington 76017 ... 817 572-4145

See ad on pg. 169

THOMSON-CSF COMPONENTS

301 Rte. 17 N., Rutherford, NJ 07070
201 438-2300
Camera pickup tubes. Vacuum tubes.

THOR ELECTRONICS CORP.

321 Pennsylvania Ave., Box 707, Linden, NJ 07036
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GOOD SIGHT FOR SORE EYES! LISTEC 15" and 19" PROMPTING MONITORS

PROBLEMS WITH TALENT READING SCRIPT?

We have a bright solution!

Listec's own 15" and 19" On-Camera Monitor Prompters will provide your talent with a picture that's **BOLD, PUNCHY** and **CRISP!**

The 19" Studio Prompting System (A-2019W) is the largest display available today and offers the **ULTIMATE** in read-ability. Our 15" Prompter is designed for Studio (A-2015W), Stand-alone (A-2015SA) and EFP (A-2015EFP) configurations.

PLUS FEATURES include:

- Complete hardware to interface with your camera mounting;
- Lightweight chassis;
- Reliability; and . . .
- The traditional fine support of Listec's Tech Team.



LISTEC TELEVISION EQUIPMENT CORPORATION
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LISTEC (WEST) CORP.
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Accuracy... Dependability... Performance...

BELAR HAS PROVIDED THESE QUALITY PREREQUISITES IN OVER 11,000 BROADCAST MONITORS.

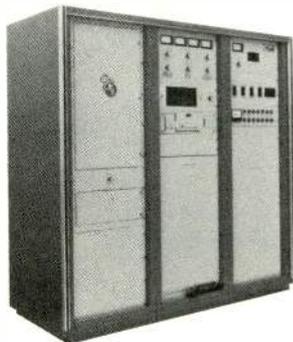


The FMM-2/FMS-2 series monitors provide an even greater degree of precision measurement and stability than ever before... Specifications, which include better than 90 dB S/N, less than .01% maximum THD and IM distortion, and 70 dB stereo separation, make Belar FM monitors the most accurate available today.

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Call or write for more information on Belar AM, FM, Stereo, SCA and TV monitors.

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Continental's top performing 25 kW FM Transmitter speaks for a station you know*



Reliability and proven performance make Continental's 816R-3 compact FM transmitter a winner. Crisp clear signal, high fidelity, good stereo separation, very low noise and distortion, excellent frequency stability, simple installation, low power consumption make it a great

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| KMPS | WXLK | KKMY |
| WINZ | WYCO | WEZI |
| WLVE | WTMI | KCIX |
| WBHM | KWFM | KTXB |
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investment. Combine with duplicate 816R-3 to get 50 kW output. For brochure, call (214) 381-7161 Continental Electronics Division, Varian Associates, Inc. PO Box 270879 Dallas, Texas 75227. © 1985 Continental Electronics/6007



Continental Electronics
A Division of Varian Associates, Inc.



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TIFFEN MFG. CO.

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516 273-2500

Lens shades, adapter rings, step-up & step-down rings, cases & pouches. Viewing filters, light conversion filters, video filter kits, filter holders, glass gelatins. Rezinar resin filters. Master Control magnetic filter systems. Special efx & color correction filters for cine & video cameras. Pro-Corder A/V slide sync machines, Pro-Dissolve slide dissolve machines, Pro-Sound A/V amps, A/V cases. Memorizer computer controller for A/V machines. Audio cassette player/recorders.

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800 243-6904

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203 366-4571

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415 588-2538

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Field Office:

CAN 10712 181 St., Edmonton, Alta. T5S 1K8
..... 408 489-5511

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212 391-1020

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619 279-0831

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TOTAL SPECTRUM MANAGEMENT

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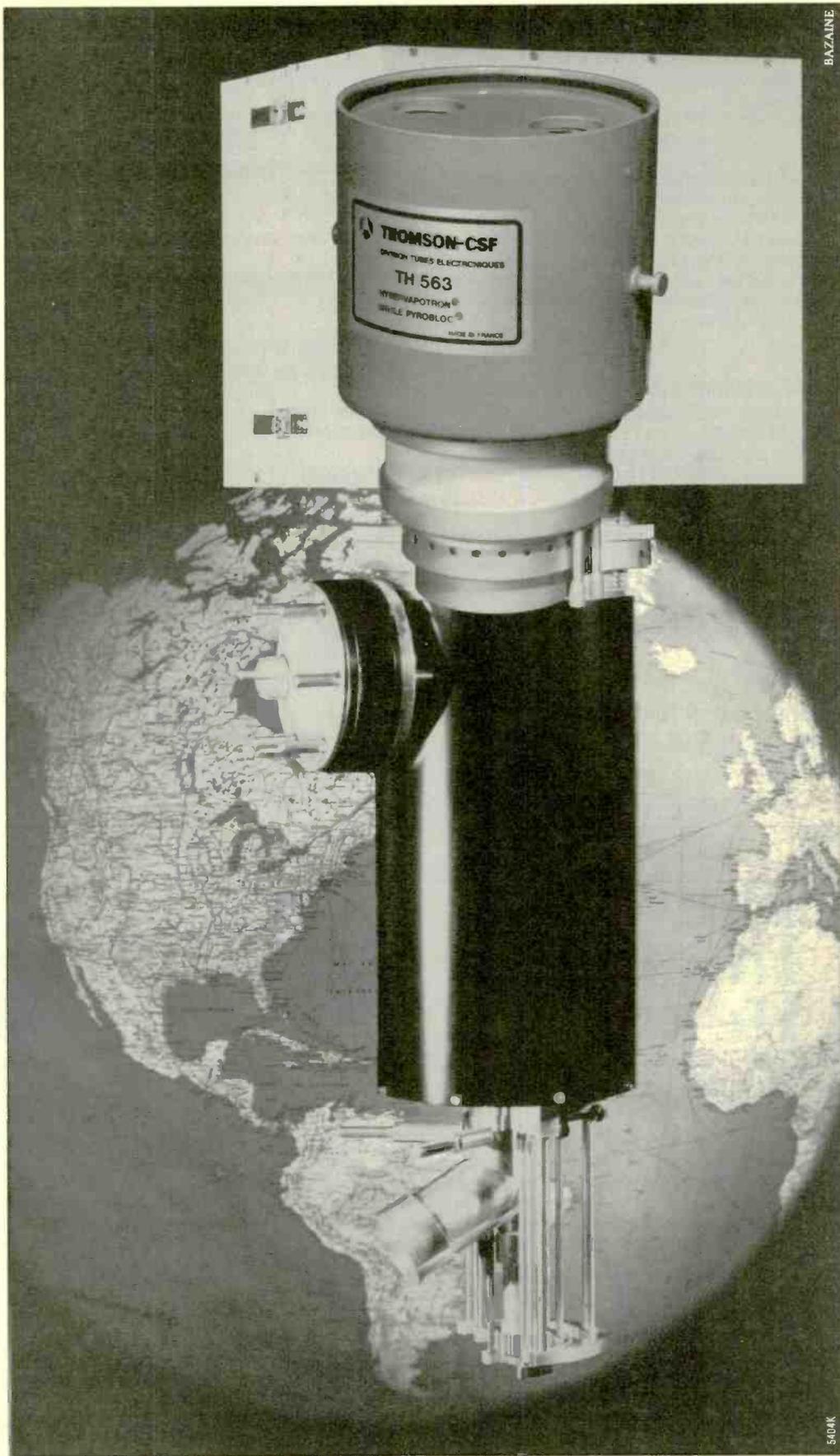
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And still looking ahead!
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413 568-9581

Transmitters: VHF, UHF, LPTV, MDS, transmitters. TV exciters, Orban & BE stereo generators. RF amps, tubes, loads, switches. Transmit/receive & receive-only satellite earth stations. Andrew, Bogner, Alan Dick TV HP & CP antennas. Rigid, foam dielectric & coaxial transmission line; power dividers, RF connectors. Moseley, IMC, TFT STLs, TSLs. TV SCA equipment. Facilities design & engineering services. Installation of TV RF transmission systems.

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Video production & post-production facilities; mobile production facilities rental.

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TAV** ✓
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213 466-2141

Video production & post-production facilities.

TRANSMISSION STRUCTURES
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918 256-7883
Towers.

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TRI-EX TOWER CORP.
Box 5009, Visalia, CA 93278
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TRITRONICS
733 N. Victory Blvd., Burbank, CA 91502
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ELECTRONICS** ✓
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TTE, INC.
11650 W. Olympic Blvd., Los Angeles, CA 90064
213 478-8224
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UHER OF AMERICA ✓
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707 584-7844
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SYSTEMS** ✓
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303 493-4488
Mic booms, dollies. Lighting stands, rigging. Studio furniture.

Valley People Introduces

The Intelligent De-esser



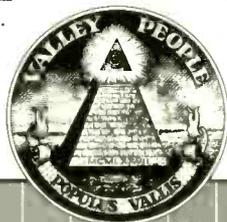
De-essers have typically carried the warning, For use on vocal tracks only. While a few manufacturers have boldly stated that their de-essers can be used on mixed program material, experience has taught us that most of these products restrict high frequency response, thus removing the harmonic content of vocals, cymbals, and strings.

To overcome the "de-essing dilemma," the Dynamic Sibillance Processor in the Model 440 identifies only those components of sibillance likely to cause overload and distortion. Two switch-selectable sensitivity settings allow the operator to configure the DSP for use in the studio or sound reinforcement environment, or for more critical demands of broadcasting and master disk cutting.

In either setting, the proprietary circuitry of the DSP analyzes the sibilant waveform in order to detect and cancel only the coherent and objectionable portions of the sibilant sound, such as "whistles." By cancelling these components instead of equalizing the signal chain, the DSP does not color or affect the tonal balance of the accompanying mixed program material.

We cordially invite you to evaluate the best de-esser at your nearest Valley People dealer. While you're there, you'll find that a higher form of intelligence exists in all of the functions of the Model 440 Limiter/Compressor/Dynamic Sibillance Processor.

Valley People International
C/O Gotham AG, Regensdorf Switzerland
Telex 59222 gothm ch, Tele 0041-1-840-0144



VALLEY PEOPLE, INC.

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The Sweetest Selection For All Your Sound Connections

Treat yourself to a wide choice of very sound accessories for nearly every audio application in studio/control and inter-building communications. From stereo phone jacks to quick ground connectors, from versatile audio adapters to advanced mixers and switching systems, Switchcraft makes just the right connection. And every one meets the highest performance level and operational standards set by the world leader in professional audio equipment.

Why not discover how you can plug into our delicious assortment of audio delights, and deliver the cleanest, clearest sound around.

For the sweetest selection of sound connections, contact Switchcraft or your Switchcraft rep.

Switchcraft

A **Raytheon** Company

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Videotek Value: Amplified

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Video
Distribution
Amplifier*
with
Equalization



SDA-14

Subcarrier
Distribution
Amplifier.*
0°-360° Phase
Adjustable



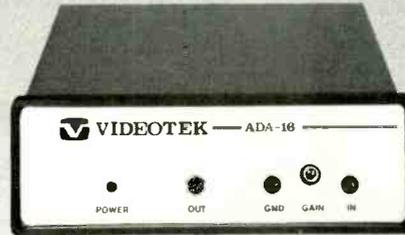
PDA-16

Pulse
Distribution
Amplifier*



ADA-16

Audio
Distribution
Amplifier*



*Optional DAT-1 Rackmount Frame available.

A DECADE OF PROGRESS



A DESIGN FOR THE FUTURE

VIDEOTEK Inc.

243 Shoemaker Road, Pottstown, PA 19464. (215) 327-2292. TWX 710-653-0125. 9625 North 21st Drive, Phoenix, AZ 85021. (602) 997-7523. TWX 910-951-0621.

Circle 218 on Reader Service Card

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ULTIMATE CORP. ✓

18607 Topham St., Reseda, CA 91335
818 345-5525
Ultimate, Newsmatte RGB chromakeyers.
[See ad on pg 166](#)

ULTRA AUDIO PIXTEC, DIV. AUDIO INTL. ✓

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Mic mixers; portable, studio, audio-for-TV
consoles. Single & multiple cart player/
recorders. Phase control matrixing. Re-
placement audio heads. Alignment & tension
gauges. Bulk erasers, splice finders. Com-
plete program automation systems.

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11575
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two-machine editor/controllers & A/B roll edi-
tors; Commander II multisource editors; time
code synchronizers; SMPTE time code
generator/readers. The Director looping
controller for automatic dialog replacement.
Image Artist character generator/graphics
systems, digital art/paint systems. 3D model-
ing & manipulation, "draw-on-screen" sys-
tems, bit pad digitizers. Automated master
control switchers. Parallel & serial interface
video routing switchers.

UNITED PRESS INTERNATIONAL ✓

220 E. 42 St., New York, NY 10017
212 850-8600
Wire services, radio news networks, photo
services.

UNITED RESEARCH LAB ✓

16 E. 52 St., New York, NY 10022
212 751-4663
Two/four-track studio ATRs. Replacement
audio heads. Distributor of audio products &
test equipment.

UNITED ROPEWORKS ✓

Box 454, 20 Commerce Dr.,
Montgomeryville, PA 18936
215 368-6611
Nonmetallic, electrically transparent tower
guys.
[See ad on pg. 122](#)

UNITEL VIDEO ✓

515 W. 57 St., New York, NY 10019
212 265-3600
Video production & post-production facili-
ties; mobile production facilities rental; re-
cording studios; teleconferencing services.

URSA MAJOR ✓

Box 28, New Town Branch, Boston, MA
02258
617 924-7697
Digital audio efx, reverb; multitap stereo
processor.

UTAH SCIENTIFIC ✓

1685 W. 2200 S., Salt Lake City, UT 84119
800 453-8782/801 973-6840
Master control switchers. Serial interface
routing switchers & machine control/
technical automation. Audio & video DAs.
[See ad on pg. 109](#)

UTILITY TOWER CO. ✓

3200 N.W. 38, Box 12369, Oklahoma City,
OK 73157
405 946-5551
Towers, masts, hardware & construction
equipment; tower lighting.

VALENTINO MUSIC LIBRARY

151 W. 46 St., New York, NY 10036
212 869-5210/800 223-6278
Production music library.

VALLEY PEOPLE

Box 40306, 2817 Erica Pl., Nashville, TN 37204
615 383-4737

Dyna-Mic mic mixers. Dyna-Mite ALC & AGC amps, AM & FM compressor/limiters; Gain Brain compressor/limiter/ducker; dual compressor/limiters; limiter/compressor/dynamic sibilance processor; Maxi-Q parametric equalizers, Kepex audio noise reduction. Trans-Amp preamps. Level matching interfaces. Voltage-controlled gain cells & VCAs.
See ad on pg. 170

VALTEC

99 Hartwell St., W. Boylston, MA 01583
617 835-6082
Fiberoptic cable & hardware.

VAMCO ENGINEERING

17450 S. Grant, Bixby, OK 74008
918 366-7400
Audio & video DAs. Parallel & serial interface routing switchers, machine control/technical automation. Remote control systems. Engineering consultants.

VANNER

745 Harrison Dr., Columbus, OH 43204
614 272-6263
Lead-acid batteries, chargers; ac/dc converters, inverters.



VARIAN/EIMAC

1678 S. Pioneer Rd., Salt Lake City, UT 84104
801 972-5000

Triodes, switch tubes, transmitter tubes.

Field Offices:

AL	500 Wynn Dr., N.W. #302, Huntsville 35805	205 837-9225
CA	818 Oak Park Rd., Covina 91724	818 967-3834
CA	2901 Wilshire Blvd. #205, Santa Monica 90403	213 828-5588
FL	314 S. Missouri #209, Clearwater 33516	813 446-8513
GA	106 Olympia Dr. #D, Warner Robins 31093	912 922-2202
IL	205 W. Touhy Ave., Park Ridge 60068	312 825-6686
MA	83 Second Ave., Burlington 01803	617 272-8532
MD	939 Elk Ridge Landing Rd. #195, Linthicum 21090	301 850-5010
NJ	25 Commerce Dr., Cranford 07016	201 276-9050
NJ	304 Harper Dr., Moorestown 08057	609 235-6800
NY	2504 Brewerton Rd., Syracuse 13211	315 455-2810
OH	4130 Linden Ave. #255, Dayton 45432	513 258-3930

TX 13531 N. Central Expy. #2343, Dallas 75243 214 235-2385

VARIAN, MICROWAVE TUBE DIV.

611 Hansen Way, Palo Alto, CA 94303
415 493-4000
UHF-TV klystrons, satellite uplink klystrons, studio transmitter communications reflex klystrons.

VARICOM

350 Townsend St. #210, San Francisco, CA 94107
415 543-7218
Business automation software.

VARITEL VIDEO

350 Townsend St., San Francisco, CA 94107
415 495-3328
Video post-production facilities; mobile production facilities rental.

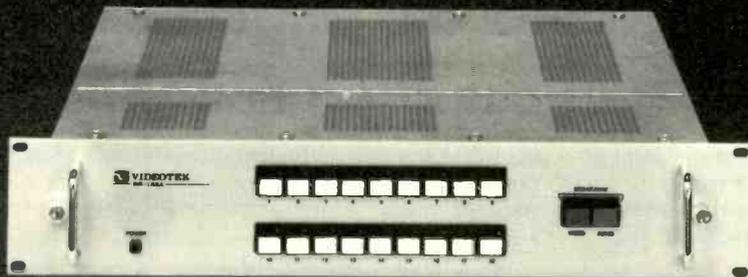
VCA TELETRONICS

231 E. 55 St., New York, NY 10022
212 355-1600
Video production & post-production facilities; mobile production facilities rental; audio post-production facilities; facilities design & engineering services; engineering consultants.

VECTOR TECHNOLOGY

203 Airport Rd., Doylestown, PA 18901
215 348-4100
Diplexers. RF filters, loads, switches. Power dividers. AM sampling systems. Coils. RF phasing equipment.

Switch to Videotek Value



RS-183A

18x1 Audio Follow Video Routing Switcher*

- 18 Looping Video Inputs
- 18 Stereo & Data Inputs
- Video/Audio Breakaway
- RS422 Computer Interface



RS-10A

10x1 Audio Follow Video Routing Switcher*

- 10 Looping Video Inputs
- 2 Audio Inputs per Video Channel
- Video/Audio Breakaway



RS-12 12x1 Video Only Routing Switcher*

- 12 Looping Video Inputs
- 24-Hour Channel Memory

A DECADE OF PROGRESS



A DESIGN FOR THE FUTURE

VIDEOTEK INC.

*Optional Remote Control available.

243 Shoemaker Road, Pottstown, PA 19464, (215) 327-2292, TWX 710-653-0125. 9625 North 21st Drive, Phoenix, AZ 85021, (602) 997-7523, TWX 910-951-0621.

© Videotek-1985

Circle 219 on Reader Service Card

VECTRIX CORP. ✓

2606 Branchwood Dr., Greensboro, NC 27408

919 288-0520

Color graphics frame buffers. Weather graphics & imagery systems. Color Card two-board graphics package for IBM PC & XT computers. High-resolution two-card graphics package for IBM AT & XT.

VERTEX COMMUNICATIONS

Box 1277, Kilgore, TX 75662

214 984-0555

Transmit/receive, receive-only & transportable satellite earth stations; satellite network controllers. Communications antennas.

VIDAIRE ELECTRONICS

150 Buffalo Ave., Box 788, Freeport, NY 11520

516 623-6696

Vecor headphones, RF intercom systems, dynamic & electret/condenser mics.

VIDCOM

TELECOMMUNICATIONS SERVICES

2426 Townsgate Rd., Westlake Village, CA 91361

818 991-1974

Video production & post-production facilities; mobile production facilities rental; equipment rental services; mobile vehicle construction.

VIDEO AIDS OF COLORADO ✓

2450 Central Ave. #H, Boulder, CO 80301
303 443-4950

Hardwired intercom systems. Character generator/graphics systems. Sync, black burst, color bar generators. Image enhancers. Audio & video DAs, pulse amps. Video squelchers, video & audio alarms. RF amps. Burst phase meters.

VIDEO ASSOCIATES LABS ✓

3933 Steck Ave. #B109, Austin, TX 78759
512 346-5781

Microkey add-on board giving NTSC output from Apple & IBM computers for graphics applications.

VIDEO COMPONENTS

601 S. Main St., Spring Valley, NY 10977
914 356-3700

Time insertion sequencers. Lenses, lens remote control. Titlers, subtitles; character generator/graphics systems. Automated master control switchers. Vertical interval machine control. Sync, black burst, color bar, safe title area & video slate board/countdown generators. TBC/framestores; standards converters. Proc amps, video DAs, pulse amps, subcarrier amps. Monochrome video monitors. Lamps. Nicad batteries, chargers. Tripods, heads, pedestals, ENG braces, dollies. Foam insert, padded nylon & rack configuration transportation cases; editing/production consoles.

VIDEO DATA SYSTEMS ✓

205 Oser Ave., Hauppauge, NY 11787
516 231-4400

Microsystem II message display system. Teletext decoding equipment. Vital Communication data communications systems.

VIDEO INTERNATIONAL ✓

1280 Sunrise Hwy., Copiague, NY 11726
516 842-1815

Portable, digital TV standards converters.

VIDEO MAGNETICS ✓

3515 Edison Way, Menlo Park, CA 94025
415 365-0125

Half-inch & 3/4-inch video cart/cassette changers.

VIDEOMEDIA ✓

211 Weddell Dr., Sunnysvale, CA 94089
408 745-1700

Two-machine editor/controllers, A/B-roll editors, multisource editors, SMPTE time code generator/readers. Video animation controllers. Parallel & serial interface machine control/technical automation; vertical interval encoder/decoder systems. Traffic & billing systems.

VIDEO ONE

10625 Chandler Blvd., N. Hollywood, CA 91601

818 980-0704

Mobile production facilities rental.

This new portable UHF Field Strength Meter gives you accurate readings across the entire band.

Someone once said that "Certainty is Security." That is the main idea behind field strength measurements. They verify the signal level and rf environment at the point of reception. You know for certain what's out there.

It is now easy for UHF stations to achieve this certainty. With the new FIM-72 from Potomac Instruments.

Tune the entire UHF band

From 470 to 960 MHz. The received signal strength is shown in volts and dB, with a 140 dB measurement range. Select peak or averaging detection; wide or narrow IF bandwidth. Seven 20dB logarithmic ranges assures precise readings. Internal demodulators (AM and FM) provide audio monitoring of the selected signal.

It is easy to use

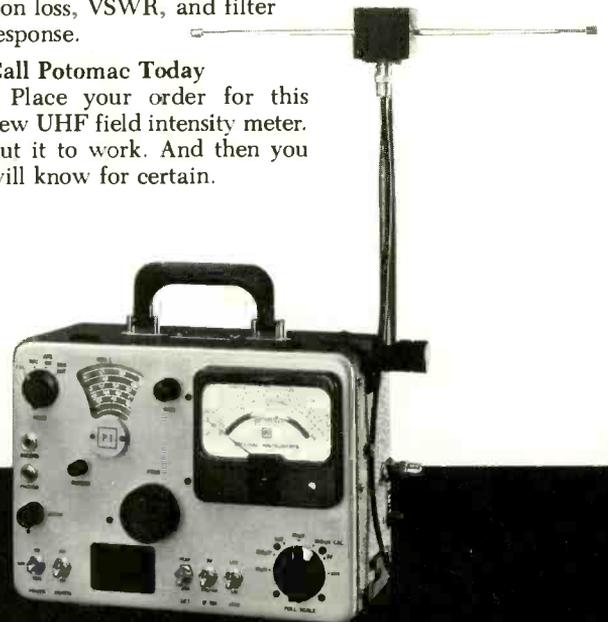
Find the desired signal on the spiral dial. Calibrate the meter using the internal generator, then read the signal strength from the mirrored meter. The field strength is easily determined from the supplied calibration data.

Laboratory applications

The FIM-72 includes a precision rf generator that tracks the tuned frequency. Typical measurements include insertion loss, VSWR, and filter response.

Call Potomac Today

Place your order for this new UHF field intensity meter. Put it to work. And then you will know for certain.



POTOMAC INSTRUMENTS

932 PHILADELPHIA AVE. SILVER SPRING, MD 20910
(301) 589-2662

VIDEO PLANNING

325 W. 56 St., New York, NY 10019
212 582-5066
Video production & duplication facilities.

VIDEO POST & TRANSFER

Box 53, Love Field Terminal, Dallas, TX 75235
214 350-2676

Video & audio post-production facilities; engineering consultants.

VIDEOSMITH

2006 Chancellor St., Philadelphia, PA 19103
215 864-0658

Video post-production facilities; equipment rental services; music libraries; video/film stock shot library; script-to-screen services.

VIDEOSTAR CONNECTIONS

3390 Peachtree Rd., Atlanta, GA 30326
404 262-1555

C-band & Ku-band satellite networking & transmission services; videoconferencing services; earth station site selection; satellite time brokers.

THE VIDEO TAPE CO.

10545 Burbank Blvd., N. Hollywood, CA 91601
818 985-1666

Video post-production facilities; video duplication & distribution services; satellite delivery of syndicated programs.

 **MEANS
IT'S VERIFIED**

VIDEOTEK

243 Shoemaker Rd., Pottstown, PA 19464
215 327-2292

NTSC, RGB & battery-powered portable video monitors. Routing switchers. Distribution amps. Sync generators. Demodulators. Waveform monitors & vectorscopes. Audio program monitors.

See ad on pg 172-173

VIDEOTEX/AMERICA

2050 Center Ave. #200, Fort Lee, NJ 07024
201 461-0217

Videotex hardware & software.

VIDEO TRANSITIONS

910 N. Citrus Ave., Hollywood, CA 90038
213 465-3333

Video post-production facilities.

VIDEO WEST

Broadcast House, 5 Triad Center, Salt Lake City, UT 84180
801 575-7400

Video production & post-production facilities; mobile production facilities rental.

VIDEOWORKS

24 W. 40 St., New York, NY 10018
212 869-2500

Video production & post-production facilities.

VIF INTERNATIONAL

Box 1555, Mountain View, CA 94042
408 739-9740

Audio head cleaners, degaussers, alignment & tension gauges. Test tapes, leaders. Relay sequencers. Monitor/power amps. Tape recorder motor remanufacturing.

VIKING CASES

10480 Oak St. N.E., St. Petersburg, FL 33702

813 577-1216

Viking, CarryLite foam insert & rack configuration transportation cases. Editing/production consoles. Rack-Mount, Shock-Mount equipment racks.

VISCOUNT INDUSTRIES

105 E. 69 Ave., Vancouver, BC, Canada V5X 2W9

604 327-9446

Manual master control switchers. Compact studio/mobile production switchers. Special effect's generators.

NEW TV CP?

Use BSI's experience to:

- Establish efficient studio floorplan.
- Select a building for your studio.
- Plan technical systems.
- Design and construct your TV facility (we build complete systems).
- Supply equipment from 150 top lines.



We specialize in building TV stations on budget...on time. Call us for more information.



BROADCAST SYSTEMS INC.
8222 Jamestown Drive Austin, Texas 78758
512/836-6011 800/531-5232 800/252-9792 TX

Circle 221 on Reader Service Card



Merlin ME-888 Standards Converter for ALL world video standards

- Automatic conversion between all world television standards — NTSC, PAL, SECAM, PAL-M, PAL-N and NTSC 4.43.
- Digital image processing — color correction, noise reduction, H & V detail enhancement
- Multistandard TBC, color bars, frame synchronization and freeze frame.

MERLIN

MERLIN ENGINEERING WORKS

2440 EMBARCADERO WAY, PALO ALTO, CA 94303
(415) 856-0900 • TWX 910-3731782
TOLL FREE (800) 227-1980



Circle 222 on Reader Service Card

DO YOUR PRODUCTIONS SOUND AS GOOD AS THEY LOOK?

They will,
with music from APM.

More than 20,000 selections,
specifically created to meet today's
professional AV, film and video needs.

Give us a call for our latest
free sampler cassette.

Exclusive representatives of the KPM, Bruton,
Conroy and Themes Production Music Libraries



Associated Production Music

888 Seventh Avenue, New York, NY 10106
(212) 977-5680

6255 Sunset Blvd, Hollywood, CA 90028
(213) 461-3211

Circle 223 on Reader Service Card

CDE CORNELL-DUBILIER

Mica Capacitors

LARGE

STOCK



VACUUM CAPACITORS

ITT JENNINGS

SURCOM ASSOCIATES, INC.

305 Wisconsin Avenue
Oceanside, California 92054
(619) 722-6162

Circle 224 on Reader Service Card

MEANS IT'S VERIFIED

VISUAL INFORMATION INSTITUTE

719 Lower Bellbrook Rd., Box 33, Xenia, OH 45385

513 376-4361

Sync generators. Video test signal generators, test charts.

VITAL INDUSTRIES

3700 N.E. 53 Ave., Gainesville, FL 32601

904 378-1581

Compact studio/mobile & large automated production switchers. Standalone efx generators, chromakeyers, title keyers. Digital efx processors. Manual, automated & business automation interfaced machine control/technical automation. Serial interface routing switchers. SMPTE time code generator/readers, time code synchronizers. Pulse amps, video & audio DAs.

VJ ELECTRONICS/ANCHOR SYSTEMS See ANCHOR AUDIO

WALLACH & ASSOC.

Box 18167, Cleveland, OH 44118

216 575-0765

Cabinets; equipment racks; cart/tape storage.

WARD-BECK SYSTEMS

841 Progress Ave., Scarborough, Ont., Canada M1H 2X4

416 438-6550

Portable, mono & stereo studio & audio-for-TV consoles; console automation. Hardwired intercoms. Amp power supplies. Audio DAs, audio routing switchers, audio patch panels, jackfields. VU & PPM meters. Audio test signal generators.

Field Offices:

MA William McFadden, 10 Page St., Danvers 01923 617 777-7228

TX Duke McLane, 4012 Mendenhall Dr., Dallas 75234 214 241-5999

See ad on pg. Cover 4

WAVETEK INDIANA

5808 Churchman, Box 190, Beech Grove, IN 46107

317 788-3332

Two-way communications equipment. RF attenuators, filters. Microwave signal generators. Sweep generators. Video test signal generators. Oscilloscopes.

WAVETEK ROCKLAND

Rockleigh Ind. Ctr., Rockleigh, NJ 07647

201 767-7900

Active equalizers & filters. Audio & RF sideband analyzers. Spectrum analyzers, frequency synthesizers.

WEGENER COMMUNICATIONS

150 Technology Park/Atlanta, Norcross, GA 30092

404 448-7288

Stereo generators. Transmit/receive & receive-only satellite earth stations; upconverters, downconverters, encryption systems, satellite network controllers. FM SCA equipment.

WESTEC AUDIO VIDEO

1841 Broadway #1203, New York, NY 10023

212 586-1662

Equipment rental service; audio & video post-production facilities; recording studios; engineering consultant; distributor of TV audio equipment.

WESTERN TELECOMMUNICATIONS

5455 S. Valentia Way, Englewood, CO 80111

303 771-8200

Satellite communication service; microwave & fiberoptic systems.

WESTERN UNION

1 Lake St., Upper Saddle River, NJ 07658

201 825-5000

Digital & analog video & audio transmission via satellite.

WESTINGHOUSE ELECTRIC, IGT DIV.

Westinghouse Circle, Horseheads, NY 14845

607 796-3211

Single-tube & monochrome video cameras. Vacuum tubes.

WESTLAKE AUDIO

2696 Lavery Ct. #18, Newbury Park, CA 91320

805 499-3686

Audio reference monitors. Direct Box audio DAs; audio patch panels, jackfields; audio multi boxes, splitters.

WGN CONTINENTAL PRODUCTIONS CO.

2501 W. Bradley Pl., Chicago, IL 60618

312 528-2311

Video production & post-production facilities; mobile production facilities rental.

WHEATSTONE CORP.

5 Collins Rd., Betheny, CT 06525

203 393-0887

Mic mixers; portable, mono & stereo studio, audio-for-TV consoles. AM & FM compressor/limiters, parametric & graphic equalizers. Notch filters; tunable electric crossovers.

See ad on pg. 127

WHIRLWIND

100 Boxart St., Rochester, NY 14603

716 865-4415

Direct & breakout boxes. Multiline mic cables & patch panels.

✓ MEANS
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WHITE INSTRUMENTS ✓

Box 698, Austin, TX 78767
512 892-0752

Graphic equalizers. Real-time analyzers,
pink/white noise generators.

WICKERWORKS VIDEO PRODUCTIONS

7342 S. Alton Way, Englewood, CO 80112
303 741-3400

Video production & post-production facilities;
mobile production facilities rental.

WIDE BAND ENGINEERING ✓

Box 21652, 1838 E. University Dr., Phoenix,
AZ 85036

602 254-1570

RF amps, terminations, comparators, splitters,
directional couplers. Impedance bridges.

WIDE RANGE ELECTRONICS CORP. ✓

2119 Schuetz Rd, St. Louis, MO 63146
314 567-5366

Audio & videotape erasers, degaussers.
SMPTÉ time code generator/readers. Audio
decade boxes.

WILKINSON RADIO See TELEVISION TECHNOLOGY

WILL-BURT TMD DIV. ✓

169 S. Main St., Orrville, OH 44667
216 682-7105

Sky-Hi telescoping ENG masts.

H. WILSON CO. ✓

555 W. Taft Dr., S. Holland, IL 60473
800 342-5492

Studio furniture, cabinets, equipment racks.

WINDSOR TOTAL VIDEO ✓

565 Fifth Ave., New York, NY 10017
212 725-8080

Video production & post-production facilities;
mobile production facilities rental; recording
studios; audio post-production facilities;
equipment rental services; set/studio design
services; engineering consultants; music libraries;
standards conversion.

Finally, day-long comfort and...

NEW



clear, two-way communications between camera and director.

This headset series is specifically designed to provide high quality communication through camera intercoms in television studios or remote locations. Telex camera headsets have sensitive carbon microphones with a smooth voice frequency range of 300 to 4500 Hz. They offer compatibility with Western Electric type intercom circuits and are available with or without push-to-talk switch for compatibility with most existing systems. The earphones contain high sensitivity magnetic receivers that can be easily removed and replaced in the field for convenience and economy.

Designed for comfort

All units are designed for long lasting durability and lightweight comfort that lasts throughout a long camera session. The headband and earphones have removable, soft foam filled pads covered in supple polyurethane that resists cracking even after years of constant use under hot studio lights or sunlight. The mike is housed on a boom that rotates on a swivel ball for full flexibility in positioning the mike to the mouth, while giving the user the option of wearing the headset with the mike on the right or left side of the head. Washable nylon earphone socks provide further comfort.



TELEX®

TELEX COMMUNICATIONS, INC.

960C Aldrich Ave. So., Minneapolis, MN 55420 U.S.A., Telephone: 612-887-5550, 884-4051, telex: 29-7053
Europe: Le Bonaparte - Office 711, Centre Affaires Paris-Nord, 93153 Le Blanc-Mesnil, France.
Telephone: (1) 865-5045, telex: 230-793

Call Toll Free in U.S. 800-328-3771 • In Minnesota Call (612) 887-5550

Total Radio Recall.



The Dictaphone 5600 Veritrac™ voice communication recording system is a complete broadcast recording-retrieval system that lets your radio station keep its entire broadcast day on the record. In one dependable unit you get around-the-clock verification that you're running your advertiser's spots on schedule and meeting all your FCC requirements. So if they ask for proof, you've got it all there on tape, ready for quick retrieval and replay.

Tune into the Dictaphone 5600 Veritrac logger. And never get your signals crossed again.

QBME 85

For more information, fill in the coupon or call toll-free: **1-800-431-1708** (Except in Hawaii and Alaska) In New York call **1-914-967-2249** Or mail to: **Dictaphone Corporation, 120 Old Post Road, Rye, NY 10580**

Name _____
 Title _____ Phone _____
 Company _____
 Address _____
 City _____ State _____ Zip _____

DICTAPHONE® and Veritrac are trademarks of Dictaphone Corp., Rye, N.Y. ©1985 Dictaphone Corp.



Dictaphone

A Pitney Bowes Company
 Circle 226 on Reader Service Card

MEANS IT'S VERIFIED

D.E. WINGET, INC. ✓
 12205 S.E. 67 Pl., Bellevue, WA 98006
 206 641-0297
 Air Sentry off-air monitor & end-of-tape sensor.

WINSTED CORP. ✓
 9801 James Circle, Minneapolis, MN 55431
 612 888-1957
 System 85 & Matchmaker studio furniture, cabinets, studio consoles, equipment racks, cart/tape storage.

WIREWORKS CORP.
 380 Hillside Ave., Hillside, NJ 07205
 201 686-7400
 Audio & video cable, connectors, jackfields; mic cables, mic splitting systems; Multicable cable components.

WKYT-TV
 Box 5037, Lexington, KY 40555
 606 299-0411
 Video production & post-production facilities; mobile production facilities rental; equipment rental services.

WOLD COMMUNICATIONS ✓
 10880 Wilshire Blvd. #2204, Los Angeles, CA 90024
 213 474-3500
 Satellite time brokers; videoconferencing uplink & downlink services; syndicated program delivery; news & sports feeds; international transmission; video production facilities; mobile production facilities rental; facilities design & engineering services.

WOLF COACH ✓
 7 B St., Auburn Ind. Pk., Auburn, MA 01501
 617 791-1950
 Mobile vehicle construction.

FRANK WOOLLEY & CO. ✓
 529 Franklin St., Reading, PA 19602
 215 374-8335
 Polarization polarized graphics effects system, Motionmaster video animation system.

WORLD TOWER CO. ✓
 Box 405, Mayfield, KY 42066
 502 247-3642
 Tower masts.

WORLD VIDEO ✓
 27 N. Washington St., Box 117, Boyertown, PA 19512
 215 367-6055
 Monitor/power amps; audio program monitors. Video test signal generators; SCH verification module.

WPHL PRODUCTIONS
 5001 Wynnefield Ave., Philadelphia, PA 19131
 215 878-1700
 Video production & post-production facilities; mobile production facilities rental.

WSI CORP. ✓
 41 North Rd., Bedford, MA 01730
 617 275-5300
 Weather & sports information database.

XEDIT CORP.
 133 S. Terrace Ave., Mt. Vernon, NY 10550
 914 668-0388
 Splicing blocks, tape. Wow & flutter meters.

XIPHIAS ✓
 13470 Washington Blvd. #203, Marina del Rey, CA 90292
 213 821-0074
 Videograph digital art/paint systems.

YAMAHA INTL. CORP., PROFESSIONAL PRODUCTS DIV. ✓
 6600 Orangethorpe Ave., Buena Park, CA 90620
 714 522-9011
 Mic mixers; portable, stereo studio, audio-for-TV consoles. Audio cassette player/recorders. Graphic equalizers. Digital efx & reverb, digital delay, music synthesizers. Monitor speakers. Line amps, monitor/power amps.
 See ad on pg. 39-40

YES PRODUCTIONS ✓
 916 Navarre Ave., New Orleans, LA 70124
 504 486-5511
 Video production & post-production facilities; mobile production facilities rental; audio post-production facilities.

THE ZEI-MARK CORP.
 Box 182, Brookfield Center, CT 06805
 203 355-0008
 16/35 mm telecine projectors, 35 mm slide projectors, optical multiplexers, telecine control systems. Telecine lenses, neutral density filters. Automatic light controls, telecine lap-dissolves.

ZELLAN ENTERPRISES ✓
 15 W. 26 St., New York, NY 10010
 212 213-0620
 Aaton cine cameras. Cooke, Angenieux, Zeiss lenses. Camrail light tracking system. Portamount vibration filtering system for helicopters.
 Field Office:
 CA 905 N. Cole Ave., Hollywood 90038
 213 463-8151

ZENITH ELECTRONICS CORP. ✓
 699 Wheeling Rd., Mt. Prospect, IL 60056
 312 699-2100
 STV encoders & decoders.

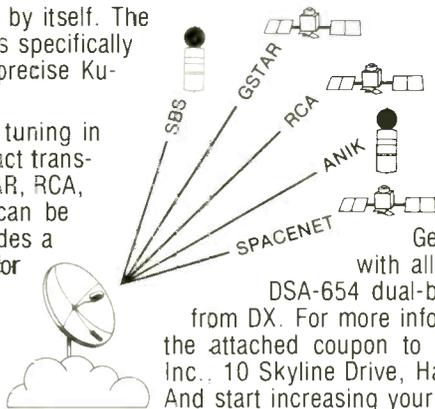
SATELLITE AGILE



The DSA-654 Ku/C Dual-Band Receiver from DX. The Only Receiver That Offers Ku-Band Reception with Synthesized 1 MHz Step Tuning.

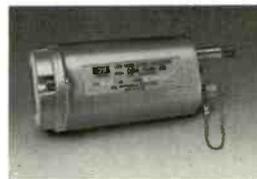
There's a Ku-band receiver that's in a league by itself. The new DSA-654 dual-band receiver from DX. It's specifically designed to give your applications the most precise Ku-band and C-band reception available.

The DSA-654 features frequency-synthesized tuning in 1 MHz steps between 11.7 and 12.2 GHz. Exact transponder and downlink frequencies for SBS, GSTAR, RCA, ANIK, and SPACENET, or any other format can be selected directly from the front panel. It provides a simple solution for total flexibility required for broadcast, video conferencing, and private satellite network applications. It also features clamped/unclamped video and composite baseband outputs for descrambler connection and frequency-



synthesized 10 kHz step tunable audio. Optional field-installable 24 MHz and 17 MHz IF filters are available. The DSA-654 provides the same excellent performance and reliability as the DSA-643A receiver. Performance-proven Ku-band LNBS to complement the DSA-654 are also available from DX Communications, Inc.

Get the Ku-band receiver with all the right steps. The DSA-654 dual-band satellite receiver from DX. For more information, just send in the attached coupon to DX Communications, Inc., 10 Skyline Drive, Hawthorne, NY 10532. And start increasing your receptions.



DX COMMUNICATIONS, INC.
A Subsidiary of C. Itoh & Co. (America) Inc.
10 Skyline Drive, Hawthorne, NY 10532
(914) 347-4040



Circle 227 on Reader Service Card

Please send me information on the DSA-654 DX receiver.

Company Name _____

Name _____

Street _____

City _____ State _____ Zip _____

ALL "STATE-OF-THE-ART" HAVE JUST BECOME



E-ART™ CAMERAS MEET ART HISTORY.

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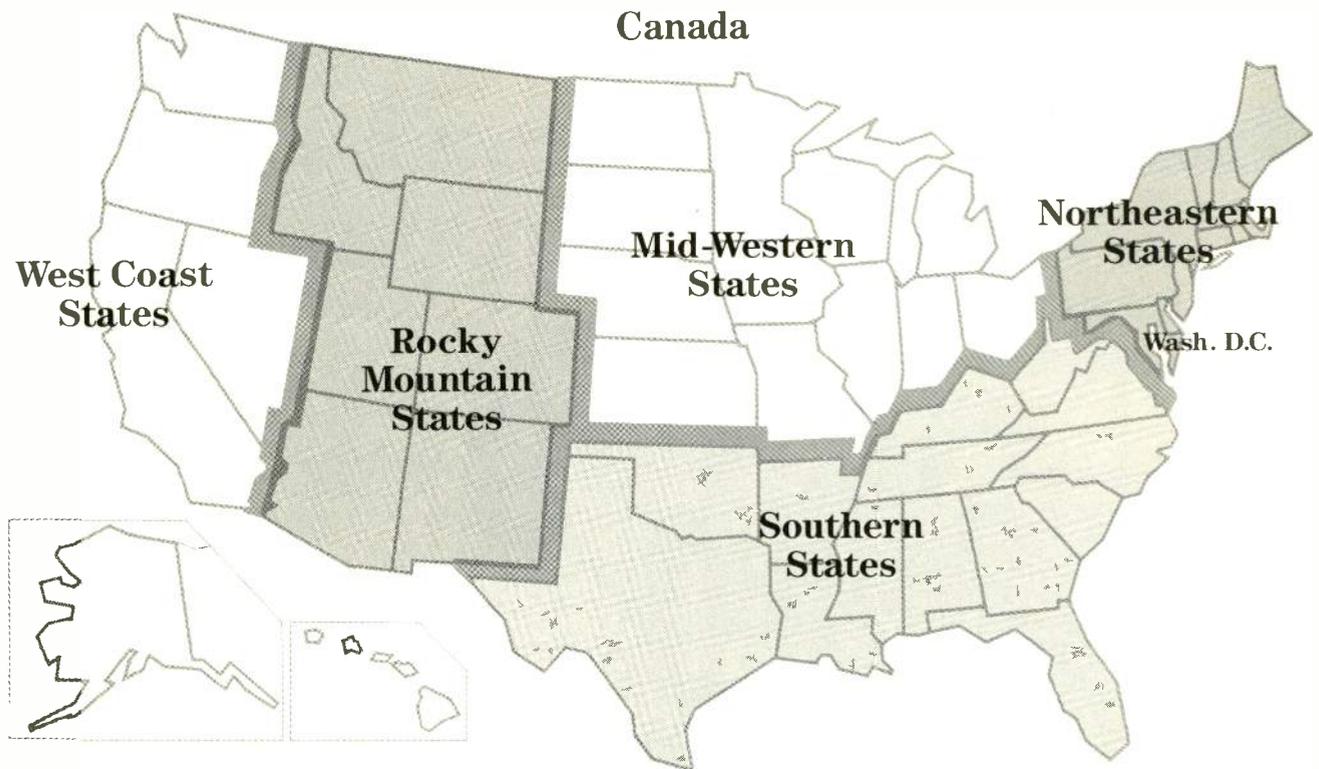
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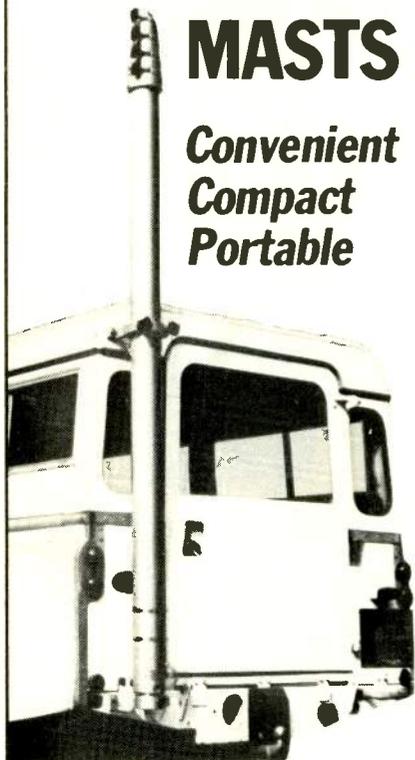
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