JUNE 1982

THE INTERNATIONAL JOURNAL OF STREET OF STREET IN THE INTERNATIONAL OF STREET OF STREET

(USPS 536830)

THE MARKETORY OF THE PROPERTY OF THE PROPERTY

OF BROADCAST EQUIPMENT. SERVICES. & SUPPLIERS

1982



High marks in everything

The ratings are in on our ST Series AM/FM Broadcast Consoles—and they're number one. They rate high for versatility, reliability and overall excellence.

But we know that even the finest products can be made better—that's why we've introduced the new ST Series II. These new consoles incorporate even more features to insure greater capability and performance.

The new ST consoles offer a series of modular frames that can be equipped to meet your specific needs. A wide range of input, output and signal processing modules is available to cover your present requirements and provide for future expansion.

At ADM we're never content to stand still—the new ST Series II consoles are impressive proof of that. We're so confident of their excellence that they're backed by an exclusive 5-year warranty.

Contact us now! ADM Technology, Inc.—<u>The Audio Company</u>— 1626 E. Big Beaver Road, Troy, MI 48084, Phone (313) 524-2100. TLX 23-1114.



West Central Sales (817) 467-2990

West Coast Sales (415) 945-0181 Main Office and East Coast Sales (313) 524-2100 Rocky Mountain Sales (801) 486-8822

BRONDEAS

Satellite

Review

Energy-Efficient

Facility Design*

RTNDA Preview

Ad

Study

Performance

High-Applications !

Definition Television

Resurrecting AM Stereo

Fall SMPTE Preview

Improving TV Audio

And featuring the fourth quarterly installment of

BONUS DISTRIBUTION

★ Supplemental mailing to all current CP Holders in the U.S.

RTNDA, Las Vegas, September 30-October 2

> AD CLOSING DATE AUGUST 16

BONUS DISTRIBUTION

Fall SMPTE, New York, November 7-12

AES, New York

NOVEMBE

The Automated Newsroom



Computer Business Systems

Radio Automation Update

AD CLOSING DATE SEPTEMBER 17

AD CLOSING DATE: OCTOBER 15

NOTE — Behind the Scenes is a special promotional insert bound only in those complimentary copies of BROADCAST COMMUNICATIONS distributed to advertisers, prospective advertisers and advertising agencies.

The ideal advertising medium combines Readership with Buying Activity.

OVERALL RESULTS McGraw-Hill Advertising Performance Study

February, 1982 Edition

AVERAGE SCORES — SIZE AND COLOR

Advertiser				Read Half or More		Action Taken or Planned					
	Number of Ads				or Took		Filed Ad	Showed it to/ Discussed it with Others	Re- quested More Infor- mation	Recom- mended/ Specified Purchase	
Fractional Page Ads	20	49%	25%	15%	57%	32%	13%	5%	8%	2%	
1 Page Ads	26	63	31	20	61	33	14	8	9	3	
2 Page Ads	1	83	43	32	59	21	13	11	7	9	
Black & White	24	50	26	15	58	32	13	6	10	3	
2 Color	10	58	31	19	61	35	16	7	8	2	
4 Color	13	71	33	22	59	33	14	8	8	4	
Average — All Ads	47	58%	29%	18%	59%	33%	14%	7%	9%	3%	

AVERAGE SCORES — PRODUCT GROUPS

		Attracted Attention				Action Taken or Planned					
Advertiser	Number of Ads			Read Half	or Took		Filed Ad	Showed it to/ Discussed it with Others	Re- quested More Infor- mation	Recom- mended/ Specified Purchase	
Video Products	26	59%	28%	17%	58%	29%	15%	8%	9%	3%	
Audio Products	18	58	32	20	63	38	12	6	9	2	
Audio/Video Products	3	43	23	11	48	27	11	3	10	1	
Average — All Ads	47	58%	29%	18%	59%	33%	14%	7%	9%	3%	

Here's proof positive.

Your advertising in



enjoys extraordinary readership and recall, and generates specific buying activity.

For a copy of the complete research report, write or call:

BROADCAST COMMUNICATIONS

4121 West 83rd Street; Suite 132 Prairie Village, KS 66208 (913) 642-6611

ATTA CORPORATION



Why the Networks' TBC Is Getting Popular in Smaller Markets.

In less than five years, our VW series has become the broadcast industry's basis for comparison in time base correction and frame synchronization. The ADDA VW is standard equipment for 3 of the 4 networks, as well as Ω and Ω 's.



The affiliates and independents have been watching, listening and making up their minds. More and more of them, even in the medium and smaller markets, are ordering the VW-1 (for ¾" VTR's) and the VW-2 (for ¾" and 1" VTR's).

The way we see it, the reasons for this trend are clear:

- ☐ Superior digital signal processing
- □ Unequaled reliability
- ☐ Infinite correction window
- ☐ Full-bandwidth electronic freeze frame
- ☐ Frame synchronization (The VW can take raw external feeds and let you switch them synchronously with studio material.)
- ☐ Meets RS-170A

Of course, the VW costs more than some of its competitors. The ultimate usually does. But the difference buys you a great deal more; and the difference may well be less than you think, because prices are lower now.

The best way to understand the difference between the VW and everything else is to watch a side-by-side comparison on your own premises. Call us for a demo. We'll be happy to show you why the VW is a TBC for everybody's market.

Affordable Excellence

ADDA CORPORATION

1671 Dell Avenue Campbell, California 95008 (408) 379-1500

Fine Tuner. \$950



Barco has a reputation for quality products. And in the AVD-33 video tuner, which permits television monitors to receive off-the-air signals, Barco quality looks better than ever.

In the AVD-33, Barco engineers have built a tuner you can rely on featuring:

- advanced digital search tuning
- 20-channel memory
- 2 video and audio outputs
- all channels, including mid and upper band
- bi-directional sequential channel selection

A fine tuner at a fine price. Barco's AVD-33.

Available from Elector, exclusive U.S. distributor of Barco communications products.

In the U.S. Elector U.S. 5128 Calle del Sol. Santa Clara. CA 95050 Phone: 408/727-1506 Telex: 0236/0172335



In Canada Electro & Optical Systems Ltd. 31 Progress Court. Scarborough Ontario M 16 3VS Phone: 416/439-9333 Telex: 021/06525431

BARCO

BRONDEASE 10 BRACKST TECHNOLOGY COMMUNICATIONS

President & Publisher

Michael D. Kreiter

Vice President/Editorial Director

Ron Merrell

Vice President/Managing Editor

Michael Scheibach

International Video Editor

Video Production Editor

Video Production Editor

Radio Editor

Audio Editor

Acoustics Editor

News Technology Editor

Programming Editor

Computer Editor

Radio Station Editor

Satellite Editor

Facilities Editor

Foreign Correspondent

loe Roizen

Joe Kolzen

Glen Pensinger

Potor Purk

Peter Burk

Larry Titus

Eric Neil Angevine

Phillip Keirstead

. Ed Shane

Bryan Boyle

......

Robert A. Jones

Raymond Meyers Morris Courtright

Mike Townley

Art Director

Circulation/Business Manager

Mary Christoph

Jean Girardin

Debbie Gutschenritter

Association Affiliation

Ad Production Manager

Radio-Television News Directors Association

American Society of Television Cameramen

Broadcasters Promotion Association

Society of Broadcast Engineers

Advertising Sales Offices

Home Office: Debbie Gutschenritter, Ad Production Mgr P.O. 8ox 12268, Overland Park, KS 66212; (913) 642-6611

Eastern Region: Stan Osborn, Vice President/Sales 46 Post Road East, Westport, CT 06880; [203] 226-7419

Charles C. Horner, District Sales Manager

P.O. Box 175, Greenlawn, NY 11740; [516] 757-7863

Central Region: Roy Henry, Vice President/Sales

2469 E. 98th Street, Indianapolis, IN 46280; (317) 846-7026

Western Region: Dennis Triola, Vice President/Sales 2680 Bayshore Frontage Road, Suite 207, Mountain View, CA 94043 [415] 969-3000

Europe: Tomislav F. Marjanović, European Sales Representative Wilhelmstrasse 52 E, D-6200 Wiesbaden, Fed. Republic of Germany Tel. [0 6121] 30 26 14

BROADCAST COMMUNICATIONS is published monthly by Globecom Publishing Limited, 4121 West 83rd Street, Suite 132, Prairie Village, KS 66208.

All material in this magazine is copyrighted © 1982 by Globecom Publishing Limited, All rights reserved.

SUBSCRIPTIONS: BROADCAST COMMUNICATIONS is mailed free to qualified persons. Non-qualified subscriptions in the United States are \$36.00 for one year. Subscription rates outside the United States are \$50.00 for one year. Back-issues rate is \$5.00. Allow 8 weeks for new subscriptions. Allow 8 weeks delivery for change of address.

Controlled-circulation postage paid at Shepherdsville, Kentucky

VRPA Member, 8usiness Publications Audit of Circulation

Postmaster: Please send 3579 forms to P.O. Box 809, Mineola, NY 11501.



Get the Edge on price, performance and features

CMX hones THE EDGE with the addition of Internal Memory, Re-edit and List Ripple to its six-point advantage.

When we at CMX set out to build an advanced medium-scale editing system we took a look at the best competition had to offer. We then applied our 11 years of leadership in building editing systems to produce THE EDGE™, a system that is superior in every respect. Check these six key points and we think you'll agree.



The Human EDGE Veteran editors and beginners alike quickly adapt to THE EDGE because its

SMART KEYS[™] and layered screens take you easily through the editing process as you direct it. You set your own pace. Frame accurate time code or pulse count editing lets you concentrate on creativity and increase your productivity dramatically.



The Technical
EDGE. Simple
plug-in modularity
makes THE EDGE
expandable. Going
from two to three

machines? Add a card. Expanding to a floppy disk? Add a card. Forget about stringing out black boxes. Also, servicing has been human-engineered with built-in diagnostics that trouble shoot on the spot. Information on the screen will tell you the story. No more long waits for service calls.



The CMX EDGE.



With the internal event memory, which features re-editing, list rippling, event

deletion and list scrolling, you can essentially do your off-line editing with THE EDGE and build a CMX Edit Decision List. And this can all be done on a cuts-only system, if desired. Through the availability of a variety of optional techniques, such as using THE EDGE audio/video dissolver or auto-transition control of a production switcher, you can complete

your final auto-assembly on THE EDGE. If it's a highly sophisticated finished production that requires numerous special effects, you may wish to complete it from THE EDGE EDL on a 340X system. It's this flexibility of choices that gives you the most cost effective solution to your editing needs.



The VTR EDGE.
The EDGE speaks very quietly to VTR's and they respond gently.
Only CMX knows

how to engineer smooth-assilk VTR interfaces. And that includes 1-inch, ¾-inch, and ½-inch machines from the major manufacturers. Mix and match them on your system.



The Protective
EDGE. Last year's
EDGE becomes
this year's with a
quick, easy update
to incorporate any

new features. It's just like our 340X. It's built to grow with you. It's protection against obsolescence.



The Dollar EDGE.
The most
important
consideration in
computing the
true cost of an

editing system is what your bottom line is going to be a few years hence. By then you'll have expanded your system into its final configuration. You can get THE EDGE in a two-machine system for \$13,250.* The complete system, a fullyfeatured three machine system including A/V dissolver and floppy disk. costs about \$23,400.* That's many thousands less than competitors. That's the most you'll ever spend.

Call or write us for more information. It costs less to own or lease the very best—and to get the EDGE.

Orrox Corporation 3303 Scott Blvd., Santa Clara, CA 95050 (408) 988-2000 Telex 910-338-0554

that

CRO

The World Standard for Editing

Circle (3) on Action Card

*U.S. Domestic

TM Orrox Corporation

BROADCASE THE INTERNATIONAL JOURNAL OF BROACCAST TECHNOLOGY

THE DIRECTORY

General Index

An index of all categories in The Directory. The index will direct you to the page where you can find the complete listing of companies that manufacture products in that category. Major categories are listed alphabetically, and subheadings of major categories also are arranged alphabetically. For example, test equipment is divided into three major categories: generators; measuring instruments; and measuring/ monitoring meters. Subcategories include everything from stereo generators and acoustic analyzers to antenna base meters.

Advertisers in this issue are highlighted in the General Index under the categories which correspond to the products featured in their ads. There is also a reference to the page on which the ad is

Product Directory

A comprehensive and up-todate listing of all major broadcast equipment and service categories, including U.S., Canadian, and foreign manufacturers who responded to our requests for directory information. With few exceptions, most manufacturers re-verified their listings within the past four months, making The Directory as current as possible.

Manufacturers

Mailing addresses for companies listed in the equipment and services categories are included along with company sales contacts. Several new additions have been made for companies in the U.S., Canada, and from manufacturers around the world. Regional and international sales offices are included for companies advertising in this issue.



A special suppliers advertising section designed to put you in direct contact with equipment suppliers around the country.



168 Dealers and Distributors

A comprehensive guide to dealers, distributors, independent representatives, and importers/exporters. These listings are arranged alphabetically by state. This section includes complete mailing addresses, telephone numbers, and sales contacts.

> The product lines carried are also listed with each entry.



Feature

NAB '82 Unveils A Record Number of New Products

Part 2 of a two-part review of the hottest products at this year's NAB convention.

Departments

8 On-the-Air

With cable continuing to gain momentum at the expense of the broadcast industry, broadcasters are renewing the fight over copyright protection while, at the same, trying to plan strategies to capitalize on the new technologies.

10 World UpdateThe Society of Broadcast Engineers has taken the lead in efforts to establish an effective certification procedure for broadcast engi-

26 Newsmakers 205 SBE Monthly Log 206 Advertisers Index

Cover-Cover design by Mary Christoph.

BROADCAST COMMUNICATIONS/JUNE 1982

located.



NEW! THE 1680 SERIES

Built on the solid reputation of the 1600 Series for reliability and ease of operation ...with nearly double the production power!



Circle (4) on Action Card

THE GRASS VALLEY GROUP, INC.

P.O. BOX 1114 GRASS VALLEY CALIFORNIA 95945 USA • TEL: (916) 273 8421 TWX: 910 530 8280

A TEXTRONIX COMPANY

Offices: Eastern Regional: 499 Thornall St, Edison, NJ 08817, (201) 549-9600 • Southeastern District: 1644 Tullie Circle N.E., Ste 102, Atlanta, GA 30329 (404) 321-4318 • Midwestern Regional: 810 West Bristol St, Elkhart, IN 46514 (219) 264-0931 • Northwestern District: 3585 North Lexington Ave, Ste 238, Arden Hills, MN 55112 (612) 483-2594 • Southwestern District: 316 Seminary South Office Bldg, Fort Worth, TX 76115 (817) 921-9411 • Western District: 1032 Elwell Court, Ste 244, Palo Alto, CA 94303 (415) 968-6680 • Western Regional: 21243 Ventura Blvd, Ste 206, Woodland Hills, CA 91364 (213) 999-2303



HOW TO LOSE WEIGHT, TAKE BETTER

SONY INTRODUCES THE BETACAM SYSTEM

When we designed the innovative Sony half-inch ENG system, we didn't do it halfway.

So our Betacam**camera/recorder is 30% lighter than its nearest competitor. And more than 40% smaller. A big difference when you're rushing to cover a story.

But not only have we trimmed pounds and inches, we've saved you dollars and cents. In fact, the entire system is so competitively priced, you might want to buy

two of our camera/recorders rather than one of the heavier, bulkier units around. Then, obviously, you'll be able to cover twice as much news.

The Betacam camera section employs a High-Band SMF Trinicon® single-tube pickup system. As a result, it has a dramatically improved picture, with better resolution and more sensitivity than conventional one-tube cameras.

And since it has 60% fewer components than threetube cameras, the cost of maintaining it is low.



SAVE MONEY, AND PICTURES.

(Of course, there will always be applications where you prefer a three-tube camera. So you'll be delighted to know that Sony also offers a three-tube Betacam.)

The Betacam recorder also provides superior performance, with better picture clarity and a higher signal-to-noise ratio, even when compared to ¾" machines. It records for 20 minutes on a Beta L-500 cassette, and runs for a full hour on the low-power, rechargeable battery contained in the unit. And both cassettes and batteries are inexpensive and readily available.

A separate playback unit completes the Betacam system. It's the only interface you need for existing post-production equipment. So nothing is made obsolete.

Naturally, there are many other refinements and innovations. So to request more information, call 1-800-526-0890. Or in New Jersey, (201) 256-4512, ext. B1.

Sony Betacam. Like so many other Sony Broadcast products, it seems revolutionary today. And will be indispensable tomorrow.

Sony is a registered trademark of Sony Corp.

Circle (5) on Action Card

ON-THE-AIR

RON MERRELL

NAB seeks review of cable copy royalties

The subject of cable copy royalty fees will be argued again and again in this decade. Perhaps the day will even come when programming and event coverage is so competitive that fairness will at last prevail.

For now, the NAB has asked the full U.S. Court of Appeals for the District of Columbia Circuit to change a recent appellate decision on cable copyright royalty fees. Back in April, a three-judge panel upheld the Copyright Royalty Tribunal's decision concerning 1978 fees, which awarded 3.25 percent to commercial television and nothing to commercial radio.

NAB said the court's opinion recognized broadcasters' copyright interest, but manages "to take away the kernel, and leave them only the husk." The court agreed with three critical arguments to the Tribunal: (1) that broadcasters hold copyrights to sports broadcasts; (2) that broadcasters hold copyrights to broadcast day compilations (the arrangement of the various programs of a broadcast day in a particular order); and (3) that broadcasters who own exclusive licenses for certain syndicated programs hold the copyright to the extent of the licenses.

The NAB noted that the court remanded to the Tribunal for consideration of National Public Radio's entitlement to 0.25 percent. "It is anomalous and incorrect to characterize NAB's entitlement to royalties for sports telecasts and compilations as de minimis (minimal), when an award of only one-quarter of one percentage point is already the subject of a remand."

The royalty situation has gone a long way toward erasing the battle lines between cable and commercial TV. But when the money muscle of cable out pulls the networks on program and event buys, a royalty re-think will be in order.

Meanwhile, the competition will improve the product of both, peaking before direct broadcast satellites elbow in for their piece of the pie.

WIII DBS sell?

Most U.S. households would be interested in having a satellite dish or antenna to receive multi-channel televi-

sion programs regularly. That's according to a national survey conducted last October by Frank N. Magid Associates, an Iowa research firm.

The dish antennas would receive TV programs beamed nationwide via direct broadcast satellites (DBS). If the dish cost \$300, the survey found that 46 percent of the sample would purchase one: 26 percent would be very likely and another 20 percent would be somewhat likely to spend the money.

These public attitude studies were conducted for United States Satellite Broadcasting Company (USSB) of St. Paul, Minnesota, a company affiliated with Hubbard Broadcasting. USSB is one of a number of applicants to the FCC for a DBS license. USSB proposes to beam free (advertiser-supported) high-quality programming from two satellites to homes equipped with receiver dishes throughout the country. In addition, USSB would feed its programming to a network of independent member television stations.

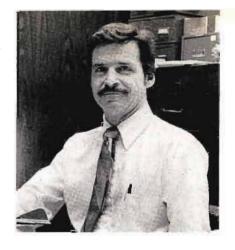
The study of the national market potential of a 30-channel DBS system showed that 52 percent who already have cable and 61 percent who do not have cable are interested in a home satellite dish for DBS.

A new information age

"We are indeed entering a new age of information in this decade, one that may prove to be as significant as those in which motion pictures, recorded music, radio, and television entered our lives."

So commented James H. Rosenfield, executive vice president for the CBS Broadcast Group, when he addressed a Financial Analysts Federation in March. "CBS is positioning itself," said Rosenfield, "to capitalize on the opportunities created by the development of technologies creating new electronic pathways to the home. It is also committed to make broadcasting, and particularly, network broadcasting, the centerpiece of our efforts to maintain our position as the nation's leading supplier of entertainment and information.

"Yet these clear goals that we have established, and clear commitments we have maintained, have nonetheless not



always been clearly understood. Some have misinterpreted our wide-ranging development efforts in the new media as signaling some doubts about the future of network broadcasting. Nothing could be further off the mark.

Cable television is one of the fastestgrowing of these new pathways, and it is a business in which CBS is committed to play a larger role in its function as the premier provider of entertainment and information. The CBS/Fox joint venture we recently announced will help us play that role in both subscribersupported and advertiser-supported cable. Similarly, there will be more new pathways for information and data, through broadcast means and telephone networks. That is why we are working to develop teletext, which we are testing in Los Angeles, and videotex, which we will be testing in a joint effort with AT&T in New Jersey.

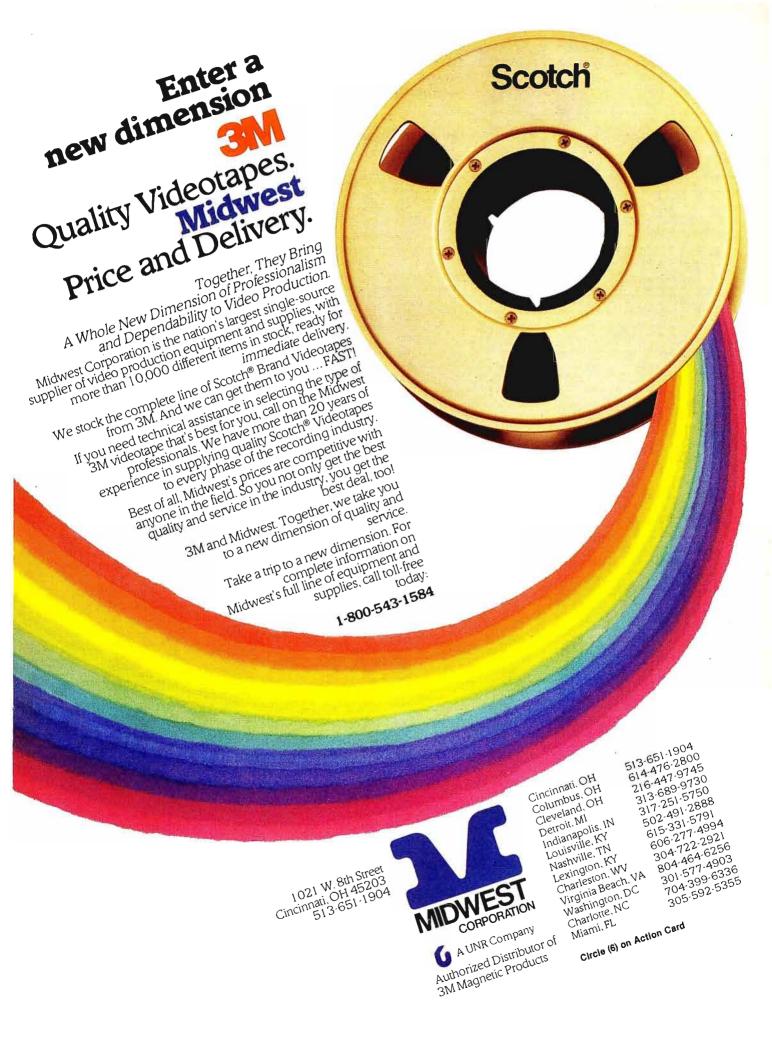
"Far ahead in the future, we see the emergence of direct broadcast satellite and high-definition TV, and we are taking innovative steps to participate in their development."

Summing up, Rosenfield said, "Yet with all these new pathways, there will only be one way to reach virtually every American household at the same time with the same message. There will be only one conduit available to the advertiser that will be able to reach into all the communities of the nation, reach all ages and income groups with the impact of sight, sound, and motion..." This, of course, is the television network and its affiliated stations.

It's only a matter of time

Already, cable TV vertical-interest programming is getting more sets turned on. But cable is still in search of its prime-time leader, even though it's not necessary. Cable and commercial TV do compete for the same dollars now; however, in the future cable's vertical-interest programming is likely to siphon more from newspapers and magazines than from commercial TV. Together, they will give the viewer even more variety than we have now. Only a group of DBS/broadcast networks could derail the momentum of the current broadcast/cable express.

BROADCAST COMMUNICATIONS/JUNE 1982



WORLD UPDATE

SBE leads certification effort

The Society of Broadcast Engineers (SBE), meeting in Dallas in conjunction with the National Association of Broadcasters, has pledged a continuing leadership involvement in certification, including the development of an entrylevel examination and a new thrust in the area of frequency coordination.

Jim Wulliman, national SBE certification chairman, moderated an NAB panel discussion on certification and reported that more than 1,750 broadcast engineers have been certified under the SBE program. The SBE certification program has completed its first five-year period of operation and is now processing renewals from the original group of senior broadcast engineers who have been certified.

The recent FCC action, dropping the Radiotelephone First Class license, has prompted broadcasters and broadcast associations to suggest that the SBE reconsider an entry-level certification program, said Wulliman.

"The entry-level certification program, as proposed by the SBE Certification Committee, will consist of an entry-level exam containing questions on (1) electronic fundamentals, (2) FCC rules pertaining to operating tolerances, and (3) safety.

Wulliman said that several hundred questions will be stored in a computer, which will randomly select 50 questions for each exam. Each exam will be different.

The certificate holder will be recognized as a broadcast technologist.

"It is the desire of the committee to hold the fees down to about the present \$30 level if outside support can be obtained to meet the increased budget requirements of the expanded program," said Wulliman.

The Certification Committee has developed a five-year budget plan which will require support from NAB and/or other broadcast organizations to meet the start-up expenses of the expanded program.

"Our program will seek support for one half of the first year expenses, decreasing each year until the program is self-supporting," he said, adding that the SBE board voted to subsidize the program until December 31, 1982, and set an introductory fee of \$10 for the broadcast technologist certificate only.

"The SBE Certification Program offers the best method of identifying those broadcast engineers who are truly qualified, and also pointing the way for those who are entering the field, through the progressive levels of realistic certification from broadcast technologist through senior broadcast engineer," he noted.

Richard Rudman, an SBE member and chairman of the Southern California Frequency Coordinating Committee, was appointed by SBE president Ron Arendall to chair a newly-created SBE National Frequency Coordinating Committee.

Rudman sees the SBE role in frequency coordination as "one of an informational conduit."

"I believe that it can become a useful tool for the SBE to market itself," said Rudman, who envisions SBE chapters as possibly becoming publishers of the data base for frequency coordination.

"By getting involved in frequency coordination, the individual SBE chapters will own a data base and mailing list," said Rudman.

Rudman's Southern California frequency coordinating effort, which has gained much industry recognition, now has moved into the area of television microwave coordination.

Rudman termed frequency coordinating as "enlightened peer pressure" and continued that its existence is to "raise awareness level, but we're not policemen."

His warning is "don't copy" the Southern California effort. Every area of the country has its varied problems and "you must mold it to your area."

Announcement was made at the annual SBE meeting of the re-election of Ron Arendall of Indianapolis, Ind., as president of SBE for the 1982-83 term. Arendall is manager of engineering at WTHR-TV in Indianapolis.

Other officers gaining re-election include Doyle Thompson of Atlanta, Ga., director of engineering of The Weather Channel, vice president; Brad Dick of Lawrence, Kan., director of engineering at KANU/KFKU, secretary; and Ed Karl of Manchester, Mo., engineer in charge of KMOX-TV in St. Louis, treasurer.

Board members re-elected to their positions include Len Ballard of Tulsa, Okla., director of engineering for Swanson Broadcasting; Ray Benedict of Dayton, Ohio, engineering manager of WHIO-TV; Hugh Cleland of Liverpool, N.Y., chief engineer, WCNY-TV/FM in Syracuse; and Roger Johnson of Phoenix, Ariz., chief engineer of KOY Radio.

New board members elected to serve for the 1982-83 term are Robert Klein of Lexington, Ken., director of engineering at Kentucky Educational Television; and Jack McKain of Kansas

Entry-level certification added

An entry level of certification has been added to the Society of Broadcast Engineers' Certification Program. This class of certification is called Broadcast Technologist and is valid for a period of five years. It can be obtained in either of two ways:

• By holders of a valid FCC First Class Operator license who meet the service requirement; or

• By achieving a passing grade on the required proficiency examination. There is no experience requirement to be eligible for the Broadcast Technologist examination.

The SBE national office is now accepting applications for the Broadcast Technologist certification. For a copy of the application and Program of Certification booklet, write to the Certification Secretary, Society of Broadcast Engineers, P.O. Box 50844, Indianapolis, IN 46250.

SBE is still receiving requests for the recertification material from the engineers whose certification expired January 1, 1982. Some of these engineers stated they were not aware that their certification had expired. In order to be fair to everyone, SBE will extend the deadline for applying for Recertification until December 31, 1982. Anyone who has not applied by that date, will be deleted from the certification records in the national office.

Continued on page 12

TV test equipment from the inventors of the Plumbicon tube.

At long last a new, reliable source of TV test equipment. One that offers fast, predictable delivery. One with a name all the world trusts—Philips. Four quick examples:

PM5565 Waveform Monitor

Enjoy the luxury of examining one line and one field at a time. On top of this, there's a convenient front probe input so you can use the monitor as a troubleshooting oscilloscope.

PM5567 Vectorscope

If you want more accurate decoding and the ability to have an external reference from composite video signals, choose our vectorscope.

Both waveform monitor and vectorscope mount side by side, fit all existing hardware and use less power than the competition.

PM5539 Color Analyzer

Take it on a quick trip through your studio or control room and adjust all monitors to the same color temperature in a matter of minutes.

With four different memories, there's no problem in quickly calibrating four different phosphors.

Variable full-scale, from less than set up to more than reference white, allows measurement of color tracking as a function of APL.

PM5534 Color Pattern Generator

Our universal pattern contains all the signals needed to verify overall system operation—directly from the picture. No wonder virtually every set manufacturer uses our pattern for their TV set alignment.

Of course our TV test equipment line doesn't end here. Today Philips offers a wide range of equipment including sync and pattern generators, VITS generators and analyzers, and TV modulators and demodulators.



Philips, of course.



PHILIPS

Circle (7) on Action Card



TELESCOPIC MASTS Convenient Compact Portable

- ENG
- · Fixed or Mobile Radio Communications
- Field Strenath Measurements
- Camera or Microphone Support
- Noise Level Measurements
- Temporary Floodlighting
- Environmental Sensors
- Sizes Available: Retracted 5.5 to 15 ft. Extended 50 to 92 ft.

For details contact:

Allen Osborne Associates

5195 N. Douglas Fir Rd. Calabasas, CA 91302 (213) 888-2772 TWX: 910-494-1710

U.S. Distributor for Hilomast Ltd., Essex, England

WORLD UPDATE

City, Mo., director of engineering at KCMO-TV/AM-FM.

Roger Johnson, chairman of the Chapter Liaison Committee, urged the formation of a committee of past presidents to chart a five- or 10-year plan for the SBE.

"We have been asked to look at the activity of the Society and come up with a five-year plan," said Bob Flanders, a past president, who added that the committee hopes to offer the officers of the SBE a "path to go down" similar to a five-year business plan.

The committee has already begun its work; it is hoped that the plan will be drafted in time for the fall board meeting. Flanders, Jim Wulliman, Jim Hurley, Bob Wehrman, Bob Jones, and Lou Wetzel will serve on the committee.

Johnson also announced the establishment of two national awards to be announced at the 1983 convention. Awards will be given for "best membership growth" and "best newsletter, judged on both content and form."

A highlight of the annual SBE membership meeting was the presentation of a surprise award to Jim Wulliman for his leadership, direction, and continuing efforts in the area of certification.

Wallace E. Johnson of Washington, D.C., an SBE member and current executive director of ABES, was presented a Fellow Award. A special award to John Battison for his early activities as chairman of the steering committee and first president of the SBE, was also announced.

Canadian show set for Toronto

The largest gathering in the field of Canadian broadcasting will meet at the Toronto Sheraton Centre Hotel, November 13-16, 1982. Sponsored jointly by the Canadian Association of Broadcasters (CAB), Central Canada Broadcast Engineers (CCBE), and the Central Canada Broadcasters' Association (CCBA), "Perspectives '83" (the theme of the convention) will focus on the business and technological future of radio and television. In addition to presentations and workshops, convention delegates will witness Canada's first National Electronic Hardware and Software Trade Exhibition.

To commemorate this event, the CAB will launch the first edition of a new publication, the CAB Yearbook and Directory. Theorists and practitioners representing the domestic and international broadcast business community, technical experts, and government

legislators will contribute to the editorial content.

A section of this bilingual periodical will include a listing of CAB members and associated industries, with selected photographs of personnel featured.

For further information, contact Dave Hamilton, (416) 446-5546.

ABC plans new pay TV service

American Broadcasting Companies Inc. (ABC) has announced plans to provide a national program distribution service—The Home View Network (HVN) -that would utilize a unique combination of broadcast and video recording technology to deliver quality programming, including motion pictures, on a subscription basis to the viewing public.

Through the ABC-owned and participating affiliated stations of the ÂBC Television Network, HVN will transmit programming in scrambled form during overnight hours for automatic videocassette recording in HVN homes. The scrambled tape would then be played back at the viewer's convenience through a decoder developed by Sony, which will be compatible with virtually all VCRs.

Applications were made to the Federal Communications Commission by ABC for expedited authorization to offer the service through its five owned television stations and those affiliated stations who subsequently elect to participate in HVN. Sony also filed an application for FCC approval of its encoding and decoding system for use in conjunction with the new service.

HVN will offer approximately eight feature-length movies new to the service each month, as well as cultural, theatrical, children's, educational, and other special-interest programming.

The Home View Network will transmit the program service during early morning hours when most stations do not offer programming (2:00 a.m.-6:00 a.m. in the Eastern and Pacific Time Zones and 1:00 a.m.-5:00 a.m. in the Central Mountain Time Zones). HVN will broadcast at least five nights a week and will program up to three hours a night, depending on the length of the programs.

According to ABC, the Home View Network will provide a new, convenient alternative for consumers, one that will use an already existing national distribution system. Thus, HVN will be able to enter, relatively quickly, many markets not presently served by pay cable, STV or MDS.

BROADCAST COMMUNICATIONS/JUNE 1982

Continued on page 14

MORE THAN A PORTABLE

Acquisition plus studio-type control makes the Ampex VPR-20B your professional portable.

If you need more than just a portable acquisition recorder, choose the improved Ampex VPR-20B. When you go into the field for realism and immediacy, you'll know you've got it. Right the first time with videotape you've already reviewed, edited and played back—on location, ready to air.

It's the VPR-20B's exclusive dual-cue editing that gives it studio-type control in the field. From instant reviews with precise return to the next edit point, to total control when replacing undesired material with midsegment, color-frame accurate edits. You can now have it all in one easy-to-use portable.

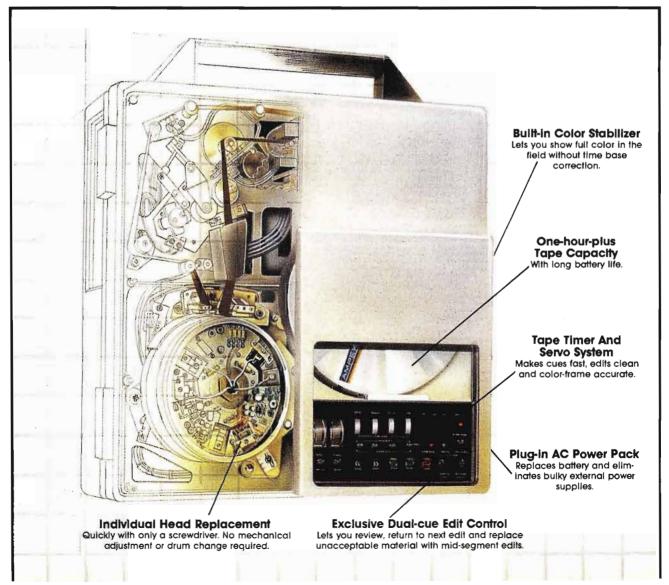
With the VPR-20B you also get top quality audio and video every time. The built-in video confidence and color stabilizer features play the picture back from the tape into the camera viewfinder, or any color monitor,

during recording. So you'll know that the picture you see is the one you've got! And, unlike other portables, the VPR-20B has a simple plug-in AC power pack which replaces the battery. You can forget about bulky external power supplies.

Most of all, the VPR-20B is backed by the unique worldwide service and support that Ampex is known for. So before your next field production, find out more from your Ampex representative. Or write Ampex Corporation, Audio-Video Systems Division, 401 Broadway, Redwood City, CA 94063 (415) 367-2011.

AMPEX TOOLS FOR TOMORROW

Ampex Corporation • One of The Signal Companies



ABC Inc. will be responsible for the programming and marketing aspects of HVN. The technical equipment for HVN will be purchased from Sony. This innovative technology will encode the HVN program before transmission, enabling participating ABC affiliated stations to broadcast HVN selections with the same equipment they use for all other network programs. The subscriber needs only a special Sony decoder and any videocassette recorder. The program will be automatically

recorded in scrambled form by the subscriber's videocassette recorder and can be played back for viewing only by HVN homes equipped with the special Sony decoder. This unique feature of the HVN system provides maximum security against unwarranted use. Addressability has been built into the Sony decoders for potential pay-per-view usage.

HVN is expected to be offered to consumers at a monthly subscription of \$19.95 plus an initial installation

charge. Homes without videocassette recorders may lease a VCR through HVN for \$29.95 per month or may buy one through the service at a cost comparable to the lowest retail price.

The Company will initiate a technical field test of HVN this summer. HVN is scheduled to start in early 1983.

NAB argues for cable legislation

In hearings before the Senate Commerce Subcommittee on Communications, NAB president Vincent T. Wasilewski asked for the "opportunity to compete fairly, equitably, and openly with cable." The Subcommittee is considering cable legislation sponsored by Senator Barry Goldwater (R-Ariz.).

Wasilewski cited three goals for broadcasters with respect to cable: fair and equitable access to programming; open entry for broadcasters into the cable industry; and deregulation of broadcasting to achieve regulatory parity with cable. "S. 2172 is a positive step toward realization of these goals," he stated.

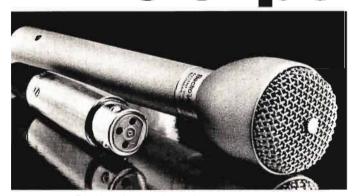
"Legislation now pending in the House, H.R. 5949, embodies provisions designed to resolve both the copyright and communications policy issues presented by cable carriage of broadcast signals," Wasilewski continued, referring to the cable copyright compromise reached by NAB, the National Cable Television Association, and the Motion Picture Association of America. "We very much want to secure prompt House passage of H.R. 5949 and urge you to act favorably on it when it comes before you," he added.

Goldwater's bill would prohibit imposition of cable-broadcast cross-ownership restrictions, a provision heartily endorsed by NAB, allowing broadcasters to participate fully in cable.

Wasilewski warned the Subcommittee that their provision allowing the FCC to decide signal carriage issues "is clearly inadequate." "By leaving the Commission free rein, it does no more than perpetuate the greatest infirmity of the present scheme—uncertainty," he told them. Instead, Wasilewski urged the subcommittee to refrain from adopting any statutory provisions that might be "inconsistent" with the House cable copyright compromise legislation. "I could not emphasize too strongly the desire of NAB to see such a definitive resolution of the signal carriage issue," he added.

Continued on page 16

Think of us as your mike expert.



The 635A - Perfect design from the start

The Electro-Voice 635A is probably the most widely used broadcast microphone currently available. Yet it was introduced back in 1967! There are microphone companies that haven't been around as long as the 635A! What makes a microphone continue to be the broadcasters' favorite after 15 years in the field?

The 635A was designed to be used anywhere. Its screw-machined steel case and mechanically nested parts set standards for durability and ruggedness that the competition still strives for. It was the first omnidirectional microphone designed to have a shaped, rather than flat, frequency response. A rolled off bass response combined with a slightly rising high end make it perfect for vocal

reproduction. And it was the first microphone of its type to feature an elastomer encased head capsule for reduced handling noise and additional protection from severe mechanical shock.

Despite all the technological advances in the broadcast, recording and sound reinforcement industries, the 635A continues to be the "audio man's screwdriver"-a microphone tool that can be used anytime, anywhere, for almost anything. When a product is designed right to start with, there's no need for it to become obsolete. All Electro-Voice professional microphones are designed with the same goal in mind. That's why people think of Electro-Voice as their microphone expert.



600 Cecil Street, Buchanan, Michigan 49107 In Canada Electro-Voice, Div of Gulton Industries (Canada) Ltd. 345 Herbert St., Gananoque, Ontario K7G 2V1.

Circle (10) on Action Card

Progress by Design

Videotek's philosophy is to progressively design & refine the quality, function, and reliability of our products, and to provide equally aggressive service-after-the-sale.

Videotek's state-of-the-art TSM-5A Waveform Monitor and VSM-5A Vectorscope reflect this on-going commitment, with such innovative features as Internal Graticule CRT for precise parallax-free signal analysis, and Non-Glare Shields to eliminate distracting ambient light. TSM-5A also includes selectable 1H mode for easy one-line viewing, and 0.5 µs/div. scan rate for the most accurate time-base measurements.

Our popular Studio 12 picture monitor includes, as standard equipment, the features found on monitors costing twice as much:
A-B Split Screen, Selective H-AFC, High Voltage Regulation, ACC-Defeat, Preset Controls, Pulse Cross, Underscan, External Sync plus more.





In only 7 years, Videotek has become an industry leader. We design and build more sizes and configurations of color monitors than anyone—worldwide! And our 1981 "Distinguished Video Industries Service Award" stands as a testimonial to our commitment to your needs.

Now that's Progress...by Design.



Circle (11) on Action Card

WORLD UPDATE

Business Hotline

PHILIPS TEST & MEASURING—Philips Test & Measuring Instruments has established field operations in Plano, Texas, to cover Northern Texas, Oklahoma, and Arkansas. Morris Jones has been given the responsibility to initiate field efforts within this new territory.

AUDIO PLUS VIDEO—Audio Plus Video International recently opened a West Coast international standards conversion facility at 1438 North Gower Street in Hollywood, California. Shellie Yaseen heads the new operation.

WESTERN BROADCAST SYSTEMS—Ross Video has appointed Western Broadcast Systems as its exclusive distributor for Northern California, Oregon, and Washington. WBS, based in Cupertino, California, specializes in video and audio broadcast-quality products. Other products distributed include Leitch Video, MCI/Quantel, Ampex, and Crown International.

TELEIMAGE—Teleimage has been named the official television production company for the Century IV Celebration, Philadelphia's 300th anniversary

celebration being held throughout 1982. Located in Bala Cynwyd, Pa., Teleimage is one of the largest television production facilities in the Philadelphia area.

EECO—EECO Inc. has written and published a comprehensive booklet explaining the early development and technical operation as well as the latest advances in SMPTE/EBU longitudinal and vertical interval time code. The booklet, entitled SMPTE/EBU Longitudinal and Vertical Interval Time Code, is offered free of charge. For your copy, write to EECO Inc., Video Products Marketing, 1601 E. Chestnut Avenue, Santa Ana, CA 92701; or call (714) 835-6000.

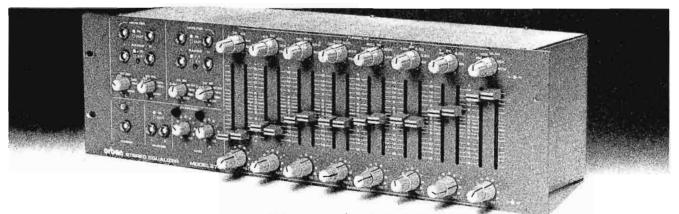
HARRIS BROADCAST PRODUCTS—KTTV-TV, Los Angeles, is upgrading its satellite facilities with Harris equipment valued at more than \$825,000. The station currently employs a Harris 9-meter satellite dish for receive service, and has purchased the necessary equipment to add uplink capabilities to that antenna. The Metromedia station has also purchased a new Harris 9-meter uplink system to be used for additional transmit capabilities.

BROADCAST MARKETING ASSO-CIATES—Richard Reilly, president of BMA, San Jose, California, has announced the sale of four Dubner Computer Graphic Systems to KOMO-TV, Seattle, Washington; KTVA-TV, Anchorage, Alaska; One Pass Video, San Francisco; and Video Post and Transfer, Dallas. BMA is a distributor of high-technology video and audio equipment with offices in Seattle, Los Angeles, and headquarter offices in San Jose.

CONTINENTAL ELECTRONICS-The Shield of the Egyptian Organization of Broadcasting and Television Federation (OBTF) has been awarded to Continental Electronics Mfg. Co. of Dallas in recognition of Continental's outstanding work and cooperation with OBTF during 1981. The award recognizes Continental's on-site engineering and installation work for two OBTF projects. Continental is a leader in the design and manufacture of high-power radio frequency transmitters and related equipment for communications. radio broadcast, radar, linear accelerator, fusion, and other scientific research applications.

SONY BROADCAST PRODUCTS—
Cox Broadcasting Corporation, owner and operator of television stations,

Continued on page 20



The Dream Equalizer: Now Mono Or Stereo

When we introduced our 672A "dream equalizer" in 1979, we had an instant hit. Audio professionals loved its versatility and clean sound. Eight parametric EQ bands (with reciprocal curves) were combined with wide-range tunable 12 dB/octave highpass and lowpass filters. The result: an amazingly powerful and useful machine. A cost-saving one too, because the outputs of both filters are available to perform a full electronic crossover function.

The 672A now has a stereo twin—the new 674A, with all the power of two 672A's in a space-saving 51/4" rackmount package. Naturally, both equalizers are built to full Orban professional standards. That means industrial-quality construction and components, RFI suppression, a heavy-duty roadworthy chassis, and comprehensive backup support.

For complete information on the popular 672A and the brand new stereo 674A, contact your nearest Orban dealer.

orban

Orban Associates Inc. 645 Bryant St. San Francisco, Ca. 94107 (415) 957-1067

Continental quality, performance & service offers you a new strength in AM & FM radio broadcast equipment.

NOW! Continental Electronics offers you a new strength in radio broadcast equipment: AM and FM transmitters from 1 kW to 50 kW; transmitter coupling and phasing equipment; antennas, antenna systems and accessories; transmission line and accessories; studio audio equipment; remote studio equipment: STL and transmitter remote control equipment; test and monitoring equipment; 24-hour parts and professional field service for Collins and Continental transmitters.

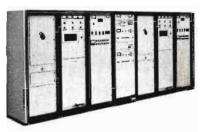
Since its founding in 1946, Continental Electronics has pioneered many advances in rf transmitter and systems technology at power levels from kilowatts to megawatts; for radio broadcast, communications, radar and scientific research applications. Continental medium and short wave transmitters have achieved a world-wide reputation for quality components and construction; circuit innovations and unique, easy-to-operate designs which produce superior performance.

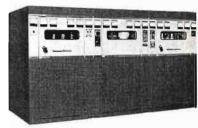
Call your local Continental sales representative whenever you need product data, information or service. Learn first-hand how we can meet your radio broadcast equipment requirements.

Continental is ready to offer you a new strength in professional service and quality equipment.

Continental Electronics Mfg. Co. Box 270879 Dallas, TX 75227 Phone: (214) 381-7161









NORTHEAST MARK F. HUTCHINS P.O. BOX 13 GREENLAND, NH 03840 (603) 436-4059

KEITH A. LEACH P.O. BOX 16 NEWTON, NJ 07860 (201) 383-8797 SOUTHEAST RAY C. EVANS P.O. BOX 143 ALCOA, TN 37701 (615) 970-2572

DAVE HULTSMAN 2280 ROCKCREEK TRAIL BIRMINGHAM, AL 35226 (205) 822-1078 MIDWEST JOHN D. ABDNOUR P.O. BOX 575 STREATOR, IL 61364 (815) 672-8585

LLOYD W. COLLINS ROUTE 3. BOX 106 HOLTS SUMMIT, MO 65043 (314) 896-5791

JIM LITTLEJOHN 670 NORTH BRANCH RD. MAPLE PLAIN, MN 55359 (612) 479-2633 SOUTHWEST STEVE H. SCHOTT P.O. BOX 2008 PLANO. TX 75074 (214) 423-3644

NORTHWEST TOM T. CAUTHERS 1215 SE 73rd AVE. PORTLAND, OR 97215 (503) 254-2818

WEST STEVE KEATING 7225 HOLLYWOOD BLVD. SUITE 105 HOLLYWOOD, CA 90046 (213) 851-6380

*Canada, Arizona, New Mexico, Utah, Hawaii and Puerto Rico are handled from the Home Office in Dallas, Texas.



IF IT WERE YOUR JOB TO GET THIS ON TAPE, WHAT TAPE WOULD YOU GET IT ON?

For the first time, mankind will set foot on a surface other than earth. It's a moment that transcends science and politics. A moment that will be seen and reseen all over the world for as long as mankind exists.

But there are no guarantees at a moment like this. And the stakes are just as high for failure as they are for success. So nothing is left to chance.

That's why Scotch® Video Tape was there when the Moon Walk was first recorded. And again when the Space Shuttle Landing was first recorded. And again when the U.S.-Russia Hockey Game was first recorded.

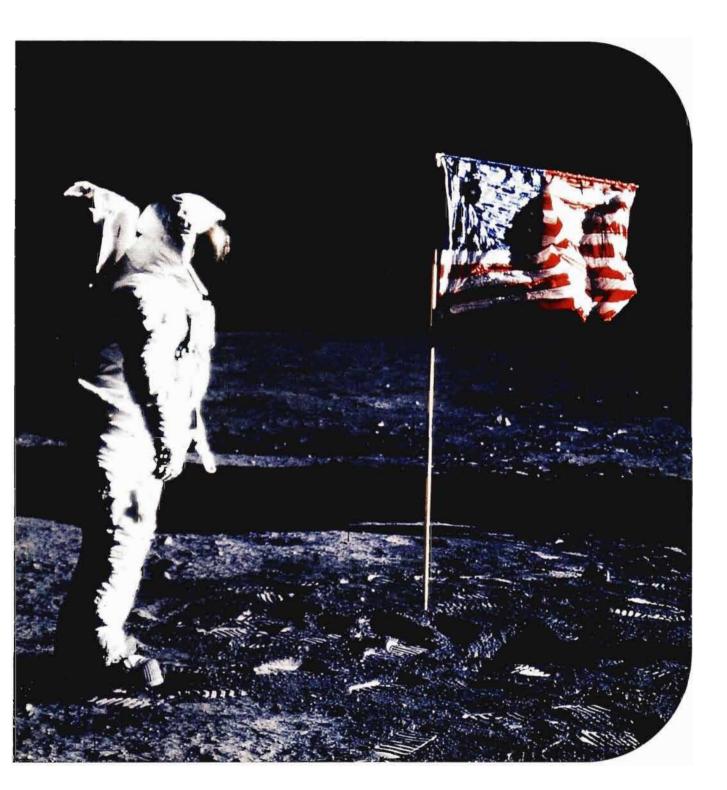
The Papal Tour of America. The Return of the Hostages. The Eruption of Mount St. Helens. Whenever there was one chance to get it, chances are they got it on Scotch Video Tape.

So whether your production is important to the world or just important to you, why take chances? Get it on the one tape you know will get it right.

Magnetic A/V Products Division/3M.



"Scotch" is a registered trademark of 3M. © 3M Company, 1982.



HISTORY IS RECORDED ON SCOTCH VIDEO TAPE.

3M hears you...



WORLD UPDATE

radio stations, and cable systems in 23 states, has ordered approximately \$750,000 worth of videotape recording equipment from Sony Broadcast Products Company. Combined with 1981 purchases of Sony equipment, the new order brings the total amount of video equipment Cox has purchased from Sony Broadcast to approximately \$2 million.

The latest order slated for 1982 delivery includes 23 Sony BVU-800 U-matic videocassette recorders with built-in editing capability. The order also includes nine BVU-50 portable U-matic recorders; six BVU-110 U-matic recorders; and one BVP-250, two BVP-330s, and three BVP-300 cameras.

LOGICA-Television South West

(TSW) is the first commercial television broadcaster in the U.K. to buy the Flair videographics system from Logica. Flair will provide additional facilities to the existing TSW graphics department, and will be used for the production of maps and charts as well as special effects.

EECO INC.—Lake Systems Corporation, with offices in Newton, Mass., and North Haven, Conn., has been appointed distributor for EECO's computer controls for video production. Lake Systems is responsible for distributing EECO equipment in the six

New England states.

FILM/VIDEO EQUIPMENT SERVICE CO.—Film/Video Equipment Service Co. of Denver, Colorado, has established a professional optical department to provide expert lens service and repair for all makes of professional cine, ENG/EFP, and studio broadcast lenses, such as Angenieux, Canon, Zeiss, Cooke, Schneider, Fujinon, JVC/Tamron, etc. For more information, contact Ron Cotty at Film/Video, 1875 South Pearl St., Denver, CO 80210; or circle number 328 on the Action Card.

SATCOM TECHNOLOGIES—SatCom Technologies' new 7-meter earth station antenna (model 700CH) has been type accepted by PBS. PBS recently purchased five antennas, which will be used to provide programming via satellite to PBS television broadcasting stations around the country.

ALLEN AVIONICS—Allen Avionics has issued catalog 15V containing the firm's expanded line of video and pulse delay lines, video filters, and equalizers. This catalog introduces a complete rack-mountable series of video delay lines, with the capability of replacing up to 1,450 feet of cable. Delay units are available with slide switches or in strappable versions. Catalogs are available from Allen Avionics, 224 East 2nd Street, Mineola, NY 11501; or phone (516) 248-8080.

SPERBER COMMUNICATIONS-A new firm has been formed to guide STV, MDS, CATV, MATV, LPTV, and satellite TV companies from startup through maturity in optimizing their technical operations and product line development. Sperber Communications, located in Santa Monica, California, will provide comprehensive services for new market launches, existing markets, subcontractor organizations, vendors, and manufacturers. Martin Sperber, most recently with National Subscription TV in Los Angeles, is the founder and president of the company. For more information, contact Sperber Communications, 313 Alta Avenue, Santa Monica, CA 90402; (213) 393-5127. 36

RTNDA NEWSLINE

Convention set for Las Vegas

Ted Turner, Mark Fowler, David Brinkley, and Tom Pettit are among the headliners already on the program for the RTNDA convention in Las Vegas, September 30-October 2.

Turner, chairman of the board and president of Turner Broadcasting System Inc., and founder of the Cable News Network, will be the keynote

speaker when the convention opens in Caesars Palace.

RTNDA president-elect and conference program chairman Dean Mell, news director, KHQ, Spokane, said he was delighted that Turner had accepted the invitation to keynote the convention. "His experience in cable news and his insight into the future of electronic news are having an undeniable influence on communications in this country," Mell said.

ABC newsman David Brinkley, a former RTNDA convention keynoter, has been named recipient of the RTNDA Paul White award, and his acceptance speech will close the three-day conference. Jack Hogan, RTNDA's immediate past president and chairman of the Paul White Award Committee, said, in announcing Brinkley's selection, "I am delighted to have had a hand in formally recognizing David Brinkley's outstanding journalistic achievements and the part he played in making news broadcasting the primary source of information for most Americans."

FCC chairman Mark Fowler and NBC's Tom Pettit are luncheon speakers. Fowler has taken a leadership role in efforts to persuade Congress to repeal government regulation of the content of broadcast news—the so-called fairness doctrine and the equal opportunities provisions of the Communications Act. He is perhaps RTNDA's staunchest current ally in the association's long fight to achieve full First Amendment rights for news broadcasters.

Pettit was covering the Senate in Washington for NBC News when he was tapped for the number-two news job at 30 Rockefeller Plaza, ex-

ecutive vice president of NBC News.

Each day of the convention will focus on a major area of concern for radio and television news directors. The first day will be devoted to news content, the second to technology, and the third to management.

Exhibits chairman Eddie Barker reports that the entire exhibit hall in Caesars Palace has been reserved! Bob Vaughn, director of conference planning for RTNDA, is now trying to locate additional space in the hotel for more exhibits. In any event, there will be far more exhibits this year than ever before. Plans are being made to use some of the computers on display to expedite the elections and the handling of resolutions during the business session the second day of the convention.

Convention registrations are now being accepted at RTNDA head-quarters at 1735 DeSales St., N.W., Washington, DC 20036. Preregistration for members is \$160, and for non-members \$175. Rooms at Caesars Palace can be reserved at a special convention rate of \$55 single or double occupancy. Room reservations should be made directly with the hotel, Caesars Palace, 3570 Las Vegas Boulevard, Las Vegas, NV 89109, not with the RTNDA headquarters.

Watch this column for more RTNDA convention news—and get your registration and reservation in early!

Give or take a few pennies, and using some conservative assumptions (18hr/day, 5 year full depreciation), that's all it costs to replace your current audio processor with an Orban OPTIMOD-AM, -FM, or -TV. And get an *immediate* improvement in on-air audio quality. An improvement that pays off every minute of every hour of every operating day.

OPTIMODs are fully adjustable to program requirements. Their patented technology has literally revolutionized audio processing in the last six years, and yields a cleaner, brighter, louder sound unmatched at any price.

And their superior sound is complemented by Orban quality and service—a well-established, industry-respected commitment that protects your investment.

Money may be tight. But particularly in trying economic times, the winners are

those who compete the hardest and deliver the best-sounding product to their audience. OPTIMODs are lethal competitive weapons. And, at 13¢/hr, very sound investments.

Can you afford not to go with an OPTIMOD?

For further information, see your local Orban Broadcast Products dealer, or call us Toll Free (800) 227-4498. In California (415) 957-1067.

orban

Orban Associates Inc. 645 Bryant Street San Francisco, CA 94107 Telex: 17-1480

Cable: ORBANAUDIO

Better audio for 134/hour.



Circle (16) on Action Card for OPTIMOD-AM Circle (17) on Action Card for OPTIMOD-FM Circle (18) on Action Card for OPTIMOD-TV

NEVER BEFORE HAS THIS VITAL COMPONENT BEEN SO SUCCESSFULLY INTEGRATED INTO A 1" VIDEO RECORDER.



SONY INTRODUCES A 1" VIDEO RECORDER TAILORED TO THE PEOPLE WHO USE IT: THE BVH-2000.

Because Sony probably has more experience selling and servicing I" VTR's than anyone else, we're in an unequaled position to understand the wishes of I" video users.

And now. Sony announces wish fulfillment for the broadcast industry: the new BVH-2000 I" video recorder.

WHY "BVH-2000" WILL MEAN DIFFERENT THINGS TO DIFFERENT PEOPLE.

In broadcast recording, there is no such thing as one typical situation.

That's why there's no one single BVH-2000.

The BVH-2000 actually allows you to "design" the VTR vou need for your own particular applications and budget.

You can choose among three different control panels-ranging from a basic model to one with virtually every possible feature and function.

And the tape transport system, signal system, and control section can either be combined into a single unit, or separated easily and installed in a 19" rack

The BVH-2000 also gives you far greater latitude in setting up your entire recording system. Various remote-control con-

Plug-in time base corrector (optional).

in a variety of ways for studio, mobile, and editing configurations. Direct interface with U-matic" and Betacan[™] is possible, too. The BVH-2000

also has an optional plug-in time base corrector. What's more, the BVH-2000's lighter weight and smaller size (almost 50% less than its predecessor) make it as ideal on the road as it is in the studio.

And because of the ever-increasing number of applications requiring longer program times, the BHV-2000 provides up to 2 hours of tape time.

A VTR THAT LEADS THE SIMPLE LIFE

In the BVH-2000, unlike most other VTR's, microprocessors are used to their full advantage. All data nec-

essary for servo control are channeled into a central processing unit, making the operator's control over all systems and functions simpler and more precise.

Life is made simpler yet by the fact that every necessary function control, metering facility, and electronic module is accessible from the front.

Even the way the tape moves through the recorder has been simplified. One innovation—an extremely precise servo mechanism



The BVH-2000 (shown with Type-III control panel).

Sony BVH-2000 has been designed to be nectors enable you to virtually maintenance-free down to the interface your system last detail. For example, only brushless DC motors are used, and all incandescent lamps have been replaced with high-bright-Other welcome advances include a greatly expanded dy-

namic tracking range (from reverse at normal speed to for-

nance is by lessening the need for it, the



Display board for self-diagnostics and ther data-processing functions

ward at 3 times normal); programmed play (allowing you to vary playback speed across a range

To simplify threading, guide posts automatically move away from drum, and audio head cover opens.

permits the entrance and exit

away from the drum during

a I" video recorder.

of the mystery from maintenance, too. It literally tells you about

malfunctions-usually well before you'd

microprocessor-governed self-diagnos-

functions and numerous checks to

The system includes various alarm

notice them yourself-through a

tic system.

confirm that

working proper-

ly. Most defects

found-allowing

for far less com-

plicated main-

repairs, and re-

And because

ducing down-

tenance and

can be easily

everything is

guide posts to move about 10mm

threading. The result is the eas-

iest threading system ever in

THE MOST ARTICULATE

VTR EVER BUILT.

The BVH-2000 removes much

and audio confidence. Remarkably, these are only some

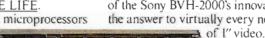
of $\pm 20\%$ of normal

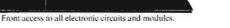
speed); and video

of the Sony BVH-2000's innovations. All of them add up to form the answer to virtually every need ever expressed by the users

> To find out how it can answer vours, write Sony Broadcast, 9 West 57th St., New York, NY 10019. Or call us in New York/New Jersey at (201) 368-5085; in Chicago at (312) 860-

7800; in Los Angeles at (213) 537-4300; in Atlanta at (404) 451-7671; or in Dallas at (214) 659-3600.







RFF



780 SERIES

RAM TIME

PROGRAMMERS \$1200 to \$1500

PHOGHAMIMERS \$1200 to \$1500 When programming more than eight events, the 780 Series RAM Time Programmers are the most cost-effective way of dealing with the problem. They are flexible, easy to use, and provide 32 events (expandable to 96) in 514

inches of rack space.

780 Series units operate from the power line, with a backup crystal time base and 72 hour battery/charger as an integral part of the equipment.

- The front pariel consists of:
 An eight digit real time display when dey selection is required as on the ES 781, 784, 785, seven digits for ES 780, and six digits for
- A two digit display of "Next Event" number An eight digit display of "Next Event Time" when ES 780, 781, or 782 is specified, and a when ES 780, 761, or 782 is specified, and a six digit display when ES 783, 784, 785, 786 or 787 is specified, and a four digit display when ES 788 or 789 is specified.

 All displays are .3 Inch red light emitting
- diodes.

 Controls, mounted below the displays,

consisting of An "Active-Disable" Switch used when it is necessary 10 preempt the program tem-

porarily.

Time Setting Controls—All recessed to avoid accidental bumping.

"Dipplay"—The displays can be observed by actuating this control during a power outage. The unit will continue to operate, but the displays will be blanked to conserve battery energy.

"Event Select"—A two decade thumbwheel

"Event Select"—A two decade thumbwheel, used to set the event number when entering or reading data in the memory.
"Event Time Select"—An eight or six or four decade thumbwheel, used to enter the event time in the memory. The number of thumbwheels will be determined by the part number of the unit specified.
"Enter"—This pushbutton is actuated to enter data into the memory.
"Run-Read/Enter"—A two position switch, placed in the "Run" position for normal operation, and in the "Read/Enter" position whenever entering data or reading data.

whenever entering data or reading data.

STANDARD UNITS
EIGHT DIGITS OF PROGRAMMING CAPA-

- ES 760-10 Days, 10 Outputs, Hours, Minutes
- Seconds ES 781-100 Days, Hours, Minutes, Seconds ES 782—16 Outputs, Hours, Minutes, Seconds SIX OIGITS OF PROGRAMMING CAPABILITY:

- SIX OldTS OF PROGRAMMING CAPABI ES 763—Hours, Minutes, Seconds ES 784—100 Days, Hours, Minutes ES 785—100 Days, Minutes, Seconds ES 786—16 Outputs, Hours, Minutes ES 787—16 Outputs, Minutes, Seconds FOUR DIGITS OF PROGRAMMING
- CAPABILITY:

ES 788—Hours Minutes

ES 769—Hours, Minutes
ES 769—Minutes, Seconds
The size of the unit is 51/4" High x 19" Wide x
10" Oeep—Relay Rack construction, totally

10" Oeep—Relay Rack construction, totally enclosed, with a screen top.
ES 782, 788 and 787 have 16 isolated outs. Any of the 32 events can be programmed to activate any of the 16 outputs. ES 780 has 10 outputs. The other units have a single output. ES 784, 788 and 788 have a one minute contact closure. The others have a one second contact closure. Contacts are single pole, form A, reed type, and have a one amp rating. THE 780 SERIES AS A MASTER CLOCK. By adding the ES 167 Serial Time Code Generator and using a more eccurate crystal.

Generator and using a more eccurate crystal, the 780 Series Ram Time Programmers can serve the dual functions of Master Clock and 96 event programmable timer.





750 SERIES

THUMBWHEEL PROGRAMMER/

COMPARATORS \$310 to \$390

When programming up to eight time events, the 750 Series is recommended. Thumbwheel switches are set to compare the time inform an ESE Clock or Timer.

An output (event) occurs each time, the thumbwheel switch satting agrees with the time them.

One set of thumbwheels is required for each event. The standard 750 Series units are enclosed in a 31/2 inch high relay rack panel and

- ES 750—ES 112 and one 6 Digit Program:
 ES 751—ES 124 and one 6 Digit Program
 ES 753—ES 112 and two 4 Digit Program
 FS 754—ES 112 and two 4 Digit Programs
 FS 754—ES 124 and two 4 Digit Programs
- (Hrs & Min)
 ES 758—ES 510 and one 4 Digit Program (Min & Sec)
- ES 756—ES 510 and two 4 Digit Programs (Min & Sec)

ES 760 sezo

ATS CLOCK
The ES 780 is a six digit, 24 hour, programmable clock.
On the front panel are a six digit display of

time, in hours, minutes and seconds, and two

time, in hours, minutes and seconds, and two sets of four thumbwheels.

An internal comparator is fed "Clock Time" and "Thumbwheel Time," and when these two agree, a reed relay contact closure occurs, which is brought to a rear-mounted connector. The connector also provides four imp partial BCO time information.

If normal power is interrupted, ES 760 will automatically switch to its internal battery and crystal time base.

crystal time base. Mechanical: 31/4" High x 19" Wide x 8" Deep.

PRESETTABLE TAPE TIMERS

ES 1296 \$195

For Off-Air taping, or operating tape recorders when nobody is there, ESE has created ES

1296.
ES 1296 is a six digit, twelve hour clock with LED displays and a programmable, 300 watt. 117V AC outlet on the rear. There are four push-button controls (Fast, Slow, Set and Reset) and a four position selector switch. The Fast and Slow controls are used to set time of day and recorder start time. When setting the recorder start time, the Set control is used in addition to the Fast and Slow controls, to set the time to the nearest minute. A rear-mounted four position switch is used to A rear-mounted four position switch is used to pre-set the start time as far ahead as 96 hours. Once the rear outlet is activated, it will re-main on for 66 minutes.

The Record Duration option allows the user to select one of four time intervals for recording. These four time intervals are hither 15, 33, 66 and 138 minutes, or 33, 66, 138 and

An additional option is Sequential Turn for those machines that require Power, Play,

for those machines that require Power, Play. Record in sequence.

A Manual Override Switch can be provided as an option, so that the user may operate his machine at any time without disconnecting from the ES 1296.



ESE Masters provide a means of keeping all time displays in the system in agreement, through the use of a Serial Time Code. Only one pair of wires is needed to distribute the time code to all ramote serial input displays

An ESE Master Clock System can operate digital displays, clocks with sweep second hands. printers and, in addition, tell your computer what time it is.

Twelve hours of standby battery operation is standard in ES 160, 160/1 and 190

MASTER CLOCKS

ES 180 Mounted in a 5%" relay rack panel and chassis, displays six digits of time information on 3" LED displays, in 12 hour format.

ES 160 has three second per month accuracy. Its standard output is serial BCD, CMOS compatible, and can drive ES 161, 166, 171, 991 or 993 Remote Displays without buffering. All inputs and outputs are through rear-mounted connectors.

Dimensions: 5'4" High x 19" Wide x 15" Deep \$1050

Dimensions: 5'\delta' High x 19" Wide x 15" Deep \$105.

ES 180/1 One second per month version of ES 150. \$1225

ES 190/1 One second per month version of ES 150. with special circuits for receiving and decoding a 1000 Hz tone at the start of eech minute. The decoder output resets the seconds' counters in the clock each minute except the first minute of every hour. These tones are transmitted by radio Station WWV, with an oscillator accuracy of ±1 part in 10". ES 190 has an antenna and internal WWV receiver with audio-output. Displays are .3" red LED's. Serial output drives ES 161. 166. 171. 991 and 993 Remote Displays.

Dimensions: 5'\delta' High x 19" Wide x 15" Deep. \$1225

ES 192/194 The most seconomical Masters, ES 192 (12 Hr) and ES 194 (24 Hr) are constructed using ES 112 or ES 124 digital clocks and adding the ES 167 Serial Time Code Generator to provide the output needed to drive Remote Serial Displays ES 161, 166, 171, 991 and 993. Displays are .5" incandescent type.

Dimensions: 2'\delta' High x 8" Wide x 6" Deep. \$325

ES 192 Itime AND TEMPERATURE MASTER Basicality the same as ES 192, but with oas dis
ES 193 Itime AND TEMPERATURE MASTER Basicality the same as ES 192, but with oas dis-

ES 196 TIME AND TEMPERATURE MASTER Basically the same as ES 192, but with gas discharge displays, panel mounting end separate serial BCD outputs for time and tamperature. Displays 12 hour and °F format.

Dimensions: 3'%" High x 19" Wide x 8" Oeep. \$766

ACCESSORIES

ES 161 REMOTE DIGITAL DISPLAY Decodes serial time data and displays six digits of time on .55" Gas Discharge Displays, in either 12 or 24 hour format.

Dimensions: 8" Wide x 2" High x 6" Deep. \$165

ES 162 IMPULSE DRIVER Plugs Into the ES 160 chassis, can drive 20 impulse Clocks.

Designed so that, if power falls, impulse always comes on with the same polarity when power is restored. \$200 restored \$200

ES 164 REMOTE DIGITAL IMPULSE DISPLAY Similar to the ES 161 except that the ES 164 derives its count command from the ES 162 impulse Driver, or any impulse clock drive circuits already installed.

aiready installed.

Dimensions: 8" Wide x 2%" High x 6" Deep. \$244

ES 166 JUMBO 1" CLOCK DISPLAY Features six digits of one linch gas discharge displays in 12 or 24 hour format. Receives serial time code linguit from eny ESE Mester Clock or ES 167. Dimensions: 10%" Wide x 4%" High x 6%" Deep. \$252 ES 167. BERIAL TIME CODE GENERATOR An integral part of ES 160, 190, 192/194 and 196 Master Clocks, this unit can be added to many other ESE products, including ES 112, 124, 182, 184, 992, 994, 750, 751, 753, 754 and all 780 Series Time Programmers. Drives ES 161, 166, 171, 991 or 993 Remote Displays, \$146 ES 189 TEMPERATURE SLAVE Receives serial code from ES 196, displays if on .55" Gas

ES 189 TEMPERATURE SLAVE Receives serial code from ES 196, displays it on .55" Gas Discharge. Displays.

Dimensions: 8" Wide x 2%" High x 6" Oeep. \$146
ES 171 CONSOLE MOUNT REMOTE DISPLAY Receives the serial time code generated by any ESE master Clock, or any ESE product containing the ES 167 serial time code generated by any ESE Master Clock, or any ESE product containing the ES 167 serial time code generated displays it on bright red .3" LED's.

Dimensions: 2" "High x 4" Wide x 4" Deep. \$158
ES 1548 CONSOLE MOUNT TEMPERATURE DISPLAY in the same case as ES 171, receives the serial code from ES 196 and displays it on bright red .3" LED's.

Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" High x 4" Wide x 4" Deep. \$158
Dimensions: 2" Hig

as an accessory. \$195

as an accessory, \$195
ES 991 4 DIGIT SERIAL INPUT SLAVE Decodes serial time data and displays four digits of time on large 2" gas discharge displays.

Dimensiona: 10% "vide x 4%" High x 6%" Deep, Desk Top Caso, \$325
ES 993 6 DIGIT SERIAL INPUT SLAVE Features four digits of 2" high gas discharge displays, and two digits (Seconds) of 1" gas discharge displays. Receives serial time code input from any ESE Master Clock or ES 167.

Dimensiona: 5" High x 12" Wide x 3" Oeep (Wall Mount), \$449



SMPTE TIME CODE GENERATOR: ES 261 is a pre-settable, eight-digit SMPTE/Time Code Generator, capable of Drop Frame or Non-Drop Frame operation. \$750



253 SMPTE TIME CODE READER: is an eight-digit SMPTE Time Code Reader displaying Hours, Minutes, Seconds and Frames. \$454

ES 254 SMPTE TIME CODE READER: is a bi-directional, multispeed eight digit reader, displaying Hours, Minutes, Seconds and Frames on .4" red LED displays. \$675

ES 255 is a bi-directional, multispeed, eight-digit SMPTE Code Reader, that can add the information to a video stream for recording time code on the video portion of a tape, or for displaying it on a monitor. Reading speed is 1/20 to 20 times playback speed. \$995

ES 112/124

DIGITAL CLOCK \$165

ES 112 (12 hr.) and ES 124 (24 hr.) are solid state, six digit clocks. Can drive 80 Series end 90 Series slaves. Displays are incandescent littlement. 6" high.

Dimensions: 2" High x 8" Wide x 6" Deep.



ES 142/144

DIGITAL CLOCK THERMOMETER \$300

ES 142 (12 hr.) and ES 144 (24 hr.) are sollo ES 142 (12 hr.) and ES 144 (24 hr.) are solid state digital colock/thermometers. Six digits of line (hours. minutes, seconds) and 3 digits of temperature —50°F to +150°F or -45°C to +66°C) in gas discharge displays. 55° high. Temperature sensor on 25 ft. cable included. Dimensions: 2'5" High x 10" Wide x 6° Deap.

ES 240/241

ES 240 DIGITAL THERMOMETER is calibrated for "F and "C. Displays are planar gas discharge. 55" high. \$195
Dimensions: 2" High. 8" Wide x 6" Deep.
ES 241 DIGITAL THERMOMETER is calibrated for "F and "C. alternating between the two every four seconds. Displays are planar gas discharge. 55" high. \$236



70 SERIES

CONSOLE MOUNT

CONSOLE MOUNT
CLOCKS AND TIMERS
ES 172 SIX DIGIT, 12 HOUR CLOCK: Three
setting controls—Fast Advance. Slow Advance
and Hold. \$158
ES 174 SIX DIGIT, 24 HOUR CLOCK:
Otherwise identical to the ES 172 \$158
ES 370 FOUR DIGIT, ONE HUNDRED
MINUTE UP/DOWN TIMER: Six controls—
Count Up. Count Down. Stop. Minutes Advance. Seconds Advance. Reset. \$201
ES 371 UP/DOWN TIMER: Similar to the ES

ES 371 UP/DOWN TIMER: Similar to the ES

ES 37 UP/DOWN TIMER: Similar to the LS 370 except with Leverwheel Preset capability for laster setting of the desired time \$319 ES 570 FOUR DIGIT, SIXTY OR 100 MIN-UTE TIMER: Select 60 or 100 minute mode on orac connector. Start, \$109 and Resat controls. Funs continuously unless stopped Reset will start and desired times to the control set. return all displays to zero. Unit will run if reset will while running or will stay at zero if reset when stopped. \$158

stopped. \$158
ES 572 SIX DIGIT, 12 HOUR CLOCK OR
TIMER: Five controls—Start, Stop, Reset, Fast
Advance, Slow Advance, Will run continuously
to 12:59:59. Advances to 10:00 and continues
as clock unless stopped or advanced. \$192
ES 574: A 24 hour version of ES 572 \$192
ES 575: Exactly like ES 570, with the addition
of a "freeze" button. When the button is
released, the display "catches up" with the correct elapsed time. \$192
Dimensions: 2.16" High x 4.5" Wide x 4.13"
Deep.



80 SERIES

JUMBO CLOCKS AND TIMERS

AND TIMERS
Large, bright I" gas discharge displays provide elfortless long distance viewing from 40 feet. ES 182 SIX DIGIT, 12 HOUR CLOCK: Three rear-mountee setting controls—Fast Advance. Slow Advance, and Hold. \$272
ES 188 SIX DIGIT, 24 HOUR CLOCK: Otherwise identical to the ES 182 \$272
ES 380 FOUR DIGIT, 100 MINUTE UP/DOWN TIMER: Displays minutes and seconds, with rear-mounted connector to allow remote wiring of six momentary SPST CONTROLS—Count Up. Count Down. Stop. Minutes Advance. Seconds Advance and Reset. Other features similar to ES 301. \$316
ES 381 UP/DOWN TIMER: Similar to ES 360. except that lever-wheel preset is used \$416
ES 585 FOUR DIGIT, 60 MINUTE TIMER:

ES 580 FOUR DIGIT, 60 MINUTE TIMER: bipplays minutes and seconds. Rear con-nector allows remote wiring of three momen-tary SPST controls— Start, Stop and Resel Reset returns all displays to zero, and timer will continue to run from zero if reset/hile running. 80 Series staves are elso compatible with other ESE clocks and timers: ES 112/124, 301, 302 and 510 \$228 Olimanalons: 4.45" High x 10.38" Wide x 6.58" Deen



90 SERIES

2 INCH DISPLAYS-

Z INCH DISPLAYS—
VIEWABLE AT 60 FEET
ES 391—Presettable Up/Down Timer: 100
Minute Range—Displays Minutes and Seconds. uses Leverwheel Preset. Controls are
Count Up. Count Down. Stop. Reset and
Preset. \$487
Dimensions: 4.45" High x 10.38" Wide x 6.58"

Dimensions: 4.45" High x 10.38" Wide x 6.58" Deep.
ES 590—Sixty Minuta Timer: Displays Minutes and Seconds. Rear-mounted connector provides for wiring to user's single pole, momentary, push-button controls: Start. Stop and Reset. Reset returns all displays to zero, and timer will continue to run from zero if reset white counting. \$228
Dimensions: 4.45" High x 10.38" Wide x 6.58" Deep.
ES 992/994—6 Dight Clocks: ES 992 (12 Hr) and ES 994 (24 Hr)—Hours and Minutes on Two Inch Gas Discharge Displays. Seconds on Two Inch Gas Discharge Displays. Three top-

One Inch Gas Olscharge Displays, Three topmounted setting controls—Fast Advance. Slow Advance and Hold. \$449

Dimensions: 5" High x 12" Wide x 31%" Deep.



ES 211/214

DYNAMIC AUDIO
LEVEL INDICATOR
The ES 214 is a highly accurate audio fevel indicator which is designed to simulate the action of a conventional VU-Meter but with superior dynamic characteristics. The LED meter is five to one hundred times faster in responding to complex waveforms than the mechanical meter. complex waveforms than the mechanical meter without sacrificing the familiar meter "move-

SPECIFICATIONS

mber of Indicators: 14 LED Lamps in 3

colors.

Scele: +4, +3, +2, +1 dB—Red

0 dB—Yellow

-1, -2, -3, -5, -7, -10,

-15, -20, -25 dB—Green
Input Impedance: 2200 ohms at maximum
sensitivity, 6800 ohms et +8dBm "House
Level". 10,000 ohms at minimum sensitivity. Input Circuit: Trensformer isolated, balanced

Frequency Response: 20-20 KHz ± 1 dB (all modes)

modes). Rise Times: Less than 250 MicroSec (Peak Mode). less than 25 MilliSec (Fast Averaging Mode). Approximately 300 MilliSec (Optional

Fall Time: (All Modes) About 300 MicroSec

Modes of Operation: Peak Reading, Fast Averaging (Apparent Loudness), Slow Averag-ing (USA VU-Standard).



ES 562/564

SIX DIGIT CLOCK/ TIMER WITH MEMORY \$313

TIMER WITH MEMORY \$313
ES \$82/584 is a combination six digit clock and
24 hour time with memory, allowing the user to
set the clock to the correct time of day, switch
to timer mode, then switch back to time of day
by pushing one button; time of day will be
correctly displayed. In hours, minutes and
seconds. Five pushbutton controls are
mounted on the top of the unit, near the front in
the desk-top case. When panel mounting is
specified, they will be mounted on the front
panel; below the display. The controls may also
be remoted, through two rear-mounted five pin
connectors (Option R) These controls are Clock, Fast/Start, Stow/Stop, Timer
and Hold.
Display: Six digits of .55" Planar Ges Discharge Display.



ES 280

AUDIO TIME CODE GENERATOR/READER

The ES 280 is a 10 Digit Audio Time Code Generaturi Reader, capable of laying down a serial BCD time code on audio tage in the Generaturi Mode, and recovering and displaying it in Digital form in the Reader Mode. The code has been designated by Ell 18 not a standard code, such as SMPTE or IRIG. The frequencies used to produce the with catridge machines as well upon the production of the code of the



ES 510L

FOUR DIGIT 60 MINUTE TIMER \$158

OU ININUTE I INIVER'S 130. ES 510 is a four digit, sixty minute timer (59:59) with Start. Stop and Reser controls. If stopped, display will hold time reading and when restarted will continue with next count from last displayed flights. If reser white running, there will continue to run, ES 510 can drive 80 Series and 60 Series Stares.

and 90 Series Slaves.

Dimensions: 21/4" High x 6" Wide x 6" Deep.



ES 203/205 ...

ES 203/205 is a 20 input Timer/Source Inter-ES 203/205 is a 20 input Timer/Source Inter-lace. It was designed to provide a single means of connecting a variety of sources such as carts and turntables to the remote input of ESE Timers. The most common application for this product is resetting either an ES 400 or ES 510 Timer each time a source is started. The 20 inputs are divided into ten DC voltage inputs and ten contact closure inputs. Activation of any one of these inputs will cause

Activation of any one of these inputs will cause an output which will momentarily reset an ESE

Mechanical: Aluminum Case 8" x 6" x 2"



ES 301/302

100 MINUTE

UP/DOWN TIMERS \$234 \$302 E\$ 301 is a four digit, one hundred minute timer (99:59) with six controls: Count Up, Count timer (99:59) with six controls: Count Up, Count Down, Stop, Minutes Advance, Seconds Advance, Reset. Counting can be activated up or down or set back to zero. When "Stop" control is pressed, the four digit display is held. Counting direction (up or down) can be changed or time can be raset to zero without slopping the count. The ES 301 can drive 80 Series along Series Stander. Dischars zero ass Series and 90 Series Slaves, Displays are gas discharge. .55" high



With the ES 302, the user can preset times much faster than with the ES 301, becausa lever-wheel type switches are used for the preset feature. The ES 302 can drive 80 Series and 90 Series Slaves.

Dimensions: ES 301: 21/2" High x 8" Wide

x 6" Deep. ES 302: 2½" High x 10" Wide x 6" Deep.



ES 206

VIDEO TIME AND DATE GENERATOR \$475

The ES 206 has been designed to allow the addition of Time and Date information to a video signal. Two rear-mounted video jacks permit "looping" the video information through the 206 to add the data.



270 IRIG B TIME CODE READER \$3500

The ES 270 TIME CODE READER has been designed to be an ecomomical solution to the problem of receiving and displaying IRIG B.

Nine digits (Days, Hrs, Min, Sec) of time are shown on bright red LED's, 3" character height. ES 270 comes in a rack mounting enclosure, 1%"High. 19" Wide and 10" Deep.

Tha power requirement is 117V AC, 50/60 Hz, 230V AC, 50 Hz is available as an ootion.



142 Sierra Street El Segundo, CA 90245 (213) 322-2136

CHIEF ENGINEER-

"Thank God, it works. We've tried everything and we're really pleased."

DIRECTOR-

"It's a wonderful sense of security for a director to have access to the people he works with."

TALENT-

"Without the Comrex, I would have been lost."

Are you entirely satisfied with your ENG communications?

We've just finished talking with every Comrex Cue System user and, after talking with them, what we <u>can't</u> understand is why every station who does ENG, EFP, sports, or live studio programming hasn't at least considered our Cue System.

The Comrex Cue System is an RF system that goes in a van, helicopter, press box, studio control room, etc., and sends both program and instructions to small, rugged, pocket receivers.

Give us a call. We're happy to tell you more or to send it out on a free ten day trial.

COMREX

P.O. Box 269 60 Union Avenue Sudbury, Massachusetts 01776 TEL: 617-443-8811 TWX: 710 347-1049



Circle (20) on Action Card

NEW/SMAKERS

Vincent Wasilewski, president of the National Association of Broadcasters, has announced his intention to resign sometime during 1982. Wasilewski joined NAB in October 1949 and has served as president since January 1965. Wasilewski, who will be 60 this December 17, is one of the industry's more respected and forceful figures.

Sterling Davis was hired as production manager and Ray Jacobs was named director of administration of Cox-owned KTVU, San Francisco/Oakland. Davis will be responsible for the supervision of both the film and floor departments, and will serve as the facilities supervisor. Prior to joining KTVU, Davis was chief engineer of Telemation Production in Seattle.

John Ridall has been appointed general manager of Viacom Cablevision in Dayton, Ohio. Ridall was formerly director of marketing for Viacom Cablevision in Cleveland.

John Dimling, Jr., has been named executive director of the Broadcast Rating Council. Dimling assumed the position June 1, following the retirement of Hugh Beville, Jr..

Jim Noeldner joined Katz Communications' sales office in Seattle. Noeldner came to Katz from KAPY Radio, Port Angeles, where he was a sales manager.

Jonathan Klein is the new general sales manager of WBZ-TV, Boston. Klein, formerly vice president and general manager of KDKA Radio, will be responsible for WBZ-TV's national and local sales force.

Peter Rainger, deputy director of engineering for the BBC, has been elected a Fellow of the Royal Society "for his major contributions to the development of electronic techniques used in television." Rainger joined the BBC as a graduate engineer in 1951. He helped develop the first electronic standards converters as well as Ceefax, from which teletext has developed. More recently he has played a leading role in the formulation of the standard format for digital video signals which was agreed upon by the CCIR.

Anna Mae Sokusky is the new director, CBS Radio Stations News Service. She replaces Joseph Durso, Jr., who has been apointed news director at WBBM-AM in Chicago.

Fran Wilkinson, an executive with an extensive background in radio sales, has joined the RKO Radio Networks as western region sales manager in the Los Angeles sales office. Wilkinson comes to RKO from Blair Radio, where he was sales manager for the firm's L.A. office.

Sheldon Cooper has been named president of Tribune Productions, a newly formed subsidiary of Tribune Company Broadcasting Inc. Cooper was formerly the president and general manager of WGN Television.

Andrea Cetera has assumed the post of vice president, market strategy, at Viacom Enterprises. Prior to joining Viacam a year ago, Cetera was director of research and client services for Petry Television.

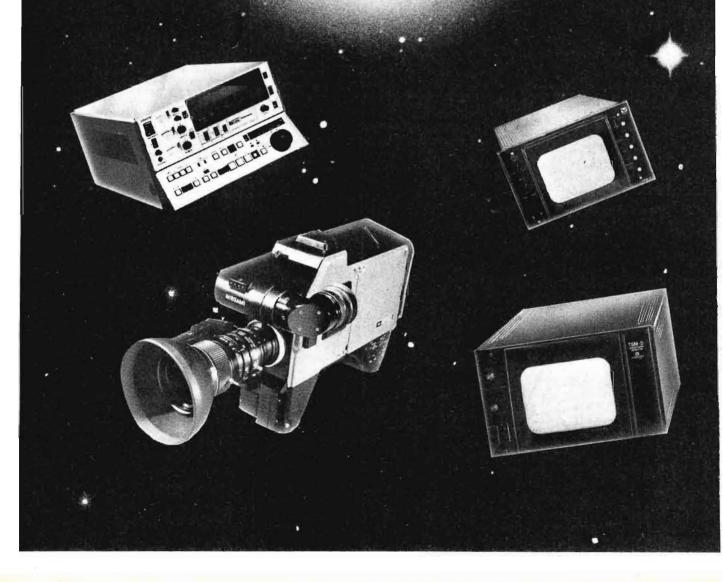
Elliott Klein was elected vice president of the Phoenix Metropolitan Chapter of the Arizona Broadcasters Association. Klein is director of engineering at KNIX, Tempe.

Continued on page 30

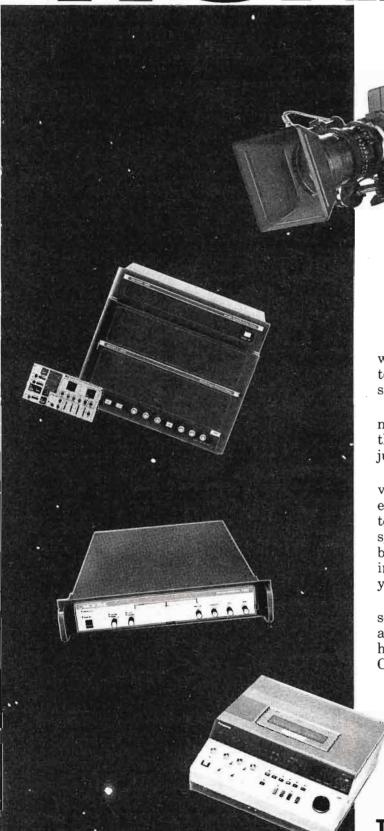
Ampex Announces the Practical End of Video Jitters.



Circle (21) on Action Card



WORLD



CAMERA MART, THE SOURCE FOR EVERYTHING IN TODAY'S NEW WORLD OF VIDEO TECHNOLOGY.

At Camera Mart, we're keeping pace with the rapidly advancing science of video technology to give you the most sophisticated state-of-the-art equipment available.

In the new world of video, equipment is more flexible, more versatile, more accurate than ever before, with capabilities far ahead of just a year ago.

At Camera Mart we can give you entire video systems: cameras, sound, lighting, editing...plus the expertise of our trained technical staff to help you put together the system that's exactly right for your needs, TV broadcasting, field production, fixed or mobile installations, ENG/electronic cinematography, you name it.

Whether you want to buy, rent or lease, see what's been happening in video research and development. See how much more you can have with the latest advanced video systems at Camera Mart.

Products Shown:
Sony BVU-800 Broadcast Cassette VTR, Ikegami HL-79
ENG/EFP Camera, Videotek TSM-5 Wave Form Monitor,
Videotek VSM-5 Vectorscope, Ikegami EC-35 Electronic
Cinematography Camera, Quantel DPE 5000 Digital
Effects System, Panasonic NV-8500 VHS Editing Recorder,
Microtime T-120 Time Base Corrector.

The Camera Mart, Inc.

456 W. 55th St., New York 10019 • (212) 757-6977/Telex: 1-2078 Video Department: 800 Tenth Ave. Sales • Service • Rental

Circle (22) on Action Card

THE ELECTRONIC NEWSROOM IS HERE TO STAY!

THE PROVEN SYSTEM IS AVAILABLE TODAY!

FROM INTEGRATED TECHNOLOGY, INC.

- IT is the only computer systems company that is totally devoted to broadcast news applications!
- IT is the manufacturer of the only electronic newsroom system with a proven performance of around-the-clock operation for more than 18 months without crash!
- IT leads the industry in the number of new systems developed exclusively for the broadcast news market!
- IT has the capability for the volume production of its exclusive design, and performance proven systems, now!

CALL OR WRITE FOR DETAILS TODAY

INTEGRATED TECHNOLOGY, INC.

Specializing in computer management systems for the broadcast newsroom.

9644 View High Drive Kansas City, Missouri 64134 816/763-2286 • 913/677-1041

Circle (23) on Action Card

NEWSMAKERS

Lou Zacche, named vice president of advertising and promotion for Abell Communications, will direct the advertising, promotion, and design activities for Abell's television and radio stations, as well as its direct marketing and program syndication efforts.

Peter Vincelette joined the Insilco Broadcast Group of Florida as general manager of WYOR, Miami. Vincelette had been vice president and general manager of WJYE-FM, Buffalo.

Linda Farrell moved from KOCO-TV, Oklahoma City, to KOA-TV, Denver, where she became news anchor. Farrell has worked as a producer, writer, reporter, anchor, and news director in the Oklahoma City area.

Mary Murano has been appointed northeast region affiliate marketing manager for Rainbow Programming Services. Her responsibilities include developing, planning, and executing affiliate launches; ongoing marketing programs; and follow-through activities for all systems within the district. Prior to joining Rainbow, she was manager of advertising and promotion at Showtime Entertainment.

Business Moves

Herb Lee, formerly in industrial video sales for Peirce-Phelps, Video Systems Division, has been promoted to broadcast/teleproduction salesman for the Washington, D.C., area. Also at Peirce-Phelps, James Wesley Boslough has joined the company as systems engineer. Boslough has more than 20 years of broadcast and technical engineering experience.

Bruce Hall recently joined Bonneville Satellite Corporation as director of operations. Hall is responsible for the operations of Bonneville Satellite's leased and owned satellite facilities and services.

Michael O. Felix has been appointed general manager of Ampex Corporation's Advanced Technology Division. Felex will direct the company's extensive research and development programs in his new position.

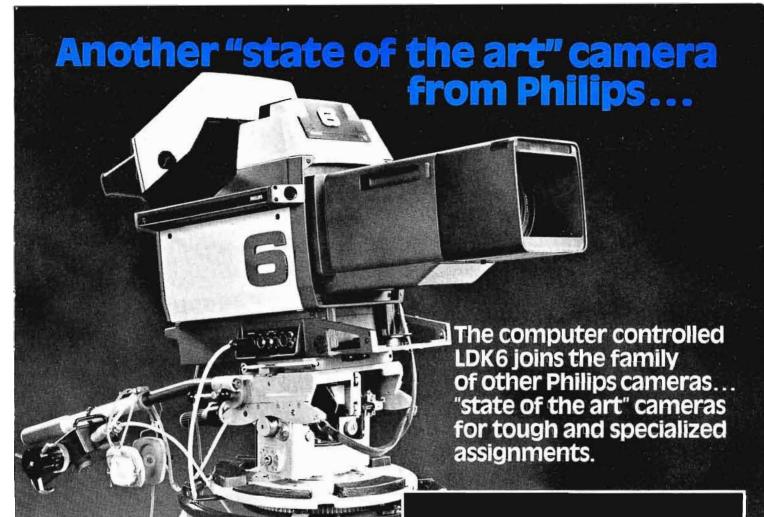
Howard McClure has been named vice president of marketing at Townsend Associates. McClure joins Townsend Associates from Fernseh, where he was director of product management and applications engineering.

Richard Teichman was recently appointed senior vice president of Electronics, Missiles & Communications Inc. (EMCEE). In his new position, Teichman will be responsible for many phases of the company's operations, including general administration, training, and data processing.

John Robbins, new manager of production and product support at Quad-Eight Electronics, has an extensive background in professional and consumer audio manufacturing and in FM broadcasting. His new responsibilities will cover both standard and custom products at Quad-Eight.

Michael Montag, formerly European regional sales manager for Telemation International, has been appointed head of the newly formed Microtime Europe Limited, a wholly owned subsidiary of Microtime Inc., located in the United Kingdom. The new company will provide sales and service support to Microtime's dealers and customers in Europe, the Middle East, and Africa. Also at Microtime,

Continued on page 32



A new era has been launched with the all new LDK6 field and studio triax camera with "distributed intelligence" to control, report and diagnose. These features now mean the operator can concentrate on creative camerawork.

For the first time, individual microcomputer and data communication facilities in each of the main system units provide an unequalled degree of intelligence within the system.

Other unique features include:

■ Simultaneous multi camera computer controlled setup... partial or automatic. ■ Diagnostics for on line anticipatory, and off line on-demand fault indication. ■ Digital scan correction for spectacular reduction in corner errors. ■ Wide Band RGB video over triax. ■ Multiple camera settings can be stored and recalled instantaneously during production. ■ 4 lens memories to automatically adjust for different lens parameters including back focus. ■ Built-in diascope so standard lenses can be used including LDK5/25 lenses. ■ Either 25mm or 30mm Plumbicons® can be selected. ■ Two-wire data bus permits easy and economical expansion.

LDK5B and 25B are rugged and reliable high quality cameras. The all triax LDK5B has become a standard for tough remote requirements, and continues to be the first choice for quality field productions. The multi-core LDK25B is a first line studio camera...and surprisingly affordable.

LDK14S and SL EFP/Studio cameras are ready for any shoot out and comparison of automatic features...and require only a simple adapter for triax conversion. The LDK14SL with Low Output Capacitance diode gun Plumbicons* offers an unusually high S/N Ratio (57dB) and higher resolution.

LDK 44 is a new modular 3-in-1 versatile and economical broadcast quality ENG/EFP/Studio camera. No other camera offers the features and flexibility at such a low price.

Philips high technology "workhorse" cameras continue to be the choice of demanding broadcasters for quality pictures, reliability, flexibility and low cost of ownership.



For your present or future camera requirements, put yourself behind any one of these Philips LDK cameras and compare... quality, reliability, ease of operation, flexibility, and cost of ownership. Call or write for full details.

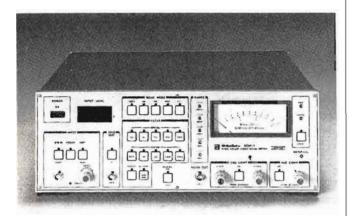


CENTRAL DYNAMICS
CORPORATION

Circle (24) on Action Card

The U.S. Broadcast Company for PHILIPS American Data 900 Corporate Drive, Mahwah, NJ 07430 201-529-1550

THE TRUE MEASURE OF PERFORMANCE



ASACA/SHIBASOKU 925R Color Video Noise Meter

The versatile 925R accurately measures both luminance and chrominance noise generated from TV transmission equipment, TV cameras, VTR's, videotape and videodisks. Connected to a general purpose interface bus (IEEE-488), it gives you complete receive/transmit capabilities. You can receive measurement start, mode and filter selection commands and transmit measurement data through the bus. You can expand the 925R into a fully automated system by using a desk-top computer with the SHIBASOKU TG-7 TV Test Signal Generator, U705 Noise Test Unit and 531 Interface Unit.

- Tests equipment under actual operating conditions.
- Separates AM/PM chrominance noise and measures each.
- Features HP/LP filters and weighting network for frequency analysis.
- Provides V/H sag compensation, hue compensation, and VTR head balance.
- Logs digital data; may be used as a digital video level meter.
- Available in NTSC; PAL B, M, N; and SECAM systems.

Measure your performance with the best. **ASACA/SHIBASOKU 925R.** The world standard in color video noise measurement.

For complete specifications, write:



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

Circle (83) on Action Card

NEWSMAKERS

Stephen Kreinik was named director of engineering; Gary Armour was named western regional manager; and Stephen Krant was named south central regional manager.

David Osedach was recently appointed video products sales manager for Audiotronics International, located in North Hollywood, California. Osedach will have full responsibility for the marketing of both CCTV and data display customers in the international markets, excluding Europe.

Jamie McMahan has been promoted to director of marketing for the Broadcast Division of Data Communications Corporation.

Larry Lamoray joined Auditronics as international marketing manager. Lamoray was formerly with MCI Inc., serving both the engineering and marketing departments.

Bill Culbertson is the new manager of southern broadcast sales at RCA Commercial Communications Systems Division. Based in Camden, New Jersey, Culbertson is responsible for an organization selling RCA's line of radio and television studio and transmitting systems throughout the southern states.

Gary Hinderliter has been named director, customer services, at CMX/Orrox. In his new position, Hinderliter will supervise the company's technical publications, training, and field service activities. He joined the company in 1978, and was most recently central region field service supervisor

Peter Maguire, the new head of Valtec's Kansas City office, is responsible for developing new business opportunities for Caltec fiber-optic cable and telecommunications in North Dakota, South Dakota, Nebraska, Colorado, Kansas, Oklahoma, Texas, Louisiana, Missouri, Iowa, Minnesota, Illinois, and Wisconsin.

Richard Moen was recently appointed general sales manager for McMartin Industries. Moen will also continue his former responsibilities as eastern regional sales manager for McMartin broadcast products.

Russell Farrell was promoted to OEM sales manager for Altec Lansing's industrial/professional sound products line. He was formerly Altec's district manager for New England.

Nathaniel (Nat) Ostroff, the former principal founder of Acrodyne Industries, joined Comark Communications as a member of the board of directors and as an operating vice president. Ostroff will head the company's new high-technology research and engineering division in Colmar, Pennsylvania.

Dr. Albert A. Comparini has been named vice president of operations for Andersen Laboratories. Dr. Comparini will be responsible for product development, materials, and manufacture of electronic systems for Anderson Laboratories, a subsidiary of Andersen Group Inc. He had been director of operations for Andersen Laboratories since 1979. He joined the firm in 1977 as engineering manager.

James "Jay" Samples is the new midwest regional sales manager for Capscan Cable Company. He will be responsible for Capscan sales and service activities throughout Tennessee, Kentucky, Ohio, Illinois, Indiana, Michigan, Minnesota, and Iowa.

The next generation in editing systems. Mach One Series II.

Mach One from Fernseh has always been the fastest videotape editor on the market. The easiest-

And because it's software-based, we can make it more powerful with software changes.

That's exactly what we've done with the new Mach One Series II-the second-generation system.

Powerful new features.

Series II has all the features of the original Mach One. Plus six important new features that not only let you edit faster than ever, but give you unique capabilities and conveniences.

Dual-channel audio control. This exclusive feature gives you complete and independent control over two separate audio tracks in addition to the video channel.

Variable speed control. You can select any of 16 shuttle-jog speeds in either direction—all the way from freeze frame to maximum VTR speed.

Programmable slow motion.

Once you've selected a speed, it's displayed on the screen and you can program it in the edit list (for example, "half-speed at two minutes in, threequarter-speed at three minutes in," and so forth). The programmed sequence is then completely repeatable.

Updated edit list formatting. Mach One Series II gives you 6-digit alphanumeric reel numbers, audio channel 1 and 2 entry, additional events displayed on the screen, and other edit list features.

Cluster-event programming. A Mach One exclusive. This powerful feature lets you program extremely complicated multiple events, known as "elements," in a "cluster" and treat them as a single event. For example, a complex series of switcher wipes, dissolves, or keys-together with digital video effects-can be guickly put together and previewed or recorded in one pass rather than event-at-a-time.

Screen highlighting. We've made the Series II edit screen easier to work with. Now it brightens the edit line dims the rest of the screen. It's easy

on the eyes, easy on the nerves, and never lets you lose your place-even for a second.

The editor's editor.

Mach One Series II in your editing room will give you speed and ease of operation that translates into creativity and profits.

You need the new generation in computer-assisted editing for your post production. And the new generation is exclusively Mach One Series II.

Your local Fernseh office is anxious to get you full details. Call them. Or get in touch with us directly: Fernseh Inc., the Video Corporation of Bell & Howell and Robert Bosch, P.O. Box 15068, Salt Lake City, UT 84115. (801) 972-8000.

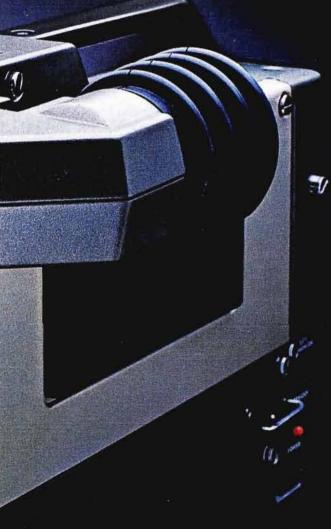
From now on, look to Fernseh.

FERNSEH





-800. SHARP TAKES OF THE PICTURE.



While everyone else is introducing a midpriced camera, Sharp introduces a whole new generation.

The Saticon II Generation.

The Sharp XC-800 is the first camera priced under \$13,000 with Saticon II Tubes.

That means it's the first camera in its class that combines Saticon® strengths with a Plumbicon® plus.

Plumbicon* plus.
So unlike conventional Saticons, you get substantially less highlight sticking, even when you pan across bright lights.

And you still get the higher resolution and depth of modulation Saticons are known for.

But that's just the beginning.

Pound for pound, feature for feature, nothing comes close to the new Sharp XC-800. It's lightweight and perfectly balanced.

And while we're proud of our new on-board computer, and newly designed Remote Operations Panel with serial data transmission and black stretch, the name of our game is more than just features.

It's reliability.

That's what the pros were looking for when we introduced the original XC-700, the first mid-priced camera that didn't perform like a mid-priced camera.

In fact, it performed so well, there are over a thousand of them out in the field today.

And it's been so successful, it's encouraged a rash of new mid-priced cameras.

We encourage you to compare any of them with the new Sharp XC-800.

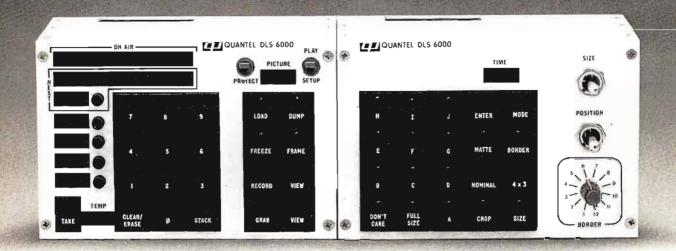
Between the Saticon II breakthrough and everything else, nobody offers more camera for the money. For more information, contact your local dealer, or write: Sharp Electronics Corporation, Professional Products, 10 Sharp Plaza, Paramus, New Jersey 07652.



FROM SHARP MINDS
COME SHARP PRODUCTS

Circle (27) on Action Card

The Quantel DLS 6030.



Every other way to store stills is obsolete.

Introducing the state-of-the-art in electronic still-storage—the Quantel DLS 6030 digital library system.

Obviously it stores still pictures. Up to 800 on each small Winchester disk drive. And with the quality that is a hallmark of Quantel. But the DLS 6030 goes far beyond still-storage.

It is the only electronic still-store with production effects capabilities. So now you can compress still pictures to any size. Crop them to remove unwanted material. Position them anywhere you want. Put borders around them. And dissolve from one shot to the next.

You can even build up totally new pictures—composites or montages—from existing material.

And you can always retain your "originals" in their pristine state.

The DLS 6030 lets you browse through its disk library to select the pictures you need, and gives you unprecedented facilities for on-air editing, previewing, and presentation.

Off-loading? You can dump all the pictures—in digital form—onto

standard videotape. Then reload at the remote site via any VTR. The transfer is digital, so there's no generation loss.

Because Quantel's technology is leading-edge, the DLS 6030 is small—about one-quarter the size of still-stores using older technology—and draws far less power. So it's ideal for mobile operations as well as the studio.

There's nothing else like it. See for yourself. Call your local MCI/Quantel representative. Or get in touch with us directly at 415/856-6226. Micro Consultants, Inc., P.O. Box 50810, Palo Alto, California 94303.



MCI/QUANTEL
The digital video people.

MCI/Quantel is a trademark of Micro Consultants, Inc.

Circle (101) on Action Card

PBROADEAST Edinomasis SERVICES SIGNATURS

GENERAL INDEX
ALARMS CARRIER
FAULT
AM PHASING & BRANCHING SYSTEMS46
CSP Inc., see ad on page 196 Continental Electronics, see ad on page 17 Cosmin Electronics, see ad on page 139
AMPLIFIERS, AUDIO CLAMPING AMP46
Telemet, see ad on page 85 COMPRESSION AMP
ATI-Audio Tech. Inc., see ad on page 142 Inovonics, see ad on page 126
Processing Plus, see ads on pages 162, 164 DISTRIBUTION
BSM Systems, see ad on page 176 Broadcast Technology, see ad on page 193
Di-tech, see ad on page 57 Processing Plus, see ads on pages 162, 164
RTS Systems, see ads on pages 126, 128 Telemet, see ad on page 85
ATI-Audio Tech. Inc., see ad on page 142
Broadcast Technology, see ad on page 193 Processing Plus, see ads on pages 162, 164 MIKE AMP
ATI-Audio Tech. Inc., see ad on page 142 Processing Plus, see ads on pages 162, 164
MIXER AMP
PEAK LIMITING, AM
Processing Plus, see ads on pages 162, 164 PEAK LIMITING, FM48 Inovonics, see ad on page 126
Processing Plus, see ads on pages 162, 164 POWER AUDIO AMP
ATI-Audio Tech. Inc., see ad on page 142 Broadcast Technology, see ad on page 193
PROCESSING AMP
Inovonics, see ad on page 126 REMOTE AUDIO AMP50
AMPLIFIERS, VIDEO
DISTRIBUTION AMP
Dynair, see ads on pages 127, 129, 131 Graham-Patten Systems, see ad on page 176
Multidyne Electronics, see ad on page 178 Sigma Electronics, see ad on page 178
Telemet, see ad on page 85 ISOLATION AMP
Telemet, see on page 85 PULSE AMP
Graham-Patten Systems, see ad on page 176 Telemet, see ad on page 85
PROC AMP
PULSE DELAY
SWEEP AMP 50 VIDEO AMP 54 ZERO STUDIO DELAY AMP 50
AMPLIFIER, RF

Inovonics, see ad on page 126 POWER AMPLIFIER	52
ANIMATION SYSTEMS	
& SERVICES	52
Multidyne Electronics, see ad on page	178
Spectra Computer, see ad on page 11	
UMC Electronics, see ad on page 196	
Videomedia, see ad on Inside Back Co	over
ANTENNA ACCESSORIES & SERVICES	
ALIGNMENT SYSTEMS, MICROWAVE	52
BASE INSULATOR	52
BALUNS	52
Delta Electronics, see ad on page 71 CURRENT METER	
Delta Electronics, see ad on page 71	
DUMMY LOADS	52
EARTH TERMINAL POSITIONER GUY STRAIN INSULATOR	52
Racal-Decca Canada, see ad on page	130
HEATER CONTROLS	52
ICE WARNING SYSTEM	52
PHASING/BRANCHING SYSTEM	52
CSP Inc., see ad on page 196	
Cosmin Electronics, see ad on page 1	
RADOMES	
REMOTE INDICATORS	
SAMPLING SYSTEMS	52
CSP Inc., see ad on page 196	
Delta Electronics, see ad on page 71 Geleco Electronics, see ad on page 20	2
STATIC DRAIN RESISTOR	
Racal-Decca Canada, see ad on page	130
TELESCOPING MAST	52
Allen Osborne, see ad on page 12 TRANSFER SWITCH	52
Delta Electronics, see ad on page 71	
TUNING UNITS	52
CSP Inc., see ad on page 196 Cosmin Electronics, see ad on page 1	30
VSWR METERS	54
WAVEGUIDES	54
ANTENNA MASTS, ENG	54
Allen Osborne, see ad on page 12	
ANTENNAS, RECEIVING	
EARTH TERMINAL DISHES	54
FM ANTENNA	
MICROWAVE	
MF ANTENNA	54
STL ANTENNA	
UHF ANTENNA	
VHF ANTENNA	54
ANTENNAS, TRANSMITTING	
AM ANTENNAS (See also Towers)	54
AM DIRECTIONAL SYSTEMS	54
CIRCULARLY POLARIZED FM	
Continental Electronics, see ad on pa CIRCULARLY POLARIZED TV	
EARTH TERMINAL DISHES	56
MICROWAVE	56
MICROWAVE PORTABLE	56
REMOTE FOR RADIO	
TV UHF	
TV VHF	
ARCHITECTURAL/	
ACOUSTIC DESIGN &	
CONSTRUCTION	
	56

ATTENUATORS
AUDIO
FIXED
IMPEDANCE MATCHING
MICROWAVE
Tech Labs, see ad on page 151
VIDEO
AUTOMATED REMOTE
CONTROLS
AUTOMATION CONTROLS &
SYSTEMS
ATS Systems
QEI, see ad on page 171 TFT Inc., see ad on page 77
BUSINESS SYSTEMS & SERVICES 58 CART SYSTEM, RANDOM SELECT, AUDIO . 58
Deltamod, see ad on page 135 Image Video, see ad on page 173
CART SYSTEM, RANDOM SELECT, VIDEO .58 DATA PROCESSING
LIGHTING (See Lighting Controls & Services) . 58
LOGGING
MASTER CONTROL, CUSTOM
Deltamod, see ad on page 135
Image Video Ltd., see ad on page 173 PROGRAM CONTROL, VIDEO
PROJECTOR/FILM CHAIN CONTROL
REEL-TO-REEL CONTROLLER
BATTERIES & ACCESSORIES
BATTERIES & ACCESSORIES BATTERY BELTS
BATTERIES & ACCESSORIES BATTERY BELTS. 58 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER. 60
BATTERIES & ACCESSORIES BATTERY BELTS Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER Perrott Engineering, see ad on page 93 BATTERY PACKS/ENG 60
BATTERIES & ACCESSORIES BATTERY BELTS. 58 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER 60 Perrott Engineering, see ad on page 93 BATTERY CHECKER 60 Alexander Mfg., see ad on page 93 BATTERY PACKS/ENG 60 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45
BATTERIES & ACCESSORIES BATTERY BELTS
BATTERIES & ACCESSORIES BATTERY BELTS. 58 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER. 60 Perrott Engineering, see ad on page 93 BATTERY PACKS/ENG. 60 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY PACKS/LIGHTING. 60 Alexander Mfg., see ad on page 93 BATTERY PACKS/LIGHTING 60 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 124 Cine 60, see ad on page 124 Cine 60, see ad on page 124
BATTERIES & ACCESSORIES BATTERY BELTS. 58 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER. 60 Perrott Engineering, see ad on page 93 BATTERY PACKS/ENG. 60 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY PACKS/LIGHTING. 60 Alexander Mfg., see ad on page 93 BATTERY PACKS/LIGHTING. 60 Alexander Mfg., see ad on page 124
BATTERIES & ACCESSORIES BATTERY BELTS. 58 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER. 60 Alexander Mfg., see ad on page 93 BATTERY PACKS/ENG. 60 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY PACKS/ENG. 60 Alexander Mfg., see ad on page 93 BATTERY PACKS/LIGHTING. 60 Alexander Mfg., see ad on page 124 Cine 60, see ad on page 124 Cine 60, see ad on page 124 Cine 60, see ad on page 93 BATTERY CHARGERS. 60 Alexander Mfg., see ad on page 93 BATTERY CHARGERS. 60
BATTERIES & ACCESSORIES BATTERY BELTS Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER Alexander Mfg., see ad on page 93 BATTERY CHECKER Alexander Mfg., see ad on page 93 BATTERY PACKS/ENG Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY PACKS/LIGHTING Alexander Mfg., see ad on page 93 BATTERY PACKS/LIGHTING Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY PACK/TEST INSTRUMENT 60
BATTERIES & ACCESSORIES BATTERY BELTS Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER Alexander Mfg., see ad on page 93 BATTERY PACKS/ENG Alexander Mfg., see ad on page 93 BATTERY PACKS/ENG Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY PACKS/LIGHTING Alexander Mfg., see ad on page 93 BATTERY PACKS/LIGHTING Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY PACK/TEST INSTRUMENT 60 BLOWERS & FANS 60
BATTERIES & ACCESSORIES BATTERY BELTS Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY CHECKER Alexander Mfg., see ad on page 93 BATTERY CHECKER Alexander Mfg., see ad on page 93 BATTERY PACKS/ENG Alexander Mfg., see ad on page 124 Cine 60, see ad on page 45 Perrott Engineering, see ad on page 93 BATTERY PACKS/LIGHTING Alexander Mfg., see ad on page 93 BATTERY PACKS/LIGHTING Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY CHARGERS Alexander Mfg., see ad on page 93 BATTERY PACK/TEST INSTRUMENT 60
BATTERIES & ACCESSORIES BATTERY BELTS

PEAK LIMITING50 Rees Associates, see ad on page 174

COAX, FLEXIBLE 60 CSP Inc., see ad on page 196 CONNECTORS 62 FIBER OPTIC CABLES 62
GUY WIRES (See Also Towers & Accessories) . 62 HEAVY DUTY, AC/DC POWER
CSP Inc., see ad on page 196
CALIBRATION SERVICES (See Test Equipment & Services)
CAMERA MOUNTS, CARRYING SYSTEMS & ACCESSORIES
AIRBORNE MOUNTING/ 62 STABILIZING 62 CARRYING SYSTEM 62
William Bal Corp., see ad on page 170 K & H Products, see ad on page 201 DOLLIES & TRIPODS
K & H Products, see ad on page 201 Listec, see ad on page 119
PAN & TILT HEADS
PEDESTALS
TEST CHARTS62 CAMERA/RECORDER
COMBINATION 62
CAMERAS, FILM62
CAMERAS, VIDEO
CCD
FILM CHAIN CAMERA
Central Dynamics/Philips, see ad on page 31 Victor Duncan, see ad on page 172 Hitachi, see ad on page 55 Sharp Electronics, see ad on pages 34-35
Sony, see ad on pages 6-7 FIELD CAMERA
Central Dynamics/Philips, see ad on page 31 Ikegami, see ad on page 63
STUDIO CAMERA
Central Dynamics/Philips, see ad on page 31 Victor Duncan, see ad on page 172 Ikegami, see ad on page 63
CAMERA, VIDEO64 DIGITAL REMOTE
CONTROL SYSTEM
Hitachi, see ad on page 55
CAPACITORS, TRANSMITTING64 Surcom Associates, see ad on page 147
CART MACHINES & SERVICES
SINGLE DECK
DUAL DECK
MULTIPLE DECK
RANDOM ACCESS (See also Automation Controls, Audio)
UMC Electronics, see ad on page 196 REBUILDING SERVICES

RECORD ONLY 64 Pacific Recorders & Engr., see ad on page 47 STEREO 64 Pacific Recorders & Engr., see ad on page 47 UMC Electronics, see ad on page 196
CARTRIDGES (TAPE) ACCESSORIES & SERVICES
ALIGNMENT TAPES
Fidelipac, see ad on page 175 UMC Electronics, see ad on page 196 STEREO CARTS
STORAGE RACKS & CABINETS
CASES, PORTABLE EQUIPMENT66
William Bal Corp., see ad on page 170 K & H Products, see ad on page 201
CASSETTE MACHINES
SINGLE DECK 66 DUAL DECK 66 MULTIPLE DECK 66 DUPLICATION MACHINE 66
CAVITY 66
Varian, see ad on page 99
CHARACTER GENERATOR
CHOKES 66
CHOPPERS 66
CHROMA KEYERS
CHROMA KEYER/DECODER66
Telemet, see ad on page 85
CLOCKS & COUNTERS
COUNTER, DOWN
ESE, see ad on pages 24-25 COUNTER, UP/DOWN
ESE, see ad on page 24-25 Laird Telemedia, see ad on page 123 STATION CLOCKS
True Time Instruments, see ad on page 173
COILS, RF
COLLIMETER68
COLOR CORRECTOR68
COMBINER, POWER68
COMMUNICATIONS SYSTEMS
ENG. 68 Comrex, see ad on page 26

Marti Electronics, see ad on page 174
LAND MOBILE
MICROWAVE
STL SYSTEMS
TFT Inc., see on page 77
TSL SYSTEMS
Marti Electronics, see ad on page 174 TFT Inc., see ad on page 77
The second of th
COMPARATOR, TIME
COMPARATOR, VIDEO68
COMPUTERS68
COMPUTER SYSTEMS & SERVICES
BUSINESS/ACCOUNTING
Integrated Technology, see ad on page 30
TRAFFIC/PROGRAMMING
WEATHER
CONSOLES, AUDIO
BROADCAST MONO70
ADM Technology, see ad on IFC
Autogram, see ad on page 150 Continental Elec, see ad on page 17
Dyma Engineering, see ad on page 191
Finntek, see ad on page 132 Howe Audio, see ad on page 145
LPB Inc., see ad on page 153
Logitek, see ad on page 200 Pacific Recorders & Engr., see ad on page 47
Processing Plus, see ads on pages 162, 164
Siemens (foreign), see ad on page 31 Ward-Beck Systems, see ad on Back Cover
BROADCAST MONO MODULAR70
ADM Technology, see ad on IFC Autogram, see ad on page 150
Dyma Engineering, see ad on page 191 Finntek, see ad on page 132
Howe Audio, see ad on page 145
Pacific Recorders & Engr., see ad on page 47 Quantum Audio, see ad on page 192
Siemens (foreign), see ad on page 31
Ward-Beck Systems, see ad on Back Cover BROADCAST STEREO
ADM Technology, see ad on IFC
Autogram, see ad on page 150 Continental Elec., see ad on page 17
Dyma Engineering, see ad on page 191
Finntek, see ad on page 132 LPB Inc., see ad on page 153
MCI Inc., see ad on page 85
Pacific Recorders & Engr., see ad on page 47 Processing Plus, see ads on pages 162, 164
Quantum Audio, see ad on page 192 Siemens (foreign), see ad on page 31
Ward-Beck Systems, see ad on Back Cover
ADM Technology, see ad on IFC
Autogram, see ad on page 150
Dyma Engineering, see ad on page 191 Elektroimpex, see ad on page 149
Finntek, see ad on page 132
Howe Audio, see ad on page 145 Logitek, see ad on page 200
MCI Inc., see ad on page 83
Pacific Recorders & Engr., see ad on page 47 Quantum Audio, see ad on page 192
Siemens (foreign), see ad on page 31
Ward-Beck Systems, see ad on Back Cover PORTABLE FOR REMOTES
Audy Instruments, see ad on page 121
Autogram, see ad on page 150 BSM Systems, see ad on page 176
Dyma Engineering, see ad on page 191 Finntek, see ad on page 132
Processing Plus, see ads on page 162, 164
Satt Electronics, see ad on page 95 Continued on page 40
Commune on page 40

RECORDING STUDIO72
TIEGOTIONICO CITODIO TITTITITITITITITITITITITITITITITITITI
ADM Technology, see ad on IFC
Autogram, see ad on page 150
Elektroimpex, see ad on page 149 Finntek, see ad on page 132
LPB Inc., see ad on page 153
MCI Inc., see ad on page 83
Pacific Recorders & Engr., see ad on page 47
Quantum Audio, see ad on page 192
Siemens (foreign), see ad on page 31 Ward-Beck Systems, see ad on Back Cover
ROUTING72
BSM Systems, see ad on page 176
Di-tech, see ad on page 57
H.M. Dyer Electronics, see ad on page 199
Dynair, see ads on pages 127, 129, 131
Finntek, see ad on page 132 HEDCO, see ad on page 120
Image Video, see ad on page 173
Siemens (foreign), see ad on page 31
Telemet, see ad on page 85
TV PRODUCTION62
ADM Technology, see ad on IFC
Autogram, see ad on page 150 Elektroimpex, see ad on page 149
Finntek, see ad on page 132
Howe Audio, see ad on page 145
LPB Inc., see ad on page 153
MCI Inc., see ad on page 83
Pacific Recorders & Engr., see ad on page 47
Quantum Audio, see ad on page 192 Siemens (foreign), see ad on page 31
Ward-Beck Systems, see ad on Back Cover
CONCOLEO MIDEO
CONSOLES, VIDEO
CCTV/EDUCATIONAL
Crosspoint Latch, see ad on page 91
MASTER CONTROL
Crosspoint Latch, see ad on page 91 Grass Valley Group, see ad on page 5
Image Video Ltd., see ad on page 173
Industrial Sciences, see ad on page 177
Siemens (foreign), see ad on page 31
Videomedia, see ad on Inside Back Cover
PORTABLE PRODUCTION
Crosspoint Latch, see ad on page 91
Dyma Engineering, see ad on page 191
Grass Valley Group, see ad on page 5
Industrial Sciences, see ad on page 177
Siemens (foreign), see ad on page 31 Videomedia, see ad on Inside Back Cover
POST PRODUCTION72
Crosspoint Latch, see ad on page 91
Grass Valley Group, see ad on page 5
Siemens (foreign), see ad on page 31
Videomedia, see ad on Inside Back Cover
ROUTING72
ROUTING
AVL Digital Ltd., see ad on page 125 Di-tech, see ad on page 57
ROUTING
AVL Digital Ltd., see ad on page 125 Di-tech, see ad on page 57 H.M. Dyer Electronics, see ad on page 199 Dynair, see ads on page 127, 129, 131 HEDCO, see ad on page 120
AVL Digital Ltd., see ad on page 125 Di-tech, see ad on page 57 H.M. Dyer Electronics, see ad on page 199 Dynair, see ads on pages 127, 129, 131 HEDCO, see ad on page 120 Image Video Ltd., see ad on page 173
AVL Digital Ltd., see ad on page 125 Di-tech, see ad on page 57 H.M. Dyer Electronics, see ad on page 199 Dynair, see ads on pages 127, 129, 131 HEDCO, see ad on page 120 Image Video Ltd., see ad on page 173 Telemet, see ad on page 85
ROUTING
ROUTING 72 AVL Digital Ltd., see ad on page 125 Di-tech, see ad on page 57 H.M. Dyer Electronics, see ad on page 199 Dynair, see ads on pages 127, 129, 131 HEDCO, see ad on page 120 Image Video Ltd., see ad on page 173 Telemet, see ad on page 85 STUDIO PRODUCTION 72 Crosspoint Latch, see ad on page 91 Grass Valley Group, see ad on page 177 Siemens (foreign), see ad on page 31 Videomedia, see ad on inside Back Cover STUDIO PRODUCTION WITH DIGITAL EFFECTS 74 Grass Valley Group, see ad on page 177 Siemens (foreign), see ad on page 177 Siemens (foreign), see ad on page 5 Industrial Sciences, see ad on page 177 Siemens (foreign), see ad on page 31 CONSULTING SERVICES 74 David Green, see ad on page 133-134 Magna-Tech, see ad on page 173
ROUTING

COUPLERS, HYBRID74
CONVERTERS, A-D, D-A74
CRT DISPLAYS &
CONTROLLERS
CRYSTALS74
CUE SYSTEMS, REMOTE74
Comrex, see ad on page 26
DECODERS
CLOSED CAPTIONING74 TFT Inc., see ad on page 77
COMB
DIGITAL SYNC
TFT inc., see ad on page 77
Gorman Redlich Mfg., see ad on page 183
TFT Inc., see ad on page 77 TONE
Gorman Redlich Mfg., see ad on page 183 TFT Inc., see ad on page 77
UMC Electronics, see ad on page 196 TONE, EBS
Gorman Redlich, see ad on page 183 TFT Inc., see ad on page 77 UMC Electronics, see ad on page 196
DEGAUSSER74
Fluxcom, see ad on page 137 UMC Electronics, see ad on page 196
DE-ESSERS74
DELAY, AUDIO TAPE74
DELAY LINES, AUDIO74
DELAY LINES, VIDEO76
Allen Avionics, see ad on page 169 Anders, see ad on page 139
DELAY MACHINE, TALK SHOW76
Comex Systems, see ad on page 197
DEMODULATORS, OPTICAL76
DEMODULATORS, VIDEO76
R.E. Instruments, see ad on page 195 Telemet, see ad on page 85
DETECTORS
MICROWAVE
RF DETECTOR
VIDEO PRESENCE
DE-TUNING UNITS76
DIGITAL VIDEO ANALYZER76
OIGITIZER, COLOR76
DIPLEXER (See Antenna Accessories) CSP Inc., see ad on page 196
DISCS, VIDEO76
DISPLAY UNITS, TIME, TEMP, ID
(See also Character / Animation Generator) .76

DIVIDERS, POWER76
DROPOUT COMPENSATOR76
EARTH TERMINALS,
RECEIVE ONLY76
EARTH TERM INALS, RECEIVE/TRANSMIT
EDIT CODE GENERATOR76
ESE, see ad on pages 24-25 Videomedia, see ad on Inside Back Cover
EDIT CODE RECEIVER76
ESE, see ad on pages 24-25 Videomedia, see ad on Inside Back Cover
EDITOR, AUDIO
EDITOR, FILM78
EDITORS, VIDEO
CCTV/INDUSTRIAL
Fernsen, see ad on page 73 Swiderski, see ad on page 151
ENG/FIELD PRODUCTION
Datatron, see ad on page 73 Fernseh, see ad on page 33
Swiderski, see ad on page 151 Videomedia, see ad on Inside Back Cover
STUDIO PRODUCTION
Datatron, see ad on page 73 Fernseh, see ad on page 33
Swiderski, see ad on page 151
Videomedia, see ad on Inside Back Cover EFFECTS SYSTEM, DIGITAL
VIDE078
The Camera Mark, see ad on pages 28-29
ELECTROMAGNETICS FOR KLYSTRON TUBES78
ENCODERS
CLOSED CAPTIONING
COLOR VIDEO
TFT Inc., see ad on page 77
TONE
Gorman-Rediich, see ad on page 183' TFT inc., see ad on page 77'
ENHANCERS, VIDEO IMAGE78
Asaca, see ads on pages 32, 121
ENHANCERS, STEREO PHASE78
EQUALIZERS AUDIO 78
Orban Associates, see ads on pages 16, 21 Processing Plus, see ads on pages 162, 164
VERTICAL APERTURE78
VIDEO
Dynair, see ads on pages 127, 129, 131. EQUIPMENT BUILDINGS ,
PREFABRICATED80
FOLIDMENT CARRYING SYSTEMS

CASES WITH WHEELS 80 DOLLIES 80
EXCITERS AM EXCITER 80 AM STEREO 80 Motorola, see ad on page 89 Processing Plus, see ads on pages 162, 164
PM EXCITER
FM STEREO
SCA EXCITER
TRANSMISSION SYSTEM
FIBER OPTIC FOTOR80
FIELD VIDEO SETUP MODULE80
FILM & ACCESSORIES & SERVICES
8mm/16mm
DUBBING SYSTEMS
SOUND TRANSFER
FILM CHAIN LIGHT CONTROL80
FILM CHAIN SYSTEMS (See also
Projectors, Cameras)
FILTERS
ACTIVE
NOISE
PASSIVE
FRAME STORE SYNCRONIZERS 82
Adda Corporation, see ad on page 1
FRAME/FIELD STORE, DIGITAL82 MCI/Quantel, see ad on page 36
FRAMES & RACKS82
FURNITURE & CABINETRY,
STUDIO82
GENERATORS
AF
BURST
Philips Test & Measuring, see ad on page 11 COLOR SYNC
Asaca, see ads on pages 32, 121
RF84
Asaca, see ads on pages 32, 121. R.E. Instruments, see ad on page 195
SUBCARRIER, FM
QEI Corp., see ad on page 171 SPECIAL EFFECTS
STEREO (See also Test Equipment)84
SYNC, TV
TIME CODE
Videomedía, see ad on Inside Back Cover TONE

Asaca, see ads on pages 32, 121 TONE, EBS
TONE, EBS
GENERATOR, ELECTRIC POWER84
GRAPHIC EQUALIZER84
HEAD DEGAUSSERS84
HEADS, AUDIO &
ACCESSORIES/SERVICES
ALIGNMENT GAUGES
CLEANERS
Saki Magnetics, see ad on page 132 PLAYBACK
Saki Magnetics, see ad on page 132 UMC Electronics, see ad on page 196 RECORD
Saki Magnetics, see ad on page 132 UMC Electronics, see ad on page 196
FILM STRIPE
HEADS, VIDEO
ACCESSORIES/SERVICES
REPLACEMENT HEADS
HEADPHONES
ANNOUNCERS EARPIECE
STEREO
HEAT EXCHANGERS86
HEATERS FOR VANS86
HELICOPTER ENG SYSTEMS86
HELICOPTER STABILIZERS86
HELICOPTERS86
HUM STOP COIL86
IDENTIFICATION SYSTEMS,
VIDE086
IMAGE REPOSITIONER88
INTEGRATED CIRCUITS (See also Semiconductors & ICs)
INTERCOM SYSTEMS88
Broadcast Technology, see ad on page 193
INVERTERS88
ISOCOUPLERS88
ISOLATOR88
JACK PANELS88
Audio Accessories, see ad on page 88 Broadcast Systems, see ads on 88, 170 Comad, see ads on pages 164, 166
JACK PANELS, WIRED88
Audio Accessories, see ad on page 88 Broadcast Systems, see ads on 88, 170 Comad, see ads on pages 164, 166
KEYERS, VIDEO INSERT88

KNOBS, CONTROL90
LENS FILTERS90
LENSES, FIXED90
Angenieux, see ad on page 101 Canon, see ad on page 59
Fujinon Inc., see ad on page 69 Schneider TV Lenses, see ad on page 141
LENSES, PROJECTION90
LENSES, ZOOM 90 Angenieux, see ad on page 101 Canori, see ad on page 59 Fujinori Inc., see ad on page 69 Schneider TV Lenses, see ad on page 141
LIGHTING ACCESSORIES
CONNECTOR PLUGS90
FADER CONTROLS90 TRANSFORMERS90
LIGHTING: CONTROLS,
FIXTURES, LAMPS
CONTROL BOARD/CONSOLE90 FILTERS & GELS90
HANGERS, STUDIO90 LAMPS, REPLACEMENT90
LIGHTS, HMI90 LIGHTS, PORTABLE/ENG90
Cine 60, see ad on page 45 LIGHTS, STUDIO90
PATCH PANEL92
LIGHTS, STUDIO WARNING92
LIGHTS, TOWER (See Tower Lights & Accessories)
LIGHTNING ARRESTORS92
LIGHTNING PROTECTION SYSTEMS92
LIMITER/COMPRESSOR, AM92
Inovonics, see ad on page 126 Orban Associates, see ads on pages 16, 21
Processing Plus, see ads on pages 162, 164
LIMITER/COMPRESSOR, FM92
Inovonics, see ad on pages 126 Orban Associates, see ads on pages 16, 21
Processing Plus, see ads on pages 162, 164
LIMITER/COMPRESSOR, TV92 Orban Associates, see ads on pages 16, 21
LINE SURGE PROTECTORS92
LOAD RESISTORS, COAXIAL92
LOUDSPEAKERS, CONTROL ROOM .92
LOUDSPEAKERS, RECORD STUDIO92
LOW FREQUENCY EXTENDERS92
MACHINE ASSIGNMENT
SYSTEMS
Moseley Associates, see ad on page 117
MAINTENANCE SERVICES AM SERVICES
Processing Plus, see ads on pages 162, 164 FM SERVICES 94
Processing Plus, see ads on pages 162, 164

TV SERVICES 94 MICROWAVE 94 TOWER SERVICES 94	Videotek, see ad on page 15 PULSE CROSS	PRODUCTION/POST- PRODUCTION SERVICES
MDS SYSTEMS94	Siemens (foreign), see ad on page 31 Videotek, see ad on page 15	PROJECTORS
METERS (See Test Equipment)	RECEIVER/MONITORS	FILM CHAIN
MIXERS, MICROPHONE94	Philips Test & Measuring, see ad on page 11 Videotek, see ad on page 15	Magna-Tech, see ad on page 75 LARGE SCREEN TV
Satt Electronics, see ad on page 95	MULTICARRIER SYSTEMS98	GE VDEO, see ad on page 61
MICROPHONES & ACCESSORIES		Image Magnification, see ad on page 201 SLIDE
BOOMS & STANDS	MULTIPLEXER98	PROMPTERS102
FLEXIBLE/MOBILE HOLDER94 (For Consoles)94	MUSIC PRODUCTION SERVICES 98	Listec, see ad on page 119
HAND HELD	MUSIC PROGRAM SERVICES98	PULSE ASSIGNMENT SYSTEMS
LAPEL MIKE	NETWORKS	102
PARABOLIC & SHOTGUN96	AUDIO MATCHING	RF COMPONENTS102
Geleco Electronics, see ad on page 202	PHASING98	CSP Inc., see ad on page 196 Cosmin Electronics, see ad on page 139
MICROPHONES, WIRELESS96	RF MATCHING98	READER FOR TIME CODE
Comrex, see ad on page 26 Micron, see ad on page 163	NEWS SERVICE98	IN VERTICAL INTERVAL102
MICROPHONE SPLITTER	NOISE REDUCTION SYSTEMS,	ESE, see ad on pages 24-25
Sescom, see ad on page 147	AUDIO	RECEIVERS
MOBILE UNITS (See Vans)	Processing Plus, see ads on pages 162, 164	AM RECEIVERS
MODULATION CONTROLLER96	NOISE REDUCTION SYSTEMS,	DATA102
Delta Electronics, see ad on page 71	VIDEO	EARTH STATION
MODULATORS, TV96	OSCILLATORS, TONE98	Gorman-Redlich, see ad on page 183 TFT Inc., see ad on page 77
Asaca, see ads on pages 32, 121 Telemet, see ad on page 85	OSCILLOSCOPES (See Test Equipment)	FM RECEIVER
MONITORS, AUDIO & RF	PATCH PANELS 100	TFT Inc., see ad on page 77 MICROWAVE102
AM SYSTEM96	Audio Accessories, see ad on page 88	RECEIVER/GENERATOR
TFT Inc., see ad on page 77 ANTENNA	PHASE CONTROLLER,	SCA
Delta Electronics, see ad on page 71	AUTOMATIC	STL102
BASE CURRENT/ANT SAMPLING96 DIRECTIONALS96	PHASE CONVERTERS	TFT Inc., see ad on page 77 TSL
QEI Corp., see ad on page 171		TFT Inc., see ad on page 77 TIME (WWV)
FREQUENCY	PHASE CORRECTOR, CART	True Time Instruments, see ad on page 173 WEATHER, VHF
TFT Inc., see ad on page 77 MODULATION	POWER CONTROLLER	Gorman-Redlich, see ad on page 183
Belar Electronics, see ad on page 152	Delta Electronics, see ad on page 71	RECEIVER, TV AURAL102
QEI Corp., see ad on page 171 R.E. Instruments, see ad on page 195	POWER SUPPLIES100	RECORDER PARTS &
TFT Inc., see ad on page 77 PHASE MONITOR	PREAMPLIFIERS	ACCESSORIES
POWER MONITOR96 PROGRAM MONITOR96	MICROPHONE100	CAPSTAN ASSEMBLY
Real World Technologies, see ad on page 122 RF LEVEL	ATI-Audio Technologies, see ad on page 142. Broadcast Technology, see ad on page 193	DRIVE MOTOR POWER SUPPLY
R.E. Instruments, see ad on page 195 SCA MONITOR	Processing Plus, see ads on pages 162, 164	Inovonics, see ad on page 126
TFT Inc., see ad on page 77	MODULES, FOR CONSOLES	UMC Electronics, see ad on page 196 HEADS (See Heads)
TV AURAL	ATI-Audio Technologies, see ad on page 142 Broadcast Technology, see ad on page 193	MOTORS
MONITORS, VIDEO	Processing Plus, see ads on pages 162, 164 RTS Systems, see ads on pages 126, 128	SERVO MODIFICATIONS
B&W RACK96 Asaca, see ads on pages 32, 121	TURNTABLE100	SYNCHRONIZERS103
Siemens (foreign), see ad on page 31 Videotek, see ad on page 15	ATI-Audio Technologies, see ad on page 142 Broadcast Technology, see ad on page 193	TAPE DECK CABINETS
B&W STANDALONE	Processing Plus, see ads on pages 162, 164 RTS Systems, see ads on pages 126, 128	TENSION CONTROLS
Videotek, see ad on page 15	VIDEO100	TRANSPORT SERVICES
COLOR RACK96 Asaca, see ads on pages 32, 121	PROCESSORS,	
Victor Duncan, see ad on page 172 Siemens (foreign), see ad on page 31	AUDIO 100 ATI-Audio Technologies, see ad on page 142	RECORDERS, AUDIO TAPE CARTRIDGE (See Cart Machines)
Videotek, see ad on page 15 COLOR STANDALONE	Broadcast Technology, see ad on page 193 Inovonics, see ad on page 126	CASSETTE (See Cassette Machines)
Asaca, see ads on pages 32, 121	Processing Plus, see ads on pages 162, 164	DIGITAL 103 FILM RECORDER 103
Victor Duncan, see ad on page 172 Siemens (foreign), see ad on page 31	Sescom, see ad on page 147	Magna-Tech, see ad on page 75 LOGGING

PRODUCTION/POST- PRODUCTION SERVICES102
PROJECTORS
FILM CHAIN
LARGE SCREEN TV
PROMPTERS
PULSE ASSIGNMENT SYSTEMS
RF COMPONENTS 102
CSP Inc., see ad on page 196 Cosmin Electronics, see ad on page 139
READER FOR TIME CODE
IN VERTICAL INTERVAL
RECEIVERS
AM RECEIVERS
DATA 102 EARTH STATION 102 EBS RECEIVER 102
Gorman-Redlich, see ad on page 183 TFT Inc., see ad on page 77
FM RECEIVER
MICROWAVE
Delta Electronics, see ad on page 71 SCA
STL
TSL
TIME (WWV)
WEATHER, VHF
RECEIVER, TV AURAL102
RECORDER PARTS & ACCESSORIES
CAPSTAN ASSEMBLY
CARE KITS 103 DRIVE MOTOR POWER SUPPLY 103 ELECTRONICS 103
Inovonics, see ad on page 126 UMC Electronics, see ad on page 196
HEADS (See Heads) MOTORS103
UMC Electronics, see ad on page 196 SERVO MODIFICATIONS
SPEED CONTROLS
TAPE DECK CABINETS
Inovonics, see ad on page 126
TRANSPORT SERVICES
RECORDERS, AUDIO TAPE
CARTRIDGE (See Cart Machines) CASSETTE (See Cassette Machines)
DIGITAL
Magna-Tech, see ad on page 75

REEL: ONE & TWO TRACK
Studer ReVox, see ad on page 128
REEL: FOUR TRACK
MCI Inc., see ad on page 83
RECORDERS, VIDEOTAPE
1/4 -INCH
Ampex, see ad on page 13
The Camera Mart, see ad on pages 28-29 3/4-INCH
Ampex, see ad on page 13
The Camera Mart, see ad on pages 28-29 Victor Duncan, see ad on page 172
US JVC Corp., see ad on page 51
1-INCH
The Camera Mart, see ad on pages 28-29
Victor Duncan, see ad on page 172 Sony, see ad on pages 22-23
EXTENDED PLAY KIT
Merlin Engineering, see ad on page 194 QUAD104
LOGGING
SLOW MOTION REPLAY104
RECORDING SERVICES AUDIO104
RECORDS
AUDIO TEST
SOUND EFFECTS104
REELS
AUDIO TAPE104 CABLE & MIKE (See Cables)
VIDEOTAPE104
REGULATORS, VOLTAGE104
RECTIFIERS
POWER (Semiconductor)
SCR
Electronic Devices, see ad on page 137 TUBES (See Tubes)
REMOTE CONTROL SYSTEMS,
AM & FM104
Delta Electronics, see ad on page 71
Moseley Associates, see ad on page 117 QEI Corp., see ad on page 171 TFT Inc., see ad on page 77
REMOTE CONTROL SYSTEMS,
VIDEO104
Moseley Associates, see ad on page 117 TFT Inc., see ad on page 77
REMOTE PICKUP SYSTEMS104
Marti Electronics, see ad on page 174
REPEAT COILS104
RETICULE
SAFE AREA/TITLE
REVERBERATION UNITS104
REWINDERS, TAPE (See Tape Accesories)
SAFE AREA GENERATORS104
SATELLITE DISTRIBUTION
SERVICES

SEMICONDUCTORS105
CeCo Communications, see ad on page 81
SCREENS
FRONT PROJECTION
SENSORS, TONE
SLIDES, TEST105
SLOW SCAN TV SYSTEMS105
SOLAR CELLS, PHOTOVOLTAIC105
SOUND SYSTEMS
LEVEL CONTROL .105 PORTABLE .105 STUDIO .105
SPEECH RECOGNITION SYSTEMS105
SPEECH SYNTHESIS
SYSTEMS105
STL EQUIPMENT/SYSTEMS105
Moseley Associates, see ad on page 117 TFT Inc., see ad on page 77
STV EQUIPMENT
Dynacom Electronics, see ad on page 172
STANDARDS CONVERTERS/ SERVICES105
STILL/SLIDE STORE,
ELECTRONIC105
MCI/Quantel, see ad on page 36
SCA EQUIPMENT105
QEI Corp., see ad on page 171 TFT Inc., see ad on page 77
STUDIO DESIGN SERVICES 105
Magna-Tech, see ad on page 75 Rees Associates, see ad on page 174 Siemens (foreign), see ad on page 31
SWITCHES, COAXIAL105
Geleco Electronics, see ad on page 202
SWITCHES, VIDEO ACTIVATED106
Geleco Electronics, see ad on page 202
SWITCHER LIGHTING KIT106
Dynair, see ads on pages 127, 129, 131
SWITCHERS, CROSSBAR106
SWITCHERS, ROUTING106
AVL Digital Ltd, see ad on page 125 Broadcast Technology, see ad on page 193 Di-tech, see ad on page 57 H.M. Dyer Electronics, see ad on page 199 Dynair, see ads on pages 127, 129, 131 HEDCO, see ad on page 120 Image Video Ltd., see ad on page 173 Siemens, see ad on page 97 Telemet, see ad on page 85

SYNCHRONIZERS, AUDIO-VIDEO
106
SYNCHRONIZERS, DIGITAL VIDEO (See Frame Store)
SYNTHESIZERS, STERE0106
SYSTEMS DESIGN, AUDIO106 MCI Inc., see ad on page 83
SYSTEMS DESIGN, VIDEO106
Central Dynamics Corp., see ad on page 31 Magna-Tech, see ad on page 75
TAPE-FILM INTERLOCK106
Magna-Tech, see ad on page 75
TAPE, AUDIO (See also Cartridges)
CARTRIDGE
CASSETTE 106 LOGGING 106 OPEN REEL 106 TEST TAPE 106
TAPE, AUDIO ACCESSORIES
CLEANERS 107 DEMAGNETIZERS 107 LOADERS 107 MOTION CONTROLS 107 REWINDERS 107 SPLICERS 107 SPLICE FINDERS 107
TARE VIDEO
IAPE, VIDEU
TAPE, VIDEO CASSETTES
CASSETTES
CASSETTES
CASSETTES
CASSETTES
CASSETTES
CASSETTES
CASSETTES

GENERAL INDEX, Pages 38-45

WHO MAKES IT

PRODUCT DIRECTORY, Pages 46-113
WHERE TO BUY IT

MANUFACTURERS, Pages 114-162 DEALERS/DISTRIBUTORS, Pages 168-189

SWITCHERS, VIDEO (See Consoles, Video)

Magna-Tech, see ad on page 75 Marconi Electronics, see ad on page 49	Videotek, see ad on page 15 WOW & FLUTTER METER109	TRANSFORMERS
TELECONFERENCE SYSTEM,	R.E. Instruments, see ad on page 195 VECTORSCOPE	AUDIO
AUTOMATIC AUDIO/VIDEO107 TELECONFERENCING SYSTEMS107	Victor Duncan, see ad on page 172 Philips Test & Measuring, see ad on page 11	ISOLATION
TELEPHONE EQUIPMENT	Videotek, see ad on page 15	MODULATION
EQUALIZERS107	TEST EQUIPMENT: MEASURING/ MONITORING	RF SAMPLING111 TORODIAL CURRENT111
HYBRID FILTER/AMP 107 TONE RECEIVERS 107 TONE TRANSMITTERS 107	METERS ANTENNA BASE METER109	Delta Electronics, see ad on page 71 Geleco Electronics, see ad on page 202 TRANSFORMER VIDEO/DATA LINE
TELETEXT SYSTEMS107	Delta Electronics, see ad on page 71 COHERENT DETECTOR	TRANSLATORS
TERMINAL EQUIPMENT108	DIGITAL MULTIMETER	HIGH POWER111 EMCEE, see ad on page 53
Di-tech, see ad on page 57	IC TESTER	LOW POWER
TEST EQUIPMENT GENERATORS AUDIO SINE	Telemet, see ad on page 85 IMPEDANCE BRIDGE	TRANSMISSION LINES (See Cables)
AUDIO SWEEP 108 COLOR BAR 108	PEAK PROGRAM	TRANSMISSION LINES,
Philips Test & Measuring, see ad on page 11 CROSS PULSE 108	Inovonics, see ad on page 126 RF METER109	SUPERVISION SYSTEMS
DOT/BAR 108 FUNCTION 108	R.E. Instruments, see ad on page 195 SEMICONDUCTOR TESTER	TRANSMITTER MODULATION
MARKER 108 NTSC SIGNAL TEST 108	VIDEO LEVEL METER	CONTROLLER111
PULSE 108 RF SIGNAL 108	VOLTMETER, AUDIO	Delta Electronics, see ad on page 71
R.E. Instruments, see ad on page 195 SQUARE WAVE	VU METER 110 WATTMETER 110	TRANSMITTER OUTPUT
STAIRCASE 108 STEREO 108	R.E. Instruments, see ad on page 195	CONTROLS111
VIDEO SWEEP 108 Rohde & Schwarz (for.), see ad on page 25	TIME BASE CORRECTORS	TRANSMITTERS, AM 500 WATTS & UNDER111
VITS	Camera Mart, see ad on pages 28-29 Harris Video, see ad on page 79	500 WATTS & OVER, SOLID-STATE
TEST EQUIPMENT:	TIME CODE GENERATOR	Continental Electronics, see ad on page 17 5,000 to 7,500 WATTS
MEASURING/INSTRUMENTS	VERTICAL INTERVAL110	Continental Electronics, see ad on page 17 Siemens, see ad on page 97
MEASURING/INSTRUMENTS ACOUSTIC ANALYZER	VERTICAL INTERVAL	
ACOUSTIC ANALYZER108	VERTICAL INTERVAL	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER	VERTICAL INTERVAL	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25	VERTICAL INTERVAL	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109	VERTICAL INTERVAL	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER	VERTICAL INTERVAL	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, AM/FM 109 Potomac Instruments, see ad on page 130	VERTICAL INTERVAL	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO Integrated Sound, see ad on page 45 TIMERS, BLANKING INTERVAL ESE, see ad on pages 24-25 TIMERS, PROGRAM (See also Clocks & Counters) ESE, see ad on pages 24-25	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO Integrated Sound, see ad on page 45 TIMERS, BLANKING INTERVAL ESE, see ad on pages 24-25 TIMERS, PROGRAM (See also Clocks & Counters) ESE, see ad on pages 24-25 TIMERS, VIDEO TAPE ESE, see ad on pages 24-25	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO Integrated Sound, see ad on page 45 TIMERS, BLANKING INTERVAL ESE, see ad on pages 24-25 TIMERS, PROGRAM (See also Clocks & Counters) ESE, see ad on pages 24-25 TIMERS, VIDEO TAPE ESE, see ad on pages 24-25 Laird Telemedia, see ad on page 123	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, AM/FM 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TV 109 Potomac Instruments, see ad on page 130 FREQUENCY COUNTER 109 INSERTER/READER VIT 109 INSERTER/READER VIT 109	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, AM/FM 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TV 109 Potomac Instruments, see ad on page 130 FREQUENCY COUNTER 109 HARMONIC DISTORTION ANALYZER 109 INSERTER/READER VIT 109 INTERMOD DISTORTION ANALYZER 109 Rohde & Schwarz (for.), see ad on page 25 INTERVAL TIMER, V&H 109 MONITORS (See Monitors, Audio and	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO Integrated Sound, see ad on page 45 TIMERS, BLANKING INTERVAL ESE, see ad on pages 24-25 TIMERS, PROGRAM (See also Clocks & Counters) ESE, see ad on pages 24-25 TIMERS, VIDEO TAPE ESE, see ad on pages 24-25 Laird Telemedia, see ad on page 123 TITLING SYSTEMS (See also Character Generators) For-A Corporation, see ad on page 118 Laird Telemedia, see ad on page 123	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, AW/FM 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TV 109 Potomac Instruments, see ad on page 130 FREQUENCY COUNTER 109 HARMONIC DISTORTION ANALYZER 109 INSERTER/READER VIT 109 INTERMOD DISTORTION ANALYZER 109 INTERWAL TIMER, V&H 109 MONITORS (See Monitors, Audio and Monitors, Video) MULTI-PHASE /VIRS inserter 109 OSCILLOSCOPES 109 Rohde & Schwarz (for.), see ad on page 25	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, AM/FM 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TV 109 Potomac Instruments, see ad on page 130 FREQUENCY COUNTER 109 HARMONIC DISTORTION ANALYZER 109 INSERTER/READER VIT 109 INTERMOD DISTORTION ANALYZER 109 Rohde & Schwarz (for.), see ad on page 25 INTERVAL TIMER, V&H 109 MONITORS (See Monitors, Audio and Monitors, Video) MULTI-PHASE /VIRS Inserter 109 OSCILLOSCOPES 109 Rohde & Schwarz (for.), see ad on page 25 PHASE ANGLE METER 109 SIDEBAND ANALYZER 109 Telemet, see ad on page 85 SPECTRUM ANALYZER 109 R.E. Instruments, see ad on page 195	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, TW 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TW 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TW 109 POTOMAC INSTRUMENTS, SEE AND PAGE 130 FREQUENCY COUNTER 109 HARMONIC DISTORTION ANALYZER 109 INSERTER/READER VIT 109 INTERMOD DISTORTION ANALYZER 109 ROHDE & Schwarz (for.), see ad on page 25 INTERVAL TIMER, V&H 109 MONITORS (See Monitors, Audio and Monitors, Video) MULTI-PHASE /VIRS Inserter 109 OSCILLOSCOPES 109 Rohde & Schwarz (for.), see ad on page 25 PHASE ANGLE METER 109 SIDEBAND ANALYZER 109 Telemet, see ad on page 85 SPECTRUM ANALYZER 109	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO Integrated Sound, see ad on page 45 TIMERS, BLANKING INTERVAL ESE, see ad on pages 24-25 TIMERS, PROGRAM (See also Clocks & Counters) ESE, see ad on pages 24-25 TIMERS, VIDEO TAPE ESE, see ad on pages 24-25 Laird Telemedia, see ad on page 123 TITLING SYSTEMS (See also Character Generators) For-A Corporation, see ad on page 118 Laird Telemedia, see ad on page 123 TOOL KITS 110 TOWER LIGHTS & ACCESSORIES FLASHERS FLASHERS FLASHERS, HIGH INTENSITY 110 ISOLATION TRANSFORMERS 110 Racal-Decca Canada, see ad on page 130 LAMPS, REPLACEMENT 110	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, AM/FM 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TV 109 Potomac Instruments, see ad on page 130 FREQUENCY COUNTER 109 INSERTER/READER VIT 109 INTERMOD DISTORTION ANALYZER 109 INSERTER/READER VIT 109 INTERVAL TIMER, V&H 109 MONITORS (See Monitors, Audio and Monitors, Video) MULTI-PHASE /VIRS Inserter 109 OSCILLOSCOPES 109 Rohde & Schwarz (for.), see ad on page 25 PHASE ANGLE METER 109 Telemet, see ad on page 85 SPECTRUM ANALYZER 109 Telemet, see ad on page 85 SPECTRUM ANALYZER 109 Rehde & Schwarz (for.), see ad on page 25 Rohde & Schwarz (for.), see ad on page 25 Rohde & Schwarz (for.), see ad on page 25 Rohde & Schwarz (for.), see ad on page 25	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, AW/FM 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TV 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TV 109 INSERTER/READER VIT 109 INSERTER/READER VIT 109 INTERMOD DISTORTION ANALYZER 109 INSERTER/READER VIT 109 INTERMOD DISTORTION ANALYZER 109 MONITORS (See Monitors, Audio and Monitors, Video) MULTI-PHASE /VIRS Inserter 109 OSCILLOSCOPES 109 Rohde & Schwarz (for.), see ad on page 25 PHASE ANGLE METER 109 SIDEBAND ANALYZER 109 REL Instruments, see ad on page 25 VSWR & POWER METER 109 VIDEO ANALYZER 109	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO Integrated Sound, see ad on page 45 TIMERS, BLANKING INTERVAL ESE, see ad on pages 24-25 TIMERS, PROGRAM (See also Clocks & Counters) ESE, see ad on pages 24-25 TIMERS, VIDEO TAPE ESE, see ad on pages 24-25 Laird Telemedia, see ad on page 123 TITLING SYSTEMS (See also Character Generators) For-A Corporation, see ad on page 118 Laird Telemedia, see ad on page 123 TOOL KITS 110 TOWER LIGHTS & ACCESSORIES FLASHERS, HIGH INTENSITY INDICATION TRANSFORMERS 110 Racal-Decca Canada, see ad on page 130 LAMPS, REPLACEMENT LIGHT FAILURE ALARM (See Alarms) LIGHT INDICATOR PANELS 110 TOWERS 110	Siemens, see ad on page 97 10,000 to 20,000 WATTS
ACOUSTIC ANALYZER 108 AUDIO SYSTEM ANALYZER 108 R.E. Instruments, see ad on page 195 BURST PHASE METER 108 COLOR ANALYZER 108 Philips Test & Measuring, see ad on page 11 DELAY MEASURING SETS 108 Rohde & Schwarz (for.), see ad on page 25 Telemet, see ad on page 85 DEMOD TESTER 109 Telemet, see ad on page 85 DIFFERENTIAL PHASE/GAIN SETS 109 FIELD STRENGTH METER, AM/FM 109 Potomac Instruments, see ad on page 130 FIELD STRENGTH METER, TV 109 Potomac Instruments, see ad on page 130 FREQUENCY COUNTER 109 INSERTER/READER VIT 109 INTERMOD DISTORTION ANALYZER 109 INSERTER/READER VIT 109 INTERVAL TIMER, V&H 109 MONITORS (See Monitors, Audio and Monitors, Video) MULTI-PHASE /VIRS Inserter 109 OSCILLOSCOPES 109 Rohde & Schwarz (for.), see ad on page 25 PHASE ANGLE METER 109 SIDEBAND ANALYZER 109 Telemet, see ad on page 85 SPECTRUM ANALYZER 109 R.E. Instruments, see ad on page 25 VSWR & POWER METER 109 VIDEO ANALYZER 109 Rohde & Schwarz (for.), see ad on page 25 VSWR & POWER METER 109 VIDEO ANALYZER 109 Rohde & Schwarz (for.), see ad on page 25 VSWR & POWER METER 109 VIDEO ANALYZER 109 Rohde & Schwarz (for.), see ad on page 25 VSWR & POWER METER 109 VIDEO ANALYZER 109 Rohde & Schwarz (for.), see ad on page 25 VIDEO LINE OUTPUT DISPLAY 109	VERTICAL INTERVAL ESE, see ad on pages 24-25 TIME COMPRESSOR AUDIO	Siemens, see ad on page 97 10,000 to 20,000 WATTS

TUBES
CRT MONITOR112
CRT OSCILLOSCOPE112
RECEIVER TYPES112
CeCo Communications, see ad on page 81 Vacuum Tube Industries, see ad on page 150
RECTIFIER TUBES
Vacuum Tube Industries, see ad on page 150 SOLID-STATE REPLACEMENT
CeCo Communications, see ad on page 81
Electronic Devices, see ad on page 137
TRANSMITTER TUBES, AM/FM
CeCo Communications, see ad on page 81
Geleco Electronics, see ad on page 202 Vacuum Tube Industries, see ad on page 150
Varian, see ad on page 99
TRANSMITTER TUBES, KLYSTRONS 112
EEV Inc., see ad on page 67 TRANSMITTER TUBES, VHF
Varian, see ad on page 99
VIDEO CAMERA PICKUP
CeCo Communications, see ad on page 81
TUNERS, FM112
TUNERS, VIDEO112
Elector, see ad on page 2
TURNKEY INSTALLATION
SERVICES112
TURNKEY TV FACILITY113
TURNTABLES & ACCESSORIES
PHONO CARTRIDGES (See Cartridges, Phono)
TONE ARM113
TURNTABLE
VANS & MOBILE UNITS
ENG/RENG REMOTE
VIDEO PRODUCTION
Siemens, see ad on page 97 VANS WITH LADDERS
VIDEO CONTROLLER
VIDEO LINE OUTPUT DISPLAY113
VIDEOTAPE DUPLICATION113
WEATHER GRAPHIC SYSTEM113
Spectra Computer Sys., see ad on page 115
WEATHER INSTRUMENTS
WEATHER RADAR SYSTEMS113
WEATHER RECEIVERS (See Receivers)
WEATHER SERVICES
WIRE (See Cable)
WIRING SERVICES (See Cable)

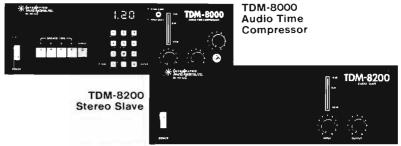
GENERAL INDEX, Pages 38-45

WHO MAKES IT

PRODUCT DIRECTORY, Pages 46-113

WHERE TO BUY IT

MANUFACTURERS, Pages 114-162 DEALERS/DISTRIBUTORS, Pages 168-189



The TDM-8000 Audio Time Compressor features proprietary patented technology that achieves performance appropriate for first run movies, video taped segments, records, commercials for TV and AM/FM radio, and related applications.

An exclusive, state of the art, intelligent splicing system (pat. pending) is one of the major innovations of the system. The audio signal is analyzed in digital form, but the program signal remains in the analog domain throughout the

process. This insures the lowest possible distortion and minimum listening fatigue.

Its ability to process complex program material, such as speaking voice over ambient noise or singers with accompaniment, without intermodulation distortion or the need to band limit the program is unique.

This makes the TDM-8000 the most versatile on the market.

And now with the new TDM-8200 Stereo Slave you can do it all in stereo.



29-50 Northern Blvd., Long Island City, N.Y. 11101, Telex: 968020

Circle (153) on Action Card



Circle (154) on Action Card

PRODUCT DIRECTORY

ALARMS

CARRIER

Belar Electronic Labs Bird Electronic Cinetronics Coastcom GTE Products Corp.
Jerrold Div., Gen. Instrument Corp.
Jenel Corporation Consulting
Engineers McMartin Industries Moseley Associates Potomac Instruments Rivers Associates Inc. Telcom Research

FAULT Belar Electronic Labs Bird Electronics CSI Cat Systems Coastcom Dranetz Engr. Labs Ear Systems, Inc. Image Video Jenel Consulting Engineers Marconi Instruments Ltd. Modulation Associates Moseley Associates
Pinzone Communications Rivers Associates Inc. Telcom Research Trepac Corp. of America Video Aids of Colorado

Zercom Corp.

TOWER LIGHT AEG-Telefunken Abroyd Construction Allied Tower Coastcom Flash Technology Harris Corp., Broadcast Products Hughey & Phillips LeBianc & Royle Communications Inc. Moseley Associates Potomac Instruments SSAC Inc Sharepoint Systems Trepac Corp. of America UNR-Rohn World Tower

WARNING SYSTEMS

AM PHASING & BRANCHING SYSTEMS

Andrew Corp. BES Electronics Ltd. CSI Electronics Continental Electronics Mfg. Cosmin Electronics Delta Electronics Elcom Specialty Products Gelco Electronics Ltd. Harris Corporation, Broadcast Products Division Multiphase Consulting

Incorporated AVL Digital Ltd

Dynamic Technology Ltd. Elektroimpex International Nuclear Leader Broadcast Systems Multidyne Electronics Orange County Sait Electronics

COMPRESSING AMP ATI Audio Technologies Incorporated Amek TAC Applied Technology Audio & Design Recording Audix Limited Bogen Division / Lear Siegler Broadcast Electronics Circuit Research Coastcom dbx, Inc. Dukane Corp. Dyma Engineering Elcom Bauer Elcom Specialty Products Elektroimpex Fisher Berkeley Gregg Laboratories Harrison Systems IT I Electronics Inovonics Leader Broadcast Systems McCurdy Radio Industries McMartin Industries Modular Audio Products Modulation Associates Moseley Associates NTP Electronik A/S Georg Neumann GwbH Rupert Neve Opamp Labs Orban Associates Orange County Processing Plus ProTech Audio Corporation
Pyramid Loudspeaker Ramko Research Richmond Sound Design Roh Corporation Sait Electronics Sescom Shure Brothers

Sontec Electronics

Spectra Sonics

T M Systems
TOA Electrones

Tweed Audio

Valley People

Trident

Datatek

Datum

Datatronix

DISTRIBUTION ADM Technology ALICE (Stancoil Ltd.) ATI Audio Technologies Inc. AVL Digital Ltd. Allied Broadcast American Data Aphex Systems Arrakls Systems Audio & Design Recording Auditronics Audisar Bayly Engineering Ltd. BGW Systems Bell Audio Systems Bogen Division / Lear Siegler Bonneville Productions Robert Bosch GmbH Brabury Broadcast Systems Don Britton Eng. Broadcast Audio Corp. Broadcast Electronics Broadcast Technology David H. Brothers Co. C-Cor Electronics Catel Central Dynamics Ltd. Channelmatic
Comprehensive Video Supply Conifer Corp. D · B Electronics

Philip Drake Electronics Dyma Engineering Dynair Electronics Dynamic Technology Ltd.(82) Elektrolmpex Farrtronics Limited Fernseh, Inc. Finney HEDCO/Hughes Electronic
Devices Corp.
IGM Communications Industrial Sciences, Inc. (ISI) Inovonics International Nuclear Corp. J.V. Electronics Inc. Javelin Electronics Jerrold Division, General Instrument Corp. Johnson Electronics LPB Inc. Leader Broadcast Systems Leitch Video Link Electronics Logitek McCurdy Radio Industries McMartin Industries Magnavox CATV
Merrill Cable Equipment Corp. (CATV Electronics) Micro - Trak Corporation Modular Audio Products Modulation Associates Multidyne Electronics NTP Elektronik A/S George Neumann GwbH Rupert Neve RTS Systems Radio Systems, Inc. Norcom Manufacturing Opamp Labs Pacific Recorders Pro Bel Ltd.
Processing Plus
ProTech Audio Corporation Pye TVT RMS Electronics RTS Systems Radio Systems Ramko Research Richmond Sound Design Rockwell International Roh Corporation Rohde & Schwarz Sait Electronics Scantex Laboratories Scientific-Atlanta Scientific Systems Shintron Siemens Osterreich A/S Sigma Electronics Sontec Electronics Sound Systems Spectra Sonics Straight Wire Audio Studer ReVox America Teac Corp. of America Television Equipment Associates Thomson-CSF Broadcast Tweed Audio USA, Inc. Ultra Audio Pixteo Vamco Engineering Versa-Count Vital Industries Ward-Beck Systems

LINE AMP ADM Technology AEG-Telefunken (Bayly Engineering) ALICE (Stancoil Ltd.) Amplica Aphex Systems Arrakis Systems ATI Audio Technologies Incorporated Audisar Audix Limited BGW Systems Bell Audio Systems Bogen Division / Lear Siegler Bonneville Productions

Brabury Broadcast Systems Broadcast Audio Corp Broadcast Electronics Broadcast Technology David H. Brothers Co. C-Cor Electronics Central Dynamics Ltd. Michael Cox D - B Electronics, Inc. Datatek Datatronix Datum Philip Drake Electronics Dukane Corp. Dyma Engineering Ear Systems Inc Elektroimpex Enertec Schlumberger Finney Fisher Berkley Full Compass Systems **HEDCO** Howe Audio IGM Communications I T I Electronics International Nuclear Corp. J.V. Electronics Inc. Javelin Electronics Jensen Transformers Johnson Electronics Leader Broadcast Systems Link Electronics
McCurdy Radio Industries
McMartin Industries
Magnavox CATV Systems Merrill Cable Equipment Corp. (CATV Electronics) Micro - Trak Corporation Modular Audio Products Modulation Associates Multidyne Electronics NTP Electronik A/S Georg Neumann GwbH Rupert Neve Norton Assoc Opamp Labs Panasonic, Professional Audio Division Potomac Marine & Aviation Processing Plus ProTech Audio Corporation Pye TVT Quad-Eight Electronics RTS Systems Radio Systems, Inc. Ramko Research Research Systems Tech. Richard Sound Design Roh Corporation Rohde & Schwarz Sait Electronics Sandar Electronics A/S Scantex Laboratories Scientific Systems Sescom Siemens Osterreich AG Sontec Electronics Sound Systems Spectra Sonics Straight Wire Audio Studer Revox America TM Systems Teac Corp. of America
Telex Communications, Inc.

Vidaire Elec. Mfg. Video Aids of Colorado MIKE AMP ADM Technology AEG-Telefunken AKG Acoustics ALICE (Stancoll Ltd.) ATI Audio Technologies Incorporation Amek TAC Arrakis Systems Audio & Design Recording Audisar Audix Limited BMS Systems Bayly Engineering Ltd. Beyer Dynamic

Tweed Audio
Ultra Audio Pixtec

Valley People

Continued on page 48

AMPLIFIERS, AUDIO

ATI Audio Technologies Central Dynamics Ltd. Di-tech



Bell Audio Systems Bogen Division / Lear Siegler, Inc. Brabury Broadcast Systems Broadcast Audio Corp. Broadcast Electronics Broadcast Technology David H. Brothers, Co Central Dynamics Ltd.
Cinetronics
Continental Electronics
D-B Electronics Datatek Datatronix Dukane Corp. Dyma Engineering Dynair Electronics Ear Systems Inc. Edcor Elektroimpex Full Compass Systems Gregg Laboratories Howe Audio IGM Communications
I T | Electronics International Nuclear Corp. Ivie Electronics Jensen Transformers Johnson Electronics Leader Broadcast Systems McCurdy Radio Industries McMartin Industries Micro-Trak Modular Audio Products NTP Elektronik A/S Georg Neumann GwbH Rupert Neve Opamp Labs Opamp Labs
Paso Sound Products
Processing Plus
ProTech Audio Corporation
Quad-Eight Electronics
RTS Systems Radio Systems, Inc. Ramko Research Research Systems Tech. Richard Sound Design Roh Corporation Sait Electronics Scantex Laboratories Scientific Systems Sescom Shure Brothers Siemens Osterreich AG Sontec Electronics Sound Systems Spectra Sonics Straight Wire Audio TOA Electronics Тарсо Telex Communications, Inc. Transist-O-Sound Tweed Audio Vidaire Elec. Mfg

MIXER AMP ADM Technology ALICE (Stancoil Ltd.)
ATI Audio Technologies Incorporation Altec Corp. Amek TAC Applied Technology Arrakis Systems Audix Ltd. Belar Electronic Labs Bell Audio Systems, Inc. Beyer Dynamic Bogen Division / Lear Siegler, Inc. Don Britton Ent. Broadcast Electronics Broadcast Technology David H. Brothers, Co. Central Dynamics Ltd. Cinetronics
Continental Electronics Mfg. Michael Cox Datatronix Philip Drake Electronics Dukane Corp. Dyma Engineering Ear Systems Inc. Edcor Elektroimpex Full Compass Systems

Hallikainen and Friends

Howe Audlo

IGM Communications International Nuclear Corp. Ivie Electronics
Johnson Electronics Leader Broadcast Systems Logitek Electronic Systems, Inc. McCurdy Radio Industries McMartin Industries Micro-Trak Corporation Modular Audio Products Georg Neumann GwbH Richmond Sound Design Rupert Neve Opamp Labs Paso Sound Products ProTech Audio Corporation Pye TVT Quad-Eight Electronics RTS Systems Ramko Research Richard Sound Design Roh Corporation Salt Electronics Scantex Laboratories Scientific Systems Sescom Shure Brothers Siemens Osterreich AG Sontec Electronics Sound & Light Co. Sound Systems Spectra Sonics Sphere Straight Wire Audio Studer ReVox America TOA Electronics Tapco Tape-Athon Corp.
Teac Corp. of America
Transist-O-Sound Tweed Audio Ultra Audio Pixtec Vidaire Elec. Mfg.

MONITOR AMP AEG-Telefunken (Bayly Engineering) ALICE (Stancoil Ltd.)
ATI Audio Technologies Incorporated Altec Corp. American Data Arrakis Systems Audionics of Oregon Audisar AVL Digital **BGW Systems** BSM Systems Belar Electronic Labs Bogen Division / Lear Stegler, Inc. Broadcast Audio Corp. Broadcast Electronics Broadcast Electronics
Broadcast Technology
David H. Brothers, Co.
Bryston Mfg. Ltd.
Cetec Broadcast Group
Conex Electro Systems Continental Electronics Mfg.
Crown International **D-B Electronics** Datatek Datatronix Di-tech Philip Drake Electronics Dukane Corp. Dyma Engineering Elektroimpex EV/Tapco Fernseh, Inc. Hallkainen and Friends, Inc. Howe Audio IGM Communications IT I Electronics Industrial Sciences, Inc. International Nuclear Corp. Ivle Electronics Jerrold Division, General Instrument Corp. Kudelski S.A Leader Broadcast Systems Logitek McCurdy Radio Industries McMartin Industries Merlin Engineering
Micro-Trak Corporation
Modular Audio Products

Multidyne Electronics

Georg Neumann Opamp Labs
Panasonic, Professional Audio
Division ProTech Audio Corporation RTS Systems Radio Systems Ramko Research Roh Corporation Rohde & Schwarz Russco Sait Electronics Scientific Systems Sescom Siemens Osterreich AG Sound Systems
Spectra Sonics
Straight Wire Audio
Studer International AG Studer ReVox America TM Systems TOA Electronics Tweed Audio Ultra Audio Pixtec VIF International Video Aids of Colorado Videotek Ward-Beck Systems World Video

PEAK LIMITING, AM

ADM Technology Applied Technology ATI-Audio Technologies Inc. Audio & Design Recording Belar Electronic Labs Bogen Division/Lear Siegler Broadcast Electronics Cetec Broadcast Group Circuit Research Labs Continental Electronics Mfg. Delta Electronics Dorrough Electronics
Dyma Engineering EMT Franz Elicom Bauer
Elcom Special Products
Enertec Schlumberger
Gregg Laboratories
Harris Corporation, Broadcast Products Division
IGM Communications Inovonics Kahn Communications LPB Inc.
Leader Broadcast Systems
McMartin Industries Modular Audio Products Moseley Associates NTP Electronik A/S Orange County Orban Associates Processing Plus Salt Electronics Siemens Osterreich AG Sontec Electronics Spectra Sonics Thomson-CSF Broadcast Valley People

ADM Technology Applied Technology Audio & Design Recording ATI-Audio Technologies Inc. Bogen Division/Lear Siegler **Broadcast Electronics** Cetec Broadcast Group Circuit Research Labs Continental Electronics Mfg. Dorrough Electronics Dyma Engineering EMT Franz Elcom Bauer Gregg Laboratories IGM Communications Inovonics Kahn Communications LPB Inc. McMartin Industries Modular Audio Products Modulation Sciences Moseley Associates NTP Electronik A/S

Orange County

Orban Associates

Processing Plus

PEAK LIMITING, FM

Pve TVT Rohde & Schwarz Salt Electronics Siemens AG Osterreich Sontec Electronics
Spectra Sonics
Thomson-CSF Broadcast
Tweed Audio Valley People

POWER AUDIO AMP AEG-Telefunken (Bayly Engineering)
ATI-Audio Technologies Inc.
Altec Corp. American Data Argos Products Audionics of Oregon Audisar Audix Limited AVL Digital BGW Systems, Inc. Bell Audio Systems, Inc. Bogen Division / Lear Siegler, Inc. Broadcast Electronics David H. Brothers, Co. Bryston Central Dynamics Ltd. Cetec Broadcast Group Cinetronics Conex Electro Systems Crown International D-B Electronics Philip Drake Electronics
Dukane Corp.
Dyma Englneering
Dynair Electronics, Inc. EV/Tapco Electro-Voice Elektroimpex Eumig USA Fisher Berkeley Fostex Hammond Industries Heath Company Howe Audio
IGM Communications Integrated Sound Systems Ivie Electronics
Johnson Electronics Kimian Sales, Inc Kintek Leader Broadcast Systems Logitek
McCurdy Radio industries
McMartin Industries Micro-Trak Modular Audio Products Multidyne Electronics
Opamp Labs
Panasonic, Professional Audio
Division ProTech Audio Pye TVT QSC Audio Products RTS Systems Radio Systems Ramko Research Roh Corporation Rohde & Schwarz Russco Sait Electronics Scientific Systems Sharp Electronics Shure Brothers Slemens AG Osterreich Spectra Sonics John M. Sullivan Assoc. Stanton Magnetics Studer International AG Studer ReVox America

PROCESSING AMP ATI Audio Technologies Inc. Aphex Systems Applied Technology Audio & Design Recording Audionics of Oregon Continued on page 50

TOA Electronics

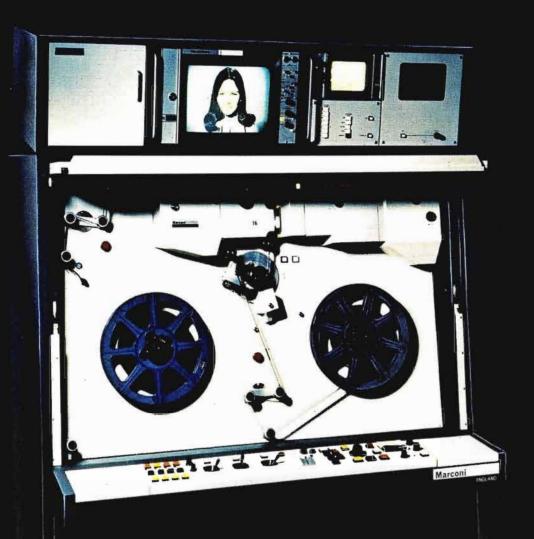
Tape-Athon/Cavox Stereo Productions

Teac Corp. of America

Telex Comm., Inc. Ultra Audio Pixtec

VIF international

Marconi deserves an Oscar



Smooth, silent, reliable. The New Marconi Line Array Telecine B3410

For a remarkable contribution to film in TV, Marconi's new Line Array Telecine B3410 fully deserves its great reputation.

The unique combination of full digital processing with micro-processor control and CCD sensors means exceptional picture quality, shorter set-up times, rapid change of TV standards, long life and minimum maintenance. No tubes, no replacements!

Also offering fast change of film gauge and full resolution cinemascope, this most outstanding newcomer is available for swift delivery at a highly competitive price.

For full details contact: Marconi Electronics Inc. (John White or Simon Frazer)

Tel: (201) 767-7250 or A.F. Associates Inc. (Lou Siracusano or Bill Ebell) Tel: (201) 767-1000.



Marconi Electronics Inc./A.F. Associates Inc.

100 Stonehurst Court, Northvale, New Jersey 07647, U.S.A. Tel. 767-7250, Telex. 710-991-9752.

Circle (30) on Action Card

WHO MAKES IT

BGW Systems Broadcast Electronics Central Dynamics Ltd Circuit Research Labs Composit Video dbx, Inc. Delta Electronics Dorrough Electronic Gregg Laboratories Harris, Broadcast Products IGM Communications Inovonics Jerrold Division, General Instrument Corp. Kahn Communications Leader Broadcast Systems McCurdy Radio Industries McMartin Industries Modular Audio Products Moseley Associates Opamp Labs Orange County Orban Associates Processing Plus ProTech Audio RTS Systems Siemens AG Osterreich Spectra Sonics Straight Wire Audio Telex Communications, Inc. Ward-Beck Systems

REMOTE AUDIO AMP

Arrakis Systems ATI Audio Technologies Incorporated AVL Digital Ltd. BGW Systems, Inc. BSM Systems Bogen Division/Lear Slegler
Don Britton Ent. Broadcast Electronics Dyma Engineering(82) ElektroImpex HEDCO Hallikainen & Friends IGM Communications(82) International Nuclear Corp. Kahn Communications Leader Broadcast Systems Logitek McCurdy Radio Industries McMartin Industries Micro-Trak Modular Audio Products Moseley Associates, Inc. NTP Electronik A/S(82) Opamo Labs Ramko Research(82) Richard Sound Design Rohde & Schwarz Scantex Laboratories Sescom Siemens AG Osterreich Sound Systems Spectra Sonics Straight Wire Audio

AMPLIFIERS, VIDEO

T M Systems

Transist-O-Sound Tweed Audio

Ultra Audio Pixtec

Vital Industries

DISTRIBUTION AMP AVA Electronics AVL Digital Ltd. American Data Amplica, Inc. Apert-Herzog BSM Systems Blonder-Tongue Labs Robert Bosch GmbH Don Britton Ent. Broadcast Video Systems David H. Brothers Co. C-Cor Electronics
Canter-Redman Technologies Corp. Channelmatic Comad Communications Composite Video
Comprehensive Video Supply
Conifer Corp.

Datatek Delta Systems Distect Dyma Englneering Dynair Electronics
Dynamic Technology Ltd. Elektroimpex Fernseh Inc. Finney Fung Eng. Labs Inc. GBC Closed-Circuit Corp. Graham-Patten Systems Grass Valley Group HEDCO/Hughes Electronic Devices Corporation Ikegami Electronics Image Video Limited Industrial Sciences, Inc. (ISI) International Nuclear Corp. Javelin Electronics
Jerrold Div., Gen. Instrument Corp.
Lang Video Systems Leitch Video Lenco Link Electronics Magnavox CATV Systems Marconi Electronics Inc. Merrill Cable Equipment Multidyne Electronics NEC America Opamo Labs Panasonic Phase Video Inc. Pro-Bel QSI Systems RMS Electronics Inc. Rohde & Schwarz Russco Sandar Electronics A/S Scantex Laboratories, Inc. Scientific-Atlanta Shintron Sierra Audio Sigma Electronics John M. Sullivan Associates Telemet Television Equipment Associates Texscan Thomson-CSF Vamco Engineering Vidaire Elec. Mfg. Video Aids of Colorado Video Masters Vidicraft Viscount Industries Vital Industries

ISOLATION AMP

PULSE AMP

AVL Digital American Data Amplica Broadcast Video Systems C-Cor Electronics Central Dynamics Ltd. Crow of Reading Ltd. Datatek Delta Systems Dyma Engineering Dynair Electronics Dynamic Technology Ltd. Elektroimoex Fernseh, Inc. GBC Closed-Circuit TV Graham-Patten Systems Grass Valley Group HEDCO/Hughes Electronic Devices Corp. Harris Corp., Broadcast Products Industrial Sciences Inc. (ISI) International Nuclear Corp. Javelin Electronics Jerrold Div., Gen. Instrument Corp. Lang Video Systems Leitch Video Lenco Link Electronics Multidyne Electronics NEC America Opamp Labs Panasonic Industrial Phase Video Inc. Pro-Bel QSI Systems

Rohde & Schwarz Sandar Electronics A/S Shineron Sigma Electronics John M. Sullivan Associates Telemet Television Equipment Assoc. Thomson-CSF Video Alds of Colorado

PULSE DELAY American Data Robert Bosch GmbH Broadcast Video Systems Central Dynamics Ltd. Comad Communications Crow of Reading Ltd. Delta Systems Di-tech, Inc. Dyma Engineering Dynair Electronics Fernseh, Inc. Graham-Patten Systems Grass Valley Group Industrial Sciences, Inc. (ISI) International Nuclear Corp. Jerrold Division, General Instrument Corp. Koss Company Leitch Video Lenco Link Electronics Sandar Electronics A/S Sigma Electronics Television Equipment Associates Videomedia

PROC AMP Adwar Video Automation Techniques Broadcast Video Systems Canter-Redman Technologies Corporation
Central Dynamics Ltd.
Composite Video Michael Cox Crow of Reading Ltd. Delta Systems
Dyma Engineering
Fernseh, Inc. Grass Valley Group Industrial Sciences, Inc. (ISI) Jerrold Division, General Instrument Corp. Leitch Video Lenco NEC America, Broadcast Equipment Processing Plus Rohde & Schwarz Siegel-Electronics Sigma Electronics John M. SullIvan Associates Tektronix

STABILIZING AMP Don Britton Ent. Composite Video Michael Cox Crow of Reading Ltd. Delta Systems
Dyma Engineering
International Nuclear Corp. Javelin Electronics Jerrold Division, General Instrument Corp. Leitch Video Telemet Thomson-CSF

Crow of Reading Ltd. Jerrold Division, General Instrument Corp. Lenco Rohde & Schwarz

VIDEO AMP AVA Electronics AVL Digital Ltd. Advanced Analog Systems Adwar Video

American Data Amplica Robert Bosch GmbH David H. Brothers, Co. Michael Cox Comad Communications Crow of Reading Ltd. Datatek Datum Delta Systems Dyma Engineering Dynair Electronics Dynamic Technology Ltd. Fernseh, Inc. GBC Closed-Circuit TV Graham-Patten Systems Grass Valley Group HEDCO Ikegami Electronics Industrial Sciences, Inc. International Nuclear Corp. Javelin Electronics Jerrold Div., Gen. Instrument Corp. Lang Video Systems Leltch Video Lenco Link Electronics
Magnavox CATV Systems, Inc.
Marconi Electronics, Inc. Multidyne Electronics Opamp Labs Panasonic Phase Video Inc. Pro-Bel Ltd. Rohde & Schwarz Siegel-Electronics Thomson-CSF Videcom Englneering Video Masters

ZERO STUDIO DELAY AMP C-M-C Technology Corp. Orange County Television Equipment Associates Videomedia

AMPLIFIER, RF

PEAK LIMITING ADM Technology ATI Audio Technology, Inc. Amplica Aphex Systems Applied Technology Audio & Design Recording Bogen Division/Lear Siegler Broadcast Audio Corp. Broadcast Electronics Circuit Research Labs Continental Electronics Mfg. Dorrough Electronics Dyma Engineering Elcom Bauer Electroimpex Gregg Laboratorles Harris Corporation, Broadcast Products Division Harrison Systems IGM Communications Inovonics Javelin Electronics Jerrold Division, General Instrument Corp. Kahn Communications Leader Broadcast Systems McMartin Industries Microwave Power Devices Modular Audio Products Modulation Sciences Moseley Associates Georg Neumann GwbH Opamp Labs
Orange County
Orban Associates Quad-Eight Electronics Spectra Sonics TM Systems Thomson-CSF Broadcast VIF International Valley People

Continued on page 52

Vidicraft

Videomedia

Crow of Reading Ltd.

GAIN VIDEOCONFIDENCE!

NEW JVC CR-4700U PORTABLE 3/4" U TAPEHANDLER



Here's something really new in a portable ¾" U videocassette recorder: JVC's exclusive VideoConfidence" head. Now you can be absolutely confident that you're getting on tape what you see in the camera monitor...because you review as you record!

The picture you see in the monitor is fed to it from the tape a split second

after recording. What you get is what you see.

There's no other portable 3/4" U VCR with this feature.

But that's not all the CR-4700U offers. It has SMPTE time code capability to speed post-production editing. Head switching is in the vertical interval to eliminate undesirable switching points. There's microprocessor-based logic for full remote control. You can do assemble editing in the field with the automatic editing function.

And how about a video S/N ratio of better than 46dB! No other portable 34"U VCR has so many valuable features.

See it NOW at yourJVC dealer. For more information write

JVC COMPANY OF AMERICA
Professional Video Division

Circle (31) on Action Card

JVC COMPANY OF AMERICA
Prof. Video Div., Dept. BCD 6/82
41 Slater Drive, Elmwood Park, NJ 07407
JVC CANADA INC., Scarborough, Ont.

For faster action, call toll-free **800-821-7700**, Ext. 7005. (In Missouri: 800-892-7655, Ext. 7005.)

WARNING TO PURCHASERS: The unauthorized recording of copyrighted broadcast programming for commercial purposes is copyright infringement



POWER AMPLIFIER ATI Audio Technologies Inc. Altec Corp. Amplica Arrakis Systems Audisar Avburn Electronics BGW Systems Bayly Engineering Ltd.
Bell Audio Systems
Bogen Division/Lear Siegler Broadcast Electronics Broadcast Technology David H. Brothers, Co. Bryston Mfg. Ltd. C-Cor Electronics California Instrument Crown International Crowder Communications
Dukane Corp. Dynair Electronics Dyma Engineering Edcor Elektroimpex Elicon Enertec Schlumberger EV/Tapco
Hammond Industries Harris Corporation, Broadcast Products Division Howe-Yin Research Corp. Integrated Sound Ivie Electronics
Jerrold Division, General Instrument Corp.

Johnson Electronics, Inc. Kimian Sales, Inc. Leader Broadcast Systems Logitek McCurdy Radio Industries McMartin Industries Magnavox CATV Systems, Inc. Merrill Cable Equipment Corp. Micro-Trak Microwave Power Devices Modular Audio Products Moseley Associates, Inc. Opamp Labs
Panasonic, Professional
Audio Division
Paso Sound Products Hans Plisch RF Technology Ramko Research

Paso Sound Products
Hans Pilsch
RF Technology
Ramko Research
Rockwell International
Roh Corporation
Scientific Radio Systems, Inc.
Sescom, Inc.
Sescom, Inc.
Spectra Sonics
Studer International AG
Studer ReVox America
John M. Sullivan Assoc., Inc.
TOA Electronics
Tape-Athon Corp.
Tascam
Television Technology
Tepco
Triple Crown Electronics
Ultra Audio Pixtec

ANIMATION SYSTEMS & SERVICES

VIF International

Varian Associates Varian, MCSD

Vidaire Electronics

Wilkinson Electronics

Versa - Count

American Image Productions Ampex Animation Video (Division of Convergence Corporation) Aurora Imaging Systems Autographics, Inc.: Cinetron Computer Systems Computer Graphics Lab Computer Image Dubner Computer Systems Elicon English Electric Valve
Fernseh
The Graphic Express
Grove Video
Ikegami Electronics
Interand
Jatex Inc.
Lyon Lamb
MCI/Quantel
MPB Technologies
Precision/Echo Science
Spectra Computer Systems
Standard Communications
Starex, Inc.
E.J. Stewart
Texscan Corp.
Via Video
Weathercaster
Frank Woolley & Company

ANTENNA ACCESSORIES & SERVICES

ALIGNMENT SYSTEMS,
MICROWAVE
Antennas for Communications Inc.
Atlas Tower Corp.
Compucon
GC Electronics
Gabriel Electronics
Grant Tower
Harris Corp., Broadcast Products
ITE Innovative TV Equipment
Innovative Television
Jenel Consulting Engineers
LeBianc & Royle
Communications Towers

LeBlanc & Hoyle
Communications Towers
M/A-COM Video Systems
Micro Communications
Moseley Associates
Fred Nudd Company
Nurad
Swager Tower Corporation
TBC Pye Ltd.
Tayburn Electronics
UNR-Rohn
Utility Tower
V & B Tower Construction

BASE INSULATOR
Continental Electronics Mfg.
Daburn Electronics & Cable
Grant Tower
LeBlanc & Royle Comm. Towers
Fred A. Nudd Corporation
Racal-Decca Canada,
Insulators Division
UNR-Rohn
Utility Tower
World Tower Company

BALUNS
Barker & Williamson Inc.
Blonder-Tongue Laboratories
Electro Impulse
The Finney Company
Marshall Electronics
North Hills Electronics
RMS Electronics Inc.
Rohde & Schwarz
Scala Electronic Corporation
Shively Laboratories
Sitco Antennas
Thomson-CSF
Vidaire Elec. Mfg.

CURRENT CONTROLLERS
Delta Electronics

CURRENT METER Delta Electronics

DIPLEXER
Blonder-Tongue Laboratorles
Cetec Antennas
Comark Communications
Continental Electronics Mfg.
CSP Inc.
Cosmin Electronics
Dielectric Communications
Elcom Specialty Products
GTE Products Corp.
Harris Corporation, Broadcast
Products Division

McMartin Industries
Micro Communications
Moseley Associates
Mu-Del Electronics
NEC America
Nurad
Phelps Dodge Communications
Company
Rohde & Schwarz
Shively Laboratories
Swintek Enterprises, Inc.
Technology for Communications
International
Tennaplex Systems Ltd.
Thomson-CSF
Townsend Associates
UTE Microwave
Varian Associates, MCSD
Varian, MCSD

DUMMY LOADS AEG-Telefunken (Bayly Engineering) AVA Electronics
Antenna Technology Barker & Williamson Bird Electronic CSP Inc. Coaxial Dynamics
Comark Communications Continental Electronics Mfg. Dielectric Communications Dyma Engineering Elcom Bauer Elcom Specialty Products Electro Impulse, Inc. GC Electronics Geleco Electronics Ltd. Harris Corporation, Broadcast Products Division McMartin Industries Marconi Electronics, Inc. Micro Communications Moseley Associates Narda Microwave Corp. Northland Communications Phelps Dodge Communications Rex Rheostat & Company Rockwell International Rohde & Schwarz Shively Laboratories Thomson-CSF Varian Associates, MCSD

EARTH TERMINAL POSITIONER
Andrew Corp.
Antennas for Communications Inc.
Don Britton Ent.
Comtech Antenna Corp.
Ellcon
Harris, Broadcast Products
Lang Video Systems
Microdyne Corp.
Scientific-Atlanta

GUY STRAIN INSULATOR Racal-Decca Canada

Varian, MCSD Vidaire Elec. Mfg.

Wilkinson Electronics

HEATER CONTROLS McMartin Industries Fred Nudd Corporation Thomson-CSF Wilkinson Electronics

ICE WARNING SYSTEM Bird Electronic Corp. Harris, Broadcast Products McMartin Industries Thomson-CSF Shively Laboratories

INSTALLATION SERVICES
Abroyd Construction
Andrew Corporation
Antennas for Communications
CSP Inc.
Comark Communications
Dyna Engineering
GTE Products Corp.
Gabriel Electronics Inc.
Grant Tower
Harris Corp., Broadcast Products
Kline Iron and Steel Co.
LeBlanc & Royle Comm. Towers

McMartin Industries
Microdyne Corp.
Multiphase Consulting
Fred A. Nudd Corporation
Nurad
Potomac Marine & Aviation
RCA Service Company
Radiotechniques
Rohde & Schwarz
SWR
Soll Inc.
Swager Tower Corporation
TBC Pye Ltd.
Tennaplex Systems Ltd.
UNR-Rohn
Utility Tower

PHASING/BRANCHING SYSTEM CSP Inc.

RADOMES
AEL (American Electronic
Laboratories)
Andrew Corporation
Anixter-Mark
Antenna Technology
Cablewave Systems
Cetec Antennas
Continental Electronics Mfg.
Elcom Specialty Products
Gabriel Electronics Inc.
Grant Tower
Harris, Broadcast Products
LeBlanc & Royle Comm. Towers
McMartin Industries
Micro Communications
Nurad
Phelps Dodge Company
Shively Laboratories
Thomson-CSF
Wilkinson Electronics

REMOTE INDICATORS
Atlas Sound
Coaxial Dynamics
Delta Electronics
Harris Corp., Broadcast Products
McMartin Industries
Nurad
Potomac Marine & Aviation
Shively Labs
Thomson-CSF
Video Alds of Colorado
Wilkinson Electronics

SAMPLING SYSTEMS
CSP Inc.
Continental Electronics Mfg.
Delta Electronics
Elcom Specialty Products
Geleco Electronics Ltd.
Harris Corp., Broadcast Products
McMartin Industries

Static Drain Resistor Racal-Decca Canada

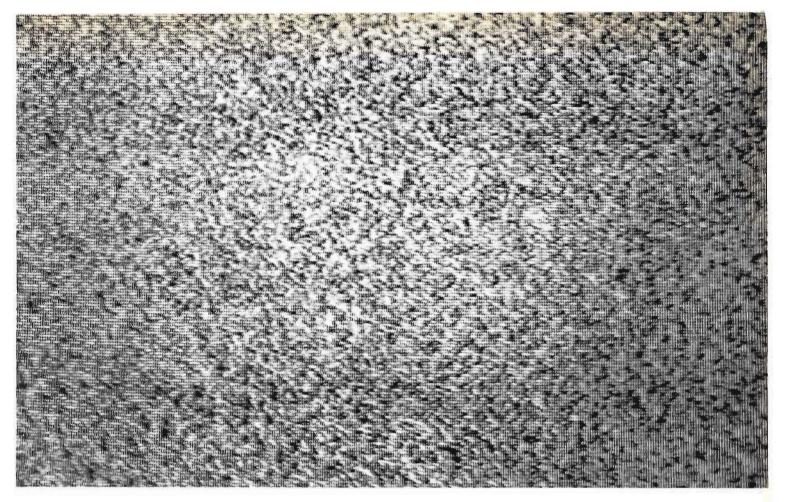
TELESCOPING MAST Allen Osborne Associates

TRANSFER SWITCH Antenna Technology Bird Electronic Comark Communications CSP Inc. Delta Electronics
Dielectric Communications Geleco Electronics Ltd. ITT Jennings McMartin Industries Marshall Electronics Micro Communications Multronics, Inc. SWR Shively Laboratories Technology for Communications International Tennaplex Systems Ltd. Transco Products Varion MCSD

TUNING UNITS
CSP Inc.
Continental Electronics Mfg.

Continued on page 54

Video Alds of Colorado



The next time your air monitor goes dead, tell your audience about your bargain low-power television equipment

The high cost of low price equipment

No broadcast equipment is a bargain when it's off the air. So EMCEE Broadcast Products builds its translators, LPTV transmitters and other hardware without cutting corners or costs. Frankly, that often means prices that appear higher. But it also means the proven higher reliability that EMCEE hardware has provided since 1960.

Oldies but goodies

This higher reliability is no blue-sky claim, either. Many EMCEE HRV-1 1 watt translators are still doing a full broadcast day's work eighteen years after installation. EMCEE HTU-100 100 watt translators are still going strong after seventeen years on site. And the list goes on. Because through three generations of low-power television equipment, value and reliability have always come before cost.

Lasting value

This value and reliability comes from higher rated components that loaf along at operating values. From human engineered front panel metering for immediate status of operating para-

meters. And from innovations such as the industry's first use of pre-correction to improve linearity and extend final tube life. And the industry's only remote interrogator. A complete translator/transmitter status monitor that reduces the number of trips and hours necessary to keep isolated installations operating efficiently.

Valuable support

But technology alone isn't the source of EMCEE reliability. It comes from the Applications and Field Engineering Departments that supply design. installation and total turnkey services without additional charges. It comes from the expertise of our tower crew. And it comes from our special inventory of emergency hardware and a 24-hour number that can help you solve small problems before they become bigger ones.

A fourth generation of reliability

The next generation of EMCEE low-power television equipment is now in the breadboard stage. Like the three previous generations, it won't be the least expensive hardware available.

Circle (32) on Action Card

Which leaves you with two choices. Pay the price of reliability when you buy. Or when your air monitor goes dead.

It's not just how it works. But how long it works.



a division of ELECTRONICS, MISSILES & COMMUNICATIONS, INC.

P.O. Box 68 White Haven, PA 18661 Call toll free: 800-233-6193 (In PA: 717-443-9575) TWX: 510-655-7088 Ans: EMCEE WHHV

Equipment manufactured in U.S.A.

® EMCEE Broadcast Products
© 1982 EMCEE Broadcast Products

Delta Electronics Elcom Bauer Elcom Specialty Products Geleco Electronics Ltd.
Harris Corporation, Broadcast Products Division McMartin Industries Micro Communications SWR Scientific Radio Systems TBC Pye Ltd. Tennaplex Systems Ltd. Thomson-CSF

VSWR UNITS

Bird Electronic Coaxial Dynamics
Comark Communications Continental Electronics Mfg. Dielectric Communications Dyma Engineering Elcom Specialty Products Electro Impulse Laboratory Harris Corporation, Broadcast

Products Division McMartin Industries Micro Communications
Northland Communication Rohde & Schwarz SWR Scientific Radio Systems Shively Laboratories TBC Pye Ltd. Tennapax Systems Ltd. Thomson-CSF Vidaire Electronics

WAVEGUIDES

UNR-Rohn

AEL (American Electronic Laboratories) Andrew Corporation Anixter-Mark
Anixter-Mark
Antenna Technology
Antennas for Communications Inc. Cablewave Systems Comark Communications Dielectric Communications Gabriel Electronics Inc. Grant Tower LeBlanc & Royle Communications, Inc. Micro Communications Narda Microwave Corp. Nurad Prodelin

ANTENNA MASTS,

Abroyd Construction Copperweld Biometallics Group Cortland Cable Co. ENG Corp. Harris Corporation Kindwall Corp.
Kline Iron & Steel Co.
LeBlanc & Royle Communications Allen Osborne Assoc. Swager Tower Corp. TMD Dlv. - Will Burt Tennaplex Systems Ltd.(82) Wolf Coach Inc.

ANTENNAS, RECEIVING

EARTH TERMINAL DISHES AEG-Telefunken Andrew Corporation Anixter-Mark
Anixter-Mark
Antenna Technology
Antennas for Communications Inc. Blonder-Tongue Laboratories California Microwave Comtech Antenna Corp Comtech Data Conlfer Crowder Communications Dyma Engineering Fort Worth Tower Gabriel Electronics Gardiner Communications **Grant Tower**

Harris Corporation, Broadcast Products
Hughes Aircraft Co.,
Microwave Comm. Products Kathrein-Werke KG Lang Video Systems Lindsay Specialty Products
Marcom Communication Systems Microdyne Corporation Microwave Associates Modulation Associates Moseley Associates NEC America, Broadcast Equipment Prodelin SatCom Technologies Scientific-Atlanta SED Systems Satcom, Inc. Television Technology TerraCom Thomson-CSF United States Tower

FM ANTENNA AEG-Telefunken

Anderson Scientific Anixter-Mark Blonder-Tongue Labs Catel Comark Communications Elcom Specialty Products
The Finney Company
G.C. Electronics Gorman Rodlieh Mfg. Co. Grant Tower Harris Corporation, Broadcast Products Division Johnson Electronics Kathrein-Werke KG LeBlanc & Royle Communications Towers Lindsay Specialty Products McMartin Industries Micro Communications Phelps Dodge Communications Potomac Instruments RMS Electronics Rohde & Schwarz Scala Electronic Corporation Scientific-Atlanta Sitco Antennas Television Technology Tennaplex Systems Ltd.

World Tower MICROWAVE

Thomson-CSF

Vidaire Elect. Mfg. Wilkinson Electronics

Tepco

AEG-Telefunken Andrew Corporation Anixter-Mark Antenna Technology Antennas for Communications Bogner Broadcast Equipment Don Britton Enterprises Cablewave Systems Conifer Farinon GTE Products Corp. Gabriel Electronics Harris Corporation, Broadcast Products Division Ikegami Electronics Lang Video Systems LeBlanc & Royle Communications, Inc.
Micro Communications Microwave Associates

Moseley Associates Multitenna Corp. of America Narda Microwave Corp. NEC America Nurad Prodelin RF Technology Tayburn Tennaplex Systems, Ltd. Terracom

WilkInson Electronics

World Tower

MF ANTENNA

AEG-Telefunken Grant Tower LeBlanc & Royle Communications Towers G.E. McKay Co. McKay Dymek Company Thomson-CSF

REMOTE PICKUP AEG-Telefunken Anixter Mark Antenna Technology Belar Gorman-Redlich Grant Tower Harris Corporation, Broadcast Products Division McMartin Industries M/A-COM Video Systems Marti Moseley Associates Motorola Communications & Electronics NEC America Inc. Nurad Phelps Dodge Communications

Scala Electronic Corporation Tayburn Electronics

Wilkinson Electronics

STL ANTENNA

Company RF Technology

AEG-Telefunken Andrew Corporation Anixter Mark Cablewave Systems Elcom Specialty Products Gabriel Electronics Harris Corporation, Broadcast Products Division Lindsay Specialty Products Ltd. McMartin Industries M/A-COM Video Systems Micro Control Associates Moseley Associates NEC America Inc. Nurad Phelps Dodge Communications RF Technology Rockwell International Scala Electronic Corporation Tayburn Electronics Wilkinson Electronics World Tower

UHF ANTENNA AEG-Telefunken

Andrew Corp. Anixter-Mark Blonder-Tongue Labs Bogner Broadcast Comark Communications Conlfer Crowder Communications EMCEE Broadcast Products The Finney Company G.C. Electronics Gorman-Redlich Kathrein-Werke KG Lindsay Specialty Products Micro Communications Phelps Dodge Communications Prodelin RMS Electronics Rohde & Schwarz Scala Electronic Corporation Scientific-Atlanta, Phoenix Div. Sitco Antennas John M. Sullivan Assoc., Inc. TBC Pye Ltd. Television Technology Tennaplex Systems Ltd. Thomson-CSF Velec Sefat Vidaire Electronics Mfg.

VHF ANTENNA AEG-Telefunken

Barker & Williamson Blonder-Tongue Labs Bogner Broadcast Crowder Communications **EMCEE Broadcast Products** The Finney Company

G.C. Electronics Gorman-Redlich Grant Tower Kathrein-Werke KG Lindsay Specialty Products Micro Communications Phelps Dodge Communications Potomac Instruments RMS Electronics Rohde & Schwarz Scala Electronic Corporation Scientific-Atlanta, Phoenix Div. Sitco Antennas John M. Sullivan Assoc., Inc. Swintek Enterprises, Inc. TBC Pye Ltd.
Television Technology Tennaplex Systems Ltd. Tenco Thomson-CSF Velec Sefat Vidaire Electronics

ANTENNAS. TRANSMITTING

AM ANTENNAS AEG-Telefunken (Bayly Engineering) Abroyd Construction Allied Tower Atlas Tower Cord Barker & Williamson Cetec Broadcast Group Continental Electronics Mfg. Cortland Cable Co. Cosmin Electronics Dyma Engineering Elcom Specialty Products Grant Tower
Harris Corporation, Broadcast
Products Division Kathrein-Werke AG Kline Iron & Steel Co. LeBlanc & Royle Communications, Inc.
McMartin Industries Magnum Towers Marconi Electronics, Inc.

Multiphase Consulting Fred A. Nudd Corporation Rockwell International Stainless
Swager Tower Corporation
Technology for Communications
International Thomson-CSF UNR-Rohn United States Tower Utility Tower V & B Tower

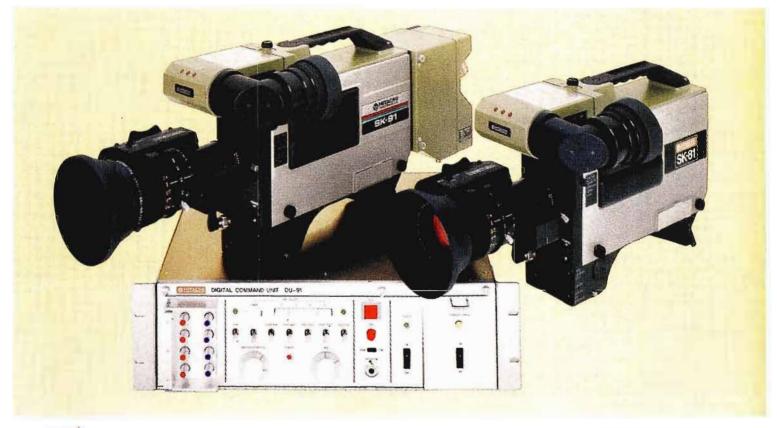
Wilkinson Electronics World Tower Company

AM DIRECTIONAL SYSTEMS

AEG-Telefunken (Bayly Engineering) Allied Tower Atlas Tower Corp. CSP Inc. Cetec Broadcast Group Continental Electronics Mfg. Cosmin Electronics Delta Electronics Dyma Engineering Elcom Specialty Products Grant Tower Harris Corporation, Broadcast Products Division Harrison Systems LeBianc & Royle Communications Towers McMartin Industries Multiphase Consulting Swager Tower Corporation TBC Pye Ltd. Technology for Communications International Thomson-CSF UNR-Rohn V & B Tower World Tower

Continued on page 56

"I want a world-class camera I can take a mile from the van, and still get 57 dB S/N and 600-line resolution."



©HITACHI HEARD YOU.

Then you're looking for broadcast-quality. Then you're looking for lightweight equipment you can carry unencumbered by anything but a lightweight triax cable.

Well, Hitachi heard you. Because now our Hitachi SK-91 and SK-81 can both be connected to our triax DU-91 Digital Command System by up to 6,000 feet of cable.

The SK-91 is an example of the lengths Hitachi will go to give you the camera your craft and courage demand. Though just 9.7 pounds, including its 1.5-inch viewfinder, this \$33,000 camera has been hailed as a bargain by perfectionists. And it's I.B.A. and C.B.C. accepted.

Its shock-mounted optical system—with Saticons® Plumicons® or Diode Guns®—gives you up to 57 dB S/N and 600-line resolution. All in an incredibly tough

magnesium alloy package.

It has an auto-iris closure. A \pm 9/18 dB high-grain switch. Horizontal and vertical blanking widths adjustable over a wide range. An auto black balance control as well as an auto white balance control.

The SK-81 gives you just a shade less performance for \$22,000. The DU-91 at \$18,900 lets you get great pictures with either the SK-91 or SK-81 whether you're shooting at the low-light levels of a coal mine or going to the top of the world. Who from? Who else? Hitachi Denshi America, Ltd., 175 Crossways Park West, Woodbury, NY 11797. (516) 921-7200. Offices also in Chicago, Los Angeles, Atlanta, Cincinnati, Dallas, Denver, Seattle and Washington. D.C.

Circle (33) on Action Card

CIRCULARLY POLARIZED FM

AEG-Telefunken Bogner Broadcast Equipment Broadcast Electronics, Inc. Cetec Antennas Comark Communications Continental Electronics Mfg. Dielectric Communications Dyma Engineering
Elcom Specialty Products Harris Corporation, Broadcast Products Division Kathrein Werke KG McMartin Industries
Micro Communications Phelps Dodge Communications **BCA Broadcast Systems** Rockweil International Rohde & Schwarz Shively Laboratories Simplicity Tool Co. Sitco Antennas TBC Pye Ltd. Tennaplex Systems Ltd. Tenco Thomson-CSF

CIRCULARLY POLARIZED TV

AEG-Telefunken Andrew Corp. Bogner Broadcast Equipment Cetec Antennas Harris Corporation, Broadcast Products Division Kathrein Werke KG Micro Communications Nurad RCA Broadcast Systems SWR Shively Laboratories Sitco Antennas TBC Pye Ltd. Tennaplex Systems Ltd. Thomson-CSF

EARTH TERMINAL DISHES

AFG-Telefunken Andrew Corporation Anixter-Mark Antenna Technology Antennas for Communications Comtech Antenna Corp. Crowder Communications Gabriel Electronics Gardiner Communications Harris Corporation, Broadcast Products Division Lang Video Systems Microdyne Corp. Microwave Associates Moseley Associates NEC America Prodelin SatCom Technologies Standard Communications Scientific-Atlanta SED Systems Thomson-CSF

MICROWAVE

AEG-Telefunken Alford Mfg. Co. Andrew Corporation Anixter-Mark Antenna Technology Antennas for Communications Inc. Bogner Broadcast Equipment David H. Brothers, Co. Cablewave Systems Cetec Broadcast Group Farinon Video/Harris Corp. Gabriel Electronics Harris Broadcast Microwave Harris Corporation, Broadcast Products Division Ikegami Electronics

LeBlanc & Royle Communications Towers Marcom Communication Systems Micro Communications Microdyne Corporation Microwave Associates Moseley Associates Multitenna Corp. of America **NEC** America Narda Microwave Corp. Nurad

Prodelin RF Technology Tayburn Electronics Tennaplex Systems TerraCom

MICROWAVE PORTABLE AEG-Telefunken Andrew Corp. Anixter-Mark Antenna Technology ENG Helicopter Satellites Ltd. Farinon Video/Harris Corp. Harris Broadcast Microwave Harris Corporation, Broadcast Products Division Ikegami Electronics M/A-COM Video Systems Micro Communications Inc. Moseley Associates NEC America Nurad RF Technology Tayburn Electronics
Tennaplex Systems Ltd. TerraCom Thomson-CSF

REMOTE FOR RADIO AEG-Telefunken Andrew Corp. Anixter-Mark Belar Cetec Broadcast Group Delta Electronics Harris Corporation McMartin Industries Moseley Associates Motorola Rockwell International Scala Electronic Corporation Swager Tower Corporation Swintek Enterprises Wilkinson Electronics

STI AEG-Telefunken

Andrew Corp. Anixter Mark Broadcast Electronics Cablewave Systems Cetec Broadcast Group Continental Electronics Mfg. Elcom Specialty Products Gabriel Electronics Grant Tower Harris Broadcast Microwave Harris Corporation, Broadcast Products Division International Microwave Corp. Lindsay Specialty Products Ltd. McMartin Industries M/A-COM Video Systems Micro Control Associates Moseley Associates NEC America, Inc. Nurad Phelps Dodge Communications RF Technology Scala Electronic Corporation Swager Tower Corporation Tayburn Electronics Tenaplex Systems Ltd. Wilkinson Electronics

World Tower TV UHF

AEG-Telefunken AEL (American Electronic Laboratories) Acrodyne Alford Mfg. Co. Andrew Corporation
Anixter-Mark
Bogner Broadcast Equipment Cetec Antennas Comark Communications Crowder Communications **EMCEE Broadcast Products** The Finney Company GTE Products Corp.
Harris Corporation, Broadcast
Products Division Kathrein-Werke AG Larcan Communication Equipment

Lindsay Specialty Products

Marcom Communication Systems

Marconi Micro Communications Nurad Phelps Dodge RCA Broadcast Rohde & Schwarz SWR Scala Electronic Scientific-Atlanta, Phoenix Div. Shively Laboratories Simplicity Tool Sitco Antennas TBC Pye Ltd. Television Technology Tennapiex Systems Ltd. Thomson-CSF Townsend Associates Velec Sefat

TV VHE AEG-Telefunken AEL (American Electronic Laboratories) Acrodyne Alford Mfg. Co. Anixter-Mark Bogner Broadcast Equipment Cetec Antennas Comark Communications Crowder Communications EMCEE Broadcast Products The Finney Company GTE Products Corp. Harris Corporation Kathrein-Werke AG Larcan Communications Inc. Marcom Communication Systems Marconi Electronics, Inc. Micro Communications Nady Systems Nurad Pheips Dodge Prodelin RCA Broadcast Rohde & Schwarz SWP Scala Electronic Scientific-Atlanta, Phoenix Div. Shively Laboratories Simplicity Tools Sitco Antennas TBC Pye Ltd. Television Technology Tennaplex Systems Ltd. Терсо Thomson-CSE

ARCHITECTUAL/ **ACOUSTIC DESIGN &** CONSTRUCTION

Jamieson and Associates Frank Rees Associates

Townsend Associates

Velec Sefat

ATTENUATORS

AUDIO ADM Technology AEG-Telefunken (Bayly Engineering) Aphex Systems Ltd. Audio Technology Auditronics Audisar Broadçast Audio Associates Composite Video Comprehensive Video Supply Datatronix Electro Controls Electro Impulse
Electroline TV Equipment Leader Instruments
Leader Broadcast Systems
McCurdy Radio Industries NTP Electronik AIS Georg Neumann GwbH Orange County Potomac Instruments
Potomac Marine & Aviation

ProTech Audio Corporation Richard Sound Design Roh Corporation Sescom Siemens AG Osterreich Shallco Shure Brothers Spectra Sonics Tech Labs Tektronix Television Specialist Inc. Trompeter Electronics Valley People Waters Manufacturing

FIXED AVA Electronics Barker & Williamson Bird Electronic Electro Impulse
Electroline TV Equipment The Finney Company IT | Electronics, Inc. Leader Broadcast Systems Mu-Del Electronics Narda Microwave Corp. North Hills Electronics RMS Electronics Sescom, Inc. Shallco Spectra Sonics TM Systems Tech Labs Tektronix Television Specialist Inc. Texscan Corp. Trompeter Electronics Whirlwind Music

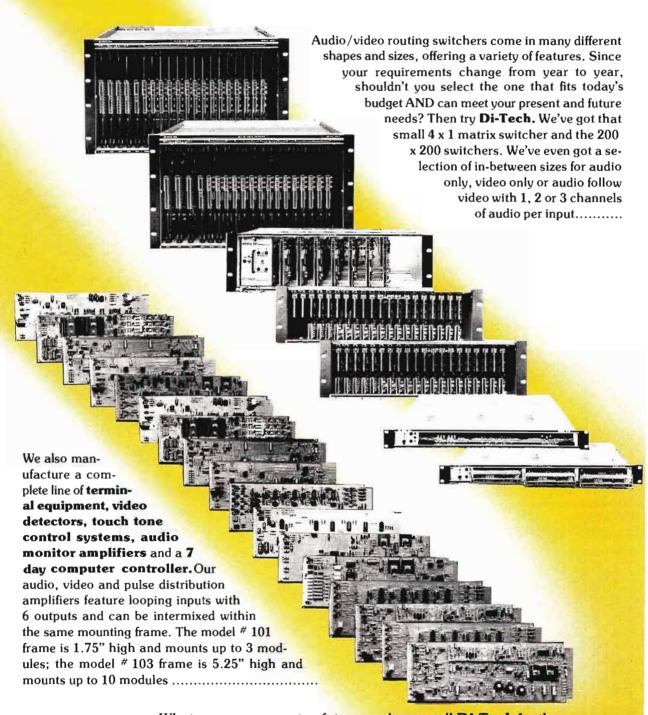
IMPEDANCE MATCHING AVL Digital CSP Inc. Electro Impulse, Inc. Electroline TV Equipment Geleco Electronics Ltd. Leader Broadcast Systems Marconi Instruments Ltd. Micro Communications Mu-Del Electronics Narda Microwave Corp. North Hills Electronics Sescom Shallco Shure Brothers Tech Labs Tektronix Texscan Corp. VIZ Manufacturing Valley People Vidaire Elec. Mfg. Whirlwind Music

MICROWAVE Electroline TV Equipment Harris Corporation, Broadcast Products Division Harris Corporation, PRD Electronics Div. Marconi Instruments Ltd. Moseley Associates Narda Microwave Corp. North Hills Electronics Nurad Television Specialist Inc. Texscan Corp. Wavetek Indiana

RADIO FREQUENCY (RF) AVA Electronics Bird Electronic Compac Development Corp. Dielectric Communications Electro Impulse, Inc. Electroline TV Equipment Harris Corporation - PRD Electronics, Dlv. Jerrold Division, General Instrument Corp.
Magnavox CATV Systems, Inc. Magnavox Cable Equipmen Marconi Instruments I td. Merrill Cable Equipment Corp. Moseley Associates Mu-Del Electronics Narda Microwave Corp.

Continued on page 58

Imagine The Features That Will Answer Your Present And Future Needs ... Then Call **Di-Tech**



Whatever your present or future needs are, call **Di-Tech** for the high quality, reliable, easy-to-operate answer.



di-tech

our NEW, bigger location: 48 JEFRYN BOULEVARD DEER PARK, N.Y. 11729 TEL. # (516) 667-6300

WHO MAKES IT

North Hills Electronics RHG Electronics Rohde & Schwarz Sadelco, Inc. Tech Labs Television Specialist Inc. Texscan Corp. Thomson-CSF Trompeter Electronics Triple Crown Electronics Wavetek Indiana

VIDEO

AVA Electronics Corp. AVI Digital Aphex Systems Comprehensive Video Supply Electroline TV Equipment Harris Corporation, PRD Electronics North Hills Electronics Rohde & Schwarz Shallco Tech Labs Tektronix Television Specialist Inc. Vidaire Electronics Mfg. Corp.

AUTOMATED REMOTE CONTROLS

American Data Audlo Kinetics Don Britton Ent. CAT Systems Channelmatic Cox Data Services Delta Electronics
Dynair Electronics Dynamic Technology Ltd. Hallikainen & Frlends Harris Corporation, Broadcast Products Division Image Video Limited Key Video Ltd.
M/A-COM Video Systems The Management Moseley Associates Potomac Instruments ProTech Audio Bank Cintel Ltd. Recortec Inc. Scientific-Atlanta Teknekron Controls Telcom Research Thomson-CSF Video Specialties Video Tape Systems Vital Industries

AUTOMATION CONTROLS & SYSTEMS

ATS SYSTEMS Asaca/Shibasoku **Broadcast Electronics** Consolidated Electronics Ind. Delta Electronics Hallikainen and Friends Harris Corporation, Broadcast Products Division McMartin Industries Moseley Associates Multiphase Consulting Potomac Instruments ProTech Audio QEI Corp. Sharepoint Systems

BUSINESS SYSTEMS & SERVICES

Automated Business Concepts Automation Electronics, Inc. BIAS / Data **BIC Computers** Bonneville Data Systems Cetec Broadcast Group Chase Media Columbine Systems Computer Business Systems Computer Concepts

Consolidated Electronic Ind. Cox Data Services Custom Business Systems, Inc. Data Communications Corp. Groton Computer Harris Corporation, Broadcast Products Division IGM Communications Jefferson Data Systems
Jenel Corp. Consulting Engineers Kaman Sciences The Management Marketron Matrix Information Systems NEAS Nidus Broadcast Systems Printer Terminal Communications Corp. Research Technology Int'l. Radio Computing Services Solid State Logic Station Business Systems

Computer Management Systems

CART SYSTEM, RANDOM SELECT, AUDIO

Autogram Automated Broadcast Controls Broadcast Electronics David H. Brothers, Co. Central Dynamics Ltd. Cetec Broadcast Group
Consolidated Electronic Industries Deltamod Harris Corporation, Broadcast Products Division IGM Communications International Tapetronics MacKenzie Laboratories Microprobe Electronics Inc. (MEI) Nidus Broadcast Systems Sono-Mag UMC Electronics VIE International Vital Industries

CART SYSTEM, RANDOM SELECT. VIDEO

Automatic Techniques Robert Bosch GmbH Central Dynamics Fernseh Inc. NEAS RCA Broadcast Recorted LIRE Vital Industries

DATA PROCESSING

Automated Business Concepts Automation Electronics, Inc. BIAS / Data BIC Computers Bonneville Data Systems Central Dynamics Ltd. Cetec Broadcast Group Chase Media, Inc. Columbine Systems, Inc. Computer Concepts Computer Mangement Systems Cox Data Services Custom Business Systems, Inc. Data Communications Fernseh Groton Computer, Inc. Jefferson Data Systems Kaman Sciences McInnis-Skinner & Assoc The Management Marcom Communication Systems Matrix Information Systems NEAS Nidus Broadcast Systems Radio Computing Services Station Business Systems Telesource Communication

Services

(See Lighting Controls & Services) Berkey Colortran Dynamic Technology Ltd. Electronics Diversified, Inc. Klieal Bros.

Weatherscan International

Leedal Matthews Studio Equipment Panoak LightIng Systems SSAC Inc. Skirpan Lighting Control Corp. Strand Century

LOGGING

American Data Autogram Corp.
Automated Broadcast Controls Broadcast Electronics David H. Brothers Co. Cat Systems Central Dynamics Ltd. Cetec Broadcast Group Channelmatic Chase Media, Inc. Columbine Systems Inc. Computer Management Systems Computer Systems Consolidated Electronic Ind. Data Communications Corp. Dynamic Technology Ltd. Elektrolmpex Hallikainen and Frlends Harris Corporation, Broadcast Products Division IGM Communications

Kudelski SA Switzerland The Management Marketron, Inc. Matrix Information Systems Moseley Associates NEAS Neal Ferrograph (USA) Inc. Nidus Broadcast Systems Potomac Instruments QSI Systems Sono-Mag Station Business Systems

Telcom Research Telex Communications Vital Industries

MASTER CONTROL, CUSTOM Image Video Ltd.

PROGRAM CONTROL, AUDIO Amek TAC

American Data Basys Inc. Don Britton Enterprises Broadcast Electronics David H. Brothers, Co. C-M-C Technology Corp. Central Dynamics Ltd. Century 21 Programming Cetec Broadcast Group Channelmatic Consolidated Electronic Industries Michael Cox Crosspoint Latch Data Communications Corp. Deltamod Di-tech Elektroimpex Grass Valley Harris Corporation, Broadcast Products Division Harrison Systems IGM Communications Image Video Limited Kintek McCurdy Radio Inductries The Management Marcom Communication Systems Microprobe Electronics Modulation Associates NEAS Rupert Neve Nidus Broadcast Systems Orban Associates Pro Tech Audio Quad-Eight Electronics Rivers Associates Rohde & Schwarz Siemens AG Osterreich Sharepoint Systems Solid-State Logic Sono-Mag Standard Telephone UND Radio Station Business Systems

Video Tape Systems Vital Industries

PROGRAM CONTROL, VIDEO

AVL Digital Ltd. BEE KG Basys, Inc. Robert Bosch GmbH Don Britton Ent. C-M-C Technology Corp. Central Dynamics Ltd. Channelmatic Michael Cox Crosspoint Latch Data Communications Corp. Di-tech Dynamic Technology Ltd. Grass Valley Group Image Video Limited Industrial Sciencies Inc. (ISI) Javelin Electronics Marcom Communication Systems Microtime NEAS Panasonic Video Systems Panoak Lighting Systems Rohde & Schwarz Siemens AG Osterreich Station Business Systems Tech Electronics Torpey Controls & Engineering Video Alds of Colorado Video Specialties Video Tape Systems Videomedia Vital Industries

PROJECTOR / FILM CHAIN

CONTROL American Data Central Dynamics Ltd. Cox Data Services
Data Communications Corp. Fernseh Grass Valley Kaitronics Corp. NEAS RCA Broadcast Systems Rank Cinte Vital Industries

REEL-TO-REEL CONTROLLER

American Data Audio Kinetics
The BTX Corporation
Broadcast Electronics C-M-C Technology Corp. Central Dynamics Ltd. Cetec Broadcast Group Consolidated Electronic Industries Cox Data Services
Data Communications Corp. IGM Communications Leader Broadcast Systems The Management Microprobe Electronics NEAS PWH Electronics Limited ProTech Audio Rivers Associates Solid-State Logic Sono-Mag Studer ReVox America John M. Sullivan Associates
Tape-Athon / Cavox Stereo Prod. United Research Lab VIF International Vital Industries

BATTERIES & ACCESSORIES

BATTERY BELTS Adwar Video Alexander Mfg. Co. Anton/Bauer Calvert Electronics Christie Electric Cine 60 Cinema Products Comprehensive Video Supply Frezzolini Electronics Kapco Communications Continued on page 60

VIF International

Video Specialties

440 to 1 Canon PV40 x 13.5B IE: THE OLYMPIAN

Canon moves you a giant step forward with a 40X broadcast quality zoom lens. An incredible new lens that allows you to cover a stadium at wide angle or fill the frame with the quarterback's eyes.

Never before has a single lens provided this much flexi-

bility and sensitivity, with remarkably little change in effective aperture throughout its entire 13.5mm-540mm* range. Built-in extenders let you go all the way to 1080mm and each lens is diascope-equipped for modern microprocessor-





controlled cameras.

We call it The Olympian.

Not only because it is ideally suited for sports coverage but also because of the dedication and team effort required of our optical and electronic engineers in making this lens a reality.

Enlarge a dollar bill forty times and it covers an area twenty feet long and eight feet wide. Now think about what you could do with the Canon PV 40 x 13.5B IE!

*1" cameras. Also available in 30mm plumbicon.



Canon

Optics Division
Canon USA, Inc., Head Office: One Canon Plaza, Lake Success, N.Y. 11042 (516) 488-6700
Dallas Office: 11311 Stemmens Freeway, Suite 1, 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
Carion Canada, Inc., 3245 American Drive, Mississauga, Ontario L4V1B8, Canada (416) 678-2730 © 1982 Canon U.S. A., Inc.

Circle (35) on Action Card

Nalpak Sales One Pass Video Optical & Textile PAG Group Panasonic Panoak/Ba Lighting Systems Perrott Engineering
Portable Energy Products Strand Century Swintek Enterprises, Inc. Tascam Videomedia Yardney

BATTERY CHECKER Perrott Engineering

BATTERY PACKS / ENG

Alexander Mfg. Co. Anton / Bauer Calvert Electronics
Christie Electric Corporation Cine 60 Inc. Cinema Products Comprehensive Video Supply Film / Video Equipment Frezzolini Gould, Inc.

Harris Corporation, Broadcast Products Division Ikegami Electronics Kapco Communications Microwave Associates Multiplier Industries Nalpak Sales One Pass Video Optical & Textile PAG Group Panasonic Perrott Engineering Labs Portable Energy Products Sharp Electronics Sony Corporation of America U.S. JVC Corporation Videomedia Yardney Electric

BATTERY PACKS / LIGHTING

Adwar Video Alexander Mfg. Co Anton / Bauer Walter S. Brewer Co. Calvert Electronics Christie Electric Corporation Cine 60 Inc. Cinema Products
Comprehensive Video Supply
Film / Video Equipment Frezzolini Electronics Gould, Inc. Harwood Mfg. Co. Kapco Communications LTM Corporation of America Multiplier Industries Corp. Nalpak Sales Panoak/B-W Lighting Systems One Pass Video Optical & Textile PAG Group Panasonic Panoak Lighting Systems Perrott Engineering Labs Portable Energy Products Smith - Victor Sales Corp. John M. Sullivan Associates Teledyne Big Beam Videomedia

BATTERY CHARGERS

Yardney

Alexander Manufacturing Anton / Bauer Beyer Dynamic Brabury Electronics Ltd.
Calvert Electronics
Christie Electric Corporation
Cine 60 Inc. Cinema Products Cinetronics Comprehensive Video Supply Dynamote Farlnon Video/Harris Corp. Film / Video Equipment Frezzolini Electronics G.C. Electronics Gould Inc. Harris Corporation, Broadcast Products Division

Harwood Mfg., Co. Ikegami Electronics Kapco Communications M/A-COM Video Systems Multiplier Industries
Nalpak Labs
Panoak/B-W Lighting Systems North Wind Power Co. One Pass Video Optical & Textile PAG Group Panasonic Perrott Engineering Labs Portable Energy Products Sharp Electronics
Sony Corporation of America John M. Sullivan Associates Swintek Enterprises Teledyne Blg Beam Vanner Inc. U.S. JVC Corporation Videomedia Yardnev

BATTERY PACK/ TEST INSTRUMENT Tektronix

BLOWERS & FANS

Amco Engineering Co **Bud Industries** Comark Communications Electro Impulse Laboratory, Inc. Ripley Co. Stantron Division / Wyco Metal Products Winsted Corp.

BRIDGES, **COMMON POINT**

Continental Electronics Mfg. Delta Electronics Harris Corporation, Broadcast Products Division Potomac Instruments Texscan Corp.

BUZZ TONE ELIMINATORS

Merlin Engineering Orange County
John M. Sullivan Associates

CABINETS. CONSOLES, & EQUIPMENT RACKS

A&S Case Co. Inc. AEG-Telefunken (Bayly Engineering) Advance Products Amco Engineering Anvil Cases Audix Limited Brabury Electronics Ltd. Broadcast Electronics, Inc. Bud Industries Calzone Case Co. Cases Inc. Centro
Cetec Broadcast Group
Compac Development Corp. Dell Technical Vehicles
Dyma Engineering
Electro Acoustics Designs
Emcor Products Enclosure Corp.
Environmental Container Systems Equipto Forecast Media Installations GKM Manfacturing GTE Products Corp

Grinnan Fiytures HSC Inc. Hammond Industries Harris Corporation, Broadcast Products Division IGM Communications Javelin Electronics Leedal Lee-Ray Industries McCurdy Radio Industries Micro-Trak Neumade Products Paso Sound Products ProTech Audio Rack Techniques
Research Technology Int'l. Ruslang Corp. Sait Electronics Scientific-Atlanta, Optima Division Shintron Spectra Sonics Stantron Division, Wyco Metal Products Thermodyne International Ltd. Thomson-CSF Wallach & Associates Winsted

CABLE & ACCESSORIES & SERVICES

Vector Electronic

AUDIO CABLE AEG-Telefunken Alpha Wire Corporation Audicon, Inc. Bi-tronics Boston Insulated Wire & Cable Brand-Rex Broadcast Electronics David H. Brothers Co. Comprehensive Video Supply Connect-Air International Daburn Electronics & Cable Dyma Engineering Elektroimpex **Emcor Products** G.C. Electronics Galite Hammond Industries
Harris Corporation, Broadcast
Products Division Hartley Products Javelin Electronics Leader Broadcast Systems McCurdy Radio Industries McMartin Industries Marshall Electronics Miles Associates, Div. Miles Air Products Ltd. Mohawk Wire & Cable Corp. Georg Nuemann GwbH PAG Group Pirelli Cable Corp. RMS Electronics
Rockwell International Rohde & Schwarz Scientific-Atlanta Sescom, Inc. Shure Brothers Spectra Sonics John M. Sullivan Associates Tascam Teac Corp. of America Times Fiber Communications Vidaire Electronics Mfg. Wireworks Corporation **CABLING & WIRING SERVICES**

AEG-Telefunken A.F. Associates **AVA Electronics** Audicon Audio Accessories Boston Insulated Wire & Cable Brabury Broadcast Systems Brand-Rex Cinetronics Connect-Air International Crow of Reading Ltd. Daburn Electronics & Cable Dell Technical Vehicles

Dynamic Technology Ltd. Ear Systems Inc. East Coast Video Edcor Electro - Acoustic Designs Emcor Products G.C. Electronics GTE Products Corp Gallte Graham-Patten Systems Image Devices Incorporated McCurdy Radio Industries Marshall Electronics Fred Nudd Corporation PAG Group Pirelli Cable Corp. ProTech Audio Radiotechniques Rex Rheostat & Co., Inc. Sait Electronics Scientific-Atlanta Spectra Sonics Thomson-CSE Union Connector Co. Whirlwind Music

CAMERA CABLE AEG-Telefunken Artel Communications Corp. Bi-tronics Robert Bosch GmbH Boston Insulated Wire & Cable Brand-Rex Comprehensive Video Supply Connect-Air International
Crow of Reading Ltd.
Daburn Electric & Cable Corp.
Emcor Products Gallte

Harris Corporation, Broadcast Products Division Image Devices Incorporated Javelin Electronics Marshall Electronics Mohawk Wire & Cable Corp. PAG Group Panasonic Pirelli Cable Corp. RMS Electronics John M. Sullivan Associates Thomson-CSF Times Fiber Communications Videomedia

COAX, FLEXIBLE AEG-Telefunken AVA Electronics Alpha Wire Andrew Corp Anixter-Mark Belden **Bi-tropics** Blonder · Tongue Labs, inc. Robert Bosch GmbH Boston Insulated Wire & Cable Brand-Rex Broadcast Electronics, Inc. David H. Brothers, Co. CCS Cable CSP Inc. Cableware Systems Compac Comprehensive Video Supply Connect-Air International Continental Electronics Mfg. Crow of Reading Ltd.
Daburn Electronics & Cable Emcor Products
The Finney Company
Gabriel Electronics Harris Corporation, Broadcast Products Division Image Devices Incorporated Javelin Electronics LeBlanc & Royle Communications McMartin Industries M/A-COM Video Systems Marshall Electronics Micro Communications Micro Control Associates Mohawk Wire & Cable Corp. Nurad PAG Group Phelps Dodge Communications

Continued on page 62

The brightness you need to show it big

General Electric (U.S.A.)* Professional Large Screen Video Projection

With General Electric's (U.S.A.) exclusive sealed light valve and sealed Xenon lamp system, in both color and monochrome General Electric (U.S.A.) Professional Large Screen Video Projectors, you can depend on sharp pictures from 2 to 25 feet wide. New high brightness models allows the room lighting viewers need to take notes and refer to written material.

The color projectors reproduce every color accurately, with the convenience of inherent color registration. General Electric's (U.S.A.) exclusive single gun, single optical path light valve system eliminates the need for manual color convergence.

Portable and flexible, the projectors are being used for a wide variety of applications, including front and rear projection. Our applications experts will tell you whether yours can be added to the growing list, which includes:

Education: Medical, dental, engineering, computer science instruction.

Business: Sales meetings, industrial training, product presentations, real-time display of computer-generated data, teleconferences.

Aerospace and Defense: Situation displays, simulator training.

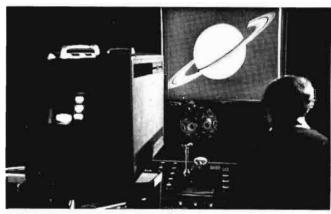
Entertainment: Theatre television, closed-circuit TV events, overflow crowds, special effects.

Television Production: Backgrounds for news programs, special effects, data display, program previewing.

Call or write: General Electric Company (U.S.A.), Video Display Equipment Operation, Electronics Park 6-206, Syracuse, NY 13221 U.S.A., Phone: (315) 456-2152.



NEWS BACKGROUND at WTMJ-TV, Milwaukee, is displayed rear screen by General Electric (U.S.A.) projector.



SELL-OUT CROWDS at Fiske Planetarium, Boulder, watched live NASA transmission presented by General Electric (U.S.A.) projector.

GE (U.S.A.) Professional Large Screen Television Projector Specifications COLOR PROJECTORS Light Output in Lumens Input Power Req. Resolution* in TV Lines per Picture Height Open Gate, Modulated Modulated Volt-Video Scan Standards*** Model Min. Vert. TV, Min. TV, Typ. Min. Horiz. Watts Amps. Input* Min. 525 li./60 fps; 625 li./50 fps 300 1200 1600 PJ 5000 550 220 280 750 (1) 300 750 1600 2150 525 li./60 fps; 625 li./50 fps PJ 5050 1250 500 650 (1) 750 600 1200 1600 PJ 5800 550 200 280 875 lines, 60 fps (2) 600 2150 PJ 5850 1250 500 650 750 1600 875 lines, 60 fps (2) PJ 5100 550 200 280 750 650 1200 1600 1023 lines, 60 fps (2) 1250 500 650 750 650 1600 2150 1023 lines, 60 fps (2)PJ 5150 MONOCHROME PROJECTORS PJ 7000 1000 600 750 800 400 1000 1350 525 li./60 fps; 625 li./50 fps (3) 1000 1250 800 400 1000 1350 525 li./60 fps; 625 li./50 fps (3) PJ 7050 1700 PJ 7055 3300 2000 2400 800 400 1500 2000 525 li./60 fps; 625 li./50 fps (3) PJ 7800 600 750 1350 875 lines, 60 fps (3) 1000 800 650 1000 1000 1000 1250 1350 875 lines, 60 fps (3) PJ 7850 1700 800 650 650 2000 (3)3300 2000 800 1500 875 lines, 60 fps PJ 7855 2400 750 1023 lines, 60 fps (3) 600 800 1000 1350 PJ 7100 1000 750 1700 1000 1250 800 750 1000 1350 1023 lines, 60 fps (3)PJ 7150 3300 2000 800 750 1500 2000 1023 lines, 60 fps (3)PJ 7155 2400

Line Power, All Projectors: 117 or 240 v., \pm 10%, 50/60 Hz

^{***}For use at other scanning rates, contact General Electric (U.S.A.) (VDEO) for special application/model information.



*Not connected with the English company of a similar name

U.S.A.

^{*}Resolution measurements made with wide-band video input, **Video Input Key: (1) NTSC or RGB. (2) RGB. (3) Wide-Band.

Pirelli Cable Corp. Prodelin, Inc. RMS Electronics Scala Electronic Corp Scientific-Atlanta John M. Sullivan Associates Tascam Терсо Thomson-CSF
Times Fiber Communications
Times Wire & Cable Trompeter Electronics Utility Tower Videomedia Whirlwind Music Wilkinson Electronics

CONNECTORS AKG Acoustics AMP Special Industries AVA Electronics Adwar Video Alpha Wire Andrew Corp. Anixter-Mark
Bardwell & McAlister
Bayly Engineering Bird Electronic Blonder - Tongue Labs, Inc. Boston Insulated Wire & Cable
Broadcast Electronics Cablewave Systems
Cambridge Products Corp Ceco Communications Comark Communications Compac Development Corp Comprehensive Video Supply Connect-Air International Continental Electronics Mfg Daburn Electronics & Cable Emcor Products
Gilbert Engineering
G.C. Electronics GTE Products Corp Galite The Finney Company Harris Corporation, Broadcast Products Division Image Devices Incorporated Javelin Electronics

Jerrold Division, General Instrument Corn Kings Electronics LRC Electronics LTM Corporation of America LeBlanc & Royle Communications McMartin Industries Magnavox CATV Systems Marconi Instruments Ltd. Marshall Electronics Micro Communications Micro Control Associates Millen Components Mohawk Wire & Cable **Neutrik Products** Nurad Panoak Lighting Systems
Phelps Dodge Communications Pirelli Cable Corp.

Prodelin Pyramid Industries RMS Electronics SGL Waber Electric Switchcraft Tascam Tepco Corp Thomson-CSF

Trompeter Electronics Union Connector VIZ Manufacturing Vidaire Electronics Mfg. Whirlwind Music

FIBER OPTIC CABLES

AEG-Telefunken Artel Communications Andrew Corporation Robert Bosch GmbH Boston Insulated Wire & Cable Brand-Rex Connect-Air International Delta Systems Emcor Products Foundation Electronic Instruments LaCroy Research Systems M/A-COM Video Systems Mohawk Wire & Cable Moseley Associates NEC America, Broadcast Equipment Pirelli Cable Corp. Thomson-CSF Times Fiber Communications Valtec Corporation

GUY WIRES

(See Also Towers & Accessories) Abroyd Construction Allied Tower Copperweld Bimetallics Group Cortland Cable Co. Emcor Products G.C. Electronics Image Devices Incorporated LeBlanc & Royle Communications Fred Nudd Corporation Philadelphis Resins RMS Electronics Thomson-CSF Utility Tower VIF International World Towe

HEAVY DUTY, AC / DC POWER

AEG-Telefunken Alpha Wire Corp. California Instruments Cine 60 Inc. Daburn Electronics & Cable Fmcor Products Pirelli Cable Corp. Tech Theatre Inc. Thomson-CSF Transector Systems

MICROPHONE CABLE AEG-Telefunken AKG Acoustics AKG Akustische u. Kino-Gerate Audio-Technica US Inc. Beyer Dynamics Bi-tronics Brand-Rex Broadcast Electronics David H. Brothers Co. Comprehensive Video Supply Connect-Air Internationa Daburn Electronics & Cable Dyma Engineering Emcor Products G.C. Electronics Galite Hammond Industries Harris Corporation, Broadcast Products Division McMartin Industries Marshall Electronics Miles Associates, Div. Miles Air Products Ltd. Mohawk Wire & Cable Corp. Georg Neumann GwbH Panasonic Pirelli Cable Corp.

Shure Brothers John M. Sullivan Associates Teac Corp. of America Telex Comm. Inc. Vidaire Electronics Mfg. Wireworks Corporation

TRANSMISSION LINES. PRESSURIZED

AEG-Telefunken Andrew Corp. Anixter-Mark Antennas for Communications CSP Inc. Cablewave Systems Cetec Broadcast Group Comark Communications Continental Electronics Mfg.
Copperweld Bimetallics Group Dielectric Communications Emcor Products Gabriel Electronics Harris Corporation, Broadcast Products Division LeBlanc & Royle Communications Micro Communications Moseley Associates Phelps Dodge Communications
Pirelli Cable Corp. SWR Inc Shively Laboratories Television Technology Thomson-CSF Wilkinson Electronics

CALIBRATION SERVICES

(See Test Equipment & Services)

CAMERA MOUNTS. **CARRYING SYSTEMS & ACCESSORIES**

AIRBORNE MOUNTING/STABILIZING ENG Helicopter Satellites Ltd. Feathercam M/A-COM Video Systems

CARRYING SYSTEM

Anvil Cases William Bal Corporation Calvert Electronics Cine 60 Inc. Cinema Products Feathercam Fiberbilt Harrls Corporation, Broadcast Products Division Image Devices Incorporated Innovative Television K and H Products, Ltd. Lee-Ray Industries Listec TV Equipment

DOLLIES & TRIPODS

Arriflex Bardwell & McAlister Calvert Flectronics Calzone Case Co. Cinema Products Comprehensive VIdeo Supply Davis & Sanford Elektrolmpex Elicon Feathercam Alan Gordon Enterprises Gruber Products Harris Corporation, Broadcast Products Division Karl Heltz Inc. ITE (Innovative Television Equipment) K & H Products Lee-Ray Industries Listec TV Equipment Matthews Studio Equipment
Miller Professional Equipment O'Connor Engineering One Pass Video Optical & Textile Ltd PAG Group Quick - Set Sachtler Corp. of America Smith-Victor Strand Century John M. Sullivan Associates Telescript
Television Products Co.
Triple SMFC Corp.

PAN & TILT HEADS Arriflex David H. Brothers Co. Calvert Electronics

Cinema Products Cohu, Electronics Division Comprehensive Video Supply Davis & Sanford Electro & Optical Systems Elektroimpe Elicon

Feathercam, Inc. G.B.C.

Harris Corporation, Broadcast Products Division Karl Heitz, Inc. ITE (Innovative Television Equipment) Image Devices Incorporated Javelin Electronics KB Systems Listec TV Equipment
Miller Professional Equipment, Inc.
Motorola Communications and Electronics
O'Connor Engineering Labs
Optical & Textile Ltd.
PAG Group Panasonic Peerless Sales Quick Set Sachtler Corp. of America Smith - Victor Sales Corp. John M. Sullivan Associates Tele-Cine

PEDESTALS
Bardwell & McAlister Calvert Electronics Elektroimpex

Telescript

Elicon Feathercam Harris Corporation ITE (Innovative Television Equipment)

Lee Ray Industries
Listec TV Equipment
Matthews Studio Equipment O'Connor Engineering One Pass Video Sachtler Corp. of America Telescript Television Products Company

REMOTE CONTROLS

A.F. Associates
Bayly Engineering
David H. Brothers, Co.
Cinema Products Cinetronics Comark Communications Crow of Reading Ltd. Feathercam, Inc. Harris Corporation, Broadcast Products Division
Image Devices Incorporated Javelin Electronics Listec TV Equipment M/A-COM Video Systems Motorola Communications and Electronics Panasonic Potomac Marine & Aviation Tele-Cine Videomedia

STABILIZED CARRYING SYSTEM

Anvil Cases Inc. Arriflex Cinema Products Feathercam
Image Devices Incorporated
K and H Products Ltd. Lee Ray Industries M/A-COM Video Systems Tele-Cine

TEST CHARTS Porta-Pattern Telecommunications

CAMERA/RECORDER COMBINATION

Fernseh (Bosch) Hitachi Ikegami Electronics Panasonic Sony Corp. of America

CAMERAS, FILM

Aaton Cameras

Continued on page 64

Outstanding Outdoors

Camera location 3 behind home plate is no place to tear down a camera. Especially if the director wants to punch it up on air to catch the next pitch. That's just one reason why the rock-steady, works-every-time HK-357A is an outstanding choice for production in the field.

Beyond its reputation for legendary Ikegami reliability, the HK-357A has a lot more to recommend it as the ideal field camera. For example, its

crisp, high resolution picture, signal-to-noise ratio of better than 53 dB, and superb colorimetry.

What's more the camera really shows off when it's time to set up. Use of the optional microproces-

sor control brings into play Ikegami's Emmy award-winning digital techniques for automatic setup. Simply press one button and the computer auto-matically refreshes all set up and registration adjust-ments in about 45 seconds. No chip charts blowing in the wind, no tweaking. Just unpack, plug-in, auto-setup, and shoot.

Hook up is a simple matter too. Choose the

triax option and you can position the camera as far as a mile from the van with absolutely no compromise in picture quality as compared to multicore. And for versatility, our triax camera interfaces with TV-81 multicore at the flip of a switch.

Field test an HK-357A to see





Cinema Products Compro Productions Feathercam Fernseh Frezzolin G.B.C. Alan Gordon Enterprises Image Devices Incorporated Team Electronics Wide Range Electronics

CAMERAS, VIDEO

CCD English Electric Valve Fairchild CCD Imaging NEC America, Broadcast Panasonic Teknekron Controls Thompson-CSF

CCTV ATV Research Adwar Video Robert Bosch GmbH David H. Brothers, Co. Cinema Products Cohu, Inc., Electronics Division Commercial Electronics, Inc. (CEI) Compro Productions Dage-MTI Elektroimpex Fernseh GBC Closed-Circuit TV Hitachi Denshi American Ltd. lkegami Javelin Electronics Link Electronics Motorola Nytone Electronics Corp. Oktel Panasonic Video Systems Philips Broadcast RCA Broadcast Systems Sharp Electronics Thomson-CSF Toshiba International U.S. JVC Corporation Video Masters

FILM CHAIN CAMERA Adwar Video Robert Bosch GmbH Cinema Products Cohu, Electronics Division Fernseh Harris Corporation, Broadcast Products Division Hitachi Denshi America Image Devices Incorporated Marconi Electronics **NEC America** Nytone Electronics Philips Broadcast RCA Broadcast Systems Rank Cintel Sharp Electronics Thomson-CSF Toshiba International U.S. JVC Corporation

Westinghouse Electric

ENG / HANDHELD Adwar Video Ampex Robert Bosch GmbH CEI Cinema Products Fernseh Frezzolini Electronics Hitachi Denshi American Ltd. lkegami Javelin Electronics NEC America Panasonic Video Systems Philips Broadcast Pye TVT RCA Broadcast Systems Sharp Electronics Sony Corporation of America Swintek Enterprises Thomson-CSF Broadcast Toshiba America U.S. JVC Corporation

Robert Bosch GmbH Cinema Products Fernseh Harris Corporation, Broadcast Products Division Hitachi Denshi America Ikegami International Video Corp. Link Electronics Marconi

FIELD CAMERA

NEC America Panasonic Video Systems Philips Broadcast Pye TVT RCA Broadcast Systems Sharp Electronics Sony Corporation of America Thomson-CSF Broadcast U.S. JVC Corporation

STUDIO CAMERA Ampex Robert Bosch GmbH CEL Cinema Products Fernseh Harris Corporation, Broadcast Products Division Hitachi Denshi America lkegami International Video Corp. Marconi Electronics NEC America Panasonic Video Systems Philips Broadcast Pye TVT RCA Broadcast Systems Sharp Electronics Thomson-CSF Broadcast Toshiba America
U.S. JVC Corporation

CAMERA, VIDEO DIGITAL REMOTE CONTROL SYSTEM

Anton/Bauer Bayly Engineering David H. Brothers Co.

CAPACITORS. TRANSMITTING

BES Electronics Calvert Electronics Ceco Communications Comad Communications English Electric Valve ITT Jennings Mallory Capacitor Surcom Associates Thomson-CSF

CART MACHINES & SERVICES

SINGLE DECK Amilon Ampro/Scully Audi-Cord BASF Limited Broadcast Electronics Century 21 Programming Cetec Broadcast Group Consolidated Electronic Industries Contel Continental Electronics Mfg. D - B Electronics Elcom-Bauer Harris Corporation, Broadcast Products Division IGM Communications ITC/3M

international

Electro - Magnetics

International Tapetronics Leader Broadcast Systems Pacific Recorders Ramko Research Singer Products Company Sono-Mag Tapecaster TCM, Inc. Telex Communications UMC Electronics

DUAL DECK Amilon Ampro/Scully
Aristocart, Div. of Weston
Broadcasting Audl-Cord Broadcast Electronics Century 21 Programming Cetec Broadcast Group Consolidated Electronic Ind. D - B Electronics, Inc. Harris Corporation, Broadcast Products Division

IGM Communications International Electro-Magnetics
International Tapetronics Leader Broadcast Systems MacKenzle Laboratories Ramko Research

Sono-Mag UREI

TRIPLE DECK Amilon Ampro/Scully Audi-Cord Broadcast Electronics Calico Video Century 21 Programming

Cetec Broadcast Group Consolidated Electronic Inc. D - B Electronics Harris Corporation, Broadcast Products Division

IGM Communications ITC/3M

International
Electro-Magnetics
International Tapetronics Leader Broadcast Systems MacKenzie Laboratories Ramko Research Singer Products Company Sono-Mag UMC Electronics

MULTIPLE DECK

Amilon Audi-Cord Broadcast Electronics Century 21 Programming
Cetec Broadcast Group
Consolidated Electronic Ind. D - B Electronics
Harris Corporation, Broadcast
Products Division
IGM Communications

International Electro-Magnetics MacKenzie Laboratories

Ramko Research Sono-Mag Tapecaster TCM, Inc. **UMC** Electronics

RANDOM ACCESS

(See Also Automation Controls Audio)
Audi-Cord Broadcast Electronics Calico Video Century 21 Programming Cetec Broadcast Group Consolidated Electronic Ind. IGM Communications International Tapetronics Microprobe Electronics Singer Products Company Sono-Mag UMC Electronics VIF International

REBUILDING SERVICES Arlstocart Audl-Cord Audio Path

Broadcast Electronics Century 21 Programming Ear Systems Inc. Harris Corporation, Broadcast Products Division IGM Communications Leader Broadcast Systems The Management RCA Service Company Tapecaster TCM, Inc.

RECORD ONLY Century 21 Programming Cetec Broadcast Group Consolidated Electronic Ind. Contel Harris Corporation, Broadcast Products Division International Tapetronics MacKenzie Laboratories Pacific Recorders &

Engineering Ramko Research Tapecaster TCM Telex Communications

STEREO Ampro/Scully Audi-Cord Broadcast Electronics David H. Brothers, Co. Century 21 Programming Cetec Broadcast Group Consolidated Electronic Ind.
Continental Electronics D - B Electronics Harris Corporation, Broadcast Products Division IGM Communications International Tapetronics MacKenzie Laboratories The Management

CARTRIDGES (TAPE), ACCESSORIES & **SERVICES**

Pacific Recorders & Engineering Ramko Research

Tapecaster TCM, Inc.

Telex Communications UMC Electronics

ALIGNMENT TAPES Aristocart, Division of Weston Broadcasting Broadcast Electronics, Inc. Continental Recordings Fidelipac Corp. Harris Corporation IGM Communications Marathon Products Corp. Nortronics United Research Lab Corp.

DELAY CARTS Broadcast Electronics
Capitol Magnetic Products Cetec Broadcast Group Consolidated Electronic Ind. Continental Recordings D - B Electronics Fidelipac 3M Company, Magnetic

A/V Products Division Marathon Products Procart Tapecaster TCM, Inc. Western Broadcasting

MONO CARTS

Aristocart Aristocart
Broadcast Electronics
Capitol Magnetic Products
Century 21 Programming
Continental Electronics Mfg.
Consolidated Electronics Ind. Continental Recordings D - B Electronics Fidelipac Harris Corporation, Broadcast Products Division

Continued on page 66

Crosstown or cross country, call Calvert first.

You'll get the lowest price in America and overnight delivery.

	TRANSMIT	TING TUBES	
3B28 14.00	4CX350F 125.00	575A 29.00	6696A 2850.00
3CW20000A3 .1480.00	4CX1000A 370.00	673 45.00	6697A
3CW20000A7 .1585.00	4CX1000K 502.00	805 65.00	ML7007A 3750.00
3CX1000A7 527.00	4CX1500A 584.00	807 8.50	7237A 553.00
3CX1500A7 465.00	4CX1500B 470.00	810 69.00	7527
3CX2500A3432.00	4CX3000A 871.00	813 45.00	7527A 165.00
3CX2500F3469.00	4CX5000A 1025.00	828	8008 18.00
3CX3000A1432.00	4CX10000D1175.00	833A	8122
3CX3000A7601.00	4CX15000A 1500.00	833A (U.S.A.)185.00	8791
3CX3000F1516.00	4CX20000A1495.00	866A 7.25	8791VI
3CX3000F7610.00	4CX35000C5525.00	866AX	8792 680.00
3CX10000A31130.00	4CX40000G 7075.00	872A 18.00	8792VI 690.00
3CX10000A7 .1440.00	4X150A 50.00	4055VI 165.00	8806
3CX10000U7 .2045.00	4X500A 320.00	5762 545 . 00	8807 2660.00
3CX15000A3 .1387.00	4-65A 65.00	5867A	8873
3CX15000A7 .1340.00	4-125A75.00	5879 4 . 80	8874 191.00
3CX20000A7 .1873.00	4-250A 90 . 00	5924A 825.00	8875 191.00
3-400Z 90.00	4-400A 95.00	5933	8890 2600 . 00
3-500Z99.00	4-400AX165.00	6076 695.00	8891
4CV35000A2625.00	4-400B130.00	6076A 650.00	8916
4CX250B57.00	4-400C 95.00	6146A 8.95	8976 2832.00
4CX250BC71.00	4-500A221.00	6146B 8.95	8977 2600.00
4CX250K126.00	4-1000A 420.00	6155	8984 6300.00
4CX250R95.00	5CX1500A 650.00	6156 90 . 00	8985 1650.00
4CX300A184.00	5CX3000A900.00	6161	8986
4CX300Y205.00	5-500A 260.00	6166A (7007)2640.00	8988
4CX350A99.00	9C25 9200.00	6181	9007

RCA CAMERA TUBES

PART NO.	PRICE	PART NO.	PRICE	PART NO.	PRICE	PART NO.	PRICE
BC4390 series 19 BC4391 series 22 BC4392 series 23 BC4393R 25 BC4394 series 25 BC4396 series 24 BC4532U 13	222.00 350.00 555.00 555.00 400.00	BC4592 series BC4593R BC4594 series BC4809 BC4809B BC4908 series BC4909	2444.00 2444.00 . 750.00 . 750.00 1955.00	BC4992 series BC4993R BC4994 series 5820A/L 7295C 7389C	2555.00 2555.00 3295.00 2950.00	BC7735	766.00 766.00 1350.00 1915.00 275.00

NEW CUSTOMERS—we accept telephone orders. Inquire about our convenient Net 30 terms.

Prices and items subject to change or withdrawal without prior notice.

TOLL FREE 800-526-6362

7 DAYS—24 HOUR EMERGENCY PHONE SERVICE GET'EM
WHILE
THEY'RE
HOT!

TEN OF THE
MOST
POPULAR
TUBES NOW

Limited to extent of inventory on hand.

DISCOUNTED

TUBE				SUGG. RESALE
3CX1500A7	\$421.	\$46 5.	\$425.	\$574.
3CX2500A3	415.	432.	432.	583.
3CX3000A1	415.	432.	432.	583.
3CX3000F1	480.	516.	491.	663.
3CX15000A7	1325.	1340.	1340.	1675.
4CX1000A	345.	370.	365.	493.
4CX3000A	825.	871.	830.	1037.
4CX5000A	995.	1025.	1000.	1250.
4CX10000D	1015.	1069.	1200.	1500.
4CX35000C	5325.	5525.	5600.	7000.

TOLL FREE WEST COAST 800-421-7549

CALVERT ELECTRONICS, INC. 🖃 🗄

Circle (38) on Action Card ONE BRANCA ROAD, EAST RUTHERFORD, NJ 07073 800-526-6362 • 201-460-8800 • TWX 710-989-0116/ERFD • TELEX 4990274

West Coast: 1355 Redondo Avenue, Suite 6, Long Beach, CA 90804 = 213-498-3504/3184
England: Imperial House, Victoria Rd., Chelmsford, Essex CM1 1NY = Telephone: 0245 358585 = Telex: 995849

3M Company, Magnetic A/V Products Division Marathon Products Procart Ramko Research Singer Products Company Tapecaster TCM, Inc. UMC Electronics Western Broadcasting

STEREO CARTS

Aristocart
Broadcast Electronics
Capitol Magnetic Products
Century 21 Programming
Continental Electronics Mfg.
Consolidated Electronics Ind.
Continental Recordings
D - B Electronics
Fidelipac
Harris Corp., Broadcast Products
IGM Communications
3M Co., Magnetic AIV Products
Marathon Products
Ortoton Manufacturing
Procart
Ramko Research
Singer Products Company
Tapecaster TCM, Inc.
UMC Electronics
Western Broadcasting

RECONDITIONING SERVICES

Aristocart
Broadcast Electronics
Capitol Magnetic Products
Century 21 Programming
Colorado Magnetics
The Management
Marathon Products
RCA Service Co.
Re-Play Video Cartridge Service
Sound Dynamics
Tapecaster TCM
United Research Lab. Co.
Western Broadcasting

RELOADING SERVICES

Aristocart
Capitol Magnetic Products
Colorado Magnetics
Consolidated Electronic Ind.
Leader Broadcast Systems
Marathon Products
Re-Play Video Cartridge Service
Western Broadcasting

STORAGE RACKS & CABINETS

Advance Products
Anvil Cases Aristocart **Broadcast Electronics** CSP Inc. Cetec Broadcast Group
Consolidated Electronic Ind. Continental Electronics Mfg. Continental Recordings Display Media Dyma Engineering Equipto Fidelipac Harris Corp., Broadcast Products IGM Communications Leader Broadcast Systems Leedal Marathon Products Corp. Micro-Trak Corporation Neumade Products RMS Electronics Inc. Research Technology Int'l. Ruslang See Hear Industries Stantron Storeel Corporation Tascam Videomedia Western Broadcasting Winsted Corporation

CARTRIDGES, PHONO

AKG Acoustics AKG Akustische u. Kino-Gerate The Astatic Corp. Audio-Technica US, Inc. David H. Brothers, Co. Cetec Broadcast Group Continental Recordings Fidelipac Corp. IGM Communications Ortofon A/S Panasonic, Professional Audio Division Shure Brothers Sonic Research Stanton Magnetics VIF International Vidaire Electronics Mfg.

CASES, PORTABLE EQUIPMENT

William Bai Corporation

CASSETTE MACHINES

SINGLE DECK
AIWA
Amilon
Audiotronics
BASF Limited
Bell Audio Systems
Edco Products
Eumig USA
Fernseh
IGM Communications
Javelin Electronics
Neal Ferrograph (USA)
Pentagon Industries, Inc.
Ramko Research
Sharp Electronics
Studer ReVox America
Tascam
Teac Corp. of America
Tellex Communications
Tiffen Mfg. Corp.

DUAL DECK Amilon

Fernseh Leader Broadcast Systems Pentagon Industries, Inc. Sharp Electronics Tape-Athon / Cavox Stereo Prod.

MULTIPLE DECK

Amilon
Fernseh
Otari Corp.
Pentagon Industries, Inc.
Tape-Athon / Cavox Stereo Prod.
VIF International

DUPLICATION MACHINE

David H. Brothers Co.
Lyrec Manufacturing A/S
Master Digital Inc.
Otari Corp.
Pentagon Industries
Ramko Research
See Hear Industries
Sharp Electronics
Tape
Telex Communications
Valentino Production Music
Triple I Inc.

CAVITY

Varian Associates

CHARACTER GENERATOR

AVL Digital
Adwar Video
Aston Electronic Designs Ltd.
Aurora Systems
Autographics
BEI (Beston)
Robert Bosch GmbH
The BTX Corporation
C-M-C Technology Corp.
Chrono-log Corporation
Chyron Corporation
Comad Communications
Computer Video Systems

Datametrics-Dresser Datatron Datum Dubner Computer Systems Dynamic Technology Ltd. Dynaquip Electron Devices Ltd. EECO Incorporated EEV Elektroimnex Fernseh For-A Corporation Interand Knox Video Products Laird Telemedia Lang Video Systems Logica MCI/Quantel 3M Company MPB Technologies
McInnis Skinner & Assoc. Multidyne Electronics Portac Potomac Marine & Aviation Pro-Bel QSI Systems Quanta Corporation RCA Broadcast Systems Shintron Television Graphics Texscan Thomson-CSF Broadcast Tore Seem
Torpey Controls & Engineering United Media Unitel Velec Sefat Video Data Systems Videomedia

CHOKES

Michael Cox

CSP Inc.
Cletronics
Peter W. Dahl Co.
Millen Components
North Hills Electronics
Wilkinson Electronics

CHOPPERS

T M Systems

CHROMA KEYERS

American Data
Robert Bosch GmbH
Broadcast Video Systems
Central Dynamics Ltd.
Cezar International
Michael Cox
Crosspoint Latch Corp.
Crow of Reading Ltd.
Dytek
EchoLab
Grass Valley Group
Image Video Limited
Industrial Sciences, Inc. (ISI)
International Nuclear Corp.
Marcom Communication Systems
NEC America
Panasonic Video Systems
RCA Broadcast
Shintron
Telemet
Thomson-CSF Broadcast
Vamco
Videomedla
Vital Industries

CHROMA KEYER DECODER

Barco Electronic Broadcast Video Systems Michael Cox Crow of Reading Ltd. Faroudja Laboratories Image Video Limited Link Electronics RCA Broadcast Systems Siegel-Electronics Thomson-CSF Videomedia

CLOCKS & COUNTERS

COUNTER, DOWN Applied Technology BEI (Beston Electronics) Broadcast Aids Broadcast Electronics C-M-C Technology Corp. Cinetronics Chrono-log Corporation Harris Corporation, Broadcast Products Division IGM Communications Image Video'Limited KB Systems Leader Broadcast Systems McCurdy Radio Industries
Nationwide Electronic Systems QSI Systems Standard Electric Time Corp. Thomson-CSF Torpey Controls & Engineering Vamco Engineering

COUNTER, UP Applied Technology Autocue Products Ltd. **BG** Engineering Broadcast Aids Broadcast Electronics Chrono-log Corporation Cinetronics Datametrics Dynaquip Electron Devices Ltd. Harris Corporation, Broadcast Products Division IGM Communications Image Video Limited KB Systems McCurdy Radio Industries Nationwide Electronic Systems Norcom Manufacturing Pacific Recorders PWH Electronics Limited QSI Systems Radio Systems Ramko Research Sharepoint Systems Standard Electric Time Corp. Tapecaster TCM Thomson-CSF Torpey Controls & Engineering Vamco Engineering

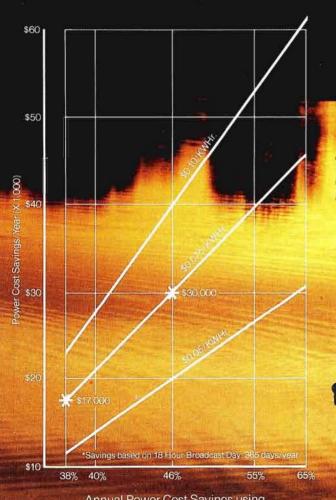
COUNTER, UP / DOWN ADM Technology
Applied Technology Autocue Broadcast Aids Broadcast Electronics CSP Inc. Chrono-log Corporation Datametrics Dynaquip Electron Devices Harris Corporation, Broadcast Products Division IGM Communications Image Video Limited Jatex Inc. KB Systems Kajaani Oy Laird Telemedia Leader Broadcast Systems Logitek Electronic Systems McCurdy Radio Industries Multidyne Electronics Nationwide Electronic Systems QSI Systems Rangertone Research Inc. Standard Electric Time Corp. Tapecaster TCM

Torpey Controls & Engineering

Continued on page 68

Thomson-CSF

EEV high efficiency UHF klystrons pay for themselves...in 1 to 3 years!



Annual Power Cost Savings using EEV 55KW high efficiency klystron vs. older generation 30% efficiency klystron

These are the facts.

- Over 70 EEV 55KW high efficiency external cavity klystron installations made during the past three years.
- These klystrons are operating from 38% to 46% efficiency vs. average of 30% efficiency for older generation klystrons.
- Annual power cost savings from \$17,000 to \$30,000 for single tube installations.*
- Existing transmitters upgraded with new FEV klystrons operating from 38% to 40% Eff
- New transmitter installations with EEV kiystroms operating from 40% to 46% Eff
- Life and reliability proven by 1400 installations
- EEV 55kW high efficiency klystrons available for UHF channels 14 to 78.
- Development work being completed to attain 55%-65% efficiencies for external cavity klystrons with modulating anode or grid pulsing vs. kystron's intrinsic 46% efficiency.

With these facts you can predict your power cost savings when you install EEV's 55KW high efficiency external cavity klystron.

Start now

Specify EEV for your existing or new transmitter or

Convert and upgrade your internal cavity klystron system to EEV's external cavity klystron.

Every week you delay installing an EEV 55KW high efficiency klystron can represent an additional 4400KW to 7500KW on your power bill.

*Based on an 18 Hour Broadcast Day and \$0.75/KWHr.



EEV, INC.

7 Westchester Plaza, Elmsford, NY 10523, 914-592-6050, Telex 646180 In Canada: EEV CANADA, LTD., 67 Westmore Drive, Rexdale, Ontario, M9V 3Y6, 416-745-9494, Telex 06-989363 In Europe: English Electric Valve Co. Ltd., Chelmsford, England CM1 2QU Tel: 0245 61777, Telex 851-99103

Circle (39) on Action Card

Wide Range Electronics Vamco Engineering

STATION CLOCKS

Autocue Beaveronics Broadcast Aids Broadcast Electronics Continental Electronics Mfg. D-B Electronics Datametrics Datum Dukane Corp. Dynaquip Electron Devices FFV ESE Glentronix Ltd. Greg Laboratories IGM Communications Leader Broadcast Systems Leitch Video McCurdy Radio Industries
Multidyne Electronics
Nationwide Electronic Systems QSI Systems Ramko Research Sharepoint Systems
Standard Electric Time Corp.
Torpey Controls & Engineering True Time Instruments, Div. of Kinemetrics

COILS, RF

Geleco Electronics

COLLIMETER

Optical & Textile Ramko Research

COLOR CORRECTOR

Angenieux
Robert Bosch GmbH
Broadcast Video Systems
Corporate Communications
Consultants
Michael Cox
Crow of Reading Ltd.
Dubner Computer System
For-A Corp. of America
Harris Corp., Broadcast Products
Ikegami
Kollmorgen, Photo Research Div.
Marcom Communication Systems
Marconi Electronics
Phase Video Inc.
RCA Broadcast Systems
Rank Cintel
Scantex Laboratories, Inc.
Slegel-Electronics
John M. Sullivan Assoc., Inc.
Television Equipment Associates
Thomson-CSF-Broadcast
Videomedia

COMBINER, POWER

Aydin Monitor Systems Broadcast Electronics Comark Communications Continental Electronics Elcom Specialty Products Harris Corporation, Broadcast

Products Division
McMartin Industries
Marconi Electronics, Inc.
Micro Communications
Microwave Power Devices
Mu-Del Electronics
Sait Electronics
Shively Laboratories
Television Technology
Tennaplex System Ltd.
Thomson-CSF

COMMUNICATIONS SYSTEMS

ENG Comrex Marti Electronics

LAND MOBILE

AEG-Telefunken (Bayly Engr.) AEL (Am. Elec. Labs)
American Laser Systems American Microsignal Artel Communications Centro Communications Control Center Computon Inc.
Dell Technical Vehicles ENG Helicopter Satellites, Ltd. GTE Products Corp. Harris Corp., Broadcast Products Microwave Power Devices Moseley Associates Motorola Comm. and Elec. Nady Systems Northland Communications Penn Beth Marketing Phelps Dodge Communications Printer Terminal Communications RCA Broadcast Systems Radiotechniques Regency Rivers Associates Scientific Radio Systems Setcom Sonar Radio Standard Communications Swintek Enterprises Texscan Corp

MICROWAVE

AEG-Telefunken
Bayly Engineering)
AEL (American Electronic
Laboratories)
Aydin Microwave
CALDATACOM
Centro
Coastcom
Compucon
Datum
Dell Technical Vehicles
ENG Helicopter Satellite Ltd.
Farinon Video/Harris Corp.
GTE Products Corp.
Harris Broadcast Microwave
Harris Corporation, Broadcast
Products Division
Hughes Aircraft, Microwave
Communications Products

International Microwave Corp.
Lang Video Systems
MiA-COM Video Systems
Microwave Power Devices
Moseley Associates
Motorola Communications
and Electronics
NEC America
Nurad
RF Technology
Radiotechniques
Standard Telephon und Radio
Tayburn
Television Technology

Texscan Corp.

MULTIPLEX

AEG-Telefunken (Bayly Engr.)
Artel Communications
Aydin Microwave
Broadcast Electronics
CALDATACOM
Coastcom
Foundation Electronic instruments
GTE Products Corp.
Grass Valley Group
Johnson Electronics, Inc.
International Microwave Corp.
Javelin Electronics
Harris Corp./Farinon Video
Kalart Victor Corporation
M/A-COM Video Systems
Modulation Associates
Moseley Associates
Mosley Associates
Motorola C & E

Optical & Textile Potomac Marine & Aviation Radiotechniques C.N. Rood BV Siemens

STL SYSTEMS AEG-Telefunken (Bayly Engr.) Artel Communications Aydin Microwave Broadcast Electronics CALDATACOM Cetec Broadcast Group Coastcom Compucon, Inc. Comsearch, Inc. Continental Electronics Farinon Video/Harris Corp. GTE Products Corp. Harris Broadcast Microwave International Microwave Corp. McMartin Industries M/A-COM Video Systems Micro Control Associates Moseley Associates RF Technology Radiotechniques C.N. Rood B.V. Telemet Television Technology Wold Communications

TSL SYSTEMS Marti Electronics TFT Inc.

COMPARATOR, TIME

Datum ESE True Time Instruments

COMPARATOR, VIDEO

Angenleux Corp. of America Autogram Michael Cox Leitch Video Mead Data Central C.N. Rood BV Video Aids of Colorado

COMPUTERS

Automated Business Concepts The Broadcast Center Cetec Broadcast Group Chase Media Computer Business Systems Computer Management Systems Cox Data Systems Data Communications **EEG Enterprises** Harris Corporation, Broadcast Products Division Kaman Sciences McInnis/Skinner & Associates Mead Data Central Nidus Broadcast Systems Ortoton Manufacturing Salt Electronics Station Business Systems
Telesource Communication Services Video Specialties Weather Services Int'i

COMPUTER SYSTEMS & SERVICES

BUSINESS/ACCOUNTING Automated Business Concepts BIC Computers The Broadcast Center Jim Cason Electronics Cetec Broadcast Group Chase Media Columbine Systems Computer Business Systems

Computer Concepts Computer Management Systems
Consolidated Electronic Ind. Cox Data Services Custom Business Systems Data Communications Groton Computer Harris Corporation, Broadcast Products Division IGM Communications Jefferson Data Systems Kaman Sciences Marketron Mead Data Central NEAS NET Enterprises Nidus Broadcast Systems Patrick Computer Systems Radio Computing Services Research Technology Int'l. Southwestern Programming Service Station Business Systems Teknektron Controls
Telmar Media Systems

NEWSROOM
BEI (Beston Electronics)
BIC Computers
Basys Inc.
Chase Media
Data Communications
Harris Corporation, Broadcast
Products Division
Integrated Technology
Jefferson Data Systems
Kaman Sciences/BCS
Logica
McInnis-Skinner & Associates
Mead Data Central
New England Digital Corp.
Radio Computing Services
Spectra Computer Systems
SynSat International
TVNS

TRAFFIC/PROGRAMMING
Automated Business Concepts
BIC Computers
The Broadcast Center
Cetec Broadcast Group
Chase Media
Columbine Systems
Computer Business Systems
Computer Concepts
Computer Management Systems
Consolidated Electronic Ind.
Cox Data Services
Custom Business Systems
Data Communications
Groton Computer
Harris Corporation, Broadcast

Texscan/MSI Corp.

Products Division
IGM Communications
Jefferson Data Systems
Kaman Sciences/BCS
The Management
Marketron, Inc.
Mead Data Central
NEAS
Nidus Broadcast Systems
Patrick Computer Systems
Radio Computing Services
Salt Electronics
Statton Business Systems
Vital Industries

WEATHER

Aurora Systems
Computer Video Systems
Information Processing Systems
McInnis-Skinner & Associates
Mead Data Central
New England Digital Corp.
Spectra Computer Systems
SynSat International
Technology Service
Texscan/MSI Corp.
Weather Services Int'l
Weatherscan International

Continued on page 70

STUDIO OR STADIUM, FUJINON'S NEW BCTV LENSES PLAY ALL THE ANGLES.

From super-wide to ultra-tele, in the studio or the stadium, Fujinon BCTV lenses are the clear winners . . . from any angle.

NEW. Fuiinon's P28x15 ESM - the super studio lens. It gives you a wall-towall 15mm wide angle and a

maximum aperture of F/2.2 which is maintained out to ten times. Even at 420mm, the F/4.2 allows you to keep your lighting levels reasonable. And for the tightest shots, the builtin 1.7X extender takes you to 714mm. Naturally, it has a builtin diascope for near instant computer setup. But range and speed do not reveal the incredibly sharp, bright, high contrast image the new 28X delivers. Its superior resolution and color performance place it ahead of any lens in its class.

NEW, Fuiinon's P17x16.5 ESM — the standard studio lens. With a zoom range from 16.5 to 280mm, an aperture which will remain flat at F/2.1 out to 217mm and built-in 1.5X and 2X extenders, here's the lens destined to be the industry workhorse for years to come. Simply put, it offers virtually every performance and operating feature - including built-in diascope — you're likely to need

Not new. Fujinon's P30x20 ESM - the super field lens. Whether picking up the clearest shot of the space shuttle lifting off or a concert stage from the back of the top balcony, it goes out farther and flatter to deliver outstanding images . . especially under lighting conditions that leave other lenses in the dark. Total zoom range, with the built-in 2X extender

P28x15 ESM

15~420mm

28¥

F/2.2

.95m

1.7X

17X

F/2.1

.75m

Specifications:

Focal Length

Zoom Ratio

M.O.D.

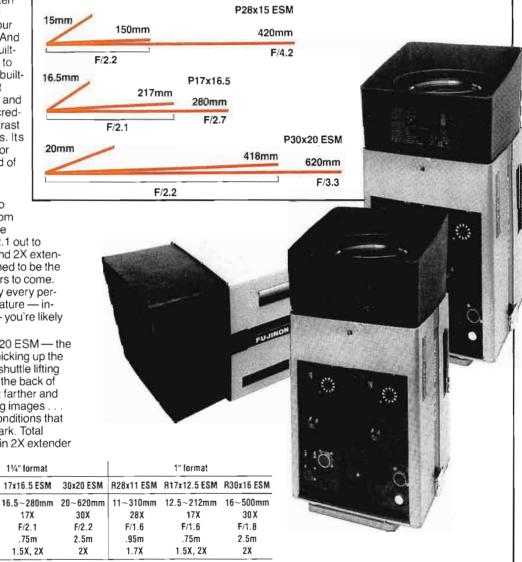
Max. Aperture

Range Extender

is an incredible 20 to 1240mm. The F/2.2 aperture remains flat from 20 to 418mm - and at 620mm is giving you F/3.2. No wonder the 30X lens is acknowledged by the industry as the finest field zoom available.

For more information on the newest

and finest BCTV lenses, and why they are the best performance investment for your new or existing cameras, contact Fujinon. Large format zoom lenses are another reason why the world sees itself more clearly through the eyes of Fujinon.





FUJINON INC.

672 White Plains Road, Scarsdale, New York 10583 (914) 472-9800 Telex: 131642

118 Savarona Way, Carson, California 90746 (213) 532-2861 Telex: 194978

Circle (40) on Action Card

CONSOLES. AUDIO

BROADCAST MONO ADM Technology ALICE (Stancoil Ltd.) Amek TAC Ampro/Scully Arrakis Auditronics Audix Limited Autogram Broadcast Audio Assoc Broadcast Audio Corp. Broadcast Electronics Broadcast Technology Cetec Broadcast Group Coherent Communications Continental Electronics Mfg. Datatronix Dyma Engineering Elcom-Bauer Elektroimpex Enertec Schlumberger EV-Tapco Farrtronics Finntek Full Compass Systems Greg Laboratorles
Hallikalnen and Friends Inc.
Harris Corporation, Broadcast Products Division Harrison Systems Howe Audio IGM Communications
Industrial Sciences Inc. LPB Inc. Leader Broadcast Systems Logitek MBI Broadcast Systems MCI Inc. McCurdy Radio Industries McMartin Industries Micro - Trak Corporation Modular Audio Products Georg Neumann GmbH Rupert Neve Opamp Labs Pacific Recorders Processing Plus ProTech Audio Corporation Quad Eight Quantum Audio RCA Broadcast Systems Ramko Research Richmond Sound Design C.N. Rood BV Russco SATT Electronics Sait Electronics Scantex Laboratories Slemens AG Osterreich Singer Products Company Solid State Logic Sontec Electronics Sound Dynamics Spectra Sonics Sphere Electronics Studer International Studer ReVox America Tangent Systems Tascam, Div. of Teac. TOA Electronics Tramec Electronics Trident Tweed Audio USA **UMC Electronics** URE Ultra Audio Pixtec VIF International

BROADCAST MONO MODULAR

Ward - Beck Systems Ltd.

Yamaha International

ADM Technology ALICE (Stancoll Ltd.) Amco Engineering Amek TAC Arrakis Systems Auditronics Audix Limited Autogram Corp. Automated Processes BFE KG Broadcast Audio Assoc. Broadcast Audio Corp. Broadcast Electronics

Broadcast Technology Cetec Broadcast Group Coherent Communications Custom Audio Elect Datatronix Dyma Engineering Electro-Voice/E.V. Tapco Elektroimpex Enertec Schlumberger Farrtronics Finntek Full Compass Systems Greg Laboratories Hallikainen and Friends Harris, Broadcast Products Harrison Systems IGM Communications LPB Inc. Leader Broadcast Systems Listec Logitek Electronic Systems McCurdy Radio Industries MBI Broadcast Systems McMartin Industries Micro - Trak Corporation Modular Audio Products Georg Neumann GmbH Opamp Labs Rupert Neve ProTech Audio Corporation Quad Eight Elec Quantum Audio RCA Broadcast Systems Ramko Research Richmond Sound Design C.N. Rood BV Salt Electronics Scantex Laboratories Siemens AG Osterreich Solid State Logic Sontec Electronics Spectra Sonics Sphere Studer International Studer Revox America Tangent Systems Inc. Trak Audio Tramec Electronics Trident Tri Tec Systems Inc. Tweed Audio USA UMC Electronics UREI VIE International

Ward - Beck Systems Ltd.

BROADCAST STEREO ADM Technology ALICE (Stancoil Ltd.) Amek TAC Ampro / Scully Arrakis Systems Audio Interface Inc. Auditronics Audix Limited Audy Instruments, Inc. Autogram Corp. Broadcast Audio Assoc. Broadcast Electronics Broadcast Technology Cetec Broadcast Group Coherent Communications Continental Electronics Mfg. Datatronix Dyma Engineering EV-Tapco Elcom-Bauer Elektrolmpex Enertec Schlumberger Farrtronics Finntek Limited Full Compass Systems Greg Laboratories Harris Corporation, Broadcast Products Division Harrison Systems Howe Audio IGM Communications Integrated Sound, GLI Div. LPB Inc. Leader Broadcast Systems Logitek Electronic Systems McCurdy Radio Industries McMartin Industries MBI Broadcast Systems

Micro - Trak Corporation Modular Audio Products Opamp Labs Rupert Neve Pacific Recorders Panasonic, Professional Audio Division Processing Plus
ProTech Audio Corporation Quad Eight Electronics Quantum Audio RCA Broadcast Systems Radio Systems Inc. Ramko Research Richmond Sound Design Rohde & Schwarz C.N. Rood BV Russco SATT Electronics Sait Electronics Scantex Laboratories Siemen AG Osterreich Singer Products Company Solid State Logic Sontec Electronics Soundcraft Electronics Spectra Sonics Sphere Electronics Studer International Studer ReVox America John M. Sullivan Associates TOA Electronics Tangent Systems Tascam, Div. of Teac Tramec Electronics Trident (USA) Inc. Tweed Audio USA UMC Electronics VIF International Ward - Beck Wilkinson Electronics Yamaha International

BROADCAST STEREO

MODULAR ADM Technology ALICE (Stancoil Ltd.) Amco Engineering Co. Amek TAC Arrakis Systems Auditronics Audix Limited Audy Instruments Autogram Corp.
Automated Processes
BFE KG Broadcast Audio Corp. Broadcast Electronics Broadcast Technology Cetec Broadcast Group Coherent Communications Custom Audio Elect Datatronix Dyma Engineering Electro-Voice/EV Tapco Elektrolmpex
Enertec Schlumberger
Farrtronics Greg Laboratories Harris, Broadcast Products Harrison Systems Howe Audio Kajaani Oy LPB Inc. Leader Broadcast Systems Logitek Electronic Systems McCurdy Radio Industries McMartin Industries MBI Broadcast Systems Micro - Trak Corporation Modular Audio Products Georg Neumann GmbH Opamp Labs Rupert Neve Pacific Recorders ProTech Audio Corporation Quad-Eight Electronics Quantum Audio RCA Broadcast Systems

Ramko Research

Rohde & Schwarz

Richmond Sound Design

C.N. Rood BV Sait Electronics Scantex Laboratories Siemens AG Osterreich Solid State Logic Sontec Electronics Soundcraft Electronics Spectra Sonics Sphere Electronics Studer Revox America TOA Electronics Tangent Systems Inc. Tascam, Div. of Teac Trak Audio Tramec Electronics Trident Tri Tec Systems Inc. Tweed Audio USA UMC Electronics UREI VIF International Ward - Beck Westrex

PORTABLE FOR REMOTES

ADM Technology AEG-Telefunken (Bayly Engineering) ALICE (Stancoll Ltd.) ATI Audio Technologies Inc. Amek TAC Applied Technology Arrakis Systems Audio Processing Systems Auditronics Audix Limited Audy Instruments BSM Systems Don Britton Ent. Broadcast Audio Assoc. Broadcast Electronics Cetec Broadcast Group Coherent Communications Comrex Corp. Continental Electronics Mfg. Crosspoint Latch
Custom Audio Electronics Datatronix
Dyma Engineering
ENG Helicopter Satellite Ltd. EV-Tapco Electro-Voice Enertec Schlumberger Environmental Container Systems Full Compass Systems Hallkainen & Friends Harris Corporation, Broadcast Products Division Harrison Systems IGM Communications Integrated Sound LPB Inc. Leader Broadcast Systems Listec TV Equipment Logitek McCurdy Radio Industries McMartin Industries MBI Broadcast Systems MCI Micro - Trak Modular Audio Products Moseiey Associates Rupert Neve Georg Neumann Opamp Labs Panasonic, Professional Audio Division Processing Plus ProTech Audio Corporation Quad Eight Electronics RTS Systems Ramko Research Richmond Sound Design C.N. Rood BV Russco SATT Electronics Sait Electronics Scantex Laboratories Sescom Shure Brothers Slemens AG Osterreich Sontec Electronics

Continued on page 72

Soundcraft Electronics

Sound Dynamics

Spectra Sonics

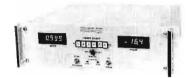
DELTA BROADCAST PRODUCTS

AMC-1/FMC-1



The Modulation Controllers are the only modulation controlling systems that provide a completely closed loop around the transmitter. The sampling of actual modulation levels after the PA output network assures precise adjustment for optimum modulation levels. The AMC-1/FMC-1 also keep a digital count of positive and negative overmodulation bursts for both present and previous one minute periods.

DAM-1



The Digital Antenna Monitor couples pushbutton ease of operation with digital accuracy. The DAM-1 will accept RF samples from up to 12 towers (with an auxiliary panel) and features \pm 1° phase and \pm 2% current ratio accuracies. Remote panels and other accessories are available.

AAM-1



The Analog Antenna Monitor gives stable phase and ratio readings even in high RF fields. Separate phase and ratio mirrored-scale meters assure accurate meter indications.

RCS-1V



The RCS-1V Remote Control System combines microprocessor technology with simplified operation. Features include direct interface boards for antenna monitors, patented remote modulation bargraph, automatic logging, and synthesized speech telephone interface. The modular design allows the customer to plug in additional input or control boards to expand remote control capabilities even after the system is operating in the field.

APC-1



The Automatic Power Controller is your insurance against citations for over- and under-power operation. The APC-1 continuously monitors the transmitter output power, and makes automatic power adjustments with the transmitter loading control. This assures proper power adjustment at all times.

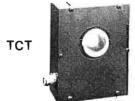
6730-E 6740-B



Designed to switch two transmitters from antenna to dummy load, the 6730E interfaces with 15/8 inch coaxial cable. For 31/8" lines, the 6740-B transfer switch is used. Either manually or remote controlled, the Transfer Switch is fully interlocked and can be wired to existing equipment to prevent "hot" switching.



State of the art antenna current metering has arrived in the TCA Ammeter Systems. Accurate, Modulation-free, temperature stable current indications are found in the TCA. Models include single and dual scale meters



Delta's Toroidal Current Transformers provide accurate sampling current and phase values without the problems associated with sampling loops. Three output voltage ranges are available, as well as high voltage models for high-power facilities.

OIB-1



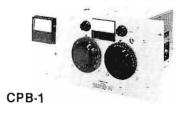
The Operating Impedance Bridge measures the impedance of networks, radiators, and the like white they operate under full power. VSWR as well as complex impedances of up to $400 \pm j300$ ohms can be measured

The OIB-3 Operating Impedance Bridge provides extended resistance and reactance ranges, measuring up to 1000 ± j900 ohms. The bridge has a built-in carrying case and RF amplifier for improved nulling.



RG-3

The Receiver/Generator combines a twowatt RF output and a correlation detector circuit that virtually eliminates interference problems. The RG-3 can be used in conjunction with any conventional impedance bridge including the OIB series.



The Common Point Impedance Bridge is designed for permanent installation; and allows continuous monitoring of the common point, thus facilitating network adjustment. This model can be provided with one of Delta's TCA ammeters mounted in the front panel.

DELTA ELECTRONICS



5730 GENERAL WASHINGTON DRIVE P.O. Box 11268 • ALEXANDRIA, VIRGINIA 22312 TELEPHONE: 703-354-3350 TWX: 710-832-0273

Circle (41) on Action Card

Sphere Electronics
Studer International
Studer ReVox America
TOA Electronics
Tascam, Div. of Teac
Tramec Electronics
Trident
Tweed Audio USA
Ultra Audio Pixtec
VIF International

Zercom Corp RECORDING STUDIO ALICE (Standoil Ltd.)
Amco Engineering Co. Amek TAC Arrakis Systems Audio Processing Systems Auditronics Audix Ltd. Audy Instruments Autogram Corp. BFE KG Don Britton Ent. Broadcast Electronics Broadcast Technology Cetec Broadcast Group Datatronix EV-Tapco Electro-Voice Elektroimpex Enertec Schlumberger Finntek Limited Harris Corpolitation Harrison Systems IGM Communications Kalaani Ov Kajaani oy LPB Inc. Logitek Electronic Systems McCurdy Radio industries MBI Broadcast Systems Micro-Trak Corp. Modular Audio Products Rupert Neve Georg Neumann GmbH Opamp Labs Panasonic, Professional Audio Div. ProTech Audio Corporation Pyramid Loudspeakers Quad Eight Electronics RCA Broadcast Systems Ramko Research Richmond Sound Design Russco Sait Electronics Sandar Slemens AG Osterreich Slerra Audio Singer Products Company Solld State Logic Sontec Electronics
Soundcraft Electronics Spectra Sonics Sphere Electronics Studer International Studer ReVox America Tascam, Div. of Teac Tecnicobel Tri Tec Systems Inc. Trident (USA) Inc.

ROUTING ALICE (Stancoil Ltd.) Arrakis Systems Audix Limited Audy Instruments Bogen Division / Lear Siegler Broadcast Technology
Communications Control Centers Michael Cox Crosspoint Latch Datatek Dí-tech Dyma Engineering Dynair Edco Products Elektroimpex Enertec Schlumberger Full Compass Systems Hallikainen & Friends Harrison Systems

Tweed Audio USA

Ward-Beck Systems

VIF International

Westrex

HEDCO/Hughes Electronic Devices Corp. Image Video Limited Industrial Sciencies Inc. (ISI) International Nuclear Key Video Ltd.
McCurdy Radio Industries
Modular Audio Products Rupert Neve Pro-Bel ProTech Audio Corporation Richmond Sound Design Roh Corporation Sait Electronics Scantex Laboratories Siemens AG Osterreich Spectra Sonics TBC Pye Ltd. Tecnicobel Trident (USA) Tri Tec Systems Inc. Tweed Audio USA Ultra Audio Pixtec

Viscount Industries TV PRODUCTION ADM Technology ALICE (Stancoil Ltd.) Altha Video & Elec. Corp. Amco Engineering Co. Amek TAC Arrakis Systems Auditronics Audix Limited Audy Instruments Autogram Corp. BFE KG Don Britton Eng. Broadcast Audio Corp. Broadcast Technology Cetec Broadcast Group Coherent Communications Michael Cox Crosspoint Latch Datatronix
Dyma Engineering
ENG Helicopter Satellite Ltd. EV-Tapco Elektroimpex Enertec Schlumberger Farrtronics Finntek Limited Full Compass Systems General TV Network Hallikainen and Friends Harrison Systems Industrial Sciences Inc. (ISI) Kajaani Oy LPB Inc. Listec TV Equipment Logitek Electronic Systems MBI Broadcast Systems MCL Inc. McCurdy Radio Industries McMartin Industries
Marcom Communication Systems Micro - Trak Corporation Modular Audio Products Rupert Neve Georg Neumann Opamp Labs ProTech Audio Corporation Quad-Eight Electronics Ramko Research Richmond Sound Design Russco SATT Electronics AB Sait Electronics Scantex Laboratories Siemens AG Osterreich Solid State Logic Spectra Sonics Sphere Electronics Studer International Studer ReVox America

Tecnicobel

Tri Tec Systems Inc.

Trident (USA) Inc.

Tweed Audio USA UREI

Ultra Audio Pixtec

Ward-Beck Systems

CONSOLES, VIDEO

CCTV/EDUCATIONAL AVL Digital Ltd.
Altha Video & Elect. Corp. American Data Angenieux Beaveronics Robert Bosch GmbH Central Dynamics Convergence Michael Cox Crosspoint Latch Delta Systems Dyma Englneering Flectrohome Elektroimpex G.B.C. Closed Circult TV Grass Valley Group Industrial Sciences Inc. (ISI) Javelin Electronics Kalart Victor Corporation Lang Video Systems Marcom Communication Systems Motorola Communications & Electronics Ross Video Sandar Electronics A/S Shintron Tech Electronics Telemet Texscan/MSI Corp. Thomson-CSF U.S. JVC Corporation Viscount Industries VItal Industries

MASTER CONTROL AVL Digital Ltd. Altha Video & Elect. Corp. American Data BFE KG Robert Bosch GmbH Broadcast Video Systems Central Dynamics Centro Michael Cox Crosspoint Latch Crow of Reading Ltd. Delta Systems Dyma Engineering Grass Valley Group Image Video Limited Industrial Sciencies (ISI) International Nuclear Javelin Electronics NET Enterprises Rohde & Schwarz Ross Video Thomson-CSF Vital Industries

PORTABLE PRODUCTION AVL Digital Ltd. Adwar Video American Data Ampex Asaca/Shibasoku BFE KG Beaveronics Broadcast Video Systems Central Dynamics Centro Convergence Michael Cox Crosspoint Latch Crow of Reading Ltd. Datatron Delta Systems Dyma Engineering
ENG Helicopter Satellite Ltd. Echolab, Inc.
Electro & Optical Systems
Environmental Container Systems General TV Network Image Video Limited Industrial Sciences, Inc. (ISI) Kaitronics Corp. Lang Video Systems NEC America NET Enterprises Panasonic Quantum Audio Labs Rohde & Schwarz

Shintron Sony Thomson-CSF Toshiba International U.S. JVC Corporation Videcome Engineering Videomedia Viscount Industries Vital Industries Winsted Corporation

POST PRODUCTION Adwar Video Altha Video & Elect. Corp. American Data BCB Electronic Sales Beaveronics Robert Bosch GmbH Central Dynamics Ltd. Michael Cox Crosspoint Latch Crow of Reading Ltd. Delta Systems Dyma Engineering Echolab, Inc. General TV Network Grass Valley Group Harris Corporation Industrial Sciences (ISI) Lang Video Systems **NET Enterprises** Quantum Audio Labs Ross Video Scantex Laboratories Shintron Solid State Logic Thomson-CSF Unemco International Viscount Ind Vital Industries Winsted Corp.

ROUTING AVL Digital Altha Video & Elect. Corp. American Data BFE KG Robert Bosch GmbH Broadcast Video Systems Channelmatic Michael Cox Crosspoint Latch Crow of Reading Ltd. Datatek Corp. Delta Systems Dyma Engineering
Dynair Electronics Fernseh Inc. Grass Valley Group HEDCO Image Video Ltd. Industrial Sciencies (ISI) International Nuclear Key Video Ltd. Lang Video Systems NEC America NET Enterprises Pro-Bel Sandar Electronics A/S Scantex Laboratories TBC Pye Ltd. Telemet Thomson-CSF Viscount Ind. Vital Industries

STUDIO PRODUCTION Adwar Video Altha Video & Elect. Corp. American Data BFÉ KG Beaveronics Robert Bosch GmbH Broadcast Video Systems Central Dynamics Ltd. Convergence Michael Cox Crosspoint Latch Crow of Reading Ltd. Datatron Delta Systems Dyma Engineering Dytek General TV Network

Continued on page 74

Ross Video

THE WORD IS OUT!

Vanguard Helps Editors Learn Procedures

CP/I ASSIGNABLE COAXIAL INTERFACING

HELPING EDITORS LEARN PROCEDURES

SYNC ROLL WITH EFFECTS (SRE)

SPECIAL FUNCTION CONTROL (SFC)

LIST MANAGEMENT,
RIPPLE TEXT EDIT, CLEAN-IT AND
BLOCK MOVES

CHECKERBOARD, PREVIEW, SEQUEN-TIAL AND CONTINUOUS

ROLL AUTOMATIC ASSEMBLY

CMX 300/340X COM-PATIBLE EDL

LAST EDL EVENT ON CRT

CLIENT I/D IN HEADER

SMART SCAN SLOW MOTION EDITING OPTION

EDIT LIST COMMENTS

COLOR FRAME PHASE ON CRT

SPLITS WITH TWO AUDIO TRACKS

FIVE VTR ROLL

320 EVENTS MEMORY OPTIONAL 500 EVENTS

AUTO SCROLL OF THE EDL

USER DEFINABLE REACTION TIME, POST ROLL, PREROLL

REPLAY

DF/NDF CONVERSION AND MIXED FORMAT READING

SCRATCH PAD MEMORY WITH MATH FUNCTIONS

ASSIGNABLE RECORD/ PLAY CONFIGURATION OF ANY DECK

HIGH SPEED FLOPPY DISK

DUAL VARASCAN CONTROL OPTION

SMPTE/CTL READING

ENGLISH ERROR MESSAGES

ON THE FLY EDITING CAPABILITIES

datatron, inc.

VIDEO SYSTEMS DIVISIONS

2942 Dow Ave., Tustin, California 92680 (714) 544-9970 • TWX 910-595-1589

Circle (42) on Action Card

Grass Valley Group Harris Corporation Ikegami Electronics Image Video Limited Industrial Sciences (ISI) International Nuclear 3M Company MCI / Quantel Marcom Communication Systems NEC America NET Enterprises Panasonio Piher Pye TVT Quantum Audio Labs RCA Ross Video Ltd. Russco Slemens Seltech Shintron Strand Century Thomson-CSF Viscount Industries VItal Industries Winsted Corporation

STUDIO PRODUCTION WITH DIGITAL EFFECTS Altha Video & Elect. Corp. American Data Ampex Robert Bosch GmbH Central Dynamics Ltd. Convergence Crow of Reading Ltd. Delta Systems Dyma Engineering Grass Valley Group Industrial Sciences (ISI) Marcom Communication Systems Master Digital Inc. NEC America NET Enterprises Pye TVT Ross Video Thomson-CSF Vital Industries

CONSULTING SERVICES

AVC Action Video Inc. Aderhold Construction Co. Angenieux Corp. of America Bonneville Satelilte Corp. Robert Bosch GmbH Walter S. Brewer Co Don Britton Ent. The Broadcast Center Broadcast Aids Inc. Candex Pacific Canter-Redman Technologies Jim Cason Electronics Compucon Computer Management Systems Comsearch
Corporate Communications Consultants Crosspoint Latch Crowder Communications Davis Electronics John J. Davis & Associates Dell Technical Vehicles Deltamod Dyna Engineering
Dynamic Technology
East Coast Video Systems
Electro-Acoustic Designs Electro Controls Elektroimpex Engineering Associates
G. A. Gilbreath Associates Graham-Patten Systems General TV Network The Graphic Express Harris Corporation Hoppmann Corp. Imero Fiorentino Associates Interface Video Systems Inc. Jamieson and Associates

Jenel Consultants Kitchen Productions
Lighting Elimination Associates McCurdy Radio Industries MBI Broadcast Systems The Management Master Digital Inc. Kenneth R. Meades Merlin Engineering Midwest Corp.
Multiphase Consulting Musicues Corp. **NET Enterprises** L.E. Nelson Corp. Panoak Lighting Systems Potomac Marine & Aviation Processing Plus
Pyramid Loudspeaker Corp. R.A.V.E./Reliable Audio Video Enterprises Radiotechniques Rees Associates Inc. Rivers Associates Rosner Television Systems Scantex Laboratories Shane Media Services Siemens AG Osterreich Sierra Audio Shafer Associates Soll Inc. Spectrum Instruments Spencer Broadcast Standard Telephon Und Radio TVNS Technology Service Corp. Telecommunications Systems Teleconcepts in Communications Television Technology Thomson-CSF

COUPLERS, HYBRID

Video-Ink Albert Walsh & Associates

Weather Services Int'I

AVA Electronics
Alford Mfg. Co.
Coaxlal Dynamics
Comrex Corp.
Dielectric Communications
Harris Corporation, Broadcast
Products Division
Howe Audio Marketing
Magnavox CATV Systems
Micro Communications
Narda Microwave Corp.
North Hills Electronics
RMS Electronics
RTS Systems
Scientific-Atlanta, Phoenix
Division
Shively Laboratories
Vidaire Electronics Mfg.
Wide Band Engineering

CONVERTERS, A-D, D-A

Apert-Herzog Computer Labs, Div. of Analog Devices, Inc. Consolidated Electronic Ind. Datel-Intersil Eagle Comtronics Electroline TV Equipment Global Video Comm. Corp. Grove Video ILC Data Device Jerrold Division, General Instruments Corp. Johnson Electronics Moseley Associates, Inc. Potomac Marine & Aviation Scientific-Atlanta, Phoenix Division Tektronix Thomson-CSF Vidalre Electronics Mfg.

CRT DISPLAYS & CONTROLLERS

Ann Arbor Terminals, Inc.
Dynair Electronics
EEV Inc.
Electrohome Ltd.
Harrison Systems
Harrls Corporation
IGM Communications
Lexicon, Inc.
Moseley Associates, Inc.
Tektronix
Theatre Techniques Inc.
World Video Inc.

CRYSTALS

Calvert Electronics
Edison Electronic Co.
Elcom Specialty Products
Elektroimpex
Harris Corporation, Broadcast
Products Division
Moseley Associates
Motorola Communications
& Electronics
Thomson-CSF
Wilkinson Electronics

CUE SYSTEMS, REMOTE

Autocue Cetec Vega

Channelmatic Coastcom Comrex Consolidated Elec. Ind. D'San Corporation Edcor IGM Communications Leader Broadcast Systems Modulation Associates Monroe Electronics Motorola Comm. & Elec. Nady Systems
Panoak Lighting Systems
ProTech Audio Corporation RTS Systems Roh Corporation Swintek Enterprises Television Equipment Associates Thomson-CSF Unemco International Video Tape Systems

DECODERS

CLOSED CAPTIONING Barco Video Systems EEG Enterprises Inc. NET Enterprises Unitel

COMB
Amtron Corp.
Barco Video Systems
Broadcast Video Systems
Canter-Redman Technologies
Michael Cox
Faroudja Laboratories
QSI Systems
Rohde & Schwarz
Siegel Electronics
TTE Inc.
Thomson-CSF

DIGITAL SYNC
Central Dynamics Ltd.
Crosspoint Latch
Digital Video Systems
Jerrold Division, General
Instrument Corp.
Rohde & Schwarz
Thomson-CSF

STEREO Rohde & Schwarz C.N. Rood B.V.

STV, PAY TV Blonder-Tongue Laboratories Dynacom Electronics Fung Eng. Labs., Inc. Oak Communications, CATV Division Satcom Inc.

TONE
AEG-Telefunken
(Bayly Engineering)
American Microsignal
Cetec Vega
Channelmatic
Communications Control Centers
Deltamod
Di-tech
Frequency Devices
Gorman-Redlich
IGM Communications
Jatex Inc.
McMartin Industries
Modulation Associates
Monroe Electronics
Potomac Marine & Aviation
Rivers Associates
Rohde & Schwarz
Texscan/MSi
Trepac Corp. of America

UMC Electronics

TONE, EBS

Broadcast Electronics
ESE

Emergency Alert Receiver
Gorman-Redlich Mfg. Co.
International Nuclear Corp.
Johnson Electronics
McMartin Industries
ProTech Audio
Rivers Associates
Rohde & Schwarz
UMC Electronics

DEGAUSSER

R. B. Annis Co.
Comprehensive Video Supply
Fidelipac
Fluxcom
Garner Industries
IGM Communications
Nalpak Sales
Nortronics
Research Technology Int'l.
Rohde & Schwarz
Sonar
United Research Lab Corp.

DE-ESSERS

ATI Audio Technologies Inc. Audio & Design Recording Datatronix IGM Communications Georg Neumann Valley People

DELAY, AUDIO TAPE

Fidelipac IGM Communications

DELAY LINES, AUDIO

AKG Acoustics AKG Akustische u. Kino-Gerate Advanced Analog Systems Allen Avlonics Audio & Design Recording Broadcast Technology Comex Systems DeltaLab Research





MAGNA-TECH THE SOUND HEARD AROUND THE WORLD

Magnetic Film Recorders and Reproducers for Television and Film Sound Post-Production

HIGH SPEED

Telecine Magnetic Followers Video Tape-Film Interlock Electronic Looping **Dubbing Systems** 16 and 35mm Electronic Projectors Total Facility Engineering

WORLDWIDE SALES OFFICES

Paris

Hi-Fidelity Services 4 Rue Semard 75009 Paris, France

Sydney

Magna-Techtronics (Aust.) PO Box 150 Crows Nest NSW 2064 Australia - Telex 24655

Johannesburg

General Optical Co., Ltd. 15 Hulbert Road Johannesburg 2001, South Africa

Rome

Alberto Sciaretta Via Siria 24 Rome Italy 00179 Tel: 794-3618

Brussels

A.R.C. Rue de Boisde Linthout 45 1200 Brussels Belgium

Hong Kong Paul Yang and Associates 901 Star House 3 Salisbury Road Kowloon, Hong Kong

Capt. P.K. Vishwanath 234/4 Rama Baug, Deodhar Road Bombay 400 019, India

Kehl

Zenon GmbH Postfach 1743 Hauptstrasse 128 Kehl am/Rhein West Germany Tel: 07851/2991 Telex: 753537

London

Branch & Appleby 42 High Street Harrow-on-the-Hill Middlesex HAI 3LL, England

Kuala Lumpur

Kinematronika Sdn. Bhd. 2852, Jalan Selangor/ Persekutuan. Federal Hill Kuala Lumpur, Malaysia

Caracas

Cine Materiales srl Apartado Postal 61.098 Caracas 106 Venezuela

MAGNA-TECH ELECTRONIC CO., INC.

630 Ninth Avenue, New York, N.Y. 10036

Telephone (212) 586-7240

Telex 126191

Cables "Magtech"

ESC Electronics
Elektrolmpex
EventIde Inc.
Hammond Industries
IGM Communications
Industrial Research Products
Klark-Teknik Research
Leader Broadcast Systems
Lexicon
MXR Innovations
ProTech Audio Corporation
Spectra Sonics
T M Systems, Inc.
TT Electronics, Inc.
UREI
URSA Major, Inc.

DELAY LINES, VIDEO

Allen Avionics American Data Anders Inc. Andersen Laboratories Broadcast Video Systems Michael Cox ESC Electronics
Eagle Contronics Fairchild CCD Imaging Faroudia Laboratories Grass Valley Group Leitch Video Link Electronics Listec TV Equipment NEC America Rohde & Schwarz Sandar Electronics A/S TT Electronics Television Equipment Assoc. Thomson-CSF

DELAY MACHINE, TALK SHOW

Comrex

DEMODULATORS, OPTICAL

Artel Communications Corp. Foundation Electronic Instruments Telemet Times Fiber Communications

DEMODULATORS, VIDEO

Artel Communications Corp. Barco Video Systems Blonder-Tongue Laboratories Comark Communications **EEG Enterprises** Electro & Optical Systems Fung Engineering Labs Harris Corp. Broadcast Products Javelin Electronics Jerrold Div., Gen. Instrument Lang Video Systems Lenco Inc. Optek Inc. Phasecom Hans Plisch QSI Systems R. E. Instruments Rohde & Schwarz Scientific-Atlanta TL Systems Tektronix Telemet Television Technology Thomson-CSF Townsend Associates Triple Crown Electronics Videomedia

DETECTORS

MICROWAVE
Coaxial Dynamics, Inc.
GTE Products Corp.
Gralex
Harris Corporation,
PRD Electronics Div.
Marconi Instruments Ltd.
Metrifast
Moseley Associates
Narda Microwave
Varian Associates

Velec Safat

Velec Safat

QUADRATURE DISTORTION Rohde & Schwarz Telemet

RF DETECTOR
Bird Electronic Corp.
Coaxlal Dynamics
Comark Communications
Harrls Corporation, Broadcast
Products Division
Harris Corporation, PRD
Electronics Division
Moseley Associates
Potomac Instruments
Rohde & Schwarz
Telemet
Television Technology
Texscan Corp.
Velec Sefat
VItek Electronics
Wavetek Indiana
Wide Band Engineering

VIDEO PRESENCE AVL Digital Channelmatic Michael Cox Di-tech Graham-Patten Systems International Microwave Javelin Electronics

Rivers Associates Telemet Vidicraft Video Alds of Colorado

DE-TUNING UNITS

BES Electronics CSP Inc. Dyma Engineering

DIGITAL VIDEO ANALYZER

Amtron Corp. Apert-Herzog NET Enterprises Rohde & Schwarz Tektronix

DIGITIZER, COLOR

Alford Mfg. Co. Amtron Corporation of America Aurora Systems Grove Video Gralex Technology Service Corp. Thomson-CSF

DIPLEXER

(See Antenna Accessories)

DISCS, VIDEO

Ampex Arvin Echo Eigen Video Grove Video Oktel Corporation
PrecIsion/Echo Science
Tele Concepts In Communications
Thomson-CSF
U.S. JVC Corporation
Videomedia

DISPLAY UNITS, (TIME TEMP, ID)

(See Also Character Generators) BEI (Beston Electronics Inc.) Channelmatic
Cherry Elec. Prod. Corp.
Chrono-log Corporation Cinema Products Computer Video Systems Datum Gralex Grove Video EEV Inc. Harris Corporation, Broadcast Products Division IGM Communications Jatex Inc Kajaani Oy Logitek Multidyne Electronics QSI Systems Texscan/MSI Corp. Thomson-CSF Torpey Controls Unitel Vamco Engineering Velec Sefat Visual Methods

DIVIDERS, POWER

CSP Inc. Comark Communications Comtech Data
Cosmin Electronics Crowder Communications Dielectric Communications Elcom-Bauer Gardiner Communications
Harris Corporation, Broadcast Products Division Micro Communications Moseley Associates Mu-Del Electronics Narda Microwave Corp. North Hills Electronics Phelps Dodge Communications Rohde & Schwarz SED Systems Scala Electronic Shively Laboratories, Inc. Television Technology Thomson-CSF Trompeter Electronics Wide Band Engineering

DROPOUT COMPENSATOR

Merlin Engineering NEC America One Pass Video RCA Broadcast Systems Siegel-Electronics Studer ReVox America John M. Sullivan Assoc., Inc. Thomson-CSF Video I-D Videomedia

EARTH TERMINALS, RECEIVE ONLY

AEG-Telefunken Amplica, Inc. Anixter-Mark Automation Techniques Aydin Microwave Blonder-Tongue Laboratories

Bonneville Satellite Corp. California Microwave Comad Communications Compucon Comtech Data Corp. Conifer Crowder Communications Electrohome Ltd. Gabriel Electronics Gardiner Communications
Harris Corporation, Broadcast Products Division International Microwave Lang Video Systems Lindsay Specialty Products M/A-COM Video Systems Microdyne Microwave Communications Products Modulation Associates NEC America Pinzone Communications RF Technology Rohde & Schwarz SED Systems Satcom Inc. Scientific-Atlanta Standard Communications TL Systems
Television Technology
Thomson-CSF Triple Crown Electronics Velec Sefat Wold Communications

EARTH TERMINALS, RECEIVE/TRANSMIT

AEG-Telefunken
Anlxter-Mark
Aydin Microwave
Bonneville Sateilite Corp.
California Microwave
Comad Communications
Compucon
Comtec Data Corp.
Crowder Communications
Harris Corporation, Broadcast
Products Division
Hughes Television Network
M/A-COM Video Systems
Microdyne Corp.
Modulation Associates
SED Systems
Sclentific-Atlanta
Thomson-CSF
Varian Associates
Wold Communications

EDIT CODE GENERATOR

Aston Electronic Designs Ltd.
The BTX Corporation
C-M-C Technology Corp.
Coherent Communications
Control Video Corporation
Datametrics
Datatron
Datum
EECO Incorporated
ESE
For-A Corp. of America
Gray Engineering Labs
Jatex Inc.
Kaitronics
NET Enterprises
Shintron
Skotel Corporation
Telcom Research
Unnemco International
United Media

EDIT CODE RECEIVER

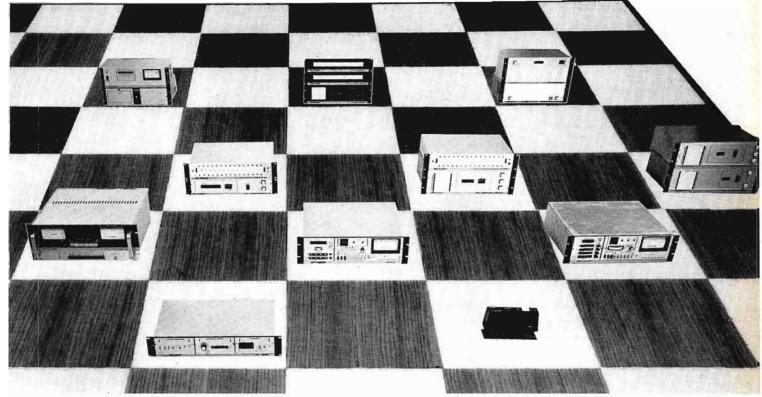
The BTX Corporation C-M-C Technology Corp. Coherent Communications Control Video Corporation Convergence

Continued on page 78

Velec Safat

Videotek





ACROSS THE BOARD!

Since 1970, TFT, Inc. has been a pioneer in state-of-the-art broadcast technology. As such, we have been able to always keep one move ahead in cost-effective design to provide reliable, versatile and innovative products to the broadcast industry.

TFT was the first to use frequency synthesized circuits in its full line of AM, FM, TV, stereo and SCA **Modulation Monitors.**TFT concepts in **Remote Control Systems** now allow expansion all the way to microprocessor based data logging, display and

alarm systems. In the relatively new field of **Studio Transmitter Links**, TFT has made major contributions through the use of IF modulation transmitters and pulse counting discriminators to improve both S/N ratio and stereo performance.

Even in the **Emergency Broadcast System** (**EBS**), TFT has taken a leadership role in the development of both EBS generators and receivers.

Now, it's your move! Call or write TFT today for full facts on their winning product lines.



3090 OAKMEAD VILLAGE DR. SANTA CLARA, CA 95051 (408) 727-7272 TWX 910-338-0584

WHO MAKES IT

Datametrics Datatron Datum Dynaquip Electron Devices Ltd. EECO Incorporated ESE Electro & Optical Systems For-A Corp. of America Gray Engineering Labs Inc. Jatex Kaltronics Shintron Skotel Corporation Steenbeck Telcom Research Thomson-CSF Torpey Controls & Engineering Unemco International United Media

EDITOR, AUDIO

The BTX Corporation
Control Video Corp.
Datatron
EECO Inc.
Editall Corp.
Jatex
Leader Broadcast Systems
Musicues
Quad-Eight Electronics
Scantex Laboratories
Stenbeck
United Media

EDITOR, FILM

CMX Systems/Orrox Cinema Products
Compro Productions Datatron J&R FIIm Co., Inc. K B Systems Kalart Victor Corporation Leedal 3M Company, Video Products Magnasync / Moviola Mobile Visual Productions Neumade Products New Earth TV Works PAG FIlms Ltd. Paulmar Research Technology Int'l. Scantex Laboratories Steenbeck Thomson-CSF Unidek Film Editing Systems The Virginia Company

EDITORS, VIDEO

CCTV / INDUSTRIAL Adwar Video BCB Electronic Sales Cezar International, Ltd. Cinema Products Control Video Corp. Convergence Michael Cox Datatron EMS Inc. General Television Network Harris Video Systems Jatex Javelin Electronics 3M Company Panasonic Industrial Sait Electronics Sony Corp. of America Thomson-CSF U.S. JVC Corporation Unemco International United Media Videomedia/S.E.D.

ENG / FIELD PRODUCTION CMX Systems/Orrox. Cezar International Control Video Corp. Michael Cox Crow of Reading Ltd. Harris Video Systems Panasonic Sony US JVC Corporation Video I-D Videomedia

STUDIO PRODUCTION
Adwar Video
Ampex
BCB Electronic Sales Ltd.
BTX Corp.
Robert Bosch GmbH
Television Systems Div.
Cezar International, Ltd.
CMX / Orrox
Compro Productions
Control Video Corp.
Convergence
Michael Cox
Crow of Reading Ltd.
Datatron
EECO Incorporated

Fernseh General Television Network Harris Corp., Broadcast Products Div. Interface Video Systems

Broadcast Products Div. Interface Video Systems Jatex 3M Company Microvision New Earth Television Work System, Ltd.

Panasonic RCA Broadcast Systems Scantex Laboratories Thomson-CSF Tore Seem

Unemco International United Media Inc. U.S. JVC Corp. Video I-D VIdeomedia

Adda Corporation Adwar Video

EFFECTS SYSTEM, DIGITAL VIDEO

Ampex Aurora Systems Robert Bosch GmbH Television Systems Div. Broadcast Video Systems Central Dynamics Ltd. Colorado Video Convergence
Data Communications
Digital Video Systems The Grass Valley Group Grove Video Harris Video Systems Interand MCI/Quantel NEC America Inc. Broadcast Equipment Precision/Echo Science Quantel Limited Texscan/MSI Corporation Thomson-CSF Video I-D Vldeomedla Vital Industries

ELECTROMAGNETICS FOR KLYSTRON TUBES

Thompson-CSF Varian Associates

ENCODERS

CLOSED CAPTIONING EEG Enterprises Logica

COLOR VIDEO Asaca/Shibasoku Broadcast Video Systems Cezar International Cohu, Electronics Division Michael Cox
Fernseh
For-A Corporation
Grove Video
Harris Corporation, Broadcast
Products Division
Regami
Jatex
Jerrold Div., General Instrument
Lenco
Marcom Communication Systems Ltd.
Marconi Electronics, Inc.
MPB Technologies
QSI Systems
Siegel - Electronics
Thomson-CSF
Videomedia

TONE

AEG-Telefunken
(Bayly Engineering)
American Microsignal
Bogen Division / Lear
Siegler, Inc.
Cetec Vega
Channelmatic
Comex Systems
Communications Control Centers
Deltamod
Di-tech
Edcor
Frequency Devices
Gorman Redlich
IGM Communications
McMartin Industries
Monroe Electronics, Inc.
Motorola Communications &

EBS
Broadcast Electronics
ESE
Gorman-Redlich Mfg. Co.
International Nuclear Corp.
Johnson Electronics
McMartin Industries
Rivers Associates

Rivers Associates, Inc.
Trepac Corporation of America

ENHANCERS, VIDEO IMAGE

Adwar Video Asaca/Shibasoku Robert Bosch GmbH Cohu, Electronics Division Composite Video Consolidated Video Crow of Reading Ltd. Edutron Faroudja Laboratories Fernseh Inc Grove Video Harris Video Systems lkegami Lectrotech, Inc. Listec Television Equipment Corp. Microtime Piclear, Inc. Siegel - Electronics Simon Associates John M. Sullivan Associates Thomson-CSF Vldeo I-D Video Optics Video Products/3M Vidicraft

ENHANCERS, STEREO PHASE

ATI Audio Technologies Inc. Audionics of Oregon Kintek Howe Audio Marketing Rupert Neve Orange County

EQUALIZERS

AUDIO ADM Technology

(Bayly Engineering)
ATI Audio Technologies Inc. Amek TAC American Data Aphex Systems Ltd. Audio & Design Recording Audio Processing Systems Audisar Audix Ltd. Bogen Division / Lear Slegler, Inc.
Broadcast Electronics Broadcast Technology C-Cor Electronics Composite Video Continental Electronics Mfg. Crown International Datatronix Dolby Labs Dukane Corp. Dyma Engineering Electro-Voice/EV Tapco Electroline Television Equipment Elektroimpex Enertec Schlumberger Farrtronics
Frequency Devices
Georg Newmann GwbH Hammond Industries Harrison Systems IBX Inc. Integrated Sound GLI Div. International
Electro-Magnetics, Inc. Ivle Electronics
Kahn Communications Kintec Klark-Teknik Research Ltd. Leader Broadcast Systems, Inc. Leevers Rich Equipment Ltd. MXR Innovations, Inc. McCurdy Radio
McMartin Industries
Modular Audio Products NTP Electronik A/S **Rupert Neve** Georg Neumann Opamp Labs Orban Associates Processing Plus ProTech Audio Corporation Pulse Techniques Inc. (Pultec) Quad-Eight Electronics Ramko Research Research Systems Tech., Inc. Richard Sound Design C.N. Rood B.V. SAF Sescom, Inc. Shure Brothers Siemens Ag Osterreich Sontec Electronics Sound & Light Co. Spectra Sonics Spectrum Instruments Sphere Electronics John M. Sullivan Associates Superex Electronics Corp. TOA Electronics TTE Inc. Tascam, Div. of Teac Tri Tec Systems Inc. Tweed Audio USA, Inc. Valley People VIF International Ward-Beck Systems

VERTICAL APERTURE Electroline Television Equipment Thomson-CSF

White Instruments

VIDEO
AVL Digital Ltd.
Allen Avionics
American Data
Robert Bosch GmbH
CMC technology Corporation
Cohu, Electronics, Div.
C-Cor Electronics
Composite Video
Michael Cox
Datatek

For Pal/SECAM heterodyne VTRs

The advantages of component-coding in a proven, digital TBC

Recently, many experts have called for a digital standard based on component coding.

At Harris, we agree. We've been using it in our digital time base correctors since 1976 when, as Consolidated Video Systems, we introduced the CVS 517.

Today, the CVS 517 is acknowledged as the most versatile and effective TBC available — proven in over 500 installations.

The 517's unique architecture processes the video signal in *component* form instead of in *composite* form. This component coding technique results in a system that is inherently immune to color phasing problems and horizontal picture shift, or "cycle jump".

In addition, you receive real benefits in your day-to-day operation:

Inherent immunity to color subcarrier editing problems.

- Excellent time base correction because there is no need to track the jittering subcarrier.
- Improved odd field and rough edit processing.
- Chroma noise reduction of 3db, without degradation of the luminance component.
- Better signal-to-noise ratio than composite systems with the same bit rate.

What's more, the CVS 517 features, as standard equipment: one-cable gen-lock, a DOC and a full proc amp with auto preset controls.

Plug-in options include: SECAM; Dub-to-Hiband for mains lock heterodyne-to-direct VTR dubs; 16 line memory; and an adjustable Image Enhancer/Noise Reducer with coring.

For details and a demonstration, contact your Authorized HVS Distributor, or the HVS office nearest you.

Be sure to ask for our free booklet about the basics of time base correction.



COMMUNICATION AND INFORMATION PROCESSING

HARRIS CORPORATION Harris Video Systems 1255 East Argues Avenue, Sunnyvale, CA 94086 (408) 737-2100





Dynair Electronics, Inc.
Dynamic Technology Ltd. Electroline Television Equipment GBC Closed Circuit TV Corp. The Grass Valley Group HEDCO Industrial Sciences Inc. (ISI) International Nuclear Corp.
Javelin Electronics Leitch Video Lenco Link Electronics Multidyne Electronics Opamp Labs Pro Bel Ltd. Superex Electronics Corp. Telemet, Div. of Geotel Television Equipment Associates Thomson-CSE TTE Inc. Vital Industries

EQUIPMENT BUILDINGS PREFABRICATED

Fort Worth Tower Co. Harris Corporation Portatronics

EQUIPMENT CARRYING SYSTEMS

CASES A&S Case Co. Adwar Video Anvil Cases William Bal Corporation Bardwell & McAlister David H. Brothers, Co. Calzone Case Co. Cases Inc. Comprehensive Video Supply Environmental Containers Systems Inc. Excalibur Industries Fiberbilt The Great American Market Harris Corp./Farinon Video Impact Case Sales Limited K&H Products Leader Broadcast Systems Lowel-Light Mfg. Co. Nalpak Sales O'Connor Engineering Labs Panasonic Panoak Lighting Systems Portatronics Research Technology Int'l. See Hear Industries Sharp Electronics Simon Associates
Thermodyne International Ltd.

CASES WITH WHEELS

A&S Case Co. Adwar Video Anvil Cases William Bal Corporation Bardwell & McAlister Calzone Case Co. Cases Inc. Environmental Container Systems Inc. Excalibur Industries Fiberbilt The Great American Market K&H Products Leader Broadcast Systems Nalpak Sales PAG Group Portatronics Schuessler Case Sharp Electronics John M. Sullivan Associates Thermodyne International Ltd.

DOLLIES Adwar Vidoe Anvil Cases Bardwell & McAlister Bretford Mfg.
Comprehensive VIdeo Supply
Excallbur Industries
Fiberbilt
GKM Manufacturing Corp.
Gruber Products
Harris Corporation
K&H Products
Leader Broadcast Systems
Lee-Ray Industries
PAG Group
Portatronics
Roil-A-Reel Co.
Stantron Div. of Wyco
Metal Products
John M. Sullivan Associates

EXCITERS

AM EXCITER
Acrodyne
Bayly Engineering
Comad Communications
Continental Electronics Mfg.
Elcom Specialty Products
Harris Corporation, Broadcast
Products Division
LPB Inc.
McMartin Industries
Rohde & Schwarz GmbH & Co. KG
Rohde & Schwarz GmbH & Co.

AM STEREO
Belar Electronic Labs
Comad Communications
Continental Electronics Mfg.
Elcom Specialty Products
Harris Corporation, Broadcast
Products Division
Kahn Communications
McMartin Industries
Motorola Inc. Special Products
Processing Plus
Rohde & Schwarz GmbH & Co. KG

Rohde & Schwarz
Tramec Electronics

FM EXCITER
AEG-Telefunken
(Bayly Engineering)
Acrodyne
Broadcast Electronics
Cetec Broadcast Group
Comad Communications
Continental Electronics Mfg.
CSI Inc.
Crowder Communication
Elcom Bauer
Harrls Corporation, Broadcast
Products Division
LPB Inc.
McMartin Industries
Moseley Associates

NEC America, Inc.
Broadcast Equipment
QEI Corp.
RCA Broadcast Systems
Rockwell International
Rohde & Schwarz
C.N. Rood B.V.
Singer Products Inc.
Scientific-Atlanta
Solid Electronics Laboratories
TBC Pty. Ltd.
Thomson-CSF

Versa - Count

Wilkinson Electronics

FM STEREO
AEG-Telefunken
(Bayly Engineering)
Broadcast Electronics
Comad Communications
Continental Electronics Mfg.
Crowder Communications
Elcom Specialty Products
Elcom Bauer
Fung Engineering Labs Inc.

Harris Corporation, Broadcast Products Division LPB Inc. McMartin Industries
Marconi Electronics, Inc. Moseley Associates NEC America Inc. Broadcast Equipment Orban Associates Pyramid Loudspeaker QEI Corp. RCA Broadcast Systems Rohde & Schwarz GmbH & Co KG Rohde & Schwarz C.N. Rood B.V. Singer Products Inc.
Solid Electronics Laboratories TBC Pty. Ltd Thomson-CSF Tramec Electronics Versa - Count

SCA EXCITER
Broadcast Electronics
Cetec Broadcast Group
Comad Communications
Continental Electronics Mfg.
Elcom Specialty Products
Elcom Bauer
Harris Corporation, Broadcast
Products Division
McMartin Industries
Moseley Associates
QEI Corp.
Rohde & Schwarz
C.N. Rood B.V.,
Solid Electronics Laboratories
Versa - Count

FIBER-OPTIC TRANSMISSION SYSTEM

AEG-Telefunken (Bayly Engineering) American Laser Systems Artel Communications Belden Robert Bosch GmbH, Television Systems Div.
Catel, Div. of United Scientific Foundation Electronic Instruments GTE Products Corp. The Grass Valley Group ILC Data Device Corp LeCroy Research System M/A-COM Video Systems Moseley Associates NEC America Inc. R. E. Instruments Standard Telephon UND Radio Telemet, Div. of Geotel Thomson-CSF Times Fiber Communications

FIBER OPTIC FOTOR

Tektronix

FIELD VIDEO SETUP MODULE

Altha Video & Elect. Corp. Cinema Products Lang Video Systems One Pass Video Porta-Pattern Telecommunications John M. Sullivan Associates

FILM & ACCESSORIES & SERVICES

8mm/16mm Buhl Optical Co. Compro Productions The Durafilm Co. Eastman Kodak Goldberg Bros. Inc. Houston Pearless 76 Inc.
J&R Film Co. Inc.
K B Systems
Leo Diner Film
Magna-Tech Electronic Co., Inc.
Magnasync/Moviola
Mobile Visual Productions
Optical & Textile
PAG Films Ltd.
W.A. Palmer Films
Paulmar Inc.
Rangertone Research Inc.
Rank Cintel
Schuessler Case
Starex Inc.
Unidek Film Editing Systems
The Zei-Mark Corp.

DUBBING SYSTEMS Magna-Tech

REWINDERS
Goldberg Bros. Inc.
J&R Film Co., Inc.
K B Systems
Kalart Victor Corporation
Kinetronics Corporation
Lipsner-Smith
Magnasync/Moviola
Neumade Products
PAG-Group
Paulmar Inc.
Research Technology, Int'l.
Sigma Film Equipment

SOUND TRANSFER
Eastman Kodak
Image Transform
K B Systems
Leo Diner Films
Lipsner Smith Co.
Magna-Tech Electronic
Magnasync/Moviola
Multi-Track Magnetics
PAG-Films Ltd.
W.A. Palmer Films, Inc.
Rangertone Research Inc.
Rank Cintel
E.J. Stewart Inc.

TO VIDEOTAPE TRANSFER Adwar Vidoe Cinema Products Fastman Kodak Image Transform, Inc. Interface Video Systems, Inc. Leo Diner Films Lipsner Smlth, Co. One Pass Video Magnasync/Moviola Mobile Visual Productions Multi-Track Magnetics W.A. Palmer Films Piclear Inc. Quad Eight Rank Cintel E.J. Stewart, Inc. Thomson-CSF Video Dub The Zei-Mark Corp

FILM CHAIN LIGHT

BEI (Beston Electronics)
Elicon
Industrial Sciences Inc. (ISI)
Laird Telemedia, Inc.
Lipsner Smith, Co.
The Zei-Mark Corp.

FILM CHAIN SYSTEMS

(See Also Projectors and Cameras)
Robert Bosch GmbH
Television Systems Div.
Buhl Optical
Cohu, Electronics Division
Fernseh Inc.
Global Video Comm. Corp.

SAVE MONEY CHECK OUR MONTHLY SPECIALS

Serving the industry Since 1922

World's largest franchised distributor of electronic tubes

Serving over 5,000 stations

FREE GIFTS FIND OUT HOW TO QUALIFY PHONE OR WRITE



BROADCAST TUBES



WE WILL NOT BE UNDERSOLD

TRANSMITTING	TRANSMITTING	CAMERA TUBES	AIR SYSTEM	AIR SYSTEM
TUBES	TUBES	BC4390 series \$1820	SOCKETS	SOCKETS
3B28\$ 10.00	5-500A225.00	BC4391 series2140	SK-300470.00	SK-890B234.00
3CW20000A31400.00	575A27.00	BC4392 series2270	SK-300A	SK-900283.00
3CW20000A71495.00	673.00	BC4393R2460	SK-310380.00	01.300200.00
3CX1000A7500.00	80227.50	BC43942460	SK-400235.00	
3CX1500A7460.00	80550.00	BC4532U1325	SK-41032.00	CHIMNEYS
3CX2500A3426.00	8075.50	BC4592 series 2195	SK-500336.00	SK-309625.00
3CX2500F3390.00	81060.00	BC4593R2350	SK-51032.50	SK-31625.00
3CX3000A1420.00	81340.00	BC4594 series2350	SK-60047.00	SK-40657.00
3CX3000A7540.00	8165.25	BC4809720	SK-600A	SK-41627.00
3CX3000F1495.00	82880.00	BC4809B720	SK-60268.00	SK-50685.00
3CX3000F7602.00	833A80.00	BC4908 series 1875	SK-602A72.00	SK-516105.00
3CX10000A31062.00	866A6.80	BC49091955	SK-60756.00	SK-60610.00
3CX10000A71420.00	872A15.50	BC4992 series2280	SK-61052.00	SK-62610.00
3CX15000A31350.00	889RA1775.00	BC4993R2460	SK-610A60.00	SK-636B29.00
3CX15000A71330.00	891R2220.00	BC4994 series2460	SK-61141.00	SK-64658.00
3CX20000A71855.00	892R2200.00	5820A L 3060	SK-61272.00	SK-65658.00
3-400Z82.00	4055V I105.00	7295C2835	SK-620A59.00	SK-80631.00
3-500Z88.00	5762 910.00	7389C2855	SK-630A61.00	SK-81627.00
4CV35000A2165.00	58794.00	BC7735240	SK-640 34.00	SK-90644.00
4CX250B55.00	5924A795.00	BC8134810	SK-650	SK-130637.00
4CX250BC68.00	593315.25	BC8134B775	SK-1300319.00	SK-140632.00
4CX250K120.00	6076540.00	84801315	SK-1310336.00	SK-142635.00
4CX250R87.00	6076A625.00	BC84801945	SK-1320366.00	SK-221648.00
4CX300A175.00	6146A7.25	BC8507270	SK-1400A430.00	5K-221040.00
4CX350A105.00	6146B	BC8541270	SK-1420570.00	DOLID CTATE
4CX350F118.00	615570.00	VIDICONS FOR CCTV	SK-1470A555.00	SOLID STATE
4CX1000A365.00	615670.00		SK-1490522.00	REPLACEMENTS
4CX1000K450.00	6161395.00	20PE1126.25	SK-1500A984.00	FOR VACUUM
4CX1500A579.00	6166A(7007)2220.00	20PE13A 26.25	SK-1510A1149.00	TUBE RECTIFIERS
4CX1500B460.00	6696A2790.00	20PE1428.35	SK-192019.00	
4CX3000A862.00	6697A2900.00	20PE19/S409728.35	SK-220076.00	ASSR-1010 575A35.00
4CX5000A1018.00	ML7007A3390.00	20PE20/S4097A28.35	SK-221064.00	ASSR-1011 67350.00
4CX10000D1175.00	7237A525.00	4532U285.00	SK-2220292.00	ASSR-1013 866A, 866AX,
4CX15000A1400.00	7527110.00	7262A30.35	SK-65536.00	3B289.00
4CX20000A1475.00	7527A160.00	7735A30.85	SK-66037.00	ASSR-1014 872A, 872AX,
4CX35000C5520.00	800816.00	7735B165.00 8134294.00	SK-660A35.00	4B3230.00
4CX40000G6722.00	812282.00	8507150.00	SK-700216.00	ASSR-1015 8008,
4X150A49.50	8791VI405.00	8507A245.00	SK-710207.00	8008XE 35.00
4X500A320.00	8792VI725.00	8541 40.00	SK-711A207.00	DEGENING TUDES
4-65A62.00	8873185.00	8541B	SK-712A207.00	RECEIVING TUBES
4-125A70.00	8874185.00	8758A	SK-740 72.00	Complete lines of major
4-250A90.00	8875185.00	8823	SK-76072.00	brands at 75 to 80% off list.
4-400A C88.00	88902400.0	884426.25	SK-761 72.00	
4-400AX160.00	88913300.00	8929	SK-77080.00	SEMICONDUCTORS
4-400B110.00	89163100.00	S4075279.50	SK-800B240.00	Full lines of Sylvania (ECG), RCA
4-500A192.00	89851600.00	S4076318.50	SK-810B260.00	(SK), and GE replacement
4-1000A 415.00	89861225.00	S4092299.00	SK-820565.00	semiconductors
5CX1500A620.00		S4102305.00	SK-830A540.00	
		S4113344.00	SK-831286.00	
		S4119403.00	SK-840340.00	
		S4140403.00	SL-860207.00	
		04140403.00		

Wholesale tube prices to broadcasters • One source for all your electronic needs • Off the shelf, overnight delivery: call 24 hrs. a day, 7 days a week, 1-800-221-0860. POLICY STATEMENT: Terms: Rated firms — Net 30 Days. Others: Furnish Trade References — 2% Discount if payment accompanies order. All shipments F.O.B. Brooklyn, usually within 24 hours of order. Emergency Shipments Our Specialty. All products carry Standard Factory Guarantee. All Prices Subject to Change Without Notice.



COMMUNICATIONS, INC., 2115 Avenue X, Brooklyn, New York 11235

Phone: (212) 646-6300 / Toll Free: (800) 221-0860

Circle (46) on Action Card Telex: 235125 Cable: CeCo Tubes

Harris Corp Broadcast Products Div. Ikegaml Image Devices
Kalart Victor Corporation
Laird Telemedia Lipsner Smith Co. Magnasync/Moviola Corp. Marconi NEC America Nytone Electronics Corporation Phillips Broadcast Group RCA Broadcast Systems Radmar Rangertone Research Rank Cintel RCA Broadcast Systems Video I-D Wastrex Zei-Mark Corporation

FILTERS

ADM Technology ATI Audio Technologies Inc. Amek TAC Aphex Systems
Audio & Design Recording
Composite Video dbx Inc.
Dyma Engineering
Electroline Television Equipment Elektroimpex Frequency Devices Ivie Electronics
ILC Data Device Corp. Lipsner Smlth Co. Georg Neumann GwbH Rupert Neve Georg Neumann Potomac Marine & Avlation Quad-Eight Electronics Research Systems Tech., Inc. Richard Sound Design C.N. Rood B.V. Sescom, Inc. Sontec Electronics Spectrum Instruments Spectra Sonics VIF International White Instruments

ANTENNA Alford Mfg. Co. Antennas for Communications Bird Electronics Coaxial Dynamics

Continental Electronics Mfg. Dielectric Communications Dyma Engineering Elcom-Bauer Electroline Television Equipment The Finney Company Harris Corporation, Broadcast

Products Division Kathrein-Werke AG Lipsner Smlth Co. Micro Communications Phelps Dodge Communications RMS Electronics Rohde & Schwarz Shively Laboratories

Triple Crown Electronics TT Electronics VTE Microwave Inc. Vidaire Electronics Mfg.

Audio & Design Recording Beaveronics Broadcast Video Systems Computer Business Systems Electroline Television Equipment Frequency Devices Lightning Elimination Associates Lipsner Smith Co. Jatex Nurad Inc. Ramko Research Rohde & Schwarz C.N. Rood B.V. Spectra Sonics TT Electronics

Vidaire Electronics Mig

PASSIVE

AEG-Telefunken, (Bayly Engineering) AMP Inc. AVL Digital Ltd. Allen Avionics Altec Lansing Anderson Laboratories Antennas for Communications Audio & Design Recording Audio-Video Engineering Co. Bird Electronics Blonder-Tonque Laboratorles Coastcom Coaxial Dynamics
Comark Communications, Inc. Compac Development Corp.

ESC Electronics Electroline Television Equipment The Finney Company ILC Data Device Corp. Jerrold Div., General Instrument

Lightning Elimination Assoc. Lipsner Smith Co. Modulation Associates Mu-Del Electronics North Hills Electronics Phelps Dodge Communications Potomac Instruments
Potomac Marine & Aviation Quad-Eight Electronics C.N. Rood B.V. Sescom Shure Brothers Tepco Corp.

Vitek Electronics White Instruments

VARIABLE / FIXED ADM Technology Audio & Design Recording Barker & Williamson Inc. Coaxial Dynamics ESC Electronics Frequency Devices
ILC Data Device Corp. International Microwave Corp. Lipsner Smith Co. North Hills Electronics Potomac Instruments ProTech Audio Pulse Techniques Inc. (Pultec) Quad-Eight Electronics Richard Sound Design Research Systems Tech. Inc. Sescom Spectrum Instruments Texscan Corp.
TT Electronic Inc.
White Instruments Inc.

VIDEO AVL Digital Ltd. Allen Avionics Anderson Labs
Audio-Video Engineering Co. Broadcast Video Systems Catel Datatek ESC Electronics Faroudja Laboratories ILC Data Device Corp. Lipsner Smith Co. Modulation Associates. Rohde & Schwarz TT Electronics, Inc. Thomson-CSF Tiffen Mfg. Corp. Vidaire Electronics Mfg.

FRAME STORE **SYNCHRONIZERS**

Adda Corporation Apert-Herzog Arvin Echo Asaca/Shibasoku BCB Electronic Sales Ltd. Digital Video Systems EECO Inc.

Harris Video Systems Harris Corp.,
Broadcast Products Div. MCI/Quantel Microtime NEC America Inc. Broadcast Equipment Quantel Ltd. RCA Broadcast Systems Thomson-CSF

FRAME / FIELD STORE. DIGITAL

Adda Corporation Apert-Herzog Arvin Echo Asaca/Shibasoku Aurora Systems Robert Bosch GmbH, Television Systems Div. Colorado Video Digital Video Systems Eigen Video Fernseh Inc. Grove Video Harris Corp., Broadcast Products Harris Video Systems Logica MCI/Quantel Merlin Engineering Microtime MPB Technologies NEC America, Inc. Broadcast Equipment Phase Video Inc. Quantel Ltd. RCA Broadcast Systems Rohde & Schwarz Thomson-CSF Vital Industries

FRAMES & RACKS

Amco Engineering
Artel Communications Corp. Bayly Engineering **Bud Industries** Broadcast Electronics Cases Inc. Centro Corp. David H. Brothers Co. Digital Video Systems Dell Technical Vehicles Dyma Engineering Dynair Enclosure Corp. Encor Products GBC Closed Circuit TV Corp. GF Business Equipment GKM Manufacturing Corp. Grinnan Fixture HSC Incorporated Hammond Industries Micro-Trak Modular Audio Products Panoak/B-W Lighting System Research Technology Int'l. Stantron Straight Wire Audio Vector Electronic Co. Winsted Corp. Wyco Metal Prod.

FURNITURE & CABINETRY. STUDIO

Amco Englneering Auditronics Bretford Mfg. Broadcast Audio Corp. David H. Brothers Co. Bud Industries Calzone Case Co. Centro Corp. Dell Technical Vehicles Dyma Engineering Dynamic Technology Ltd. Electro-Acoustic Designs Emcor Products/GF Business Equipment **Encor Products**

The Graphic Express Grinnan Fixture HSC Incorporated Hammond Industries Harris Corp. Broadcast Products Div. IGM Communications Kreonite Leader Broadcast Systems Leedal McCurdy Radio Industries Mirco-Trak Pacific Recorders & Engineering Panoak Lighting Systems Rack Techniques Rangertone Research Inc. Research Technology Int'l. Ruslang Corp. Strantron, Div. of Wyco Uniset Corp. Winsted Corporation

GENERATORS

AF Amber Electro Design Audisar Bald Mountain Lab CMC Technology Corp. California Instruments Comex Systems Elektroimpex Georg Neumann GwbH Kajaani Oy Leader Broadcast Systems Leader Instruments Modular Audio Products Georg Neumann Opamp Labs Potomac Instruments Potomac Marine & Aviation Quad-Eight Electronics Rohde & Schwarz Sescom Siemens AG Osterreich Spectra Sonics Tektronix VIZ Mfg. Co. White Instruments Inc. Xedit Corporation

BACKGROUND COLOR American Data

Asaca/Shibasoku Automation Techniques Beaveronics Robert Bosch GmbH Broadcast Video Systems C-M-C Technology Corp. Cezar International Michael Cox Crosspoint Latch Corp. Crow of Reading Ltd. Graham-Patten Systems
The Grass Valley Group
Harris Corporation, Broadcast
Products Division Image Video Limited Industrial Sciences, Inc. (ISI) International Nuclear Corp. Lang Video Systems Lenco Shintron John M. Sullivan Associates Texscan/MSI Corporation Thomson-CSF Vital Industries

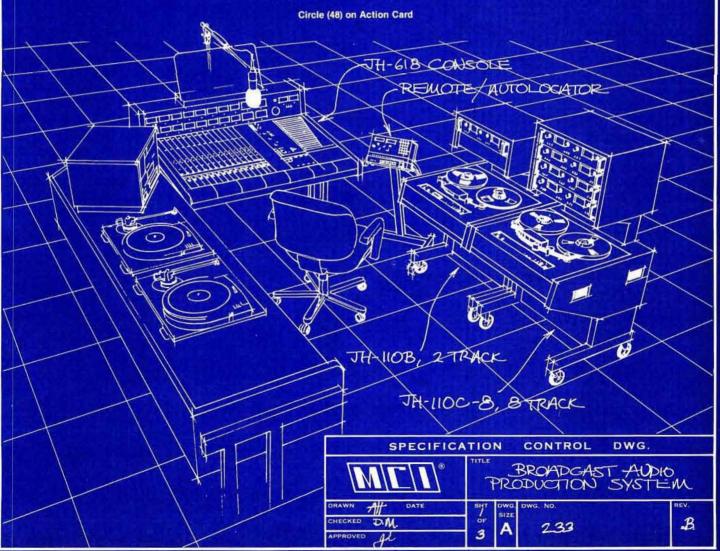
BURST American Data Automation Techniques, Inc. Robert Bosch GmbH Don Britton Ent. Broadcast Video Systems Michael Cox C-M-C Technology Corp.
Canter-Redman Technologies
Crosspoint Latch Crow of Reading Ltd. Dynair Electronics Fernseh Inc. Graham-Patten Systems Harris Corporation, Broadcast Products Division Continued on page 84

Profitable in-house production starts with the right system. Designed by MCI.

Time was when you could get by on in-house production with a couple of beat-up tape recorders and a turntable. But audiences and advertisers of today are demanding more. And that means a total production system that allows you to do everything from overdubbing and track bouncing to live multitrack recording. Now the company that has equipped more award winning studios than any other has designed a Total Production Package priced within your budget. You get an 8-track recorder, 2-track recorder and a studio quality console with

10 microphone and 5 stereo line inputs. Plus remote control, an accurate spot timer, 10 programmable "search and find" memories, variable speed and dozens of other features designed to make your job easier and your product better. MCl even offers a comprehensive user training program in the creative use and the maintenance of this system.

Contact your nearest MCI dealer today about the quality design (and current price advantages) of MCI's new Total Production Package. Your advertisers will love you for it.



Industrial Sciences, Inc. (ISI) International Nuclear Corp Jatex Inc. Leader Instruments Corp. Leitch Video Lenco Marconi Electronics, Inc. Multidyne Electronics NTP Elektronik A/S Philips Test & Measuring QSI Systems Thomson-CSF Video Aids of Colorado Vital Industries

COLOR PATTERN Philips Test & Measuring

COLOR SYNC Asaca/Shibasoku Aston Electronic Developments Robert Bosch GmbH Broadcast Video Systems Michael Cox Crosspoint Latch Corp. Crow of Reading Itd.
Dynair Electronics
ECHOlab, Inc. Elektroimpex Fernseh Inc. Graham-Patten Systems The Grass Valley Group Harris Corp., Broadcast Products lkegami Industrial Sciences Inc. (ISI) Lang Video Systems Leader Instruments Corp. Leitch Video Lenco Link Electronics 3M Company
Marconi Electronics, Inc.
Multidyne Electronics Panasonic Phase Video Inc. Philips Test & Measuring QSI Systems Rohde & Schwarz Shintron Siegel - Electronics Sigma Electronics John M. Sullivan Associates Tektronix Thomson-CSF Videcom Engineering Video Alds of Colorado

CONVERGENCE Amtron Corp. Crow of Reading Harris Corporation, Broadcast Products Division Leader Instruments Corp. Lectrotech Leitch Video Lenco Multidyne Electronics Philips Test & Measuring Rohde & Schwarz Sigma Electronics Tektronix Telmet Videomedia

ATV Research Asaca/Shlbasoku Boonton Electronics Corp. Delta Electronics John Fluke Mfg. Co., Inc. Javelin Electronics Lang Video Systems Leader Instruments Marshall Electronics Moseley Associates Motorola Communications & Elect. Potomac Instruments Rohde & Schwarz John M. Sullivan Associates Thomson-CSF VIZ Mfg. Co. Wavetek Indiana

SYNC, TV Asaca/Shibasoku Aston Electronic Developments Automation Techniques, Inc. Broadcast Video Systems Cinetronics Michael Cox Crosspoint Latch Corp. Crow of Reading Ltd. Digital Video Systems Dynair Electronics Echo Lab Fernseh Fortel Graham-Patten Systems
The GBC Closed Circuit TV Corp. Grass Valley Group Harris Corp., Broadcast Products Ikegami Industrial Sciences Inc. (ISI) Lang Video Systems Leader Instruments Leitch Video Lenco Link Electronics Marconi Electronics Multidyne Electronics Philips Test & Measuring Philips Broadcast Group QSI Inc. Rohde & Schwarz Shintron Sigma Electronics Tektronix Telemet Thomson CSF Video Aids of Colorado Viscount Industries

SUBCARRIER, FM ATV Research Broadcast Electronics
Catel (Division of United Scientific) Cetec Broadcast Group Harris Corp. Broadcast Products Leader Broadcast Systems, Inc. McMartin Industries Micro Control Associates Modulation Assoc. Moseley Associates, Inc. Philips Test & Measuring Rohde & Schwarz C.N. Rood B.V. Solid Electronics Laboratories Tektronix

SCA Broadcast Electronics Cetec Broadcast Group
Comad Communications
Continental Electronics Mfg.
Harris Corp., Broadcast Products
McMartin Industries Moseley Associates QEI Corp. Rohde & Schwarz C.N. Rood B.V. Solid Electronics Laboratories Swintek Enterprises Versa-Count

SPECIAL EFFECTS American Data Asaca/Shibasoku Aurora Systems Beaveronics Broadcast Video Systems Central Dynamics Ltd. Colorado Video Convergence Michael Cox Crosspoint Latch Corp. Crow of Reading Ltd.
Digital Video Systems
Dubner Computer Systems Dynair Electronics, Inc. Echo Lab Graham-Patten Systems Grass Valley Group Grove Video Industrial Sciences Inc. (ISI) Interand Lang Video Systems 3M Video Products MCI/Quantel NEC America Inc. Panasonic RAVE/Reliable Audio Video Enterprises Shintron

Tech Theatre Inc. Thomson-CSF VItal Industries Video Associates Labs Videcom Engineering Viscount Ind

(See Also Test Equipment)
BPI Audio Text Instruments Broadcast Electronics Comad Communications
Continental Electronics Mfg. Harris Corporation, Broadcast Products Division Kintek Leader Instruments Leader Broadcast Systems

McMartin Industries Moseley Associates Orban Associates Potomac Instruments Pyramid Loudspeaker Corp. Rohde & Schwarz C.N. Rood B.V. Solid Electronics Laboratories Sound Technology Tektronix Versa-Count

TIME CODE Ampex Audio Kinetics The BTX Corporation Robert Bosch GmbH Broadcast Video Systems C-M-C Technology Corp. Chrono-log Corporation Control Video Corporation Datametrics Dresser

Datatron Inc./ Video Systems Div.

Datum
Dynamic Technology Ltd.
Dynaquip Electron Devices Ltd. E & O Systems, Ltd. EECO Incorporated Gray Engineering Laboratories

Jatex Kaitronics Kudelski SA Multidyne Electronics Multi-Track Magnetics Panasonic Philips Broadcast Group QSI Systems Recortec Shintron Skotel Corporation Telcom Research

Thomson-CSF Torpey Controls & Engineering
True Time Instruments United Media, Inc.

TONE American Microsignal Corp. Asaca/Shibasoku Bald Mountain Lab Bogen Division/Lear Siegler, Inc. Broadcast Electronics C-M-C Technology Corp. Cetec Vega Channelmatic Comex Systems
Communications Control Centers Conex Electro Systems Deltamod Gorman Redlich Leader Broadcast Systems Link Electronics McMartin Industries Modular Audio Products Modulation Associates Motorola Communications & Elect. Multidyne Electronics Opamp Labs Potomac Marine & Aviation Rivers Associates Inc. Sescom Slemens AG Osterreich Teac Corp. of America Triplett Corp. Trepac Corporation of America VIF International

TONE, EBS Bald Mountain Lah Broadcast Electronics **ESE** Gorman-Redlich Mfg. Co. McMartin Industries Rivers Associates Inc.

GENERATORS. **ELECTRIC POWER**

AEG-Telefunken California Instruments Deli Technical Vehicles Dynamote E-N-G Corp. Gralex Harris Corp., Broadcast Products Div. North Wind Power Onan Corp. RTS Systems Teledyne Energy Systems Vanner

GRAPHIC EQUALIZERS

Audlo & Design Recording Datatronix Harrison Systems IGM Communications Integrated Sound International Electro Magnetics MXR Innovations Inc. Opamp Labs Orban Associates Pulse Techniques Quad-Eight Electronics Spectra Sonics John M. Sullivan Associates White instruments

HEAD DEGAUSSERS

R.B. Annis Co. Comprehensive Video Supply IGM Communications Kudelski S.A. Leevers Rich Equipment Ltd. Marathon Products Nortronics Research Technology Int'i. Saki Magnetics Spectra Sonics United Research Lab. Corp. Wide Range Electronics

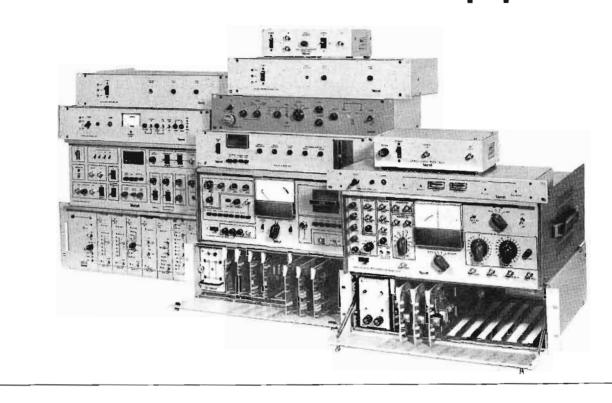
HEADS, AUDIO & ACCESSORIES/ **SERVICES**

ALIGNMENT GAUGES Aristocart Broadcast Electronics D-B Electronics Fidelipac Harris Corporation, Broadcast Products Division IGM Communications Image Devices Incorporated Merlin Engineering Multi-Track Magnetics Nortronics Studer ReVox America Tapecaster TCM, Inc. Telex Communications
UMC Electronics

CLEANERS

Allsop Broadcast Electronics Chemtronics Comprehensive Video Supply Electro-Acoustic Designs Fidelipac IGM Communications

Telemet Video Broadcast and Test Equipment



AV Routing Switcher, 7934 is the latest in the state of the art circuitry. Both manual or computer control options available.

Envelope Delay Measurement Set, 3705 measures the envelope Clamper Amplifier, 3203-F clamps high levels of hum on balanced delay of video frequencies for compliance with FCC requirements.

Sideband Analyzer, 3706 shows with a calibrated response curve if sideband attenuation and frequency response meet FCC require-carrier. Provides interference-free video and aural transmissions for sideband attenuation and frequency response meet FCC requirements. (model 3709, for deeper resolution and spectrum analysis).

Broadcast Demodulator, 4501 accurately demodulates the transmitted signal to show the true video signal being broadcast.

Demod Tester, 4503-A1 quickly checks the broadcast signal demodulator for flatness of frequency response.

Modulator, **4420** is a state of the art cable TV modulator with VSB saw filter, digital display, very low noise and FCC TV transmitter specs.

with both synchronous and envelope detection, built-in self tester, by ground loops on unbalanced video transmission cable. digital display, multiplexed outputs and other convenience features.

Video and Pulse Distribution System, (3300 series). Features Video DA's with frequency equalization; Pulse DA's with variable delay.

and unbalanced lines. Equalizes for cable loss up to 10 dB.

STL and ENG applications.

Modular Test Set, 3538 provides up to 8 EIA standard video test signals. Special purpose modules also available.

Audio DA System, 6910. Each DA card provides 6 balanced, or 12 unbalanced 600 ohm outputs. 10 cards per frame with power supply.

NTSC Chroma Keyer Decoder, 4706-A1 decodes the NTSC signal with no apparent H delay for RGB keying.

Broadcast Demodulator, 3710 is a comprehensive demodulator Isolation Amplifier, 5300. An active device that negates humcaused

Over 175 products and accessories available



185 Dixon Avenue, Amityville, L.I., New York 11701 (516) 842-2300 TWX 510-227-9850 Eastern Area Office - (914) 279-3231

Circle (47) on Action Card

Image Devices Incorporated Leader Broadcast Systems Marathon Products Co. Nortronics **RMS** Electronics Tascam, Div. of Teac The Texwipe Co. VIF International

ERASE

R.B. Annis Co. Bogen Electronic GwbH Broadcast Electronics Brush Magnetic Heads Century 21 Programming D-B Electronics
Harris Corp. Broadcast
Products Div.

IGM Communications Image Devices Incorporated International Electro-Magnetics Inc.

Elektroimpex Leader Broadcast Systems Magna Tech Electronic Co. Michigan Magnetics Minneapolis Magnetics Multi-Track Magnetics Neal-Ferrograph Norton Associates Nortronics, Recorder Care Div. Sakl Magnetics Sonar Radio Corp. Studer Revox America
Taber Mfg. & Eng. Co.
Tapecaster TCM, Inc.
Tascam, Division of Teac
United Research Lab Corp. VIF International Vikron Woelke Magnet Bandtechnik GmbH

PLAYBACK

Audi-Cord Bogen Electronic GmbH Broadcast Electronics Brush Magnetic Heads Century 21 Programming D - B Electronics Elektrolmpex IGM Communications International

Electro-Magnetics Inc. Magna Tech Electronic Co. Michigan Magnetics Minneapolis Magnetics Multi-Track Magnetics Neal-Ferrograph Nortronics, Recorder Care Div. Norton Associates Saki Magnetics Studer Revox America, Inc. Taber Mfg. & Eng. Co. Tapecaster TCM Inc. Tascam, Division of Teac UMC Electronics United Research Lab Corp. VIF International Woelke Magnet Bandtechnik GmbH

RECORD

Audi-Cord Bogen Electronic GmbH Broadcast Electronics Brush Magnetic Heads Century 21 Programming D-B Electronics Electroimpex IGM Communications International

Electro-Magnetics Inc. Leader Broadcast Systems Magna Tech Electronic Co. Michigan Magnetics Minneapolis Magnetics Multi-Track Magnetics Neal-Ferrograph Nortronics, Recorder Care Div. Norton Associates Saki Magnetics Studer ReVox America Taber Mfg. & Eng. Co. Tapecaster TCM, Inc. Tascam, Division of Teac **UMC Electronics** United Research Lab Corp.

VIF International Woelke Magnet Bandtechnik GmbH

FILM STRIPE Brush Magnetic Heads International
Electro-Magnetics Inc.
Leader Broadcast Systems Magna Tech Electronic Co. Multi - Track Magnetics Norton Associates

RECONDITIONING SERVICES

Accurate Sound Broadcast Electronics Brush Magnetic Heads CMC Technology D-B Company

International
Electro-Magnetics Inc. Leader Broadcast Systems Merlin Engineering
Michigan Magnetics Minneapolis Magnetics Norton Associates Saki Magnetics Sound Dynamics
Taber Mfg. & Eng. Co.
Tascam, Division of Teac United Research Lab Corp.

HEADS, VIDEO & SERVICES

REPLACEMENT HEADS

Bogen Electronic GmbH Brush Magnetic Heads C-M-C Technology Corp. Image Devices Incorporated
International Electro Magnetics Minneapolis Magnetics Nortronics, Recorder Care Div. Panasonic RCA Broadcast Systems Ramko Research Saki Magnetics Spin Physics John M. Sullivan Associates Taber Mfg. & Eng. Thomson-CSF UMC Electronics Videomagnetics Vikron Inc Woelke Magnet Bandtechnik GmbH

REFURBISHING SERVICES

Ampex Bogen Electronic GmbH Brush Magnetic Heads CMC Technology Corporation International Electro Magnetics Minneapolls Magnetics RCA Broadcast Systems Saki Magnetics Spin Physics Taber Mfg. & Eng Videomagnetics

HEADPHONES

ANNOUNCERS EARPIECE Audiosears Beyer Dynamics Eugene Beyer Elektrotechnische Fabrik GmbH & Co. Broadcast Electronics, Inc. David H. Brothers Co. Burns Auditronics Elektroimpex Harris Corporation, Broadcast Products Division IGM Communications Integrated Sound GLI Div. Kimlan Sales Norcom Manufacturing R-Columbia Products Setcom Corporation Sennhelser Electronic Corp. Shure Brothers Stanton Magnetics

Television Equipment Associates

Telex Communications, Inc. Vidaire Elec. Mfg.

AKG A Kustische u. Kino-Gerate

MONO AKG Acoustics

Audiotronics Beyer Dynamic Eugene Beyer Elektrotechnische Fabrik GmbH & Co. Robert Bosch GmbH Broadcast Electronics David H. Brothers Co. Burns Auditronics Clear Com Intercom Systems D · B Electronics Edcor Elektrolmpex Harris Corporation, Broadcast Products Division IGM Communications Image Devices Incorporated Kimian Sales Inc. Miles Associates, Div. Miles Air Products Ltd. Neal-Ferrograph R-Columbia Products Sennheiser Elect Corp. Setcom Corporation Shure Brothers

Superex Electronics Corp.

Swintek Enterprises
Television Equipment Assoc.

Telex Communications, Inc. Vidaire Elec. Mfg.

STEREO AKG Acoustics AKG Akustische u. Kino-Gerate Audio-Technica US Inc. Audiotronics Eugene Beyer Elektrotechnische Fabrik GmbH & Co. Beyer Dynamic Broadcast Electronics David H. Brothers Co. Burns Auditronics David Clark Co. Clear Com Intercom Systems D · B Electronics Elektrolmpex Fostex G.C. Electronics Harris Corporation, Broadcast Products Division IGM Communications Kimlan Sales Inc. Koss Corporation Miles Associates

Neal Ferrograph (USA) Inc. North American Soar Corp. R-Columbia Products SAE Sennhelser Electronic Corp. Sescom Setcom Corporation Shure Brothers Stanton Magnetics Studer ReVox America Superex Electronics Corp. Swintek Enterprises Tascam, Div. of Teac Television Equipment Assoc. Telex Communications, Inc. VIF International Vidaire Electronics Mfg

WITH ANNOUNCERS MIKE

AKG Acoustics AKG Akustische u. Kino-Gerate Audiosears Beyer Dynamic Eugene Beyer Elektrotechnische Fabrik GmbH & Co. Robert Bosch GmbH Broadcast Electronics David H. Brothers Co. Burns Auditronics Clear-Com Intercom Systems Electro-Voice Elektrolmpex Hammond Industries Harris Corporation, Broadcast Products Division IGM Communications Koss Corp.

Miles Associates, Div. Miles Air Products Ltd. Pro Tech Audio R-Columbia Products RTS Systems
Sennhelser Electronic Corp. Setcom Corporation Shure Brothers
Superex Electronics Corp. Television Equipment Assoc. Telex Communications

HEAT EXCHANGERS

Electro Impulse Laboratory Inc. Harris Corporation, Broadcast Products Division Micro Communications Shively Laboratories Thomson-CSF(81) Trelse Engineering

HEATERS FOR VANS

Dell Technical Vehicles Harris Corp., Broadcast Products Div. John M. Sullivan Associates

HELICOPTER ENG SYSTEMS

Bell Helicopter Textron Commerce Airborne Corp. ENG Helicopter Satellite Ltd. Feathercam Inc. Harris Broadcast Microwave Harris Corp./Farinon Video Lang Video Systems
Lee Ray Industries
M/A-COM Video Systems NEC America Inc. Broadcast Equipment Nurad Inc. R.F. Technology Inc. Tayburn Electronics

HELICOPTER STABILZERS

Arriflex Cinema Products ENG Helicopter Satellite Ltd. Feathercam, Inc. Gralex

HELICOPTERS

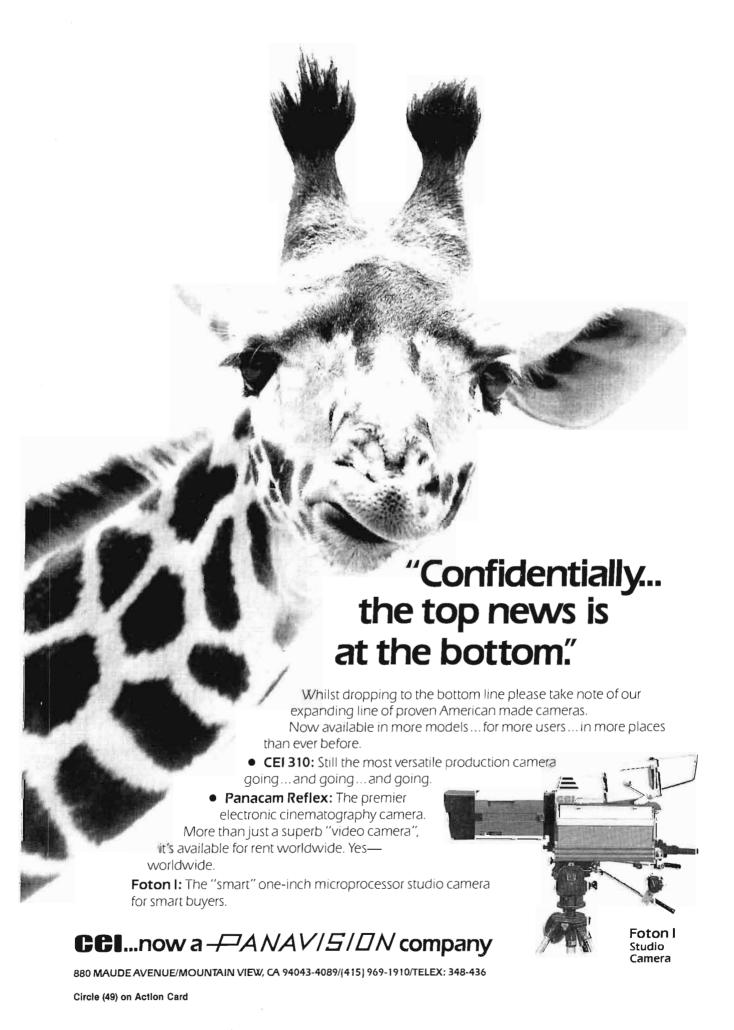
Bell Hellcopter ENG Helicopter-Satellite Ltd. Hughes Helicopters

HUM STOP COIL

Crow of Reading Ltd. North Hills Electronics Video Aids of Colorado

IDENTIFICATION SYSTEMS, VIDEO

CMC Technology Corp. AVL Digital Ltd. CMC Technology Corp. Comprehensive Video Supply Michael Cox Di-tech Dynamic Technology Ltd. Gray Engineering Laboratories Lang Video Systems



www.americanradiohistory.com





BSI BJ-240 PREWIRED AUDIO JACK PANEL

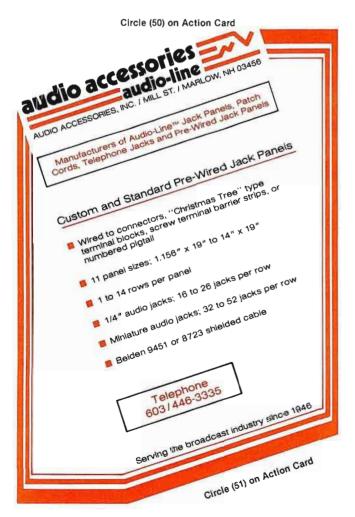
- 48 TIP-RING-SLEEVE JACKS (2 rows, 24 per row) PREWIRED TO REAR TERMINAL STRIP.
- JACK PANEL MAY BE USED AS 24 CIRCUIT TIP-RING-SLEEVE OR 12 CIRCUIT TIP-SLEEVE AT CUSTOMER OPTION.
- TIP & RING NORMALS WIRED TO TERMINAL STRIP FOR "NORMAL-THRU" SELECTIONS.
- JACK PANEL EASILY REMOVED FROM FRONT OF UNIT FOR CLEANING WITHOUT REMOVING UNIT FROM RACK.
- HIGH QUALITY ADC JACK PANEL WITH REPLACEABLE DESIGNATION STRIPS.
- . VERY RUGGED CONSTRUCTION
- . REMOVABLE CABLE STRAIN RELIEF BARS.
- LARGE TERMINAL STRIP WITH OVERSIZED TERMINALS FOR EASE OF WIRING.
- . SUPERIOR CROSSTALK ISOLATION.
- · ALL AUDIO GROUND CIRCUITS INSULATED FROM CHASSIS.
- DIMENSIONS: 3.5" HIGH, 15.75" DEEP, 19.0" WIDE.
- · AVAILABLE FROM STOCK.
- PRICE: \$545.00

NATIONAL WATS: 800/531-5232

TEXAS WATS: 800/252-9792

BROADCAST SYSTEMS INC.

8222 JAMESTOWN AUSTIN TEXAS 78758



WHO MAKES IT

Nytone Electronics Corp. QSI Systems Torpey Controls & Englneering Visual Methods

IMAGE REPOSITIONER

Adda Corporation Grove Video Interand MCI/Quantel NEC America Inc. Broadcast Equipment Video Alds of Colorado

INTEGRATED CIRCUITS

(See Also ICs and Semiconductors) AEG-Telefunken (Bayly Engineering) AEL-American Electronic Laboratories Aphex Systems Calvert Electronics Cherry Elec. Prod. Corp. Cherry Semiconductor Cool Light Datel-Intersil Fairchild CCD Imaging Javelin Electronics Logica Motorola Narda Microwave NEC America Inc. Broadcast Equipment Thomson-CSF

INTERCOM SYSTEMS

AEG-Telefunken Alice (Stancoil Ltd.) Audix Ltd. Bell Audio Systems Bogen Division / Lear Siegler Inc. Brabury Electronics Ltd. David H. Brothers Co. Broadcast Technology Cetec Vega Clear-Com Intercom Systems Communications Co. Inc. Communications Control Centers Comprehensive Video Supply Crosspoint Latch Datatronix Philip Drake Electronics Dukane Corp. Dyma Engineering Dynamote Corp.
ENG Helicopter Satellite Ltd. Elektroimpex Enertec Schlumberger Farrtronics Limited Fisher Berkeley Corp. G.C. Electronics GTE Products Corp. Harris Corporation, Broadcast Products Division H. M. Electronics International Electro · Magnetics Leader Broadcast Systems Link Electronics McCurdy Radio Industries Minicom Rupert Neve PAG Group Paso Sound Products
ProTech Audio Corporation R-Columbia Products RTS Systems Richmond Sound Design Roh Corporation Sait Electronics Setcom Corporation Shareooint Systems Siemens Ag Österreich Singer Products Co. Standard Telephon UND Radio Swintek Enterprises, Inc. TOA Electronics Telectro Systems Corp. Television Equipment Assoc.

Telex Communications Thomson-CSF Tweed Audio USA Vamco Engineering Velec Sefat Vidaire Electronics Mfg. Video Alds of Colorado Ward-Beck Systems World Video

INVERTERS

Advance Conversion Devices Co. Don Britton Ent. Comprehensive Video Supply Vanner Inc.

ISOCOUPLERS

Artel Communications Corp.
CSP Inc.
Continental Electronics Mfg.
Harris Corporation, Broadcast
Products Division
McMartin Industries
Moseley Associates
Shively Laboratories
Video Aids of Colorado

ISOLATOR

Harris Corporation UTE Microwave Inc. Varian MCSD Video Aids of Colorado

JACK PANELS

ADM Technology Audio Accessories Inc. Broadcast Electronics, Inc. Broadcast Systems Broadcast Technology **Bud Industries** CSP Inc. Comad Communications
Continental Electronics Mfg. Crow of Reading Datatronix Dell Technical Vehicles Dielectric Communications Dynamic Technology Ltd. Dynatech Data Systems Electro-Acoustic Design Elektroimpex Farrtronics Limited G.C. Electronics Harris Corp., Broadcast Products Image Video Limited Leader Broadcast Systems Link Electronics McCurdy Radlo Industries McMartin Industries Rupert Neve Panoak/B-W Lighting Systems Potomac Instruments Potomac Marine & Aviation Ramko Research Rex Rheostat & Co. Inc. Rockwell International Shively Laboratories Sphere Switchcraft TM Systems Trompeter Electronics Union Connector Victor Electronic Co. Ward-Beck Systems

JACK PANELS, WIRED

Audio Accessories Broadcast Systems Comad Communications

KEYERS, VIDEO INSERT

American Data Beaveronics

SIX REASONS WHY MOTOROLA'S AM STEREO SYSTEM IS GETTING SUCH GOOD RECEPTION.

Motorola's C-QUAM® (Compatible Quadrature) AM Stereo System is attracting the attention of broadcasting executives.

Probably because no other AM Stereo system has all that the C-QUAM system offers:

- 1) Full modulation capability over the whole range the FCC allows (from +125% to -100%).
- 2) No monaural distortion increase.
- 3) Full coverage in monaural and stereo.
- 4) Causes no clicks or pops.
- 5) Full frequency response.
- 6) Lease plan.

These and other C-QUAM system features are completely explained in our free brochure "AM Stereo. The Answer to the Marketplace Decision." Send in the coupon for your own copy. Or call Dick Harasek, Motorola, Inc. P.O. Box 95334, Schaumburg, Illinois 60195 (312) 576-3591.

Dick Harasek
Manager, Advanced Technology Products
Motorola, Inc. P.O. Box 95334
Schaumburg, Illinois 60195
Please send me a copy of your free
brochure: "AM Stereo. The Answer to
the Marketplace Decision."

Name

Title

Station Group

Address

MOTOROLA A World Leader in Electronics

©1982 Motorola Inc. Motorola, C-QUAM, and (A) are registered trademarks of Motorola, Inc.

Circle (52) on Action Card

Robert Bosch GmbH, Television Systems Div Don Britton Ent. Broadcast Video Systems Control Video Corporation Michael Cox Crosspoint Latch Dynair Electronics Graham-Patten Systems Image Video Limited Industrial Sciences Inc. (ISI) International Nuclear Corp. Key Video Ltd. Link Electronics Rohde & Schwarz Siegel Electronics Thomson-CSF Torpey Controls & Engineering Video Associates Labs Videomedia Vital Industries

KNOBS CONTROL

Alco Electronic Products Buhl Optical Co. Electronic Instrument & Specialty Corp. G.C. Electronics Selco Products Sescom, Inc. VIZ Mfg. Co.

LENS FILTERS

Angenieux Corp. of America David H. Brothers Co. Century Precision Cine/Optics Harris Corporation Schneider Corp. of Am. Tiffen Manufacturing Tele-Cine Inc. The Zei-Mark Corp.

LENSES, FIXED

ATV Research Angenieux Arrifley Robert Bosch GmbH David H. Brothers Co. Buhi Optical Canon USA Century Precision Cine/Optics Cinema Products Comprehensive Video Supply D.O. Industries Inc.
Establissements Pierre Angenieux Fuilnon Inc. GBC Closed Circuit TV Corp. Harris Corp. Broadcast Products Div Karl Heitz Inc. Javelin Electronics Lenzar Optics Panasonic Power Optics Rank Precision Rank Taylor Hobson Jos Schnelder GmbH The Schneider Corp. of Am. Tele-Cine Inc. Visual Methods The Zei-Mark Corp.

LENSES, PROJECTION

Buhl Optical DO Industries inc. Rangertone Research Jos Schneider Tele Cine Corp. The Zei-Mark Corp.

LENSES, ZOOM

ATV Research Angenieux Inc.

Robert Bosch GmbH David H. Brothers Co. Buhl Optical Canon USA Century Precision Cine/Optics Cinema Products Comprehensive Video Supply Crow of Reading D.O. Industries Inc. Establissements Pierre Angenieux Frezzolini Electronics Fujinon Inc. GBC Closed Circuit TV Harris Corp. Broadcast Products Div. Javelin Electronics Kalart Victor Lenzar Optics One Pass Video Panasonic Power Optics Rank Precision Rank Taylor Hobson Jos. Schneider GmbH & Co. The Schneider Corp. of Am. Sharp Electronics Tele-Cine Inc. Visual Methods

LIGHTING ACCESSORIES

CONNECTOR PLUGS AVA Electronics Bardwell & McAlister Belden Communications Walter S. Brewer Co. Colortran Electro Controis Electronics Diversified, Inc. G.C. Electronics GTE Products Corp. Kliegi Bros. L.E. Nelson Corp. LTM Corp. of America Olesen Packaged Lighting Systems Panoak Lighting Systems & Supply Research Technology Int'l. Rex Rheostat & Co. Strand Century John M. Sullivan Associates Union Connector Co., Inc. Whirlwind Music

FADER CONTROLS Belden Communications Walter S. Brewer Co. CAE Inc. Colortran **Duncan Electronics** Dynamic Technology Ltd. Electro Controls Electronics Diversified Inc. Hammond Industries Kliegl Brothers LE Nelson Corp Olesen Packaged Lighting Systems Panoak Lighting Systems Skirpan Lighting Control Corp. Strand Century John M. Sullivan Associates Theater Techniques

Belden Communications Peter W. Dahl Harris Corporation, Broadcast Products Division L. E. Nelson Corp. Olesen Packaged Lighting Systems Panoak/B-W Lighting Systems World Tower

TRANSFORMERS

LIGHTING: CONTROLS, FIXTURES, LAMPS

CONTROL BOARD/CONSOLE AEG-Telefunken Alco Electronics

AVAB America Bardwell & McAlister Belden Communications Walter S. Brewer Co. Don Britton Ent. Colortran Custom Audio Electronics Dynamic Technology Ltd. Electro Controls Electronics Diversified, Inc. The Great American Market Hammond Industries Kliegl Brothers LTM Corp. of America Matthews Studio Equipment L.E. Nelson Corp. Olesen Osram Sales Corp.
Packaged Lighting Systems
Panoak Lighting Systems & Supply Rainko Products Siemens Skirpan Lighting Control Corp. Strand Century Tech Theatre Inc.
Theater Techniques Inc. Thorn Lighting Limited
Ultra Audio Pixtec

FILTERS & GELS
AEG-Telefunken
Bardwell & McAlister
Belden Communications
Watter S. Brewer Co.
Colortran
Cool Light
Electro Controls
Electronics Diversified Inc.
Kilegi Bros.
LTM Corp. of America
Matthews Studio Equipment
L.E. Nelson Corp.
Olesen
Packaged Lighting Systems
Panoak Lighting Systems &
Supply
Smith - Victor Sales Corp.
Strand Century
John Sullivan Associates
Tech Theatre Inc.
Tiffen

HANGERS, STUDIO
AEG-Telefunken
Automatic Devices
Bardwell & McAlister Inc.
Walter S. Brewer Co.
Colortran
Electro Controls
Electronics Diversified
Image Devices incorporated
Kliegl Brothers
LTM Corp. of America
Matthews Studio Equipment
L.E. Nelson Corp.
Olesen
Packaged Lighting Systems
Panoak Lighting Systems &
Supply
Smith - Victor Sales Corp.
Strand Century
Syracuse Scenery & Stage
Lighting

LAMPS, REPLACEMENT AEG-Telefunken Alco Electronic Products Bardwell & McAlister Belden Communications Walter S. Brewer Co. Cinema Products Cool Light Dynamic Technology Ltd. Electro Controls Electronics Diversified Frezzollni Electronics GTE Products Corp.

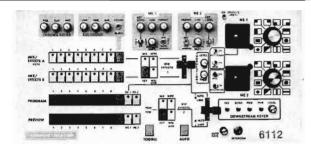
Lighting Products Group Grand Tower Image Devices Incorporated Kitegl Brothers LTM Corp. of America Lowel - Light L.E. Nelson Corp. Fred A. Nudd Olesen Packaged Lighting Systems Panoak Lighting Systems & Supply Smith - Victor Sales Corp. John M. Sullivan Associates Strand Century Teledyne Big Beam

LIGHTS, HMI
AEG-Telefunken
Arriflex
Bardwell & McAllster
Belden Communications
Cine 60 Inc.
Cinema Products
Electro Controls
Electronics Diversified
The Great American Market
Image Devices Incorporated
Kliegl Bros.
LTM Corp. of America
Nalpak Sales
L.E. Nelson Corp.
Olesen
Osram Sales
PAG Power Ltd.
Panoak Lighting Systems &
Supply
Strand Century

LIGHTS, PORTABLE / ENG AEG-Telefunken Arriflex Bardwell & McAlister Belden Communications CAE Inc. Cine 60 Inc. Cinema Products Colortran Comprehensive Video Supply Cool Light
Custom Audio Electronics Dynamic Technology Ltd. Electro Controls Frezzolini Electronics GTE Products Corp. -Lighting Products Group The Great American Market Harris Corporation, Broadcast Products Division Harwood Mfg. Co. Kapco Communications Kliegl Brothers LTM Corp. of America Lowel - Light Mgf., Inc. L.E. Nelson Corp. PAG-Power Ltd. Packaged Lighting Systems Panoak Lighting Systems & Supply Strand Century Teledyne Big Beam Video I-D

LIGHTS, STUDIO AEG-Telefunken Arriflex Avab America Bardwell & McAlister Inc. Belden Communications Walter S. Brewer Co. Broadcast Electronics Inc. CAE Inc. Cine 60 Inc. Cinema Products Colortran Comprehensive Video Supply Cool Light
Custom Audio Electronics Dynamic Technology Ltd. Electro Controls
Electronics Diversified, Inc. Frezzolini Electronics GTE Products Corp. Lighting Products Group The Great American Market Harris Corporation, Broadcast Products Division Harwood Mfg. Co. Kliegl Brothers LTM Corp. of America Leedal Lowel - Light Mfg., Inc. Mole-Richardson

A RANGE OF VIDEO SWITCHERS



6112

The only switcher in its class to offer two fully independent MIX EFFECTS systems, with each M/E having its own pattern generator and positioner. This nine input, four bus unit includes the following standard features: downstream keyer, pattern modulator, spot-lite, colorizer, toggle or "take preview", automatic or manual mix and wipe operations, variable soft wipes, adjustable borders, internal or external keying on each M/E, intercom, loop-thru video inputs, preset of mix or wipes, black burst output, and a blanking processor. There is also a plug-in optional chroma keyer available. All inputs accept synchronous, non-synchronous, composite, non-composite, monochrome or color signals and go thru dual back porch clamping.

Price \$7,950.00 PAL \$8,950.00

Options

Encoded chroma keyer (plug-in board)

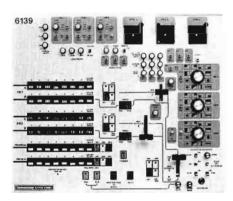
\$1,050.00

RGB chroma keyer (plug in board)

\$1,050.00

Slimline control panel (4 inches)

\$250.00



6139

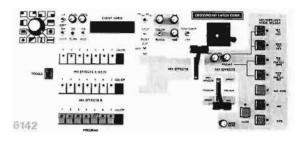
Eight input production switcher with three fully independent Mix Effects Systems. Each ME has its own pattern generator and positioner and each one is capable of double re-entry. Chroma keyer (either encoded or RGB), downstream keyer with matte, blink, invert and edge or external border. Downstream keyer may be previewed. Five video signals can be displayed at the same time. Downstream fade to black. Quad split. Field expandable to 24 inputs with additional pattern selector.

Plug in Option

Genlock

Two chroma keyers (RGB or encoded)

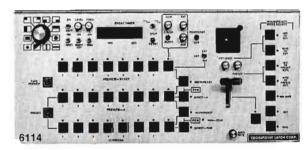
Dual Colorizer (instead of one chroma keyer)



6142

The 6142 is a three bus, eight input completely self-contained switcher. This unit features dual fader handles which permits the operator to dissolve to an effect. The mix effects system features double re-entry along with 12 patterns, variable soft, 24 hour event timer, internal or external keying, pattern modulator, blink key, colorizer, toggle, spot lite, positioner, mix or wipe to key, preset of mix and wipes, blanking processor, loop thru video inputs, dual back porch clamps and black burst output.

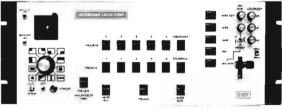
Price: \$5,245.00 PAL \$6,245.00



6114

The 6114 is a broadcast quality, eight input, three bus video switcher. It features 12 patterns, positioner, event timer, pattern modulator, soft wipe, spot lite, blink key, toggle, lake preview, automatic or manual mix and wipe blanking processor, nonsync lamp, loop through video inputs and a blackburst output.

Price: \$4,680 PAL \$5,680



6107

The 6107 is a broadcast quality switcher. Though there are only 2 buses it is possible to preview and/or preset a mix or effect without disturbing the program output. The special mixwipe function provides a combination mix and wipe (for instance, a dissolve within a circle pattern), which normally requires at least three buses. It also features 12 patterns, soft wipes, built-in intercom amplifiers; and colorizer, toggle and blackburst output.

Price: \$3,800. PAL \$4,800.

CROSSPOINT LATCH CORP.

95 Progress Street • Union, N.J. 07083 • Tel. (201) 688-1510 • Telex: 181160

NET Enterprises
L.E. Nelson Corp.
Olesen
Osram Sales
Packaged Lighting Systems
Panoak Lighting Systems &
Supply
Smith - Victor Sales Corp.
Strand Century
Syracuse Scenery & Stage
Lighting
Teledyne Big Beam
Theatre Techniques Inc.

PATCH PANEL AEG-Telefunken Bardwell & McAlister Belden Communications Walter S. Brewer Co. Colortran Electro Controls Electronics Diversified Kliegl Bros L.E. Nelson Olesen One Pass Video Osram Sales Packaged Lighting Systems Panoak Lighting Systems & Supply Rex Rheostat & Co. Skirpan Lighting Control Corp. Strand Century John M. Sullivan Associates Theatre Techniques Inc. Union Connector Co. Inc.

LIGHTS, STUDIO WARNING

Videomedia

Broadcast Electronics Comprehensive Video Supply Continental Electronics Mfg. Electro Controls Fidelipac GTE Products Corp. Grant Tower McMartin Industries John M. Sullivan Associates UNR-Rohn World Tower

LIGHTS, TOWERS

(See Tower Lights & Accessories

LIGHTNING ARRESTORS

Continental Electronics Mfg.
Delta Lightning Arrestors
Dyma Engineering
EEV
English Electric Valve
Grant Tower
Lightning Elimination Associates
MCG Electronics Inc.
McMartin Industries
Multiplier Industries
Fred A. Nudd Corporation
Thomson-CSF
TransTector Systems
Vidaire Electronics Mfg.
World Tower

LIGHTNING PROTECTION SYSTEMS

C-Cor Electronics
ComSonics Inc.
Continental Electronics Mfg.
EEV Inc.
EFI
The Great American Market
Lightning Elimination Associates
MCG Electronics

Abroyd Construction

RMS Electronics

SGL Waber Electric Thomson-CSF Topaz Electronics TransTector Systems Wilkinson Electronics World Tower

LIMITER / COMPRESSOR, AM

Applied Technology ATI Audio Technologies Inc. Audio Design & Recording Bogen Division/Lear Stegler, Inc. Broadcast Electronics Cetec Circult Research Labs Continental Electronics Mfg. dby Inc. Delta Electronics Dorrough Electronics EMT Franz Elcom Baue Elcom Specialty Products Elektrolmpex Harris Corporation IGM Communications Inovonics Incorporated Kahn Communications Leader Broadcast Systems McMartin Industries Modular Audio Products Moseley Associates NTP Elektronik A/S Rupert Neve Orban Associates Pacific Recorders Processing Plus Pyramid Loudspeaker RCA Broadcast C.N. Rood B.V. Spectra Sonics Thomson-CSF Tramec Electronics

LIMITER / COMPRESSOR, FM

Valley People VIF International

Applied Technology Corp. Audio Design & Recording ATI Audio Technologies Inc. Bogen Division/Lear Siegler, Inc. Broadcast Electronics Circuit Research Labs Continental Electronics Mfg. dbx Inc. Delta Electronics **Dolby Laboratories** Dorrough Electronics Elcom Bauer Harris Corp., Broadcast Products IGM Communications Inovonics Inc. Kajaani Oy Leader Broadcast Systems Marti McMartin Industries Modular Audio Products Modulation Sciences Moseley Associates NTP Elektronik A/S Rupert Neve Orban Associates Pacific Recorders Processing Plus QEI Rohde & Schwarz GmbH Slemens Ag Osterreich Spectra Sonics Thomson-CSF Tramec Electronics

LIMITER / COMPRESSOR, TV

Orban Associates

VIF International

Valley People

LINE SURGE PROTECTORS

AEG-Telefunken

(Bayly Engineering)
-Cor Electronics Comad Communications Computer Business Systems ComSonics Inc. Continental Electronics Mfg. Delta Electronics EEV Inc. FFI Elcom-Bauer Harris Corporation, Broadcast Products Division IGM Communications Lightning Elimination Associates McMartin Industries MCG Electronics PTS Electronics SGL Waber Electric The Superior Electric Co. Television Technology Corp. Thomson-CSF Topaz Electronics Transtector Systems Video Aids of Colorado

LOAD RESISTORS, COAXIAL

AEG-Telefunken
(Bayly Engineering)
Ava Electronics Corporation
Barker & Williamson Inc.
Bird Electronic
Coaxial Dynamics
Dielectric Communications
Electro Impulse Laboratory, Inc.
Magnavox CATV Systems
North Hills Electronics
Phelps Dodge Communications
Pyramid Industries Inc.
Pyramid Loudspeaker Corp.
Shively Labs
Thomson-CSF
Trompeter Electronics
Wide Band Engineering

LOUDSPEAKERS, CONTROL ROOM

Altec Corp. Argos Products Co. Inc. Audisar Audio-Technica U.S. Auernheimer Labs and Co. **BGW Systems** Bayly Engineering Barco Electronic Bogen Division/Lear Slegler, Inc. Broadcast Audio Corp. Broadcast Electronics Cetec Gauss
Continental Electronics Mfg. D - B Electronics Electro-Voice Flektrolmpex Dukane Corp. Fostex Hartley Products Corp. IGM Communications Integrated Sound, GLI Div. JBL Koss Corp. McCurdy Radio Industries McMartin Industries Merlin Engineering Works NET Enterprises Neal Ferrograph (USA) Inc. Panasonic, Professional Audio Div. Pyramid Loudspeaker Rohde & Schwarz GmbH Russco Shure Brothers Siemens AG Osterreich Sierra Audio Corp. Singer Products Company Spectra Sonics

Studer International AG

John M. SullIvan Associates Telectro Systems Teledyne Acoustic Research (AR) VIF International Video I-D

LOUDSPEAKERS, RECORD STUDIO

Altec Corp.

Argos Products Co. Inc. Audio-Technica U.S. Audisar Auernheimer Labs and Co. BGW Systems Barco Electronic Bogen Division/Lear Siegler, Inc. Broadcast Audio Corp. D-B Electronics Electro-Voice Elektroimpex Fostex IGM Communications JBL Koss Corp. McMartin Industries Panasonic, Professional Audio Div. Pyramid Loudspeaker Siemens AG Osterreich Shure Brothers Sierra Audio Corp Spectra Sonics Studer International AG Studer ReVox America Telectro Systems Teledyne Acoustic Research (AR)

LOW FREQUENCY EXTENDERS

Comrex Corporation dbx Inc. Hartley Products Corp. Integrated Sound GLI Div. Kahn Communications Kintek Corp. McCurdy Radio Industries C.N. Rood B.V. Sierra Audio Corp.

MACHINE ASSIGNMENT SYSTEMS

Broadcast Electronics Datatek Corp. Dynamic Technology Ltd. Kaitronics NEC America Inc. Torpey Controls & Engineering Ltd.

MAINTENANCE SERVICES

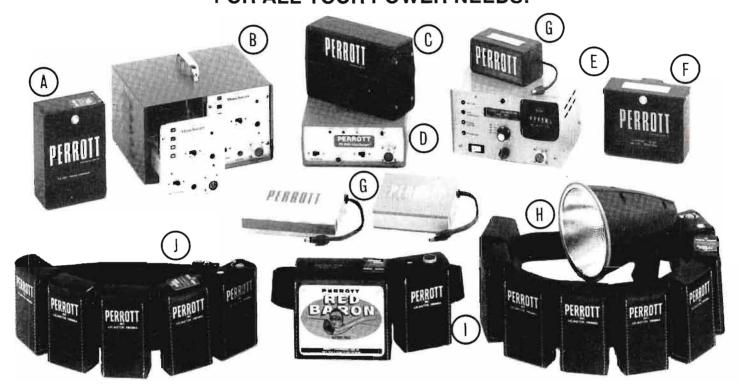
AM SERVICES AEG-Telefunken Abroyd Construction Atlas Tower Corp. Burden Associates CSP Inc. Jim Cason Electronics Davis Electronics John J. Davis & Assoc. Global Communications Grant Tower Harris Corp. Broadcast Products Div. Harrison Systems IGM Communications Image Devices Incorporated Leader Broadcast Systems LeBlanc & Royle Communications Multiphase Consulting Processing Plus RCA Service Company Radlotechniques Swager Tower Corp. Tramec Electronics Continued on page 94

PERROTT

ENGINEERING LABS, INC.

7201 Lee Highway Falls Church, VA 22046 (703) 528-5861 (703) 532-0700

MINICHARGERS® AND MINIPACKS™ FOR ALL YOUR POWER NEEDS!



- Innovative and a real value—the Gemini™ battery/ charger duo in ni-cad or silver.
- B The compact lightweight PE 100 Minicharger® is available singly or in multiples up to 8 units.
- Our 8AH ni-cad pack operates the Ampex VPR 20 recorder for over an hour. It can be charged in an hour with our KWIK-CHARGER™.
- PERROTT'S[™] long awaited KWIK-CHARGER, the *ultimate* fast charger for ni-cads. One hour troublefree charging.
- The Nicadomatic Analyzer™ provides a read out of your battery's condition. Another product designed to save you \$.

- PERROTT'S[™] popular KWIK-KLIP® packs in ni-cad and silver for ENG and EFP. Known worldwide for their power and flexibility.
- Our VTR battery packs in 4AH ni-cad, 8AH silver and 3AH lead acid are industry favorites.
- PERROTT'STM 30 volt sun gun leather units provide power for a 250 watt lighting system or video camera. Also available in shoulder pack.
- The *legendary* favorite our lightweight silver 12AH leather battery belt for maximum performance.
- PERROTT'STM leather 4AH and 7AH ni-cad belts for film and video are acclaimed for reliability.

PERROTT'S™ continued high standards in equipment design and engineering have resulted in our 25 year reputation for reliable products.

Circle (54) on Action Card



LET US KNOW YOUR NEEDS

CALL US COLLECT (703) 528-5861

Utility Tower World Tower Company

FM SERVICES AEG-Telefunken Abroyd Construction Atlas Tower Corp. Burden Associates Jim Cason Electronics
Crowder Communications Ltd. Davis Electronics John J. Davis & Assoc. Electro-Acoustic Designs Image Devices Incorporated Global Communications Grant Towers
Harris Corp., Broadcast
Products Div. Harrison Systems IGM Communications Leader Broadcast Systems LeBlanc & Royle Communications Micro Communications Multiphase Consulting Processing Plus RCA Service Company Radiotechniques Rohde & Schwarz GmbH Swager Tower Corp.
Tramec Electronics Utility Tower
World Tower Company

TV SERVICES AEG-Telefunken Abroyd Construction Atlas Tower Corp. Broadcast Alds Inc.
Jim Cason Electronics Cinema Products Comark Communications Cohu, Electronics Div. Crowder Communications Davis Flectronics John J. Davis & Assoc Grant Towers Harris Corp., Broadcast Product Div. Harrison Systems Image Devices Incorporated Global Communications LeBlanc & Royle Communications Inc. Micro Communications Radiotechniques RCA Service Company Rohde & Schwarz Swager Tower Corp. Utility Tower Velec Sefat Videocom Engineering

Videomagnetics

World Tower Company

MICROWAVE AEG-Telefunken Abroyd Construction Andrew Corp. Atlas Tower Corp.
Davis Electronics
John J. Davis & Associates Gabriel Electronics Grant Towers Harris Corp. Broadcast Products Div.
Image Devices Incorporated International Microwave Corp. Jatex Inc. Leader Broadcast Systems LeBlanc & Royle Communications Inc. M/A-COM Video Systems Motorola Communications & Elect. Multiphase Consulting Nurad Inc. RCA Service Company R.F. Technology Radiotechniques Swager Tower Corp. Utility Tower Velec Sefat World Tower Company

Atlas Tower Corp.
Davis Electronics
John J. Davis & Assoc.
Gabriel Electronics
Grant Tower
Harris Corp., Broadcast
Products Div.
Image Devices Incorporated
M/A-COM Video Systems
Multiphase Consulting
Fred A. Nudd Corporation
LeBlanc & Royle
Communications Inc.
RCA Service Co.
Swager Tower Corp.
Utility Tower
World Tower Company

MDS SYSTEMS

Bogner Broadcast Equipment
Comad Communications
Compuson Inc.
Comsearch
Conifer
Dynacom Electronics Ltd.
EMCEE Broadcast Products
Lindsay Specialty Products Ltd.
Micro Communications
Oak Communications, CATV
Division
Standard Communications

METERS

(See Test Equipment

MIXERS, MICROPHONE

AKG Akustische u. Kino-Gerate ATI Audio Technologies inc. Amek TAC Applied Technology Audisar Audix Limited Audio-Technica U.S. Avab America Bill Audio Systems Bogen Division / Lear Siegler Broadcast Electronics, Inc Cinetronics Coherent Communications Creative Trade Crown International Georg Neumann GwbH Edcor Electro-Voice Elektroimpex EV-Tapco Foundation Electronic Instruments H.M. Electronics Hallikainen & Friends Hammond Industries Howe Audio Industrial Research Products Integrated Sound Systems, Inc. Ivle Electronics LTM Corp. of America MBI Broadcast Systems, Inc. McCurdy Radio Industries McMartin Industries Micro-Trak Rupert Neve Northland Communications PAG-Group Panasonic, Professional Audio Div. Paso Sound Products
ProTech Audio Quad-Eight Electronics Quantum Audio Labs RTS Systems Ramko Research Richmond Sound Design Russco Satt Electronics AB Sescom Inc. Shure Brothers Sontec Electronics Spectra Sonics

Stancoil Ltd.
Stellovox
Studer International AG
Studer ReVox America
Teac Corp. of America
Transist-O-Sound
Ultra Audio Pixtec
Vidaire Electronics Mfg.
Video I-D
Videomedla
Ward-Beck Systems

MICROPHONES & ACCESSORIES

BOOMS & STANDS **AKG Acoustics** AKG Akustische u. Kino-Gerate Accurate Sound Allen Gordon Enterprises The Astatic Corporation Atlas Sound Audio-Technica US Inc. Beyer Dynamics
Eugene Beyer Electrotechnische
Fabrik GmbH & Co.
Bogen Division / Lear Siegler Broadcast Electronics, Inc. David H. Brothers Co. Cinema Products Continental Electronics Mfg. Creative Trade, CTAB AB D - B Electronics Elektrolmnex Fidelipac Corp. G.C. Electronics Hammond Industries Harris Corporation Karl Heitz Inc. McCurdy Radio Industries NET Enterprises Neal Ferrograph (USA) Inc. Northland Communications Georg Neumann GwbH Paso Sound Products Sennheiser Flectronic Corp. Shure Brothers Singer Products Co. Inc. Strand Century Studer International AG John M. Sullivan Associates Turner, Division of Telex Communications, Inc. Vidaire Elec. Mfg.

FLEXIBLE / MOBILE HOLDER (FOR CONSOLES)
AKG Acoustics
AKG Akustische u. Kino-Gerate

AKG Akustische u. Kino-Gerate
Atlas Sounds
Beyer Dynamics
Creative Trade, CTAB AB
Eugene Beyer Elektrotechnische
Fabrik GmbH & Co.
Bogen Division / Lear Slegler
Broadcast Electronics
Continental Electronics Mfg.
Harris Corporation
Neal Ferrograph (USA) Inc.
Georg Neumann
R-Columbia Products

Sescom Shure Brothers Studer International AG

HAND HELD AIWA AKG Acoustics AKG Akustische u. Kino-Gerate Argos Products Co. Inc. The Astatic Corporation Audio-Technica US, Inc. Auditronics Eugene Beyer Elektrotechnisch

Eugene Beyer Elektrotechnische Fabrik GmbH & Co.
Beyer Dynamics
Bogen Division / Lear Slegler
Broadcast Electronics, Inc.
David H. Brothers Co.
Cetec Vega
Continental Electronics Mfg.

Creative Trade, CTAB AB
Electro-Voice
Elektroimpex
Eumig USA

G.C. Electronics Hammond Industries Harris Corporation, Broadcast Products Division Leader Broadcast Systems Nady Systems George Neumann GwbH Northland Communications PAG-Group Panasonic Canada-Video Systems Panasonic Professional Audio Division Paso Sound Products RMS Electronics Sennisheiser Elect. Corp. Shure Brothers Sony Standard Communications Studer International AG Studar Revox America, Inc. John Sullivan Associates Swintek Enterprises, Inc. TOA Electronics
Tascam, Div. of Teac
Telex Communications Turner, Division of Telex Communications, Inc. Vidaire Electronics Mfg.

Fidelipac Corp.

Video I-D

LAPEL MIKE AlWA AKG Acoustics AKG Akustische u. Kino-Gerate Audio-Technica US Inc. Auditronics Auditronics
Beyer Dynamics
Eugene Beyer Elektrotechnische
Fabrik GmbH & Co.
Bogen Division / Lear Siegler
Broadcast Electronics David H. Brothers Co.
Coherent Communications Creative Trade, CTAB AB Crown International Electro-Voice Eumig USA Fidelipac Corp. G.C. Electronics Harris Corporation Micron Audio Prod Northland Communications PAG-Group Panasonic Canada-Video Systems Panasonic Professional Audio Sennheiser Elect. Corp. Shure Brothers
Standard Communications Superex Electronics Corp. Swintek Enterprises Telex Communications Turner, Division of Telex Communications, Inc. Vidaire Electronics Mfg. Corp.

Video I-D LAVALIER MIKE AIWA AKG Acoustics AKG Akustische u. Kino-Gerate Altec Lansing The Astatic Corporation Audio-Technica US Inc. Auditronics Beyer Dynamics Eugene Beyer Elektrotechnische Fabrik GmbH & Co. Bogen Division / Lear Siegler Broadcast Electronics David H. Brothers Co. Cetec Vega Coherent Communications Comprehensive Video Supply Creative Trade, CTAB AB Crown International Dukane Corp. Edcor Electro-Voice Eumig USA Fidelipac Corp. G.C. Electronics Harris Corporation Micron Audio Prod. Ltd. Nady Systems

Continued on page 96

TOWER SERVICES

Abroyd Construction

AEG-Telefunken

George Neumann GwbH

SAM82

Dimensions: 17.5 x 3.2" Weight: 17.6 lbs





Dimensions: 11.3 x 10.4 x 3.1"

Weight: 8.5 lbs

(ac and dc operated)

Made in Sweden by



P.O. Box 32006

S-126 11 Stockholm/Sweden

Phone: +46 (8) 81 01 00 Telex: 10884 SATTEL S

International distribution:

Australia: G.E. Direct Marketing, Melbourne Benelux: Trans-Tec BV, Rotterdam Denmark: AEG Dansk Elektricitets A/S, Copenhagen Finland: Sähköliikkeiden OY, Vantaa France: Publison Audio Professional, Paris Japan: Hoei Sangyo Co Ltd, Tokyo Middle East: AATC, Amman/Jordan Norway: Siving Benum A/S, Oslo Switzerland: Biesse Elettronica SA, Lugano United Kingdom: AKG Acoustics Ltd, London USA: Martin Audio Video Corp., New York West Germany: BFE KG, Mainz Yugoslavia, Czechoslovakia, Bulgaria, Romania, Greece: C Stavrinidis, Paudex/Switzerland

I am interested in SAM 82/SAM 42

Company _______

Name _ _ ____

Address .

Postal code_____

Country_____

Telephone _______BC 6/8

Circle (55) on Action Card

NET Enterprises Northland Communications PAG-Group Panasonic Canada-Video Systems Panasonic Professional Audio Paso Sound Products Sennheiser Shure Brothers Sony Studer International AG Swintek Enterprises Telex Communications
Turner, Division of Telex Communications, Inc. Vidaire Elec. Mfg.

PARABOLIC & SHOTGUN

AKG Acoustics AKG Akustische u. Kino-Gerate Audio-Technica US Inc. Eugene Beyer Elektrotechnische Fabrik GmbH & Co. Beyer Dynamics Bogen Division / Lear Siegler David H. Brothers Co. Coherent Communications
Comprehensive Video Supply Electro-Voice Fidelinac Corp. Gelco Electronics Ltd. Georg Neumann GwbH PAG · Group Sennheiser Electronic Corp.

MICROPHONES. **WIRELESS**

AEG-Telefunken Beyer Dynamic Inc. Eugene Beyer Elektrotechnische Fabrik GmbH & Co. Cetec Vega Coherent Communications Comrex Corporation Edcor Alan Gordon Enterprises H. M. Electronics
Micron Audio Prod. Ltd. Nady Systems Paso Sound Products
R-Columbia Products Ken Schaffer Group Sennheiser Electronic Corp. Spectra Sonics Swintek Enterprises, Inc. Telex Communications

MICROPHONE SPLITTER

Harris Corp., Broadcast Products Neal Ferrograph (USA) Inc. Georg Neumann Ramko Research Sescom Straight Wire Audio Wireworks
Whirlwind Music Dist.

MOBILE UNITS

(See Vans)

MODULATION CONTROLLER

Delta Electronics

Asaca/Shibasoku

MODULATORS, TV

Aston Electronic Designs Ltd. Automation Techniques Inc. ATV Research Barco Video Systems Don Britton Ent. Catel Comtec Data Corp. Crowder Communications Crow of Reading Ltd. Dynair Electronics

Fung Eng. Labs Inc. GTE Products Corp. Gardiner Communications Corp. Harris Corp., Broadcast Products Div. Javelin Electronics Letrotech Inc. Marshall Electronics Panasonic Phasecom Rohde & Schwarz Scientific-Atlanta TL Systems Telemet Television Technology Corp. Thomson-CSF Times Fiber Communications Triple Crown Electronics UHF Associates

MONITORS, AUDIO & RF

AM SYSTEM BES Electronics Belar CSP Inc. Comad Communications Continental Electronics Mfg. Delta Electronics Gorman Redlich Harris Corporation, Broadcast Products Division Motorola Inc., Special Products Potomac Instruments ProTech Audio Rohde & Schwarz Rohde & Schwarz GmbH Singer Products Co. Inc. Wavetrk Indiana

ANTENNA

Comad Communications Delta Electronics Gorman Redlich Mfg. Co. Harris Corporation
Potomac Instruments

BASE CURRENT / ANT

SAMPLING BES Electronics Ltd. Belar CSP Inc. Continental Electronics Mfg. Cosmin Electronics Delta Electronics Geleco Electronics Gorman Redlich Potomac Instruments Thomson-CSF

DIRECTIONALS

BES Electronics Ltd. CSP Inc. Coaxial Dynamics Continental Electronics Mfg. Cosmin Electronics Delta Electronics Gorman-Redlich Mfg. Co. Harris Corporation, Broadcast Products Division Micro Communications Potomac Instruments Thomson-CSF

FM Systems

Broadcast Electronics Rohde & Schwarz

FREQUENCY

Ailtech Belar Broadcast Electronics, Inc. Cetec Broadcast Group Comad Communications
Continental Electronics Mfg. Eidson Electronic Global Specialties Corp. Harris Corporation, Broadcast Products Division McMartin Industries Motorola Philips Test & Measuring Rohde & Schwarz Rohde & Schwarz GmbH

Singer Products Co. Inc. TFT Inc. Tektronix Thomson-CSF True Time Instruments Versa-Count Wavetek Indiana

MODULATION

Belar Broadcast Electronics Cetec Broadcast Group Comad Communications Continental Electronics Mfg. Harris Corp., Broadcast Products Javelin Electronics Kudelski S.A. Switzerland McMartin Industries Marconi Instruments Ltd.
Motorola Communications & Elect. QEI Corp.

R. E. Instruments Scientific-Atlanta Singer Products Co. Inc. TFT Inc. Thomson-CSF Versa - Count Wavetek Indiana

PHASE MONITOR

Belar CSP Inc. Continental Electronics Mfg. Delta Electronics Dranetz Eng. Labs Gorman-Redlich Mfg. Co. Javelin Electronics Jerrold Div., General Instrument Kajaani Oy Marconi Instruments Ltd. Potomac Instruments Pro Tech Audio Selco Products Thomson-CSF Video Aids of Colorado

POWER MONITOR

B & I Electronics Belar Bird Electronic Bogen Division / Lear Slegler Coaxial Dynamics Delta Electronics Harris Corporation, Broadcast Products Division Marconi Instruments Ltd. Moseley Associates Narda Microwave Potomac Instruments ProTech Audio SGL Waber Electric Slerra Audio Corp. Thomson-CSF

PROGRAM MONITOR

Belar Bogen Division / Lear Siegler Harris Corp., Broadcast Products ProTech Audio Real World Technologies Roh Corp. Russco Thomson-CSF Ultra Audio Pixtec Vldeotek Video Aids of Colorado World Video

RF LEVEL

B & I Electronics Belar Bird Electronic Coaxial Dynamics Delta Electronics Harris Corporation, Broadcast Products Division
Jerrold Div., General Instru.
Marconl Instruments Ltd. Moseley Associates Potomac Instruments R. E. Instruments Rohde & Schwarz Sadelco Inc. Thomson-CSF

SCA MONITOR

Belar Broadcast Electronics David H. Brothers Co. Cetec Broad Group
Comad Communications Continental Electronics Mfg. Harris Corporation McMartin Industries Rohde & Schwarz Singer Products Co. Inc. Swintek Enterprises TFT Inc. Thomson-CSF Versa-Count

TV AURAL Comad Communications Comrex Corp.

MONITORS, VIDEO

B & W RACK ATV Research Adwar Video Amtron Corp. Asaca Corporation
Audiotronics Corp. Barco Video Systems

Robert Bosch GmbH Davld H. Brothers Co. Cinema Products
Cohu, Electronics Division Conrac Corp.
Crow of Reading Ltd.
Electrohome Ltd.

Elektroimpex Fernseh Inc. G.B.C. Closed Circuit TV Corp. Harris Corp. Broadcast Products Div.

Ikegami Javelin Electronics Lenco Link Electronics
Motorola Communications & Elect. **NET Enterprises**

Panasonic Rohde & Schwarz Rohde & Schwarz GmbH Team Electronics Tektronix Telemation Thomson-CSF

Velee Sefat Videcom Engineering VIdeo I-D

B & W STANDALONE

Amtron Corp. ATV Research Audiotronics Corp. Barco Video Systems Robert Bosch GmbH Television Cinema Products
Cohu, Electronics Division Conrac Corporation Crow of Reading Electrohome Ltd. Elektroimpex Fernseh Inc. G.B.C. Closed Circuit TV Corp. Ikegami Javelin Electronics Lenco Link Electronics Motorola Comm. & Elect. Panasonic Rohde & Schwarz Rohde & Schwarz GmbH Team Electronics Tektronix Thomson-CSF Velec Sefat Video Aids of Colorado Videcom Engineering

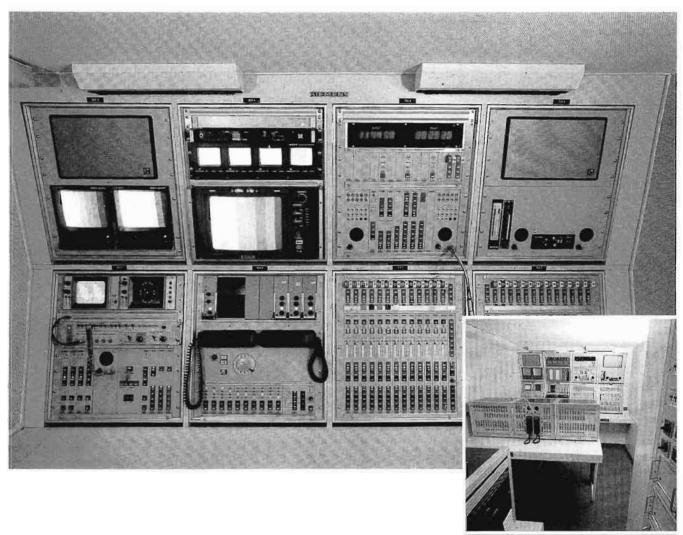
COLOR BACK Adwar Video

Visual Methods Inc.

Amtron Corporation of America Asaca/Shibasoku Autocue Products Barco Video Systems

SIEMENS

A solide solution...



Siemens: a synonym for years of experience in sound control and studio engineering. Development, planning, manufacture and mounting of complete radio an television studios, intercommunications systems, microprocessor-controlled signal routing systems, sound control desks for all purposes and sizes, professional and semi-professional TV and radio transmission vans, speech and sound transmission systems of

digital technique, peripheral modules for switch room and control desk applications.

For further details on sound control and studio engineering, please contact

Siemens AG Österreich Division Ton- und Studiotechnik A-1031 Vienna, P.O.B. 326 Phone (0222) 73 45 11/103 Tx 1 33603

Sound control equipment – for Eurovision – OB van EW 11



Circle (56) on Action Card

Robert Bosch GmbH Cinema Products Conrac Crow of Reading Ltd. Elector Flectro & Ontical Systems E)ectrohome Elektroimpex Fernseh Inc. Hitachi Ikegami Lenco Link Electronics NET Enterprises Panasonic Pve TVT Rohde & Schwarz Rohde & Schwarz GmbH Shintron Sony Corporation of America Team Electronics Tektronix Thomson CSF Velec Sefat Videcom Engineering Video I-D Videotek Inc. World Video

COLOR STANDALONE Amtron Corporation of America Asaca/Shibasoku ATV Research Autocue Products Barco Video Systems Robert Bosch GmbH Broadcast Video Systems
Canter-Redman Technologies Corp. Cinema Products Conrac Crow of Reading Ltd. Elector Electro & Optical Systems Electrohome Elektroimpex Fernseh Inc. Ikegami Hitachi Lectrotech Inc. Lenco Link Electronics Panasonic Pve TVT Rohde & Schwarz Rohde & Schwarz GmbH Shintron Sony Team Electronics Tektronix Velec Sefat Videcom Engineering

PULSE CROSS

Video I-D

World Video

Video Aids of Colorado

Adwar Video Amtron Corporation of America Asaca/Shibasoku Autocue Products Ltd. Barco Robert Bosch GmbH Cinema Products Conrac Crow of Reading Flector Electrohome Fernseh Inc. Ikegami Link Electronics Panasonic Rohde & Schwarz Shintron Tektronix Videcom Engineering Video Aids of Colorado Video I-D Videotek Inc

RECEIVER / MONITORS ATV Research Adwar Video Amtron Corporation BCB Electronic Sales Barco Electronic

World Video

Crowder Communications Crow of Reading Ltd. Elector Electro & Optical Systems Electrohome Lectrotech Panasonic Rohde & Schwarz Team Electronics Thomson-CSF U.S. JVC Corporation Videcom Engineering Video Aids of Colorado Video I-D Videotek Inc. World Video

WAVEFORM (See Also Test Equipment)
Amtron Corporation Broadcast Video Systems Michael Cox Cinema Products Crow of Reading Ltd. Flektroimnex Hitachi Image Devices Incorporated Lectrotech Lenco Marconi Instruments Ltd. Rohde & Schwarz Tektronix Thomson-CSF Ultra Audio Pixtec Video I-D Videotek Inc.

MULTICARRIER SYSTEMS

Avdin Microwave Coastcom Calzone Case Co.
GTE Lenkurt Incorporated Modulation Associates Moseley Associates C.N. Rood BV Valtec Corporation

MULTIPLEXER

ATV Research Alford Mfg. Co. Artel Communications Corp. Aydin Microwave Aydin Monitor Systems Bayly Engineering Buhl Optical CSP Inc. Coastcom Cohu, Electronics Division Comark Communications Dielectric Communications Fernseh Inc. GTE Lenkurt Incorporated GTE Products Corp Ikegami Electronics Kalart Victor Laird Telemedia Micro Communications Modulation Associates Mu-Del Electronics North Hills Electronics Nytone Electronics Corp. C.N. Rood BV Shively Laboratories Thomson-CSF Zei-Mark Corporation

MUSIC PRODUCTION SERVICES

American Image Productions Emil Ascher Music The Broadcast Center Century 21 Programming The CnB Studios CVE Recording Columbia Special Products Continental Recordings

DeWolfe Music Library Kitchen Productions Musicues Network Production Music Parasound Inc. Real Radio Co. Ken Schaffer Group
Tape-Athon / Cavox Stereo Productions Valentino Inc.

MUSIC PROGRAM SERVICES

Emil Ascher Music BPI (Broadcast Programming International) The CnB Studios CVE Recording Century 21 Programming Chase Media Inc. Computer Management Systems Concept Productions DeWolfe Music Library Drake-Chenault KalaMusic Kimian Sales Inc. Kitchen Productions Live Sound Mighty Minute Programs Musicues Radio Computing Services Real Radio Company Sacred Sounds Shane Media Services Tape-Athon / Cavox Stereo Productions VIF International Valentino Inc. Video Data Systems

NETWORKS

AUDIO MATCHING Bayly Engineering Ltd. Leader Broadcast Systems McCurdy Radio Industries Sescom Siemens AG Osterreich TM Systems TTE Inc.
Vidaire Electronics Mfg.

MIXING Michael Cox Leader Broadcast Systems McCurdy Radio Industries Modular Audio Products NET Enterprises
ProTech Audio Corporation
Siemens AG Osterreich
Straight Wire Audio

PHASING BES Electronics CSP Inc. Continental Electronics Elcom-Bauer Harris Corporation Leader Broadcast Systems McCurdy Radio Industries NET Enterprises Siemens AG Osterreich TTE Inc. Thomson-CSF

RF MATCHING **BES Electronics** Bayly Engineering CSP Inc. Continental Electronics Dielectric Communications Elcom Bauer Harris Corporation North Hills Electronics S.W.R. Siemens AG Osterreich TTE Inc. Texscan Corp. Thomson-CSF Wide Band Engineering

NEWS SERVICES

The Associated Press United Press International

NOISE REDUCTION SYSTEMS, AUDIO

ADM Technology AEG-Telefunken (Bayly Engineering) ATI-Audio Technologies Inc. Advanced Analog Systems, Inc. Aphex Systems
Applied Technology Corp. Audio & Design Recording Audionics of Oregon Bruel & Kjaer Instruments Coastcom Composite Video Deltamod Dolby Laboratories EMT Franz GTE Products Corp. Harrls Corporation, Broadcast Products Division IGM Communications Integrex Leader Broadcast Systems MXR Innovations McCurdy Radio Industries Micmix Audio Products Modulation Associates NEC America NET Enterprises Opamp Labs Inc Procesing Plus Ramko Research Sierra Audio Straight Wire Audio Tascam, Div. of Teac Valley People

NOISE REDUCTION SYSTEMS, VIDEO

Asaca/Shibasoku Composite Video Crow of Reading Ltd. Digital Video Systems Faroudia Laboratories Fernseh, Inc. Fortel GTE Products Corp. Harris Corporation Microtime NEC America NET Enterprises Philips Broadcast Group Siegel - Electronics Thomson-CSF

OSCILLATORS, TONE

Broadcast Electronics Broadcast Technology Bruel & Kjaer CMC Technology Corp. Channelomatic Datatronix Deltamod Frequency Devices Gorman-Redlich Leader Broadcast Systems McCurdy Radio Industries Multidyne Electronics Opamp Labs Inc. Potomac Marine & Aviation ProTech Audlo Corporation Rohde & Schwarz Spectra Sonics Sphere



EIMAC cavities cover 54 to 970 MHz at power levels to 30 kW -our design or yours

Varian EIMAC has complete cavity design and production capability. We make sure that tube and cavity are compatible. If it isn't an off-the-shelf-item, we have the designers and engineers for any specific job.

EIMAC has expertise in all disciplines including pulse, CW, FM, and TV. We match tube, power, bandwidth and operating mode to achieve optimum perform-

More information on EIMAC cavities and tubes is available in our Cavity Capability brochure from Varian EIMAC. Or for prompt consideration of your special design requirements, contact Product Manager, Var-

ian EIMAC, or the nearest Varian Electron Device Group sales office. Call or write today.

> Electron Device Group Varian EIMAC 301 Industrial Way San Carlos, California 94070 415-592-1221

Varian A.G. Steinhauserstrasse CH-6300 Zug, Switzerland Tel: (042) 23 25 75 Telex: 78 841

EIMAC Cavity	Matching EIMAC Tube	Tuning Range (MHz)	Power Output
CV-2200	4CX20,000A	86-108	30 kW
CV-2220	3CX1500A7	86-108	1.5 kVV
CV-2225	4CX3500A	86-108	5 kW
CV-2240	3CX10,000U7	54-88	10 kW†
CV-2250	3CX10,000U7	170-227	10 kW†
CV-2400	8874	420-450	300/1250 W*
CV-2800	3CX400U7	850-970	225 W
CV-2810	3CX400U7	910-970	190 W

*pulsed power

†peak sync, or 2.5 kW combined in translator service



OSCILLOSCOPES

(See Test Equipment)

PATCH PANELS

ADM Technology Audio Accessories, inc Auditronics Bayly Engineering Ltd. Brabury Broadcast Systems Broadcast Electronics Broadcast Technology Continental Electronics Crow of Reading Ltd. Datatronix Dell Technical Vehicles
Dielectric Communications Dyma Engineering Dynamic Technology Ltd. Dynatech Data Systems Electro-Acoustic Designs Elektroimpex Farrtronics Harris Corporation, Broadcast Products Division Kings Electronics Link Electronics McCurdy Radio Industries McMartin Industries Micro Communications Panoak Lighting Systems
Phelps Dodge Communications Potomac Instruments Rex Rheostat & Co., Inc. Shively Laboratories Siemens AG Osterreich Sphere Strand Century Switchcraft Tascam, Div. of Teac Theatre Technologies Inc. Thomson-CSF Trompeter Flectronics Union Connector Co., Inc. Vector Electronic Videomedia Wireworks

PHASE CONTROLLER, AUTOMATIC

California Instruments Delta Micro Communications NEC America Rohde & Schwarz Thomson-CSF

PHASE CONVERTERS

California Instruments Kay Industries Thomson-CSF Wilkinson Electronics

PHASE CORRECTOR, CART

Howe Audio Productions

POWER CONTROLLER

Delta Electronics

POWER SUPPLIES

AEL (Am. Elec. Labs)
AKG Acoustics
AKG Akustische u. Kino-Gerate
Advance Conversion Devices
Alpha Technologies
Anton/Bauer
Beyer Dynamic
California Instruments
Catel
Christie Electric Corp.
Cinema Products

Cinetronics Coastcom Comprehensive Video Supply Crowder Communications Peter W. Dahl Co., Inc. Dukane Corp. Dynamote Dynascan Elektrolmpex Frequency Devices GTE Products Corp. Glassman High Voltage Gould Inc./Instruments Div. Harris Corp. Broadcast Products Keithley Instruments McCurdy Radio Industries Microwave Power Devices Modular Audio Products Motorola Comm. & Elec Georg Neumann GwbH North Wind Power Co. Nova Electric Mfg. Co. Opamp Labs, Inc. PTS Electronics Potomac Marine & Aviation Power Products ProTech Audio Corporation Sait Electronics Siemens AG Osterreich Sorenson Spectra Sonics Systron Donner Sytron Inc.
Teledyne Energy Systems Tepco Corp. Thomson-CSF Vanner Varian, MCSD Vidaire Electronics Mfg. Corp.

PREAMPLIFIERS

MICROPHONE ADM Technology AKG Acoustics ATI Audio Technologies Incorporated Amek TAC Arrakis Systems Audio & Design Recording Audionics of Oregon Audisar Audix Ltd. Bayly Engineering Ltd. Bell Audio Systems, Inc. Bogen Division / Lear Siegler Broadcast Electronics, Inc Broadcast Technology Bruel & Kjaer Instruments Cetec Broadcast Group Comad Communications Continental Electronics Mfg. Datatek Datatronix Dukane Corp. Dyma Engineering Edcor Elektroimpex EV-Tapco Full Compass Systems Georg Neumann GwbH Gregg Laboratories Hammond Industries Harris Corporation, Broadcast Products Division IT I Electronics Leader Broadcast Systems MXR Innovations, Inc. McCurdy Radio Industries Micro - Trak Corporation Miles Assoc., Div. of Miles Air Products Ltd. Modular Audio Products Rupert Neve

Opamp Labs Inc.

RTS Systems

Roh Corporation

Russco Sait Electronics

Shure Brothers

Sescom Inc.

Paso Sound Products Processing Plus

ProTech Audio Corporation Quad-Eight Electronics

Ramko Research Richmond Sound Design

Siemens AG Osterreich

Sontec Electronics Shure Brothers Siemens Ag Osterreich Spectra Sonics Sphere Straight Wire Audio TOA Electronics Tri Tec Systems Inc. Valley People

MODULES, FOR CONSOLES ADM Technology ALICE (Stancoil Ltd.) Amek TAC Arrakis Systems Audio Technology Audix Ltd Bogen Division / Lear Siegler Broadcast Electronics, Inc. Broadcast Technology Datatronix Dyma Engineering Elektroimpex Georg Neumann GwbH Howe Audio Leader Broadcast Systems McCurdy Radio Industries McMartin Micro - Trak Corporation Modular Audio Products Rupert Neve Georg Neumann Opamp Labs Inc. ProTech Audio Corporation Quad-Eight Electronics Richard Sound Design

Richard Sound Design
Roh Corporation
Sait Electronics
Sessom
Siemens Ag Osterreich
Sontec Electronics
Spectra Sonics
Sphere Electronics
Straight Wire Audio
TOA Electronics
Telex Communications
Tri Tec Systems Inc.
Ward-Beck Systems

STEREO
ADM Technology
ATI Audio Technologies
Incorporated
Arrakis Systems
Audio Technology
Audionics of Oregon
Audisar
Audix Ltd.

Broadcast Electronics
Bryston
Comad Communications
Continental Electronics Mfg.
Crown International
Dyma Engineering
Ear Systems Inc.
Elektroimpex
Full Compass Systems

Georg Neumann GwbH Harris Corporation, Broadcast Products Division Integrated Sound Systems Leader Broadcast Systems Logitek Electronic Systems

MXR Innovations McCurdy Radio Industries Micro - Trak Corporation Rupert Neve Georg Neumann

Panasonic, Professional Audio Div. Processing Plus ProTech Audio Corporation

RTS Systems Ramko Research Richmond Sound Design Roh Corporation Rohde & Schwarz

Rohde & Schwarz Rohde & Schwarz GmbH C.N. Rood B.V. Russco

Salt Electronics Sescom, Inc. Siemen Ag Osterreich Sontec Electronics Sphere

Stanton Magnetics Straight Wire Audio Teac Corp. of America Telex Communications, Inc. Valley People Vidaire Electronics Mfg. Corp.

TURNTABLE

ADM Technology ALICE (Stancoll Ltd.) Applied Technology Arrakis Systems
ATI Audio Technologies Inc. Audio Path Audio Technology Audionics of Oregon Audisar Audix Ltd. Bogen Division / Lear Slegler Broadcast Audio Assoc. Broadcast Electronics Bryston Cetec Broadcast Group Comad Communications Continental Electronics Mfg. Crown International Inc. **D-B Electronics** Datatronix Dyma Engineering Full Compass Systems Gregg Laboratories Hammond Industries Harris Corporation, Broadcast Products Division Howe Audio Leader Broadcast Systems Logitek Electronic Systems LPB Inc. MXR Innovations McCurdy Radio Industries McMartin Industries Micro-Trak Corporation Opamp Labs Inc. Processing Plus ProTech Audio Corporation RTS Systems Radio Systems Ramko Research Research Systems Tech. Russco Sescom Sontec Electronics Stanton Magnetics Straight Wire Audio Tweed Audio USA Inc

VIDEO

Acrodyne
Blonder-Tongue Laboratories
Comad Communications
Crow of Reading Ltd.
International Nuclear Corp.
Opamp Labs Inc.
Rohde & Schwarz
Thomson-CSF

Vidalre Electronics Mfg.

PROCESSORS, AUDIO

ATI Audio Technologies Inc. Aphex Systems Ltd. Applied Technology Corp. Audio & Design Audio Path Broadcast Electronics Circult Research Coastcom Comad Communications Composite Video Deltamod Dyma Engineering Eventide Inc. Greg laboratories IGM Communications Inovonics Integrated Sound
Kahn Communications Labs Inc. Lexicon MXR Innovations Modulation Sciences Orban Associates Processing Plus ProTech Audio
Pyramid Loudspeaker Corp. Richmond Sound Design Sontec Electronics Spectra Sonics Trident (USA)



Angēnieux has developed for your needs, the complete modular lens systems. With selectable attachments, we cover—from the widest wide angle to the super telephoto with the same basic lens.

These systems cover studio lenses with outstanding optical quality as well as durable, lightweight, compact ENG, EFP and field lenses.

Whatever your format, 1/2", 3/4", 1", 1 1/4", if you're thinking about purchasing a good lens then why not consider—the very best.

angēnieux inc.

120 DERRY RD., HUDSON, N.H., 03051 • (603) 880-1710 13381 BEACH AVE., VENICE, CA 90291 • (213) 821-5080 190 DON PARK RD., MARKHAM, ONT. L3R-2V8 • (416) 475-5454

Circle (58) on Action Card

VIF International URSA Malor Valley People

PRODUCTION/ POST-PRODUCTION **SERVICES**

Action Video BCB Electronic Sales Ltd. Bonneville Productions The Broadcast Center Center City Video Compro Dolphin Productions Golden Egg Interface Video Systems Imero Florentino Assoc. Bernie Krause/Gary Remai LTI Productions Leo Diner Films McQ Productions Master Digital Inc. Mobile Visual Productions NET Enterprises New Earth Television Works Systems Ltd. Oak Communications Inc. Satellite Systems Optical Radiation Quantum Audio Labs R.A.V.E./Rellable Audio Video Enterprises
Rank Precision Industries, Inc. (Cintel Div.)
K.L. Rubel & Assoc., Ltd.
Smith-Mattingly Productions Ltd. E.J. Stewart Inc.
Teleconcepts In Communications Television Assoc. Inc.
Television Production Services
Television International Operations, Ltd. Trans-American Video Unidek Film Editing Systems Valentino Inc. Vipro Program Serivces Video Workshop

PROJECTORS

FILM CHAIN **Buhl Optical** Crow of Reading Ltd. Eastman Kodak Harris Corporation, Broadcast Products Division Ikegami Electronics Image Devices Incorporated Kalart Victor Corporation Laird Telemedia L-W International Mobile Visual Productions Multi - Track Magnetics Rangertone Research Rank Precision Industries (Cintel Div.) Spendler & Sauppe Westrex The Zei-Mark Corp.

LARGE SCREEN TV

Advent Corp. Barco Electronic Canter Redman Technologies Corp. Conrac Eidophor Ltd. Electrohome Ltd. General Electric Co. - Video Display Equipment Operation Image Magnification Inc Kalart Victor Corporation Link Electronics Panasonic Tele Concepts in Communications

Buhl Optical Crow of Reading Ltd. Datatron Eastman Kodak The Great American Market

Harrls Corporation, Broadcast Products Division Interand Kalart Victor Laird Telemedia Mobile Visual Productions Optical Radiation Rank Cintel Rangertone Research Research Technology Int'l. Spendler & Sauppe The Zei-Mark Corp.

PROMPTERS

Autocue Products Ltd. BEI (Beston Electronics) Cinema Products D'San Corporation Listec Television Equipment Corp. Q-TV Telescript Texscan/MSI Corporation

PULSE ASSIGNMENT SYSTEMS

Central Dynamics Leitch Video Lenco Thomson-CSF

RF COMPONENTS

Andrew Corp. BES Electronics Calvert Electronics Catel Coaxial Dynamics Compac Development Corp. Delta Electronics Elcom-Bauer Jerrold Div Magnecraft Electric Co. Marconi Instruments Ltd. Marshall Electronics Micro Communications Motorola Mu-Del Electronics North Hills Electronics Nurad Inc. Phelps Dodge Communications Rohde & Schwarz Scientific Atlanta Phoenix Div. Shively Labs TL Systems Texscan Thompson-CSF Tramec Electronics UTE Microwave Varian MCSD Varian Associates

READER FOR TIME **CODE IN VERTICAL** INTERVAL

BTX Corporation Control Video Corp. Datatron Dynamic Technology Ltd. EÉCO Inc. Gray Engineering Labs Skotel Corp. Telcom Research

RECEIVERS

AM RECEIVER TFT Inc.

DATA AEG-Telefunken Aydin Microwave Catel (Division of United Scientific) Datum Inc Johnson Electronics Radio Data Systems Technology Service Corp

EARTH STATION

AEG-Telefunken Andersen Scientific Anixter Mark Automation Techniques Aydin Microwave Blonder-Tongue Labs California Microwave Coastcom Comad Communications ComTech Data Conifer Crowder Communication Gardiner Communications Harris Corp., Broadcast Products Hughes Aircraft Co., M/A-COM Video Systems
International Microwave Corp. Microdyne Corporation Modulation Associates NEC America Oak Communications Inc. Satellite Systems

Rohde & Schwarz SED Systems Satcom Inc. Scientific-Atlanta Standard Communications TL Systems TerraCom-Loral Triple Crown Electronics United States Tower Velec Sefat

EBS RECEIVER

AEG-Telefunken Automation Techniques Broadcast Electronics Emergency Alert Receiver Gorman-Redlich Mfg. Co. Harris Corp., Broadcast Products International Nuclear Corp. Johnson Electronics McMartin Industries Radio Systems Inc. Rivers Associates Inc.

FM RECEIVER AEG-Telefunken Audix Ltd. Bogen Division / Lear Slegler Catel
Comad Communications
Electra Co., Div. of Masco
Emergency Alert Receiver Inc.
Gorman Redlich Mfg. Co. McMartin Industries Micro Communications Paso Sound Products Pyramid Loudspeaker Corp. R - Columbia Products Regency Electronics
Rohde & Schwarz
Scientific Atlanta Phoenix Div. H.H. Scott Sharp Electronics Studer International AG Studer ReVox America Swintek Enterprises TFT Inc. Triple Crown Electronics

MICROWAVE AEG-Telefunken Automation Techniques Aydin Microwave Cablewave Systems Conifer Corp. Farinon Video/Harris Corp. Harris Broadcast Microwave Harris Corp., Broadcast Products International Microwave Corp. M/A-COM Video Systems Marconl Instruments Ltd. Moseley Associates NEC America Nurad Inc. R.F. Technology RHG Electronics

Satvision Tayburn Electronics Tepco Corp.
Terracom - Loral
Visual Methods Inc.

RECEIVER/GENERATOR Delta Electronics

AEG-Telefunken Bogen Division/Lear Siegler David H. Brothers Co. Comad Communications Continental Electronics Mfg. Emergency Alert Receiver Inc. Harris Corp., Broadcast Products Johnson Electronics McMartin Industries Moseley Associates Radio Data Systems, Inc. Rohde & Schwarz TFT Inc.

AEG-Telefunken Artel Communications Aydin Microwave Broadcast Electronics Cablewave Systems Comad Communications Continental Electronics Mfg. Harris Corp./Farinon Video International Microwave Corp. McMartin Industries M/A-COM Video Systems Marti Micro Control Associates, Inc. Moseley Associates
Phelps Dodge Communications
R.F. Technology RHG Electronics Swintek Enterprises TFT Inc. Tayburn Electronics Versa-Count

TSL TFT Inc.

TIME (WWV) AEG-Telefunken Catel ESE McKay Dymek Company Scientific Radio Systems Tepco Corp.
True Time Instruments

WEATHER, VHF AEG-Telefunken Alden Electronic Impulse & Recording Equipment Electra, Div. of Masco Emergency Alert Receiver Gorman Redlich Kudelski S.A. Switzerland Heath Company Motorola Communications & Elec. Regency Electronics Scientific Radio Systems

RECEIVER, TV AURAL

Rohde & Schwarz

RECORDER PARTS & ACESSORIES

CAPSTAN ASSEMBLY Broadcast Electronics Century 21 Programming Consolidated Electronic Ind. Leader Broadcast Systems Merlin Engineering Neal-Ferrograph Studer ReVox America Telectro Systems **UMC Electronics** VIF International

CARE KITS

Alisop R. B. Annis Co. Broadcast Electronics
Century 21 Programming Chemtronics Fidelinac G.C. Electronics Harris Corp., Broadcast Products Div. Leader Broadcast Systems Marathon Products Merlin Engineering Neal-Ferrograph Nortronics PAG - Group Studer ReVox America Teac Corp. of America The Texwipe Company

DRIVE MOTOR POWER SUPPLY

Broadcast Electronics Century 21 Programming Consolidated Electronic Ind. Leader Broadcast Systems Merlin Engineering Neal-Ferrograph Studer ReVox America

ELECTRONICS

Audi-Cord Broadcast Electronics Brush Magnetic Heads Consolidated Electronic Ind. Leader Broadcast Systems Merlin Engineering Neal Ferrograph Sontec Electronics Studer ReVox America Taber Mfg. & Eng. Teac Corp. of America UMC Electronics
United Research Lab Corp. Videomagnetics VIF International Westrex

HEADS (See Heads)

MOTORS

Audi-Cord Broadcast Electronics Brush Magnetic Heads Century 21 Programming Consolidated Electronic Ind. International Electro-Magnetics Leader Broadcast Systems Merlin Engineering Neal Ferrograph Studer ReVox America Taber Mfg. & Eng. Co. Telectro Systems UMC Electronics
United Research Lab Corp. VIF International

SERVO MODIFICATIONS

Consolidated Electronic Ind. Inovonics Marconl Electronics Merlin Engineering Multi · Track Magnetics Recortec Studer ReVox America Video Associates Labs

SPEED CONTROLS

Cherry, Semiconductor Consolidated Electronic Ind. Leader Broadcast Systems Merlin Engineering Multi - Track Magnetics Neal Ferrograph Studer ReVox America Unemco International

SYNCHRONIZERS

Audiotronics
The BTX Corporation Consolidated Electronic Ind. EECO Incorporated Kudelski S.A. Switzerland Leader Broadcast Systems Merlin Engineering Multi-Track Magnetics

Neal Ferrograph Skotel Corporation Studer International AG Studer ReVox America Telcom Research Tiffen Manufacturing Corp.

TAPE DECK CABINETS

Broadcast Electronics
Consolidated Electronic Industries Ear Systems Inc. Grinnan Fixture Leader Broadcast Systems Micro-Trak Merlin Englneering Otari Corp. Sound Dynamics Studer ReVox America UMC Electronics Winsted Corp.

TAPE DECKS

AEG-Telefunken Amilon Corp. Ampro-Scully Audi-Cord Broadcast Electronics David H. Brothers Co. Century 21 Programming Consolidated Electronic Industries International Electro-Magnetics Kudelski S.A. Leader Broadcast Systems Merlin Engineering Neal Ferrograph Rupert Neve Panasonic, Professional Audio Div. Sound Dynamics Studer ReVox America Tascam, Div. of Teac Telectro Systems Telex Communications Triple Linc. UMC Electronics United Research Lab Corp. VIF International

TENSION CONTROLS

Broadcast Electronics Consolidated Electronic Industries Inovonics K B Systems Merlin Engineering Recortec UMC Electronics VIF International

TRANSPORT SERVICES

Century 21 Programmer Consolidated Electronic Industries Leader Broadcast Systems Merlin Engineering Neal Ferrograph Recortec Sound Dynamics Taber Mfg. & Eng. VIF International

VELOCITY ERROR CORRECTORS

CMC Technology Corporation
Consolidated Electronic Industries Merlin Engineering Studer International AG

RECORDERS. AUDIO **TAPE**

CARTRIDGE (See Cart Machines)

CASSETTE (See Cassette Machines)

DIGITAL

Amiton Corp. Comex Systems Consolidated Electronic Industries 3M Company, Video Products MCI Master Digital Inc.
Panasonic, Professional Audio Div.
Rangertone Research Inc.

FILM RECORDER Enertec Schlumberger Kudelski S.A. Switzerland

Magna-Tech Electronic Co. Magnasync/Moviola Multi-Track Magnetics Rangertone Research Rank Cintel Ltd. Westrex

LOGGING

Amilon Corp. Ampex Ampro-Scully Broadcast Electronics David H. Brothers Co. Consolidated Electronic Industries Continental Electronics Mfg. Dictaphone Corporation Elektroimpex IGM Communications International Electro Magnetics Kudelski S.A. Switzerland Leader Broadcast Systems Magnasync/Moviola Nagra Magnetic Recorders Neal Ferrograph (USA), Inc. Otari QSI Systems Singer Products Co. Inc. Soundscriber Magnetic Recording Co. Inc. The Stancil-Hoffman Corporation Studer ReVox America Telectro Systems Telex Communications

REEL: ONE & TWO TRACK

Accurate Sound Ampax Ampro / Scully BASF Limited David H. Brothers Co. Cetec Broadcast Group
Consolidated Electronic Industries Continental Electronics Mfg. Flectro Sound Elektroimpex Enertec Schlumberger IGM Communications ITC/3M Kudelski S.A. Switzerland Leader Broadcast Systems Lyrec Manufacturing A/S Magna-Tech Electronic Co. Microprobe Electronics Micro-Trak Nagra Magnetic Recorders Neal Ferrograph (USA) Inc. Rupert Neve Northland Communications Otarl Pacific Recorders
Panasonic, Professional Audio Div. Ramko Research RCA Broadcast L. J. Scully Manufacturing Corp. Singer Products Co. Inc. Sono-Mag
Sound Dynamics
Soundscriber Magnetic Recording Stancil Corp. Stillavox Studer International AG Studer ReVox America Tascam, Div. of Teac Telex Communications United Research Lab Corp. VIF International

REEL: FOUR TRACK Accurate Sound Ampex Ampro / Scully
Consolidated Electronic Industries Continental Electronics Mfg. IGM Communications Kudelski S.A. Switzerland Lyrec Manufacturing A/S Microprobe Electronics, Inc. Nagra Magnetic Recorders Neal Ferrograph (USA) Inc. Rupert Neve Northland Communications Otari Ramko Research S.J. Scully Singer Products Co. Inc.

Stancil Hoffman Stellavox Studer International AG Studer ReVox America Tascam, Div. of Teac Telex Communications, Inc. United Research Lab Corp. VIF International

REEL: MULTI-TRACK

Accurate Sound
Ampro / Scully
Consolidated Electronic Industries
Continental Electronics Mfg. Dictaphone Corporation Leader Broadcast Systems, Inc. Lyrec Manufacturing A/S MCI Inc. Rank Cintel Ltd. Rupert Neve Otari Sierra Audio Corp. Singer Products Co. Inc. Soundcraft Electronics Stancil - Hoffman Stellavoy Studer International AG Studer ReVox America Tascam, Div. of Teac Telex Communications, Inc. Trident (USA) Inc. United Research Lab Corp. VIF International

RECORDERS, VIDEOTAPE

¼ ·INCH Fernseh Hitachi Ikegami Technicolor

1/2 - INCH Action Video Inc. Adwar Video Canter Redman Technologies Corp. Feathercam Inc. ikegami Electronics Javelin Electronics Merlin Engineering NET Enterprises Panasonic QSI Systems RCA Sharp Electronics Sony Corp. of America US JVC Corporation

34 - INCH Action Video Inc. Adwar Video Merlin Engineering NET Enterprises Panasonic Recortec Sony Corporation of America
US JVC Corporation Video I-D Video Masters

1 - INCH

Video I-D

A.F. Associates Adwar Video Ampex BCB Electronic Sales Ltd. Robert Bosch GmbH Fernseh Inc. Hitachi International Video Corp. 3M Company, Video Products Marconi Electronics Merlin Engineering Works NEC America Philips Broadcast Group RCA Broadcast Systems Sony Corporation of America Video Masters

Extended Play Kit

Marconi Electronics

Merlin Engineering Works Recorted

QUAD

A.F. Associates Ampex Robert Bosch GmbH Marconi Merlin Engineering RCA Broadcast Systems Video Masters

LOGGING

David H. Brothers Co. Fernseh Inc. Merlin Engineering QSI Systems

RECONDITIONED MACHINES

A.F. Associates Merlin Engineering Works

SLOW MOTION REPLAY

Ampex Brabury Broadcast Systems Elgen Video Fernseh Inc. Javelin Electronics Marconi Electronics Merlin Engineering Works NEC America, Broadcast Equipment NET Enterprises Oktel Corporation Panasonic RCA Broadcast Systems Television Graphics U.S. JVC Corporation

RECORDING SERVICES,

Accurate Sound American Image Productions Bonneville Productions CVC Recording Century 21 Programming Command Productions Compact Video
Compro Productions Continental Recordings Highland Labs Master Digital Inc Musicues W.A. Palmer Films, Inc. Real Radio Company Richmond Sound Design See Hear Industries Sierra Audio John M. Sullivan Assoc., Inc. Tape Tuesday Productions Video Workshop 9 West Recording Studio

RECORDS

AUDIO TEST

Audio-Technica US, Inc. Bruel & Kjaer Instruments Leader Broadcast Systems Ortofon A/S Shure Brothers

SOUND EFFECTS

Emil Ascher Music Century 21 Programming Columbia Special Products (CBS Comprehensive Video Supply Leader Broadcast Systems Tech Theatre Inc. Valentino Inc.

REELS

AUDIO TAPE Broadcast Electronics, Inc. Continental Electronics Dictaphone

D'San Corporation ENG Corp. Hannay Reels Harris Corporation, Broadcast Products Division Leader Broadcast Systems 3M Mag A/V Products Division Pan Canada Magnetics Ltd. Plastic Reel Corp. Polyline Corp. See Hear Industries The Stancil-Hoffman Corporation Studer ReVox America Tascam, Div. of Teac VIE International

CABLE & MIKE (See Cables)

VIDEOTAPE

Calico Video Fujl Magnetic Tape Division Goldberg Bros. Inc. J&R Film Co., Inc. Javelin Electronics
3M Mag A/V Products Division Plastic Reel Corp. Polyline Corp.
RCA Service Company
Re-Play Video Cartridge Service Schuessler Case See Hear Industries

REGULATORS VOLTAGE

AEG-Telefunken (Bayly Engineering)
California Instruments Cinetronics Continental Electronics DTE Superior Electric Co. Lightning Elimination Associates MCG Electronics Motorola Spectra Sonics The Superior Electric Co. Sytron Inc. Thomson-CSF Topaz Electronics TransTector Systems Vidaire Electronics

RECTIFIERS

POWER (SEMICONDUCTOR)

AEG-Telefunken (Bayly Engineering) Amperex Electronics Calvert Electronics Ceco Communications Electronic Devices GTE Products Corp. Motorola RCA Distributor & Special Products
Thomson-CSF

AEG-Telefunken (Bayly Engineering) Amperex Electronics Calvert Electronics Ceco Communications Comprehensive Video Supply Electronic Devices Motorola RCA Distributor & Special Products Thomson-CSF

STACK

Amperex Electronics Calvert Electronics
Ceco Communications Electronic Devices

TUBES (See Tubes)

REMOTE CONTROL SYSTEMS, AM-FM

Bayly Engineering Broadcast Electronics

Channelmatic
Comad Communications Communication Control Centers Inc.
Delta Electronics Harris Corporation Hallikainen & Friends Micro Control Assoc. Monroe Electronics Moseley Associates Potomac Instruments Rohde & Schwarz C.N. Rood B.V. Soll Inc. TFT Inc. Tayburn Torpey Controls & Engineering Tramec Electronics Video Specialties Zercom Corp.

REMOTE CONTROL SYSTEMS, VIDEO

Advanced Analog Systems Airborne Video Systems Corp. Altha Video & Elect. Corp. American Data Asaca/Shibasoku David H. Brothers CALDATACOM Cat Systems Channelmatic Cinema Products Cohu, Electronics Division Communications Control Centers Control Video Corporation Michael Cox Crow of Reading Ltd. Delta Electronics Di-tech Dynair Electronics Dynamic Technology Ltd. Fernseh Inc. GBC Closed-Circuit TV Harris Corporation, Broadcast Products Division Image Video Limited Javelin Flectronics

Jenel Corp. Consulting Engineers Micro Control Associates Monroe Electronics Moseley Associates NEC America Panasonic
Philips Broadcast Group PWH Electronics Limited Rohde & Schwarz Soll Inc. Tayburn Electronics TFT Inc. Thomson-CSF Torpey Controls & Engineering United Media Vamco Engineering Video Specialties Video Tape Systems

REMOTE PICKUP SYSTEMS

Aitha Video & Elect. Corp. Broadcast Electronics Centro Comrex Corporation Farinon Video/Harris Corp. Harris Broadcast Microwave Harris Corporation, Broadcast **Products Division** Kaitronics Lang Video Systems

McCurdy Radio Industries McMartIn Industries

Micro Control Associates Micro-Trak Moseley Associates Motorola Communications and Electronics Nady Systems Norcom Manufacturing Northland Communications R F Technology Rivers Associates Sound Dynamics Tayburn

REPEAT COILS

ITI Electronics Inc. Video Alds of Colorado

RETICULE SAFE AREA/TITLE

Amtron Corp. CMC Technology Corp. Gray Engineering Labs
Porta-Pattern Telecommunications

REVERBERATION UNITS

AKG Acoustics AKG Akustische u. Kino-Gerate Advanced Analog Systems Audicon Inc. Audio & Design Comex Systems Deltalab Research EMT Franz EV-Tapco Eventide Inc. IGM Communications Klark-Teknik Research Ltd. Leader Broadcast Systems Micmix Audio Products Orban Associates ProTech Audio Corporation Quad Eight Sony Ursa Maior VIF International

REWINDERS, TAPE

(See Tape Accessories)

SAFE AREA **GENERATORS**

Asaca/Shibasoku Broadcast Video Systems CMC Technology Crow of Reading Ltd. Gray Engineering Labs

SATELLITE DISTRIBUTION SERVICES

AEG-Telefunken American Satellite Company Bonneville Satellite Corp. California Microwave Catel (Division of United Scientific) Centro Comad Communications Compucon Inc. Comtec Data Corp.
Crowder Communications Ltd. Global Video Comm. Corp. Modulation Associates New Earth Television Works Oak Satellite Corp. RCA Americom SED Systems Satvision Scientific-Atlanta, Phoenix Div. Telecommunications System Tuesday Productions Video Tape Systems

Marti

Western Union Telegraph Wold Communications

SCRAMBLERS

AEG-Telefunken (Bayly Engineering) Don Britton Ent. CALDATACOM
Coherent Communications Crowder Communications
Dynacom Electronics Ltd. Dynamic Technology Eagle Comtronics Fung Eng. Labs. Inc. Magnavox CATV Systems Microtime Motorola Communications and Electronics Oak Satellite Corp QSI Systems Scientific Radio Systems Swintek Enterpriese Torpey Controls & Engineering Video Tape Systems

SEMICONDUCTORS

Calvert Electronics Ceco Communications Cherry Semiconductor Dynamic Technology Ltd. Electronic Devices Fairchild CCD Imaging Harris Corporation, Broadcast Products Division Levit Electronics Motorola RCA Distributor & Special Products Thomson-CSF Transecter Systems

SCREENS

Varian Associates

FRONT PROJECTION Bretford Mfg. Eastman Kodak Da-Lite Screen Electrohome Hoppmann Corporation Raven Screen Corp. Research Technology Int'l. The Screen Works Simon Associates Tech Theatre Inc. Wilcox - Lange Inc

REAR PROJECTION Da-Lite

Hoppmann Corporation Raven Screen Corp. Research Technology Int'l. The Screen Works Simon Associates Tech Theatre Inc. Uni-Set Corp. Wilcox - Lange Inc.

SENSORS, TONE

Don Britton Ent Century 21 Programming Channelmatic Coney Electro Systems IGM Communications Leader Broadcast Systems Monroe Electronics Potomac Marine & Aviation Processing Plus
ProTech Audio Corporation VIF International

SLIDES, TEST

D & S Corley Ltd. Porta - Pattern Telecommunications Thomson-CSF

SLOW SCAN TV **SYSTEMS**

David H. Brothers Co. Colorado Video Interand lavelin Flectronics NEC America, Broadcast Equipment

SOLAR CELLS. **PHOTOVOLTAIC**

AEG-Telefunken Bayly Engineering Motorola North Wind Power Co. Teledyne Energy Systems Television Technology

SOUND SYSTEMS

LEVEL CONTROL
ATI Audio Technologies Inc. Audio & Design Recording Audix Ltd Bogen Division / Lear Siegler Circuit Research Labs EV-Tapco Elektroimpex Leader Broadcast Systems MXR Innovations McCurdy Radio Industries Micro-Trak ProTech Audio Corporation Sait Electronics Siemens AG Osterreich Spectra Sonics Swintek Enterprises Tele Concepts in Communications Telectro Systems Corp. Vidaire Elec. Mfg.

PORTABLE

Amek TAC Argos Products Atlas Sound Audio & Design Recording Audix Ltd. Auratone Bogen Division / Lear Siegler David H. Brothers Co. Cetec Vega Coherent Communications
Dukane Corp. EV-Tapco Electro-Acoustic Design Elektroimpex Hoppmann Corp. Ivie Electronics Kudelski SA Switzerland Harrison Systems Leader Broadcast Systems MXR Innovations Micro-Trak Northland Communications Paso Sound Products Perma Power Electronics ProTech Audio Corporation Sait Electronics Shure Brothers Spectra Sonics TOA Electronics Telectro Systems Corp. Video Masters

STUDIO

Audlo & Design Recording Audix Limited Auratone Bogen Division / Lear Slegler Dukane Corp. EV-Tapco Electro-Acoustic Design Elektrolmpex Fostex Harrison Systems Hartley Products Hoppmann Corp. Klipsch & Associates Leader Broadcast Systems

MXR Innovations McCurdy Radio Industries Micro-Trak Perma Power Electronics ProTech Audio Corporation Richmond Sound Design Sait Electronics Siemens AG Osterreich Spectra Sonics TOA Electronics Ultra Audio Pixtec Video Masters

SPEECH RECOGNITION SYSTEMS

Heuristics Logica NEC America, Broadcast Equipment
New England Digital Corp.

SPEECH SYNTHESIS SYSTEMS

Delta Electronics National Semiconductor R F Technology Telesensory Systems Texas Instruments Video Specialties

STL EQUIPMENT **SYSTEMS**

AEG-Telefunken (Bayly Engineering) Artel Communications Corp. Aydin Microwave Broadcast Electronics
Catel (Division of United Scientific) Cetec Broadcast Group Coastcom Comad Communications Continental Electronics Farinon Video/Harris Corp. GTE Lenkurt Incorporated Harris Broadcast Microwave Harris Corporation, Broadcast Products Division IGM Communications International Microwave Corp. Jenel Corp. Consulting Engineers McMartin Industries M/A-COM Video Systems Micro Control Associates Moseley Associates RF Technology RHG Electronics Rockwell International C.N. Rood B.V. Singer Products Company Studer ReVox America TFT Inc. Tayburn Electronics Telecommunications System Telcom Research Terracom Tramec Electronics Versa - Count

STV SYSTEMS

Blonder-Tongue Laboratories Comtech Antenna Corp Conifer Corp. Dynacom Electronics Ltd. The Finney Co.
Oak Communications

STANDARDS CONVERTERS/ **SERVICES**

Audio Plus Video

Broadcast Video Systems Canter-Redman Technologies Corp. Fernseh Inc. Global Video Comm. Corp. MCI / Quantel
OKI Electric Overseas Corp. Quantel Ltd. Thomson-CSF

STILL / SLIDE STORE. **ELECTRONIC**

Adda Corporation

Ampex Arvin Echo Digital Video Systems Elgen Video Fernseh Inc. Grove Video Harris Corporation, Broadcast Products Division Harris Video Systems Logica Lyon Lamb MCI / Quantel Oktel Corporation Precision/Echo Science Quantel Ltd. Thomson-CSF

SCA EQUIPMENT

Bogen Division / Lear Siegler Broadcast Electronics Comad Communications David H. Brothers Co. Elcom Specialty Products Harris Corporation IGM Communications
Johnson Electronics McMartin Industries Micro Control Associates Moseley Associates Printer Terminal Communications Rivers Associates Rohde & Schwarz C.N. Rood BV Solld Electronics Swintek Enterprises TET Inc. TOA Electronics

STUDIO DESIGN **SERVICES**

Aderhold Construction Co. Angevine Acoustical Consultants Crow of Reading Ltd. Dyma Engineering East Coast Video Electro-Acoustics Design Harris Corporation Kenneth R. Meades Jamleson and Associates Jenel Consultants Corp. Leader Broadcast Systems L.E. Nelson Corp. Panoak Lighting System Radiotechniques Rees Associates Siemens AG Osterreich Soll Inc. Richmond Sound Design Straight Wire Audio Syracuse Scenery & Stage Lighting Uni-Set Corp.

SWITCHES, COAXIAL

Ava Electronics Corporation Barker & Williamson Bird Electronic CSP Inc. Comark Communications Inc.

Continued on page 106

Compac Development Corp. Comtec Data Corp. Continental Electronics
Crow of Reading Ltd. Delta Electronics Dielectric Dow-Key Elec. Instrument & Specialty Corp. Harris Corp., Broadcast Products ITT Jennings
Magnecraft Electric Co Marshall Electronics Micro Communications
Phelps Dodge Communications RMS Electronics Inc. Rohde & Schwarz Shively Laboratories Sigma Electronics Thomson-CSF Transco Products Vidaire Electronics Vital Industries
Wide Band Engineering

SWITCHES, VIDEO **ACTIVATED**

AVL Digital Ltd. Channelmatic Michael Cox Dynamic Technology Ltd. Panasonic Rohde & Schwarz Video Aids of Colorado Vital Industries

SWITCHER LIGHTING

Dynair

SWITCHERS, ROUTING

American Data AVL Digital Ltd. Audix Limited Broadcast Video Systems Broadcast Technology Channelmatic Communications Control Centers Inc. Michael Cox Crow of Reading Ltd. Datatek Corp. Delta Systems Dielectric Communications Di-tech Dynair Electronic HEDCO Industrial Sciences Inc. Key Video Ltd. Lenco Inc. McCurdy Radio Industries NEC America NTP Electronik AIS Opamp Lab Inc. Pacific Recorders & Engineering Pro Bei Ltd.
Richmond Sound Design Scandex Laboratories Telemet Thomson-CSF Viscount Ind. Vital Industries

SWITCHERS, CROSSBAR

AEG-Telefunken Alco Electronic Products Ava Electronics Robert Bosch GmbH Central Dynamics Ltd. Channelmatic
Cherry Elec. Prod. Corp.
Communications Control Centers Inc. Michael Cox Datatron Delta Electronics Delta Systems Dynair Electronics ITT Jennings Industrial Sciences Inc. (ISI) Javelin Electronics

NTP Electronik A/S Pacific Recorders
Rohde & Schwarz GmbH Rohde & Schwarz Sales Siemens AG Osterreich Shintron Standard Telephon und Radio Telemet Thomson-CSF Unemco International Vital Industries

SWITCHERS, VIDEO

(See Consoles, Video)

SYNCHRONIZERS. AUDIO - VIDEO

Adda Corporation Ampex Audio Kinetics Auditronics
The BTX Corporation California Instruments Control Video Corp. Datatron Digital Video Systems EECO Incorporated Harris Corporation, Broadcast Products Division Harris Video Systems Leader Broadcast Systems MCI Inc. MCI/Quantel Microtime Multi-Track Magnetics NEC America Perfectone Products SA Philips Broadcast Group Rohde & Schwarz GmbH Rohde & Schwarz Sales Skotel Corporation
Studer International AG Studer ReVox America Telcom Research Thomson-CSF

SYNCHRONIZERS, DIGITAL VIDEO

(See Frame Store)

SYNTHESIZERS. **STEREO**

The BTX Corporation Catel Elcom Baue Elcom Specialty Products IGM Communications Orban Associates Rohde & Schwarz GmbH Rohde & Schwarz Sales Studer International

SYSTEM DESIGN, AUDIO

Accurate Sound Alice Stancoil Ltd. Amek TAC Audix Aydin Microwave C-Cor Electronics Centro Coastcom Comad Communications Crosspoint Video Ltd.
Dell Technical Vehicles Dukane Corp. Dyma Engineering ENG Helicopter Satellite Ltd. East Coast Video Electro Acoustic Designs Elektrolmpex G. A. Gilbreath Graham-Patten Systems Harris Corporation

Harrison Systems Happmann Corp. Jenel Consultants Corp. Kintek Leader Broadcast Systems Link Electronics MCI McCurdy Radio Industries The Management Kenneth R. Meades Multiphase Consulting Multi-Track Magnetics Opamp Labs Inc. Pacific Recorders & Engr. Perfectone Products SA ProTech Audio Radiotechniques Richmond Sound Design Rohde & Schwarz C.N. Rood B.V. Scantex Laboratories Slemens AG Osterrich Soll Inc. Spectra Sonics Straight Wire Audio Tascam, Div. of Teac

SYSTEM DESIGN, VIDEO

Ultra Audio Pixtec

A.F. Associates Altha Video & Elect. Corp. Aydin Microwave Robert Bosch GmbH C-Cor Electronics
Canter-Redman Technologies Corp. Central Dynamics Ltd. Centro Cinema Products Cohu, Electronics Division Crosspoint Video Ltd. Crow of Reading Ltd.
Dell Technical Vehicles Delta Systems Dyma Engineering Dynamic Technology Ltd. ENG Helicopter Satellite Ltd. East Coast Video Graham-Patten Systems Harris Corp., Broadcast Products Happmann Corp. Interand Jatex Javelin Electronics Jenel Consultants Corp. Link Electronics Kenneth R. Meades Multi-Track Magnetics Panoak Lighting Systems QSI Systems Rohde & Schwarz
Rosner Television Systems
Sandar Electronics A/S Scantex Laboratories Siegel Electronics Thomson-CSF Ultra Audio Pixtec Video-Ink Vital Industries

TAPE-FILM INTERLOCK

Magna-Tech

TAPE, AUDIO

(See Also Cartridges) CARTRIDGE Ampex, Magnetic Tape Division Aristocart Audio Magnetics BASE Limited Broadcast Electronics Capitol Magnetic Products Century 21 Programming Colorado Magnetics Consolidated Electronic Inc. Fidelipac Fuji Photo Film USA Inc. 3M Mag A/V Products Division Marathon Products Pan Canada Magnetics Ltd.

Ramko Research See Hear Industries Tape-Athon Corp Team Flectronics Telectro Systems Corp. **UMC Electronics**

Agfa-Gavaert Ampex, Magnetic Tape Division Audio Magnetics BASE Limited Capitol Magnetic Products Capitol Magnetic Froducts
Colorado Magnetics
Fidelipac Corp.
Fuji Photo Film USA Inc.
3M Mag AVV Products Division
Maxeli Corp. of America Memorex Pan Canada Magnetics Ltd. RKO Tape Recortec See Hear Industries TDK Electronics Tape-Athon Corp. Team Electronics Telectro Systems Corp. Video I-D

LOGGING

LOGGING
Ampex, Magnetic Tape Division
Colorado Magnetics
Consolidated Electronic Ind.
Dictaphone Corporation Elektroimpex Fidelipac Corp Leevers Rich Mfg. Co. Inc. 3M Mag A/V Products Division Magnasync/Moviola Marathon Products Memorey Pan Canada Magnetics Ltd. Soundscriber Magnetic Recording The Stancil-Hoffman Corporation Telectro Systems

OPEN REEL

Agfa-Gevaert Ampex, Magnetic Tape Division BASF Limited Broadcast Electronics Century 21 Programming Colorado Magnetics Consolidated Electronic Ind. Elektroimpex Fidelipac Leevers Rich Equipment Ltd. 3M Mag A/V Products Division Maxell Corp. of America Memorex Pan Canada Magnetics Ltd. RKO Corp. Recortec See Hear Industries Studer ReVox America TDK Electronics
Tape-Athon Corp. Team Electronics Telectro Systems Corp. VIF International Video I-D

TEST TAPE

Ampex, Magnetic Tape Division Arlstocart Audio/Tek Inc. BASF Limited BPI Audio Test Instruments Broadcast Electronics Colorado Magnetics Consolidated Electronic Ind. Datatronix Fidelipac IGM Communications Kudelski S.A. 3M Magnetic A/V Products
Magnetic Reference Laboratories Marathon Prod. Co. Memorex Nortronics Radiotechniques Sound Dynamics Standard Tape Laboratory, Inc. Studer ReVox America TDK Electronics Team Electronics VIF International Video I-D

TAPE, AUDIO ACCESSORIES

CLEANERS

Allsop
Audio Magnetics
Audio-Technica U.S.
Broadcast Electronics
Chemtronics
Dictaphone Corporation
Fidelipac
Fuji Photo Film USA Inc.
IGM Communications
Marathon Products
Merlin Engineering Works
NOVA Corp.
Nortronics
Pan Canada Magnetics Ltd.
RMS Electronics
Recortec
Studer ReVox America
TDK Electronics
Teac Corp. of America
Texwipe
United Research Lab Corp.
Vidaire Electronics
Xedit Corporation

DEMAGNETIZERS

R. B. Annis Co.
Broadcast Electronics
Dictaphone
Fidelipac Corp.
Garner Ind.
IGM Communications
Magnefax International
Marathon Products
Nalpak Sales
Neal Ferrograph (USA(
Nottronics
PAG-Group
Soundscriber Magnetic Recording
TDK Electronics
Taber
Tape
Teac Corp. of America
UMC Electronics

LOADERS

Audico
Audico
Audico
Audico
Merlin Engineering Works
Otari Corporation
Recortec
See Hear Industries
Tapecaster TCM

MOTION CONTROLS

Merlin Engineering Works Television Graphics United Research Lab Corp.

REWINDERS

Audico
D-B Electronics
Dloataphone Corporation
K B Systems
Merlin Engineering Works
Neumade
See Hear Industries
Tape
Tapecaster TCM Inc.

SPLICERS

Audico
Broadcast Electronics
D-B Electronics
Distaphone Corporation
Fidelipac
Goldberg Bros. Inc.
ITC/3M
J&R Film Co., Inc.
Leader Broadcast Systems
Marathon Products
Neal Ferrograph (USA)
Nortronics
Plastic Reel Corp.
Studer Revox America
Vidaire Electronics Mfg. Corp.
Xedit Corporation

SPLICE FINDERS
Broadcast Electronics
Consolidated Electronic Ind.

Harris Corporation, Broadcast Products Division IGM Communications ITC/3M Nortronics UMC Electronics

TAPE, VIDEO

CASSETTES Adwar Video Agfa-Gevaert Ampex Audico Audio/Tek BASF Limited Ceco Communications E.I. Dupont De Nemours & Co. Fidelipac Corp. Fuli Photo Film USA, Inc. Fuji Magnetic Tape Div. Lyrec Manufacturing A/S 3M Mag A/V Products Division Maxell Corp. of America Memorex Merlin Engineering Otarl Panasonic Polyline Corp RKO Corp. Recortec Research Technologies Int'l. See Hear Industries Studer ReVox America TDK Electronics Team Electronics U.S. JVC Corporation Video Cassette Services

CARTRIDGES

Videotape Exchange

Video I-D

Agfa - Gevaert
Ampex
Audio/Tek
BASF Limited
Calico Video
Ceco Communications
Fidelipac Corp.
3M Mag A/V Products Division
Memorex
Merlin Engineering
Panasonic
Re-Play Video
Tape
Team Electronics
Videotape Exchange

OPEN REEL

Adwar Video
Agfa · Gevaert
Ampex
BASF Limited
Calico Video
Ceco Communications
Fidelipac Corp.
Fujil Photo Film USA, Inc.
3M Mag A/V Products Division
Maxell Corp.
Memorex
Otari
Panasonic Video Systems
Studer ReVox America
TDK Electronics
Team Electronics
Videotape Exchange

TAPE, VIDEO ACCESSORIES

CARRYING & SHIPPING CASES
A & S Case Company
Adwar Video
Amaray Sales
Anvil Cases
David H. Brothers Co.
Display Media
Environmental Container Systems
Excalibur Industries
Fiberbilt
Impact Cases Inc.
Innovative Concepts
3M Mag ArV Products Division

Nalpak Sales Neumade Products Plastic Reel Corp. Reliance Plastics & Packaging Research Technology, Int'l. Schuessler Case See Hear Industries Winsted Corporation

DEMAGNETIZERS
Garner Industries

EVALUATOR Asaca/Shibasoku Chyron Telesystems Merlin Engineering Works Recortec

Research Technology Int'l. Television Equipment Associates

SPINDLE HEIGHT GAUGE Tentel

REWINDERS

Audico Merlin Engineering Works Neumade Products Ramko Research Recortec Research Technology Int'l.

TAPE CLEANER

Adwar Video
Allsop
Asaca/Shibasoku
Audico
Audio-Technica U.S.
G.C. Electronics
Merlin Engineering Works
NOVA Corporation
PAG-Group
Panasonic
Recortec
Research Technology Int'l.
TDK Electronics
Texwipe
Xedit Corporation

TENSION GAUGE

Adwar Video BCB Electronic Sales Leevers Rich Equipment Ltd. Merlin Engineering Works Tentel

TELECINE

Laird Telemedia
Magnasync/Moviola Corp.
Marconi Electronics
Multi-Track Magnetics
Piclear Inc.
Rangertone Research Inc.
Rank Cintel Ltd.
Westrex
Thomson-CSF
The Zel-Mark Corp.

TELECONFERENCE SYSTEM, AUTOMATIC AUDIO/VIDEO

Altha Video & Elect. Corp. Centro Dyma Engineering Happmann Corp. Interand Corp. Misar Industries Telectra Systems Corp.

TELECONFERENCING SYSTEMS

Artel Communications Corp.
Audix Limited
Bonneville Satellite Corp.
Centro
Comrex Corporation
David Brothers Co.
GE VDEO
GTE Products
Hoppmann Corp.

Interand Corp.
Microdyne Corp.
Misar Industries
NEC America
NET Enterprises
Sharp Electronics
Tele Concepts in Communications

TELEPHONE EQUIPMENT

AGG-Telefunken
(Bayly Engineering)
Audio & Design
Coastcom
Comrex
GTE Products
ITI Electronics
Kahn Communications
McCurdy Radio Industries
NTP Elektronik A/S
Radiotechniques
C.N. Rood B.V.
Russco
T M Systems
Telemet
White Instruments Inc.

HYBRID FILTER / AMP
AEG-Telefunken
(Bayly Engineering)
Alice Stancoll Ltd.
Coastcom
Comrex
GTE Products
Greg Laboratories
IGM Communications
ITI Electronics
McCurdy Radio Industries
Northland Communications
Potomac Marine & Aviation
RTS Systems
Studer International
Studer ReVox America

Western Broadcasting
TONE RECEIVERS

T M Systems Thomson-CSF

AEG-Telefunken
Bayly Engineering Ltd.)
American MicroSignal
Don Britton Ent.
Cetec Vega
Channelmatic
Frequency Devices
GTE Products
Potomac Marine & Aviation
T M Systems
Trepac Corp. of America

TONE TRANSMITTERS

AEG-Telefunken
American Microsignal
Bayly Engineering Ltd.
Don Britton Ent.
Cetec Vega
Channelmatic
Frequency Devices
GTE Products
Potomac Marine & Aviation
T M Systems
Trepac Corp. of America
Triplett Corportation

TELETEXT SYSTEMS

AEG-Telefunken
Antlope Videotex Systems
Aston Electronic Design Ltd.
Barco Electronics
Barda Electronics
Computer Video Systems
Consolidated Electronic Ind.
Dynamic Technology Ltd.
EEG Enterprises
Electro & Optical Systems
Logica
Oak Communications
Rohde & Schwarz
Torpey Controls & Engineering
Unitel
Video Data Systems

TERMINAL EQUIPMENT

Di-tech Graham-Patten Systems Harrls Corporation HEDCO

TEST EQUIPMENT: GENERATORS

ALIDIO SINE Amalgamated Wireless Amber Electro Design Asaca/Shlbasoku BPI Audio Test Instruments Baid Mountain Lab Broadcast Electronics, Inc Bruel & Kjaer Instruments CMC Technology Corp. California Instruments Dynascan Frequency Devices Global Specialties Hickok Kajaani Oy Leader Instruments Corp. Link Electronics
Marconi Instruments Ltd. Multidyne Electronics Neal Ferrograph (USA) Opamp Labs Inc. Philips Test & Measuring Potomac Instruments Rohde & Schwarz Sescom Spectra Sonics Teac Corp. of America Tektronix

AUDIO SWEEP
Amalgamated Wireless
Amber Electro Design
Asaca/Shibasoku
Audisar
Bruel & Kjaer Instruments
CMC Technology Corp.
Dynascan
Global Specialties Corp.
Leader Instruments Corp.
Marconi Instruments Ltd.
Tektronix
IIBEI

Ultra Audio Pixtec

Viz Manufacturing

Viz Manufacturing

COLOR BAR AVL Digital Ltd. Automation Techniques Asaca/Shihasoku Robert Bosch GmbH Broadcast Video Systems
CMC Technology Corp.
Canter-Redman Technologies Corp.
Michael Cox
Crosspoint Latch Crow of Reading Ltd. D and S Corley Dynascan Elektroimpex Hickok Industrial Sciences Inc. (ISI) Lang Video Systems Leader Instruments Corp. Lectrotech Leltch Video Lenco Link Electronics Marconi Electronics Multidyne Electronics QSI Systems Panasonic Rohde & Schwarz Sencore Sigma Electronics Tektronix Telemet

CROSS PULSE AVL Digital Ltd. Amtron Corp. Asaca/Shibasoku Robert Bosch GmbH Crow of Reading Ltd. Dynascan Lenco Rohde & Schwarz Thomson-CSF Video Alds of Colorado

DOT / BAR AVL Digital Ltd. Asaca/Shibasoku Broadcast Video Systems Canter-Redman Technologies Corp. Crow of Reading Ltd. Dynascan Hickok Leader Instruments Corp. Lectrotech Leitch Video Lenco Link Electronics Marconi Electronics
Philips Test & Measuring Sencore Sigma Electronics Tektronix Telemet Thomson-CSF Ultra Audio Pixtec Visual Information Institute World Video

FUNCTION
Amber Electro Design Inc.
Asaca/Shibasoku
Audisar
Bruel & Kjaer Instruments
Dynascan
Global Specialties Corporation
Heath Company
Hickok
Leader instruments Corp.
Marconi Instruments Ltd.
Philips Test & Measuring
Tektronix
Thomson-CSF
Viz Manufacturing

MARKER Amtron Corp. Asaca/Shibasoku Ballantine Laboratories Dynascan Phillps Test & Measuring Tektronix Texscan Corp. Thomson-CSF Viz Manufacturing

NTSC SIGNAL TEST
Asaca/Shibasoku
Broadcast Video Systems
Canter-Redman Technologies Corp.
Cezar International
Dynascan
Lang Video Systems
Leader Instruments Corp.
Leitch Video
Link Electronics
Marconl Instruments Ltd.
Multidyne Electronics
Rohde & Schwarz
Sigma Electronics
Tektronix
Ultra Audio Pixtec
Vidicaraft
Video Alds of Colorado
Videomedia
Visual Information Institute
World Video

PULSE
Asaca/Shibasoku
Audico Inc.
Broadcast Video Systems
Bruel & Kjaer Instruments
Dynascan
Elektroimpex
Global Specialties
Leitch Video
Lenco Inc.
Link Electronics
Marconi Instruments Ltd.

North American Soar Corp. Rohde & Schwarz Systron Donner Tektronix Thomson-CSF Video Aids of Colorado Videomedla Viz Manufacturing Xedit Corporation

RF SIGNAL
Asaca/Shlbasoku
Delta Electronics
John Fluke Mfg. Co. Inc.
Dynascan
Harris Corp., Broadcast Products
Harris Corporation - PRD
Electronics Div.
Heath Company
Lang Video Systems
Leader Instruments Corp.
Marconl Instruments Ltd.
Motorola
Narda Microwave Corp.
Potomac instruments
R. E. Instruments
Rohde & Schwarz
Sadelco
Sound Technology
Systron Donner
Texscan Corp.
Triple Crown Electronics
Videomedia
Viz Manufacturing
Wavetek Indiana

SQUARE WAVE
Amber Electro Design
Asaca/Shibasoku
BPI Audio Test Instruments
California Instruments
D and S Corley
Dynascan
Global Specialties
Hickok
Leader Instruments Corp.
Leitch Video
Link Electronics
Marconi Instruments Ltd.
Rohde & Schwarz
Tektronix
Telemet
Thömson-CSF
Visual Information Institute
Viz Manufacturing
Wavetek Indiana Inc.

STAIRCASE
AVL Digital Ltd.
Asaca/Shibasoku
Robert Bosch GmbH
Broadcast Video Systems
Canter-Redman Technologies Corp.
Dynascan
Lang Video Systems
Leader Instruments Corp.
Leitch Video
Lenco
Link Electronics
Rohde & Schwarz
Tektronix
Telemet
Thomson-CSF
Ultra Audio Pixtec
Visual Information Institute

STEREO Asaca/Shibasoku Leader Instruments McMartin Industries Marconi Instruments Ltd. Rohde & Schwarz

World Video

VIDEO SWEEP
AVL Digital Ltd.
Asaca/Shibasoku
Datatek
Dynascan
Leader Instruments Corp.
Lenco
Letrotech Inc.
Link Electronics
Philips Test & Measuring
Rohde & Schwarz
Tektronix
Telemet

Texscan Corp.
Thomson-CSF
Ultra Audio Pixtec
Visual Information Institute
Viz Manufacturing

VITS
AVL Digital Ltd.
Asaca/Shibasoku
Elektroimpex
Lenco
Link Electronics
Rohde & Schwarz
Sencore
Tektronix
Telemet
Thomson-CSF
Video Alds of Colorado

VITS INSERTER
Asaca/Shibasoku
Elektrolmpex
Link Electronics
Marconi Instruments Ltd.
Rohde & Schwarz
Tektronix
Thomson-CSF
Video Alds of Colorado

TEST EQUIPMENT: MEASURING INSTRUMENTS

ACOUSTIC ANALYZER
Amber Electro Design Ltd.
David H. Brothers Co.
Bruel & Kjaer Instruments
Communications Co. Inc.
Crown International
Eventide Clockworks
Inovonics
Ivie Electronics
Klark Teknik Research Ltd.
Neutrik Products
Ortofon A/S
Telectro Systems Corp
White Instruments

AUDIO SYSTEM ANALYZER Amber Electro Design Ltd. Asaca/Shibasoku BPI Audio Test Instruments Bald Mountain Lab Barker & Williamson Bruel & Kjaer Crown International Eventide Inc. Hammond Industries Inovonics Ivie Electronics Klark Teknik Research Leader Instruments Corp. Neal Ferrograph (USA) Neutrik Products Ortofon A/S Potomac Instruments R. E. Instruments Rohde & Schwarz Sound Technology Spectra Sonics Tektronix

BURST PHASE METER Asaca/Shibasoku Ortofon A/S Rohde & Schwarz Video Alds of Colorado

COLOR ANALYZER
Philips Test & Measuring

DELAY MEASURING SETS
Asaca/Shibasoku
Bruel & Kjaer Instruments
Datatek
Hirschmann Electric
Hitachl Denshi America
Ivie Electronics
Klark Teknik Research
Marconi Instruments Ltd.
Philips Test & Measuring
Rohde & Schwarz
Telectro Systems Corp.
Telecommunications Technology
Telemet

Thomson-CSF

Videomedla

World Video

Ultra Audio Plxtec

Viz Manufacturino

Visual Information Institute

DEMOD TESTER

R. E. Instruments

DIFFERENTIAL PHASE / GAIN SETS

Amtron Corporation Asaca/Shibasoku Bruel & Kjaer Instruments Crow of Reading Ltd. Hammond Industries Harris Corporation, PRD Elec. Hewlett - Packard Hirschmann Electric Lectrotech Link Electronics
Philips Test & Measuring Potomac Instruments Rohde & Schwarz Tektronix Telecommunications Technology

FIELD STRENGTH METER, AM / FM

Anritsu America Broadcast Electronics
Continental Electronics Harris Corporation Kathrein-Werke KG McMartin Industries Potomac Instruments Rohde & Schwarz Sadelco Inc. Texscan Corp.
Vidalre Electronics Mfg. Corp.

FIELD STRENGTH METER, TV

Anritsu America Asaca/Shibasoku Kathrein-Werke KG Leader Instruments Lectrotech PTS Electronics Potomac Instruments Rohde & Schwarz Sadelco Texscan Corp

FREQUENCY COUNTER

Alltech Anritsu America Ballantine Laboratories Dynascan Corp. Beiar Electronic Labs Coaxial Dynamics Inc. EIP Microwave, Inc. John Fluke Mfg. Co. Inc. Glentronix Global Specialties Corporation Hammond Industries Heath Company Leader Instruments Corp. Lectrotech Marconi Instruments Ltd. Motorola North American Soar Corp. Ortofon A/S Philips Test & Measuring Sencore Systron Donner TET Inc. Tektronix Telecommunications Technology Texscan Corp. Viz Manufacturing Xedit Corporation

HARMONIC DISTORTION ANALYZER Amalgamated Wireless Amber Electro Design Ltd. Asaca/Shibasoku BPI Audio Test Instruments Broadcast Electronics Bruel & Kjaer Instruments Dranetz Eng. Labs Elektroimpex Heath Company Leader Instruments Corp. Ort of on A/S Potomac Instruments Radiometer Electronics Sescom Sound Technology Tektronix Telecommunications Technology Woelke Magnetbandtechnik GmbH

INSERTER / READER VIT

Asaca/Shibasoku Crow of Reading Ltd. Harris Corporation Link Electronics Tektroniy

INTERMOD DISTORTION ANALYZER

Amalgamated Wireless Amber Electro Design Ltd. BPi Audio Test Instruments Broadcast Electronics Bruel & Klaer Instruments Heath Company Otofon A/S Potomac Instruments Sound Technology Tektronix

INTERVAL TIMER, V & H

A.F. Associates Anritsu America Broadcast Video Systems Ltd. D'San Corporation
Global Specialties Corporation Nationwide Electronic Systems Standard Electric Time Corp. World Video

MONITORS

(See Monitors, Audio: Monitors, Video)

MULTI-PHASE/VIRS INSERTER Tektronix Video Alds of Colorado

OSCILLOSCOPES

Ballantine Laboratories Bruel & Kjaer Instruments Dynascan Gould Instruments Division Heath Company Hewlett · Packard Hickok Hitachi Denshi America Leader Instruments Corp. Lectrotech North American Soar Corp. Philips Test & Measuring Rohde & Schwarz Scientific-Atlanta, Phoenix Div. Sencore Tektronix Texscan Corp. Viz Manufacturing Wavetek Indlana

PHASE ANGLE METER Bruel & Kjaer Instruments Delta Electronics Dranetz Eng. Labs Hewlett - Packard Potomac Instruments Western Broadcasting

SIDEBAND ANALYZER Tektronix Rohde & Schwarz

SPECTRUM ANALYZER Ailtech Amber Electro Design Ltd. Anritsu America Applied Technology Bruel & Kjaer Instruments Crown International Eventide Inc. Glentronix lvie Electronics Klark Teknik Research Marconi Instruments Ltd. Motorola NTP Elektronik A/S Philips Test & Measuring Photo Research, Kollmorgan Corp. R. E. Instruments Scientific-Atlanta Spectrum Instruments Systron Donner Tektronix Texscan Corp. Wavetek Indiana

VSWR & POWER METER

Bird Electronic Boonton Electronics Coaxial Dynamics Delta Electronics

Dielectric Communications Electro Impulse Inc. Marconi Instruments Ltd. Motorola Narda Microwave Corp. Sadelco Inc. Texscan Corp. Vidaire Electronics Viz Manufacturing

VIDEO ANALYZER Rohde & Schwarz

VIDEO LINE OUTPUT DISPLAY Broadcast Video Systems

WAVEFORM MONITORS Amtron Corporation Anritsu America Broadcast Video Systems Bruel & Kjaer Instruments Canter-Redman Technologies Michael Cox Crow of Reading Ltd. Elektroimpex Leader Instruments Corp. Lectrotech Lenco Marconi Instruments Ltd. Motorola Rohde & Schwarz Sencore Tektronix Television Graphics Ultra Audio Pixtec Videcom Engineering Videotek Woelke Magnetbandtechnik GmbH

WOW & FLUTTER METER Asaca/Shibasoku BPI Audio Test Instruments Broadcast Electronics Bruel & Kjaer Instruments Fidelipac Hammond Industries Leader Instruments Corp. Neal Ferrograph (USA) Ortofon A/S Potomac Instruments R. E. Instruments

Radiometer Electronics Sound Technology
Woelke Magnetbandtechnik GmbH
Xedlt Corporation

VECTORSCOPE Amtron Corporation Broadcast Video Systems Crow of Reading Ltd. Leader Instruments Corp. Lectrotech Tektronix Television Graphics Ultra Audio Pixtec Videcom Engineering Video I-D

TEST EQUIPMENT: **MEASURING** / **MONITORING METERS**

ANTENNA BASE METER

Antenna Base Meter Continental Electronics Delta Electronics Gorman-Redlich

COHERENT DETECTOR Image Devices Incorporated Potomac Instruments

DIGITAL MULTIMETER

Ballantine Laboratories Biddle Instruments Dynascan Elektroimpex John Fluke Mfg. Co. Inc. G.C. Electronics Global Specialtles Corp. Hickok Keithley Instruments Leader Instruments Corp. Motorola North American Soar Corp. Sencore Triolett Vidaire Elec. Mfg. Viz Manufacturing

DIGITAL PANEL METER Ballantine Laboratories Delta Electronics Gralex

GRID DIP METER Barker & Williamson Image Devices Incorporated

IC TESTER Datatron Dynascan John Fluke Mfg. Co. Inc. G.C. Electronics Global Specialties Corporation Keithley Instruments Orban Associates Vidaire Elec. MFg.

IMPEDANCE BRIDGE Biddle Instruments Boonton Electronics Delta Electronics HEDCO Harris Corporation - PRD Leader Instruments Corp. Marconi Instruments Ltd.
Potomac Instruments Radiometer Electronics Sadelco, Inc. Sencore Texscan Corp.
Wide Band Engineering

LINE VOLTAGE METER Audio Technology Biddle Instruments Gralex Industries Image Devices Incorporated International Instruments Motorola Communications Paladin Sencore Triplett Viz Manufacturing

MODULAR TEST SET

PEAK PROGRAM Allce Stancoil Ltd. Applied Technology Corp.

Audio Technology Broadcast Technology Michael Cox Crow of Reading Ltd. Dorrough Electronics ESE Elektroimpex

Inovonics Logitek McCurdy RAdio Industries Micmix Audio NTP Elektronik A/S Ramko Research Selco Products Siemens AG Osterreich Tweed Audio USA

POWER Audio Technology Bird Electronic Boonton Electronics Coaxial Dynamics Electro Impulse Laboratory, Inc. Gralex Industries Harris, PRD Electronics Div. Image Devices Incorporated Leader Instruments Corp. Marconi Instruments Ltd. Paladin Photo Research T M Systems

RF METER Ballantine Laboratories Barker & Williamson Bird Electronic Boonton Electronics Coaxial Dynamics

Continued on page 110

Delta Flectronics Electro Impulse Inc. Fung Eng. Labs. Inc. Harris Corp. PRD Electronics Div. Marconi Instruments Ltd Motorola R. E. Instruments Sadelco Inc. T M Systems Triplett Vitek Electronics Viz Manufacturing

SEMICONDUCTOR TESTER

Dynascan Heath Company Keithley Instruments Leader Instruments PTS Electronics Sencore Tektronix

VIDEO LEVEL METER

Asaca/Shibasoku Link Electronics Bobde & Schwarz

VIDEO NOISE METER

Asaca/Shibasoku Lenco Link Electronics Rohde & Schwarz Sadelco Inc. Tektronix Video Alds of Colorado

VOLTMETER, AUDIO

Amber Electro Design Ltd. Asaca/Shibasoku Audio Technology BPI Audio Test Instruments Bald Mountain Lab Ballantine Laboratories Bayly Engineering . Boonton Electronics Broadcast Technology Bruel & Kjaer Instruments Elektroimpex John Fluke Mfg. Co., Inc. Global Specialtles Corp. Heath Company Image Devices Incorporated Leader Broadcast Systems Motorola Neal Ferrograph USA Ortofon A/S Potomac Instruments Robde & Schwarz Rycom Instruments Sencore Viz Manufacturing

B & K Precision Product Group/Dynascan Corp. Ballantine Laboratories Heath Company ITT Jennings Motorola Vidaire Electronics Viz Manufacturing

VU METER

ADM Technology ATI-Audio Technologies Inc. Applied Technology Corp. Audio Technology Bald Mountain Lab Broadcast Electronics Dorrough Electronics Elektrolmpex Logitek McCurdy Radio Industries NTP Electronik A/S Potomac Marine & Aviation Ramko Research Hamko Hesearch Roh Corp. Rohde & Schwarz Selco Products Slemens AG Osterreich Spectra Sonics T M Systems Triplett

Ward-Beck Systems Ltd

WATTMETER

AEG-Telefunken (Bayly Engr.) Audio Technology Barker & Williamson Bird Electronic Coaxial Dynamics
Dielectric Communications Marconi Instruments Ltd. Micro Communications Motorola North American Soar Corp. R. E. Instruments Rohde & Schwarz Triplett Viz Manufacturing

TIME BASE **CORRECTORS**

Adda Corporation Adwar Video Ampex Automation Techniques BCB Electronic Sales Don Britton Ent. Digital Video Systems Eigen Video For-A Corporation Fortel Inc. Harris Video Systems MCI/Quantel Marconi Electronics Merlin Engineering Works Microtime NEC America NET Enterprises Phase Video Inc. Philips RCA Broadcast Siegel Electronics Sony TBC Pty. Ltd. Video Data Systems Video I-D

TIME CODE GENERATOR. VERTICAL INTERVAL

EECO Inc.

TIME COMPRESSOR, AUDIO

Deltalab Research Eventide Inc. Harris Corporation IGM Communications Integrated Sound

Video Tape Systems

TIMERS, BLANKING **INTERVAL**

Broadcast Video Systems For-A Corp. of America Harris Corporation, Broadcast Products Division Lexicon Inc. Standard Electric Time Corp. Tektronix V.S.C. World Video

TIMERS, PROGRAM

(See Also Clocks & Counters)

Applied Technology Audico Automation Techniques B G Engineering Broadcast Aids Broadcast Electronics Channelmatic Michael Cox Datum D'San Corporation Dynaquip Electron Devices Ltd. ESE

Harris Corporation, Broadcast Products Division IGM Communications Image Video Limited Jatex Inc Kajaani Oy Logitek The Management Nationwide Electronic Systems Neal Ferrograph (USA) Pacific Recorders QEI Systems Radio Systems Sharepoint Systems
Standard Electric Time Corp.
Tapecaster TCM, Inc. Tental Torpey Controls & Engineering Ltd. Vamco Engineering Video Tape Systems

TIMERS, VIDEO TAPE

Convergence Michael Cox Dynamic Technology Ltd. Dynaquip Electron Devices Ltd. ESE Electro & Optical Systems For-A Corp. of America Jatex Inc Merlin Engineering Works Panasonic Video Systems QSI Systems Standard Electric Time Corp. Tentel Vamco Engineering Video Tane Systems

TITLING SYSTEMS

Aurora Systems

(See Also Character Generators)

Autographics Inc. Beston Elect. Inc. (BEI) Robert Bosch GmbH CMC Technology Corp. Chyron Telesystems Comprehensive Video Supply Computer Video Systems Michael Cox Crow of Reading Ltd. Elicon Fernseh Inc. For-A Corp. of America Interand Knox Video Products Laird Telemedia
McInnis-Skinner & Assoc. PAG Group Reynolds/Leteron Shintron Television Graphics Thomson-CSF Velec Sefat Video Associates Labs

TOOL KITS

AVA Electronics Corp.
The Will Burt Company Comprehensive Video Supply The Cooper Group Kline Iron & Steel Nalpak Sales PAG Group Pace Inc. Paladin Corporation SSAC UNR-Rohn Vidaire Electronics Mfg

TOWER LIGHTS & ACCESSORIES

FLASHERS AEG-Telefunken Abroyd Construction Allied Tower Calvert Electronics

Flash Technology Hughey & Phillips LeBlanc & Royle Communications Towers Inc. Osram Sales SSAC Swager Tower Corporation Tech Theatre Inc. Teledyne Big Beam UNR-Rohn United States Tower Utility Tower World Tower

FLASHERS, HIGH INTENSITY AEG-Telefunken

Allied Tower
Calvert Electronics EG&G, Electro Optics Flash Technology Corp. of America LeBlanc & Royle Communications Inc. Osram Sales Swager Tower Corporation Teledyne Big Beam

ISOLATION TRANSFORMERS

UNR-Rohn

Utility Tower

AEG-Telefunken Abroyd Construction Allied Tower BES Electronics CSP Inc. Peter Dahl Company Decca Austin Insulators Flash Technology Hughey & Phillips LeBlanc & Royle Communications Inc.

MCG Electronics, Inc. North Hills Electronics Swager Tower Corporation UNR-Rohn Utility Tower World Tower

LAMPS. REPLACEMENT

AEG-Telefunken Abroyd Construction Allied Tower Atlas Tower Corp. Flash Technology Corp. of America Grant Tower Hughey & Phillips LeBlanc & Royle Communications Towers Fred Nudd Corp. Swager Tower Corporation Teledyne Blg Beam UNR-Rohn Utility Tower World Tower

LIGHT FAILURE ALARM

LIGHT INDICATOR PANELS

AEG-Telefunken Abroyd Construction Allied Tower B & I Electronics CSP Inc. Flash Technology Corporation of America Grasis Hughey & Phillips UNR-Rohn

TOWERS

Abroyd Construction Allied Tower Company Aluma Tower Company Atlas Tower Corp.
The Will Burt Company, TND Div. Cetec Broadcast Group Continental Electronics Cortland Cable Co. E-N-G- Corporation E-Z Way Products Fort Worth Tower Grant Tower Grasis Corporation

Harris Corpration, Broadcast Products Division Kline Iron and Steel Co. LeBlanc & Royle Communications Inc. McMartin Industries Magnum Towers Microflect Motorola North Wind Power Fred A. Nudd Corporation Allen Osborne Assoc. Stainless Stevens Tower Co. Swager Tower Corporation Telex Communications Tri-ex Tower TMD Division, The Will Burt Co. UNR-Rohn United States Tower Up-Right Inc. Utility Tower V & B Tower Company Wilkinson Electronics World Tower Company

TOWER SERVICES

Abroyd Construction Angle Steel Erectors Antennas for Communications Inc. Atlas Tower Corp. The Will Burt Company EMCEE Broadcast Products Fort Worth Tower Gabriel Electronics Grant Tower Grasis Corporation Kline Iron and Steel Co. LeBlanc & Royle Communications Inc. Magnum Towers Microflect Fred A. Nudd Corporation Soll Inc. Stainless Stevens Tower Co. Swager Tower Corporation Tri-ex Tower United States Tower Utility Tower V & B Tower Company World Tower Company

TRANSFORMERS

AUDIO Altec Lansing Audisar Bogen Division / Lear Siegler Broadcast Technology Cletronics Inc. Consolidated Electronic Ind. Peter W. Dahl Co. Dyma Engineering Elektroimpex Enertec Schlumberger Harris Corporation, Broadcast Products Division ITI Electronics, Inc. Jensen Transformers Marconi Instruments Ltd. Modular Audio Products Modulation Associates Northland Communications Opamp Labs Inc. ProTech Audio Corporation Sescom Shure Brothers Siemens AG Osterreich Spectra Sonics TTE Inc. Tramec Electronics Tri Tec Systems Inc. Vidalre Electronics Mfg. Corp.

FILAMENT
Peter W. Dahl Co.
Cletronics
Tramec Electronics

MODULATION
Peter W. Dahl Co.
Cletronics Inc.
Tramec Electronics

PLATE
Peter W. Dahl Co.
Cletronics
Tramec Electronics

RF SAMPLING BES Electronics CSP Inc. Coaxlal Dynamics Peter Dahl Company Delta Electronics

TORODIAL CURRENT BES Electronics CSP Inc. Cletronics Peter Dahl Company Delta Electronics Millen Components

TRANSFORMER VIDEO/DATA LINE ISOLATION North Hills Electronics

TRANSLATORS

HIGH POWER

AEG-Telefunken
Acrodyne Industries
Anderson Scientific
EMCEE Broadcast Products
Harris Corporation, Broadcast
Products Division
Hans Pilsch
Larcan Communications Inc.
Rodelco
Rodelco
Rodelco
Rodelco
Technology
Thomson-CSF
Townsend Associates
Velec Sefat
Versa - Count

LOW POWER AEG-Telefunken Acrodyne Industries Anderson Scientific Crowder Communications EMCEE Broadcast Products Harris Corporation, Broadcast Products Division Howe-Yin Research Company D. N. Latus & Co., Inc. NEC America Hans Plisch Rodelco Rohde & Schwarz TBC Pty. Ltd.
Television Technology Терсо Thomson-CSF Townsend Associates Triple Crown Electronics United States Tower Velec Sefat

TRANSMISSION LINES

(See Cables)

Versa-Count

TRANSMISSION LINES, SUPERVISION SYSTEMS

Catel (Division of United Scientific Corp.)
Fernseh Inc.
Grass Valley
GTE Lenkurt Incorporated
LeBlanc & Royle Communications
LeCroy Research Systems
Times Wire & Cable
Telemet
Valtec Corporation

TRANSMITTER MODULATION CONTROLLER

AEG-Telefunken

Circuit Research Labs Continental Electronics Delta Electronics GTE Products Kahn Communications Moseley Associates Thomson-CSF

TRANSMITTER OUTPUT CONTROLS

AEG-Telefunken
Cat Systems
Delta Electronics
Hallikainen & Friends
Moseley Associates
Orban Associates
Sharepoint Systems
Singer Broadcast Products
Thomson-CSF

TRANSMITTERS, AM

500 WATTS & UNDER
AEG-Telefunken
Cetec Broadcast Group
Comad Communications
Dyma Engineering
Elcom-Bauer
Harris Corporation, Broadcast
Products Division
LPB Inc.
McMartin Industries
Microwave Power Devices
Nautel Maine
Radio Systems Inc.
Singer Broadcast Products
TBC Pty. Ltd.
Thomson-CSF
Tramec Electronics
Triple Crown Electronics
Wilkinson Electronics

500 WATTS & OVER, SOLID - STATE
AEG-Telefunken
Comad Communications
Dyma Engineering
Elcom-Bauer
Harris Corporation, Broadcast
Products Division
McMartin Industries
Microwave Power Devices
Nautel Maine
Singer Broadcast Products
TBC Pty. Ltd.
Thomson-CSF
Tramec Electronics

1,000 TO 2,500 WATTS

AEG-Telefunken

CSI Electronics

Cetec Broadcast Group
Comad Communications
Continental Electronics
Dyma Engineering
Elcom Bauer
Harris Corporation, Broadcast
Products Division
McMartin Industries
Marconi
Microwave Power Devices
NEC America
Nautel Malne
Singer Broadcast Products
TBC Pty. Ltd.
Thomson-CSF
Tramec Electronics
Wilkinson Electronics

5,000 TO 7,500 WATTS
AEG-Telefunken
CSI Electronics
Cetce Broadcast Group
Comad Communications
Continental Electronics
Dyma Engineering
Elcom-Bauer
Elcom Specialty Products
Harris Corporation, Broadcast
Products Division
McMartin Industries
Marconi
Microwave Power Devices

NEC America Nautel Maine RCA Broadcast Systems Slemens AG Singer Broadcast Products TBC Pty. Ltd. Thomson-CSF Tramec Electronics

10,000 TO 20,000 WATTS

AEG-Telefunken CSI Electronics Cetec Broadcast Group Comad Communications Continental Electronics Dyma Engineering Elcom Bauer Elcom Specialty Products Harris Corporation, Broadcast Products Division McMartin Industries Marconi NEC America Nautel Maine Slemens AG Singer Broadcast Products TBC Pty. Ltd. Thomson-CSF Tramec Electronics Wilkinson Electronics

OVER 20,000 WATTS
AEG-Telefunken
(Bayly Engineering Ltd.)
CSI Electronics
Comad Communications
Continental Electronics
Dyma Engineering
Elcom Bauer
Elcom Specialty Products
Harris Corporation, Broadcast
Products Division
McMartin Industries
Marconi Electronics, Inc.
Siemens AG
Singer Broadcast Products
Thomson-CSF

TRANSMITTERS, FM

Tramec Electronics

Wilkinson Electronics

500 WATTS & UNDER AFG-Telefunken (Bayly Engineering) Anderson Scientific Broadcast Electronics CSI Electronics Cetec Broadcast Group Comad Communications Crowder Communications Dyma Engineering Elcom Bauer Elcom Specialty Products Harris Corporation, Broadcast Products Division LPB Inc. McMartin Industries
Microwave Power Devices Nady Systems NEC America QEI Corp. Rohde & Schwarz C.N. Rood B.V. Singer Broadcast Products Solid Electronics Labs TBC Pty. Ltd. Thomson-CSF Tramec Electronics Triple Crown Electronics Versa-Count Wilkinson Electronics

500 WATTS & OVER,
SOLID · STATE
AEG-Telefunken
(Bayly Engineering)
Broadcast Electronics, Inc.
Comad Communications
Dyma Engineering
Elcom Bauer
Elcom Specialty Products
Harris Corporation, Broadcast
Products Division

Continued on page 112

McMartin Industries
Microwave Power Devices
NEC America
QEI Corp.
Rohde & Schwarz
Singer Broadcast Products
TBC Pty. Ltd.
Thomson-CSF
Tramec Electronics
Wilkinson Electronics

1,000 TO 2,500 WATTS

AEG-Telefunken (Bayly Engineering Ltd.) Broadcast Electronics CSI Electronics Cetec Broadcast Group Comad Communications Continental Electronics Dyma Engineering Elcom Bauer Elcom Specialty Products Harris Corporation, Broadcast Products Division McMartin Industries Marcom Communication Systems Ltd Marconi Electronics
Microwave Power Devices
NEC America QEI Corp. Rohde & Schwarz Singer Broadcast Products TBC Pty. Ltd. Thomson-CSF Tramec Electronics Wilkinson Electronics

5,000 TO 7,500 WATTS

AEG-Telefunken
(Bayly Engineering)
Broadcast Electronics
Cetec Broadcast Group
Comad Communications
Continental Electronics
Dyma Engineering
Elcom Bauer
Elcom Specialty Products
Harris Corporation, Broadcast
Products Division
McMartin Industries
Marcom Communication Systems
Microwave Power Devices
NEC America
QEI Corp.
RCA Broadcast Systems
Rohde & Schwarz
Singer Broadcast Products
TBC Pty. Ltd.
Thomson-CSF
Tramec Electronics
Wilkinson Electronics

10,000 TO 20,000 WATTS AEG-Telefunken

(Bayly Engineering) Broadcast Electronics CSI Electronics Cetec Broadcast Group Comad Communications Continental Electronics Dyma Engineering Elcom Bauer Elcom Specialty Products Harris Corporation, Broadcast Products Division
Larcan Communications Inc. McMartin Industries Marcom Communication Systems NEC America QEI Corp. RCA Broadcast Systems Rohde & Schwarz Singer Broadcast Products TBC Pty. Ltd. Thomson-CSF Tramec Electronics Wilkinson Electronics

OVER 20,000 WATTS
AEG- Telefunken
Broadcast Electronics
CSI Electronics
Cetec
Comad Communications
Continental Electronics
Dyma Engineering
Elcom Bauer

Elcom Specialty Products
Harris Corporation, Broadcast
Products Division
Larcan Communications Inc.
McMartin Industries
NEC America
RCA Broadcast Systems
Singer Broadcast Products
Thomson-CSF
Tramec Electronics
Wilkinson Electronics

TRANSMITTERS, TV

LOW POWER, UHF AEG-Telefunken (Bayly Engineering) Acrodyne Industries Anderson Scientific Comad Communications Comark Communications Inc. Crowder Communications EMCEE Broadcast Products Harris Corporation, Broadcast Products Division Hirschmann Electric Microwave Power Devices NEC America Rodelco Electronics Corp. Rohde & Schwarz Satcom Inc. Swintek Enterprises TBC Pty. Ltd. Television Technology Thomson-CSF Townsend Associates Triple Crown Electronics United States Tower Visual Methods, Inc.

LOW POWER VHF
AEG-Telefunken
Acrodyne Industries
Comad Communications
Crowder Communications
EMCEE Broadcast Products
Harris Corporation, Broadcast
Products Division
Howe-Yin Research
Microwave Power Devices
Nady Systems
Rodelco Electronics
Rohde & Schwarz
Swintek Enterprises

TBC Pty. Ltd.
Television Technology
Thomson-CSF
Townsend Associates
Triple Crown Electronics
Visual Methods

UHF HIGH POWER

AEG-Telefunken
Acrodyne Industries
Comad Communications
Comark Communications Inc.
Harris Corp., Broadcast Products
Marcom Communication Systems Ltd
Marcomi Electronics Inc.
Microwave Power Devices
NEC America
Philips Broadcast
RCA Broadcast Systems
Rodelco Electronics
Rohde & Schwarz
Singer Broadcast Products
TBC Pty. Ltd.
Thomson-CSF
Townsend Associates
Varian MCSD

VHF HIGH POWER
AEG-Telefunken
Acrodyne Industries
Comad Communications
Comark Communications Inc.
Harris Corp., Broadcast Products
Larcan Communications Inc.
Marcom Communication Systems Ltd.
Marconi
Microwave Power Devices
NEC America
RCA Broadcast Systems
Rodelco Electronics
Rohde & Schwarz

Singer Broadcast Products TBC Pty. Ltd. Thomson-CSF Townsend Associates

TRANSMITTERS, MICROWAVE

AEG-Telefunken
Aydin Microwave
Datum
EEV
Farinon Video/Harris
Hughes Aircraft Company
International Microwave
M/A-COM Video Systems
Moseley Associates
Nurad
RF Technology
Tayburn Electronics
Terracom
Thomson-CSF
Varian, MCSD
Velec Sefat
Visual Methods

TRANSMITTERS, SHORTWARE

Continental Electronics

TUBES

CRT MONITOR
Auditronics
Amperex
Calvert Electronics
EEV
GBC Closed Circuit TV Corp.
Levit Electronics, Inc.
Team Electronics
Thomson-CSF

CRT OSCILLOSCOPE Amperex Calvert Electronics

Calvert Electronics
EEV
Levit Electronics
RCA Electro-Optics
Texscan
Thomson-CSF

RECEIVER TYPES AEG-Telefunken Amperex David H. Brothers Co.

David H. Brothers Co.
Calvert Electronics
CeCo Communications
EEV
Levit Electronics
RCA Distributor & Special

RCA Distributor & Sp Products RF Gain Team Electronics Varian Associates

RECTIFIER TUBES AEG-Telefunken Amperex

Calvert Electronics
CeCo Communications
EEV
Levit Electronics
RCA Distributor & Special
Products
RF Gain
Team Electronics

Thompson-CSF Varian Associates Westinghouse Electric Corp.

SOLID-STATE REPLACEMENT AEG-Telefunken Amperex

Calvert Electronics Electronic Devices Microwave Power Devices

TRANSMITTER TUBES, AM/FM AEG-Telefunken Amperex Broadcast Electronics Calvert Electronics Ceco Communications
Comad Communications
EEV
Econco Broadcast Service
Elcom-Bauer
Freeland Products Co.
Harris Corporation
Levit Electronics
RCA Distributor & Special Products
RCA Electro-Optic Devices
RF Gain
Team Electronics
Thomson-CSF
Vacuum Tube Industries
Varlan, MCSD
Westinghouse Electric Corp.

TRANSMITTER TUBES, KLYSTRONS
AEG-Telefunken
Amperex
Calvert Electronics
EEV
Harris Corporation
NEC America
Thomson-CSF
Vacuum Tube Ind. Inc.
Varlan Assoc.
Varian, MCSD

TRANSMITTER TUBES, VHF
AEG-Telefunken
Amperex
Calvert Electronics
EEV
Econco Broadcast Service
Harris Corporation
RCA Electro-Optic Devices
Thomson-CSF
Vacuum Tube Industries

Varian Associates

VIDEO CAMERA PICKUP
ATV Research
Amperex
Robert Bosch GmbH
David H. Brothers Co.
Calvert Electronics
Ceco Communications
EEV
English Electric Valve
GBC Closed Circuit TV
Harris Corporation
Hitachi
Levit Electronics
Link Electronics
Panasonic
Philips
RCA Electro-Optic Devices
Team Electronics
Thomson-CSF

TUNERS, FM

Bill Audio Systems
Bogen Division / Lear Siegler
Catel
Crown International
Johnson Electrohics
McMartin Industries
Paso Sound Products
Pyramid Loudspeaker Corp.
H. H. Scott
Sharp Electronics
Singer Products Company
Studer International AG
Studer ReVox America

TUNERS, VIDEO

Barco (Elector)

TURNKEY INSTALLATION SERVICES

AEG-Telefunken
A.F. Associates
Alice Stancoil Ltd.
Altha Video & Elect. Corp.
Amek Systems & Controls
Andrew Corporation
Antennas for Communications Inc.
Audix
Aydin Microwave
Braybury Electronics

Burden Associates Canter-Redman Technologies Corp Jim Cason Electronics Central Dynamics Centro Comad Communications Comark Communications Inc. Computer Management Systems Crowder Communications
Davis Electronics John J. Davis & Assoc Delta Systems Dynacom Electronics Ltd. Dynamic Technology FEG Enterprises EMCEE Broadcast Products Electro - Acoustic Designs Elektroimpex Gabriel Electronics Global Communications Harris Corporation Harrison Systems
Hoppmann Corporation Immad Broadcast Services Ltd. Jamleson and Associates Jenel Consultants Jerrold Div., Gen. Instrument Corp. Larcan Communications Inc. Leader Broadcast Systems LeBlanc & Royle Link Electronics
McCurdy Radio Industries
MiA-COM Video Systems MBI Broadcast Systems Microdyne Corporation Midwest Corp.
Multi-Track Magnetics Multiphase Consulting National TeleConsultants L.E. Nelson Pacific Recorders & Engr.
Professional Electronics Co. RCA Broadcast Systems **BCA Service Company** Radio Systems Radlotechniques Rohde & Schwarz Rosner Television Systems Salt Electronics Sat Vision Siemens AG Osterreich Soll Inc. Standard Telephon und Radio Strand Century Studer International Swager Tower Corp. TBC Pty. Ltd. Telecommunications Systems Thomson-CSF Townsend Associates Tramec Electronics Ultra Audio Pixtec United States Tower Valley People Valtec Corporation Velec Sefat

TURNKEY TV FACILITY

Video Masters

World Tower Company

AFG-Telefunken A.F. Associates Aderhold Construction Altha Video & Elect. Corp. BFE KG CSP Inc. Central Dynamics Centro Crowder Communications Dynacom Electronics Ltd. General Television Network Global Communications Graham-Patten Systems Harris Corporation, Broadcast Products Division Harrison Systems Immad Broadcast Services Jenel Consultants LeBlanc & Royle Comm. Inc. Merlin Engineering Works Midwest Corp. Multi-Track Magnetics

RCA Broadcast Systems Rohde & Schwarz Rosner Soll Inc. Siemens AG Osterreich Strand Century Thomson-CSF Ultra Audio Pixteo

TURNTABLES & ACCESSORIES

PHONO CARTRIDGES (See Cartridges, Phono)

Audio-Technica US, Inc. Broadcast Electronics Cart-Align Research Cetec Broadcast Group Continental Electronics D - B Electronics Elektroimpex Fidelipac Corp. Harris Corporation, Broadcast Products Division IGM Communications LPB Inc. McCurdy Radio Industries Micro-Trak Panasonic, Professional Audio Div. Ramko Research Russco Shure Brothers Westrey

TURNTABLE AIWA

Bogen Division / Lear Slegler Broadcast Electronics David H. Brothers Co. Cetec Broadcast Group Continental Electronics D - B Flectronics Elektroimpex EMT - Franz Harris Corporation, Broadcast Products Division IGM Communications LPB Inc. McCurdy Radio Industries McMartin Industries Micro-Trak Corporation Panasonic, Profesional Audio Div. RCA Broadcast Systems Radio Systems Bamko Besearch Russco H.H. Scott Sharp Electronics Stanton Magnetics Inc. Studer International AG Studer ReVox America

SPEED CONTROLS Broadcast Electronics Harris Corporation, Broadcast Products Division McCurdy Radio Industries

VANS & MOBILE UNITS

ENG/RENG REMOTE A.F. Associates

Altha Video & Elect. Corp. Audix Limited Robert Bosch GmbH Brabury Broadcast Systems Braybury Electronics Centro ComCoach Corporation Compact Video Systems Compro Crow of Reading Ltd.
Dell Technical Vehicles
Dynamic Technology E-N-G Corporation Farinon Video/Harris The Gerstenslager Company Harris Broadcast Microwave Harris Corporation, Broadcast Products Division Hughes Television Network Jenel Consulting Engineers

Link Electronics M/A-COM Video Systems Marconi Midwest Corporation NET Enterprises One Pass Video Philips Broadcast Group RCA Broadcast Systems R F Technology Rack Techniques Salt Electronics Siemens AG Osterreich Standard Telephon und Radio Studer International AG Tayburn Electronics Television Engineering Thomson-CSF Van Ladder Video Masters Videomedia Videosystems International Wold Communications Wolf Coach Inc.

VIDEO PRODUCTION A.F. Associates

Altha Video & Elect. Corp. Robert Bosch GmhH Brabury Broadcast Systems Braybury Electronics Centro ComCoach Corporation Compact Video Systems Compro Productions Crow of Reading Ltd. Dell Technical Vehicles Dynamic Technology E-N-G Corporation
The Gerstenslager Company Harris Corporation, Broadcast Products Division Hughes Television Network Interface Video Systems Jenel Consulting Engineers Lang Video Systems Link Electronics Marcom Communication Systems Marconi Midwest Corporation Mobile Visual Productions NET Enterprises One Pass Video Philips Broadcast Group RCA Broadcast Systems RCA Service Company Rosner Television Systems Sait Electronics Slemens AG Osterreich Soil Inc. Standard Telephon und Radio Television Engineering Thomson-CSF Video I-D Video Masters Videomedia Videosystems International Wold Communications

VANS WITH LADDERS Brabury Broadcast Systems Centro Compact Video Crow of Reading Ltd. Dell Technical Vehicles

Wolf Coach Inc

Dynamic Technology E-N-G Corporation Harris Corporation Kindwall Corp. Midwest Corporation **NET Enterprises** Philips Broadcast Group Rosner Television Systems Television Englneering Thomson-CSF Van Ladder

Videosystems International Wolf Coach Inc.

VIDEO CONTROLLER

BCB Electronic Sales BTX Corp. CMC Technology Corp. Cezar International Channelmatic Control Video

Convergence Crow of Reading Ltd. Jatex Inc. Javelin Electronics MPB Technologies Microtime Panasonic Rohde & Schwarz Tech Electronics

VIDEO LINE OUTPUT DISPLAY

Broadcast Video Systems Datum Javelin Electronics

VIDEOTAPE DUPLICATION

Video Dub Inc.

WEATHER GRAPHIC SYSTEM

Spectra Computer Systems

WEATHER **INSTRUMENTS**

Arvin-Diamond Computer Video Systems Harris Corp., Broadcast Products Heath Company Information Processing Systems Kudelski SA Switzerland Merrill Cable Equipment Corp. Nagra Magnetic Recorders North Wind Power Taylor Instrument Texas Electronics Texscan Viz Manufacturing Weatherscan International

WEATHER RADAR SYSTEMS

AEG-Telefunken Alden Elec. & Impulse Recording Calvert Electronics Computer Video Systems Enterprise Electronics Oktel Corporation Sperry Marine Systems Technology Service Varian Associates Weathermation Weatherscan International

WEATHER RECEIVERS

(See Receivers, Weather)

WEATHER SERVICES

Arvin Echo BEI (Beston Electronics) Computer Video Systems Connect Air International McInnis-Skinner & Associates Mesomet Spectra Computer Systems Synsat International Station Program Resources Telesource Communication Services Weather Services International Weatherscan International Weathermation

WIRE (See Cable)

WIRING SERVICES

(See Cable)

DIRECTORY OF MANUFACTURERS **AND SERVICE COMPANIES**

Α
ΑD
70

DA CORPORATION

1671 Dell Ave. Campbell, CA 95008

(408) 379-1500

Regional Sales Offices: ADDA CORPORATION No. 7 Pitman Avenue

(617) 245-4602

Wakefield, MA 01880 (6 Contact: Frank Alioto, Reg. Sls. Mgr. ADDA CORPORATION 1966 E. 38th St.

Brooklyn, NY 11234 (21 Contact: Marty Frange, Reg. Sis. Mgr. ADDA CORPORATION (212) 375-4064

13952 Chelmsford Walk Westminster, CA 92683

(714) 891-3364 Contact: Shella Holmes, Reg. Sis. Mgr. ADDA CORPORATION 9517 Moody Park Circle

Overland Park, KS 66212 (91 Contact: Emerson Ray, Reg. Sis. Mgr. ADDA CORPORATION (913) 631-1500

30310 Woodgate Dr. Southfield, MI 48076

(313) 332-1500

Contact: Dick Strauss, Reg. Sis. Mgr. ADDA CORPORATION

2693 Twigg Circle
Marletta, CA 30067 (4)
Contact: Duane Tuttle, Reg. Sls. Mgr.

(404) 953-1500

ADM TECHNOLOGY INC.

1626 E. Big Beaver Road Troy, MI 48084 (313) 778-8400 Sales Contact: Murray Shields, VP/Sales

Regional Sales Offices: ADM TECHNOLOGY INC.

P.O. Box 912
Arlington, TX 76010
Contact: Gordon Peters, Sales Rep.
ADM TECHNOLOGY INC. (817) 467-2990

2118 26th Ave.

San Francisco, CA 94116 Contact: Ron Webb, Sales Rep. (415) 664-2400

AEG-TELEFUNKEN.

Bayly Engineering Ltd. 167 Hunt St. Ajax, Ontario

Canada L1S 1P6 (416) 683-8200 Sales Contact: Bill Lindsay, Sales Manager

AEG-TELEFUNKEN

Theodor-Stern-Kei 6000 Frankfurt/Main

West Germany (0611) 600 Sales Contact: Hans Gissel, Dr. Eng.

AEL-AMERICAN ELECTRONIC LABORATORIES INC.

P.O. Box 552

Lansdale, PA 19446 (215) 822-2929 Sales Contact: A. Rosset, Adv. Mgr.

A.F. ASSOCIATES INC.

100 Stonehurst Ct. Northvale, NJ 07647 (201) 767-1000 Sales Contact: Bill Ebell, Mktg. Mgr.

AIWA AMERICA INC.

35 Oxford Drive Moonachie, NJ 07074 (201) 440-5220 Sales Contact: Robert Fisher, Nat'l. Sls. Mgr.

AKG ACOUSTICS INC.

77 Selleck St. Stamford, CT 06902 (203) 348-2121 Sales Contact: Peter Wellikoff, Nat'l. Sls. Mgr.

AKG Akustische u. Kino-Gerate GEs.m.b. H

A-1150 Vienna,

Brunhildengasse 1 (0222) 956517 Sales Contact: Ing. H. Sicheritz, Int'l Sis. Mgr. P.O. Box 3608

Harrisburg, PA 17105 (715) 564-0100 Sales Contact: Robert Steele, VP Ind. Sls.

AMP SPECIAL INDUSTRIES

(A subsidiary of AMP Incorporated) Valley Forge, PA 19482 (215) 647-1000 Sales Contact: Joseph Maher, Gen. Sls. Mgr.

A & S CASE COMPANY

1111 North Gordon Street Hollywood, CA 90038 (213) 466-6181 Sales Contact: Jan Alejandro, Sales Mar.

ATI-AUDIO TECHNOLOGIES INC.

328 W. Maple Ave. (215) 443-0330 Horsham, PA 19044 Sales Contact: Ed M. Mullin, V.P.

Regional Sales Offices: AUDIOTECHNIQUES 652 Glenbrook Road

Stamford, CT 06906 (203) 359-2312 Contact: Michael Faulkner ALLIED BROADCAST EQPT. 635 South E Street

(317) 962-8596

(612) 729-8305

(616) 452-1596

(615) 878-2531

(416) 245-1734

(617) 449-2100

(800) 433-2105

(201) 256-0455

(212) 541-5900

(518) 793-2181

3141

Richmond, IN 47374 Contact: Roy Ridge

AVC SYSTEMS INC. 1517 E. Lake St. Minneapolis, MN 55407 AUDIO DISTRIBUTORS INC. 2342 Division Ave., S.

Grand Rapids, MI 49507 BROADCAST COMM. PRODUCTS 8179 Second Ave.

Leyden, CO 80401 Contact: Greg Pine BROADCAST EQPT. & SUPPLY CO. (303) 424-3231

P O Box Bristol, TN 37620 DOUG BROWN ENTERPRISES 1703 E. Skelly Drive

Tulsa, OK 74105 Contact: Doug Brown COMAD COMMUNICATIONS (918) 747-3618

91 Kelfield Street, Unit 5 Rexdale, Ontario M9W 5A3 Contact: Emil Adamyk
CRAMER VIDEO/AUDIO SYSTEMS

120 Hampton Ave. Needham, MA 02194 Contact Jim Ritterman

CROUSE-KIMZEY CO. P.O. Box 9830

Ft. Worth, TX 76107 Contact: Mark Bradford FLANNER AND HAFOOS

2500 N. Mayfair Rd. Milwaukee, WI 53226

(414) 259-9665 Contact: John Loeper FULL COMPASS SYSTEMS

6729 Seybold Road

Madison, WI 53719 Contact: Jonathan Lipp (608) 271-1100 GRAY COMM. CONSULTANTS INC.

5401 Southern Comfort Blvd. Tampa, FL 33614

(813) 885-1411 DAVID GREEN BRDCST. CONSULTANTS P.O. Box 590 Leesburg, VA 32075 (703) 777-8660

Contact: David Green

H.M. HOLZBERG ASSOC. P.O. Box 322 Totowa, NJ 07511

Contact: Herb Holzberg MARTIN AUDIO/VIDEO CORP.

423 W. 55th Street New York, NY 10019 Contact: Michael Bogen NORTHEAST BROADCAST LABS 15 Charles St.

South Glen Galls, NY 12801 Contact: Bill Bingham OAKWOOD AUDIO LABS

652 King Edward Street Winnipeg, Manitoba R3H 0P2 PINEWAY ELECTRONICS (204) 786-6715

1875 Leslie Street, Unit 3 Don Mills, Ontario M3B 2M5 PRO COM SYSTEMS (416) 449-1343

5001 Baum Blvd. Pittsburgh, PA 15213 SAVCO INC. (412) 621-1950 Box 427 Richardson, TX 75080

(214) 234-1841 SINGER PRODUCTS CO. INC. (516) 333-2000

875 Merrick Ave. Westburg, NY 11590 SONICS ASSOCIATES 237 Oxmoor Circle (205) 942-9631

Birmingham, AL 35209 WESTEC A/V INC. 1841 Broadway New York, NY 10023 WILTRONIX INC. (212) 586-1662

16850 Oakmont Ave. Washington Grove, MD 20880 AUDIOMEDIA ASSOCIATES (301) 258-7676

P.O. Box 29264 P.O. Box 29264 New Orleans, LA 70189 Contact: Corey Meyer PRO AUDIO GENERAL STORE 1378 Northwest 100th Ave. (504) 586-0140

Coral Springs, FL 33065 (305) 752-0330

MARCOM P.O. Box 66507 Scotts Valley, CA 95066 Contact: Marty Jackson RIGGINS ELECTRONIC SALES (408) 438-4273

3272 East Willow St. Long Beach, CA 90806 Contact: George Riggins

PRS INC. Professional Recording & Sound

1616 Soldiers Field Road Boston, MA 02135 (617) 254-2110

Contact: Peter Engel ATV RESEARCH

13th & Broadway

Dakota City, NE 68731 (402) 987-3771 Sales Contact: M.H. Shadbolt, Pres.

AVA ELECTRONICS CORP.

4000 Bridge St. Drexel Hill, PH 19026 (215) 284-2500 Sales Contact: Joseph Roos, Dir. of Mktg.

AVAB AMERICA

967 Howard St. San Francisco, CA 94103 (415) 421-3562 Sales Contact: Rodger Payne, Vice President

AVL DIGITAL LTD.

70 Milner Ave., Unit 5 Scarborough, Ont. M1S 3P8 (416) 298-6220

Sales Contact: M. Porteous, President Regional Offices: WESTRONIC ENGINEERING SALES

Seven W. 7th Ave.
Vancouver, B.C. V5Y 1L4
Contact: G. English
WESTRONIC ENGINEERING SALES
7056A Farrell Rd. S.E. (604) 872-0636

Calgary, Alta. T2H 0T2 Contact: E. Muldowan (403) 253-5585 WESTERN BROADCAST SYSTEMS

10707 Amulet Pl. Cupertino, CA 95014 (408) 749-0900 Contact: H. Hull UNITED PACIFIC CORP.

40 S. 900 E., Suite 9B Salt Lake City UT 84102 (801) 486-7512 Contact: R. Rask

AATON CAMERAS INC.

1697 Broadway New York City, NY 10019 (212) 541-8181 Sales Contact: Carolyn Brooks, Mgr.

ABROYD CONSTRUCTION, Division of Dahmer Steel Limited 68 Shirley Avenue

P.O. Box 460

Kitchener, Ontario N2G 4A6 (519) 744-2293 Sales Contact: A.J. Nightingale, P.Eng., G. Mgr.

ACCURATE SOUND CORPORATION

114 5th Avenue

Redwood City, CA 94063 (415) 365-2843 Sales Contact: Ronald M. Newdoll, Pres.

ACHRO-VIDEO INTERNATIONAL SALES

55 Virginia Avenue

West Nyack, NY 10994 Sales Contact: Nick Glade (914) 358-5504

516 Township Line Road

(215) 542-7000 Blue Bell, PA 19422

Sales Contact: Marketing Dept.

ADCOM COMMUNICATIONS

555 W. 57th St.

New York, NY 10019

(212) 265-1760

Sales Contact: Al Leon

ACTION VIDEO INC.

28475 Greenfield Rd.

Southfield, MI 48076 (313) 559-7970

Sales Contact: Barry M. Grant, Pres.

ADERHOLD CONSTRUCTION COMPANY

3384 Peachtree Road NE

Atlanta, GA 30326 (404) 233-5413

Sales Contact: J. H. Aderhold, Pres.

ADVANCE CONVERSION DEVICES CO.

109 Eighth Street

(201) 778-0707 Passaic, NJ 07055

Lynda M. Schmidt, Sales Mgr.

THE ADVANCE PRODUCTS CO.

Central at Wabash

P.O. Box 2178

Wichita, KS 67201 (316) 263-4231

Sales Contact: Paul Keek, Sales Mgr.

ADVANCED ANALOG SYSTEMS INC.

790 Lucerne Dr.

Sunnyvale, CA 94086 (408) 730-9786

Sales Contact: Robert Frostholm, Dir. of Mkt.

ADVANCED VIDEO COMMUNICATIONS

49 S. Washington

Hinsdale, IL 60521 (312) 323-7464

Sales Contact: Mike Vergauwen, VP Sales

ADVENT CORPORATION

195 Albany Street

Cambridge, MA 02139 (617) 661-9500

Sales Contact: Wait Henry, Video Prod. Mgr.

ADWAR VIDEO CORP.

100 5th Avenue

New York, NY 10011 (212) 691-0976

Sales Contact: Marty Amrani, Prod. Mgr.

AGFA-GEVAERT AG

5090 Leverkusen 1 Fed Republic of Germany

AGFA-GEVAERT

275 North Street

Teterboro, NJ 07608 (201) 288-4100

Sales Contact: Ruth Hladyk, Adv. Coord.

AIRBORNE VIDEO SYSTEMS INC.

7525 Havvenhurst Place

Van Nuys, CA 91406 (213) 781-1622

ALCO ELECTRONIC PRODUCTS INC. 1551 Osgood Street

Sales Contact: Arnold Condon, Pres.

No. Andover, MA 01845 (617) 685-4371 Sales Contact: C. Czapinski, Nat'l Sales Mgr.

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO. INC.

Washington St.

Westboro, MA 01581

(617) 366-8851

Sales Contact: Richard J. Boire, Manager

Weather Systems Sales

ALEXANDER MFG. CO.

1511 S. Garfield Place

Mason City, IA 50401 (515) 423-8955 Sales Contact: Georgia Franks, Co. Mgr.

Regional Offices: ALEXANDER MFG. CO.

425 S. Elm

Palatine, IL 60067 Contact: Bill Sapp

(312) 359-1153

ALEXANDER MFG. CO.

P.O. Box 1053

Pompano Beach, FL 33061 (305) 781-1181

Contact: Charlie Stinson ALEXANDER MFG. CO.

47 Lenape Dr. Montville, NJ 07045

(201) 263-1888 ALEXANDER MFG. CO.

P.O. Box 28880 San Diego, CA 92128 (714) 485-5509

Contact: Bill Sapp, Jr. ALEXANDER MFG. CO.

2020 S. Onelda, Suite 204

Denver, CO 80224 Contact: Stan Rubenstein

ALEXANDER MFG. CO.

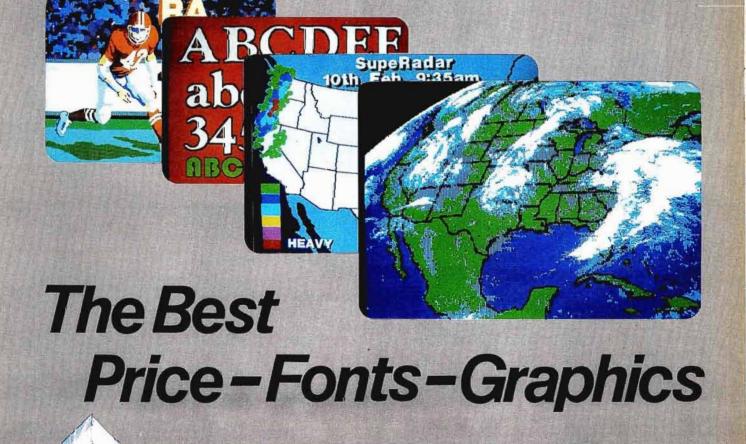
P.O. Box 1512 Bellevue, WA 98009

(206) 455-0773 Contact: Bob Hudson

Continued on page 116

Circle (59) on Action Card

(303) 758-3051



SPECIAL COMPUTER SYSTEMS 391 CHIPETA WAY-RESEARCH PARK SALT LAKE CITY, UTAH 84108

801-581-5478

ALEXANDER MEG. CO. 6004 Olinger Blvd. Minneapolis, MN 55436 Contact: Paul Ohlin ALEXANDER MFG. CO. P.O. Box 367 Mequon, WI 53092 Contact: Dave Barquist ALEXANDER MFG. CO. 2217 A Dunwin Dr. Mississauga, Ont. Canada L5L1X1 Contact: Ed Irving

Sales Contact: F. Abel, Pr. Eng.

ALFORD MFG. CO.

Woburn, MA 01801

15 Sixth Rd.

(612) 929-6924

(414) 241-3020

(416) 828-7100

(617) 935-8610

ALICE (STANCOIL LTD) 38 Alexandra Road Windsor, Berkshire,

07535-51056

Sales Contact: John L. Andrews, Joint M.D.

ALLEN AVIONICS

224 E. 2nd Street P.O. Box 350 (516) 248-8080 Mineola, NY 11501 (516) 747-5450 Sales Contact: Lester Jacobson

ALLEN AVIONICS 201 Town & Country Village Palo Alto, CA 94301 Contact: John Sessoms

(415) 323-5414

ALLEN AVIONICS 11500 Stemmons Freeway -113 Dallas, TX 75229

(214) 243-7261

no other NAB cartridge meets these exacting standards

We designed the ARISTOCART cartridge 10 years ago. Its features have been widely copied but it continues to outperform competing products because we alone take the trouble to check each unit we ship for phase stability and frequency response in conformity with NAB specifications.

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 BROADCASTING LTD., 505 BURRARD ST., VANCOUVER, B.C., CANADA V7X 1M6 TEL: (604) 687-2844 TELEX: 04-54639

Contact: Bob Braden ALLEN AVIONICS 3 Eva Lane Plainview, NY 11803 (516) 931-1414 Contact: Bob Pizzutiello ALLEN AVIONICS 4155 Live Oak, Suite 110 Arcadia, CA 91006 Contact: Van Gott (213) 445-9728 ALLEN AVIONICS 622 Gardenia Court Golden, CO 80401 (303) 279-7796 Contact: Pauline Tucker ALLEN AVIONICS 2110 Wilkinson Place Alexandria, VA 22306 (703) 768-1660 Contact: Jim Muller ALLEN AVIONICS 4130 Linden Ave., Suite 155 Dayton, OH 45432 Contact: Griff Ashby (513) 252-5627 ALLEN AVIONICS 13540 N.W. MIII Creek Dr. Portland, OR 97229 (503) 643-5588 Contact: Don Lain ALLEN AVIONICS 3525 W. Peterson Ave., Sulte T7 Chicago, IL 60659 (312) 588-4535 Contact: Irv Hirsch ALLEN AVIONICS P.O. Box 864 Anoka, MN 55303 (612) 421-3395 Contact: Ken Huagen ALLEN AVIONICS 1980 N. Atlantic Ave., Suite 831 Cocoa Beach, FL 32931 Contact: Foster Reynolds (305) 784-4700 ALLEN AVIONICS 2 Evergreen Rd. Natick, MA 01760 (617) 655-6080 Contact: Bill Everson ALLEN AVIONICS P.O. Box 1660 Cherry Hill, NJ 08034 (609) 428-4544 Contact: Don White ALLEN AVIONICS 98 Fairvlew Crescent Rochester, NY 14617 (716) 244-1100 Contact: Jlm Welch

ALLEN OSBORNE ASSOCIATES

5195 N. Douglas Fir Road (213) 888-2772 Calabasas, CA 91302 Sales Contact: Lois Osborne, Mgr., Sales

THE ALLEN PRODUCTS COMPANY

180 Wampus Lane Milford, CT 06460 (203) 874-2563 Sales Contact: R.L. Bailer, V.P., Mktg.

ALLIED TOWER CO.

12450 Old Galveston Road Webster, TX 77598 (713) 486-7691 Sales Contact: Charles White, Sales Mgr.

ALLISON RESEARCH INC.

P.O. Box 40288 - 2817 Erica Pl. Nashville, TN 37204 (615) 385-1760 Sales Contact: Norman Baker, V.P.

ALLSOP INC.

P.O. Box 23 Bellingham, WA 98227 (206) 734-9090 Sales Contact: Jeffrey V. Heininger, Nat'l. Sis. Manager

ALPHA TECHNOLOGIES

D-6, 1305 Fraser (604) 430-1476 Bellingham, WA 98225 (206) 671-7703 Sales Contact: John Dooyeweerd, Mktg. Mgr.

ALPHA VIDEO & ELECTRONICS CO.

28 East Mall Plaza (412) 923-2070 Carnegie, PA 15106 Sales Contact: Henry B. Lassige, Pres.

ALPHA WIRE CORPORATION

711 Lidgerwood Ave., P.O. Box 711 Elizabeth, NJ 07207 (201) 925-8000 Sales Contact: Mike Klakis, Mktg. Mgr.

ALTEC CORP., Sound Products Division

1515 S. Manchester Ave.

(714) 774-2900 Anaheim, CA 92803 Sales Contact: Gary Rilling, VP Comm. Sls.

ALUMA TOWER COMPANY

1639 Old Dixie Highway

P.O. Box 2806 Vero Beach, FL 32960

(305) 567-3423 Telex: 803405

Sales Contact: T.E. Gottry, VP

AMALGAMATED WIRELESS

P.O. Box 96 Sydney, Australia

North Ryde 2113

AMARAY SALES CORPORATION

2251 Grant Road

Los Altos, CA 94022

(415) 968-2840

Sales Contact: Ron Garrett, Pres.

AMBER ELECTRO DESIGN INC.

4810 Jean Talon West

Montreal Canada H4P 2N5 (514) 735-4105

Sales Contact: Wayne Jones, President

AMCO ENGINEERING CO.

3801 N. Rose Street Schiller Park, IL 60176

(312) 671-6670

Sales Contact: R.C. Komarek, Dir. of Mktg.

AMDAX CORPORATION

160 Wilbur Place

(516) 567-7887

New York, NY 11716 Sales Contact: John J. Egan, VP Mkta.

AMEK SYSTEMS & CONTROLS LTD. TOTAL AUDIO CONCEPTS LTD.

Islington Mill,

James Street Salford M3 5HW 061/834 6747 TELEX: 668127 England

Sales Contact: Nick Franks, Director

AMERICAN DATA CORPORATION

401 Winn Drive

Huntsville, AL 35805 (205) 837-5180

Sales Contact: Ed Miller, Nat'l. Sales Mgr. (See listing for Central Dynamics Corporation)

AMERICAN IMAGE PRODUCTIONS

Box 23355 Nashville, TN 37202

(800) 251-2058 (615) 329-1988

AMERICAN LASER SYSTEMS

106 James Fowler Road

Goleta, CA 93117 (805) 967-0423

Sales Contact: Jackie Parker, Mktg. Mgr.

AMERICAN MICROSIGNAL CORP.

8431 Monroe Ave. Stanton, CA 90680

(714) 761-1222

Sales Contact: Beth Phipps

AMERICAN SIGN & INDICATOR

P.O. Box 2727

Spokane, WA 99220 (509) 535-4101

Sales Contact: Edmond Bruneau, Brost. Mgr.

AMERICAN SATELLITE COMPANY

1801 Research Blvd.

Rockville, MD 20850 (301) 251-8300

Sales Contact: Bruce McClelland, Dir. Mk. Ser.

AMILON CORP.

49-12 30th Avenue

Woodside, NY 11377 (212) 274-1794

Sales Contact: L. Rosenblatt, Sales Mgr.

P.O. Box 3600 CFS

Champaign, IL 61820 (217) 398-2400

AMPEREX ELECTRONIC CORPORATION

Providence Pike, P.O. Box 98

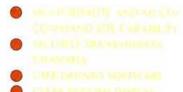
Slatersville, RI 02876 (401) 762-3800

Continued on page 118

MICROPROCESSO MACRO RESU

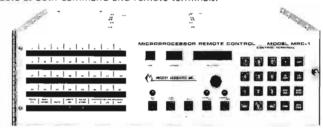


IRC-2



Leading Moseley's ever-growing family of microprocessor-based remote and supervisory control systems, the offers the user the most flexible and complete method of controlling and monitoring up to 99 remote sites available. With dual data link capability, 32 control lines, 32 status, and 32 telemetry channels standard;

expansion capabilities allow for up to six data links, up to 255 control lines, and 255 status and 255 telemetry channels. User-defined dual upper and dual lower telemetry limits alarm when exceeded. Status channels can be programmed to alarm on rising, falling, or rising and falling waveforms. The offers a choice of six calibration modes for telemetry inputs; all setup data is preserved in non-volatile memory. Multiple CRTs, Loggers, and Automatic Control Units for automatic transmitter operation are available at both command and remote terminals.



Closely following the MRC-2 in performance, Moseley's the leading Microprocessor Control System in the industry today. Up to 64 command outputs at each of up to nine remote terminals gives the user outstanding system flexibility. System setup is tailored by the individual user. Telemetry channels may be keyboard-calibrated for linear, indirect power, or direct power scaling. The

modular design, upper and lower telemetry limits, automatic telemetry muting, and a set of 32 LEDs that display all status inputs from any site simultaneously. In case of extended shutdown, the Moseley Memory Option stores setup data for up to ten years. Optional CRT and Logging terminals simplify operator interface with the . The Multiple Direct Command options offers ten preselected command functions to give the operator quick control of critical parameters at any site.

> For further information please contact our Marketing Department.

MOSELEY ASSOCIATES, INC. A Flow General Company . Santa Barbara Research Park

111 Castilian Drive . Goleta, California 93117 . Telex: 658-448 . Cable: MOSELEY (805) 968-9621

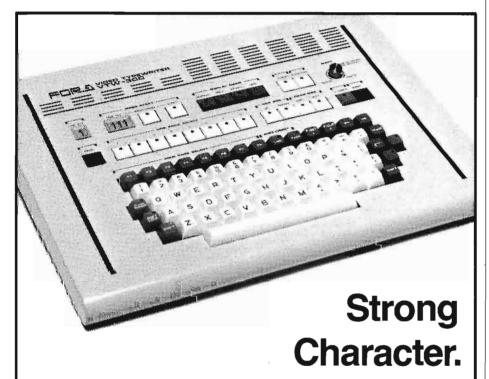
Circle (61) on Action Card

WHERE TO BUY IT

Sales Contact: Robert E. Carlin, Gen. Sls. Mgr. AMPEX CORPORATION 401 Broadway Redwood City, CA 94063 (415) 367-2011 Regional Sales Offices: AMPEX CORPORATION 500 Rodier Dr. Glendale, CA 91201 (213) 240-5000 Contact: Tom Nielsen, Reg. Mgr. AMPEX CORPORATION 10435 No. Tantau Ave. Cupertino, CA 95014 Contact: Russ Ide, Reg. Mgr (408) 255-4800 AMPEX CORPORATION 3135 Chestnut, Suite 101 Atlanta, GA 30340 (404) 451-7112 Contact: Paul Hansil, Reg. Mgr. AMPEX CORPORATION 2201 Lunt Ave. Elk Grove Village, IL 60007

Contact: Mike D'Amore, Reg. Mg AMPEX CORPORATION 10215 Fernwood Bd Bethesda, MD 20034 (301) 530-8800 Contact: Frank Rush, Reg. Mgr. AMPEX CORPORATION 75 Commerce Way Hackensack, NJ 07601 Contact: Al Slater, Reg. Mgr. (201) 489-7400 AMPEX CORPORATION Esmerelda 345, 10th Floor Cosilla de Correo 5403 1035 Buenos Aires, Argentina Contact: Hector J. Salonio, Reg. Mgr. 49-4159 AMPEX CORPORATION 4 Carlotta St. Artarnon, NSW, Australia (02) 439-4077 Contact: Greg Nixon, Reg. Mgr. AMPEX CORPORATION Rua: Visconde de Piraja 595 Gr. 1102

Ipanema, CEP. 22410



(312) 593-6000

The VTW-300 Video Typewriter from FOR-A CORP. presents a host of professional features that, until now, have only been available in character generators costing twice as much-or more. And a complete system of outboard interface components are also available.

- · 24 by 24 dot matrix format
- Full 8-page memory
- · Auto-centering function
- · Roll and Crawl functions
- · Spanish character keyboard, Edge and Wipe controls available.
- · Floppy disc-drive available
- · Background and Title Colorizer available. Works with all C.G.'s!



FOR-A CORP. of AMERICA, 1680 Vine Street, Suite 201 Los Angeles, California 90028 • (213) 467-8412

274-8122 Bio de Janeiro, R.J., Brasil Contact: Weldon Squyres, Reg. Mgr. AMPEX CORPORATION 132 East Drive Bramalea, Ontario Can. (416) 791-3100 Contact: Jean-Louis Major, Reg. Mgr. AMPEX CORPORATION Avenida 40A, No. 13-09, Of. 1103 Bogota, Colombia 285-0517 Contact: Dave Peterson, Reg. Mgr. AMPEX CORPORATION Apartado Postal -13-615 Division del Norte -1832 Mexico, 13 D.F., Mexico 539-6870 Contact: Miguel Hernandez, Reg. Mgr. AMPEX CORPORATION Apartado Postal ~13-615 Division del Norte –1832 Mexico, 13 D.F., Mexico Contact: Miguel Hernandez, Reg. Mgr. AMPEX CORPORATION 539-6870 P.O. Box 7056 (Rissneleden 8) S-172 07 Sundbyberg, Sweden 08/282910 Contact: Willy Bjorklund, Reg. Mgr AMPEX CORPORATION Rue de Romont 29 1701 Fribourg, Switzerland
Contact: Gerd Baumhof, Reg. Mgr.
AMPEX CORPORATION (037) 81 31 11 Acre Road Reading RG2 OQR, Berkshire, England (0734) 85200 Contact: Wille Scullion, Reg. Mgr. AMPEX CORPORATION 21 Rue De Dome 92100 Boulogne, France 609-91-55 Contact: Michel Candelier, Reg. Mgr. AMPEX CORPORATION Walter Kolb Strasse 9 - 11 6000 Frankfurt (Main) 70 West Germany 60581 Contact: Elmar Sadeler, Reg. Mgr. AMPEX CORPORATION 1801-1805 Star House 3 Salisbury Road Kowloon, Hong Kong 678051 Contact: Alien Lee, Reg. Mgr. AMPEX CORPORATION Via Riccardo Gigante, 4 00143 Roma, Italy Contact: Dick Crippa, Reg. Mgr. 06 / 54 69 91 AMPEX CORPORATION New Belle Mode Bldg. 3 - 3 Kojlmachi Chiyoda - ku, Tokyo Japan 102 Contact: H. Wakamatsu, Reg. Mgr 03)264-7331 AMPEX CORPORATION Toshiba Ampex Co., Ltd. 555 Toriyama-cho, Kohuku-ku 045-471-9041 Yokohama, Japan 222 Contact: K. Ohashi, President

AMPLICA

950 Lawrence Dr. Newbury Park, CA 91320 (805) 498-9671 Sales Contact: N. Pena, Mgr. Mkt. Services

AMPRO/SCULLY

2693 Philmont Ave. Huntington Valley, PA 19006 (215) 947-7000 Sales Contact: John Cyr, Sales Mgr.

AMTEL SYSTEMS

29-16 Connel Court Toronto, Ontario Canada M8Z 5T7

(416) 251-3355

Sales Contact: Peter McDonald

AMTRON CORPORATION 5620 Freedom Blvd. P.O. Box 1150

Aptos, CA 95003 (408) 688-4445 Sales Contact: Bill Widera, Gen. Manager

ANDERS INC.

77 Wolcott Road Simsbury, Ct. 06070 (203) 658-7666 Sales Contact: Roger A. Grover, VP/Mktg.

ANDERSEN LABORATORIES INC.

1280 Blue Hills Ave. Bloomfield, CT 06002 (203) 242-0761 Sales Contact: Robert Jacobs, Dir. of Mktg.

ANDERSON SCIENTIFIC

Box 800

Black Hawk, SD 57718 (605) 787-4224

Sales Contact: Keith V. Andersen

ANDREW CORPORATION

10500 W. 153rd St.

Orland Park, IL 60462 (312) 349-3300 Sales Contact: John Pryjma, Mgr., Cable Sls.

ANGENIEUX INC.

(603) 880-1710 120 Derry Road Hudson, NH 03051 (603) 889-2116

Sales Contact: Bern Levy, Mkt. Mgr.-Film & TV Regional Sales Offices: ANGENIEUX INC.

13381 Beach Avenue Venice, CA 90291 Contact: Bill Turner, Manager (213) 821-5080

ANGENIEUX INC. 190 Don Park Road

Markham, Ontario L-R 2V8

(416) 495-5454 Contact: Tank Sum, Manager

ETS. P. ANGENIEUX 42570 Saint-Heand

France

(33) 77-30-4210

ANGEVINE ACOUSTICAL CONSULTANTS

7349 Davis Road

West Falls, NY 14170 (716)652-0282

Sales Contact: Eric Neil Angevine

WHERE TO FIND IT

GENERAL INDEX, Pages 38-45

WHO MAKES IT

PRODUCT DIRECTORY, Pages 46-113

ANGLE STEEL ERECTORS

P.O. Box 55

Greenville, NC 27834 (919) 752-7323

Sales Contact: Bill Angle, Jr., Owner

ANIXTER-MARK

2180 S. Wolf Rd

Des Plaines, IL 60018 (312) 298-9420 Sales Contact: E. Lamarre, VP/Mktg. Services

ANN ARBOR TERMINALS INC.

6175 Jackson Road

Ann Arbor, MI 48103 (313) 663-8000 Sales Contact: Sarah Freeman, Mktg. Mgr.

R. B. ANNIS CO.

1101 N. Delaware St.

Indianapolis, IN 46202 (317) 637-9282 Sales Contact: R.B. Annis, Owner

ANRITSU AMERICA INC.

128 Bauer Drive

Oaklahd, NJ 07436 (201) 337-1111

Sales Contact: Paul Young, Sales Mgr.

ANTENNAS FOR COMMUNICATIONS INC.

486 Cypress Road

Ocala, FL 32672 (904) 687-4121 Sales Contact: Kevin B. McWhinney,

Marketing Manager

ANTENNA TECHNOLOGY CORP.

895 Central Florida Parkway

Orlando, FL 32809 (305) 851-1112 Sales Contact: Eugene P. Augustine, Pres.

ANTIOPE VIDEOTEX SYSTEMS INC.

1725 K Street NW #703

Washington, DC 20006 (202) 861-0020

ANTON/BAUER

66 Center Street

Shelton CT (203) 735-3305

Sales Contact: Joseph Lantowski, Manager

ANVIL CASES INC.

4128 Temple City Blvd.

Rosemead, CA 91770 (213) 575-8514

Sales Contact: R. Hoopes, Prod. Mgr.

APERT-HERZOG CORP.

7007 Realm Dr., B3

San Jose, CA 95119 (408) 225-1425 Sales Contact: Bill Nichols, Dir. Mktg.

APHEX SYSTEMS LTD.

7801 Melrose Ave.

Los Angeles, CA 90046 (213) 655-1411 Sales Contact: Paula Lintz, Mktg. Dir.

APPLIED TECHNOLOGY CORPORATION

27106 46th Avenue South

Kent, WA 98031 (206) 854-1004

ARGOS PRODUCTS CO. INC.

600 S. Sycamore St.

Genoa, IL. 60135 (815) 784-5118

Sales Contact: Ron Evers, VP-Sales

ARISTOCART, DIV. WESTERN BROADCASTING CO. LTD.

17-825 McBride Blvd

New Westminster, BC (604) 522-2711 Canada V3L 5B5 (604) 687-2844

Sales Contact: D. Kalmokoff, Mgr.

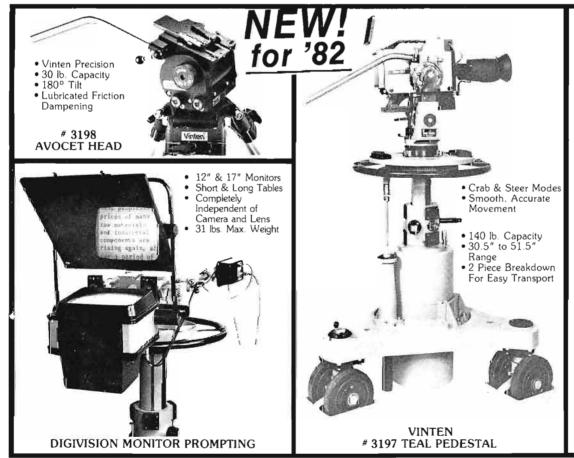
Regional Sales Offices:

BROADCAST SUPPLY WEST

2711 Locust Avenue W. Tacoma, WA 98466

(206) 565-2301

Continued on page 120



Call or write for complete information and catalog...



Listec Television Equipment Corporation

39 Cain Drive Plainview,

New York 11803 (516) 694-8963

Telex: 640470

Listec (West) Corp.

1619 Cosmic Way Glendale,

California 91201 (213) 247-9247

Telex: 182686

JUNE 1982/BROADCAST COMMUNICATIONS

WHERE TO BUY IT

IGM COMMUNICATIONS

Box 943 Bellingham, WA 98225 DAVID GREEN ASSOCIATES

(206) 733-4567

rans Path I

21 N. Wirt Leesburg, VA 22075

(703) 777-8660

ARRAKIS SYSTEMS

1713 Willox Court Fort Collins, CO 80524 (303) 221-2918 Sales Contact: Michael Palmer, President

ARRIFLEX CORP.

500 Route 303

Blauvelt, NY 10523 (914) 353-1400

Your Door to

Revolutionary

TransPath I is the first

the 3-stage concept.

flexibility. A master

routing system to condense

a switching matrix using

Central processing, using

nents, allows unheard-of

terminal provides bus con-

mation in parallel with individual

remote panels. The system is equipped

for either numeric or alpha-numeric displays.

TransPath offers multiple level switching with both

With sources constantly increasing and rack space

AFV and breakaway operation, and all paths are virtually

transparent. Input and output monitoring and redundant

central processing are unique features incorporated in

at a premium, TransPath offers an innovative approach.

Complete Descriptive Information is Available—

Give Us a Call

HUGHES ELECTRONIC DEVICES CORP.

P. O. Box 1985, Grass Valley, CA 95945 • 916/273-9524

each 100 x 100 basic matrix, all contained in 29RU.

trol or diagnostic infor-

Think about it.

state-of-the-art compo-

Routing System

Sales Contact: R. Schriebman, Sls. Mgr.

ARTEL COMMUNICATIONS CORP.

P.O. Box 100 West Side Station

Worcester, MA 01602 (617) 752-5690

Sales Contact: David Felnberg, Sls. Mgr.

ARVIN-DIAMOND

4490 Old Columbus Rd NW

Carroll, OH 43112 (614) 756-9211 Sales Contact: John Saurenman, Sls. Mgr.

Dick Richards, Manager, CATV Products

ASACA/SHIBASOKU CORP. OF AMERA

12509 Beatrice Street

Los Angeles, CA (213) 827-7144

Sales/Service (800) 423-6347

Sales Contact: Alan Davis, Dir. of Mktg. Susan Grossinger, Office Manager

Regional Sales Offices:

VIDEOSONICS Portland, OR 97214

(503) 232-4632

Sales Contact: Bill Achatz, President BIA INC

Salt Lake City, UT 84115 (801) 484-1701 Sales Contact: Bob Bacon, President

F M C

Iselin, NJ 07001 (201) 634-5310

Sales Contact: Paul Backer COLOR VIDEO SERVICES

Prior Lake, MN 55372 (612) 447-4453

Sales Contact: Mike Barsness TELEVISION ASSOCIATES

Mountain View, CA 94040 (415 Sales Contact: Barry Rubin, Sales Mgr. (415) 967-6040

LAKE SYSTEMS (617) 244-6881

Newton, MA 02160 Sales Contact: Frank De Mayo, VP

ASSOCIATED SYSTEMS (603) 472-2297

Manchester, NH 03108 Sales Contact: Churchill Miller

G.P. ENTERPRISES

Arlington, TX 76014 Sales Contact: Gordon Peters (817) 467-0051

TRITRONICS Burbank, CA 91505 (800) 423-3640

Sales Contact: Michael Purdy, President MIDWEST CORPORATION

Virginia Beach, VA 23455 (80 Sales Contact: Fred Wood, Sales Mgr. MIDWEST CORPORATION (804) 464-6256

(305) 592-5355

Mlami, FL 33122 (305 Sales Contact: Lloyd Hicks, Sales Mgr.

MIDWEST CORPORATION Cincinnati, OH 45203 (513) 651-1904

Sales Contact: Jay Adrick, Sales Mgr.

EMIL ASCHER MUSIC INC.

630 Fifth Avenue New York, NY 10020 (212) 581-4504

Sales Contact: R. Sandler, Gen. Mgr.

THE ASTATIC CORPORATION

P.O. Box 120

Conneaut, OH 44030 (216) 593-1111

Sales Contact: Emory W. Talso, Jr., CSD Sales Manager

ASTON ELECTRONIC DEVELOPMENTS LTD.

125-127 Deepcut Bridge Road

Deepcut, Camberley Surrey (02516) 6221 England Telex: 858813

Sales Contact: John Waiteford, Sls. Mgr.

ATLÁS SOUND

10 Pomeroy Road

Parsippany, NJ 07054

(201) 887-7800

Sales Contact: D. Chambers, Dist. Sls. Mgr.

ATLAS TOWER CORPORATION

P.O. Box 972

Vinita, OK 74301 (918) 256-7883

Sales Contact: Richard Bell, VP Opers.

AUDICON INC.

1200 Beachwood Avenue

Nashville, TN 37212 (615) 256-6900

Sales Contact: Claude Hill, Pres.

AUDICO INC.

219 Crossen Ave.

Elk Grove, IL 60007 (312) 640-1030

Sales Contact: BIII Hinkle, President

AUDI-CORD CORPORATION

1845 W. Hovey Ave.

Normal, IL 61761 (309) 452-9461

Sales Contact: Carl L. Martin, Pres

AUDIO ACCESSORIES INC.

Mill Street

Marlow, NH 03456

(603) 446-3335 Sales Contact: David Hall, GM

AUDIO KINETICS (UK) LTD.

Kinetic House

Circle (64) on Action Card

Verulam Road

St. Albans, Herts AL3 4DH 0727 32191 Sales Contact: Charlie Day, Sls. Mgr.

AUDIO MAGNETICS CORP

(800) 854-0131 2602 Michelson Drive Bruine, CA 92714 (714) 833-0020 Sales Contact: T. Vali, VP Mktg. & Sls.

AUDIO-TECHNICA U.S., INC.

1221 Commerce Dr.

Stow, OH 44224 (216) 686-2600 Sales Contact: Charlie Winkler, Nat. Sls. Mgr.

AUDIO TECHNOLOGY

1169 Tower Rd. Schaumburg, IL 60195

(312) 885-0066 Sales Contact: William Griffis, Sls. Mgr.

AUDIO & DESIGN RECORDING, INC.

P.O. Box 786

Bremerton, WA 98310

(206) 275-5009

(Toll Free) (800) 426-6170 Sales Contact: Nigel Branwell, Vice Pres.

AUDIO & DESIGN RECORDING LTD.

16 North Street

Reading, Berks.

England

(0734) 53411

Contact: Dave McVittie, Sales Mgr.

AUDIO INTERFACE INC.

P.O. Box 7369

Van Nuvs. CA, 91409 (213) 704-5962 Sales Contact: Anthony Suganuma, Pres.

AUDIO PROCESSING SYSTEMS INC.

40 Landsdowne St.

Cambridge, MA 02139 (617) 354-1144 Sales Contact: Stephen W. Crump, President

AUDIO/TEK INC.

502-D Vandell Way Campbell, CA 95008

(408) 378-5586

Sales Contact: Robert W. Kratt, Pres.

AUDIO KINETICS (UK) LTD.

Kinetic House, Verulam Road

St. Albans, Herts,

England 0727 32191

Sales Contact: Charlie Day, Sales Mgr.

AUDIO-PATH ENGINEERING INC.

316 E. El Camino Dr.

Phoenix, AZ 85020 (602) 995-1666

Sales Contact: Janene Spencer, Sales

AUDIO PLUS VIDEO INTERNATIONAL

100 Stonehurst Court

Northvale, NJ 07647 (201) 767-3800

Sales Contact: Noel Copley, Sales Dir.

AUDIO-TECHNICA U.S. INC.

1221 Commerce Dr.

Stow, OH 44224 (216) 686-2600

Sales Contact: Charlie Winkler, Nat. Sls. Mgr.

AUDIO TECHNOLOGY

1169 Tower Rd.

Schaumburg, IL 60195 (312) 885-0066 Sales Contact: William Griffis, Sales Mgr.

AUDIO VIDEO ENGINEERING CO.

65 Nancy Blvd.

Merrick, NY 11566 (516) 546-4239

Sales Contact: Rolf Drucker, Owner

AUDIOMARKETING LTD.

652 Glenbrook Rd.

Stamford, CT 06906 (800) 243-2598 (Toll Free)

AUDIONICS OF OREGON

5687 S.E. Int'l Way Suite "F'

Continued on page 122

THE TRUE **MEASURE OF** ERFORMANCE



ASACA/SHIBASOKU Portable Production Systems

Here's portability plus, in 2 compact systems that give you true field mobility with full broadcast quality and capability. Our ASW 100 and ASW 200 production systems are multi-function units capable of performing all operations required for portable field production. Combined with optional monitors and power packs, they give you a van-full of equipment in 2 airline size suitcases you can take anywhere.

ASW 100/200 production systems are lightweight and rugged, with excellent manipulation and performance characteristics. They may be used with up to 4 cameras, with total remote control capability. Other components connect quickly and easily. Both systems perform full monitoring, switching and remote camera control functions. They may be used with any ENG/EFP camera on a variety of power sources.

- Vertical interval switcher has mix fader and wipe patterns with positioning and timing functions for super special effects.
- . Automatic camera phase control adjusts sync and color phase for each camera instantly, precisely, automatically, continuously.
- Remote controls for all camera functions including iris, master pedestal, R.B. gain, R.B. pedestal and tally.
- VTR remote controls for stop, play, record.
- System synchronization with built-in sync generator and gen-lock capability to any internal or external source.
- Preview monitoring for each camera, line and VTR.
- Cable compensator for lengths up to 1,000 feet.
- Downstream keyer with specially designed generator for colorizing both background and characters.
- Intercom and tally system.

Measure your performance with the best.

ASACA/ SHIBASOKU ASW 100/200. Compact systems with giant capabilities.



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

Circle (65) on Action Card

WHERE TO BUY IT

Milwaukee, Oregon 97222 (503) 652-1854 Sales Contact: Charles Wood, Pres.

AUDIOSEARS CORP.

2 South St. Stamford, NY 12167 (607) 652-7305 Sales Contact: David Hartwell, Sales Mgr.

AUDITRONICS INC.

3750 Old Getwell Rd. Memphis, TN 38118 (901) 362-1350 Sales Contact: James F. Woodworth, Sls. Mgr.

AUDISAR

P.O. Box 1561 Bellevue, WA 98009

(206) 454-2040

Sales Contact: R.E. Munger, Owner

AUDIOTRONICS

7428 Bellaire Ave. P.O. Box 3997

North Hollywood, CA 91609

(213) 765-2645

AUDIX LTD.

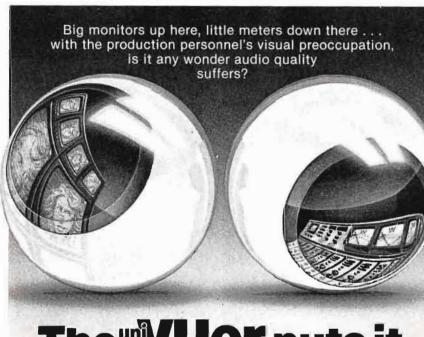
Station Road Wenden Saffron Walden,

Essex

(0799) 40888 Sales Contact: Ray Moore, Brdcst Sls. Mgr.

AUDY INSTRUMENTS INC.

235 Lafavette St.



The "VUer puts it all together!

Dynamic bar graph display over monitor video!

- 2-channel for stereo monitoring
- Display size and position variable
- Selectable PPM/VU ballistics
- Peak flasher
- Adjustable silence sense
- Transparent to monitor video
- **RACK MOUNT OR PORTABLE**
- Compatible with European standards

See you in Dallas NAB booth 2621

THE REAL WORLD **TECHNOLOGIES** GROUP, INC.

Santa Ana, CA (714) 957-1061 Technology Development Services by Microsystems Institute

Circle (66) on Action Card

- Master control monitoring
- Editing suites
- Production control rooms
- VTR bridges
- Boss' office
- Anywhere in the program monitoring chain

ENG/EFP - in line with monitor video return provides camera operator with audio CONFIDENCE

P.O. Box 2054

Salem, MA 01970 (617) 744-5320

Sales Contact: Alan Kennedy, Sis. Mgr.

AUERNHEIMER LABS AND CO.

4561 E. Florence Ave.

Fresno, CA USA 93725 (209) 442-1048

Sales Contact: Curly Auernheimer, Owner

AURATONE CORP.

P.O. Box 698

Coronado, CA 92118 (714) 297-2820

Sales Contact: H. E. Wilson, V.P. Sales

AURORA SYSTEMS

185 Berry Street

Suite 143

San Francisco, CA 94107 (415) 777-2288 Sales Contact: Jessee Blount, VP Mktg.

AUTOCUE PRODUCTS LTD.

Autocue House, 265 Merton Road London SW18 5JS 01-870 0104

Sales Contact: James Lucas, Dir.

AUTOGRAM CORPORATION

631 J. Place P.O. Box 456

Plano, TX 75074 (214) 424-8585

Sales Contact: Ernest T. Ankele, Jr., Pres.

AUTOGRAPHICS INC.

6335 Homewood Ave.

Hollywood, CA 90028 (213) 464-2244 Sales Contact: Juli Humphreys, VP Operations

AUTOMATED BUSINESS CONCEPTS.

A Div. of Cetec Corp. 7204 Clairemont Mesa Blvd.

San Diego, CA 92111 (714) 560-1647 Sales Contact: Frank W. Crane, Mktg. Mgr.

AUTOMATIC DEVICES COMPANY

2121 S. 12th St.

Allentown, PA 18103 (215) 797-6000

Sales Contact: Donald Heller, V.P.-Sales

AUTOMATION ELECTRONICS INC.

1001 South St.

Lafayette, IN 47905 (317) 423-2572

Sales Contact: Larry Zaiser, Pres.

AUTOMATION TECHNIQUES INC.

1846 North 106 East Avenue

(918) 836-2584 Tulsa, OK 74116

Sales Contact: Frank Tackett, Sales Rep.

AYDIN MICROWAVE

75 F. Trimble Rd. San Jose, CA 95131

(408) 946-5600 Sales Contact: Bruce Jennings, VP-Mktg.

AYDIN MONITOR SYSTEMS

502 Office Center Drive

(215) 646-8100 Ft. Washington, PA 19034

Sales Contact: Don E. Mahoney, V.P., Sales

BASF LIMITED, AUDIO VIDEO

2 - 4 Fitzroy Street

London W1P 6AD UK

01 637 8971

BCB ELECTRONIC SALES LTD.

98 Healey Rd., Box 315

Bolton, Ontario

Canada LOP 1A0 (416) 857-0790, 0791

Sales Contact: R.H. Cook, Pres.

BEI (BESTON ELECTRONICS INC.)

P.O. Box 937 (913) 764-1900 Olathe, KS 66061 (800) 255-6226

Sales Contact: Rod Herring, Sales Mgr.

B E S ELECTRONICS LIMITED

3212 Wharton Way Mississauga, Ontario

Canada, L4X 2C1 (416) 624-5624 Sales Contact: W. R. Onn, President/GM

BG ENGINEERING

4411 Red Maple Ct.

Concord, CA 94521 (415) 680-1349

Sales Contact: Bob Kearns, G.M.

BGW SYSTEMS INC.

13130 South Yukon Avenue Hawthorne, CA 90250

(213) 973-8090 Sales Contact: Irwin Laskey, Sales Mgr.

B&IELECTRONICS

Bldg. 128 Donaldson Center

Greenville, SC 29605 (803) 277-5985

Sales Contact: Don M. Tompkins, President

BIC COMPUTERS

Box 619

Moberly, MO 65270 (816) 263-5800

Sales Contact: Richard Womack, Exec. VP

B & K PRECISION PRODUCT GROUP / DYNASCAN CORP.

6460 W. Cortland Street

Chicago, IL 60635 (312) 889-9087 Sales Contact: Myron Bond, V.P. / Mktg.

BPI (Broadcast Programming Internat'l.)

P.O. Box 547 (800) 426-9082 (toll free) Bellingham, WA 98009 (206) 676-1400

Sales Contact: Bill Wolkey or Jane Kindred, Prog. Consits.

BPI AUDIO TEST INSTRUMENTS

7853 Balboa Ave.

San Diego, CA 92111 (714) 279-3344 Sales Contact: Ray Yankowski, Sales Mgr.

BSM SYSTEMS

Box 8081 Manito Str

Spokane, WA 99203 (509) 448-0697

Sales Contact: Bruce Morse, Owner

THE BTX CORPORATION

12 Huron Drive

Natick, MA 01760 (617) 653-6811

Sales Contact: John Sullivan, Sales

WILLIAM BAL CORP.

947 Newark Ave. P.O. Box 875

Elizabeth, NJ 07207

(201) 354-9625

TELEX: 844280

Sales Contact: Les Weinstock

BALD MOUNTAIN LAB

230 Bellevue Rd.

Troy, NY 12180 (518) 279-9753

Sales Contact: Bob Henry, Owner

BALLANTINE LABORATORIES

P.O. Box 97 90 Fanny Road

Boonton, NJ 07005

(201) 335-0900 Sales Contact: Roger A. Stagnol,

Mktg. Serv. Manager

BARCO ELECTRONIC

TH Sevensiaan 706

8720 Kuurne Belgium 56 21 77 24

Sales Contact: N. Lietaert, Prod. Mgr.

BARDA ELECTRONIC INC.

5180 Queen Mary Road, Room 410

Montreal H3W 3E7

P.Q., Canada (514) 486-1186 Sales Contact: Serge Regnault, President

BARDWELL & McALISTER INC.

7051 Santa Monica Bl.

Hollywood, CA 90038 (213) 466-9361

Sales Contact: Sharon Evans, Sales Mgr. Barry Seybert, Systems Sales

BARKER & WILLIAMSON INC.

10 Canad Street Bristol PA 19007 (215) 788-5581

Sales Contact: Elmer R. Bush, V.P.

BASYS INC.

4960 Hamilton Ave.

San Jose, CA 95130 (408) 866-8117

Sales Contact: Peter Kolstad, President

BAYLY ENGINEERING LTD

167 Hunt Street Alax, Ontario

Canada L1S 1P6

(416) 683-8200 Sales Contact: Ed Pilchuk, Nat'l. Acct. Mgr.

Comm. Productions & Systems

BEAVERONICS INC.

8 Haven Avenue

Port Washington, NY 11050 (516) 883-4414 Sales Contact: John Busharls, V.P.-Marketing

BELAR ELECTRONICS LABORATORY INC.

P.O. Box 826

Devon, PA 19333 (215) 687-5550

Sales Contact: Arno M. Meyer, Pres.

Continued on page 124

CONGRATULATIONS!!!

WE CONGRATULATE THE NATION'S BROADCASTERS ON THEIR CONTRIBUTIONS AND ACCOMPLISHMENTS TOWARD MAKING...

THE 1980's "A DECADE OF **DEREGULATION!"**



INTRODUCING THE MODEL 7200 COMMUNICATOR



- HIGH RESOLUTION FONT (35 n sec.)
- BASIC SINGLE STROKE CONTROL
- **GRAPHICS AND 3 CHARACTER SIZES**
- 8 COLORS—CHARACTERS & BACKGROUND
- MIXED CHARACTER SIZES—BY LINE
- **AUTO CENTERING BY PAGE OR LINE**
- DISC AND/OR TAPE STORAGE

BUILT-IN VIDEO KEYER

- MULTIPLE KEYBOARD CAPABILITY
- FULL BORDER OR DROP SHADOW

LAIRD TELEMEDIA INC.® SALT LAKE CITY, UTAH 84119

BELDEN COMMUNICATIONS

534 W. 25th Street New York, NY 10036 (212) 691-1910 Sales Contact: Paula Boxer, Sls. Mgr.

BELL AUDIO SYSTEMS INC.

994 Freeway Drive North, Bldg No. 6 (614) 846-2766 Columbus, Ohio 43229 Sales Contact: Thomas A. Curran, Pres.

BELL HELICOPTER TEXTRON

Box 482

(817) 280-2142 Fort Worth, TX 76101 Sales Contact: Robert Edholm, Mgr., Mktg. Devlopment

BEYER DYNAMIC INC.

5-05 Burns Avenue Hicksville, NY 11801 (516) 935-8000 Sales Contact: Paul Murphy, Gen. Mgr.

BEYER DYNAMIC

Theresienstrasse 8 D-7100 Heilbronn West Germany

(7131) 617.0 Sales Contact: Klaus Wischgoll, Tech. Dir.

EUGENE BEYER ELEKTROTECHNISCHE FABRIK GMBH & CO.

POB 1320

D-7100 Heilbronn (07131) 8 23 48 Sales Contact: Mr. Muller-Tolk, Mkt. & Sls. Mgr.

JAMES G. BIDDLE CO.

510 Township Line Road Blue Bell, PA 19422 (215) 646-9200 Sales Contact: R.E. Voeks, Adv. Mgr.

BIDDLE INSTRUMENTS 510 Township Line Road Blue Bell, PA 19422

Sales Contact: R.E. Voeks, Sls. Mgr.

BIRD ELECTRONIC CORP.

30303 Aurora Road

Cleveland (Solon), OH 44139 (216) 248-1200 Sales Contact: John R. Ittel, Brdcst. Sls. Mgr.

BI-TRONICS INC.

P.O. Box 125

Tuckahoe, NY 10707 (212) 585-1645 Sales Contact: J. Schwartz, Pres.

BLONDER-TONGUE LABS INC.

1 Jake Brown Road

Old Bridge, NJ 08857 (201) 679-4000 ext. 349 Sales Contact: Ted Zdzienicki, Tech. Writer

BOGEN DIVISION/LEAR SIEGLER INC.

Box 5000

Paramus, NJ 07652 (201) 343-5700 Sales Contact: Joseph A. Palmieri, V.P. Mktg.

BOGEN ELECTRONIC GMBH

Potsdamer Chaussee 80 D 700 Berlin 38 (030) 8004204 Sales Contact: Dr. Helmut Becker, Mgr.

BOGNER BROADCAST EQUIPMENT CORP.

401 Raidroad Avenue

Westbury, NY 11590 (516) 997-7800 Sales Contact: Steven Weinsteln, Mktg. Mgr.

BONNEVILLE BROADCAST CONSULTANTS

274 County Road

Tenafly, NJ 07670 (201) 567-8800 Sales Contact: Marlin Taylor, Pres.

BONNEVILLE DATA SYSTEMS 165 Social Hall Avenue

Salt Lake City, UT 84111 (801) 237-2454 Sales Contact: Nancy Coffeen, Mktg. Asst.

BONNEVILLE PRODUCTIONS

130 Social Hall Ave.

Salt Lake City, UT 84111 (801) 237-2400 Sales Contact: Mike Collett, V.P./Prod.

BONNEVILLE SATELLITE CORPORATION

130 Social Hall Ave.

Salt Lake City, UT 84111

Sales Contact: Bruce R. Hough, VP/GM

BOONTON ELECTRONICS CORP.

P.O. Box 122

Parsippany, NJ 07005 (201) 887-5110 Sales Contact: W.F. White, Mktg. Mgr.

ROBERT BOSCH GmbH,

Television Systems Division Robert Bosch Shrasse 7

6100 Dormstadt,

West Germany 06151 808-1 Sales Contact: Hans Goeller, Sales Dir.

BOSTON INSULATED WIRE & CABLE CO.

65 Bay Street

Boston, MA 02125

(617) 265-2102 Sales Contact: Richard Kruger, Mktg. Mgr.

TV Products

(801) 237-2450

BRABURY ELECTRONICS LTD.

Smitham Bridge Hungerford

Berkshire, U.K. (04886) 3511 Sales Contact: Roger Daymond, Sis. Mgr.

BRAND-REX COMPANY

Electronic and Industrial Cable Div.

Your batteries

Alexander rechargeable nickel-cadmium batteries can be discharged, overcharged, and otherwise abused and still be brought back to life. That's why producers and stations all over the country are

switching to genuine Alexander replacement packs for ENG and EFP equipment.

If dead batteries are driving your crews to distractions. get current — with Alexander!



REPLACEMENT BATTERY PACKS AND CHARGERS FOR PORTABLE CAMERAS, VTRS, VOICE RECORDERS, COMMUNICATIONS EQUIPMENT

Circle (68) on Action Card

MASON CITY IOWA 50401/515-423-8955

P.O. Box 498

Willimantic, CT 06226 Sales Contact: Ed Cronin (203) 423-7771

BRETFORD MFG. INC.

9715 Soreng

Schiller Park, IL (312) 678-2545 Sales Contact: Andrew Tess, Sales Mar.

WALTER S. BREWER CO. INC.

2216 East 56th Place

Tulsa, OK 74105 (918) 749-9894 Sales Contact: Walter S. Brewer, Pres.

DON BRITTON ENTERPRISES

P.O. Drawer G

Waikiki, HI 96815

(808) 395-7458 Sales Contact: Bob Larson, Sls. Mgr.

BROADCAST AIDS INC.

20 Red Rose Drive

Levittown, PA 19056 (215) 547-7133 Sales Contact: John Bostwick, Pres.

BROADCAST AUDIO CORPORATION

11306 Sunco Drive

Rancho Cordova, CA 95670 (916) 635-1048 Sales Contact: Dale A. Tucker, Mktg. Mgr.

THE BROADCAST CENTER

325 John Knox Rd.

Suite F-160

Tallahassee, FL 32303 (904) 385-6161

Sales Contact: Bob Harris, Pres.

BROADCAST COMMUNICATION PRODUCTS

P.O. Box 204

Golden, CO 80401 (303) 424-3231

Sales Contact: Greg Pine, President

BROADCAST ELECTRONICS INC.

4100 N. 24th Street

P.O. Box 3606

Quincy, IL 62305 (217) 224-9600

Sales Contact: Joseph M. Engle, National Sales Manager

BROADCAST FOUIPMENT

396 Attwell Drive

Rexdale, Ontario, Canada (416) 675-7500

M9W 5C3 Telex: 06-989302

BROADCAST SERVICES INC.

2877 Kalakaua Ave.

Honolulu, HI 96815 (808) 521-6311/537-4452 Sales Contact: Ernest Nearman, Sis. Eng.

BROADCAST SYSTEMS

(800) 531-5232 8222 Jamestown Drive Austin, TX 78758 in TX. (800) 252-9792

Sales Contact: Don Forbes

BROADCAST TECHNOLOGY INC.

33 Comac Loop

Ronkonkoma, NY 11779 (516) 588-6565 Sales Contact: Don Richter, Mktg. Mgr.

BROADCAST VIDEO SYSTEMS LTD.

1050 McNicoll Ave.

Unit 15 Agincourt, Ontario M1W 2L8 (416) 497-1020 Sales Contact: Bert Verwey, Gen. Mgr.

BRUEL & KJAER INSTRUMENTS

185 Forest St.

Marlboro, MA 01752 (617) 481-7000 Sales Contact: Simon Jepsen, Reg. Mgr.

BRUMAC INDUSTRIES

5261 Business Dr.

Huntington Beach, CA 92649 (714) 891-2505 Sales Contact: Carl Bode, V.P. Marketing

BRUSH MAGNETIC HEADS DIV.. FORGFLO CORP.

3rd & Reagan St.

P.O. Box 638

Sunbury, PA 17801 (717) 286-5611 Sales Contact: Robert I. Trachtenberg, VP

BRYSTON MANUFACTURING LTD.

57 A Westmore Drive

Rexdale Ontario

Canada M9V3Y6

Sales Contacts:

Brian Russell (CAN) (416) 746-1800 John Russell (US) (802) 223-6159

BUD INDUSTRIES INC.

4605 E. 355th St.

Willoughby, OH 44094 (216) 946-3200 Sales Contact: Blair Haas, Sales Mgr.

BUHL OPTICAL

1009 Beech Avenue

Pittsburgh, PA 15233 (412) 321-0076 Sales Contact: Irv Stapsy, Pres.

BURDEN ASSOCIATES

20944 Sherman Way Canoga Park, CA 91303

(213) 340-4590 Sales Contact: Richard Burden, Mgr.

THE WILL BURT CO.

169 S. Main St.

Continued on page 126





Circle (70) on Action Card



systems.

Discriminate Compression Only MAP II offers you independent compression and equalization for each of eight bands. Input level is held constant by a slow, gainriding A.G.C.

Inaudible Phase Optimization Program phase is silently "rotated" for maximum positive modulation.

Absolute Peak Control

A unique integrated peak controller combines a hard clipper with a lowdistortion peak limiter.

Convenient Operation

Features include selectable lowand high-pass filters, "proof" mode, and built-in pink-noise generator.

Call or write today for more information.

Inovonics Inc.

503-B Vandell Way Campbell, CA 95008 Telephone (408) 374-8300



Circle (71) on Action Card

WHERE TO BUY

Orrville, OH 44667 (216) 682-7013 Sales Contact: H. Featherstone, VP

THE WILL BURT CO., TMD DIVISION

249 W. Henry St. Wooster, OH 44691

(216) 262-7010 Sales Contact: William R. Trimmer, Plant Mgr.



CAE INC.

P.O. Box 430

10087 Industrial Dr. Hamburg, MI 48139 (313) 231-9373

Sales Contact: John Malek, Mktg. Mgr.

CAT SYSTEMS

Box 440

Rye Beach, NH 03871 Sales Contact: Joe Soll (212) 988-0658

C-COR ELECTRONICS INC.

60 Delibel Road

State College, PA 16801 (814) 238-2461 Sales Contact: Gerry Groff, Inside Sales

CCS CABLE

Plant 5707

5707 W. Buckeye Rd.

Phoenix, AZ 85043 (602) 272-6855

Mail: P.O. Box 14710 Phoenix, AZ 85063

Sales Contact: Bill Terrill, Mgr. Sls. Serv.

CEI (COMMERCIAL ELECTRONICS INC.)

880 Maude Ave. Mt. View, CA 94043-4089 (415) 969-1910 Sales Contact: Len Adler, Dir. of Mktg.

Regional Sales Offices:

137 E. 25th Street Floor 9

New York, NY 10010 Contact: Harvey Ray, Eastern Sls. Mgr.

4357 N. Lowell Avenue

Chicago, IL 60641 (312) 7 Contact: Jim Comella, Midwest Sis. Mgr. (312) 725-8181

880 Maude Avenue

Mountain View, CA 94043

(415) 969-1910 (714) 540-2317

Contact: Jim Irvine, Int'l Mktg. Mgr

CMC TECHNOLOGY CORPORATION

733 N. Pastoria Ave.

Sunnyvale, CA 94086 (408) 245-3342 Sales Contact: William E. Fitts, Dir. of Mkt.

CMX SYSTEMS/ORROX CORPORATION

3303 Scott Blvd.

Santa Clara, CA 94086 (408) 988-2000 Sales Contact: Allan J. Behr, VP/GM

Regional Offices: CMX SYSTEMS/ORROX CORP.

3303 Scott Blvd.

Santa Clara, CA 95050 (408) 988-2000 Contact: Darrell Vincent, W. Reg. Field Sls. Mgr. (408) 988-2000

CMX SYSTEMS/ORROX CORP. 1301 W. 22nd St., Suite 501

Oakbrook, IL 60521 (312) 325-8488 Contact: Doug Hutton, Cent. Reg. Field Sis. Mgr. CMX SYSTEMS/ORROX CORP. (212) 371-1122

Contact: Murray Bevitz, E. Reg. Field. Sls. Mgr.

THE CnB STUDIOS

3415 Beresford Avenue

Belmont, CA 94002 (415) 592-6149 Sales Contact: Carole Thompson, Sales/Mgr.

CSI ELECTRONICS INC.

18248 East Rogers Circle

Boca Raton, FL 33431 (305) 737-5626 Sales Contact: Bernard Gelman, President

203 Airport Rd.

Doylestown, PA 18901 (800) 523-6010 Sales Contact: David C. Gorman, President

CABLEWAVE SYSTEMS INC.

60 Dodge Ave.

North Haven, CT 06473 (203) 239-3311 Sales Contact: William Meola,

Broadcast Sales Mar.

CALDATACOM

293 Quinhill Ave. (415) 941-2259 Los Altos, CA 94022 Sales Contact: D.J. Edwonds, V.P. Mktg.

CALICO VIDEO

8955 Thwin Rd. Stockton, CA 95209

(209) 952-3333

CALIFORNIA INSTRUMENTS,

Division of Amstar Tech. Products Co., Inc. 5150 Convoy Street Telex: 695047 San Diego, CA 92111 (714) 279-8620 Sales Contact: L.E. Thompson, V.P. Mktg.

CALIFORNIA MICROWAVE INC.

990 Almanor Ave.

Sunnyvale, CA 94086 (408) 732-4000

Sales Contact: Mike Tooley, Mktg. Mgr.

CALVERT ELECTRONICS INC.

One Branca Road (201) 460-8800 East Rutherford, NJ 07073 (800) 526-6362 Sales Contact: Larry Broome, Sales Mgr.

Regional Sales Offices: CALVERT ELECTRONICS INC.

1355 Redondo Ave., Sulte 6 Long Beach, CA 90804 (213) 49 Contact: Jane Stack, West Coast Sls. Mgr. (213) 498-3504 CALVERT ELECTRONICS, INC.

Imperial House - Victoria Rd. Chelmsford, Essex

England Cmlny 0245 358585 Contact: Peter Butcher, Europena Ophs.

CALZONE CASE COMPANY

P.O. Box 862

17 Butler St.

South Norwalk, CT 06856 (203) 853-7907 Sales Contact: Michael Macari, Jr.,

Dir. of Mktg./Sales

CAMBRIDGE PRODUCTS CORP.

244 Woodland Ave. (800) 243-8814 Bloomfield, CT 06002 (203) 243-1761 Sales Contact: Joyce Johnson, Sales Admin.

CANDEX PACIFIC

693 Veterans Bivd.

Redwood City, CA 94063 (415) 364-8427 Sales Contact: Sherman Duck, V.P.

CANON USA INC

1 Canon Plaza Lake Success, NY 11042 (516) 488-6700 Sales Contact: John J. Keyes, Vice Pres.

CANTER-REDMAN TECHNOLOGIES CORP.

321 West 44th Street

New York, NY 10036 (212) 245-5505 Sales Contact: Quentin Nelson, VP, Mktg.

CAPITOL MAGNETIC PRODUCTS

6902 Sunset Blvd

Hollywood, CA 90028 (213) 461-2701

Sales Contact: Larry Hockemeyer,

Bud Jackson, VP/Int'l SIs.

CART-ALIGN RESEARCH

316 E. El Camino Dr.

Phoenix, AZ (602) 995-1666 Sales Contact: Janene Spencer, Sales Mgr.

J.I. CASE, LIGHT EQUIPMENT DIV.

P.O. Box 9228

Wichita, KS 67277 (316) 945-0111 Sales Contact: Steve Barber, Mktg. Serv. Mgr.

CASES INC.

1745 W. 134th St.

Gardena, CA 90249 (213) 770-4444 Sales Contact: Wayne Nall, VP Mktg.

JIM CASON ELECTRONICS.

5213A Trentwood Drive

P.O. Box 1254

New Bern, NC 28560 (919) 638-5956 Sales Contact: Jim Cason, Owner

CATEL-DIVISION OF UNITED

SCIENTIFIC CORPORATION 4800 Patrick Henry Dr.

Santa Clara, CA 95054 (408) 988-7722 Sales Contact: Frank A. Genochio, Pres.

CECO COMMUNICATIONS INC.

(800) 221-0860 2115 Ave. X Brooklyn, NY 11239 (212) 646-6300

Sales Contact: Tony Janna, Brd. Mgr.

CENTER CITY VIDEO INC.

1503-05 Walnut Street Philadelphia, PA 19102 (215) 568-6010 Sales Contact: Jordan Schwartz, Chairman

CENTRAL DYNAMICS CORPORATION (Central Dynamics, Philips, American Data)

900 Corporate Drive

Mahwah, NJ 07430 Sales Contact: John L. Barker, President

Regional Sales Offices: CENTRAL DYNAMICS CORPORATION 331 West Northwest Hwy.

Palatine, IL 60067 (312) 991-4720

Contact: Jim Gardner, Reg. Mgr. CENTRAL DYNAMICS CORPORATION

No. Hollywood, CA 91604 (213)
Contact: M. Hartt/D. Cadora, Reg. Mgrs.
CENTRAL DYNAMICS CORPORATION (213) 766-8184

570 Taxter Road, Suite 570 (914) 592-5440

Elmsford, NY 10523 (914) 5' Contact: Dick DeBeradinis, Reg. Sls. Mgr. CENTRAL DYNAMICS

801 Howard Grove Road Davidson, MD 21035 (301) 956-3065

Contact: Bob Mahoney, Reg. Manager CENTRAL DYNAMICS

(American Data headquarters)

401 Wynn Drive Huntsville, AL 35805 (205) 837-5180

Contact: Bob Munzner, Reg. Manager CENTRAL DYNAMICS

P.O. Box 27324 Indianapolis, IN 46227 Contact: Jim Gardner, Reg. Manager (317) 784-3000

CENTRAL DYNAMICS
Rt. 2, 801 E. Woodglen
Lewisville, TX 75067 (8
Contact: Mike Mackin, Reg. Manager

(817) 455-2214

CENTRAL DYNAMICS LTD.

147 Hymus Blvd. Pointe Claire, Quebec

Canada H9R 1G1 (514) 697-0810

CENTRO CORPORATION

9516 Chesapeake Drive

San Diego, CA 92123 (714) 560-1578 Sales Contact: Jon Munderloh, President

CENTURY 21 PROGRAMMING

4340 Beltwood Parkway (800) 527-5959 Dallas, TX 75234 or (214) 934-2121 Sales Contact: Tom McIntyre, President

CENTURY PRECISION CINE/OPTICS

10661 Burbank Blvd.

No. Hollywood, CA 91601 (213) 766-3715 Sales Contact: Ken Skuban, Mktg. Admin.

CETEC ANTENNAS 6939 Power Inn Road

Bow 2842 5

Sacramento, CA 95828 (916) 383-1177

Continued on page 128

Video Switcher



SERIES 1500 6 x 1 Passive Video Switcher provides a simple and economical means of manually switching one of six sources to one output.

Auxiliary switching contacts are included for user wiring of additional switching functions such as audio and control circuits.

- * Reliable operation
- * Auxiliary switch contacts for audio or control circuits
- ★ Lighted push button option
- ★ Legendable buttons

DYNAIR

5275 Market St., San Diego, CA 92114 Phone 714/263-7711 TWX 910/335-2040

Circle (72) on Action Card

Distribution Amplifier



SERIES 1500 1 in, 4 out Video Distribution Amplifiers provide high quality performance in color and high resolution monochrome systems.

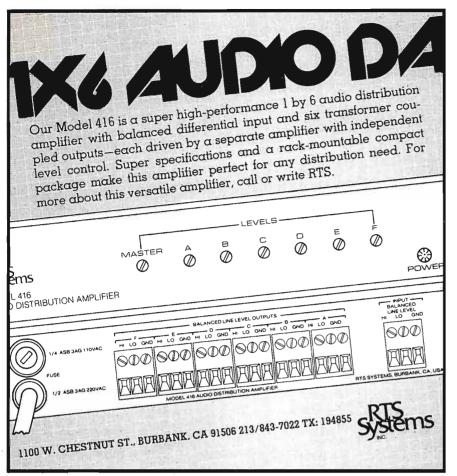
Precision hybrid video operational amplifiers provide ±0.5 dB frequency response to 10 MHz, +1, -2 dB at 30 MHz, and 0.25%/0.250 differential phase/gain.

- ★ High thermal stability
- Front panel adjustment and test points
- ★ Self-contained with internal power supply

DYNAIR

5275 Market St., San Diego, CA 92114 Phone 714/263-7711 TWX 910/335-2040

Circle (73) on Action Card



Circle (74) on Action Card



Revox PR99. Not just another pretty faceplate.

Before you buy a compact audio recorder, be sure to compare what you're getting on the *inside*. Look at the chassis, the headblock, the motors, the switches, the PC boards, and the wiring. When you do, you'll notice a difference between the PR99 and everything else in its price range. The PR99 looks better because it must adhere to stricter standards of quality. Standards that have made Studer Revox the world's most respected name in audio recording.

PR99 features: • Balanced and floating line in and line out • Calibrate/uncalibrate switches • Servo controlled capstan motor • Edit mode switch • Tape dump • Self sync • Optional remote control and vari-speed • Cabinet, console, and rack mount versions.



STUDER REVOX OF AMERICA, INC. • 1425 Elm Hill Pike • Nashville, TN 37210 • (615) 254-5651

Circle (75) on Action Card

WHERE TO BUY IT

Sales Contact: Bill Cunningham, Product Mgr.

CETEC BROADCAST GROUP

1110 Mark Avenue
Carpinteria, CA 93013
Sales Contact: Jerry R. Clements,
National Sales Mgr.
Tony Mezey, Prod. MGr.

CETEC GAUSS

9130 Glenoaks Blvd. (213) 875-1900 Sun Valley, CA 91352 Telex: 194989 Sales Contact: Jim Williams, Sales Mgr.

CETEC VEGA

P.O. Box 5348 El Monte, CA 91731 (213) 442-0782 Sales Contact: Ken Bourne, Dir. of Mktg.

CEZAR INTERNATIONAL LTD.

1026 W. Maude Ave., Suite 302 Sunnyvale, CA 94086 (408) 733-1436 Sales Contact: Al Paz, Mktg. Dir.

CHANNELMATIC INC.

821 Tavern Road Alpine, CA 92001 (714) 445-2691 Sales Contact: Bill Killion, Pres.

CHASE MEDIA INC.

5284 South 320 West, Suite C · 166 Salt Lake City, Utah 84107 (801) 261-1383 Sales Contact: Steve Vaughn, Sales Mgr.

CHEMTRONICS INC.

681 Old Willets Path Hauppauge, NY 11788 (516) 582-3322 Sales Contact: Scott Friedman, Sales Mgr.

CHERRY ELECTRICAL PRODUCTS CORP.

3600 Sunset Ave. Waukegan, IL 60085 (312) 689-7600 Sales Contact: Frank Amendola, Dir. Mkt. Dev.

CHERRY SEMICONDUCTOR CORP.

2000 South County Trail East Greenwich, RI 02818 (401) 884-3000 Sales Contact: Richard A. Hogberg, Reg. S. Mgr.

CHRISTIE ELECTRIC CORPORATION

20665 Manhattan Place (800) 421-2955 Torrance, CA 90501 (213) 320-0808 Sales Contact: Diane Church, Sis. Coord.

CHRONO-LOG CORPORATION

2 West Park Road Havertown, PA 19083 (215) 853-1130 Sales Contact: David Biberman, Mktg. Mgr.

CHYRON CORPORATION

265 Spagnoli Rd. Melville, NY 11747 (516) 249-3296 Sales Contact: David Buckler, Dir. Sales

CINE 60 INC. 630 9th Ave.

Sales Contact: Don F. Civitillo, Mktg. Mgr. Regional Salas Offices: CINE 60 INC.

New York, NY 10036

6430 Sunset Blvd. Hollywood, CA 90028 (213) 461-3046 Sales Contact: Evan Green, Mgr.

CINEMA PRODUCTS CORPORATION

 2037 Granville Ave.
 (213) 478-0711

 Los Angeles, CA 90025
 or 477-1972

 Sales Contact: Ed Clare, Nat'l. Sls. Mgr.

CINEMILLS CORP.

3500 W. Magnolia Ave. Burbank, CA 91505

(213) 841-5930

(212) 586-8782

CINETRON COMPUTER SYSTEMS

6700 I-85 North Norcross, GA 30093

(404) 448-9463

Sales Contact: Gene Nottingham, VP

CINETRONICS

8610 Oakdale Ave. Canoga Park, CA 91306 (213) 709-4694 Sales Contact: Dieter Steinmaier, Owner

CIRCUIT RESEARCH LABS INC.

3204 S. Fair Ln.

Tempe, AZ 85282 (602) 894-0077 Sales Contact: Jack Stuart, Mktg. Mgr.

CLEAR-COM INTERCOM SYSTEMS

1111 17th St.

San Francisco, CA 94107 (415) 861-6666 Sales Contact: Edward M. Fitzgerald, Sales Dir.

DAVID CLARK COMPANY

360 Franklin St. Worcester, MA 01604 (617) 756-6216 Sales Contact: George R. Conlon, Prod. Mgr.

CLETRONICS INC.

1684 Medina Rd. Medina, OH 44256 (216) 239-1351 Sales Contact: James Riffe, Pres.

COASTCOM

2312 Stanwell Drive Concord, CA 94520 (415) 825-7500 Sales Contact: Jim Fisher, Dir. Mktg.

COAXIAL DYNAMICS INC.

13110 Enterprise Ave. Cleveland, OH 44135 (216) 267-2233 Sales Contact: R.J. Scott, VP, Mktg.

dates comact. 11.0. deoit, VI, wing.

COHERENT COMMUNICATIONS INC. 13756 Glenoaks BI.

Sylmar, CA 91342 (213) 362-2566 Sales Contact: Ivan Kruglak, Pres.

COHU INC., ELECTRONICS DIVISION

5725 Kearny Villa Road

San Diego, CA 92123 (714) 277-6700 Sales Contact: Julian J. Pec, App. Sls. Eng.

COLORTRAN INC.

1015 Chestnut St. Burbank, CA 91506 (213) 843-1200 Sales Contact: C. Cambruzzi, Market Mgr.

COLORADO MAGNETICS

P.O. Box 713

Colorado Springs, CO 80901 (303) 596-0684 Sales Contact: Larry Wilson, Owner

COLORADO VIDEO

Box 928

Boulder, CO 80306 (303) 444-3972 Sales Contact: Jim Dole, Sls. Mgr.

COLUMBIA SPECIAL PRODUCTS

51 West 52 Street New York, NY 10019 (212) 975-5073 Sales Contact: John M. Franks, Gen. Mgr.

COLUMBINE SYSTEMS INC.

P.O. Box 740 Golden, CO 80401 (303) 279-4000 Sales Contact: Barbara Krichbaum, Mktg. Rep. Martha Freeman, Mktg. Rep.

COMAD COMMUNICATIONS LTD.

91 Kelfield St., Unit 5 Rexdale, Ontario M9W 5A3 (416) 245-1734 Sales Contact: Emil Adamyk, President

Regional Sales Office: COMAD INC.

P.O. Box 10667 Pensacola, FL 32504 (904) 434-9782

COMARK COMMUNICATIONS INC.

P.O. Box 267

Southwick, MA 01077 (413) 569-5939 Sales Contact: Dick Fiore, Salesman **COMEX SYSTEMS**

Executive Drive Hudson, NH 03051 (603) 889-8564 Sales Contact: T.H. Sullivan, Gen. Mgr.

COMMAND PRODUCTIONS

P.O. Box 26348

San Francisco, CA 94126 (415) 332-3161 Sales Contact: Warren Weagant, Pres.

COMMERCE AIRBORNE CORPORATION

16425 Hart Street

Suite 104 (213) 785-5409 or 785-5400 Sales Contact: Tom J. Storli, President

COMMUNICATIONS CO. INC.

3490 Noell S7

San Diego, CA 92110 (714) 297-3262 Sales Contact: Victor M. Hall, Sls. Mgr.

COMMUNICATIONS CONTROL CENTERS

1710 Stierlin Road

Mountain View, CA 94043 (415) 964-5250 Sales Contact: Eric Campbell, Dir., SIs & Mktg.

COMPAC DEVELOPMENT CORP.

279 Skidmore Rd. Deer Park, NY 11729 (516) 667-3933 Sales Contact: K. Wicks, Asst. Sales Mgr.

COMPACT VIDEO SALES

1104 W. Chestnut Burbank, CA 91506 (213) 843-3232 Sales Contact: Oscar Wilson, Pres.

COMPACT VIDEO SERVICES

2813 W. Alameda Avenue Burban, CA 91505 (213) 843-3232 Sales Contact: John W. Gardner

John Brandon

COMPOSITE VIDEO

1218 N. Blackwelder Okalhoma City, OK (405) 236-4449 Sales Contact: Mike Janko, Pres.

COMPREHENSIVE VIDEO SUPPLY

565 Kingston Road London SW20 8SA 01-542 1171 Sales Contact: C. Rhodes, Mktg. Mgr.

COMPRO PRODUCTIONS

2080 Peachtree Industrial Court

Suite 114

Atlanta, GA 30341 (404) 455-1943 Sales Contact: Susan Bodiford,

Sales Contact: Susan Bodiford, Sls. & Mktg. Rep.

COMPUCON INC.

P.O. Box 401229
Dallas, TX 75240
13749 Neutron Road
Dallas, TX 75234
(214) 233-4380

Sales Contact: Becky Shipman, Sls. Rep.

COMPUTER BUSINESS SYSTEMS INC.

167 Moore Rd.

Weymouth Industrial Park Weymouth, MA 02189 (617) 337-7799 Sales Contact: Richard White, Dir.

COMPUTER CONCEPTS CORPORATION

8001 W. 63rd

Overland Park, KS 66202 (800) 255-6350 Sales Contact: Greg Dean, President

COMPUTER GRAPHICS LAB

Wheatley Road Old Westbury, NY 11568

COMPUTER IMAGE CORP. 2475 West 2nd Avenue

Denver, CO 80223 (303) 934-5801 Sales Contact: Pete Freyschlag

Continued on page 130

Balanced Equalizer



SERIES 1500 Balanced Equalizing Amplifiers provide high quality video transmission through 124 ohm cable runs.

High performance 24 dB post-equalization for cable runs to 3,000 ft. -7,500 ft. when used with pre-equalizer.

- ★ Front panel adjustments and test points
- ★ Two outputs
- ★ High thermal stability
- ★ Self-contained with internal power supply

DYNAIR

5275 Market St., San Diego, CA 92114 Phone 714/263-7711 TWX 910/335-2040

Circle (76) on Action Card

Unbalanced Equalizer



SERIES 1500 Unbalanced Equalizing Amplifiers provide high quality video transmission through 75 ohm cable.

High performance 24 dB postequalization for cable runs to 3,000 feet.

- ★ Differential/grounded inputs
- ★ Front panel adjustments and test points
- ★ Two outputs
- ★ High thermal stability
- ★ Self-contained with internal power supply

DYNAIR

5275 Market St., San Diego, CA 92114 Phone 714/263-7711 TWX 910/335-2040

Circle (77) on Action Card

Racal-Decca Canada Inc.

INSULATORS DIVISION

- **GUY STRAIN INSULATORS**
- **BASE INSULATORS***
- **ISOLATION TRANSFORMERS**
- TRANSFORMER ENCLOSURES. STATIC DRAIN RESISTORS. **CUSTOM DESIGNED INSULATORS**
- * Base Insulators can be adapted for direct mounting of Isolation Transformers

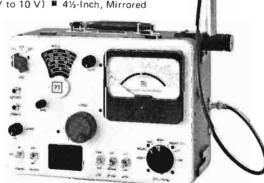
71 Selby Road, Brampton, Ontario L6W 1K5, Canada Telephone (416) 457-8720 Telex: 06-97699 Cables: Decradar Toronto

Circle (78) on Action Card

NEW FM AND TV FIELD STRENGTH METER **FIM-71**

■ Accurate — Direct Reading — Volts or dB ■ 45 MHz to 225 MHz - Continuous Tuning ■ Peak or Averaging Detector (switch selectable) Wide or Narrow IF Bandwidth (switch selectable) = 20 dB or 60 dB Meter Range (switch selectable) ■ AM or FM Demodulator (switch selectable) ■ Calibrated Dipole Antenna, Mounted on Case for Near-Ground Measurements or Removable for TASO Measurements ■ 140 dB Measurement Range (1 µV to 10 V) ■ 4½-Inch, Mirrored Scale, Taut-Band Meter

- Front Panel Speaker
- Recorder Output
- Rugged, Portable Package - Calibrated Signal Generator, 45 MHz to 225 MHz
- Battery or External Power Use as Signal Source/Selective Voltmeter for Insertion Loss Measurements of Filters, etc. ■ Measures FM Harmonics to -80 dB



CONTACT US FOR DETAILS.



Circle (79) on Action Card

WHERE TO BUY IT

COMPUTER LABS, Div. of Analog Devices

505 Edwardia Drive

Greensboro, NC 27409 (919) 292-6427 Sales Contact: Ed Graves, Prod. Mkt. Mgr.

COMPUTER MANAGEMENT SYSTEMS INC.

6610 North Shadeland Ave.

Indianapolis, IN 46220 (317) 842-1830

Sales Contact: Myron Keeney, VP

COMPUTER VIDEO SYSTEMS INC.

3678 West 2150 South Unit No. 2

Salt Lake City, UT 84120 (801) 974-5380 (800) 453-8822

Sales Contact: Randy Wegner, Dir. of Mktg.

COMREX CORPORATION

60 Union Avenue P.O. Box 269

Sudbury, MA 01776

(617) 443-8811 Sales Contact: Lynn Distler, Sis. Mgr.

COMSEARCH INC.

11503 Sunrise Valley Drive

Reston, VA 22091 (703) 620-6300 Sales Contact: Jerry Schulman, VP

COMSONICS INC.

P.O. Box 1106

Harrisonburg, VA 22801 (703) 434-5965 Sales Contact: Carl Hensley, Gen. Sls. Mgr.

COMTECH ANTENNA CORP.

3100 Communications Rd.

St. Clour, FL 32769-4692 (305) 892-6111 Sales Contact: Glenn Higgins, VP

COMTECH DATA CORPORATION

350 N. Hayden Road

Scottsdale, AZ 85257 (602) 949-1155 Sales Contact: R. L. Miller, Eng. Mgr.-Video

CONCEPT PRODUCTIONS

801 D Riverside Avenue

Roseville, CA 95678 (916) 782-7754 Sales Contact: Dick Wagner, President

CONEX ELECTRO SYSTEMS INC.

P.O. Box 1342

1602 Carolina St.

Bellingham, WA 98227

(206) 734-4323 Sales Contact: BIII Hamelin

CONIFER CORPORATION

P.O. Box 1025

1000 N. Roosevelt

Burlington, IA 52601 (319) 752-3607 Sales Contact: Jim Clark, Sales Mgr.

CONNECT-AIR INTERNATIONAL INC.

50 37th St. Northeast (206) 939-4880 Auburn, WA 98002 or (206) 772-5033 (Seattle) Sales Contact: Sales Office

CONRAC CORPORATION. CONRAC DIVISION

600 No. Rimsdale Ave.

Covina, CA 91722 (213) 966-3511 Sales Contact: John McClimont, Dir. of Mktg.

CONSOLIDATED ELECTRONIC INDUSTRIES INC

15A Anderson Rd., Thornburg

Vic. 3051 Australia (03) 440791 Sales Contact: P. Robinson, Mktg. Mgr.

CONTEL MANUFACTURING

1620 W. 32nd Place Hialeah, FL 33012

(305) 822-1421

Sales Contact: Frank Mestre

CONTINENTAL ELECTRONICS MFG. CO. P.O. Box 270879

Dallas, TX 75227 (214) 381-7161

Sales Contact: Vernon Collins, VP Dom. Mktg.

Regional Sales Offices: CONTINENTAL ELECTRONICS MFG. CO. 107 Breakfast Hill Rd.

Greenland, NH 03840 (603) Contact: Mark Hutchins, Dist. Sales Mgr (603) 436-4059

CONTINENTAL ELECTRONICS MFG. CO. P.O. Box 16

Newton, NJ 07860 (201) 383-8797 Contact: Kelth A. Leach, Dist. Sales Mgr. CONTINENTAL ELECTRONICS MFG. CO.

CONTINENT IAL ELECTHONICS MFG. CO. P.O. Box 143 Alcoa, TN 37701 (615) 9 Contact: Ray C. Evans, Dist. Sales Mgr. CONTINENTAL ELECTRONICS MFG. CO. 2280 Rockcreek Trall (615) 970-2572

Birmingham, AL 35226 (205) 822-1078 Contact: Dave Hultsman, Dist. Sales Mgr. CONTINENTAL ELECTRONICS MFG. CO.

CONTINENTAL ELECTRONICS MFG. CO.
P.O. Box 575
Streator, IL 61364
Contact: John Abdnour, Dist. Sales Mgr.
CONTINENTAL ELECTRONICS MFG. CO.
670 N. Branch Rd. (815) 672-8585

Maple Plain, MN 55359 (612) Contact: Jim LittleJohn, Dist. Sales Mgr. (612) 479-2633 CONTINENTAL ELECTRONICS MFG. CO. Route 3, Box 106 Holts Summit, MO 65043

(314) 896-5791 Contact: Lloyd W. Collins, Dist. Sales Mgr. CONTINENTAL ELECTRONICS MFG. CO. P.O. Box 2008

Plano, TX 75074 (214) 4 Contact: Steve H. Schott, Dist. Sales Mgr. CONTINENTAL ELECTRONICS MFG. CO.

215 SE 73rd Ave. Portland, OR 97215 (503) 254-2818 Contact: Tom Cauthers, Dist. Sales Mgr. CONTINENTAL ELECTRONICS MFG. CO.

Ventura, CA 93002 (805) Contact: Steve Keating, Dist. Sales Mgr. (805) 653-6747

CONTINENTAL RECORDING INC.

210 South Street Boston, MA 02111 (617) 426-3131 Sales Contact: Dan Flynn, Pres.

CONTROL VIDEO CORP.

578 Division St. Campbell, CA 95008 (408) 866-7447 Sales Contact: Michael Goddard, Mktg. Mgr.

CONVERGENCE CORPORATION

1641 McGaw Irvine, CA 92714 (714) 549-3146 Sales Contact: Richard Moscarello, Dir. of Domestic Sales Donald Lefebvre, Dir. of Int'l Mktg

COOL LIGHT CO., INC. 5723 Auckland Ave.

No. Hollywood, CA 91601 (213) 761-6116 Sales Contact: Florence Tucker, Adm. Coord.

THE COOPER GROUP

P.O. Box 30100 Raleigh, NC 27622 (919) 781-7200 Sales Contact: E.R. Lawrence, Gen. SLs. Mgr.

COPPERWELD BIMETALLICS GROUP

Robinson Plaza Two Pittsburgh, PA 15205 (412) 777-3000

CORPORATE COMM. CONSULTANTS INC.

4250 Veterans Memorial Highway (516) 737-0903 Holbrook, NY 11741 Sales Contact: Mr. Armand B. Sarabia, Pres.

CORTLAND CABLE COMPANY

P.O. Box 352 171 Post Watson ST. Cortland, NY 13045 (607) 753-8276 Sales Contact: John Dower, Sls. Mgr.

COSMIN ELECTRONICS 4214 San Pedro

San Antonio, TX 78212 (512) 736-6116 (215) 847-2044

Sales Contact: Jim Lucy, VP Sales

COX DATA SERVICES

5600 Roswell Road, N.E. Suite 100 Prado North Atlanta, GA 30342 (404) 256-5200 Sales Contact: Lou Kaib, Manager

MICHAEL COX ELECTRONICS LTD.

Hanworth Trading Estate Hampton Road West FELTHAM MIDDX 01-898 609 1/2/3/4 Sales Contact: Susan Bell, Sales Mgr.

CREATIVE ELECTRONICS

1417 N. Selfridge Clawson, MI 48017 (313) 435-8916 Sales Contact: Carl W. Vette, Pres.

CREATIVE TRADE, CTAB AB

Knutsgatan 6 S-265 00 ASTORP Sweden 46 42/515 21-597 56 Sales Contact: Mrs. Sarah Rosander, Marketing Manager

CROSSPOINT LATCH

95 Progress Street Union, NJ 07083 (201) 688-1510 Sales Contact: H. George Pires, Pres. Michael Molinaro, Eastern Reg. SIs. Mgr. Regional Sales Offices: CROSSPOINT LATCH CORP. 209 Bass Rd. Chattanooga, TN 37421

Contact: George Cudabac, S. Reg. Sls. Mgr.

(615) 894-3247

CROSSPOINT VIDEO LIMITED

64 Shorting Court Shorting Rd Scarborough, Ontario (416) 298-6199 Sales Contact: Arthur W. Critchley, Pres.

CROW OF READING LTD.

P.O. Box 36 Reading RG1 2NB, (0734) 595025 Telex: 847056 England Sales Contact: Mike Angelou, Mktg. Mgr.

CROWDER COMMUNICATIONS LTD.

4312 Norfolk Street Burnaby, BC Canada (604) 437-4433 Sales Contact: Peter Crowder, President

CROWN INTERNATIONAL

1718 W. Mishawaka Rd. Elkhart, IN 46517 (219) 294-5571 Sales Contact: Murray Young, Adv. Mgr.

CUE RECORDING

1156 Ave. of the Americas New York, NY 10036 (212) 921-9221

CURRENT COMMUNICATIONS

#114-5910 No. 6 Rd. Richmond, BC Canada V6V 1Z1 (604) 270-9544 Sales Contact: Reinhild Burchardt, Sls. Mktg.

CUSTOM BUSINESS SYSTEMS

P.O. Box 67 Reedsport, OR 97467 (503) 271-3684 Sales Contact: Steve Kenagy, VP/Mktg.

D

3-D VIDEO CORPORATION

4605 Lankershim Blvd. North Hollywood, CA 91602 (213) 769-6752 Sales Contact: James F. Butterfield, Mgr.

D-B ELECTRONICS INC.

7851 Airpark Drive No. 201 (301) 977-7048 Gaithersburg, MD 20760 Sales Contact: David R. Durst, President Continued on page 132

Switch, Distribute, Equalize

with DYNAIR'S SERIES 1500

- ★ 6 x 1 Video Switcher
- ★ 1 x 4 Video Distribution Amp
- ★ Unbalanced Equalizing Amp
- * Balanced Equalizing Amp
- ★ Balanced Pre-Equalizing Amp
- Rack Mounting Frame
- **★** Blank Modules
- ★ Desk Mount Kit
- * Switcher Lighting Kit

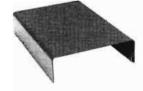
Convenience engineered for simple installation, the Series 1500 shares mounting accessories.



Rack Mounting Frame provides space for three Series 1500 modules in standard 19-inch equipment racks.



Blank module fills one unused space in Series 1500 Rack Mounting Frame and is a convenient housing for installer furnished customs.



Desk Mount Kit for one Series 1500 unit.



Video Switcher Lighting Kit. Calculator-style plug-in transformer with 6-foot cable.

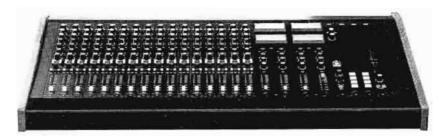
DYNAIR

5275 Market St., San Diego, CA 92114 Phone 714/263-7711 TWX 910/335-2040

Circle (80) on Action Card

Audio for

Broadcast-Film Sound-Production-TV



Tell us what you require!
We build it!
We install it!
We document it!
OR
You design it - we build it!

Finntek Limited

P.O. Box 235 • Riverton, Utah 84065 • 801-254-6398

Circle (81) on Action Card



Circle (82) on Action Card

WHERE TO BUY IT

dbx INCORPORATED

71 Chapel Street Newton Center, MA 02195 (617) 964-3210 Sales Contact: David W. Roudebush, National Sales Mgr.

D. O. INDUSTRIES INC.

317 E. Chestnut St. E. Rochester, NY 14445 (716) 385-4920 Sales Contact: Geri Drooz, Advtg. Mgr.

D AND S CORLEY LIMITED

80 Galaxy Blvd., Unit 3 Rexdale Ontario M9W 4Y8 (416) 675-3511 Sales Contact: Richard Corley, VP Research

DABURN ELECTRONICS & CABLE CORP.

70 Oak St. Norwood, NJ 07648 (201) 768-5400 Sales Contact: Ira M. Lash, Sales Mgr.

DAGE-MTI INC.

208 Wabash St. Michigan City, IN 46360 (219) 872-5514 Sales Contact: Paul Thomas, Nat'l. Sls. Mgr.

PETER W. DAHL CO. INC.

4007 Fort Blvd. El Paso, TX 79930 (915) 566-5365 Sales Contact: P.W. Dahl, President

DA-LITE SCREEN COMPANY

P.O. Box 137 3100 State Road 15 North Warsaw, IN 46580 (219) 267-8101 Sales Contact: Martin Olsen, Sales Mgr.

DATA COMMUNICATIONS CORP.

3000 Directors Row Memphis, TN 38131 (901) 345-3544 Sales Contact: Nancy Jefferies, Sls. Mgr.

DATAMETRICS INC.

340 Fordham Road Wilmington, MA 01887 (617) 658-5410 Sales Contact: Walter Hickman, Prod. Mgr.

DATATEK CORP.

1121 Bristol Rd. Mountainside, NJ 07092 (201) 654-8100 Sales Contact: Bob Rainey, Mktg. Mgr.

DATATRONIX INC.

2100 Reston Ave.
Reston, VA 22091 (703) 620-5300
Sales Contact: David Brooks,
Dir., Audio Systems

DATATRON INC.

2942 Dow Avenue Tustin, CA 92680 (714) 544-9970 Sales Contact: Roger Bailey, Dir., Video Marketing

DATEL-INTERSIL INC.

11 Cabot Boulevard Mansfield, MA 02048 (617) 339-9341 Sales Contact: Ted Petit, X221, App. Eng.

DATUM INC.

1363 S. State College Blvd. Anaheim, CA 92806 (714) 533-6333 Sales Contact: Lester Turner, Sr. Staff Eng.

JOHN J. DAVIS & ASSOCIATES

P.O. Box 128 Sierra Madre, CA 91024 (213) 355-6909 Sales Contact: John J. Davis, Pres.

DAVIS ELECTRONICS CO.

P.O. Box 128 Sierra Madre, CA 91024 (213) 355-6909 Sales Contact: John J. Davis, Pres.

Continued on page 135

DELL TECHNICAL VEHICLES LTD.

Empress Road, Bevois Valley Southampton S02 0JY Hampshire (0703) 26982 Sales Contact: J. Robinson, Tech. Sls. Mgr. M. Dickson, Mgr. Dir.

DELTA ELECTRONICS INC.

5730 General Washington Drive (703) 354-3350 Alexandria, VA 22312 TWX: 710-832-0273 Sales Contact: Bob Bousman, Brd. Prod. Sls.

DELTALAB RESEARCH INC.

27 Industrial Ave. Chelmsford, MA 01824 (617) 256-9034 Sales Contact: Wayne A. Morris, National Sales Mgr.

Wayne Morris, Reg. Sls. Mgr.

DELTA LIGHTNING ARRESTORS

Box 1084 Big Spring, TX 79720

(915) 267-5268 Sales Contact: Mike Craddock

DELTA SYSTEMS

Hermann-Loens-Str. 3 6074 Roedermark West Germany

06074-90097 Sales Contact: Richard Losch, Gen. Mgr.

DELTAMOD CORPORATION

2823 Ninth Street Berkeley, CA 94710

(415) 548-4858 Sales Contact: Steve Sutter, Engr. Mgr.

DE WOLFE MUSIC LIBRARY INC.

25 W. 45th St. New York, NY 10036 (212) 586-6673 Sales Contact: Larry Kessler, VP

F. R. DICKINSON JR. INC.

9 Westinghouse Plaza

Bloomfield, New Jersey 07208 (201) 429-8996 Sales Contact: F. R. Dickinson, Pres.

DICTAPHONE CORPORATION

120 Old Post Road

Rye, NY 10580 (914) 967-7300

Sales Contact: Arthur E. Kemp. Mkta, Support Mar.

DIELECTRIC COMMUNICATIONS

Tower Hill Road

Raymond, ME 04071 (207) 655-4555 Sales Contact: Stanley Thomas, V.P. Mktg.

DIGITAL VIDEO SYSTEMS INC.

716 Gordon Baker Road

Willowdale, Ontario M2H 3B4 (416) 499-4826

LEO DINER FILMS INC.

350 Golden Gate Avenue

San Francisco, CA 94102 (415) 775-3664 Sales Contact: Roy E. Diner, V.P. / Gen. Mgr.

DISPLAY MEDIA INC.

3729 N. Ravenswood

Chicago, IL 60613 (312) 477-3827 Sales Contact: Richard Moellerine, Pres.

DI-TECH INC.

48 Jefryn Blvd.

Deer Park, NJ 11729 (516) 667-6300 Sales Contact: Tony Bolletino, Dir. of Mktg.

DOLBY LABORATORIES INC.

731 Sansome St.

San Francisco, CA 94111 (415) 3 Sales Contact: Tim Prouty, Prod. Mgr. (415) 392-0300

DOLBY LABORATORIES

346 Clapham Road

London, UK SW9 9AP 01-720 1111 Telex: 919109

Sales Contact: Peter Seagger, Int'l. Sis. Mgr.

DOLPHIN PRODUCTIONS INC.

140 E. 80th St. New York, NY 10021 (212) 628-5930 Sales Contact: Allan Stanley, Pres.

DORROUGH ELECTRONICS

5221 Collier Place Woodland Hills, CA 91364 (213) 999-1132 Sales Contact: Kay Dorrough, PT

DOW-KEY DIV. OF KILOVAC CORP.

P.O. Box 4422

Santa Barbara, CA 93103 (805) 684-4560 Sales Contact: Jack L. Dysart, Prod. Mgr.

PHILIP DRAKE ELECTRONICS LTD.

23 Redan Place

London UK W2 4SA 01-221-1476 Contact: David Bower, Sales Mgr.

DRAKE-CHENAULT

P.O. Box 1629

Canoga Park, CA 91304 (213) 883-7400 Sales Contact: Ron Harrison, VP/Sales

DRANETZ ENG. LABS., INC.

1000 New Durham Road Edison, NJ 08817 (201) 287-3680 Sales Contact: A.W. Orlacchio, V.P. Sales

D'SAN CORPORATION

25-30 163rd St. Flushing, NY 11358 (212) 746-8857 Sales Contact: O.S. Swarth, Pres.

DUBNER COMPUTER SYSTEMS

158 Linwood Plaza Fort Lee, NJ 07024 (201) 592-6500 Sales Contact: Harvey Dubner, President

DUKANE CORP.

Communications Systems Div.

2900 Dukane Drive

St. Charles, IL 60174 (312) 584-2300 Sales Contact: Don Coil, Admin. Asst.

E.I. DUPONT DE NEMOURS & CO. INC. MAGNETIC PRODUCTS DIVISION

Dupont Airport Site

Wilmington, DE 19898 Sales Contact: E.R. Buckley, Mktg. Mgr.

THE DURAFILM COMPANY

137 North La Brea Avenue Hollywood, CA 90036 (213) 936-1156 Sales Contact: Madelon Cohen, President

DYMA ENGINEERING INC.

P.O. 1697

213 Pueblo Del Sur Taos, NM 87571 (505) 758-8686 Sales Contact: W. Cunningham, VP

DYNACOM ELECTRONICS LTD.

590 Commerce Park Drive Suite 125

Marietta, GA 30060 (404) 428-3100 Sales Contact: Roberg W. Payne, Jr.,

Director of Marketing

DYNAIR ELECTRONICS INC.

5275 Market Street San Diego, CA 92114 (714) 263-7711 Sales Contact: Robert Jacobs, Gen. Sls. Mgr.

DYNA-METRICS INC.

4646 Mission Gorge Place San Diego, CA 92120 (714) 583-8890 Sales Contact: John Peterson, Pres.

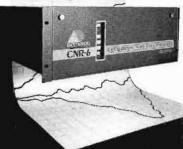
DYNAMIC TECHNOLOGY LIMITED

Zonal House, Alliance Road Acton, London W3 0BA UK

01 993-2401 Sales Contact: Derek Tugwell, Mgng. Dir.

Continued on page 136





State of the Art Capabilities for Broadcast Cart Machines

DOLBY** Noise Reduction

- Advanced Dolby C-type NR in exclusive professional format
- 20dB of quality noise reduction without audible side effects
- Anti-saturation circuitry for reduced IM distortion
- Spectral skewing immunizes NR to machine and tape errors

Full Automation

- Automatically intermix carts of all formats
- No sacrifice of cue-track functions or FSK logging
- No operator adjustments or
- Full manual remote control

Compatible Matrixing

- Dramatic restoration of high frequencies for mono audience
- Prevents obsolescence when AM, television convert to stereo
- Stable thin-film matrix never needs alignment or nulling
- Matrixing and NR separately defeatable

Test Functions

- Built-in test set simplifies tape machine maintenance
- Precision LED meters
- Modulated Dolby tone oscillator Multi-frequency azimuth tone
- Phase and separation meters
- · Qualify new carts, check alignment-instantly



2823 NINTH ST (415) 548-4858

ne double-D are registered.
Dolby Laboratories.

Circle (91) on Action Card

DYNAQUIP ELECTRON DEVICES LTD.

3515 Mainway

Burlington, Ontario, Canada L7M 1A9 (416) 335-3700 Sales Contact: D. Evertz. Pres.

DYNAMOTE CORPORATION

1200 W. Nickerson Seattle, WA 98119 (206) 282-1000 Sales Contact: Faith Adams, Marketing

E

EECO

1601 E. Chestnut Ave. Santa Ana, CA 92701 (714) 835-6000 Sales Contact: Karen Mills, Prod. Spec. (Ampex is master distributor worldwide.)

EEG ENTERPRISES INC.

1 Rome Street

Farmingdale, NY 11735 (516) 293-7472 Sales Contact: Bill Posner, V.P. Sales

FEV INC

7 Westchester Plaza

Elmsford, NY 10523 (914) 592-6050 TELEX: 646180

Sales Contact: A. Sayers, Exec. Asst. Pres.

Regional Sales Offices: EEV INC.

2073 Arleen Court Schaumburg, IL 60194

(312) 843-8417

Contact: Chuck Bocan, Sales Mgr. FEV INC.

207 Vern Lane

Buffalo, NY 14227 Contact: Rick Bossert, Sales Mgr. (716) 681-1970

EEV INC. Route 1

Anna, TX 75003 (214) 837-2464

Contact: Bob Knowles, Sales Mgr. EEV INC.

Suite 100E, 15 Dunwoody Park

Atlanta, GA 30338 Contact: Harry Kozicki, Sales Mgr. (404) 394-9201

FEV INC

19001 40th Pl., N.E.

Seattle, WA 98155 EEV CANADA, LTD.

67 Westmore Drive Rexdale, Ontario M9V 3Y6 Contact: D. Clissold, Gen. Mgr. (416) 745-9494

EFI

316 E. El Camino

Phoenix, AZ 85020 (602) 995-1666 Sales Contact: Janene Spencer, Sls. Mgr.

EG&G, ELECTRO-OPTICS

35 Congress St.

Salem, MA 01970 (617) 745-3200 Sales Contact: George J. Mandeville, Jr., Prod. Mgr.

EIP MICROWAVE INC.

2731 North First St. San Jose, CA 95134 (408) 946-5700 Sales Contact: Richard A. Bush, VP - Sales

EMCEE BROADCAST PRODUCTS

P.O. Box 68

White Haven, PA 18661 (717) 443-9575

Sales Contact: David Parmelee,

SIs. & Mktg. Manager

EMI SOUND AND VISION EQUIPMENT

252 Blyth Road

Hayes, Middlesex UK

EMS UNEMCO INTERNATIONAL INC.

1392 Borregas Ave.

136

Sunnyvale, CA 94086 (408) 734-0163

Sales Contact: Lee Marvin, V.P.

ENG HELICOPTER SATELLITES LTD. 9919 Carter Road

Bethesda, MD 20817 (301) 469-8109 Sales Contact: Alex Carey, President

E-N-G CORPORATION

1009A Shary Cir.

Concord, CA 94518 (415) 798-4060

Sales Contact: J. Harris, Pres.

ESC ELECTRONICS CORPORATION

534 Bergen Blvd.

Palisades Park, NJ 07650 (201) 947-0400 Sales Contact: S. Packer, Pres.

142 Sierra St.

El Segundo, CA 90245 (213) 322-2136

Sales Contact: Bob Mayers, V.P.

EV/TAPCO

3810 - 148th Street

(202) 883-3510 Redmond, WA 98052 Sales Contact: Jim Loppnow, Mkt. Dev. Mgr.

E-Z WAY PRODUCTS INC.

P.O. Box 22845

Tampa, FL 33622 (813) 677-7144

Sales Contact: Cyril B. Rogers, Pres.

EAGLE COMTRONICS INC.

(315) 622-3402 4562 Waterhouse Rd. Clay, NY 13041 (800) 448-7474

Sales Contact: Doc D'Alfonso, Sales Mgr.

EAR SYSTEMS INC.

1807 Old Shay Court

Columbus, OH 43229 (614) 882-5205

Sales Contact: Larry Reynolds, Pres.

EAST COAST

VIDEO SYSTEMS INC.

548 Broadway New York, NY 10012 (212) 431-7453

Sales Contact: Rich Blsignano, Pres.

EASTMAN KODAK COMPANY

343 State Street

Rochester, NY 14650 (716) 724-4000

ECHO LAB

(206) 363-2200

175 Bedford Road

Burlington, MA 01803 (617) 273-1512

Sales Contact: Ted Whittaker, Sales Mgr.

ECHO SCIENCE CORPORATION

485 E. Middlefield Road

Mountain View, CA 94043 (415) 961-7145 Sales Contact: George Elsaysser, Dir. of Mktg.

ECONCO BROADCAST SERVICE

1318 Commerce Ave.

Woodland, CA 95695 (916) 662-7553 Sales Contact: John Sullivan, Owner

EDCOR

16782 Hale Ave.

Irvine, CA 92714 (714) 556-2740

Sales Contact: J. E. Morrison, VP Mktg.

EDITALL CORP.

P.O. Box 17435

Dulles Int'l. Airport

Washington, D.C. 20041 (703) 471-1766 Sales Contact: David Lane, Tech. & Mktg. Dir.

EDITEL

729 North Highland Avenue

Hollywood, CA 90038

(213) 931-1821

EDNALITE CORPORATION 200 North Water St.

Peekskill, NY 10566 (914) 737-4100

Sales Contact: Corinne Cohen, Sales Mgr.

EIDOPHOR LTD. Althardstrasse 70

CH-8105 Regensdorf,

Switzerland 018421111

Sales Contact: Mr. A. Schmid, Deputy SM

EIDSON ELECTRONIC CO.

P.O. Box 3751

Temple, TX 76501 (817) 773-3901

EIGEN VIDEO

Box P.O. (916) 272-3461 Nevada City, CA 95959

Sales Contact: John Romanko, Sales Mgr. EIMAC DIVISION, VARIAN ASSOCIATES

301 Industrial Way San Carlos, CA 94070 (415) 592-1221 Sales Contact: Nearest Varian Sales Office

ELCOM-BAUER

6991 Warehouse Way

(916) 381-3750 Sacramento, CA 95826

Sales Contact: Paul E. Gregg, Pres.

ELCOM SPECIALTY PRODUCTS

2810 Redding Ave. No. E Sacramento, CA 95820 (916) 453-0859

Sales Contact: Paul E. Gregg, Pres.

FLECTOR

5128 Calle Del Sol

Santa Clara, CA 95050 (408) 727-1506 Sales Contact: Guido Govaert, Sales Mgr.

ELECTRA CO., DIV. OF

MASCO CORP. OF INDIANA 300 E. County Line Road

Cumberland, IN 46229 (317) 894-1440

Sales Contact: Richard T. Murphy, Manager, Mktg. Servs.

ELECTRO-ACOUSTIC DESIGNS

5131 West Chester Pike

Edgemont, PA 19028 (215) 356-4700

Sales Contact: Kenneth Tankel, Dir. of Eng.

ELECTRO-VOICE INC., E-V/TAPCO

600 Cecil St.

Buchanan, MI 49107

Sales Contact: Bob Cook, Nat. Sis. Mgr.

Regional Sales Offices:

(616) 695-6831

(206) 881-9555

(516) 546-9632

(312) 634-0228

E-V/TAPCO INC. 3810 148th Ave., NE

Redmond, WA 98052 Contact: Ken Bell, Plant Mgr.

ELECTRO-VOICE INC. 186 Buffalo Ave.

Freeport, NY 11520

Contact: Jay Kahn, Reg. Sales Mgr. ELECTRO-VOICE INC.

9550 Warner Avenue Fountain Valley, CA 92708 (714) 964-3097

Contact: John Gunnerson, Reg. Sls. Mgr. ELECTRO-VOICE INC.

Chicago, IL (3 Contact: Milt Neifach, Reg. Sis. Mgr. ELECTRO-VOICE INC.

P.O. Box 3297

8234 Doe Avenue Visalia, CA 93277 (209) 625-1330

Contact: Dennis Ehricke, Manager

ELECTRO CONTROLS INC.

2975 South 300 West

Salt Lake City, UT 84115 (801) 487-9861 Sales Contact: Hyrum Mead, Sales Mgr.

Will Wiggins, TV Sales Mgr.

ELECTRO IMPULSE LABORATORY

116 Chestnut St.

P.O. Box 870

ELECTROHOME LIMITED 809 Wellington St., N.

Red Bank, NJ 07701 (201) 741-0404 Sales Contact: Mark Rubin, Pres.

Kitchener, Ontario Canada N2G 4J6 (519) 744-7111

Sales Contact: Don Leach, Sales Mgr.

ELECTRO & OPTICAL SYSTEMS LTD.

31 Progress Court Scarborough, Ontario

M1G 3V5 (416) 439-9333

Sales Contact: Maurice Evans

ELECTROLINE TELEVISION EQUIP. INC.

8750 - 8th Avenue St. Michel Montreal Quebec

Canada H1Z 2W4 (514) 725-2471

Sales Contact: John Amann, Mktg. Dir.

ELECTRONIC DEVICES INC.

21 Gray Oaks Ave. Yonkers, NY 10710

(914) 965-4400

Sales Contact: Dennis Dean, Sales Mgr.

ELECTRONICS DIVERSIFIED INC.

1675 NW 216th

Hillsboro, OR 97123 (503) 645-5533 Sales Contact: Greg Long, Dir., Sales Mgr.

ELECTRONIC INSTRUMENT & SPECIALTY CORP.

42 Pleasant Street

Stoneham, MA 02180 (617) 438-5300 Sales Contact: William K. Crawford, VP, Mktg.

ELEKTROIMPEX

P.O. Box 296, Budapest

Hungary 1392

1-129-430.328-300

FLICON

273 Viking Avenue Brea, CA 92621-3881 (714) 990-6647 Sales Contact: Peter A. Regla, Dir. of Mktg.

EMCOR PRODUCTS

1600 4th Ave., NW Rochester, MN 55901 (507) 289-3371 Sales Contact: Gary Ellis, Sales Mgr.

EMERGENCY ALERT RECEIVER INC.

One West 30th Street

New York City, NY 10001 (212) 695-4767 Sales Contact: Jack H. Bergman, Pres.

EMIL ASCHER MUSIC INC.

630 Fifth Avenue

New York, NY 10111 (212) 581-4504 Sales Contact: Robert Sandler, Gen. Mgr.

EMT FRANZ GMBH

P.O. Box 15 20

D-7630 Lahr 0 78 25/10 11 Sales Contact: Frank Hirsch, Dr.rer.nat.

ENCLOSURE CORP.

4529 Adams Circle Cornwells Hts., PA 19020 (21. Sales Contact: R.D. Edelman, Pres. (215) 638-9550

ENERTEC SCHLUMBERGER 296 Avenue Napoleon Bonaparte

92500 Rueil Malmaison

(France) (1) 732-9223 Sales Contact: Jean Schwob, Sales Mgr.

ENGINEERING ASSOCIATES

7567 Rt. 49A East

Arcanum, OH 45304 (513) 692-5641 Sales Contact: Charles C. Little, Jr.

ENGLISH ELECTRIC VALVE CO. LTD.

Waterhouse Lane

Chelmsford, Essex CM 1 2QU, UK (0245) 61777 Sales Contact: Dave Farrar

Light Conversion Marketing Manager

ENTERPRISE ELECTRONICS CORP. P.O. Box 1216

Enterprise, AL 36331 (205) 347-3478

Sales Contact: C.P. Jeter, Gen. Mgr.

ENVIRONMENTAL CONTAINER SYSTEMS

P.O. Box 188

Grants Pass, OR 97526 (503) 476-8871 Sales Contact: Tom Helman, Sys. Analyst

225 S. Highland Ave. Aurora, IL 60507 (312) 859-1000 Sales Contact: Jeff Vaughn, Sales Prom. Mgr.

ESCOA 737 A-1 Werne Drive

Lexington, KY 40504 (606) 252-3536

Sales Contact: Ron Eigenmann

EUMIG (USA) INC.

Lake Success Business Park

225 Community Drive

Great Neck, NY 11020 (516) 466-6533

Sales Contact: Tom Bensen

EVENTIDE CLOCKWORKS INC.

265 W. 54th Street TWX: 710-581-2593 New York, NY 10019 (212) 581-9290

Sales Contact: Suzanne Langle, Mktg.

EXCALIBUR INDUSTRIES

12427 Foothill Blvd. Lake View Terrace, CA 91342 (213) 899-2547 Sales Contact: John A. Gresch, Dir. of Mktg.

F&B/CECO INC.

315 West 43rd Street New York City, NY 10036 (212) 974-4600 Sales Contact: Walter Druker, Exec. VP

FAIRCHILD CCD IMAGING

4001 Miranda Avenue (415) 493-8003 Palo Alto, CA 94304 (415) 493-8001 Sales Contact: Neil Madonick, Prod. Mktg.

FANTASEE LIGHTING

404 N. River

Uppilanti, MI 48197 (313) 482-6565 Sales Contact: Stefan Graf, Pres.

FARINON GmbH

Diesterweggasse 29 1140 Wein, Austria

FARINON VIDEO

1680 Bayport Avenue San Carlos, CA 94070 (415) 595-3500 Sales Contact: Cliff Fields, Nat'l. Sls. Mgr.

FAROUDJA LABORATORIES

946 Benicia Ave Sunnyvale, CA 94086 (408) 245-1492 Sales Contact: Isabell Faroudia, Admin. Asst.

FARRTRONICS LTD.

151 Bentley St., Unit 1

Markham, Ontario Canada L3R 3X9 (416) 495-6720 Sales Contact: Norm Farr, Ron.Smith,

or Mark Thornton

FEATHERCAM INC.

7240 Valjean Ave. Van Nuys, CA 91406 (213) 989-5222 Sales Contact: John Carroll, President

FENWAL INC.

400 Main St. Ashland, MA 01721 (617) 881-2000 Sales Contact: A.F. Cichy, Sales Mgr.

FERNSEH INC. P.O. Box 15068

Salt Lake City, UT 84115 (801) 972-8000 Sales Contact: A. R. Pignoni, VP Brdcst. Sales

Continued on page 138



SOLID STATE RECTIFIER TUBES

Replace vacuum and gas rectifiers with filamentless, dependable EDI SOLID-TUBE® silicon solid-state rectifiers for all these advantages: No filament or transformer. Greater No filament or transformer. Greater reliability. Constant output. Long life. No warm up. No heat. Proved in use. Meets or exceeds tube ratings. Lower cost. Full range of replacements.

Write for a complete list of equivalent tube types, general informa-tion, and costs. Application advice also available.



SEND TODAY electronic devices inc.

21 GRAY OAKS AVE GRAY OAKS AVE., YONKERS, N.Y. 10710 (914) 965-4400, TWX 710 560-0021

Circle (84) on Action Card

THE OPTEK MODEL 8000Aonce IS enough!

- The ONLY Bulk Tape Degausser capable of degaussing up to 2" high coercivity VIDEO tape in less than 30 seconds with only **ONE** erasure!
- The #1 continuousduty degausser in the industry.



manufactured by: FLUXCOM, INC. 1390 N. McCan Street Anaheim, CA 92806 (714) 630-8280

Circle (155) on Action Card

Regional Sales Offices:

FERNSEH INC.

6300 Arizona Circle Los Angeles, CA 90045 FERNSEH INC.

(213) 641-1636

279 Midland Ave

Saddlebrook, NJ 07662

(201) 797-7400

Contact: John Webb, Regional Sales

FERNSEH INC. 7921 Jones Branch Drive, Suite 275

McLean, VA 22102 (703) 790-5570 Contact: A. Schoenberg, Regional Sales FERNSEH INC.

3436 North Kennicott Drive Arlington Heights, IL 60004

(312-577-9780 Contact: Dave Spindle, Regional Sales FERNSEH INC

13620 Littlecrest Drive

Dallas, TX 75234

(214) 241-6044

Contact: Lee Caput, Regional Sales

FERNSEH INC. 2300 West 2300 South

Salt Lake City, UT (801) 972-8000 Contact: Ron Ferguson, Regional Sales

IKELHEIMER-ERNST, INC.

601 West 26th Street

New York, NY 10001 (212) 675-5820

Sales Contact: Fred Abeles, Sales

FIDELIPAC CORPORATION

P.O. Box 808

Morrestown, NJ 08057 (609) 235-3511 Sales Contact: Arthur Constantine, VP/Sales

Regional Sales Offices: 350 authorized distributors world wide. Contact factory for your nearest distributor.

THE FINNEY CO.

34 West Interstate St.

Bedford, OH 44146 (216) 232-6161

Sales Contact: Tom Corpus, Sales Mgr.

FINNTEK LIMITED

12797 South, 2230 West

P.O. Box 235

Riverton, UT 84065 (801) 254-6398

Sales Contact: Lenna M. Welland, VP

FISHER BERKELEY CORP.

Christie & Powell

Emeryville, CA 94608 (415) 655-9696

Sales Contact: Art Tilley, Sales Mgr.

FLASH TECHNOLOGY

55 Lake St. TLX: 943481 Nashua, NH 03060 (603) 883-6500

Sales Contact: David Bowman, Sales Engineer

JOHN FLUKE MFG. CO. INC.

P.O. Box C9090 (800) 426-0361 Everett, WA 98206 (206) 356-5400

Sales Contact: Don Tuttle

FLUXCOM INC.

1390 N. McCan Street

Anaheim, CA 92806 (714) 630-8280

Sales Contact: Robert Morison, Mktg. Mgr.

FOR-A CORPORATION OF AMERICA

1680 N. Vine Street, Suite 201

Los Angeles, CA 90028 (213) 467-8412 Sales Contact: Tad Hirota, Sales Mgr., VP

FORECAST MEDIA INSTALLATIONS

70 Carpenter Ave. (516) 671-8492 Sea Cliff, NY 11579 (516) 676-6437

Sales Contact: Jerry Hahn, Sales Consultant

FORT WORTH TOWER COMPANY

1901 E. Loop 820 S. P.O. Box 8597

Fort Worth, TX 76112 (817) 457-3060

Sales Contact: Betty Moore, Sec.-Treas.

FORTEL INCORPORATED

6649 Peachtree Industrial Blvd.

Norcross, GA 30092 (404) 449-4343 Sales Contact: Marilyn Hopkins

FOUNDATION ELECTRONIC INSTRUMENTS

1794 Courtwood Crescent Ottawa, Ont.

Canada K2C 2B5 (613) 226-4000

Sales Contact: A.J. Szanto, Mktg.

FREELAND PRODUCTS CO.

Rt. 7, Box 628

Covington, LA 70433 (504) 893-1243

Sales Contact: W.T. Freeland, Owner

FREQUENCY DEVICES INC.

25 Locust St.

Haverhill, MA 01830 (617) 374-0761

Sales Contact: John Maguire, App. Eng.

FREZZOLINI ELECTRONICS INC.

7 Valley Street Hawthorne, NJ 07506 (201) 427-1160

Sales Contact: Jack Zink, Sales Mgr.

FUJI PHOTO FILM USA, INC.

350 Fifth Ave.

New York, NY 10118 (212) 736-3335

Sales Contact: Al Bedross, Nat'l Sales Mgr.

FUJI PHOTO FILM (Europe) GmbH

Berliner Allee 8

4000 Dusseldorf Fed. Republic of Germany

FUJINON INC.

672 White Plains Road

Scarsdale, NY 10583 (914) 472-9800

Sales Contact: Jack Dawson

FULL COMPASS SYSTEMS

6729 Seybold Rd.

(800) 356-5811 Madison, WI 53719 (608) 271-1100 Sales Contact: Jonathan, Lipp

(in Wisconsin)

FUNG ENGINEERING LABS INC. 425 Harbor Blvd

P.O. Box 235

Belmont, CA 94002

(415) 592-8434 Sales Contact: Pamela J. Lee, Sales Mgr.

G

G. C. ELECTRONICS

400 S. Wyman St.

Rockford, IL 61101 (815) 968-9661

Sales Contact: Robert Reynolds, Sales Admin.

GKM MANUFACTURING CORP.

47 Bridgewater St.

(212) 338-4114 Brooklyn, NY 11222

Sales Contact: John D'Augelli, Sales Mgr.

GTE LENKURT INC.

1105 County Road

San Carlos, California 94070 (415) 595-3000 Sales Contact: John Stockford, Nat'l. Sis. Mgr.

GYYR PRODUCTS, ODETICS INC.

1335 S. Claudina St.

Anaheim, CA 92805 (714) 772-1000

Sales Contact: Terry Tetirick,

National Sales Mgr.

GABRIEL ELECTRONICS INC.

P.O. Box 626

Scarborough, ME 04074 (207) 883-5161

Sales Contact: Don Crisman, Mktg. Mgr.

GALITE INC.

P.O. Box 50

Wallingford, CT 06492 (203) 265-7126

Sales Contact: Arthur J. Harvey, Sales Eng.

GARDINER COMMUNICATIONS CORP.

1980 So. Post Oak Road

Suite 2040

Houston, TX 77056-3869 (713) 961-7348

Sales Contact: Doug Smith, VP Sls. Mgr.

GARNER INDUSTRIES

4200 N. 48th

(402) 464-5911 Lincoln, NE 68504 Sales Contact: Bruce A. Alderman, Sales Mgr.

GELECO ELECTRONICS LIMITED

2 Thorncliffe Park Drive, Unit 28 Toronto, Ont. M4H 1H2 (416) 421-5631

Sales Contact: Gerald Lee, President

Regional Sales Office:

Geleco Electronics 1809 North 107th Street, Unit 3-201

Seattle, WA 98133 (206) 362-0403

Contact: P. J. Lee, Manager

GENERAL CABLE CO .- CATV DIV.

One Woodbridge Center

P.O. Box 700 (800) 526-4385 Woodbridge, NJ 07095 in NJ (201) 636-5500

Sales Contact: Richard L. Schwager

GENERAL ELECTRIC

Video Equipment Systems Operation

Building 6 - Room 206 Electronics Park

P.O. Box 4840 Syracuse, NY 13221 (315) 456-2562 Sales Contact: J.P. Gundersen, Mgr. of Mktg.

GENERAL TELEVISION NETWORK

13225 Capital Ave.

Oak Park, MI 48237 (313) 548-2500

Sales Contact: R. Hippler, Pres.

THE GERSTENSLAGER COMPANY

1425 E. Bowman Street

Wooster, OH 44691 Sales Contact: W. Baehr, Dir. of Eng.

GILBERT ENGINEERING CO. INC.

P.O. Box 23189 Phoenix, AZ 85063 (602) 245-1050

Sales Contact: R. Spann, President

G. A. GILBREATH ASSOCIATES

6357 Lawton Avenue

Las Vegas, NV 89107 (702) 878-8313

Sales Contact: Keith Smlth, Sales Manager

GLASSMAN HIGH VOLTAGE INC.

P.O. Box 551

Whitehouse Station, NJ 08889 (201) 534-2226 Sales Contact: John Belden, Sales Mgr.

GLENTRONIX LTD. 160 Duncan Mill Road

Don Mills, Ontario

M3B 1Z5 Canada Sales Contact: Tom Pressley

GLOBAL SPECIALTIES CORPORATION

70 Fulton Terrace

New Haven, CT 06509 (203) 624-3103

(416) 444-8497

GLOBAL VIDEO COMMUNICATIONS CORP.

744 West Church Street

Orlando Florida 32805 (305) 423-8299 Sales Contact: Cathy Malatesta

GOLDBERG BROTHERS INC.

3535 Larlmer St. Denver, CO 80217 (303) 892-1250

Sales Contact: Seymour Goldberg, V.P.

GOLDEN EGG

1373 Westwood Blvd.

Los Angeles, CA 90024 (213) 475-0817

Sales Contact: Ron Cutler, Pres.

ALAN GORDON ENTERPRISES

1430 Cahuenga Blvd.

Hollywood, CA 90028 (213) 466-3561

Sales Contact: Ted Lane

GORMAN REDLICH MFG. CO.

6 Curtis St.

Athens, OH 45701 (614) 593-3150 Sales Contact: James Gorman, Owner

GOULD INC.

2050 Cabot Blvd. West

Langhorne, PA 19047 (215) 752-0555

Sales Contact: Robert T. Hanson

GOULD INC., INSTRUMENTS DIV.

35129 Curtis Blvd.

Eastlake, OH 44094 (216) 361-3315 Sales Contact: Henry Berek, Nat'l. Sls. Mgr.

GRAHAM-PATTEN SYSTEMS

P.O. Box 1960

Grass Valley, CA 95945 (916) 273-8412

Sales Contact: Merv Graham, Pres.

GRALEX INDUSTRIES

155 Marine St.

Farmingdale, NY 11735 (516) 694-3600 x234

Sales Contact: Cary Ratner, Sis. Mgr.

GRANT TOWER INC.

13064 Wisner Avenue

Grant, MI 49327 (616) 834-5665

Sales Contact: Walt Knoch, Office Mgr.

THE GRAPHIC EXPRESS CORPORATION

7969 Engineer Rd. Suite 201

San Diego, CA 92111 (714) 565-2146

GRASIS CORPORATION

P.O. Box 1039

Kansas City, MO. 64141 (816) 483-1100 Sales Contact: J.W. Sebeuen, VP SIs. & Mk.

THE GRASS VALLEY GROUP INC.

13024 Bitney Springs Rd.

P.O. Box 1114

Grass Valley, CA 95945 (916) 27 Sales Contact: Len Dole, Int'l Sis. Mgr. (916) 273-8421

Regional Sales Offices:

THE GRASS VALLEY GROUP, INC

Station Plaza East Great Neck, NY 11021

(516) 487-1311

Contact: Danny Antonellis, Reg. Mgr. THE GRASS VALLEY GROUP, INC.

1644 Tullie Circle NE Atlanta, GA 30329 (404) 321-4318

THE GRASS VALLEY GROUP, INC.

810 West Bristol Street Elkhart, IN 46514 (219) 264-0931

Elkhart, IN 46514
Contact: Louis Swift, Reg. Mgr.
THE GRASS VALLEY GROUP, INC.
3585 N. Lexington A
Arden Hills, MN 55112
Contact: Larry Ennstrom, Dist. Mgr.
THE GRASS VALLEY GROUP, INC.
316 Seminary So. Office Bidg. (612) 483-2594

Ft. Worth, TX 76115 Contact: Roger Hale, Dist. Mgr. THE GRASS VALLEY GROUP, INC. (817) 921-9411

21243 Ventura Blvd. -206 Woodland Hills, CA 91364 (213) 999-2303

Contact: Tom Sleeman, Reg. Mgr.

GRAY ENGINEERING LAB INC.

504 W. Chapman Ave., Suite P

Orange, CA 92668 (714) 997-4151

Sales Contact: Tom C. Clark, Sales Mgr.

THE GREAT AMERICAN MARKET

21133 Costanso St

Woodland Hills, CA 91364 (213) 883-8182

Sales Contact: Joe Tawli, Owner

GREGG LABORATORIES

2120 E. Howell Ave., Suite 505

Anaheim, CA 92806 (714) 937-1100 Sales Contact: Scott J. Rubenstein, Mktg. Dir.

JUNE 1982/BROADCAST COMMUNICATIONS

GRINNAN FIXTURE COMPANY

16041-Georgetown St. N.E.

Minerva, OH 44657 (216) 862-2323

Sales Contact: John Grinnan, Owner

GROTON COMPUTER INC.

19 Fort Hill Rd.

Groton, CT 06340 (203) 445-2325

Sales Contact: R. H. Salews, Sis. Mgr.

GROVE VIDEO CORPORATION

16851 Oakmont Avenue Gaithersburg, MD 20877 (301) 840-5801

Sales Contact: P.K. Edwards, President

GRUBER PRODUCTS CO.

P.O. Box 7350

Toledo, OH 43615 (419) 531-4900

Sales Contact: D.B. Skilliter, Pres.

GRUNDIG AG

Geschaftsbereich Electronic

Wurzburgerstrasse 150

8510 Furth

Fed. Republic of Germany

Н

HM ELECTRONICS INC.

6151 Fairmount Ave.

San Diego, CA 92120 (714) 280-6050

Sales Contact: R. Dale Scott, Nat. Sis. Mgr.

HSC INCORPORATED

2932 River Road

P.O. Box 155

River Grove, IL 60171 (312) 452-5551 Sales Contact: Paul F. Bergetz, Sls. Mgr.

HALLIKAINEN & FRIENDS INC.

101 Suburban Road

San Luis Oblspo, CA 93401 (805) 541-0200

Sales Contact: Harold Hallikainen, Pres.

HAMMOND INDUSTRIES INC.

8000 Madison Pike

Madison, AZ 35758 (205) 772-9626

Sales Contact: Paul Twist, VP Sales

HARRIS CORPORATION **BROADCAST PRODUCTS DIVISION**

P.O. Box 4290

Quincy, IL 62305-4290 (217) 222-8200 Sales Contact: Ken Schwenk, Dir. of Dom. Sls.

HARRIS CORPORATION **BROADCAST MICROWAVE**

1680 Bayport Avenue San Carlos, CA 94070 (415) 595-3500 Sales Contact: CIIII Fields, Natl. Sis. Mgr.

HARRIS CORPORATION/ **FARINON VIDEO**

1680 Bayport Ave. San Carlos, CA 94070 (415) 595-3500 Sales Contact: Cliff Fields, Dom. Sls. Mgr.

HARRIS CORPORATION -

PRD ELECTRONICS DIV. 1200 Prospect Ave.

Westbury, NY 11590 (516) 364-0400

Sales Contact: Jeffrey Price, Sales Admin.

HARRIS VIDEO SYSTEMS

1255 E. Arques Ave.

Sunnyvale, CA 94086 (408) 737-2100 Sales Contact: Frank Santucci, Nat. Sis. Mgr.

Regional Sales Offices: HARRIS VIDEO SYSTEMS

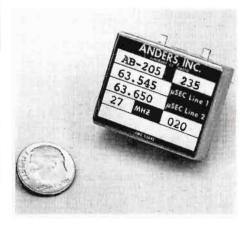
1421 West 1st Street Pella, IA 50219 (515) 628-9389

Contact: Clay Selthun, Midwest Reg. Mgr. HARRIS VIDEO SYSTEMS

Continued on page 140

ANDERS INC.

THE WORLDWIDE CHOICE WHERE PERFORMANCE COUNTS



- I say, it's an outstanding delay line.
- Une ligne à retard extraordinaire.
- Geweldige vertraginslijn.
- · Das ist eine sehr gute verzögerung linie.

77 Wolcott Rd., Simsbury, CT 06070 (203) 658-7666

Circle (85) on Action Card

COSMIN **ELECTRONICS**

Producers of Heavy duty **RF Components**

> **RF Systems Phasors Antenna** Tuning Units

18947

Sales

P.O. Box 222 Pipersville, PA **Headquarters** 4214 San Pedro San Antonio, TX

(215) 847-2044

78212

Circle (86) on Action Card

WHERE TO BUY IT

Hazel Green, AL 35750 Contact: Bob Ridge, So. Reg. Mgr. (205) 828-5308 HARRIS VIDEO SYSTEMS 1255 E. Arques Ave. Sunnyvale, CA 94086 (408 Contact: Mike Lang, Western Reg. Mgr. (408) 737-2100

HARRISON SYSTEMS INC.

P.O. Box 22964 Nashville, TN 37202 (615) 834-1184 Sales Contact: Brad Harrison & Eric Johnson Marketing Reps.

HARRISON SYSTEMS LTD.

6117 - 63rd Ave. Riverdale, MD 20840 (301) 699-1606 Sales Contact: Ray Harrison, Pres.

HARTLEY PRDUCTS CORPORATION

P.O. Box 316 Ramsey, NJ 07446 (201) 327-4443 Sales Contact: R. Schmetterer, Pres.

HARWOOD MFG. CO. Subsidiary Elgin Nat'l. Ind. Inc.

1800 W. Fullerton Ave. Chicago, IL 60614 (312) 929-1100 Sales Contact: Ben S. Rubin, Dir. of Mktg. Sls.

THE HEATH COMPANY

Benton Harbor, MI 49022 Sales Contact: Coy Clement (616) 982-3443

KARL HEITZ INC. 979 Third Avenue

New York, NY 10022 (212) 421-5220 Sales Contact: Chris Salmon, Mktg. Mgr.

HEURISTICS

1285 Hammerwood Ave. Sunnyvale, CA 94022 (408) 734-8532 Sales Contact: Barry J. Schiffman, Pres.

HICKOK ELECTRICAL INSTRUMENT CO.

10514 Dupont Ave. Cleveland, OH 44108 (216) 541-8060 Sales Contact: Tom Hayden, Mktg. Mgr.

HIGH-LITE CORP.

23 Selwyn Dr. Greenville, SC 29615 (803) 268-7702 Sales Contact: Wayne P. Comstock, Pres.

RICHARD HIRSCHMANN ELECTRIC

A · 6830 Rankweil-Brederis Austria

HITACHI DENSHI AMERICA LTD.

175 Crossways Park West Woodbury, NY 11797 (516) 921-7200 Sales Contact: J. Breitenbucher, Reg. Sis. Mgr.

HOPPMAN CORPORATION

5410 Port Royal Road P.O. Box 1463 Springfield, VA 22151 (703) 321-8800 Sales Contact: Carl H. Way, Mgr., Comm. Div.

HOUSTON FEARLESS 76 INC.

833 E. Walnut Carson, CA 90746 (213) 538-4930 Sales Contact: Tom Bowman, Mgr. Sls./Mktg.

HOWE AUDIO MARKETING/ Howe Audio Productions Inc.

3085-A Bluff St. (800) 525-7520 Boulder, CO 80301 (303) 444-4693 - 442-3231 Sales Contact: Greg Pine, Sales Mgr.

Regional Sales Offices: HOWE AUDIO MARKETING 316 East El Camino Dr. Phoenix, AZ 85020 (602) 242-2211 Contact: Chuck Spencer, Spencer Broadcast HOWE AUDIO MARKETING P.O. Box 204 Golden, CO 80401 (303) 424-3231 Contact: Greg Pine, President HOWE AUDIO MARKETING 845 Hornby St. No. 204 Vancouver, BC, Canada V6Z 1V1

(604) 685-6043

HOWE-YIN NORTH

1998 Republic Avenue San Leandro, CA 94577 (415) 483-7792 Sales Contact: Stephen T. Nicol, VP

HUGHES ELECTRONIC DEVICES CORP. (HEDCO)

P.O. Box 1985 Grass Valley, CA 95945 (916) 273-9524 Sales Contact: Bob Wincentsen, VP Mktg.

Regional Sales Offices: HOLZBERG ASSOCIATES P.O. Box 322 Totowa, NJ 07511 H.M. DYER ELECTRONICS INC. (201) 256-0455 31185 Ten Mile Rd. Farmington Hills, MI 48024 (313) 478-2157 THE GENE SUDDUTH CO. 845 39th S.E. Parls, TX 75460

(214) 784-6676 GRUNDER & ASSOCIATES 2019 W. 49th Terrace Westwood Hills, KS 66205 (913) 831-0188 DIDIER/DENVER

P.O. Box 1599 Evergreen, CO 80439 **BOWDISH & ASSOCIATES** 4432 Ensenada

Woodland Hills, CA 91364 VICA & ASSOCIATES 4622 Emberline Court Stone Mountain, GA 30083 VIDEO COMMUNICATIONS CORP

1400 Coleman Avenue Suite B-22 Santa Clara, CA 95050 (408) 988-2968

NUCOM ASSOCIATES 19940 NW Ballinger Way Seattle, WA 98155

(206) 364-9911

(303) 674-6000

(213) 704-6324

(404) 292-7506

HUGHES AIRCRAFT COMPANY Microwave Communications Products 3100 Fujita Street

P.O. Box 2999 Torrance, CA 90509 (213) 517-6100 Sales Contact: L.E. Stanley, Mgr. Mktg.

HUGHES HELICOPTERS INC.

Centinela Avenue & Teale St. Culver City, CA 90230 (213) 305-3055 Sales Contact: Norman S. Jacobson, No. Am. Sales Mar.

HUGHES TELEVISION NETWORK

4 Penn Plaza New York, NY 10001 (212) 563-8929 Sales Contact: Bill Page, Dir., Sales Dev.

HUGHEY & PHILLIPS INC.

P.O. Box 6729 Burbank, CA 91510-6729 (213) 849-1104 Sales Contact: C.E. Stephens, Sales Mgr.

HUNT CHEMICAL Roosevelt Place

١

Palisades Park, NJ 07650 (201) 944-4000 Sales Contact: E. Materazzi, Dir. of Sales

IGM COMMUNICATIONS

4041 Home Road Bellingham, WA 98226 (206) 733-4567 Sales Contact: Nick Solberg, Tech. Mktg. Mgr.

ILC DATA DEVICE CORPORATION

105 Wilbur Place Bohemia, NY 11716 (516) 567-5600 Sales Contact: Bill Henry, Reg. Mgr.

ITE INNOVATIVE TELEVISION EQUIP. P.O. Box 681

Woodland Hills, CA 91365 (213) 888-9421 Sales Contact: B. Rosenborg, Pres.

ITI ELECTRONICS INC.

369 Lexington Ave. Clifton, NJ 07011 (201) 546-3900 Sales Contact: Fred W. Belghaus, Sales Eng.

ITT JENNINGS DIVISION

970 McLaughlin Avenue San Jose, CA 95122 (408) 292-4025 Sales Contact: R.W. Neibaur, Dir. Bus. Dev.

IKEGAMI ELECTRONICS (USA) INC.

37 Brook Avenue Maywood, NJ 07607-1195 (201) 368-9171 Sales Contact: Herman Schloss,

VP, Sales/Marketing Regional Sales Offices: **IKEGAMI ELECTRONICS**

330 N. Belt Place East 330 N. Beit Flace East Houston, TX 77060 (713 Contact: Leonard Wollf, Reg. Sis. Mgr. (713) 445-0100 IKEGAMI ELECTRONICS

Torrance, CA 90505 (Contact: Jerry Kraus, Reg. Sis. Mgr. IKEGAMI ELECTRONICS (213) 534-0050

552 So. Lee St. Americus, GA 31709

(912) 924-0061 Contact: Bud Mills, Reg. Sis. Mgr. IKEGAMI ELECTRONICS 37 Brook Avenue

Maywood, NJ 07607 (201) 368-9171 Contact: John Chow, Reg. Sis. Mgr. IKEGAMI ELECTRONICS

1411-C Shady Creek
St. Louis, MO 63141
Contact: Harvey Caplan, Reg. Sis. Mgr. (314) 878-6290

IMAGE DEVICES INC.

1825 NE 149th St. Miaml, FL 33181 (305) 945-1111 Sales Contact: David Haylock, Pres.

IMAGE MAGNIFICATION INC.

739 Airway Circle New Smyrna Beach, FL 32069 (904) 427-5294 Sales Contact: Robert Becker, VP Sales

IMAGE RESOURCE CORP.

2260 Townsgate Rd. Westlake Village, CA 91361 (805) 496-3317 Sales Contact: M. Walker, Sales Mgr.

IMAGE TRANSFORM INC.

4142 Lankershim Blvd. N. Hollywood, CA 91602 (213) 985-7566 Sales Contact: Dick Lebre, V.P. / SIs.

IMAGE VIDEO LIMITED

700 Progress Avenue, Unit 16 Scarborough, Ont., Canada (416) 438-3940 Sales Contact: Joseph Costa, Jr.

IMERO FIORENTINO ASSOCIATES 44 West 63rd Street

New York, NY 10023 (212) 787-3050 Sales Contact: Laurie Goldstein, Oper. Mgr.

IMMAD BROADCAST SERVICES LTD.

186 Queen St. West Toronto Canada M5V 1Z1 (416) 598-0260 Sales Contact: S. Pumple, Pres. Telex: 0622634

IMPACT CASES INC. 150 Ferrier Street, Unit 3&4

Markham, Ontario L3R 3K3 (416) 475-7107 Sales Contact: L. Pugh, Ex.Administrator

INDUSTRIAL RESEARCH PRODUCTS INC.

321 N. Bond Street Elk Grove VIIIage, IL 60007 (312) 439-3600 Sales Contact: Roger M. Carroll, Mkt. Mgr.

BROADCAST COMMUNICATIONS/JUNE 1982

INDUSTRIAL SCIENCES INC. (ISI)

P.O. Box 1495 3521 SW 42nd Ave.

in FL (904) 373-6783

Gainesville, FL 32602 (800) 874-7590 Sales Contact: Robert Hansen, Dir. of Mktg.

INFORMATION PROCESSING SYSTEMS OF CALIFORNIA INC.

70 Glenn Way Belmont, CA 94002 (415) 592-1742 Sales Contact: Larry Niswander, Mk. Mgr.

INMARK CORPORATION

38 Brushwood Rd. Stamford, CT 06903 (203) 322-5272 Sales Contact: Lars Giers, Sales Mgr.

INNOVATIVE CONCEPTS INC.

2284 Ringwood Ave. San Jose, CA 95131 (408) 262-6680 Sales Contact: Robert Sheehy, Nat. Sls. Mgr.

INNOVATIVE TELEVISION EQUIPMENT

P.O. Box 681

Woodlawn Hills, CA 91365 (213) 888-9421 Sales Contact: Bert I. Rosenberg, Pres.

INOVONICS INC.

503-B Vandell Way

Campbell, CA 95008 (408) 374-8300 Sales Contact: Brian Fogerty, Nat'l. Sls. Mgr.

INTEGRATED SOUND SYSTEMS

29-50 N. Blvd.

Long Island City, NY 11101 Sales Contact: Mike Klasco (212) 729-8400

INTEGRATED TECHNOLOGY

9644 View High Drive

Kansas City, MO 64134 (816) 763-2286 Sales Contact: George Arneson, President

INTEGREX INC.

P.O. Box 747

Havertown, PA 19083 (215) 627-0966 Sales Contact: R. Tucker, Sales Dir.

INTERAND CORPORATION

666 North Lake Shore Drive Chicago, IL 60611 (312) 943-1200 Sales Contact: Dr. Leonard Reiffel, Pres.

INTERFACE VIDEO SYSTEMS INC.

1333 New Hampshire Ave., NW LL-200 Washington, DC 20036 (202) 861-0500 Sales Contact: Terrl Symonds Grow, Sales, Marketing

INTERAND CORPORATION

666 N. Lake Shore Dr.

Chicago, IL 60611 (312) 943-1200 Sales Contact: E.K. Lunkenheimer, VP/Sales

INTERLAKE AUDIO INC.

580 F Dobbie St. Winnipeg, Manitoba Canada R2K 1G4 (204) 668-4864 Sales Contact: Paul Nagle, Sales Mgr.

INTERNATIONAL ELECTRO-MAGNETICS

350 N. Eric Drive

Palatine, IL 60067 (312) 358-4622 Sales Contact: Tony Pretto, Sales Mgr.

Continued on page 142

WHERE TO FIND IT

GENERAL INDEX, Pages 38-45

WHO MAKES IT

PRODUCT DIRECTORY, Pages 46-113

WHERE TO BUY IT

MANUFACTURERS, Pages 114-162 DEALERS/DISTRIBUTORS, Pages 168-189

WHY BUY TWO LENSES WHEN THIS ONE WILL DO?



Schneider 14X ENG/EFP lens zooms from super wide angle to long telephoto.

Changing lenses to handle changing conditions could cost you a once-in-a-lifetime shot. And that's why you should know about the Schneider 14X ENG/EFP lens. It gives you two-lens versatility in an economical one-lens package.

It can power zoom from 9mm—126mm. Or with the built-in 2X extender from 18mm—252mm. With the 6.3mm—9mm aspheric lens attachment, it can power zoom on the super wide angle shots. And, when the action calls for close and tight, it's got macro focusing.

The Schneider 14X is designed to bring out the best in Ampex, CEI, Fernseh, Hitachi, Ikegami, JVC, NEC, Panasonic, Philips, RCA, Sharp, Sony, Thomson and Toshiba %" cameras. Lightweight, compact, ruggedly constructed, and weather resistant, it comes with a complete line of accessories. Superb European optics combined with excellent f/1.7 sensitivity bring back crisp, clear pictures even under low light level conditions.

In addition, Schneider offers the 14X lens in a ½-inch format for the new one-piece VCR cameras such as RCA Hawkeye, Panasonic and Sony. Schneider broadcast lenses are available throughout the United States and Canada from: **TELE-CINE CORP.**, 400 Crossways Park Drive, Woodbury, NY 11797; (516) 496-8500.

Schneider 14X ENG/EFP

Tele-Cine Corp. is a subsidiary of Schneider Corporation of America.

Circle (87) on Action Card

INTERNATIONAL INSTRUMENTS

88 Marsh Hill Rd.

Orange, CT 06477 (203) 795-4711

Sales Contact: D.R. Lynch, V.P. Sales

INTERNATIONAL MICROWAVE CORP. 33 River Road

Cos Cob, CT 06807

Sales Contact: Tony Acri, Sales Mgr.

INTERNATIONAL NUCLEAR CORPORATION

608 Norris Ave.

Nashville, TN 37204 (615) 254-3365

Sales Contact: Raymond L. Weiland, Pres.

INTERNATIONAL TAPETRONICS CORPORATION

2425 S. Main St.

P.O. Box 241

Bloomington, IL 61701 (309) 828-1381 Sales Contact: Chuck Kelly, Sales Mgr.

INTERNATIONAL VIDEO CORPORATION

455 West Maude Avenue

(408) 738-3900 Sunnyvale, CA 94086 Sales Contact: Fielding Hodges, Nat. Sls. Mgr.

IONIC INDUSTRIES INC.

128 James Street

Morristown, NJ 07960 (201) 539-1040

Sales Contact: Alfred Mayer, Pres.

IVIE ELECTRONICS INC.

500 W. 1200 S.

Orem, UT 84057 (801) 224-1800

Sales Contact: Glen Meyer, Sales Mgr.

J&R FILM CO. INC.

6820 Romaine St.

Los Angeles, CA 90038 (213) 467-3107

Sales Contact: Joe Paskal, President

J.V. ELECTRONICS INC.

151 Bentley Str., Unit 2

Markham - Ont. L3R 3X9 (416) 475-8166

Sales Contact: John Visser, Pres.

JAMIESON AND ASSOCIATES

4130 IDS Tower

Minneapolis, MN 55402 (612) 333-4581

Sales Contact: Raymond Johnson, VP

JAMIESON FILM CO.

6901 Forest Park Road Dallas, TX 75235

(800) 527-2299

Sales Contact: Oscar Garza, V.P. Mktg.

THE JANSON INDUSTRIES

Canton, OH 44706 (216) 455-7029 Sales Contact: Richard W. Janson, Gen. Mgr.

JATEX INC. 2626 Freewood Dr.

Dallas, TX 75220 (214) 358-0200

Sales Contact: Lee Phillips, Nat'l. Sis. Mgr.

Bill Eason, Jr., President

JAVELIN ELECTRONICS INC.

19831 Magellan Drive

Torrance, CA 90502 (800) 421-2716 Sales Contact: Louis Yates, Sales Consultant

JEFFERSON DATA SYSTEMS

501 Archdale Dr.

Charlotte, NC 28210 (704) 525-3901

Sales Contact: Mike Jones, VP

JENEL CONSULTANTS CORPORATION

9550 Forest Lane Suite 400

Dallas, TX 75243 (214) 343-1229

Sales Contact: Elmer Smalling, Pres./Chmn.

JENSEN TRANSFORMERS

10735 Burbank Blvd.

North Hollywood, CA 91601 (213) 876-0059

Sales Contact: Dave Hill

JERROLD DIVISION. GENERAL INSTRUMENT CORP.

2200 Byberry Road

Hatboro, PA 19040 (215) 674-4800

Sales Contact: Jack Forde, V.P. Sales

IRV JOEL & ASSOCIATES

528 River Road

Teaneck, NJ 07666 (201) 692-0010

JOHNSON ELECTRONICS INC.

P.O. Box 7

Casselberry, FL 32707 (305) 339-2111

Sales Contact: Joseph M. Lutz, Pres.

K B SYSTEMS

10407 62nd Place West

(206) 355-8740 Everett, WA 98204

Sales Contact: Kay Vincent, Sales Mgr.

K & H PRODUCTS LTD.

Box 246

N. Bennington, VT 05257 (802) 442-9118

Sales Contact: Margle Robertson, Sales

KAHN COMMUNICATIONS INC.

839 Stewart Avenue

Garden City, NY 11530 (516) 222-2221

Sales Contact: Leonard R. Kahn, Pres.

KAJAANI OY ELECTRONICS DIV.

Nuaskatu 11

SF-87400 Kajaani 40

Finland \$358 86 37311

Sales Contact: Veikko Hjerppe, Mark.Mgr.

KAITRONICS CORP.

1540 Gilbreth Road

Burlingame, CA 94010 (415) 697-9102

Sales Contact: Paul Tarrohaychik,

VP, Broadcast Products

KALAMUSIC

Suite 600

Industrial State Bank Building (616) 385-5110

Kalamazoo, MI 49007

Sales Contact: David Goldsmith, Nat. Sls. Mgr.

KALART VICTOR CORPORATION

Hultenius Street

Plainville, CT 06062 (203) 747-1663

Sales Contact: J.J. Costag, Sales Mgr.

KAMAN SCIENCES/KBS

1500 Garden of the Gods Road

Colorado Springs, CO 80933 (303) 599-1601

Sales Contact: George T. Beattie, Mgr. Mktg.

KAPCO COMMUNICATIONS

1270 Jarvis Ave.

Elk Grove Village, IL 60007 (312) 437-5900

Sales Contact: Ken Rubel, Pres.

KATHREIN-WERKE KG

P.O. Box 260

D-8200 Rosenheim 2 08031/184-1

Sales Contact: G. Winkler, Expt. Mgr.

KAY ELEMETRICS CORP.

12 Maple Avenue

Pine Brook, NJ 07058 (201) 227-2000

Sales Contact: Stephen Crump, Sls. Mgr.

KAY INDUSTRIES INC.

604 North Hill Street

South Bend, IN 46617 (219) 234-0171

Sales Contact: Aaron Katz, Pres.

KEITHLEY INSTRUMENTS INC.

28775 Aurora Rd.

Cleveland, OH 44139 (216) 248-0400

Sales Contact: Ronald Ruiz, Nat. Sls. Mgr.

KEY VIDEO LTD.

70 Milner Ave., Unit 5

Scarborough.

Ontario M1S 3P8 (416) 298-6199

Sales Contact: A.W. Critchley, Pres.

KILOVAC CORPORATION

P.O. Box 4422 BC

Santa Barbara, CA 93103 (805) 684-4560 Sales Contact: Jack L. Dysart, Prod. Mgr.



AUDIO PROCESSORS MODULAR COMPRESSOR - DA

FREE DETAILED BROCHURES

0

DISTRIBUTION AMPLIFIERS

PHONO **PREAMPLIFIERS**

LINE, & POWER AMPLIFIERS **RACK MOUNTING**

DUAL MIKE,

328 MAPLE AVENUE HORSHAM, PA. 19044

BROADCAST COMMUNICATIONS/JUNE 1982

Micro Amp Series

by



AUDIO TECHNOLOGIES INCORPORATED

(215) 443-0330

KIMIAN SALES INC.

P.O. Box 503 1804 Sycamore St.

Atlantic, IA 50022 (712) 243-1626 Sales Contact: Robert C. Willms, President

KINDWALL CORPORATION

(800) 831-5051 P.O. Box 1557 Spencer, IA 51301 (712) 262-5810 Sales Contact: Ron Kindwall, Pres.

KINETRONICS CORPORATION

42 Sherwood Terrace (312) 295-5600 Lake Bluff, IL 60044 Sales Contact: R. Nadolny, V.P. Sales

KINGS ELECTRONICS CO. INC.

40 Marbledale Rd. Tuckahoe, NY 10707 (914) 793-5000 Sales Contact: F. Della lalono, Sales Mgr.

KINTEK INC., DIV. OF dbx INC.

61 Chapel St.

(617) 969-2520 Newton, MA 02195 Sales Contact: Dan Taylor, Mktg. Dir.

WHERE TO FIND IT

GENERAL INDEX, Pages 38-45

WHO MAKES IT

PRODUCT DIRECTORY, Pages 46-113

WHERE TO BUY IT

MANUFACTURERS, Pages 114-162 DEALERS/DISTRIBUTORS, Pages 168-189 KITCHEN PRODUCTIONS INC.

619 W. Ridgecrest Blvd.

Suite D

Ridgecrest, CA 93555 (714) 375-2753 Sales Contact: Edward Tipler, Eng.

KLARK-TEKNIK RESEARCH LTD.

Walter Nash Road West Coppice Trading Estate Kidderminster, Worcs., England

(0562) 741515

KLIEGL BROS.

32-32 48th Avenue Long Island City, NY 11101 (212) 786-7474 Sales Contact: Michael F. Connell, Dir. of Sls.

KLINE IRON AND STEEL COMPANY

P.O. Box 1013

Columbia, SC 29202 (803) 779-7080 Sales Contact: J.R. Trotter, Sales Mgr.

KLIPSCH & ASSOCIATES INC.

P.O. Box 688 Hope, AK 71801 (501) 777-6751 Sales Contact: Chuck Mulhearn, Nat. Sis. Mar.

KNOX VIDEO PRODUCTS

5001-J Forbes Blvd. Lanham, MD 20706-4499 (301) 459-2106 Sales Contact: Paula Bowen, Mktg. Mgr.

KOSS CORPORATION

4129 N. Port Washington Ave. Milwaukee, WI 53212 (414) 964-5000 Sales Contact: Jeff Martin, Sales Mor.

KRAUSE, BERNIE & GARY REMAL

c/o Parasound

680 Beach ST., Suite 414

San Francisco, CA 94109 (415) 673-4544 Sales Contact: Betsy Zeger, Dir. of Sales

KREONITE INC.

715 E. 10th Street P.O. Box 2099

Wichita, KS 67201 (316) 263-1111

Sales Contact: Lu Wasmoen, Mktg. V.P.

KUDELSKI S.A.

CH-1033

Cheseaux-sur-Lausanne

Switzerland (021) 91 21 21

Sales Contact: J.P. Kolopp, Adv. Mgr.

LPB INC.

28 Bacton Hill Road Frazer, PA 19355 (215) 644-1123 Sales Contact: Harry N. Larkin, VP, Mktg.

Regional Sales Offices: R.W. BURDEN ASSOCIATES

20944 Sherman Way Canoga Park, CA 91303 (213) 340-4590

Contact: Richard W. Burden M.S.C. ELECTRONICS LTD.

254 Wildcat Road (416) 661-4180

Downsview, Ontarlo M3J 2N5 Contact: David LaFrenais, Pres.

LRC ELECTRONICS INC.

901 South Ave. Horseheads, NY 14845 (607) 739-3844 Sales Contact: John W. McQuaid

Continued on page 144

THE CHOICE IS YOURS!



THE AUDIOPAK A-2 OR THE STEREO PHASED 4A-3 BROADCAST CARTRIDGE

Capitol Audiopak Broadcast Cartridges for stations who care how they sound.

Both Audiopak carts offer extremely low wow and flutter; a positive brake system which stops the tape, not the hub, assuring accurate cueing. Unsurpassed reliability is assured because we manufacture the tape and all other components in the cartridge. Moreover, all carts are 100% tested before shipping.

The AA-3 offers excellent stereo phase stability. It's loaded with Capitol's own Q17 HOLN tape which extends frequency response and headroom to provide studio sound quality.

> **CAPITOL MAGNETIC PRODUCTS** A Division of Capitol Records, Inc. 6902 Sunset Blvd. Hollywood, California 90028

> > @1980 CAPITOL RECORDS INC

Circle (89) on Action Card

THE LRS DISTRIBUTING COMPANY

29 Stonehenge Circle Baltimore, MD 21208 (301) 484-7750 Sales Contact: Bucky Buchman, V.P.

LTI PRODUCTIONS

22530 W. 8 Mile Rd. Southfield, MI 48034 (313) 353-3355 Sales Contact: Barry Grant, V.P.

LTM CORPORATION OF AMERICA

1160 N. Las Palmas Ave. Hollywood, CA 90038 (213) 460-6166 Sales Contact: Gilles Galerne, Gen. Mgr.

L-W INTERNATIONAL

6416 Variel Ave. Woodland Hills, CA 91367 (213) 348-8614 Sales Contact: Pat Smith, MGr. Mktg.

LAIRD TELEMEDIA INC.

2424 South 2570 West Salt Lake City, UT 84119 (801) 972-5900 Sales Contact: David Klemm, Sales Mgr.

LANG VIDEO SYSTEMS CORP.

2405 De La Cruz Blvd. Santa Clara, CA 95050 (408) 988-2311 Sales Contact: Mel Lang, President

LARCAN COMMUNICATIONS EQUIPMENT

396 Attwell Dr. Rexdale, Ont. M9W 5C3 (416) 675-7517 Sales Contact: P. Balodis, Mktg. Dir.

D.N. LATUS & CO. INC.

7 Placer, Box 1720 Helena, MT 59601 (406) 442-3940 Sales Contact: D.N. Latus, Pres.

LEADER BROADCAST SYSTEMS INC.

195 W. 7th Avenue Vancouver, British Columbia, (604) 685-6043 Canada V5Y 1L8 Cables: LEADERTAPE Sales Contact: Michael K. Leader, Pres. Dave James, Tech. Dir.

LEADER INSTRUMENTS CORP.

380 Oser Avenue Hauppauge, NY 11787 (516) 231-6900 Sales Contact: Robert Sparks, Nat'l. Dir. of Sls.

LEBLANC ROYLE COMM. TOWERS LTD.

P.O. Box 880
Oakville, Ontario
Canada L6J 5C5
(416) 844-1242
Sales Contact: Jim Wilson, Dir. of Sis & Mktg.

LECTROTECH INC. 5810 N. Western Ave.

514 Chartwell Rd.

Chicago, IL 60659 (312) 769-6262 Sales Contact: W. Grossman, Sales Mgr.

LECROY FIBEROPTICS SYSTEMS DIV.

1234 E. Joppa Road Towson, MD 21204 (301) 296-7670 Sales Contact: J.B. Mroz, Mktg. Mgr.

WHERE TO FIND IT

GENERAL INDEX, Pages 38-45

WHO MAKES IT
PRODUCT DIRECTORY, Pages 46-113

WHERE TO BUY IT

MANUFACTURERS, Pages 114-162 DEALERS/DISTRIBUTORS, Pages 168-189 LECROY RESEARCH SYSTEMS

700 South Main Street Spring Valley, NY 10977 (914) 425-2000 Sales Contact: Dean Bogert, Appl. Eng.

LEEVERS-RICH EQUIPMENT LTD.

319 Trinity Road Wandsworth, London SW18 35L England 01-874-9054 Sales Contact: W.A. Costello, Managing Dir.

LEE-RAY INDUSTRIES INC.

38 E. 1st Ave. Mesa, AZ 85202 (602) 962-6806 Sales Contact: Sales Dept.

LEITCH VIDEO OF AMERICA

825 K. Greenbriar Circle Chesapeake, VA 23320 (804) 424-7920 Sales Contact: John Walter, Pres. & GM

LEITCH VIDEO LIMITED 705 Progress Ave., Unit 46

Scarborough, Ontario Canada M1H 2X1 (416) 438-5060 Sales Contact: Mr. John Walter, Gen. Mgr.

LEMO U.S.A. INC.

P.O. Box 6626 335 Tesconi Circle Santa Rosa, CA 95406 (707) 523-0600 Sales Contact: Bob Wersen, Gen. Mgr.

LENCO INC., ELECTRONIC DIV.

300 N. Maryland St. Jackson, MO 63755 (314) 243-3147 Sales Contact: Andy Leonard, Asst. Sls. Mgr.

LENZAR OPTICS CORP.

1006 West 15th St. Riviera Beach, FL 33404 (305) 844-0263 Sales Contact: H.B. Ganther, VP

LEVIT ELECTRONICS INC.

200 Park Avenue South New York, NY 10003 (212) 777-5517 Sales Contact: Michael Levit, Mktg.

LEXICON INC.

60 Turner St.
Waltham, MA 02154 (617) 891-6790
Sales Contact: Virginia Casale, Mktg. Admin.

LIGHTNING ELIMINATION ASSOC. INC.

12516 Lakeland Road Santa Fe Springs, CA 90670 (213) 944-0916 Sales Contact: Hal Proppe, VP Mktg.

LIGHTING PRODUCTS GROUP GTE PRODUCTS CORPORATION

100 Endicott Street
Danvers, MA 01923 (800) 221-3333
Sales Contact: GTE Product Info. Center

LINDSAY SPECIALTY PRODUCTS LTD.

50 Mary Street W. Lindsay, Ontario, Canada K9V 4S7 (705) 324-2196 Sales Contact: Bob Barkwell, Sales Rep.

LINK ELECTRONICS

North Way Andover, Hampshire, England SP10 5AJ 0264 61345 Sales Contact: J. Wilson, Sales Dir.

LIPSNER-SMITH COMPANY

4700 Chase Ave. Lincolnwood, IL 60646 (312) 675-8473 Sales Contact: Tom Tisch, VP

LISTEC TELEVISION EQUIPMENT CORP.

39 Cain Drive
Plainview, NY 11803 (516) 694-8963
Sales Contact: Joanne Camarda, Manager
Regional Sales Offices:

LISTEC TELEVISION EQUIPMENT CORP. 4529 San Fernando Road, Unit A Glendale, CA 91204 (213) 247-9247

LIVE SOUND INC.

1741 N. Ivar -118 Hollywood, CA 90028 (213) 462-3351 Sales Contact: Agnes F. Peterson, Pres.

LOGICA

666 Third Avenue New York, NY 10017 (212) 599-0828 Sales Contact: Dick Lutz, Mktg. Mgr.

LOGITEK ELECTRONIC SYSTEMS INC.

3320 Bering Drive in TX, collect (713) 782-4592 Houston, TX 77057 (800) 231-5870 Sales Contact: Scott Hochberg, Pres.

Regional Sales Offices:

LOGITEK ELECTRONIC SYSTEMS

Totowa, NJ 07511 (201) 256-0455
Contact: Herb Holzberg, Rep.
LOGITEK ELECTRONIC SYSTEMS
5914 Maple
Houston, TX 77074 (713) 774-3314
Contact: Bernie Giesler, Rep.
LOGITEK ELECTRONIC SYSTEMS

LOGITEK ELECTRONIC SYSTEMS
1314 Iturbide Street
Laredo, TX 78040 (512) 723-6913

Contact: Richard Reyes, Export Rep.

LOWEL-LIGHT MFG. INC.

475 10th Avenue New York, NY 10018 (212) 947-0950 Sales Contact: Art Kramer, Sales Mgr. Amy Carter, Ass't. Sis. Mgr.

LYON LAMB VIDEO ANIMATION SYSTEMS

8255 Beverly Blvd. Suite 202 Los Angeles, CA 90048 (213) 655-0606 Sales Contact: Kimberly Mitchell

LYON METAL PRODUCTS INC.

P.O. Box 671 Aurora, IL 60507 (312) 892-8941 Sales Contact: O.J. Henderson, Nat'l. Sis. Mgr.

LYREC MANUFACTURING A/S

Hollandsvej 12
DK-2800 Lyngby
Denmark
TLX: 37568 Lyrec DK
Sales Contact: Johan Von Schoultz, Sis. Mgr.

M

3M COMPANY, Mincom Division

3M Center Bldg. 23-5E St. Paul, MN 55101 (612) 733-7603

3M - Mag A/V Products Division

3M Center - Bldg. 223-5N St. Paul, MN 55144 (612) 733-7980 Sales Contact: C. Devore, Sls / Service Analyst

Regional Sales Offices:
3M 5531 Minnesota Drive
Anchorage, Alaska 99502 (907) 276-2363
Would be Handled thru Int'l. Div.
3M 2860 Bankers Industrial Drive
Atlanta, GA 30360
3M (404) 447-7000

115 4th Avenue Needham Hts., MA 02194 (617) 449-0300 3M 6850 South Harlem Ave.

(Bedford Park) Argo, IL 80501 (312) 496-6500 3M 4835 Para Drive

4835 Para Drive Cincinnati, Ohio 45237 3M 12200 Brookpark Road Claveland, OH 44130 (218) 267, 1800

Cleveland, OH 44130 (216) 267-1800 3M 2121 Santa Anna Avenue Dallas, TX 75228 (214) 324-8100 3M

23923 Research Drive Farmington, MI 48024 (313) 477-5000

3M	
126 West Elm Court	
Burbank, CA 91502 3M	(213) 848-5534
2880 Ualena Street	
Honolulu, Hawaii 96819	(808) 841-0147
Would be handled through Int'l. D	
3M	
6023 South Garfield Ave.	
Los Angeles, CA 90040	(213) 726-6300
3M	
15 Henderson Drive	
All Mail: P.O. Box 76	
West Caldwell, NJ 07006	(201) 575-2000
3M	
5698 Rising Sun Ave.	(045) 700 5000
Philadelphia, PA 19120 3M	(215) 728-5300
10725 Baur Boulevard	
All Mail: P.O. Box 510	
St. Louis, MO 63166	(314) 997-8500
3M	(314) 331-0300
320 Shaw Road	
South San Francisco, CA 94080	(415) 761-1155
3M	, ,
100 Andover Park West	
Andover Industrial Park	
Seattle, WA 98188	(206) 244-7200
3M	
3130 Lexington Avenue South	(0.4 0) 700 5004
Eagan, MN 55121 All Mail: P.O. Box 3211	(612) 733-5961
St. Paul, MN 55133	
3M	
1101 - 15th St. N.W.	
Washington, D.C. 20005	(202) 331-6964
3M	(, :
International Operations	
Magnetic A/V Products Division	
Bldg. 220 - 5E	
St. Paul, MN 55101	(612) 733-2908
MA-COM VIDEO SYSTEMS	

63 Third Avenue

Burlington, MA 01803

MBI BROADCAST SYSTEMS LT 69 Ship Street Brighton, England BN1 1AE Sales Contact: Michael Fabrica	(0273) 24928
MCG ELECTRONICS INC. 160 Brook Ave. Deer Park, NY 11729 Sales Contact: Michael J. Coyle	(516) 586-5125 e, <i>Pres</i> .
MCI INC. 1400 West Commercial Bouleva Ft. Lauderdale, FL 33309 Sales Contact: Dennis Sindrey, Regional Sales Offices AUDIO INDUSTRIES 1419 N. La Brea Avenue	(305) 491-0825
Hollywood, CA 90028 AUDIOTECHNIQUES 652 Glenbrook Road	(213) 851-4111
Stamford, CT 06906 CONTROL TECHNOLOGY 2322 Davie Bivd.	(203) 359-2313
Ft. Lauderdale, FL 33312 MCI INC./NASHVILLE OFFICE 1717 Elm HIII Pike, Sulte B-9	(305) 792-7791
Nashville, TN 37210 MILAM AUDIO COMPANY 1470 Valle Vista Bivd.	(615) 366-0333
Pekin, IL 61554 PACIFIC RECORDER & ENGINE 11100 Roselle Street	
San Diego, CA 92121 PRO AUDIO GENERAL STORE 1378 NW 100th Avenue	(714) 453-3255
Coral Springs, FL 33065 PRO AUDIO SYSTEMS 11057 8th Avenue NE	(305) 752-0330
Seattle, WA 98125	(206) 367-6800

RECORDING STUDIO EQUIPMENT

(305) 949-8918

18917 NE 5th Avenue

N. Mlami Beach, FL 33160

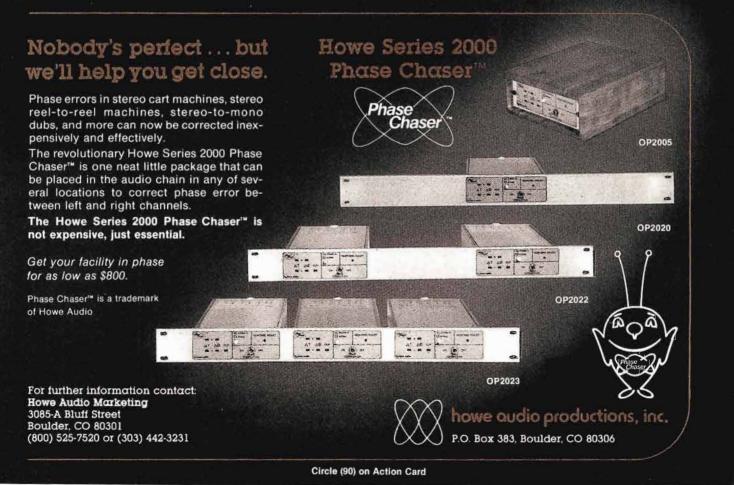
(617) 272-3100

STUDIOWORKS 1018 Central Avenue Charlotte, NC 28204 (704) 375-1053 MCI House, 54 - 56 Stanhope Street London, UK NW1 3EX 01-388-7867 / 8 MCI/QUANTEL 2483 E. Bayshore, #100 P.O. Box 50810 Palo Alto, CA 94303 (415) 856-6226 Sales Contact : Don Prather, V.P. Sales Regional MCI/QUANTEL Seles Offices: 2971 Flowers Road, Suite 106 Atlanta, GA 30341 Contact: Paul Fletcher, Dist. Mgr. (404) 457-1266 MCI/QUANTEL 300 Broad Street, No. 500 Stamford, CT 06901 (203) 348-4104 Contact: David Dever, Dist. Mgr. MCI/QUANTEL 33701 Oak Point Circle Farmington Hills, MI 48018 Contact: Mr. Larry Biehl (313) 553-2360 MCI/QUANTEL 23416 Kittridge Canoga Park, CA 91307 Contact: Mr. Chuck Martin (213) 999-5965 MCI/QUANTEL 23711 107th Place, West Edmonds, WA 98020 (206) 546-6264 Contact: Mr. Tom McGowan MCI/QUANTEL 2225 Madison Street, No. 105 Arlington, TX 76011
Contact: Mr. Gary Young
MICHAEL VIDEO SALES, INC. (817) 261-0007 2421 LewisvilleClemmons Rd. Continued on page 146

SOUTHWEST PROFESSIONAL AUDIO

(512) 443-4567

1500 Summit Street Austin, TX 78741



WHERE TO BUY IT

Clemmons, NC 27012	(919) 766-8288
Contact: Mr. Paul Michael	(0.0),,00
CAMERA MART	
456 W. 55th Street	
New York, NY 10019	(212) 757-6977
Contact: Mr. Leo Rosenberg	(,
PROFESSIONAL PRODUCTS	
4964 Fairmont	
Bethesda, MD 20014	(301) 657-2141
Contact: Mr. Chuck Motta	(301) 037-2141
LANDY ASSOCIATES	
1890 E. Marlton Pike (Rt. 70)	(000) 101 1000
Cherry Hills, NJ 08003	(609) 424-4660
Contact: Mr. Jlm Landy	
VICTOR DUNCAN	
2659 Fondren	
Dallas, TX 75206	(214) 389-1185
Contact: Mr. Bill Reiter	
VICTOR DUNCAN	
32380 Howard Street	
Madison Heights, MI 48071	(313) 589-1900
Contact: Mr. Larry Walker	
VICTOR DUNCAN	
661 North LaSalle	
Chicago, IL 60610	(312) 943-7300
Contact: Mr. Bob Coleman	, ,
SKAGGS VIDEO SALES	
5181 Amelia Earhart Dr.	
Salt Lake City, UT 84116	(801) 539-1420
Contact: Mr. Sam Kichas	(501) 505-1420
OMEGA VIDEO, INC.	
14326 Isis Avenue	
Lawndale, CA 90260	(212) 670 0021
Contact: Mr. David Riegler	(213) 679-9021
WESTERN BROADCAST SYS.	
10707 Amulet Place	(400) 740 0000
Cupertino, CA 95014 Contact: Mr. Homer E. Hull	(408) 749-0900
BENNETT ENGR. ASSOC., INC.	
5005 S. 91st Avenue	
Mercer Island, WA 98040	(206) 232-3550
Contact: Mr. Stanton Bennett	
NORTEC WEST	
325 West 5th Avenue	
Vancouver, BC V5R 1J6	(604) 872-8525
Contact: Mr. Bob Whitehouse	
NORTEC WEST	
7056 B. Farrell Road	
Calgary, AL T2H 0T2	(403) 252-8141
Contact: Mr. Ron Hill	
ELECTRO & OPTICAL SYSTEMS	
31 Progress Court	
Scarsborough, ON M1G 3V5	(416) 439-9333
Contact: Mr. Maurice Evans, Mr.	Michael Paul
TECKNOMERICA, S.A.	
Fujiyama No. 72	
Col. Las Aguilas	
Mexico, 20 D.F.	(905) 593-2046
Contact: Ing. Jorge Ibarra	,, 3 10
PHI	
Apartado 65600	
	11-(582) 562-1403
Contact: Mr. Renato Micheluz	(552) 562 1-150

MEI MICROPROBE ELECTRONICS

Suite 1532 A, 875 N. Michigan Ave. Chicago, IL 60611 (31)

Chicago, IL 60611 (312) 440-3111 Sales Contact: David E. Collins, Pres.

MPB TECHNOLOGIES

P.O. Box 160 21051 North Service Road Ste-Anne-De-Bellevue, Quebec Canada H9X 3L5 (514) 457-2035 Sales Contact: Mr. R.J. Clark, VP Dig. Prod.

MSI TELEVISION

4788 South State St. Salt Lake City, UT 84107 (801) 262-8475 Sales Contact: Ann Newman, CATV Sis. Mgr.

MXR INNOVATIONS INC.

740 Driving Park Ave. Rochester, NY 14613 (716) 254-2910 Sales Contact: Joel Silverman, Nat. Sis. Mgr.

MACKENZIE LABORATORIES INC.

5507 Peck Road P.O. Box 3029 Arcadia, CA 91006 (213) 579-0440 Sales Contact: G.W. Keleher, VP

MAGNASYNC/MOVIOLA CORPORATION

5539 Riverton Ave. North Hollywood, CA 91601 (213) 763-8441 Sales Contact: A. Madsen, Prod. Line Mgr.

MAGNA-TECH ELECTRONIC CO. INC.

630 Ninth Avenue New York, NY 10036 (212) 586-7240 Sales Contact: R. Eberenz, VP

MAGNAVOX CATV SYSTEMS INC.

100 Fairgrounds Dr. Manlius, NY 13104 (315) 682-9105 Sales Contact: Bob Finnerty, Sales Admin.

MAGNECRAFT ELECTRIC

5575 North Lynch Ave. Chicago, IL 60630 (312) 282-5500 Sales Contact: Al Cooper, Ad Mgr.

MAGNEFAX INTERNATIONAL INC.

Route 1 Box 764 Rogers, AR 72756 (501) 925-1818 Sales Contact: Dennis W. Tallakson, Pres.

MAGNETIC REFERENCE LABORATORY INC.

229 Polaris Avenue, Suite 4 Mountain View, CA 94043 (415) 965-8187 Sales Contact: Jenny Foster, Secretary

MAGNESONICS SALES & MFG. CO.

3740E Transport Ventura, CA 93003 (805) 642-3092 Sales Contact: D.P. Grosslight

MAGNUM TOWERS INC.

9370 Elder Creek Road Sacramento, CA 95826 (916) 381-5053 Sales Contact: Alexander M. Perchevitch, GM

MALLORY CAPACITOR COMPANY

3029 E. Washington Street Indianapolis, IN 46206 (317) 636-5353 Sales Contact: Frank Vendely, Dir. of Sales

THE MANAGEMENT

P.O. Box 111 Aledd, TX 76008 (817) 441-8045 Sales Contact: Pete Charlton, Owner

MARATHON PRODUCTS CORPORATION

334 West Boylston St. West Boylston, MA 01583 (617) 853-0988 Sales Contact: B. Bagdasarian, Treas.

MARCONI COMMUNICATION SYSTEMS LTD.

Marconi House
Chelmsford, U.K. CM1 1PL
Sales Contact: P.A.T. Turrall,
Overseas Sales Mgr.

MARCONI ELECTRONICS, Broadcast & Communications Division

100 Stonehurst Court Northvale, NJ 07647 (201) 767-7250 Sales Contact: John B. White, Mgr., Comm. & Broadcast

MARCONI INSTRUMENTS LTD.

Long Acres Stalbans
Hertfordshire (0727) 59292
AL4 0JN, UK TELEX 23350
Cable: Measure Test, St. Albans
Sales Contact: Mr. B. Briggs, Sales Mgr.

MARKETRON INC.

2180 Sand Hill Road Suite 250 Menlo Park, CA 94025 (415) 854-5301 Sales Contact: Michael D. Rooney, Sales Mgr.

MARTI ELECTRONICS INC.

1501 N. Main, Box 661 Cleburne, TX 76031 (817) 645-9163 Sales Contact: Geo. Marti, Pres.

MARSHALL ELECTRONICS INC.

P.O. Box 2027 Culver City, CA 90230 (213) 836-4288 Sales Contact: L. Marshall, V.P.

MASTER DIGITAL INC.

202 Main Street Venice, CA 90291 (213) 399-7764 Sales Contact: Paul Addis, Nat. Sls. Mgr.

MATRIX DIV./LEEDAL INC.

1918 S. Prairie Ave. Chicago, IL 60616 (312) 842-6588 Sales Contact: T. Zimmerman, Adv. Dir.

MATTHEWS STUDIO EQUIPMENT INC.

2405 Empire Avenue Burbank, CA 91504 (213) 843-6715 Sales Contact: Ron Prociw, Sales Mgr.

MAXELL CORPORATION OF AMERICA

60 Oxford Drive Moonachie, NJ 07074 (201) 440-8020 Sales Contact: Jim Ringwood, Nat'i. Sales Mgr.

McCURDY RADIO INDUSTRIES LTD.

108 Carnforth Road Toronto, Ontario, Canada, M4A 2L4 (416) 751-6262 Sales Contact: Stan Maruno, Sales Mgr.

McINNIS-SKINNER & ASSOCIATES

6529 N. Classen Blvd. Oklahoma City, OK 73116 (405) 848-4246 Sales Contact: Ron Hudson, Mktg. Dir.

McKAY DYMEK COMPANY

111 So. College Ave.
P.O. Box 5000 (800) 854-7769
Claremont, CA 91711 (714) 621-6711
Sales Contact: Joseph Priske, Pres.

McMARTIN INDUSTRIES INC.

4500 S. 76th Street Omaha, NE 68127 (402) 331-2000 Sales Contact: K. Jones, Broadcast Oper. Mgr.

MCQ TELEPRODUCTIONS

P.O. Box 1676 San Mateo, CA 94401 (415) 348-1344 Sales Contact: Lon McQuillin, Pres.

MEAD DATA CENTRAL

200 Park Avenue New York, NY 10017 (212) 883-8560 Sales Contact: H.E. Heilesen, VP Mktg.

KENNETH R. MEADES

P.O. Box 3831

Beverly Hills, CA 90212 (213) 771-0636

Sales Contact: Kenneth R. Meades,
Owner-Manager

MEMOREX CORP.

Professional Products Group P.O. Box 1000

Santa Clara, CA 95052 (408) 987-1000 Sales Contact: J. Higgins, Video Prod. Mgr.

MERLIN ENGINEERING WORKS

1880 Embarcadero Palo Alto, CA 94303 (415) 856-0900 Sales Contact: J. Streets, Pres.

MERRILL CABLE EQUIPMENT CORP.

P.O. Box 13741 2629 N. 24th Dr. Phoenix, AZ 85002 (602) 271-9181 Sales Contact: Thomas Helser, Dir./Mktg.

MESOMET INC.

35 E. Wacker Dr. Chicago, IL 60601 (312) 263-5921 Sales Contact: C.M. Poe, VP

51 South Denton Avenue

New Hyde Park, NY 11040 (516) 328-3333 Sales Contact: Mr. Herbert Arum, Mktg. Mgr.

MICHIGAN MAGNETICS INC.

203 W. Third St.

Vermontville, MI 49096 (517) 726-0590 Sales Contact: B.L. Killinger, Mkt. Dir.

MICMIX AUDIO PRODUCTS INC.

2995 Ladybird Lane

Dallas, TX 75220 (214) 352-3811 Sales Contact: Bill Allen, President

MICRO COMMUNICATIONS INC.

Grenier Field

P.O. Box 4365

Manchester, NH 03108 (603) 624-4351 Sales Contact: T.J. Vaughan, Marketing

Howard Bouldry, GM

MICRO CONTROL ASSOCIATES INC.

Box 694

Cleburne, TX 76031 (817) 295-7771

Sales Contact: Robert Richards, Pres.

MICRODYNE CORPORATION

P.O. Box 7213 491 Oak Road

(904) 687-4633 Ocala, FL 32672

Sales Contact: Thomas H. Kidd, Sls. Eng.

MICROFLECT CO. INC.

3575 25th St. S.E.

(503) 363-9267 Salem, OR 97302

Sales Contact: Harvey B. Wilson, Sales Mgr.

MICRO PRODUCTS INC.

13239 Northup Way

Bellevue, WA 98005 (206) 747-6010

Sales Contact: Sheryl Paulsen,

Mktg./Sales Mgr.

MICRON AUDIO PRODUCTS LTD.

210 Westlake Drive

Valhalla, NY 10595 (914) 761-6520

Sales Contact: Paul Tepper

Regional Sales Offices: MICRON AUDIO PRODUCTS LTD.

1619 Broadway New York, NY 10019 (212) 247-6517

Contact: C. Schietinger MICRON AUDIO PRODUCTS LTD.

1600 Broadway (212) 582-7360

New York, NY 10019 Contact: J. Welsberg

MICRON AUDIO PRODUCTS LTD. 6370 Santa Monica Blvd.

Hollywood, CA 90038
Contact: K. Scuban
MICRON AUDIO PRODUCTS LTD. (213) 466-3238

4210 Lankershim Blvd. N. Hollywood, CA 91602 (213) 980-9891

Contact: M. Chaitinsky
MICRON AUDIO PRODUCTS LTD.

20440 Tiara Street Woodland Hills, CA 91367 Contact: M. Metaxls (213) 992-618

MICRON AUDIO PRODUCTS LTD.

10 Mt. Auburn St. Watertown, MA 02172

Contact: D. Talamas MICRON AUDIO PRODUCTS LTD. 1848 Briarwood Rd. NE

(617) 923-0166

Atlanta, GA 30329 Contact: F. Willard (404) 325-3676

MICRON AUDIO PRODUCTS LTD.

(404) 622-1311

2000 Lakewood Way - Bldg. - 4 Atlanta, GA 30315

MICRON AUDIO PRODUCTS LTD. Audio Lane

New Haven, CT 06519

(203) 777-5301

Contact: B. Anderson
MICRON AUDIO PRODUCTS LTD.
7006 So. Alton Way, Bldg. B

Englewood, CO 80112 (303) 740-9031

MICROPROBE ELECTRONICS INC./MEI

875 N. Michigan Avenue

Suite 1532A

Chicago, IL 60611 (312) 440-3111

Sales Contact: David Collins, President

MICROTIME INC.

1280 Blue Hills Avenue

Bloomfield, CT 06002 (203) 242-4242

MICRO-TRAK CORPORATION

620 Race St.

Holyoke, MA 01040 (413) 536-3551

Sales Contact: W. Stacy, Pres.

MICROTRAN COMPANY INC.

145 E. Mineola Avenue

P.O. Box 236

Valley Strea, NY 11582 (516) 561-6050 Sales Contact: Walter Benscher, VP/Sales

MICROWAVE POWER DEVICES

330 Oser Avenue

Hauppauge, NY 11788 (516) 231-1400 Sales Contact: Richard J. Sheloff, VP Mktg.

MIDCOM INC.

2231 E. Division (817) 640-4573 (817) 461-2211

Arlington, TX 76011 Sales Contact: Mike Simpson, Owner

MIDWEST CORPORATION

Communications Systems Division

1021 W. 8th Street

(513) 651-1904 Cincinnati, OH 45203

Sales Contact: Jay Adrick, Branch Mgr.

Regional Sales Offices: MIDWEST CORPORATION

3331 NW 82nd Ave. (305) 592-5355

Miami, FL 33122 Contact: Lloyd Hicks, Sales Mgr.

MIDWEST CORPORATION 2815 Chrisman St., Suite E

Charlotte, NC 28208 (704) 399-6336

Contact: John Abrams, Sales Manager MIDWEST CORPORATION

4720B Boston Way

Lanham, MD 20801 (301) 577-4903

Contact: Ed Somerville, Branch Mgr

MIDWEST CORPORATION 1395 Air Rail Ave.

(804) 464-6256

Virginia Beach, VA 23455
Contact: Fred Wood, Sales Manager
MIDWEST CORPORATION

4410 Westerville Rd. (614) 476-2800

Columbus, OH 43229 (614 Contact: Fred Higble, Branch Manager MIDWEST CORPORATION 7500 Wall Street

Cleveland, OH 44125 Contact: Brad Nogar, Sales Mgr. MIDWEST CORPORATION (216) 447-9745

1328 Wheaton Ave.

Troy, MI 48084 (313) 689-9730

Contact: Mike Wolschen, Branch Mgr. MIDWEST CORPORATION

(317) 251-5750

MIDWEST COMPORATION
8455 keystone Crossing, Suite 101
Indianapolis, IN 46240
Contact: Steve Brant, Branch Mgr.
MIDWEST CORPORATION
1804 Cargo Court

Contact: Jerry Willingham, Branch Mgr. MIDWEST CORPORATION (502) 491-2888

2035 Regency Road Lexington, KY 40503 (606) 277-4994

Contact: Terry Hollinger, Sales Mgr.

MIDWEST CORPORATION

300 First Ave. (304) 722-2921

Nitro, WV 25143 Contact: Dave Foglesong, Sales Mgr

MIGHTY MINUTE PROGRAMS

840 Battery St.

240 BirmIngham Street

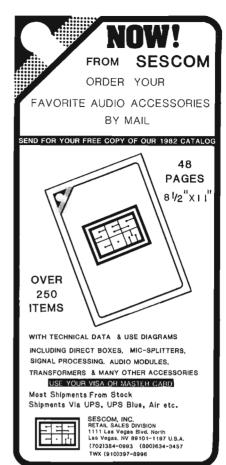
Toronto, Ontario

(415) 788-1211 San Francisco, CA 94111 Sales Contact: Andrew Meblin, Partner

Lou Hummel, Sales Mgr.

MILES ASSOCIATES, DIV. MILES AIR PRODUCTS LTD.

Continued on page 148



Circle (92) on Action Card



Transmitting Mica Capacitors



STOCK DELIVERY ON MOST RATINGS

ITT JENNINGS VACUUM CAPACITORS

SURCOM ASSOCIATES

305 Wisconsin Avenue Oceanside, California 92054 (714) 722-6162

Circle (93) on Action Card

Canada, M8V 2C8 (416) 251-1705 Sales Contact: Don W. Adams, Sales Mgr.

MILLEN COMPONENTS, DIV. OF E.I.&S.

42A Pleasant Street

Stoneham, MA 02180 (617) 438-6951 Sales Contact: William K. Crawford, VP, Mktg.

MILLER PROFESSIONAL EQUIPMENT

10816 Burbank Boulevard

North Hollywood, CA 91601 (213) 766-9451 Sales Contact: Eva Princetich, VP

P.O. Box 302

Walnut Creek, CA 94596 (415) 932-8134 Sales Contact: Peter Giddings, Mktg. Dir.

MINNEAPOLIS MAGNETICS INC.

7178 Shady Oak Road

Eden Prairie, MN 55344 (612) 944-7660 Sales Contact: Ron Floding, Dir. of Oper.

MISAR INDUSTRIES

1477 E. Warner Avenue

Santa Ana, CA 92705 (714) 540-2477 Sales Contact: Dennis Christensen, VP-Mktg.

MOBILE VISUAL PRODUCTIONS

5251 Lampson Ave.

Garden Grove, CA 92645 (714) 894-3133 Sales Contact: Matthew Williams, Prod./Dir.

MODULATION ASSOCIATES INC.

897 Independence Avenue, 3-F

Mountain View, CA 94043 (415) 962-8000 Sales Contact: J. Walter Johnson, Assoc.

MODULATION SCIENCES INC.

99 Myrtle Ave.

Brooklyn, NY 11201 (212) 625-7333

Sales Contact: Eric Small, VP

MODULAR AUDIO PRODUCTS

50 Orville Drive

Bohemia, NY 11716 (516) 567-9620

Sales Contact: J. Brick, President

MOHAWK WIRE AND CABLE CORP.

9 Mohawk Drive

Leominster, MA 01453 (617) 537-9961 Sales Contact: Wm. Kirkland, Nat. Sis. Mgr.

MONROE ELECTRONICS INC.

100 Housel Avenue

Lyndonville, NY 14098 (716) 765-2254

Sales Contact: Donald L. Pritchard, Sis. Mgr.

MOSELEY ASSOCIATES INC. 111 Castilian Drive

Goleta, CA 93117

(805) 968-9621 Sales Contact: Chuck Rockhill, Mktg. Mgr.

MOTOROLA COMMUNICATIONS AND **ELECTRONICS INC.**

1301 E. Algonquin Road

Schaumburg, IL 60196 (312) 397-1000

Sales Contact: A. Sundry, VP/Gen. Mgr. Eric A. Landan, Reg. SIs. Mgr.

MOTOROLA INC.

12441/2 Remington

Schaumburg, IL 60195 (312) 576-3591

Sales Contact: Dick Harasek,

Mgr., Special Products

MOTOROLA SEMICONDUCTOR PRODUCTS

P.O. Box 20912 M370

Phoenix, AZ 85036 (602) 244-6900

Sales Contact: Brian Hilton

MU-DEL ELECTRONICS INC.

2426 Linden Lane Silver Spring, MD 20910 (301) 587-6087

Sales Contact: I. Kuzminsky, Pres.

MULTIDYNE ELECTRONICS

P.O. Box 528

Locust Valley, NY 11560 (516) 671-7278 Sales Contact: Vincent Jachetta, Pres.

MULTIPHASE CONSULTING

4209 Lamarre Drive

Fairfax, VA 22030 (703) 273-1960 Sales Contact: H.I. Stewart, Manager

MULTIPLIER INDUSTRIES CORP.

464 South 10th Avenue

P.O. Box 29

Mount Vernon, NY 10550 (914) 699-0990 Sales Contact: Jack Lepore, Sales Mgr.

MULTITENNA CORPORATION OF AMERICA

P.O. Box 67

Valley Stream, NY 11582 (516) 997-7800 Sales Contact: D. King, Marketing Mgr.

MULTI-TRACK MAGNETICS INC.

3 Industrial Avenue Telex: 64-2718 Upper Saddle River, NJ 07458 (201) 327-9400

Sales Contact: Nancy C. Salvatore, National Sales Manager

MULTRONICS INC.

730 W. McNab Road Fort Lauderdale, FL 33309 (305) 974-0300

MUSICUES

1156 Ave. of the Americas

New York, NY 10036 (212) 921-9221

Sales Contact: Stephen Fried, Sis. Mgr.

Sales Contact: A. Rosen, Dir.

Ν

NEAS

Wilkes-Barre/Scranton Airport Avoca, PA 18641 (717) 826-1616

Sales Contact: George Eustis, Mgr.

NEC AMERICA, INC. **BROADCAST EQUIPMENT DIVISION**

130 Martin Lane

Elk Grove Village, IL 60007 (312) 640-3792 Sales Contact: Robert Curwin, Nat'l. Sales Dir.

N.O.V.A. CORPORATION

5801 Uplander Way Culver City, CA 90230 (213) 641-2046 Sales Contact: B. Seidel, President

NOVA ELECTRIC MFG. CO.

263 Hillside Ave.

Nutley, NJ 07110 (201) 661-3434

Sales Contact: K. Niovitch, Sls. Mgr.

NTP ELECTRONIK A/S

Theklavej 44

DK 2400 Copenhagen NV, Denmark

(+451) 10 1222 Sales Contact: A. Mulstrup, Expt. Mgr.

NALPAK SALES

3928 S. Sepulvgda Blvd. Culver City, CA 90230

(213) 391-8181 Sales Contact: Robert S. Kaplan, Sls. Mgr.

NADY SYSTEMS INC. 1145 65th St.

Oakland, CA 94608 (415) 652-2411

Sales Contact: Phil Maselli, Dlr. of Mktg.

NAGRA MAGNETIC RECORDERS INC.

19 West 44th St., Rm. 715 New York City, NY 11105 (212) 840-0999

Sales Contact: Dom Notto, VP Sales, GM

THE NARDA MICROWAVE CORP.

75 Commercial Street Plainview, NY 11803

(516) 349-9600

Sales Contact: J. Coppola, Sis. Mar.

NATIONAL SEMICONDUCTOR

2900 Semiconductor Drive Santa Clara, CA 95051 (408) 737-5000

NATIONAL TELECONSULTANTS

3330 Barham Blvd., Suite 201

Los Angeles, CA 90068 (213) 851-8866 Sales Contact: Charles Phelan, Mgr. Dir.

NATIONWIDE ELECTRONIC SYSTEMS INC.

1536 Brandy Parkway Streamwood, IL 60103 (312) 289-8820

Sales Contact: E. Cartwright, Sales

NAUTEL MAINE INC.

RR 1 Tantallon

Nova Scotia, Canada

B0J 3J0 (902) 823-2233 Sales Contact: D.A. Wilcox, Mgr. Sls. Div.

NEAL FERROGRAPH (USA) INC.

652 Glenbrook Road

(203) 348-1045 Stamford, CT 06906 Sales Contact: Richard Chilvers, Sales Mgr.

NEAL-FERROGRAPH

Simonside Works, South Shields,

Sales Contact: L.E. Nelson, Pres.

Tyne & Wear, NE 34 9NX, England (0632) 566321

Sales Contact: Tom Batey, Comm. Dir.

L.E. NELSON CORP. LIGHTING/FACILITY DESIGN CONSULTANTS

1209 Park Circle Las Vegas, NV 89102 (702) 384-7811

NET ENTERPRISES INC.

2715 Packard Road

Ann Arbor, MI 48104 (313) 971-0031 Sales Contact: Donald J. Frehe, VP Sls./Mktg.

NETWORK PRODUCTION MUSIC LIBRARY

4429 Morena Blvd.

San Diego, CA 92117 (714) 272-2011 Sales Contact: Robert Skomer

NEUMADE PRODUCTS CORP.

720 White Plains Rd. Scarsdale, NY 10583 (914) 725-4900

Sales Contact: R.N. Jones, VP

GEORG NEUMANN GMBH

Charlottenstr. 3

1000 Berlin 61

(030) 251 40 91 Germany

Sales Contact: Dirk Rowehl, VP Sales

NEUTRIK PRODUCTS

77 Selleck St.

Stamford, CT 06902 (203) 348-2121 Sales Contact: Peter Wellikoff, Natl. Sis. Mgr.

NEVE ELECTRONICS INTERNAT'L. LTD.

Cambridge House Melbourn

Royston Herts, England SG86AU (0) 763-60776, TLX: 81381

Sales Contact: D.A. Tilsley, Dir.

RUPERT NEVE INCORPORATED

Berkshire Industrial Park Bethel, CT 06801 (203) 744-6230 Sales Contact: Anthony H. Langley Mktg. Mgr.

NEW EARTH TELEVISION

WORKS SYSTEM, LTD. P.O. Box 1281 Santa Cruz, CA 95061 (408) 476-8336 Sales Contact: Taylor Barcroft, Publ.

NEW ENGLAND DIGITAL CORP.

Main Street

Norwich, VT 05055 (802) 649-5183 Sales Contact: Bradley Naples

NEWMAN/LUSTIG & ASSOC.

1050 North State Street Chicago, IL 60610 Sales Contact: Michael Hazard

(312) 642-5364

NEWSCAN/McINNIS-SKINNER & ASSOC.

6529 N. Classen Blvd.

Oklahoma City, OK 73116 (405) 848-4246 Sales Contact: Ron Hudson, Mktg. Dir.

NIDUS BROADCAST SYSTEMS

4010 Youngfield

(303) 422-6889 Wheat Ridge, CO 80033 Sales Contact: Bill Myers, Pres.

NORCOM MANUFACTURING

P.O. Box 804

Brainerd, MN 56401 (218) 829-9675 Sales Contact: John Thomas, Pres.

NORTH AMERICAN SOAR CORP.

1126 Cornell Avenue

(609) 488-1060

Cherry Hill, NJ 08002 Sales Contact: Bob Liska

NORTHLAND COMMUNICATIONS CORP.

P.O. Box 804

Brainerd, MN 56401 (218) 829-9675 Sales Contact: John H. Thomas, Pres.

NORTH HILLS ELECTRONICS INC.

Alexander Place

Gien Cove, NY 11542 (516) 671-5700

Sales Contact: Herb Marx, Mkt. Mgr.

NORTHLAND COMMUNICATIONS CORP.

P.O. Box 804

Brainerd, MN 56401

Sales Contact: John H. Thomas, Pres.-Sales

NORTH WIND POWER CO.

P.O. Box 550

Moretown, VT 05660 (802) 496-2955 Sales Contact: Al Russell, Sales Mgr.

NORTHWEST MONITORING SERVICE

P.O. Box 1042

Pendleton, OR 97801 (503) 276-2281

Sales Contact: J.H. Platz, Partner

NORTON ASSOCIATES INC.

10 Ditomas Ct.

Copiague, NY 11726 (516) 842-4666

Sales Contact: R.S. Norton, Pres.

NORTRONICS, RECORDER CARE DIVISION

8101 Tenth Avenue North

Minneapolis, MN 55427 (612) 545-0401 Sales Contact: Ken Lubitz, Nat'l. Sales Mgr.

FRED A. NUDD CORPORATION

1743 Route 104, Box 475

Ontario, NY 14519 (315) 524-2531 Sales Contact: Rick Nudd, V.P./G.M.

NURAD INC.

2165 Druid Park Drive

Baltimore, MD 21211 (301) 462-1700

Sales Contact: Leslie K. Lear, Dir. of Mktg.

NYTONE ELECTRONICS CORPORATION

2424 South 900 West

Salt Lake City, UT 84119 (801) 973-4090 Sales Contact: George Sansom, Salesman

0

OAK COMMUNICATIONS INC.

Satellite Systems

16935 West Bernardo Drive

(714) 485-9880 Rancho Bernardo, CA 92127 Sales Contact: E.M. Keys, Sr. VP, Adm. & Dev.

OAK COMMUNICATIONS CATV DIV.

P.O. Box 517

Crystal Lake, IL 60014 (815) 459-5000

Sales Contact: M.L. Coburn, Mgr. Corp. Comm.

OAK SATELLITE CORPORATION

16935 West Bernardo Drive

Rancho Bernardo, CA 92127 (714) 485-9880 Sales Contact: Herb McKee, Mktg. Mgr.

Satellite Systems Division

OCEAN REALM VIDEO SYSTEMS

3514 S. Dixie Hwy.

Miami, FL 33133 (305) 443-8803

Sales Contact: Richard Stewart, Pres.

O'CONNOR ENGINEERING LABS

100 Kalmus Dr. (213) 627-4057

Costa Mesa, CA 92626 (714) 979-3993 Sales Contact: Debbie Thomason, Sales

OKI ELECTRIC OVERSEAS CORP.

One University Plaza

Hackensack, NJ 07601 (201) 646-0011

Sales Contact: Jim Tate, Mgr. Imp/Exp.

OKTEL CORPORATION

490 Division Street

Campbell, CA 95008 (408) 374-1811

Sales Contact: Fred L. Bones, VP Sales

Continued on page 150



AUT©CRAM

Specialists in radio station studio control consoles

- top quality
- modular input/output flexibility for mono or stereo operation
- AC-6: six channel
- AC-8: eight channel
- IC-10: ten channel

For information, contact:

AUT@CRAM

AUTOGRAM CORPORATION MAILING ADDRESS: BOX 456, PLANO, TEXAS 75074 PLANT: 631 J PLACE, PLANO. (214) 424-8585

Circle (95) on Action Card

REBUILT POWER AMPLIFIER TUBES

- New Tube Warranty
- Guaranteed Satisfaction
- Off Shelf Delivery
- Fraction of New Price

PART	IAL LI	ST OF T	YPES:
125A	5666	6423F	7804
207	5667	6424	7805
356	5668	6425	7806
889	5669	6425F	7807
880	5671	6426	8333
889RA	5681	6427	8386
891	5682	6576	8388
891R	5770	6696	8461
892	5771	6697	8550
892R	5891	6800	8680
895	5918	6801	8752
1089	5919	6803	8795
BR1121	5936	6804	22789
BR1176	6398	6920	23185
5604	6420	7255	23431
5606	6421F	7479	23454
5619	6422	7480	4CX5000
5658	6423	7560 4	CX35000

- Duds Purchased Or Rebuilt
- Send For Quote

VACUUM TUBE INDUSTRIES

35 Pequit St., Canton, Mass. 02021 617 — 828-1650

WHERE TO BUY IT

OLESEN

1535 Ivar Avenue Hollywood, CA 90028 (213) 461-4631 Sales Contact: Marge Romans, Mktg. Dir.

ONAN CORPORATION

1400 73rd Avenue N.E. Minneapolis, MN 55432 (612) 574-5000 Sales Contact: Ken Lorch, Adm. Adv. & Prom.

ONE PASS VIDEO

900 Third Street San Francisco, CA 94107 (415) 777-5777 Sales Contact: Larry G. Kingen, Sls. & Mktg. Director

OPAMP LABS INC.

1033 North Sycamore Avenue Los Angeles, CA 90038 (213) 934-3566 Sales Contact: B. Losmandy, Mgr.

OPTEK INC.

1360 N. McCan St. Ánaheim, CA 92806 (714) 630-8280 *Sales Contact: Roger Knipp, Eng.*

OPTICAL RADIATION CORP.

1300 Optical Drive Azusa, CA 91702 (213) 969-3344 Sales Contact: Glenn Berggren, VP Mktg.

OPTICAL & TEXTILE LTD.

22-26, Victoria Road New Barnet, Herts. EN4 9PH England (01) 449-2199 Sales Contact: Geoffrey Choppell, Gen. Mgr.

OPTIMA DIVISION, SCIENTIFIC-ATLANTA

2166 Mountain Industrial Blvd. Tucker, GA 30084 (404) 939-6340 Sales Contact: Jeannie LaBour, Sis, Superv.

OPTICOM

1587 West 8th Ave. Vancouver, B.C. Can (604) 734-4511 Sales Contact: David Boyd, Pres.

ORANGE COUNTY ELECTRONICS INT'L, INC. c/o Parsound Inc.

680 Beach Street, Suite 414 San Francisco, CA 94109

(415) 673-4544

ORBAN ASSOCIATES INC.

645 Bryant St.
San Francisco, CA 94107 (415) 957-1067
Sales Contact: Jesse Maxenchs, Mktg. Mgr.
Broadcast Products

Sid Goldstein, Mktg. Mgr., Pro-Audio Products

ORROX CORPORATION (CMX SYSTEMS)

3303 Scott Blvd. Santa Clara, CA 95050 (408) 988-2000 Sales Contact: J. Behr, Dir. Marketing

ORTOFON MANUFACTURING A/S

Mosedalvej 11B DK 2500 Valby, Denmark (01) 462422 Sales Contact: Peter Haussmann, Sales Mgr.

OSRAM SALES CORP.

P.O. Box 7062 R.D. No. 3 Jeanne Dr. (914) 564-6300 Newburgh, NY 12550 (800) 431-9980 Sales Contact: Jim Malicki, Sales Mgr.

OTARI CORPORATION

2 Davis Drive Belmont, CA 94002 (415) 592-8311 Sales Contact: Michael Bernard, National Sales Manager

P

PAG FILMS LTD.

565 Kingston Road London SW20 8SA (01) 543-3131 Sales Contact: A. Lavender, Man. Dir.

PTS ELECTRONICS

5233 S. Hwy 37 P.O. Box 272 Bloomington, IN 47402

Bloomington, IN 47402 (812) 824-9331 Sales Contact: J.A. Hamilton, Sales Mgr.

PWH ELECTRONICS LIMITED

P.O. Box 435 Station E Toronto, Ontario Canada M6H 4E3

(416) 533-6331

Sales Contact: Paul W. Hunter, Pres.

PACE INTERNATIONAL CORP.

3727 S. Robertson Blvd. Culver City, CA 90230 U.S.A. (213) 839-1188 Sales Contact: Robert Kreiman, Pres.

PACE INC.

9893 Brewers Ct. Laurel, MD 20810 (301) 490-9860 Sales Contact: Al Rosenthal, Mktg. Mgr.

PACIFIC COAST MARKETING

20 S. Santa Cruz Ave., Sulte 309 Los Gatos, CA 95030 (408) 395-7021 Sales Contact: Larry Maguire

PACIFIC RECORDERS & ENGINEERING CORP.

11100 Roselle St. San Diego, CA 92121 (714) 453-3255 Sales Contact: Michael Uhl, Sales Rep.

PACKAGED LIGHTING SYSTEMS, INC.

Grant Street - P.O. Box 285 Walden, NY 12586 (914) 778-3515 Sales Contact: Lillian Hilzen, President

PALADIN CORPORATION

31332 Via Colinas, Suite 106 Westlake Village, CA 91362 (213) 991-4970 Sales Contact: Ronald J. Vogel, V.P. Sales

W.A. PALMER FILMS, INC.

611 Howard Street San Francisco, CA 94105 (415) 986-5961 Sales Contact: John Corso, Gen. Mgr.

PÁN CANADA MAGNETICS LIMITED

1072 Rangeview Road
Port Credit, Ont.
Canada L5E 1H3 (416) 278-9851
Sales Contact: John Williams, Sales Mgr.

PANASONIC CANADA— VIDEO SYSTEMS DEPARTMENT

5770 Ambler Drive Mississauga, Ontario L4W 2T3 (416) 624-5010 Sales Contact: Robert Qualle, Asst. Mgr.

PANASONIC, VIDEO SYSTEMS DIVISIÓN

One Panasonic Way Secaucus, NJ 07094 (201) 348-7000 Sales Contact: M. Washington, Nat. Sls. Mgr.

PANASONIC COMPANY, PROFESSIONAL AUDIO DIV.

50 Meadowland Parkway Secaucus, NJ 07095 (201) 348-7470 Sales Contact: Paul Ackel, Sales Eng. Mgr.

PANOAK B-W LIGHTING SYSTEMS

7610 East 46th Street P.O. Box 45162 Tulsa, OK 74145 USA (918) 664-1111 Sales Contact: L.S. Bostic, Gen. Mgr.

BROADCAST COMMUNICATIONS/JUNE 1982

PARASOUND INC.

680 Beach St., Suite 414 San Francisco, CA 94109

(415) 673-4544

PARSONS MFG. CORP.

1055 O'Brien Dr.

Menlo Park, CA 94025 (415) 324-4726

Sales Contact: C.E. Plummer, V.P.

PASO SOUND PRODUCTS INC.

14 First Street

Pelham, NY 10803 (914) 738-4800

Sales Contact: Paul Mastrangelo, VP

PATRICK COMPUTER SYSTEMS INC.

11 Plymouth

Winnipeg, Manitoba, Canada

Sales Contact: Bob Sutherland, President

PAULMAR INC.

3316 Commercial Avenue

Northbrook, IL 60062

(312) 498-1020 Sales Contact: Robert Menary, Pres.

PEERLESS SALES COMPANY

1950 Hawthorne Ave

Melrose Park, IL 60160 (312) 865-8870

Sales Contact: Walter Karus, Mgr. Cust. Serv.

PENNBETH MARKETING INC.

906 Grand Avé., Suite 730

Kansas City, MO 64106 (816) 474-3555

Sales Contact: J.W. Kilker III, Pres.

PENTAGON INDUSTRIES INC.

4751 N. Olcott

Chicago, IL 60656 (312) 867-9200

Sales Contact: H. Sheaffer, Dir. of Sales

PERFECTONE PRODUCTS S.A.

Ringstrasse 3, Portmoos

2560 Nidau

Bienne, Switzerland

Sales Contact: Ms. M. Beuchat

THE PERF-FIX COMPANY

12381 Wilshire Blvd., Suite 203

Los Angeles, CA 90025 (213) 820-5827

Sales Contact: Diane Stanfield, Pres.

PERMAFILM INTERNATIONAL CORP.

305 East 46th Street

New York, NY 10017 (212) 755-1121

PERMA POWER ELECTRONICS INC.

5615 West Howard Avenue

Chicago, IL 60648 (312) 647-9414

Sales Contact: Norman A. Ackerman, VP Mktg.

PERROTT ENGINEERING LABS INC.

7201 Lee Highway

Falls Church, VA 22046 (703) 532-0700/528-5861 Sales Contact: William D. Mallon, VP/Sales

PHASE VIDEO INC.

12 South Main Street

(413) 268-7952 Haydenville, MA

Sales Contact: Tony Vecchione

Joel Ratmansky

PHASECOM CORPORATION

6365 Arizona Circle

Los Angeles, CA 90045 (213) 641-3501

Sales Contact: William A. Lasky, Sales Mgr.

PHELPS DODGE COMMUNICATIONS CO.

Rte. 79

Marlboro, NJ 07746 (201) 462-1880

Sales Contact: Saul Esocoff, Mgr. Spec. Prod.

PHILADELPHIA RESINS CORPORATION

20 Commerce Drive

Montgomeryville, PA 18936 (215) 855-8450

Sales Contact: Rosely N. Stronski, Sales Adm.

PHILIPS BROADCAST GROUP

900 Corporate Dr.

Mahwah, NJ 07430

Sales Contact: Warren Anderson

(See listing for Central Dynamics Corporation)

PHILIPS TEST & MEASURING INSTRUMENTS

85 McKee Drive

Mahwah, NJ 07430

(800) 631-7172

Sales Contact: Hans Toorens, Prod. Mgr.

PHOTO RESEARCH DIVISION KOLLMORGEN CORPORATION

3000 N. Hollywood Way

Burbank, CA 91505 (213) 843-6100

Sales Contact: Mrs. M.L. Woolsey, Sales Mgr.

PICLEAR INC.

180 East Prospect Avenue

Mamaroneck, NY 10543 (914) 698-0258

Sales Contact: Richard Sassenberg, Pres.

PINZONE COMMUNICATIONS PROD. INC.

10142 Fairmount Road

Newbury, OH 44065 (304) 296-4493 Sales Contact: Basil F. Pinzone, Jr., Pres.

PIRELLI CABLE CORP.

Special Cable Division P.O. Box 50

2 Tower Drive

Wallingford, CT 06492 (203) 265-7126

Sales Contact: Arthur J. Harvey, Sales Rep.

PLASTIC REEL CORP. OF AMERICA

46 Passaic St.

Wood Ridge, NJ 07075 (201) 933-9125

Sales Contact: Pat Baccarella, V.P.

HANS H. PLISCH

D-6806 Viernheim

Grosser Stellweg 13

06204/2031 West Germany

Sales Contact: Mr. Dresel, Sales Mgr.

POLYLINE CORP.

1233 Rand Road

Des Plaines, IL 60016 (312) 298-5300

Sales Contact: Ray Kaiser, Sls. Mgr.

PORTABLE ENERGY PRODUCTS

1875 So. Pearl St.

Denver, CO 80210 (303) 778-8616 Sales Contact: Dean Schneider, Pres.

PORTAC INC.

108 Aero Camino

(805) 968-2120 Goleta, CA 93117

967-2170

Sales Contact: B.E. Hooper, Pres.

PORTA-PATTERN TELECOMMUNICATIONS INDUSTRIES LTD.

P.O. Box 945

6822 Santa Monica Blvd.

Los Angeles, CA 90038 (213) 461-3561

Sales Contact: Ed Ries, Pres.

PORTATRONICS

2329 Verna Court

San Leandro, CA 94577 (415) 483-6862 Sales Contact: Charlie Brown, Sales Mgr.

POTOMAC INSTRUMENTS INC.

932 Philadelphia Ave.

Silver Spring, MD 20910 (301) 589-2662

Sales Contact: David G. Harry, VP/Mktg.

POTOMAC MARINE & AVIATION INC. **ELECTRONICS DIVISION**

1400 North Uhle Street Arlington, VA 22201

(703) 525-2626

Sales Contact: R. Barnack, Pres. Continued on page 152



Circle (97) on Action Card



Circle (98) on Action Card

POWER OPTICS INC.

1055 W. Germantown Pike Fairview VIIIage, PA 19409 Sales Contact: Larry Green

POWER PRODUCTS

Div. of Computer Products Inc.

2801 Gateway Drive

Pompano Beach, FL 33060 (305) 974-2442 Sales Contact: Gene Zuch, Dir. Mktg.

PRECISION/ECHO SCIENCE CORP.

485 E. Middlefield Rd.

Mountain View, CA 94086 (415) 961-7145 Sales Contact: Donna Wotton, Mktg. Adm.

PRINTER TERMINAL COMM. CORP.

124 Tenth Street P.O. Box 535

Ramona, CA 92065

(714) 789-5200 Sales Contact: Daniel L. GIllum, President

PRO-BEL LTD.

Acre Road,

Reading

Berks RG2 OPR UK 0734-866123 Sales Contact: Derek Owen, Dir.

PROCART

7012 27th St. W.

Tacoma, WA 98466 (206) 565-4546 Sales Contact: Tim Schwieger, Sls. Supervisor

PROCESSING PLUS

59 Brookside Road

P.O. Box 3303

Wescosville, PA 18106

(215) 398-3377 (800) 523-9396

Sales Contact: David Van Allen, Pres.

PRODELIN INC.

Box 131

Hightstown, NY 08520 (609) 448-2800 Sales Contact: Derek Munnery, Sls. Mgr.

PROFESSIONAL ELECTRONICS CO. INC.

1594 State St.

Woodlawn Plaza

Schenectady, NY 12304 (518) 374-1515

Sales Contact: Jerry Kolins, Pres.

PROTECH AUDIO CORPORATION

Flowerfield, Bldg. No. 1

St. James, NY 11780 (516) 584-5855

PULSE TECHNIQUES INC. 151 West Clinton Avenue

Bergenfield, NJ 07621 (201) 385-1232

Sales Contact: E.R. Shenk, Sls. Mgr.

PYE TVT LIMITED

P.O. Box 41 Coldhams Lane

Cambridge, UK CB13JU

(0223) 45115 Telex: 81103

PYRAMID INDUSTRIES INC.

P.O. Box 23169

Phoenix, AZ 85063 (602) 269-6431

Sales Contact: Paul Rhodes, V.P.

PYRAMID LOUDSPEAKER CORP.

P.O. Box 192 Flushing, NY 11352

(212) 762-1300

Sales Contact: R. Sequerra, President

Q

QEI CORPORATION

Route 73 Kresson, NJ 08053 (609) 767-8052

Sales Contact: Bill Hoelzel, VP/Mktg.

33 West 60th St.

New York, NY 10023 (212) 765-4200

Sales Contact: George Andros, V.P.

QSC AUDIO PRODUCTS INC.

1926 Placentia Avenue

Costa Mesa, CA 92627 (714) 645-2540

Sales Contact: Barry Andrews, Pres.

QSI SYSTEMS INC.

12 Linscott Road

Woburn, MA 01888 (617) 938-1403

Sales Contact: Alfred J. Smilgls, Pres.

QUAD-EIGHT ELECTRONICS

11929 Vose St.

(213) 764-1516 No. Hollywood, CA 91605

Sales Contact: Bill Windsor, VP

QUANTA CORPORATION

2440 South Progress Drive Salt Lake City, UT 84119 (801) 974-0992

Sales Contact: Roy Romijn, VP

QUANTEL LIMITED

Kenley House, Kenley Lane

Kenley, Surrey CR2 5YR (01) 668-4151 England

Contact: M.J. Maidens, Int. Mktg. Mgr.

QUANTUM AUDIO LABS INC.

1905 Riverside Drive

Glendale, CA 91201 (213) 841-0970

Sales Contact: Andrew C. Thompson, Sls. Mgr.

an 60 an

QUICK-SET INC.

3650 Woodhead Drive

Northbrook, IL 60062 (312) 498-0700 Sales Contact: John Andre, Sis. Mgr.

R-COLUMBIA PRODUCTS CO. INC.

2008 St. Johns Ave.

Highland Pk., IL 60035 (312) 432-7915

Sales Contact: I. Rozak, Pres.

R.A.V.E./RELIABLE AUDIO VIDEO **ENTERPRISES**

71 Glenn Way, Suite No. 6

Belmont, CA 94002 (415) 595-3750

Sales Contact: Rhode Roberts

RCA BROADCAST SYSTEMS

Front & Cooper Streets

Camden, NJ 08102 (609) 338-3000

RCA DISTRIBUTOR & SPECIAL PRODUCTS DIVISION

2000 Clements Bridge Road

Deptford, NJ 08096 (609) 541-3636

Sales Contact: H.L. Craton, Div. VP/Sales

RCA ELECTRO-OPTIC DEVICES

New Holland Avenue

Lancaster, PA 17604 (717) 397-7661

Sales Contact: W. Dennen, Dir. Public Affairs

RCA SERVICE COMPANY

Bldg. 204-2 Broadcast Service

Rt. 38 Cherry Hill, NJ 08358 (609) 338-5924

Sales Contact: Edw. B. Campbell, Mktg. Mgr.

RE:DB COMPANY

A Div. of PIERCE INDUSTRIES INC.

3120 East Pico Blvd.

(213) 264-7855 Los Angeles, CA 90023

Sales Contact: Mickey Epstein, Mktg. Mgr.

R. E. INSTRUMENTS

31029 Center Ridge Road

Westlake, OH 44145 (216) 871-7617

Sales Contact: Bruce Gravens, Sis. Mgr.

RF TECHNOLOGY INC.

145 Woodward Ave. S. Norwalk, CT 06854 (203) 866-4283

Sales Contact: James A. Smith, Dir. of Mktg.

Carol A. Knox, Marketing Coor.

RHG ELECTRONICS LABORATORY INC.

161 E. Industry Ct. Deer Park, NY 11729 (516) 242-1100

Sales Contact: Sls. Department

RKO TAPE CORP.

3 Fairfield Crescent

West Caldwell, NJ 07006 (201) 575-8484

Sales Contact: Stan Bauer, VP/Mktg.&Sls.

RMS ELECTRONICS INC.

50 Antin Place

Bronx, NY 10462 (212) 892-6700 Sales Contact: Seymour Goldberg, Nat. S. Mgr.

RTS SYSTEMS INC.

1100 West Chestnut Street Burbank, CA 91506 (213) 843-7022

Sales Contact: Bob Tourkow, Sales

RACAL-DECCA CANADA INC.

71 Selby Road

(416) 457-8720

INSULATORS DIVISION

Brampton, Ontario Sales Contact: P.H.J. Warr, Sales/Mktg.

When accuracy Counts...Count on Belar for AM/FM/TV MONITORS





BELAR CALL ARNO MEYER (215) 687-5550 ELECTRONICS LABORATORY, INC.

LANCASTER AVENUE AT DORSET, DEVON, PA. 19333 • BOX B26 • (215) 687-5550

Circle (99) on Action Card

BACK TECHNIQUES CORP

904 Westwood

Addision, IL 60510 (312) 628-0870 Sales Contact: James B. Michaelsen, Pres.

RADIO COMPUTING SERVICES INC.

2 Dean Drive

Tenafly, NJ 07670 (201) 567-3263 Sales Contact: Andrew Economos, Pres.

RADIO DATA SYSTEMS INC.

669 North 10th West

Centerville, UT (801) 298-3322 Sales Contact: Miller R. (Mo) Gardner, Pres.

RADIOMETER ELECTRONICS

811 Sharon Drive

Westlake, OH 44145 (216) 871-7617 Sales Contact: Jerold Bush, V.P. / Gen. Mgr.

RADIO SYSTEMS INC.

5131 West Chester Pike

Edgemont, PA 19028 (215) 356-4700 Sales Contact: Daniel Braverman, Pres.

RADIOTECHNIQUES

402 Tenth Avenue Haddon Heights, NJ 08035 (609) 546-1841

Sales Contact: Ed Schober, Pres.

RADMAR INC.

1282 Old Skokie Road

Highland Park, IL 60035 (312) 831-9000 Sales Contact: John Holliday, V.P. / Mktg.

RAINBO PRODUCTS

404 N. River

Ypsilanti, MI 48197 (313) 482-6591

Sales Contact: Stefan Graf, Pres.

RAMKO RESEARCH

11355 A Folsom Blvd.

Rancho Cordova, CA 95670 (916) 635-3600

Sales Contact: Ray Kohfeld, Pres.

RANGERTONE RESEARCH INC.

509 Madison Ave.

New York, NY 10022 (212) 753-5430

115 Roosevelt Ave. Belleville, NJ 07102 (201) 751-6833 Sales Contact: George P. Zazzali, Pres.

RANK CINTEL LTD.

Watton Rd.

Ware, Hertfordshire, UK SG12 OAE (0920) 3939 Sales Contact: Alan McIlwaine, Mktg. Mgr.

RANK PRECISION INDUSTRIES INC.

260 N. Route 303

West Nyack, NY 10994 (914) 353-1914

RANK TAYLOR HOBSON

P.O. Box 36 Guthlaxton Street

Leicester, U.K. LE2 OSP

Sales Contact: B. H. Newman Sales Manager

RAVEN SCREEN CORP.

124 East 124th Street

New York, NY 10035 (212) 534-8408-8409 Sales Contact: Fred Rose, President

REAL RADIO COMPANY

127 Glen Summer Road

Pasadena, CA 91105 (213) 795-4900

Sales Contact: John Price, Pres.

REAL WORLD TECHNOLOGIES GROUP

2714 W. Keller

Suite 1

Santa Ana, CA 92704 (714) 957-1061

Sales Contact: Ray Terrill

RECORDER CARE, Div. of Nortronics

8175 Lewis Rd.

Minneapolis, MN 55427 (612) 545-0401 Sales Contact: Ken Lubitz, Nat'l. Sls. Mgr.

RECORDING SUPPLY CO.

1233 Rand Road

Des Plaines, IL 60016

(312) 297-0955

Contact: Tom Franke

RECORTEC INC.

475 Ellis Street

Mountain View, CA 94043 (415) 962-0220

Sales Contact: Sidney B. McCollum,

National Sales Manager

REDDING RADIO

A Division of SJ Industries, Inc.

Box 344

Fairfield, CT 06430

(914) 561-4769

Sales Contact: S. Deale, Dir. of Sls.

REES ASSOCIATES INC.

4200 Perimeter Center Drive, S. 245

(405) 946-9800 Oklahoma City, OK 73112

Sales Contact: Harry Munyon, Sr. Assoc.

REGENCY ELECTRONICS

7707 Records St

Indianapolis, IN 46226 (317) 545-4281

Sales Contact: Roger Praimi, Nat. Sis. Mgr.

Continued on page 154

4 Models – 8 and 10 mixer dual stereo with rotary or linear faders • Transformer Balanced Inputs and Outputs • 3 Inputs Per Mixer – internal pads allows mic/line selection on the same mixer • Two 4-Input Auxiliary Input Selectors - may be assigned to any mixer • Pre-fader Pushbutton Cue - in addition to normal CCW fader cue position • LED Status Indicators - color coded to aid in instant identification of function selectors • Momentary or Continuous Remote Control Contacts internally selectable, also controls optional digital timer reset/start • Full Metering Capability – two meters standard, up to four meters and/or digital clocks and timers optionally available, all meters provided with LED peak indicators • Gain Selectable Microphone Preamps - provided with center tap access for phantom condenser microphone power, processor input/output port with buffer amplifier for outboard

compressors, limiters, etc. • Programmable Muting Logic - internal pinprogrammed matrix allows any selection of monitor and cue muting for the first five mixer positions • Pushbutton Aural

Phase Test • Announcer's Microphone Intercom-Air Selector • Full

Dual Channel Operation - independent program and audition assignment pushbuttons • Five Monitor Driver Outputs - four muted, one non-muted • All Mixers Switch-Selectable to Mono or Stereo • Ground-Plane Techniques Used Throughout for Increased RF Immunity • Selectable Internal or External Master Level Controls • Accessories and Options – mono mixdown, high impedance (cassette) line input plug-ins, reference oscillator/line input plug-in, additional microphone input plug-ins, digital clock, digital timer, linear faders.

CITATION series Everything you want in an audio console

LPB Inc. • 28 Bacton Hill Road • Frazer, PA 19355 • (215) 644-1123 Manufacturers and Distributors of Broadcast Equipment since 1960

© 1981 LPB Inc.

RELIANCE PLASTICS & PACKAGING DIV.

225 Belleville Ave

Bloomfield, NJ 07003 (201) 748-2222

Sales Contact: Marion Burleigh, Sales Mar.

RESEARCH SYSTEMS TECHNOLOGY INC.

33447 Kelly Road

Fraser, MI 48026 (313) 296-1540

RESEARCH TECHNOLOGY INTERNATIONAL

4700 Chase Ave. (800) 323-7520 Lincolnwood, IL 60646 (312) 677-3000

Sales Contact: Tom Boyle, Nat'l. Sis. Mgr.

REX RHEOSTAT & CO. INC.

149 Babylon Turnpike Roosevelt, NY 11575 (516) 379-1030

Sales Contact: Richard W. Wolpert, Sls. Mgr.

REYNOLDS/LETERON CO.

6704 Valjean Ave. Van Nuys, CA 91406

(213) 994-1194 Sales Contact: R. Plowman, Nat'l. Sales Mgr.

RICHMOND SOUND DESIGN LTD.

1234 W. 6th Ave.

Vancouver, B.C. V6H 1A5 (604) 734-1217 Sales Contact: C.B. Richmond, Pres.

RIGGINS ELECTRONIC SALES

3272 E. Willow

Long Beach, CA 90806 (213) 598-7007

Sales Contact: George Riggins, Owner

RIPLEY CO. INC.

46 Nooks Hill Road

Cromwell, CT 06416 (203) 635-2200

Sales Contact: Robert Clark, Sales Mgr.

RIVERS ASSOCIATES INC.

47 Berry St. Extension

Fitchburg, MA 01420 (617) 342-8965 Sales Contact: Norman L. Rivers, Pres.

RODELCO ELECTRONICS CORP.

356 A Comac Rd. Deer Park, NY 11729 (516) 643-5110

Sales Contact: J. Rodgers, Gen. Mgr.

ROH CORPORATION

3603 Clearview Place Atlanta, GA 30340 (404) 455-7940

Sales Contact: Jerry Levy, Mktg. Mgr.

C.N. ROOD B.V..

BROADCASTING EQUIPMENT DIV.

P.O. Box 42

2280 AA Rijswijk ZH

The Netherlands (070) 99 63 60

Sales Contact: M.N.J. Moors, Pres.

ROSNER TELEVISION SYSTEMS INC.

250 West 57 Street

New York, NY 10107 (212) 246-2850

Sales Contact: C. Klehne, Sales Mgr.

WHERE TO FIND IT

GENERAL INDEX, Pages 38-45

WHO MAKES IT

PRODUCT DIRECTORY, Pages 46-113

WHERE TO BUY IT

MANUFACTURERS, Pages 114-162 DEALERS/DISTRIBUTORS, Pages 168-189 **ROSS VIDEO LIMITED**

9 Plaza Drive Iroquois, Ontario

Canada K0E 1K0 (613) 652-4889

Sales Contact: Jim Millard, Mktg. Coor.

ROHDE & SCHWARZ

14 Gloria Lane Fairfield, NJ 07006 (201) 575-0750

Regional Sales Offices PROGRESSIVE MARKETING

Fullergon, CA 92635 (714) 879-7940

Contact: Len Dozler, Pres. G.P. ENTERPRISES

Arlington, TX 76014
Contact: Gordon Peters, Pres. (814) 467-0051

PUS, INC. (617) 254-2101

Boston, MA 02135 Contact: Sterglo Marino, Pres. RADFORD ASSOC.

Atlanta, GA 30319

Contact: Lew Radford, Pres.

DELCOM CORP.

St. Louis, MO 63141

(314) 432-1164

(404) 237-6097

ROHDE & SCHWARZ GMBH & CO. KG

P.O.B. 80 14 69

D-8000 Munich 80

Federal Republic of Germany (089) 41 29-1

Sales Contact: R. Goebel

Regional Sales Offices: OTON R. KLEIN S.A.

362-7770, 7806, 7357 Carlos Calvo 225/29 pioneer-balres (1102 Buenos Aires) 18 739

P.O.B. 568 1000 Capital Federal (klein ar) JACOBY MITCHELL PTY. LTD. 267-2622

18-26 Commonwealth St. Sydney, N.S.W. 2000 acobsydney aa 26372

RHODE & SCHWARZ-TEKTRONIX GmbH 626141 Sonnleithnergasse 20-24 A-1100 Wien

133933 (rus a) BUSINESS INTERNATIONAL 257555, 257121 146/A, New Bally Rd. P.O. B 727 sony

760 (sms dac) Dacca-2 ELECTRONIQUE GENERALE S.P.R.L. 7352193

Rue des Aduatiques, 71-75 roelectron B-1040 Bruxelles 232 SISTEMAS ELECTRONICOS HOEHNE LTDA. 23241 b

Calle Teniente Oquendo 141

Casilla 5075

La Paz HOOS MAQUINAS MOTORES S.A. Rua Paula Souza 79-4 and. 228-2566 magulmotor

(01027 Sao Paulo) Caixa Postal 7500 01000-Sao Paulo 1122260 (hoos br) 665784

SERVICE STATION: V.M.E.I. LENIN Kw. Dervenitsa BI.II, Et.V, Room 2534 1156-Sofia 22576 **RUSINT ELECTRONICS & SALES**

829-3944 Canada Ltd. 25 D, Northside Rd. 053-3662 Nepean/Ottawa K2H 8S1 ORBIS OY 538 066

P.O.B. 15 orbls (SF-00421 Helsinki 42) 123 134 (orbis sf) Kalannintie 52 SF-00420 Helsinki-42

RHODE & SCHWARZ France 6872506 45/46, Place de la Loire ruselec 204477 (ruselec f) Sille 190 F-94563 Rungis Cedex AVELEY ELECTRIC LTD. 3978771

Roebuck Rd. avel london Chessington, Surrey KT9 1LP E. NASSOS, 928479 3613047 (a.m.) Engineering Comp. 3625500 (p.m.) 68, E. Benaki St. nasseo 219340 (stec gr)

SCHMIDT & CO., (H.K.) Ltd. 28th Floor Wing on Centre 5-455644 schmidtco Hongkong 74766 (schmc nx)

R&S-Service/Station: FOTO-OPTIKA 173841 Visegradl u. 60 226019

H-1132 Budapest MAGNUS THORGEIRSSON H.F. 15054, 13725 Borgartun 20 pfaff IS-121 Reykjavik 2068 (pfaff is) TOSHNIWAL BROS.: PVT. LTD. 221565. 3E/8, Jhandewalan Extension 523597 New Delhi-110055 vigyantre 31-2886 (tbpl in) J. MCKEEVER & COMP. LTD. 681604, 681582

Canal House — Northumberland Rd. ROJE TELECOMMUNICAZIONI, S.p.A.

Via Sant' Anatalone 15 4154141,-3 I-20147 Milano rojetel

332202 (roje i) 431-8485 DIPL-ING, ADOLF ZIHLER ome 11 — 9 5622150 (zihler j) Okamoto 5 chome

(Kobe 658) Port, P.O.B. 586

Kobe 651-01 ENGINEERING & SALES CO. LTD. 26815, 26386 Moi Ave., Bank House P.O.B. 46658, 30349 engsales 22030 (nairobi)

Nairobl MYASA.

Maguinaria y Accesorios, S.A. 5162512 Alfonso Reyes 15 1774217 (myasame) Mexico-11 D.F. 1774217 RHODE & SCHWARZ Nederland B.V.

Postbus 233 (3600 AE Maarssen) Maarssenbroksedlik 6A 60324

NL-3606 AN Maarssen 70339 (rsned nl) ELEKON (OVERSEAS) LTD. 760019 7—9 Kirk St. elkonlit P.O.B. 5146 Auckland-2 2910 (elekon nz)

MORGENSTIERNE & CO. A/S 356110 Konghellegate 3 P.B. 6688 Rodelokka morof 11719 N-1010 IMPORTADORA JANSSEN Y CIA, LTDA. Oslo-5

Moneda 1160-9 721776, 723956 oroco 94489 (oroco ku) Cusilla 13570, Correo 21 Santiago de Chill HANSEATICA CIA. LTDA, Calle 15 No. 68D-78 2624207 2601291

Ap. Aereo 14467 hanseatica Bogota D.E. 1 CHRIS RADIOVISION LTD. 044-790 (hans-co) 66 121 23 Crete Str. radovision P.O.B. 1989 2395 (radovision)

Nicosia R&S SERVICE:ZENIT 4142461, 68, 74 Kirova As. P.O.B. 88 26 122781 CS-15000 Praha 5

SERVICE STATION: KSNP-OTPV 549233 Kancelsarske Stroje, n.p. Radlicka 2 121988

CS-15046 Praha 5 - Smichov TAGE OLSEN A/S 658111 Ballerup BYVEJ222 topocen DK-2750 Ballerup 35293 (toas dk) SUMINISTROS TECNICOS LTDA. 396-002,395-670

Quisquis y Tulcan 1511 P.O.B. 4492 sumitec 3083361 pbcgye ed Guayaquil (para sumitec)
GENERAL INDUSTRIAL & COMM. PVT. LTD. CO.

Ras Desta Damtew Ave., 41400, 41280 Kidane Beyene Bldg. P.O.B. 2240 glcomco 21192 (gic addis)

Addis At TELEC ELECTRONICS & MACHINERY LTD. 415, Mahboob Chambers, 512648

Abdullah Haroon Rd. P.O.B, 7430 514894 3lco 2690 (elco pk) Saddar-Karachi-0301 ESTEMAC PERUANA S.A. Avda. Petit Thousars 4620 455530, 456597 estemac 25385 (pu)

Casilla Correo 224 Lima-18 (Miraflores) R&S-Service-THM EXIMPOL S.A. 74901 ul. Stawkl 2, pietro 28 PL-00-950 Warszawa SERVICE STATION: INCO 814640

674081 ul. Tarnogajska 11/13 PL-50-950 Wroclaw SOC. COM. MATTOS TAVARES LDA. 0712357 614880-82

R. Gregorio Lopes Lote 1513-1 (Restelo) ustamante 12220 (matali p) P-1400 Lisboa

Apartado 2171 P-1104 Lisboa Codex R&S-SERVICE/STATION: I.C.E.

333583 Calea Floreasca Nr. 169 R-72321 Bucuresti-2 ASSOC. TECHN. SERVICES (PTE.) LTD. 10076 913722 5th Floor, Maritime Bldg. ateas

Collyer Quay 21297 (patspor rs) Singapore-1

S.A. ELECTRO-MEDICAL (PTY.) LTD. 21-7431 Stand Gen. House, 10th Floor 215 Proes Street (Pretoria 0002) saelmed P.O.B. 1784 (5) 3-0756 Pretoria 0001 REMA LEO HAAG S.A. 4423900 Jose Abascal 18 rema 42838 (rema e) Madrid-3 TELEINSTRUMENT AB 380370 Maltesholmsvagen 138 Box 490 11347 S-16204 Vallingby ROSCHI TELECOMMUNICATION AG. 442711 Giacomettistrasse 15/III P.O.B. 63 CH-3000 Bern-31 32137 (ch) B. GRIMM & CO. R.O.P. 2524081 1643/4, New Phetburl Rd. G.P.O.B. 66 thaigrimm 2614 Bangkok ELECTRONIK SERVIS VE (thaigrim th) 441546 Muhendislik Koll. Stl. 447651 Necatibey Caddesi No. 90/II rapid 23353 (mse tr) Karakov-istanbul ROHDE & SCHWARZ 575-0750 Sales Co., Inc. 14 Gloria Lane rohdeschwarzusa 133310 Fairfield, New Jersey 07006 516271, 516317, 516159 Equilab C.A. 516 Edificio Titania-4 Piso, Entr. C equilab Plaza la Estrella - San Bernardino 21860 Apdo. 60497 (equix) Caracas 106 R&S-SERVICE/STATION 11-602858 Nacional Goce Delceva 44 Y-11070 Novi Beograd 12940

ROLL-A-REEL CO.
7881 Reading Rd.
P.O. Box 37381
Cincinnatl, OH 45222
Sales Contact: Sales Dept.
(513) 761-8500

K.L. RUBEL AND ASSOC. LTD.
5221 N. Elston Ave.
Chicago, IL 60630 (312) 545-2544
Sales Contact: Kenneth Rubel, Pres.

RUSLANG CORP. 320 Dewey Street Bridgeport, CT 06605 (203) 384-1266

Sales Contact: Frank Ruskay, President

RUSSCO ELECTRONICS MFG. INC.

5690 E. Shields Ave. Fresno, CA 93727 (209) 291-5591 Sales Contact: Barbara Gaudin, Sales Mgr.

RYCOM INSTRUMENTS INC. 9351 East 59th St. Raytown, MO 64133 (816) 353-2100 Sales Contact: C.L. Jasper, Mktg. Mgr.

S

SAE 701 E. Macy St. Los Angeles, CA 90012 (213) 489-7600 Sales Contact: Warren Pompei, V.P. Sales

SAIT ELECTRONICS
Chaussee De Ruisbroek 66
B · 1190 Bruxelles
(Belgique) 32 2 376 20 30
Sales Contact: J. Ryckmans
B. de Laminne

SED SYSTEMS INC.

SATELLITE COMMUNICATIONS GROUP
P.O. Box 1464
Saskatoon, Sask S7K 3P7 (306) 664-1825
Sales Contact: Neta Howard, Mktg. Assist.

SFENA CORPORATION
2617 Aviation Pkwy.
Grand Prairie, TX 75051 (214) 988-8000
Sales Contact: Stan Frazer, Mktg. Rep. Eng.

SGL WABER ELECTRIC 300 Harvard Avenue

Westview, NJ 08093 (609) 456-5400 Sales Contact: Carol H. Welch, Mktg. Coorp.

SSAC INC.
P.O. Box 395
Liverpool, NY 13088 (315) 622-1000
Sales Contact: R. Shutt, VP Mktg.

S.W.R. INC. P.O. Box 215 Goffstown, NH 03045 (603) 497-3000 Sales Contact: Jack L. Kruger, Pres.

SACHTLER CORP. OF AMERICA
400 Oser Avenue TELEX: 140 107
Hauppauge, NY 11788 (516) 231-0033
Sales Contact: Eric Falkenberg, Exec. VP

SACRED SOUNDS 11635 Richmond St. Riverside, CA 92505 (714) 785-4567 Sales Contact: Lee McIntyre, Owner

SADELCO INC.
75 West Forest Ave.
Englewood, NJ 07631 (201) 569-3323
Sales Contact: Thomas W. Sadel,
National Sales Manager

SAKI MAGNETICS
8650 Hayden Place TWX 910-328-6100
Culver City, CA 90230 (213) 559-6704
Sales Contact: Trevor, J. Boyer, Sales Mgr.

SANDAR ELECTRONICS
P.O. Box 132
3201 Sandefjord, Norway
SalesContact: Ingrid Evensen
033 / 67222

SATCOM INC. 1756-E Junction Avenue San Jose, CA 95112 (408) 286-6000 Sales Contact: S. Erek Jenstad, VP & Gen. Mgr.

SATCOM TECHNOLOGIES INC. 2912 Pacific Dr. Norcross, GA 30071 -- (404) 448-2116 Sales Contact: David Speed, VP

SATT ELECTRONICS AB
Box 32006
S-126 11 Stockholm

Sweden 468 81 01 00 Sales Contact: Ulf Ekendahl, Sls. Eng.

SATELLITE SYNDICATED SYSTEMS, INC. P.O. Box 45684 Tulsa, OK 74145 (918) 481-088 Sales Contact: Selman M. Kremer, VP/Sales & Mktg.

SCALA ELECTRONIC CORP. P.O. Box 4580

Medford, OR 97501 (503) 779-6500 Sales Contact: Ellis Feinstein, VP/Gen. Mgr.

SCANTEX LABORATORIES INC. 1 Westmount Square Suite 1200 Montreal Quebec

Canada H3Z 2Z7 (514) 626-8943 Sales Contact: L. Solomon, VP Mktg.

KEN SCHAFFER GROUP 10 E. 49th New York, NY 10017 (212) 371-2335 Sales Contact: Ritchie Fllegler

SCHNEIDER CORPORATION OF AMERICA 185 Willis Avenue (516) 747-5100 Mineola, NY 11501 (212) 895-3366 Sales Contact: Dave Paskin, VP

JOS. SCHNEIDER GmbH & CO. P.O. Box 947 D-6550 Bad Kreuznach Germany Federal Republic 0671 6010 Sales Contact: K. H. Heb, Sis. Mgr. Regional Sales Offices: MAGNA-TECHTRONICS (AUST.) PTY Ltd. MTA House 14 Whiting Street Artarmon N.S.W. 2064 Australia 438 3377 Telex: 24655 EVERSHED POWER OPTICS LTD. Bridge Whart Bridge Road Chertsey, Surrey KT16 8LJ United Kingdom TELEQUIP (PTY) LTD. 0044-9328-61181 P.O. Box 23587 2044 Joubert Park Johannesburg, South AFrica TELE-CINE-INC. 5434 Merrick Road Massapequa L.I. N.Y. 11758 (516) 798-2828

SCHUESSLER CASE CO. INC. P.O. Box 39066 Chicago, IL 60639 (312) 227-0027 Sales Contact: Paul H. Kreft, Pres.

Telex: 5 102246138

USA & Canada

SCIENTIFIC-ATLANTA
P.O. Box 105600
Atlanta, GA 30348
Sales Contact: John Feight,
Mgr., Mktg. Comm.

SCIENTIFIC ATLANTA PHOENIX DIV.
P.O. Box 21007
2920 E. Elwood (602) 268-8744
Phoenix, AZ 85282 (800) 528-3211
Sales Contact: D. Taylor, Dir. Mktg.
T. Kruger, Sales Eng.

SCIENTIFIC RADIO SYSTEMS
367 Orchard Street
Rochester, NY 14606 (716) 458-3733
Sales Contact: Robt. L. Phillips,
Domestic Mktg. Mgr.

SCIENTIFIC SYSTEMS INC.
92 Westwood Drive
Toms River, NJ 08753 (201) 255-2230
Sales Contact: Douglas Fink, Sales Mgr.

H.H. SCOTT INC. 20 Commerce Way Woburn, MA 01801 (617) 933-8800

SCOTT INSTRUMENT LABORATORIES
533 Main Street
Action, MA 01720 (617) 263-3263
Sales Contact: Robert W. Hayes, Sales Eng.

MICHAEL SCOTT CO. INC. P.O. Box 384 Wellesley Hills, MA 02181 (617) 235-0102 Sales Contact: Michael Scott, Pres.

WILCOX-LANGE INC. 3925 N. Pulaski Road Chicago, IL 60641 (312) 588-8380 Sales Contact: leva Kallls, Sales Mgr.

THE SCREEN WORKS LTD

L.J. SCULLY MANUFACTURING CORP. 138 Hurd Avenue Bridgeport, CT 06604 (203) 368-2332 Sales Contact: R.J. Havanec, V.P.

SEE HEAR INDUSTRIES
717 E. Actesia Blvd.
Carson, CA 90746 (213) 516-0315
Sales Contact: Ray Salobs

SELCO PRODUCTS CO.7580 Stage Rd. (213) 921-0681 *Continued on page 156*

WHERE TO BUY IT

Buena Park, CA 90621 (714) 521-8673 Sales Contact: Wm. J. Wilkinson, Gen. Mgr.

Steve Inge, Inside Sales

SELTECH 16 York Road

Maidenhead, Berkshire SL6 1SF

United Kingdom (0628) 36315-36714

SENCORE INC.

3200 Sencore Drive

Sioux Falls, SD 57107 (605) 339-0100 Sales Contact: James Smith, Nat'l. Acct. Mgr.

SENNHEISER ELECTRONIC CORP.

10 W. 37th St.

New York, NY 10018

(212) 239-0190 Sales Contact: Tony Tudisco, Nat. Sales Mgr.

SENNHEISER ELECTRONIC KG

3002 Wedemark 2

Fed. Rep. of Germany

SESCOM INC.

1111 Las Vegas Blvd. North Las Vegas, NV 89101-1197 U.S.A. (702) 384-0993

Sales Contact: Franklin J. Miller, Pres.

SETCOM CORPORATION

1400 Stierlin Road

Mountain View, CA 94043 (415) 965-8020

Sales Contact: Warren G. Wettenstein, Mktg.

SHALLCO INC.

Smithfield Industrial Park

P.O. Box 1089

Smithfield, NC 27577 (919) 934-3135

Sales Contact: M.D. Sutton, Mgr. Mkt. - Eng.

SHANE MEDIA SERVICES

7703 Windswept

Houston, TX 77063 (713) 461-9958

Sales Contact: Pam Shane

SHARP ELECTRONICS CORPORATION **Professional Products Division**

10 Sharp Plaza, P.O. Box 588

(201) 265-5548 Paramus, NJ 07652

Sales Contact: Robert Garbutt, Gen. Mgr.

Regional Sales Offices: SHARP ELECTRONICS CORPORATION

20600 South Alameda Street Carson, CA 90810

(213) 637-9488 Contact: Ron Colgan, Sis. Mgr. SHARP ELECTRONICS CORPORATION

6478 Interstate 85

Norcross, GA 30093 Contact: Jim Freeman, Sales Mgr. (404) 448-5230

SHINTRON CO. INC.

144 Rogers Street

Cambridge, MA 02142 (617) 491-8700 Sales Contact: William K, Warnke, Sales Dept.

SHIVELY LABORATORIES

11 Harrison Rd.

Bridgton, ME 04009 (207) 647-3327 Sales Contact: Charles Peabody, V.P. Manu.

SHURE BROTHERS INC.

222 Hartrey Ave.

Evanston, ÍL 60204 (312) 866-2200

Sales Contact: Glen Schrader, VP, Sales

SIEGEL ELECTRONICS

P.O. Box 33421

San Diego, CA 92103 (714) 295-4995

Sales Contact: Eric Siegel, Pres.

SIEMENS AG

St.-Martin-Str. 76

D-8000 Munchen 80

Federal Republic of Germany (089) 4133-4564 Sales Contact: Mr. Ruckerbauer, Leader of

Transmitter Dept., TV

SIEMENS AG OSTERREICH

A-1031 Vienna P.O.B. 326

Gollnergasse 15,

Australia (0222) 72 93-0 Sales Contact: Dipl. Ing. Wanda, Director

SIERRA AUDIO CORPORATION

621 So. Glenwood Place (213) 843-8115 TLX: 691138Bubk Burbank, CA

Sales Contact: Vencil Wells, Gen. Mgr.

SIGMA ELECTRONICS INC.

1830 State Street E. Petersburg, PA 17520 (717) 569-2681

Sales Contact: Kent Porter, VP Mktg.

SIGMA FILM EQUIPMENT LTD.

Churchill Industrial Estate 09063-66909

Lancing, West Sussex

United Kingdom BN15 8TZ Sales Contact: J.P. Seabourne, Dir.

SIMON ASSOCIATES

20 Sunnyside Ave., Suite B Mill Valley, CA 94941 (415) 381-0835

Sales Contact: Tim Simon, Pres.

SIMPLICITY TOOL CO.

10330 N.E. Marx Street

Portland, OR 97220 (503) 253-2000

Sales Contact: G. Berliner, Mgr.

SINGER BROADCAST PRODUCTS INC.

Box 5500

Cherry Hill, NJ 08034

(609) 424-1500

SINGER PRODUCTS CO. INC.

875 Merrick Ave.

Holbrook, NY 11590 (516) 683-3000 x602 Sales Contact: J. Bicocchi, Gen. Mgr. Broad.

SITCO ANTENNAS

10330 N.E. Marx St.

Portland, OR 97220 (503) 253-2000

Sales Contact: G. Berliner, Pres.

SKIRPAN LIGHTING SYSTEMS

1100 W. Chestnut Street

Burbank, CA 91506 (213) 843-3232

Sales Contact: Robert Slutske, Dir. Mktg.

SKOTEL CORPORATION

1445 Provencher Blvd., Suite 204 Brossard, Quebec

1Z3 Canada (514) 465-8990

Sales Contact: Stephen Scott, Pres.

SMITH-MATTINGLY PRODUCTIONS

2560 Huntington Ave., Suite 303 Alexandria, VA 22303 (703) 960-2175

Sales Contact: Jennifer Ciaccio, Dir. of Oper.

SMITH-VICTOR CORPORATION

301 North Colfax Street Griffith, IN 46319

(219) 924-6136 Sales Contact: Bruce McCullough, Sales Mgr.

SMOKE SIGNAL BROADCASTING

31336 Via Colinas

Westlake Village, CA 91362 (213) 889-9340 Sales Contact: Jim Allday, Natl, Sls. Mgr.

SOLID ELECTRONICS LABORATORIES

4-9 Fairfield Road

Havertown, PA 19083 (215) 446-4799

Sales Contact: S.J. Hemphill, Owner

SOLID STATE LOGIC LTD.

Churchfields Road Stonesfield, Oxford OX7 2PS

(44) 099 389 8282 England

Sales Contact: Bill Aitken, Sales Mgr.

SOLL INC.

401 E. 74th St.

(212) 988-0290 New York, NY 10021

Sales Contact: Joe Soll, Pres.

SONAR RADIO CORPORATION

3000 Stirling Road Hollywood, FL 33021 (305) 981-8800

Sales Contact: Bernard E, Klein, Pres.

SONDOR EXPORT AG

Dachslerenstrasse II

CH-8702 Zollikon 01 65 80 90 11/81 - 01/391 80 90 Switzerland

Sales Contact: Hans-Jurgen Schreier, Sales

SONIC RESEARCH INC.

27 Sugar Hollow Rd.

Danbury, CT 06810 (203) 792-8822

Sales Contact: Ronald E. Wilcox,

Nat. Sales & Mktg. Mgr.

SONO VIDEO INC.

2881 Le Corbusier

Chomedey, Laval

Quebec, Canada H7S 1Z4 (514) 335-0113

SONO-MAG CORPORATION

1833 W. Hovey Avenue

Normal, IL 61761 (309) 452-5313

Sales Contact: Stephen S. Sampson, Exe. VP

SONTEC ELECTRONICS

Audio Drive

Goldbond, VA 24094 (703) 626-7256

Sales Contact: Burgess Macneal, Mktg. Mgr.

SONY BROADCAST LTD.

City Wall House

Basing View, Basingstoke Hampshire RG21 2LA United Kingdom

SONY BROADCAST PRODUCTS COMPANY

9 W. 57th Street

New York, NY 10019

SORENSEN COMPANY 676 Island Pond Road

Manchester, NH 03103 (603) 668-4500

(212) 371-5800

(408) 926-3588

Sales Contact: Roy Allman, Nat. Sis. Mgr.

SOUND TECHNOLOGY INC.

1400 Dell Avenue (408) 378-6540

Campbell, CA 95008 Sales Contact: Sonny Funke, Nat'l. Sis. Mgr.

SOUNDCRAFT ELECTRONICS LTD.

5-8 Great Sutton St.

London EC1V OBX (01) 251-3631 Sales Contact: P. Dudderidge, Mktg. Dir.

SOUND DYNAMICS INC. P.O. Box 32055 San Jose, CA 95152

Sales Contact: Ron Golick, Gen. Mgr.

SOUNDSCRIBER MAGNETIC RECORDING CO. INC.

85 Willow Street

New Haven, CT 06511 (203) 624-5179

Sales Contact: Lawrence A. Acampora, G. Mgr.

THE SOUND & LIGHT CO.

1169 Tower Rd. Schaumburg, IL 60195 (312) 885-2341

Sales Contact: Jim Hildebrant, Pres.

SOUTHWESTERN PROGRAMMING SERVICE 1014 South Toltec

Mesa, AZ 85204 (602) 892-2343 Sales Contact: Jim Gaspar, Owner

SPECTRA COMPUTER SYSTEMS 391 Chipeta Way

BROADCAST COMMUNICATIONS/JUNE 1982

Salt Lake City, UT 84108 (801) 581-5478 Sales Contact: Steven Root, Pres.

SPECTRA SONICS 3750 Airport Road

Odden, UT 84403 (801) 392-7531 Sales Contact: Mr. Gregory D. Dilley, Eng. Sis.

SPECTRUM INSTRUMENTS INC.

P.O. Box 97 Hartsdale, NY 10530

(914) 428-4975 Sales Contact: J. McClean, Sales Mgr.

SPENCER BROADCAST INC.

316 E. El Camino Drive Phoenix, AZ 85020

(602) 242-2211 Sales Contact: Janene Spencer, Sls. Dir.

SPERRY MARINE SYSTEMS

630 Gaiennie St.

New Orleans, LA 70130 (504) 525-7127 Sales Contact: Doug Goff, Dist. Mar.

SPHERE ELECTRONICS INC.

20201 A. Prairie

Chatsworth, CA 91311 (213) 349-4747 Sales Contact: David Holmes, Sales Mgr.

SPINDLER & SAUPPE

13034 Saticoy Street N. Hollywood, CA 91605 (213) 764-1800 Sales Contact: Sarah Calkins, Mktg. Coord.

SPIN PHYSICS INC.

3099 Science Park Rd. San Diego, CA 92121 (714) 453-5410 Sales Contact: Wm. W. Heywood, VP, Sales

STAINLESS INC.

3rd & Montgomery Avenue North Wales, PA 19454 (215) 699-4871 Sales Contact: Jess Rodriguez, V.P. / Sis.

STANCIL CORPORATION

921 No. Highland Ave. Hollywood, CA 90038 (213) 464-7461 Sales Contact: Mike Custer, VP.

STANDARD COMMUNICATIONS CORP.

108 W. Victoria Carson, CA 90009 (213) 532-5300 Sales Contact: Mark Thomas, Dir. of Mktg.

STANDARD ELECTRIC TIME CORP.

357 Cottage St. Springfield, MA 01104

(413) 732-1141 Sales Contact: Howard Weed, SIs, Mgr.

STANDARD TAPE LABORATORY INC.

26120 Eden Landing Road, No. 5 Hayward, CA 94545 (415) 786-3546 Sales Contact: Frank G. Lennert, Pres.

STANDARD TELEPHON UND RADIO AG

Friesenberg Strasse 75 CH 8055 Zurich (01) 465-2111 Sales Contact: K. Haering, Exp. Mgr.

STANTON MAGNETICS INC.

200 Terminal Drive Plainview, NY 11803 (516) 349-0200 Sales Contact: Pete Bidwell, Prof. Sis. Mgr.

STANTRON DIV. OF WYCO METAL PROD.

6900-18 Beck Ave.

North Hollywood, CA 91605 (213) 875-0800 Sales Contact: Guy A, Tessier, VP/Sales

STAR CASE MFG. CO. INC.

15525 S. 70th Court Orland Park, IL 60462 (312) 429-6200 Sales Contact: Dennis R. Toma, Pres.

STAREX INC.

655 Schuyler Ave.

P.O. Box 248

Kearny, NJ 07032 (201) 997-1555 Sales Contact: Stanley A. Asinof, Pres.

STATION BUSINESS SYSTEMS

Div. Control Data Corp. 600 West Putnam Avenue

Greenwich, CT 06830 (800) 243-5300 Sales Contact: J. Neil Smith, VP (203) 622-2400

STATION PROGRAM RESOURCES

6117 Blue Circle Drive Minnetonka, MN (612) 935-4454 Sales Contact: Jack Hansen, Pres.

STEENBECK INC.

9045 Eton Avenue, Suite A Canoga Park, CA 91304 (213) 998-4033 Sales Contact: Ted Diamond, Sales Mgr.

STELLAVOX

Jardillets 18 CH-2068 Hauterive (NE)

Switzerland (038) 33 42 33 Sales Contact: Georges Quellet, Propriet or

STEVENS TOWER COMPANY

P.O. Box 281 Laurel, MS 39440 (601) 425-5145 Sales Contact: Robert L. Stevens, Owner

E.J. STEWART INC.

525 Mildred Ave. Primos, PA 19018 (215) 626-6500 Sales Contact: Hal Lipman, Gen. Mgr.

STOREEL CORPORATION

2050-C Carroll Ave., Ste. 2, P.O. Box 80523 Atlanta, GA 30341 (404) 458-3280 Sales Contact: Ruth E. Schaeffer, President

STRAIGHT WIRE AUDIO CORP.

2523 Wilson Boulevard Arlington, VA 22201 (703) 522-7780 Sales Contact: Bill Sacks, Chief Engineer

STRAND CENTURY INC.

5432 W. 102 St. Los Angeles, CA 90045 (213) 776-4600 Sales Contact: Bob Schiller, VP Mktg.

STANDARD TELEPHON AND RADIO AG

Friesenbergstrasse 75 CH 8055 Zurich, Switzerland (01) 214 2111 Sales Contact: K. Haering, Exp. Mgr.

STUDER INTERNATIONAL AG Professional Audio Equipment

CH-8105 Regensdorf Althardstrasse 150 01 840 29 60 Switzerland Telex 58489 stui ch Sales Contact: Mister E. Sporri, Man. Dir.

STUDER REVOX AMERICA INC.

1425 Elm Hill Pike Nashville, TN 37210 (615) 254-5651 Sales Contact: Bruno Hochstrasser, Pres.

Regional Sales Offices: STUDER REVOX AMERICA 155 Avenue of the America New York, NY 10013 (212) 255-4462 Sales Contact: Fred Layn, Regional Manager
Thomas Mintner, Reg. Manager

STUDER REVOX AMERICA 14046 Burbank Blvd.

Van Nuys, CA 91401 (213) 780-4234 Sales Contact: Bill Van Doren, Reg. Manager STUDER REVOX AMERICA

111 South Drive Barrington, IL 60010 (312) 381-4559 Sales Contact: Brian Tucker, Reg. Manager

JOHN M. SULLIVAN ASSOCIATES INC.

(617) 861-7472 341 Marrett Road Lexington, MA 02173 861-0238 Sales Contact: John M. Sullivan, Pres.

SUPEREX ELECTRONICS

151 Ludlow St. Yonkers, NY 10705 (914) 965-6906 Sales Contact: Michael Solomon, Mktg. Dir.

THE SUPERIOR ELECTRIC COMPANY

383 Middle St.

Bristol, CT 06010 (203) 582-9561 Sales Contact: J. McMahon, Sales Eng.

SURCOM ASSOCIATES INC.

305 Wisconsin Ave.

Oceanside, CA 92054 (714) 722-6162 Sales Contact: August J. Link, Pres.

SWAGER TOWER CORPORATION

P.O. Box 656 Fremont, IN 46737 (219) 495-5165 Sales Contact: Dan J. Swager, VP

RICHARD SWETTENHAM ASSOC.

38 Mount Pleasant London Wc1 (01) 837-5873 Sales Contact: R. Swettenham/D. Comper

SWINTEK ENTERPRISES INC.

1180 Aster Ave. -J Sunnyvale, CA 94086 (408) 249-5594 Sales Contact: Billy Williams, Sales Mgr.

SWITCHCRAFT INC.

5555 N. Elston Ave. (312) 792-2700 Chicago, IL 60630 Sales Contact: Fred Fitzpatrick, Prod. Mgr.

SYNSAT INTERNATIONAL INC.

4104 Linden Hills Blvd. Minneapolis, MN 55410 (612) 925-2633 Sales Contact: John Uldrich, Pres.

SYRACUSE SCENERY & STAGE

LIGHTING CO., INC. 1423 North Salina St. Syracuse, NY 13208 (315) 474-2474 Sales Contact: Christine Logan, V.P.

SYSTEM ASSOCIATES

5801 Uplander Way Culver City, CA 90230 (213) 641-2042 Sales Contact: Walter A. Shubin, V.P. Billy H. Seidel

SYSTEMS COMMUNICATIONS CABLE

P.O. Box 21007 Phoenix, AZ 85036 (602) 268-8744 Sales Contact: Earl Langenberg, Sls. Eng.

SYSTRON DONNER

2700 Systron Dr. Concord, CA 94518 (415) 676-5000

SYTRON INC. 1340 Bodwell

Manchester, NH 03103

(603) 627-3655

Sales Contact: Erl Sexton, Pres.

T

TBC PTY. LTD.

6 Chilvers Road, Thornleigh. N.S.W. 2120 (02) 848-8777 Sales Contact: Bert Heys, Mktg. Mgr.

21 / 27 rue Barbes Montrouge 92120, France

TDK ELECTRONICS CORP.

12 Harbor Port Drive Port Washington, NY 11050

(516) 625-0100 Sales Contact: Ed Pessara, Video Tape Mgr.

Continued on page 158

TFT INC. 3090 Oakmead Village Drive Santa Clara, CA 95051 (408) 727-7272 Sales Contact: Joe Wu, Pres. Regional Sales Offices: 1355 Jeanette Way Southampton, PA 18966 Contact: Tom Creighton (215) 322-8911 MARCOM P.O. Box 66507 Scotts Valley, CA 95066 (408) 438-4273 Contact: Martin Jackson, Ted Tripp MARCOM 216 Westlake Ave. North Seattle, WA 98109 (206) 621-9633 Contact: Bill Wolfenbarger MARCOM 21243 Ventura Blvd. Suite 145 Woodland Hills, CA 91364 (213) 703-0381 Contact: Doug Howland DIDIER/DENVER NM, KS, NE (Radio and TV) MT, WY, ID, UT, CO (TV Only) P.O. Box 1599 Evergreen, CO 80439 (303) 674-6000 Contact: Herb Didler, Steve Didler HALL ELECTRONICS MT, WY, ID, UT, CO (Radio Only) P.O. Box 5031 Boise, ID 83705 (208) 376-1663 Contact: Larry Hall PARCOM 4260 Raintree Drive Southlake, TX 76092 (817) 481-7221 Contact: DArryl Parker EMMONS ASSOCIATES 1121 Riverwood Drive Burnsville, MN 55337 Contact: Kelth Emmons (612) 890-8920 DYER ELECTRONICS 31185 Ten Mile Rd. Farmington Hills, MI 48024 (313) 478-2157 Contact: Mike Dyer, Leo Rymarz RALPH L. HUCABY 1331 Otter Creek Rd. Nashville, TN 37215 EME I, INC. (615) 373-0231 112 Buena Vista High Point, NC 27260 (919) 869-3335 Contact: George Gold EME IV 107 Richneck Dr. Williamsburg, VA 23185 Contact: Ken Ward (804) 253-0171 ROSCOM, ING. P.O. Box 1208 Roswell (Atlanta), GA 30077 (404) 992-2700 Contact: Bob Stewart, Ken Wilson BEATTIE & ASSOCIATES 3317 Barrow Hill Trail Tallahassee, FL 32308 (904) 893-1382 Contact: Bob Beattie HOLZBERG ASSOCIATES P.O. Box 322 Totowa, NJ 07512 Contact: Herb Holzberg (201) 256-0455 WILTRONIX, INC. 16850 Oakmont Ave. P.O. Box 364 Washington Grove, MD 20880-0364 (301) 258-7676 Contact: Dwight L. Wilcox, Dave Wilcox MSC ELECTRONICS LTD. 254 Wildcat Rd. Downsview, Ontario Canada M3J 2N5 (416) 661-4180 Contact: David La Frenais, Anthony Sharpe ELECTREX COMPANY

WHERE TO FIND IT GENERAL INDEX, Pages 38-45

WHO MAKES IT

(Central/South Amer., P.R.)

PRODUCT DIRECTORY, Pages 46-113

WHERE TO BUY IT

MANUFACTURERS, Pages 114-162 DEALERS/DISTRIBUTORS, Pages 168-189 Miami, FL 33179 Contact: Ben Ostrovsky (305) 651-5752 GUARANTEE RADIO SUPPLY (Mexico) 1314 Iturbide St. Laredo, TX 78040 Contact: Richard Reves (512) 723-3331

TL SYSTEMS

1101 E. Chestnut St., Suite C Santa Ana, CA 92701 (714) 547-1981 Sales Contact: Ted Lafleur, Pres.

TM SYSTEMS INC. 25 Allen St.

Bridgeport, CT 06604 (203) 366-4571 Sales Contact: I. Shuldman, Mar.

TOA ELECTRONICS INC.

480 Carlton Court S. San Francisco, CA 94080 (415) 588-2538 Sales Contact: Terry Green, Mktg. Mgr.

TTE INC.

2214 So. Barry Ave. Los Angeles, CA 90064 (213) 478-8224 Sales Contact: S. Sodaro, Mgr.

TVNS (Television News Support)

World Trade Center Suite 250R San Francisco, CA 94111 (415) 982-3073 Sales Contact: J. Cheney, Pres.

TABER MFG. & ENG. CO.

2081 Edison Ave. San Leandro, CA 94577 (415) 635-3831 Sales Contact: Bob Kearns, Gen. Mgr.

TANGENT SYSTEMS INC.

2005 E. University Dr. Phoenix, AZ 85034 (602) 267-0653 Sales Contact: Thomas M. Scott, Sls. Mgr.

TAPCO, Div. of Electro-Voice

3810 148th Avenue NE (206) 883-3510 Redmond, WA 98052 Sales Contact: Ferdinand Boyce, Mkt. Mgr.

2065 Peachtree Industrial Ct. Suite 215

Chamblee, GA 30341 (404) 458-8273

TAPE-ATHON CORP./CAVOX STEREO PROD. 502 S. Isis Ave. Inglewood, CA 90301 (213) 776-6933 Sales Contact: Blair Hunnicutt, Sls. Mgr.

TAPECASTER TCM INC.

(301) 881-8888 Box 662 Rockville, MD 20851 (800) 638-0977 Sales Contact: Paul L. Shore, Pres.

TAPESWITCH CORPORATION 100 Schmitt Blvd

Farmingdale, NY 11735 (516) 694-6312 Sales Contact: K. C. Torrens, Sls. Mgr.

TAYBURN ELECTRONICS

6106 Avenida Encinas (714) 438-5444 Carlsbad, CA 92008 Sales Contact: Greg Rowley, Mktg. Mgr.

TAYLOR INSTRUMENT (SYBRON CORPORATION)

Arden, NC 28704 (704) 684-8111 Sales Contact: Sales Department

TEAC CORP. OF AMERICA **TASCAM Production Products Division** 7733 Telegraph Rd.

Montebello, CA 90640 (213) 726-0303 Sales Contact: Bill Mohrhoff, Natl. Sls. Mgr. David G. Oren, Marketing Manager

TECH ELECTRONICS INC.

6000 Peachtree Rd., N.E. Atlanta, GA 30341 (404) 455-7626 Sales Contact: Roby Price, Gen. Mar.

TECH LABORATORIES INC.

Bergen & Edsall Blvds. Palisades Park, NJ 07650 (201) 944-2221 Sales Contact: A. Konrad, Pres.

TECHNOLOGY FOR COMMUNICATIONS INTERNATIONAL

1625 Stierlin Road Mountain View, CA 94043 (415) 961-9180 Sales Contact: Lawrence J. Blum, VP Mktg.

TECHNOLOGY SERVICE CORPORATION 2950 31st St.

Santa Monica, CA 90405 (213) 450-9755 Sales Contact: Ray Durand, Manager

TECHNICOBEL 8 rue de la Croix - Martre BP 26 91122

Palaiseau, France

TECH THEATRE

4724 Main Street Lisle, IL 60532 (312) 971-0855 Sales Contact: Gary Timm, V.P.

TEKTRONIX INC.

P.O. Box 500 Beaverton, OR 97077 (503) 644-0161

TELCOM RESEARCH 1163 King Road

Burlington, Ontario (416) 681-2450 Canada Sales Contact: Tom Bánting

TELECOMMUNICATIONS SYSTEMS

910 17th St. N.W., Suite 319 Washington, DC 20006 (202) 223-4449 Sales Contact: R.G. Gould, P.E., Pres.

TELECOMMUNICATIONS TECHNOLOGY

555 Del Ray Avenue Sunnyvale, CA 94086 (408) 735-8080 Sales Contact: Glenn Patterson, V.P. / Mktg.

TELECONCEPTS IN COMMUNICATIONS INC. 145 F 49th St

New York, NY 10017 (212) 355-7113 Sales Contact: James W. Johnson, Pres.

TELE-CINE CORPORATION

400 Crossways Park Drive Woodbury, NY 11797 (516) 496-8500 Sales Contact: Robert Jones, Mgr. of Sales

TELECTRO SYSTEMS CORP.

96-18 43rd Avenue Corona, NY 11368 Sales Contact: Harry Sussman, Pres.

TELEDYNE ACOUSTIC RESEARCH (AR)

10 American Drive Norwood, MA 02062 (617) 769-4200 Sales Contact: Rick Sands, Dir. of Sales

TELEDYNE BIG BEAM

290 East Prairle St. P.O. Box 518 Crystal Lake, IL 60014 (815) 459-6100 Sales Contact: C.J. Ortmeyer, Exec. VP

TELEDYNE ENERGY SYSTEMS

110 W. Timohium Road Timonium, MD 21093, U.S.A. (301) 252-8220 Sales Contact: Paul Bessert, Prod. Mktg. Mgr.

TELE-MEASUREMENTS INC.

145 Main Avenue (201) 473-8822 Clifton, NJ 07014

Sales Contact: W.E. Endres, Pres. D. Cook, VP/Sales

TELECTRO SYSTEMS CORP.

96-18 43rd Avenue Corona, NY 11368

(212) 651-8900

Sales Contact: Harry Sussman, Pres.

TELEMET, DIV. OF GEOTEL INC.

185 Dixon Avenue

Amityville, NY 11701

(516) 842-2300

Sales Contact: Joseph L. Cali, Jr., Customer Service Mgr.

Regional Sales Offices: TELEMET, DIV. OF GEOTEL, INC. Easthill RFD #3

Brewster, NY 10509 (914) 279-3231 Contact: Robert G. Griffiths, VP/Sales

TELESCO INTERNATIONAL CORP.

125 Mineola Avenue

Roslyn Heights, NY 11577 (516) 484-3822 Sales Contact: Gerald Lanier, President

TELESCRIPT INC.

20 Insley Street Demarest, NJ 07627

(201) 567-2220 Sales Contact: Bob Swanson, Gen. Mgr.

TELESENSORY SYSTEMS

3408 Hillview Avenue Palo Alto, CA 94304

(415) 856-8255

Sales Contact: Alan Yatagai

TELESOURCE COMMUNICATION SERVICES

730 East Highland Phoenix, AZ 85014

(602) 265-1232

Sales Contact: Michael D. Rich, Mgr.

TELEVISION ASSOCIATES INC.

2410 Charleston Road

Mountain View, CA 94043 (415) 967-6040 Sales Contact: Ann Callahan, Prod. Sales Dave Taylor, Equipment Sales

TELEVISION ENGINEERING CORPORATION

580 Goddard Ave.

Chesterfield, MO 63017 Sales Contact: Sharon Sokup, SIs. Admin.

TELEVISION GRAPHICS, CO.

555 Broad St.

Gien Rock, NJ 07452 (201) 444-2911 Sales Contact: Charlie or Chuck Diehl, Ownr.

TELEVISION EQUIPMENT ASSOCIATES

Box 260

South Salem, NY 10590 (914) 763-8893 Sales Contact: Bill Pegler, President

TELEVISION INTERNATIONAL OPERATIONS LTD.

9-11 Windmill Street London W1P 1HF, UK (01) 637-2477

Sales Contact: Joe Vick, Sales Dir.

TELEVISION PRODUCTS CO. INC.

9016 Aviation Blvd.

Inglewood, CA 90301

(213) 776-3276

TELEVISION PRODUCTION SERVICES CORP.

381 Horizon Drive

Edison, NJ 08817 (201) 287-3626

Sales Contact: R.J. Burks, Producer

TELEVISION TECHNOLOGY CORP.

5970 West 60th Ave.

Arvada, CO 80003 (303) 423-1652

Sales Contact: B.W. St. Clair, President

TELEX COMMUNICATIONS INC.

9600 Aldrich Ave. South

Minneapolis, MN 55420 USA (612) 884-4051 884-7517

Sales Contact: Don Mereen, Dir. Mktg.,

TELMAR MEDIA SYSTEMS INC.

90 Park Avenue

New York, NY 10016 (212) 949-4640 Sales Contact: Harry Appel, Sr. VP

TENNAPLEX SYSTEMS LTD.

(613) 226-5870 34 Bentley Ave.

Ottawa, Ontario

Canada K2E 6T8 Telex: 053-4962 Sales Contact: Manfred Muenzel, Sis. Mgr.

TENTEL CORP.

1506 Dell Ave.

Campbell, CA 95008 (408) 379-1881 Sales Contact: Sales Engineering

TEPCO CORP.

P.O. Box 680

Rapid City, SD 57709 (605) 343-7200 Sales Contact: Jerry Johnson, Sales Mgr.

TERRACOM-LORAL CORP.

9020 Balboa Ave.

San Diego, CA 92123 (714) 278-4100 Sales Contact: Mike Mulcay, V.P. Mktg.

TEXAS ELECTRONICS

5529 Redfield Street

Dallas, TX 75235 (214) 631-2490

Sales Contact: Secretary

TEXAS INSTRUMENTS P.O. Box 2250 MS 84

Dallas, Texas

(214) 995-6611

TEXSCAN CORPORATION

2446 N. Shadeland Ave.

Indianapolis, IN 46219 (317) 357-8781 Sales Contact: Alan Whitlock, Sales Mgr.

TEXSCAN/MSI CORPORATION

3855 South 500 West, Suite "S Salt Lake City, UT 84115 (801) 262-8475 Sales Contact: Dennis Gourley, Mktg. Mgr.

THE TEXWIPE COMPANY

650 E. Crescent

P.O. 575

Upper Saddle River, NJ 07458 (201) 327-5577

THEATRE SERVICE & SUPPLY CORP.

1792 Union Ave.

Baltimore, MD 21211 (301) 467-1225 Sales Contact: Richard Antisdel, Pres.

THEATER TECHNIQUES INC.

60 Connolly Pkwy. Hamden, CT 06514 (203) 281-6111

Sales Contact: F. Lindauer, Pres.

THERMODYNE INTERNATIONAL LTD. 10850 S. Alameda

Long Beach, CA 90810

(213) 603-1976 Sales Contact: Walter Wolf, Pres.

THOMSON-CSF, DIV. TUBES **ELECTRONIQUES**

38 Rue Vauthier

92102 Boulogne Billancourt Cedex (1) 604.81.75 France

Sales Contact: Mrs. J. Bidault, Pub. Rel.

THOMSON-CSF.

ELECTRON TUBE DIVISION 301 Route Seventeen North

Rutherford, NJ 07071 (201) 438-2300

Sales Contact: John Mulroe, Prod. Sls. Mgr.

THOMSON-CSF, LABORATOIRE GENERAL **DES TELECOMMUNICATIONS** 51 Boulevard de la Republique

78400 Charou, France

THOMSON-CSF DIVISION. RADIODIFFUSION TELEVISION

94. Rue du Fosse Blanc 92231

Gennevilliers, France (1) 790.65.49 Sales Contact: M. Jean Wolf, Rel. Publiques

THOMSON-CSF BROADCAST INC.

37 Brownhouse Road

Stamford, CT 06902 (203) 327-7700 Sales Contact: Richard T. Sanford, Nat. S. Mgr.

THOMSON CSF EQUIPMENT & SYSTEMS LTD.

Hunting House, Central Way Feltham, Middlesex TW14 OVD 01 751 6241 Sales Contact: Steve Rolls, Sls. Eng.

THOMSON-CSF

23 rue de Courcelles

75008 PARIS (1) 563 12.12

Sales Contact: Mrs. C. Durussel

THORN LIGHTING LIMITED

Angel Road Works 402 Angel Road

London NI8 3AJ, UK

01-807-9011

TIFFEN MANUFACTURING

90 Oser Ave.

Haupauge, NY 11788 (516) 273-2500 Sales Contact: Tom Grosso, Sales

TIMES FIBER COMMUNICATIONS INC. 358 Hall Avenue

P.O. Box 384 Wallingford, CT 06492

(203) 265-8500

TOPAZ INC.

3855 Ruffin Road

San Diego, CA 92123 (714) 571-5622 Sales Contact: Mr. Rob Britton, Dir. of Sls.

TORE SEEM

Box 10 N 1344

Haslum, Norway (02) 53 39 75

TORPEY CONTROLS & ENGINEERING LTD.

2220 Midland Ave., Unit 98

Scarborough, Ontario

Canada M1P 3E6 (416) 298-7788

Sales Contact: R. Torpey, Pres.

TOSHIBA AMERICA INC. 292 Gibraltar Dr.

Sunnyvale, CA 94086

(408) 734-9172

TOWNSEND ASSOCIATES INC.

Mainline Drive, P.O. Box 1122

Westfield, MA 01086 (413) 562-5055

Sales Contact: Howard McClure, VP/Mktg.

TRAMEC ELECTRONICA S.R.L.

San Lorenzo 2646 1636 Olivos-Provincia De BS.AS.

TELEX: 26144 Argentina Sales Contact: Mr. Lirio A. Pereyra, Gen. Mgr.

TRANS-AMERICAN VIDEO, INC.

1541 North Vine Street

Hollywood, CA 90028 (213) 466-2141

TRANSCO PRODUCTS INC.

4241 Giencoe Avenue

Marina Del Rey, CA 90291 (213) 822-0800 Sales Contact: J.D. Fricke, Dir. of Mktg.

TRANSIST-O-SOUND

728 Yosemite Drive

Indianapolis, IN 46217 Sales Contact: Bill/Maxine Landrum, Owners

TRANSTECTOR SYSTEMS

E. 5250 Seltice Hwy. P.O. Box 1299

Continued on page 160

WHERE TO BUY IT

Post Falls, ID 83854 (800) 635-2537 Sales Contact: Edward Bellamy, Nat. Sls. Mgr.

TREISE ENGINEERING

1941 First St.

San Fernando, CA 91340 (213) 365-3124 Sales Contact: Bill Juden, Sales/Field Tech.

TREPAC CORPORATION OF AMERICA

30 W. Hamilton Ave. Box 471

Englewood, NJ 07631 (201) 567-3810 Sales Contact: H.S. Gutshall, Mktg. Mgr.

TRIDENT (U.S.A.) INC.

652 Glenbrook Road Stamford, CT 06906 (203) 357-8337 Sales Contact: Mark Terry, Sales Mgr.

TRI-EX TOWER CORP.

7182 Rasmussen Ave.

Visalia, CA 93277 (209) 625-9400 Sales Contact: Mr. Donald Hills, Sales Mgr.

TRIPLE S MFG. CORP.

351 Crosby Ave. Pat, NJ 07502

(201) 942-3532 Sales Contact: Harry Scala, Pres.

TRIPLETT CORPORATION

One Triplett Drive

(419) 358-5015 Bluffton, OH 45817 Sales Contact: Stanley F. Naylor, Adv. Mgr.

TRUTEC SYSTEMS

1324 Motor Parkway Hauppauge, NY 11787 (516) 234-6090 Sales Contact: Jack Jenkins, V.P. Sales

TROMPETER ELECTRONICS INC.

8936 Comanche Ave. Chatsworth CA (213) 882-1020 Sales Contact: P. Cox, Sales Admin.

TRUE TIME INSTRUMENTS

3243 Santa Rosa Ave. Santa Rosa, CA 95401 (707) 528-1230 Sales Contact: Victor Kunkel, App. Engr.

TUESDAY PRODUCTIONS

4429 Morena Blvd. (714) 272-7660 San Diego, CA 92117 Sales Contact: Bo Donovan, VP

TWEED AUDIO USA INC.

12-Ilex Drive Newbury Park, CA 91320 (805) 499-4764 Sales Contact: Kirsh Mustafa

U

UHF ASSOCIATES

5625 State Farm Dr. -4 Rohnert Park, CA 94928 (707) 584-7844 Sales Contact: M. Sides, Mar.

UMC ELECTRONICS CO.

460 Sackett Point Boad (203) 288-7731 North Haven, CT 06473-0307

Sales Contact: A. Z. Sawala, Nat'l. Sales Mgr. Regional Sales Office:

UMC ELECTRONICS 26311 Marina Road

San Juan Capistrano, CA 92675 (714) 495-4047 Contact: Gerry Burkhardt, Western Reg. Sls. Mgr.

UNR-ROHN

P.O. Box 2000 Peoria, IL 61656 (309) 697-4400 Sales Contact: Lisa Rhodes, Adv. Coord.

8460 San Fernando Road Sun Valley, CA 91352 (213) 767-1000

Sales Contact: Ray Combs, Sr. V.P.

URSA MAJOR INC.

Box 18 / 50 Trapelo Rd. Belmont, MA 02178 (617) 489-0303 Sales Contact: Gerard Abeles, V.P., Mktg.

UTE MICROWAVE INC.

3500 Sunset Avenue Asbury Park, NJ 07712 (201) 922-1009 Sales Contact: L.H. Nilson, Gen. Mgr.

ULTRA AUDIO PIXTEC

Div. of Audio Int'l Inc. P.O. Box 921

Beverly Hills, CA 90213 USA (213) 276-2726 Sales Contact: Ricky Beck, Sales Mgr.

UNEMCO INTERNATIONAL INC.

2102 Ringwood Avenue San Jose, CA 95131 Sales Contact: R.A. Piper, Dir. of (408) 946-5076 Market Development

UNION CONNECTOR CO. INC.

149 Babylon Turnpike PO Box H

Roosevelt, NY 11575 (516) 623-7461 Sales Contact: Richard W. Wolpert, Pres.

UNI-SET CORPORATION

449 Ave. A

Rochester, NY 14621 (716) 544-3820 Sales Contact: Ronald Kniffin, Pres.

UNITED MEDIA INC.

4075 Leaverton Court Anaheim, CA 92807 (714) 630-8020 Sales Contact: Mr. Robert J. Riccl, Pres.

UNITED PRESS INTERNATIONAL 220 E. 42nd St.

New York, NY 10017 (212) 850-8600 Sales Contact: Gordon Rice, VP, Broadcasting

UNITED RESEARCH LAB. CORP.

16 East 52 Street

New York, NY 10022 (212) 751-4663 Sales Contact: George Adams, Pres.

UNITED STATES TOWER COMPANY P.O. Box 1438

Miami, OK 74354 Sales Contact: Dan Weathers, VP

UNITEL

80, rue d'Arcueil 588.33.13 94250 Gentilly, France Sales Contact: A. Thevenot, Comm. Dir.

UP-RIGHT INC.

1013 Pardee Street Berkeley, CA 94710 (415) 843-0770 Sales Contact: Tony Armas, Sales Mgr.

US JVC CORP.

41 Slater Drive Elmwood Park, NJ 07407 (201) 794-3900 Sales Contact: Daniel Roberts, VP

Regional Sales Offices:

U.S. JVC CORPORATION 41 Slater Drive

Elmwood Park, NJ 07407 (2) Contact: Steve Martin, Reg. Sls. Mgr. U.S. JVC CORPORATION (201) 794-3900

2250 Lively Blvd. Elk Grove, IL 60007 (312) 364-9300 Sales Contact: Doug DiGiacomo, Reg. Sis. Mgr. U.S. JVC CORPORATION

407 Garden Oaks Blvd. Houston, TX 77018 (713) 694-0 Sales Contact: Ed Spalding, Branch Manager (713) 694-0866

U.S. JVC CORPORATION 1011 West Artesia Blvd.

Compton, CA 90220 (213) 537-6020 Sales Contact: Logan Enright, Reg. Sis. Mgr.

UTAH SCIENTIFIC INC.

2276 So. 2700 West Salt Lake City, UT 84119 (801) 973-6840 Sales Contact: Lyle O. Keys, Pres.

UTILITY TOWER COMPANY

3200 N.W. 38th P.O. Box 12369

Oklahoma City, OK 73157 (405) 946-5551 Sales Contact: R.G. Nelson, Mgr.

VIF INTERNATIONAL

P.O. Box 1555 Mtn. View, CA 94042 (408) 739-9740 Sales Contact: N.L. Mackechnle, Pres.

VIZ MANUFACTURING COMPANY

335 E. Price Street Philadelphia, PA 19144 (215) 844-2626 Sales Contact: F.H. Tribolet, Dir. of Marketing

VACUUM TUBE INDUSTRIES, INC.

35 Pequit St.

Canton, MA 02021 (617) 828-1650 Sales Contact: Gene Tosti, Gen. Mgr.

VALENTINO PRODUCTION LIBRARY

151 W. 46th St. New York, NY 10036 (212) 246-4675 Sales Contact: T. Valentino, Pres.

VALLEY PEOPLE INC.

P.O. Box 40306 2820 Erica Place Nashville, TN 37204

(615) 383-4737

Sales Contact: Liz Clark,

Sales Mktg. Coord.

VALTEC CORPORATION

99 Hartwell St. West Boylston, MA 01583 (617) 835-6082 Sales Contact: Stephen Lang,

Senior Mktg. Specialist

VAMCO ENGINEERING INC.

11104 E. 56th St.

Tulsa, OK 74145 (918) 252-5448

Sales Contact: E. Sudduth, V.P. / Mktg.

VANNER INC.

2136 Eakin Road

Columbus, OH 43223 (614) 272-6263 Sales Contact: Albert Ekegren, Pres.

VARIAN ASSOCIATES INC.

611 Hansen Way

Palo Alto, CA 94303 (415) 493-4000 x2011/2797 Sales Contact: Merlin J. Bowen, Prod. Mgr.

Regional Sales Offices: VARIAN ASSOCIATES 83 Second Avenue

(617) 272-8532

Burlington, MA 01803 VARIAN ASSOCIATES 205 W. Touhy Avenue

Park Ridge, IL 60068 VARIAN ASSOCIATES (312) 825-6686

314 South Missouri Suite 209 Clearwater, FL 33516

(813) 446-8513

VARIAN ASSOCIATES 13531 N. Central Expressway Suite 2343

Dallas, TX 75243 VARIAN ASSOCIATES (214) 235-2385 4130 Lindon Avenue

(513) 258-3930

Suite 255 Dayton, OH 45432 VARIAN ASSOCIATES 500 Wynn Drive, N.W.

Suite 302 Huntsville, AL 35805 (205) 837-9225 VARIAN ASSOCIATES 2901 Wilshire Blvd. Suite 205 Santa Monica, CA 90403 (213) 828-5588 VARIAN ASSOCIATES (Metropolitan New York) 25 Commerce Drive Cranford N.I.07016 (201) 276-9050 VARIAN ASSOCIATES (Philadelphia) 304 Harger Drive Moorestown, NJ 08057 (609) 235-6800 TWX: 710-897-1871 VARIAN ASSOCIATES 7345 E. Earll Dr. Suite 30 Scottsdale, AZ 85251 (602) 947-5461 VARIAN ASSOCIATES 375 Distel Circle Sulte C-4 Los Altos, CA 94022 (415) 968-7630 VARIAN ASSOCIATES 6489 Ridings Road Syracuse, NY 13206 (315) 437-2568 VARIAN ASSOCIATES United Finance Bldg. Suite No. 4 1600 Watson Blvd Warner Robins, GA 31093 (912) 922-2202

VARIAN, MCS DIVISION
3200 Patrick Henry Dr.
Santa Clara, CA 95050 (408) 496-6273
Sales Contact: M. Wytyshyn, Mktg. Mgr.

A. Smith, Sales Mgr.

(301) 773-7010

VARIAN ASSOCIATES

(Washington D.C.) 4701 Lydell Road

Cheverly, MD 20781

VARIABLE SPEECH CONTROL
29-50 Northern Blvd.
L.I.C., NY 11101 (212) 729-8400
Sales Contact: Paul Friedman, Sales Mgr.

VECTOR ELECTRONIC COMPANY
12460 Gladstone Ave.
Sylmar, CA 91342 (213) 365-9661
Sales Contact: F.L. Hill, VP Mktg.

VELEC SEFAT
278, chaussee F. Forest
59200 Tourcoing
Sales Contact: Mr. D. Knockaert
(20) 94 92 77

VERSA-COUNT 553 Lively Blvd. Elk Grove, IL 60007

Elk Grove, IL 60007 (312) 593-0208 VIA VIDEO

10115 S. DeAnza Blvd. Cupertino, CA 95014 (408) 996-2055 Sales Contact: Dennis Bowman, National Mktg. Mgr.

VIDAIRE ELECTRONICS MFG. CORP.

150 Buffalo Ave. P.O. Box 788 Freeport, NY 11520 (516) 623-6696 Sales Contact: Fred Schulz, Asst. Sales Mgr.

VIDECOM ENGINEERING INC. P.O. Box 308, County Road 652 Mattawan, MI 49071 (616) 668-3375 Sales Contact: John Lepley, Chief Eng.

VIDEO AIDS OF COLORADO

1930 Central Avenue
Boulder, CO 80301 (303) 443-4950
Sales Contact: Mike Borsuk, Dir., Mktg.

VIDEO ASSOCIATES LABS 2304 Hancock Dr. #1-F

WHERE TO BUY IT
MANUFACTURERS, Pages 114-162
DEALERS/DISTRIBUTORS, Pages 168-189

Austin, TX 78756 (512) 459-5684 Sales Contact: Mike Dyer, Dir. of Ops.

VIDEO CASSETTE SERVICES
711 W. 17th Street, Suite J-6
Costa Mesa, CA 92627 (714) 548-3242
Sales Contact: J. Beazley, Pres.

VIDEO DATA SYSTEMS

Corporate - 205 Oser AVe.

Hauppauge, NY 11787 (516) 231-4400

Nat. Sales - 7001 S. 900 E.

Salt Lake City, UT 84047 (801) 566-3635

Sales Contact: Barry Kenyon, Sales Dir.

VIDEO DUB INC. 423 West 55th Street New York, NY 10019 (212) 582-9550 Sales Contact: Donald Buck, Pres.

VIDEO I-D INC. 105 Muller Road Washington, IL 61571 (309) 444-4323 Sales Contact: Sam B. Wagner, Pres.

VIDEO-INK 5184 North Lovers Lane Milwaukee, WI 53225 (414) 462-7010 Sales Contact: John Kompas

VIDEO MASTERS
P.O. Box 1963
Kansas City, MO 64141
(816) 474-8530
Sales Contact: Virgil Jones, VP/Systems

VIDEO MASTERS
7471 Melrose Avenue, Suite 22
Los Angeles, CA (213 655-1177
Sales Contact: Terry Rangno, Owner/Oper.

 VIDEOMAGNETICS INC

 155 San Lazaro
 (312) 830-2428

 Sunnyvale, CA 94086
 (408) 737-8300

 Sales Contact: Sam DePino, V.P., Mktg.

VIDEOMEDIA/S.E.D. INC. 250 N. Wolfe Road Sunnyvale, CA 94086 (408) 733-6500 Sales Contact: Hank Wilks, Gen. Sis. Mgr.

VIDEO OPTICS INC.
1916 Old Middlefield Way
Mtn. View, CA 94043 (415) 965-4298
Sales Contact: James Fadely, Pres.

VIDEO PRODUCTS / 3M Bidg. 223-5E 3M Center St. Paul, MN 55144 (612) 733-8132 Sales Contact: Bob Landingham, Nat. Sis. Mgr.

VIDEO SPECIALTIES 11535 Sorrento Valley Rd. San Diego, CA 92121 (714) 450-1067 Sales Contact: John Russell, Pres.

VIDEOSYSTEMS INTERNATIONAL

1425 Dorchester Boul. O. Montreal, Quebec Canada (514) 879-1692 Sales Contact: Costa Babalis, Gen. Mgr.

VIDEOTAPE EXCHANGE INC. 855 Ave. of the Americas New York, NY 10001 (212) 695-6644 Sales Contact: Joseph Lincci, V.P.

VIDEO TAPE SYSTEMS INC. Box 70 Fountainville, PA 18923 (215) 345-0750 Sales Contact: DeWitt Smith, Pres.

VIDEOTEK INC. 125 North York St. Pottstown, PA 19464 (215) 327-2292 Sales Contact: Peter H. Choi, VP Mktg. Regional Sales Offices: VIDEOTEK, INC. 9625 North 21st Drive Phoenix, AZ 85021 (602) 997-7523 Sales Contact: Jim Mauger, Branch Mgr.

VIDEO WORKSHOP 468 Forest Ave. Portland, ME 04101 (207) 774-7798 Sales Contact: Eric Jurgenson, Chief Eng.

 VIDICRAFT INC.

 0704 SW Bancroft St.
 TWX: 910-464-5156

 Portland, OR 97201
 (503) 223-4884

 Sales Contact: Tim Johnson, Mktg. Mgr.

VIKRON INC. 520 Blanding Woods Road So. St. Croix Falls, WI 54024 (715) 483-3233 Sales Contact: Jim Campeau, Sls. Eng. Don Puls, General Manager

VIPRO PROGRAM SERVICES
645 N. Michigan Ave.
Chicago, IL 60611 (312) 664-7111
Sales Contact: Don Frehe, Dir.

THE VIRGINIA COMPANY
P.O. Box 2167
303 Depot St. N.W.,
Christiansburg, VA 24073
Sales Contact: Ike Jeanes, Owner
(703) 382-4135

VISCOUNT INDUSTRIES LTD.
105 East 69th Avenue
Vancouver, B.C. V5X 2W9
Canada (604) 327-9446
Sales Contact: A. Gerrebos, Gen. Mgr.

VISUAL INFORMATION INSTITUTE INC. P.O. Box 33 Xenia, Ohio 45385-0033 (513) 376-4361 Sales Contact: John Harshbarger, Pres.

VISUAL METHODS INC. 35 Charles Street Westwood, NJ 07675 (201) 666-3950 Sales Contact: T. Sandin, Pres.

VITAL INDUSTRIES INC. 3700 NE 53rd Avenue Gainesville, FL 32601 (904) 378-1581 Sales Contact: Christopher Donoyan, Pres.

VITEK ELECTRONICS INC.
4 Gladys Court
Edison, NJ 08817 (201) 287-3200
Sales Contact: Robert Gelssler, President
Paul Ellman, Dir. of Mktg.

/

WALLACH & ASSOCIATES INC. P.O. Box 18167 Cleveland, OH 44118 (216) 575-0765 Sales Contact: Chas. Wallach, Pres.

WALMORE ELECTRONICS 11 - 15 Betterton St. Drury Lane, UK WC2H 9BS

ALBERT J. WALSH & ASSOCIATES
The Commons West
638 Newtown-Yardley Rd.
Newtown, PA 18940 (215) 968-0707

WARD-BECK SYSTEMS LTD.
841 Progress Avenue
Scarborough, Ontario M1H 2X4 (416) 438-6550
Sales Contact: Richard W. Chalk,
Canadian Sales Mgr.

Regional Sales Offices: WARD-BECK SYSTEMS

Continued on page 162

4012 Mendenhall Drive Dallas, TX 75234 (214) 247-5999 Sales Contact: Duke McLane, U.S. Sales Rep. WARD-BECK SYSTEMS 755 Washington Street Annisquam, MA 01930 (617) 283-7507

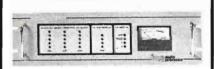
Sales Contact: Bill McFadden, U.S. Sales Rep.

WATERS MANUFACTURING INC.

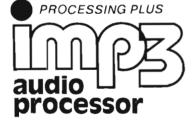
Longfellow Center Wayland, MA 01778 (617) 358-2777 Sales Contact: Skip Slason, Sls. Mgr.

WAVETEK INDIANA INC.

5808 Churchman Beech Grove, IN 46107 (317) 787-3332 Sales Contact: John Duval, Sales Mgr.



*MOST VALUABLE PROCESSOR



High quality processing of your audio doesn't have to be expensive! Call or write today for price and complete specifications on the totally unique IMP-3!

processing PLUS

59 brookside road • ρ. o. box 3303 wescosville, pennsylvania 18106

CALL TOLL-FREE 1-800-523-9396

IN PA. CALL COLLECT: (215) 398-3377

WEARHOUSE INC.

10766 Tucker St. Beltsville, MD 20705 (301) 937-4843 Sales Contact: Sam Waterworth, Sales Mgr.

WEATHER SERVICES INTERNAT'L. CORP.

131 The Great Rd. P.O. Box B Bedford, MA 01730 (617) 275-5300 Sales Contact: Michael S. Leavitt, VP

WEATHERMATION INC.

190 NO. State Street (312) 263-6921 Chicago, IL 60601 Sales Contact: W. V. Smith, Pres.

WEATHERSCAN INTERNATIONAL

Oklahoma City, OK 73112 (405) 521-9230 Sales Contact: R. Dale Leinew, Exec. VP

WESTERN UNION TELEGRAPH CO.

1 Lake St. Upper Saddle River, NJ (201) 825-5306 Sales Contact: J.J. Albert, Ex. Plm.

WESTINGHOUSE ELECTRIC CORP.

Westinghouse Circle Horseheads, NY 14845 (607) 796-3211 Sales Contact: R.R. Kaemmerer, Mktg. Mgr.

WESTREX

2629 W. Olive Ave. (213) 846-3394 Burbank, CA 91505 Sales Contact: R.L. Bennett, Sales Mgr.

WHIRLWIND MUSIC DIST. INC.

P.O. Box 1075 Rochester, NY 14603 (716) 663-8820 Sales Contact: Bob Martin, Sales Mgr.

WHITE INSTRUMENTS INC.

P.O. Box 698 Austin, TX 78767 (512) 892-0752 Sales Contact: Emory Straus, Mktg. Mgr.

WIDE BAND ENGINEERING CO. INC.

P.O. Box 21652 Phoenix, AZ 85036 (602) 254-1570 Sales Contact: S. Ticknor, Sec./Pres.

WIDE RANGE ELECTRONICS CORP.

2119 Schuetz Road St. Louis, MO 63141 (314) 567-5366 Sales Contact: Otto Rauhut, Pres.

WILCOX-LANGE INC.

3925 N. Pulaski Road Chicago, IL 60641 (312) 588-8380 Sales Contact: K.P. Kallman, Gen. Mgr.

WILKINSON ELECTRONICS INC.

5970 W. 60th Ave. Arvada, CO 80003

(303) 423-1652

WILL-BURT CO., TMD DIVISION

249 W. Henry St. Wooster, OH 44691 (216) 262-7010 Sales Contact: Willis M. Patterson, Sales Mgr.

WINSTED CORPORATION

9801 James Circle Minneapolis, MN 55431 (612) 888-1957 Sales Contact: G.R. Hoska, Sales Mgr.

WIREWORKS CORPORATION

380 Hillside Ave. Hillside, NJ 07205 (201) 686-7400 Sales Contact: Angela DICicco, Cust. Rel.

WOELKE MAGNETBANDTECHNIK GMBH & CO KG

Woelke-Strasse 2-3

D-8069 Schweitenkirchen 08444/394 Sales Contact: Mr. C. Weber, Man. Dir.

ROBERT WOLD COMPANY

11661 San Vicente Blvd. Los Angeles, CA 90049 (213) 820-2668 Sales Contact: Robert E. Wold, VP-Sales

WOLF COACH INC.

7 'B' Street - Auburn Ind. Park Auburn, MA 01501 (617) 791-1950 Sales Contact: Richard Wolf, Gen. Mgr.

FRANK WOOLLEY & CO. INC.

529 Franklin St. (215) 374-8335 Reading, PA 19602 Sales Contact: David L. Parke, VP

WORLD TOWER COMPANY INC.

P.O. Box 405 Mayfield, KY 42066 (502) 247-3649 Sales Contact: M.N. Sholar, Pres./Owner

WORLD VIDEO INC.

P.O. Box 117

Boyertown, PA 19512 (215) 367-6055 Sales Contact: John A. Taylor, III, VP Mktg.

XY&Z

XEDIT CORPORATION

133 So. Terrace Ave. Mt. Vernon, NY 10550 (914) 668-0388 Sales Contact: Dan Brietstein, Sales Dir.

YAMAHA INTERNATIONAL CORP.

6600 Orangethorpe Ave. Buena Park, CA 90620 (714) 522-9011

YARDNEY ELECTRIC CORP.

82 Mechanic St. Pawcatuck, CT 02891 (203) 599-1100 Sales Contact: J. Houlihan, Mgr. Applications and Special Products

THE ZEI-MARK CORP.

P.O. Box 182 Brookfield Center, CT 06805 (203) 355-0008 Sales Contact: Richard Zeitler, Pres.

ZERCOM CORPORATION

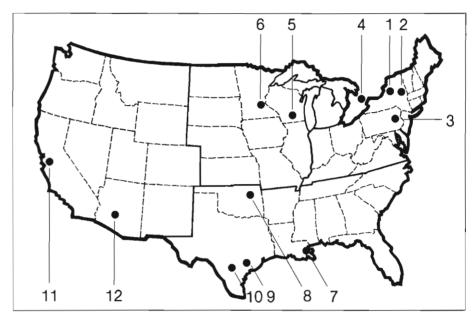
P.O. Box 84 Zercom Drive Merrifield, MN 56465 (218) 765-3151 Sales Contact: Jeff Zernov, Pres.

WHERE TO FIND IT GENERAL INDEX, Pages 38-45 WHO MAKES IT PRODUCT DIRECTORY, Pages 46-113 WHERE TO BUY IT

MANUFACTURERS, Pages 114-162; DEALERS/DISTRIBUTORS, Pages 168-189

SUPPLIER SHOWCASE®

A special advertising section featuring North America's top dealers, distributors, independent representatives, and importers/exporters. When it's time to buy...call these companies FIRST!



EAST

- 1. Micron Ltd. (914) 761-6520 Valahalla, NY SEE AD ON PAGE 163
- 2. Northeast Broadcast Labs Inc. (518) 793-2181 South Glen Falls, NY SEE AD ON PAGE 164
- 3. Processing Plus Inc. (215) 398-3377 Wescosville, PA SEE AD ON PAGE 164

NORTH/MIDWEST

- 4. Comad Communications, Limited (416) 245-1734 Rexdale, Ontario Canada SEE ADS ON PAGES 164, 166
- 5. Full Compass Systems (608) 271-1100 Madison, Wisconsin SEE AD ON PAGE 166
- 6. Todd Communications (612) 941-0556 Minneapolis, MN SEE AD ON PAGE 165

SOUTH

- 7. Audiomedia Associates (504) 586-0140 New Orleans, LA SEE AD ON PAGE 167
- 8. Delcom (918) 494-9500 Tulsa, OK SEE AD ON PAGE 165
- 9. Giesler Broadcasting Supply Inc. (713) 774-3314 Houston, TX SEE AD ON PAGE 166

10. Linrose Electronics (512) 342-8849 San Antonio, TX SEE AD ON PAGE 167

WEST

- 11. Marcom (408) 438-4273 Scotts Valley, CA SEE AD ON PAGE 167
- 12. Spencer Broadcast (602) 242-2211 Phoenix, AZ SEE AD ON PAGE 168



micron Itd.

For those who hear the difference

The MICRON Wireless Microphone System was designed to meet the needs of broadcasters, film makers and related professionals. We offer a variety of systems that give you the freedom and confidence never before available with a wireless microphone.

There's a MICRON system to fit your specific needs because you deserve the best.

MICRON AUDIO PRODUCTS

210 Westlake Drive • Valhalla, NY 10595 • (914) 761-6520



The Comad CJF-1 Prewired Audio Jackfield.

If you've counted the jacks in the photo, you've discovered the total price of the CJF-1.

Not bad for a 24-position prewired jackfield. Shielded, twisted-pair wire connects the 24 ADC tipring-sleeve jacks to a swivel-mounted terminal block with room for 120 connectors.

The standard single unit rack mounting strip is hinged on the left side for easy access to the wiring.

Four different lengths of cable harness are available, so that up to four separate terminal blocks can be neatly mounted into a pair of optional mounting bars.

If 24 jacks isn't enough for you, the 48-jack CJF-2 jackfield with a normalized wiring configuration is also available. Its price is \$495. (We'll let you figure out the cost per jack.)



Comad, inc.

P.O. Box 10667 Pensacola, FL 32504 904/434-9782

Circle (103) on Action Card

GO WITH THE PROS.

CHECKLIST:

- → Bald Mountain Lab
- → Broadcast Electronics Cablewave Systems
- → Delta Electronics
- → Dielectric Products
- ∠ ESE Timers & Clocks
- ✓ Electro-Voice
- ✓ Fidelipac
- ✓ Gorman-Redlich
- ✓ Inovonics ∠ LPB
- ✓ Marathon

- ✓ Moseley
- ∠ Marti
- ✓ Micro-Trak
- ✓ Orban
- ✓ Otari
- ✓ Phelps-Dodge
- Potomac Instr.
- ✓ QRK
- ∠ QEI
- ✓ Revox
- ✓ Sennheiser
- Shure
- ✓ UREI

Broadcast Equipment Distributor

for a complete line card, call or write for catalog and information NORTHEAST BROADCAST LAB, INC. IS CHARLES ST., P.O. BOX 1176 SOUTH GLENS FALLS, N.Y. 12801

Circle (105) on Action Card

audia processing and broadcast electronics

59 brookside road • box 3303 wescosville, pennsulvania 18106

BROADCAST EQUIPMENT DIV.

A COMPLETE LINE OF BROADCAST AUDIO AND RF EQUIPMENT

Product lines include: Aphex Aural Exciter, Scotch/3M, Nortronics. Stanton, BE, Fidelipac, Russco, Unarco-Rohn, Phelps-Dodge and the IMP-3 Audio Processor

AUDIO ENGINEERING DIV.

AUDIO SPECIALISTS CONCERNED WITH ON-AIR QUALITY! WE OFFER:

- * AM/FM system planning
- * AM stereo consultation
- * Audio quality upgrading
- * Complete and comprehensive engineering consultation

CALLTOLL-FREE 1-800-523-9396

IN PA. CALL COLLECT: (215) 398-3377

Circle (106) on Action Card

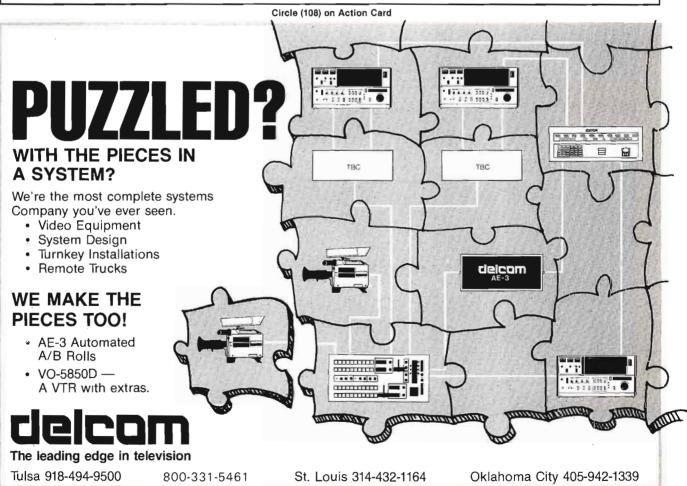
SHANE **MEDIA SERVICES**

7703 Windswept Houston, TX 77063 713-461-9958

Market Positioning Analysis
Programming and Music Consultation
Seminars for Management Profes- sionals

WHO DESIGNED, ENGINEERED AND CONSTRUCTED THE FIRST LPTV STATION IN AMERICA?





GIESLER BROADCASTING SUPPLY INC.

713-774-3314

FOR: PROFESSIONAL SERVICE PROFESSIONAL ADVICE PROFESSIONAL PRODUCTS

AMPEX

AMPRO/SCULLY

ANIXTER-MARK

AUDIOLAB

AUDIO-TECHNICA **AUDITRONICS**

AUTOGRAM

BELAR

BIRD

BROADCAST ELECTRONICS

CABLEWAVE

CAPITAL (AUDIOPAK)

INOVONICS

JBL

LOGITEK

MARTI

MCI

MICRO-TRAK

MOSELEY

NORTRONICS

ORBAN

OTARI

PHELPS DODGE

POTOMAC

OVER 20 YEARS EXPERIENCE

CRL

CSP

DB PRODUCTS

dbx

DELTA

DIELECTRIC PRODUCTS

ELECTROVOICE

ELECTRO IMPULSE

ESE

FIDELIPAC

GORMAN-REDLICH HALLIKAINEN

REVOX

RUSLANG

RUSSCO

SCALA

SENNHEISER

STL

SHURE

STANTON

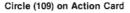
TECHNICS

TEXAS ELECTRONICS

UMC

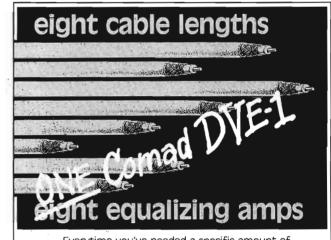
UREI

713-774-3314 **HOUSTON, TEXAS 77074** 5914 MAPLE





Circle (107) on Action Card



Everytime you've needed a specific amount of equalization, you've needed a separate distribution amplifier.

A single Comad DVE-1 Equalizing Amplifier has eight individually adjustable outputs, each capable of independently equalizing any video signal up to 1000 feet of cable.

And at \$600, it costs substantially less than eight amps — and only takes up one space in your equipment

Save space. Save money. And do the job. You can't do much better than that.



Comad. Inc.

P.O. Box 10667 Pensacola, FL 32504 904/434-9782

Circle (104) on Action Card BROADCAST COMMUNICATIONS/JUNE 1982

69 LINES

of the most respected equipment in the broadcast industry.

Serving Texas, the Gulf Coast and Mexico with radio and television broadcasting equipment.

For the best products, prices and service call —

Toby Tobias or Richard Reyes (512) 342-8849

Linrose Electronics Corp.

202 W. Nakoma San Antonio, TX 78216

Circle (111) on Action Card

audiomedia associates

The Gulf South's Premier Broadcast Supply House.

- AM-FM Broadcast Transmitters
- QEI Automatic Transmission Systems
- Turnkey Installation Specialists

Educational and Package Discounts Available College & Public Radio Bids Invited

Corey Meyer

(504) 586-0140 P. O. Box 29264 New Orleans, LA 70189

OTARII

LPB

orban

CCA.

Circle (112) on Action Card

WHAT A PAIR!

PROCESSOR



Model 82

- Format Addressable Processing™
- Pulse Duration Modulator (PDM) Gain Control
- "Feed Forward" Controlled Compressors
- "Paralimiter"™2 Designed Limiters
- Final Limiter With "Floating Release Threshold"
- Simple Design

STEREO GENERATOR



Model SC-203

- Channel Separation 70dB Typical
- 95dB Signal to Noise Ratio
- Test Tone Generator
- Optional SCA Generator
- Optional Digital Overshoot Corrector

marcom

P.O. Box 66507 • Scotts Valley, CA 95066 (408) 438-4273

DEALERS/DISTRIBUTORS INDEPENDENT REPRESENTATIVES IMPORTERS/EXPORTERS

ALABAMA

LEE ASSOCIATES MID - SOUTH

LINE: Sound and vibration test equipment.

817 Wheeler Ave. Huntsville, AL 35801 (205) 533-5896 Contact: S. J. Shelley

SIGNAL ENG. & SALES, INC.

LINE: Video equipment, audio and RF. 716-S. 23rd St. P.O. Box 10167 Birmingham, AL 35202 (205) 328-6431 Contact: Louis H. Pfan, Pres.

ALASKA

ALASKA ELECTRONICS SUPPLY, INC.

LINE: Electronic components, supplies, test instruments serving the industrial, communications and MRO markets.

5401 Fairbanks Street Suites 1 & 2 Anchorage, AK 99502 (907) 272-9416 Contact: Harry J. Lang, President

HARRY J. LANG & ASSOCIATES

LINE: McMartin, Fluke, Ampex, Pulsecom.

1371 Hillcrest Drive #303 Anchorage, Alaska 99503 (907) 279-5741 Contact: Harry J. Lang, Owner

NVS SYSTEMS, INC.

LINE: Acrodyne, Barco, Conrac, Hitachi, Sony, Telex, Tektronix. 8300 King Street Anchorage, Alaska 99502 (907) 349-3523 Contact: Jack O. Smith, President

ARIZONA

CHAMBERS ELECTRONIC COMMUNICATIONS

LINE: Professional sound and com-

munications products: Altec, JBL, Yamaha, Philips, etc.

313 South 36th St. Phoenix, Arizona 85013 (602) 275-5496

Contact: Dave Holland, Sls. Engr.

IMC

LINE: Wind power systems. 2515 E. Thomas, Suite 17 Phoenix, AZ 85016 (602) 957-8624 Contact: Karen Berry, V.P.

JENSEN TOOLS, INC.

LINE: Tools & tool kits, test equipment. 1230 S. Priest Dr. Tempe, Arizona 85281 (602) 968-6241 Contact: Tom Fenzel, Sls. Mgr.

PROFESSIONAL AUDIO DISTRIBUTORS

LINE: Broadcast audio. P.O. Box 2468 Phoenix, Arizona 85003 (602) 931-4956 Contact: L. Bollinger, SIs. Mgr.

ROH'S, INC.

LINE: Sony, Panasonic, JVC, Conrac, Microtime, HME, Setchell-Carlson, CVI, ProTech, ITE, Shure, Electro-Voice, Dukane.

4553 E. Broadway Tucson, Arizona 85711 (602) 795-8573 Contact: William D. Roh, President

SPENCER BROADCAST, INC.

LINE: Ampex, audio tape, videotape; Annixter Mark, M/W antennas; Audiopak, broadcast cartridges, tape; Audio-Path Engineering, audio equipment; Broadcast Electronics, audio/RF equipment; Cablewave, coax, & accessories; EFI, power line filters; Fidelipac, broadcast cartridges, accessories; Magnetic Reference Laboratory, audio alignment tapes; Orban Broadcast, AM/FM Optimod; Scala, M/W antennas; Stanton, audio cartridges, stylii, preamps; Stl., alignment tapes; Technics Professional, turntables, recorders; Xedit, audio/video splicing blocks, accessories; complete systems design & construction capabilities & consulting services.

2338 W. Royal Palm Phoenix, AZ 85021 (602) 242-2211 Contact: Janene Spencer, Sales Director SEE AD ON PAGE 168

VIDEO ASSIST

LINE: Video rentals. P.O. Box 34433 Phoenix, AZ 85067 (602) 234-0909

Technics

E.F.I.

BROADCAST ELECTRONICS



R.F



AUDIO/VIDEO



AUDIO-PATH Engineering, Inc.

SENNHEISER

SPENCER BROADCAST

Sales and Full Engineering Services Offering AMPEX Thru XEDIT

60 major lines for the Broadcaster, and growing

For further information, contact Chuck Spencer.

SPENCER BROADCAST

2338 W. Royal Palm, Phoenix, AZ 85021 (602) 242-2211

We Service What We Sell

"Competitive Pricing"

Contact: Richard Andresano. General Manager

ARKANSAS

STANLEY COMMUNICATIONS COMPANY

LINE: Video and audio equipment and accessories

3600 West 69th Little Rock, Arkansas 72209 (501) 562-9200

Contact: K. White, VP/Gen. Mar.

CALIFORNIA

AUDIO KINETICS, INC.

LINE: Audio Kinetics time code synchronisers and custom operating pro-

5721 Laurel Canyon Bl. North Hollywood, CA 91607 (213) 980-5717 (800) 423-3666

Contact: Charles Flynn, Mktg. Dir.

AUTOGRAPHICS, INC.

LINE: Character generators & video equipment.

6335 Homewood Ave. Hollywood, California 90028 (213) 464-2244

Contact: L. C. Rheinstein, Pres.

AUTOMATED BUSINESS CONCEPTS Div. of Cetec Corp.

LINE: Business and accounting systems

1110 Mark Ave Carpinteria CA 93013 (805) 684-7686

Contact: Frank Crane, Mktg. Mgr.

BARRETT ASSOCIATES, INC.

LINE: Full line of new and reconditioned (guaranteed) audio & RF equipment. Accepts trade-in equipment, CSI, JBL, 3M, Bird, LPB, Belar, Marti, Leader, Beyer, Electro-Voice, etc.

800 Grand Avenue W. Bldg. Ste. C-1 Carlsbad, CA 92008 (714) 729-4957 (714) 729-4958

Contact: W. Barrett Mayer, Pres.

BIRNS & SAWYER, INC.

LINE: Lights, tripods and fluid heads, film & video camera accessories, sound equipment, lens filters.

1026 N. Highland Avenue Hollywood, CA 90038 (213) 466-8211 Contact: Bill Sutphin, Sales VP

BROADCAST AUDIO CORP.

LINE: JBL loudspeakers.

11306 Sunco Drive Rancho Cordova, CA 95670 (916) 635-1048

Contact: Dale A. Tucker. Marketing Manager

BROADCAST CARTRIDGE SERVICE, INC.

LINE: Aristocart, Capitol/Audiopak, Fidelipac, 3M, Simpac. 15131 Triton Lane

Suite 108

Huntington Beach, CA 92649 (714) 898-7224

Contact: Bryant Ellis, President

BROADCAST COMMUNICATIONS DEVICES INC.

LINE: Panasonic, Hitachi, Ikegami, Conrac, Tektronix, JVC.

2990 E. La Jolla Street Anaheim, CA 92806 (714) 630-8150

Contact: Randy Lucio, Oper. Mgr.

BROADCAST MARKETING ASSOCIATES

LINE: Computer graphic systems, digital standards converter, routing switchers, machine control systems, VTRs, cameras, monitors, text equipment.

2211 C Fortune Dr. San Jose, CA 95131 (408) 946-2236

Contact: Richard Reilly, Pres.

RICHARD W. BURDEN ASSOCIATES

LINE: LPB. Dorrough Electronics.

20944 Sherman Way, -213 Canoga Park, CA 91303 (213) 340-4590 Contact: Richard W. Burden, President

CALICO VIDEO CO., INC.

LINE: Videotape sales (all formats), TCR-100 video carts (new), REMFG'D reloaded, 1" & 2", U-matic sales & service.

8955 Thornton Road Stockton, CA 95209 (209) 952-3333

Contact: Hugh Sangster, President

CARA PACIFIC SALES

LINE: Microphones - Brand - MILAB (Sweden).

P.O. Box 9339 Marina Del Rey, CA 90291 (213) 821-7898 Contact: Bill Cara, Owner

THE C n B STUDIOS

LINE: Music libraries for automated radio stations.

3415 Beresford Ave. Belmont, California (415) 592-6149 Contact: A. Thompson, Owner / Mgr.

COAST RECORDING EQUIPMENT SUPPLY, INC.

LINE: Ampex, BGW, Crown, AKG, Shure, Electro-Voice, Neumann. 6114 Santa Monica Blvd. Hollywood, CA 90038 (213) 462-6058

Contact: Jerry Cubbage, Pres.

CHESTER COLEMAN **GREAT AMERICAN** BROADCAST CO.

P.O. Box 5053 2284 S. Victoria Ave. Ste. 2-B

Continued on page 170



Video Delay L

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 @ 100 KHz (db)	Amplitude Flatness At Any Delay Setting 100 KHz to 5.5 MHz (db)	Max. Rise Time (Nano- Sec.)	Package Size (Inches)
VAROO5	3-7	Continuous	Trimmer	.20	.2 Max.	N.A.	35/8 x 11/2 x 11/4
VARO11	0-11	Continuous	Trimmer & Toggie	.20	.25	N.A.	4¾8 x 2¾8 x 1½16
VP0010	0-10.5	.5	Toggle	.15	.2	3	43/8 x 23/8 x 1 1/16
VP0127	0-127	1.0	Toggle	.15	.3	14	43/8 x 23/8 x 1 1/16
VP0255	0-255	1.0	Toggle	.15	.3	16	43/8 x 23/8 x 11/16
VP0317	0-317.5	2.5	Toggle	.15	.3	20	4¾8 x 2¾8 x 11/16
VP0635	0-635	5.0	Toggle	* .50	.4	25	411/16 x 311/16 x 21/16
VP1100	0-1100	10.0	Rotary	1.25	.4	30	411/16x311/16x21/16
VP1270	0-1270	10.0	Toggle	*3.00	.4	30	411/16 x 311/16 21/16
VP2075	0-2075	25.0	Toggle	*3.00	.5	40	73/8 x 411/16 x 23/16
VS0315	0-315	5.0	Strap	.25	.4	28	4 x 2 x 1 1/4
V\$0635	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	61/2×31/2×2

		RA	CK MOU	NTABLE	UNITS		
VRM0255	0-255	1.0	Slide Switch	.40	.4 Max.	20	11/8 x 41/8 x 4
VRM0637	0-637.5	2.5	Slide Switch	*1.00	.4	28	1 1/8 x 4 1/8 x 6
VRM1275	0-1275	5.0	Slide Switch	*3.00	.4	33	1 1/8 x 41/8 x 9
VRM2270	0-2270	10.0	Slide Switch	*3.00	.5	40	1 1/8 x 41/8 x 9
VRS0317	0-317.5	2.5	Strap	.40	.5	26	11/8 x 41/8 x 4
VRS0635	0-635	5.0	Strap	.75	.5	35	11/8 x 41/8 x 6
VRS1270	0-1270	10.0	Strap	1.50	.5	37	1 1/a x 4 1/a x 9
VR\$2260	0-2260	20.0	Strap	3.00	.5	40	11/8 x 41/8 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.

able series.

Pulse Distortion: Less than 4% with an input pulse rise time of 20 nanoseconds. Working Voltage: 50 volts maximum. 100 volts maximum for Rack Mount-

Return Loss: 20db minimum. 15db minimum for VP2075, VS2075 and Rack Mountable series.

Delay Tolerance: 5% or 1 nanosecond, whichever is greater.

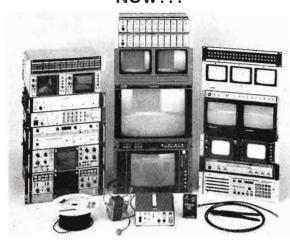
CALL/WRITE

For Video Delay Lines & Filters Catalog

ALLEN AVIONICS, INC. 224 EAST SECOND ST., MINEOLA, NY 11501

Phone: 516-248-8080

NEED ANY OF THIS EQUIPMENT? NOW???



CALL BSI!

WE HAVE THESE ITEMS, AND MORE. **IN STOCK** ... READY FOR IMMEDIATE SHIPMENT. CALL US TODAY ON OUR WATS LINE AND WE WILL SHIP TOMORROW.

NATIONAL WATS: 800/531-5232

TEXAS WATS: 800/252-9792

BROADCAST SYSTEMS INC.

8222 JAMESTOWN. AUSTIN TEXAS 78758

Circle (115) on Action Card

BAL'S ROAD CASE



 Rugged A.T.A. design
 Steel latches & hinge . Attractive grey color . Carry-on or ship by air/surface

Size: 19 x 14 x 6 inside; refer to P/N M82-0011 All shipments UPS prepaid. Allow 3 weeks for delivery. Other larger sizes available. Mail check or inquiry to:



947 Newark Avenue, P.O. Box 875 BC Elizabeth, New Jersy 07207 (201) 354-9625; Telex 844280

Circle (116) on Action Card

WHERE TO BUY IT

Ventura, CA 93003 (805) 656-FM96 Contact: Chester Coleman, GM

CINEMILLS CORP.

LINE: Strand Century, Inepo HMI lights, Veam connectors, Lee camera filters, Lee filters, Dayma HMI bulbs, hand held & line frequency meters.

3500 W. Magnolla Ave. Burbank, CA 91505 (213) 843-4560

COMMUNICATIONS COMPANY, INC.

LINE: Altec, JBL, McMartin, Shure, EV, Vega, Yamah.

3940 Noell Street San Diego, CA 92110 (714) 297-3261

Contact: Victor M. Hall, President

COMMUNICATIONS CONTROL CENTERS, INC.

LINE: Thomson-CSF TV Transmitters, JAI closed circuit TV. 1568 N. Sierra Vista Ave.

Fresno, CA 93703 (209) 251-4213

Contact: Robt. D. Sidwell, VP-Sales

3D VIDEO CORPORATION

LINE: 3D TV Processors 4605 Lankershim Blvd. N. Hollywood, CA 91602 (213) 769-6752

Contact: J. Butterfield, Gen. Mgr.

DAVIS ELECTRONICS

LINE: Remote control & monitoring system. STL, antennas, custom audio equipment.

P.O. Box 128 Sierra Madre, CA 91024 (213) 355-6909 Contact: John J. Davis, Pres.

LEO DINER FILMS, INC.

350 Golden Gate Ave San Francisco, CA 94102 (415) 775-3664 Contact: Roy E. Diner, VP-Gen. Mgr.

THE DURAFILM COMPANY

LINE: Film preservation, maintenance, restoration, services, machinery chemicals.

137 N. LaBrea Ave. Hollywood, CA 90036 (213) 936-1156 Contact: Madelon Caten, Pres.

EDDIE EGAN & ASSOC.

LINE: Studio vinyl tile for video stages. 156 S. Robertson Blvd. Los Angeles, CA 90048 (213) 272-9282

Contact. Eddie Edgan, President

ELECTOR

LINE: Exclusive North American distributors for Barco Communications products, Barco Electronic products, and the HI-Beam Projector.

5128 Calle Del Sol Santa Clara, CA 95050 (408) 727-1506

Contact: Guido Govaert, SIs. Mgr. SEE AD ON PAGE 2

GENERAL ELECTRONIC SYSTEMS, INC.

LINE: Sony, Conrac, Convergence, JVC, Panasonic, Altec, Dynair, 3M Mincom, Tektronix.

1440 San Pablo Ave. Berkeley, CA 94702 (415) 527-7700

Contact: R. Lindhelm, President J. Harris, Mgr., Video SIs.

ALAN GORDON ENT., INC.

LINE: Bell & Howell film cameras & minicams - MK-IV, director's view finder, NCEII Animation Motors - NAC animation Video System, Neilson-Hordell animation stands.

> 1430 Cahuenga Bivd. Hollywood, CA 90028 (213) 466-3561

Contact: Ted Lane, SIs. Mgr.

THE GRAPHIC EXPRESS

LINE: News sets, animation, and graphics for news.

7969 Engineer Rd. Suite 201

San Diego, California 92111 (714) 565-2146

Contact: D. Hoogenakker, Nat'l. Product Director

GREAT AMERICAN BROADCAST CO.

LINE: Broadcast automation custom systems, application consultants. P.O. Box 5053

2284 S. Victoria Ave., Ste. 2 - B

Ventura, CA 93003 (805) 656-3696

Contact: Chester Coleman

HARRY'S VIDEO MART

LINE: Magnavox, Quasar, Panasonic, Pan Industrial, Sharp, Showtime Video Ventures, RCA, Hitachi.

647 W. Foothill Blvd. Upland, CA 91786 (714) 981-8971 (213) 332-3235

Contact: Leigh Adams, Mgr.

IMAGE ELECTRONICS

LINE: Control Video, Quanta, Utah Scientific, JVC, Animation Video. 5801 Uplander Way Culver City, CA 90230 (213) 641-7733 Contact: John Leveck, President

INNOVATIVE TELEVISION EQUIPMENT

P.O. Box 681 Woodland Hills, CA 91365 (213) 888-9421 Contact: B.I. Rosenberg, Pres.

INTERFACE DATA SYSTEMS

LINE: Digital Equipment Corporation's complete line of computer products, Plessey, Control Data, Emulex, MDB.

2990 E. LaJolla Street Anaheim, CA 92806 (714) 630-8155

Contact: Tim Clark, Sls. Mgr.

INTERNATIONAL EQUIPMENT REPRESENTATIVES

LINE: Electronic broadcast equipment. 6920 Miramar Road, Ste. 307 San Diego, CA 92121 (714) 695-1850

Contact: Alejandro Rodriguez, Sales Manager

KAITRONICS CORP.

1540 Gilbreth Road Burlingame, CA 94010 (415) 697-9102 Contact: Paul Tarrodaychik, VP

R.H. KEARNS INC.

LINE: Broadcast cartridge digital tape timer

4411 Red Maple Court Concord, CA 94521 (415) 680-1349

Contact: Bob Kearns, President

KITCHEN PRODUCTIONS, INC.

LINE: Television Technology, Scala, Acrodyne, Wilkinson, Tepco, Blonder Tongue, Lindsay, Rohn, Triple Crown, Andrew, Anixter Mark, Prodelin. 619 W. Ridgecrest Blvd.

Suite D Ridgecrest, CA 93555 (714) 375-2753 (714) 375-5690

Contact: Shauna Wooley, Consultant

LEASAMETRIC

LINE: Rental/lease, telecommunications test equipment.

1164 Triton Drive Foster City, CA 94404 (415) 574-4441

Contact: Susan Simmons, Corporate Communications Manager

L. P. MARKETING

LINE: Otari, dbx, Orban, AKG, Infinity, SAE, Monster Cable.

2036 Livingston St. Oakland, CA 94606 (415) 532-5600 Contact: Larry Petersen, Pres.

LEMO U.S.A. INC.

LINE: High-performance cylindrical coaxial, triaxial, multicontact and environmentally sealed connectors.

335 Tesconi Circle P.O. Box 6626 Santa Rosa, CA 95406 (707) 523-0600

Contact: Steve Haussler, Service Manager

DAVID LINT ASSOC., INC.

Broadcast equipment. Equipment for recording studios and tape duplication facilities.

3350 Scott Blvd. Bldg. 5 Santa Clara, CA (408) 727-0964

Contact: David Lint, President Igor Koxlov, Director

LIVE SOUND, INC.

1741 N. Ivar Suite 101 Hollywood, CA 90028 (213) 462-3351

Contact: Ken Rayzor, Sales

MARCOM

LINE: Importers of C.N. Rood B.V., JNS Electronics, Clyde Electronics. Complete audio/video/teleconferencing ambroadcast facilities, including engineering, installation and financing.

4865 Scotts Valley Dr. P.O. Box 66507 Scotts Valley, CA 95066 (408) 438-4273 Contact: Marty Jackson, Pres. SEE AD ON PAGE 167

MARSHALL ELECTRONICS

LINE: Mogami superflexible audio & video cable. Also connectors & cable assemblies for recording & broadcast. P.O. Box 2027

Culver City, California 90230

(213) 836-4288 Contact: L. Marshall, VP Mktg.

MARTEL ELECTRONICS

LINE: Uher tape recorders and microphones.

970-A E. Orangethorpe Ave. Anaheim, CA 92801 (714) 871-7102

Contact: Ron Smith, Manager

KENNETH R. MEADES

LINE: A/V consulting services, recording, designing & engineering, audiovideo systems.

P.O. Box 3831 Beverly Hills, CA 90212 (213) 464-8166

Contact: Kenneth R. Meades, Owner, Mgr.

MEL AUDIO VIDEO, INC.

LINE: Tape recorders, tape, microphones, sound processing. 1122 E. Chevy Chase Dr. Glendale, California 91205

(213) 245-7708 Contact: Bryant Ellis, Manager

C. H. MICHEL

LINE: Broadcast and industrial television, audio, and optical equipment and supplies.

13400 Mullholland Dr. Beverly Hills, CA 90210 (213) 274-4903 Contact: Charles H. Michel, Owner

MILLER PROFESSIONAL EQUIPMENT, INC.

LINE: Universal fluid heads & tripods. 10816 Burbank Blvd. North Hollywood, CA 91601 (213) 766-9451 Contact: Eva. L. Pincetich, V.P.

NTI AMERICA, INC.

1680 N. Vine St. Los Angeles, CA 90028 (213) 462-8945

Contact: George Nakaki, Sls. Mgr.

OLESEN

LINE: Lighting and production supplies for stage, television and cinema. 1535 Ivar Ave. Hollywood, CA 90028 (213) 461-4631

ALLEN OSBORNE ASSOCIATES

LINE: Telescoping pneumatic masts. 5195 N. Douglas Fir Road Calabasas, CA 91302 (213) 888-2772

Contact: Allen W. Osborne, Pres. SEE AD ON PAGE 12

PACIFIC COAST MARKETING

LINE: Amber Electro Design, Gorman-Redlich, Hallikainen & Friends, Leader Instruments, QEI, Ramko Research, Technics.

20 S. Santa Cruz Ave., Suite 309 Los Gatos, CA 95030 (408) 395-7021 Contact: Larry Maguire

PALADIN CORPORATION

LINE: Wire strippers, desoldering tools, wire cutters and voltage testing equipment.

31332 Via Colinas, Suite 106 Westlake Village, CA 91362 Continued on page 172



FM MONITOR/TEST SET (691)

FM EXCITER

STEREO GENERATOR

SCA GENERATOR

SOLID STATE TRANSMITTERS

150 WATT FM

300 WATT FM

500 WATT FM

1000 WATT FM

3.5KW FM TRANSMITTER

FM ATS

AM MODULATION MONITOR

QEI CORPORATION

ROUTE 73 KRESSON, N.J. 08053 (609) 767-8052

Circle (117) on Action Card



Circle (118) on Action Card

END STV PIRACY

low cost Dynacom system

Whether you're going into STV for the first time or you have an existing system that's letting you be robbed blind, check out the new, secure Dynacom system.

We have provided "ticket module" decoders to small market clients and fully addressable systems to larger markets.

Call Robert Payne today at (404) 428-3100, and start STV paying off for you.



Dynacom Electronics Limited 590 Commerce Park Drive Marietta, GA 30060

Circle (119) on Action Card

WHERE TO BUY IT

(213) 991-4970 Contact: Ronald Vogel, VP, SIs.

PANEL COMPONENTS CORP.

LINE: Fuses, fuseholders, voltage selectors, primary circuit connectors, RFI power line filters, cords & cordsets with international product safety ap-

335 Tesconi Circle P.O. Box 6626 Santa Rosa, CA 95406 (707) 523-0600 Contact: Steve Haussler, Service Manager

PENNY & GILES CONDUCTIVE PLASTICS LTD.

1640 Fifth St. Suite 201 Santa Monica, CA 90401 (213) 393-0014 Contact: Rachel Smedley, Manager

PROCAM, INC.

LINE: Aaton camera system; FTG (Oskar Heiler) fluid heads & tripods; SFAT recording, editing, mixing,

905 North Cole Avenue Hollywood, CA 90038 (213) 464-2125

Contact: Regis Laderriere, Pres.

QUINTEK, INC.

LINE: Audio Kinetics Ltd - tape locators and synchronizers for audio/video. Advanced music systems -digital delay lines & disc mastering delay lines.

4721 Laurel Canyon Blvd. #209, N. Hollywood, CA 91607 (213) 980-5717 Contact: Rodney Pearson, President

RIGGINS ELECTRONIC SALES

LINE: Audio consoles, cartridge machines, transmitters, turntables, reel to reel recorders, microphones, tape cartridges, tone arms, replace-ment stylli, studio furniture, studio ac-

3272 E. Willow St. Long Beach, California 90806 (213) 598-7007 Contact: G. E. Riggins, Owner

SAS COMPANY

LINE: All professional audio equipment

5219 Craner Ave. North Hollywood, CA (213) 466-5474 Contact: Gil Reyes, C.E.O.

SAECO INTERNATIONAL

LINE: Ampex, Grundig, JVC, Hitachi, OKI, Tektronics, Grass Valley, RCA, Comprehensive, NEC, Panasonic, Crosspoint Latch, Shintron, Strand Century, Videotek, Sony, JBL.

1122 E. Chevy Chase Dr. Glendale, CA 91205 (213) 245-7708 TIx Twx: 910-497-2091

Contact: L.M. Bleakley, Sis. Mgr.

SAWYER CAMERA & INSTRUMENT CO.

LINE: 3M Scotch Videotape, Sony videotape, Majestic videotape, Mole-Richardson lights, Hitachi cameras &

6820 Santa Monica Blvd. Los Angeles, CA 90038

(213) 466-6111 Contact: Alan Colberg, Sls. Mgr.

SEE HEAR INDUSTRIES

717 E. Actesia Blvd. Carson, CA 90746 (213) 516-0315 Contact: Ray Salobs

SIERRA AUDIO CORP.

LINE: Custom acoustical consultation. construction services, monitor system. 721 So. Glenwood Pl. Burbank, CA 91506 (213) 843-8115

Contact: Kent Duncan, Pres.

SIMON ASSOCIATES

LINE: Entre, Osram, Spectra, Tough Traveler, ColourTronics, Silver Grabber, Classic Cases, Port-A-Screen.

20 Sunnyside Suite B Mill Valley, CA 94941 (415) 381-0835 Contact: Tim Simon, President

SIMPAC CORP.

5472 Kenilworth Dr. Huntington Beach, CA 92649 (714) 846-0765 Contact: Paul J. Burns, Dist.

R. E. SNADER AND ASSOCIATES, INC.

LINE: 3M, Quanta, Tektronix, Microtime, JVC, Panasonic, Sigma, ISI, Gray, Fortel, Laird.

35 Reed Blvd. Mill Valley, CA 94941 (415) 381-3300 Contact: Bob Snader, President

SOUND GENESIS

LINE: Consoles, tape machines, mikes, signal processing, amplifiers, intercom to PL systems, synchronizers, speaker systems and components, turntables, accessories.

2001 Bryant Street San Francisco, CA 94110 (415) 285-8900 Contact: Ron Webb, Broadcast Sales Mgr.

SOUND INVESTMENT **ENTERPRISES**

LINE: Audio amplifiers, microphones, tape recorders, speakers, signal processing, cable & connectors, consoles, intercoms, headphones, recording tape, duplicators.

P.O. Box 4139 31121 Via Colinas Suite 1003 Thousand Oaks, CA 91359 (213) 991-3400 Contact: Howard Parker, Owner

STEENBECK, INC.

LINE: Film editing equipment. Film to tape transfer equipment.

9045 Eton Ave. Suite A Canoga Park, CA 91304 (213) 998-4033 Contact: Ted J. Diamond. Sales Manager

STUDIO FILM & TAPE, INC.

LINE: Reprocessed 2" Quad Video tape; New & reprocessed 1" and 3/4" tape. New 1/2" VHS and Beta Tape. Reprocessing facility available to eval-uate 2" and 1" tape for reuse by user. 6670 Santa Monica Blvd.

BROADCAST COMMUNICATIONS/JUNE 1982

Hollywood, CA 90038 (213) 466-8101 (800) 421-4496 outside of CA. Contact: Sherrie Finholt or Bill Ferree, Videotape Reps

STUDIO MAINTENANCE SERVICE, INC.

LINE: Trident Audio Developments, Ltd. ADC Products (audio & video connectors).

12458-60 Magnolia BI. North Hollywood, CA 91607 (213) 877-3311 Contact: David Michaels, Pres.

SUDAMERICANA ELECTRONICS CO (SAFCO)

LINE: Ampex Broadcast, Hitachi Broadcast, JVC, Grass Valley, Tektronix, Grundig, RCA CCTV, video vans, studio lighting, earth station receivers.

1122 E. Chevy Chase Dr. Glendale, CA 91205 (213) 245-7708 TLX TWX: 910-497-2091 Contact: Lock Bleackley, Sls. Mgr.

SURCOM ASSOCIATES

LINE: Transmitting capacitors 305 Wisconsin Ave. Oceanside, California 92054 (714) 722-6162 Contact: A. J. Link, Mgr./Owner SEE AD ON PAGE 147

SYSTEM ASSOCIATES

5801 Uplander Way Culver City, CA 90230 (213) 641-2042

Contact: Walter A. Shubin, VP Billy H. Seidel, President

TELAUDIO CENTRE

LINE: UAP, Panasonic, Microtime, Crosspoint Latch, Hitachi, Datatek, For-A, Teatronics.

P.O. Box 921 Beverly Hills, CA 90213 (213) 276-2726 Contact: L. D. Mazzini, Sales Mgr.

TEKNEKRON CONTROLS, INC. (T.C.I.)

2121 Auston Way Berkeley, CA 94704 (415) 843-8227 Contact: Claudia Kelly

TELEVISION ASSOCIATES, INC.

LINE: Sharp, Ikegami, Listec, Asaca, Shintron, Sony, Sony Broadcast, RCA, Ampex, 3M, Memorex, JVC, Panasonic, CVS, Anvil, Bratford, Calesonks, Canon, Christie, Cine-60, Colortran, NEC. Shure

2410 Charleston Rd. Mt. View, CA 94043 (415) 967-6040

Contact: Ann Callahan, Prod. Sis. Dave Taylor, Equip. Sls.

BRIAN TRANKLE & ASSOC.

LINE: Audio Technica, E. M. Long Assoc., Lexicon, Quantum Audio Labs, Edcor, Renkus-Helnz, UREI, Panasonic Pro-Audlo Division

820 Black Mountain Rd. Hillsborough, CA 94010 (415) 344-1133 Contact: Brian F. Trankle, Owner

TRITRONICS, INC.

LINE: Video/audio professional systems, plus related accessories & components.

2921 West Alameda Ave. Burbank, CA 91505 (213) 843-2170 (800) 423-3640 Nat'l. Wats Line CALIF. (800) 232-2141 Contact: Chuck Huber, Sls. Adm.

VIDEO LOGIC SERVICES INT'L

LINE: TV equipment, radio (commercial and private)

P.O. 1434 Los Gatos, CA 95030 (408) 356-1031

Contact: James B. Sullivan, Pres.

VIDEO SYSTEMS NETWORK, INC.

LINE: Ail major brands. 12530 Beatrice St Los Angeles, CA 90066 (213) 870-1231 Contact: C. M. Brainard, V.P.

THE VIDEO TAPE COMPANY

10545 Burbank Blvd. N. Hollywood, CA 91601 (213) 985-1666

Contact: Dick Millais, Dir. of Mkta.

VIDEOTAPE PRODUCTS, INC.

1414 Sixth Street Santa Monica, CA 90401 (213) 394-0282 Contact: Dick Marzec, Pres.

WESTERN BROADCAST SYSTEMS

LINE: Leitch Vldeo, Ross Video, MCI/ Quantel, Ampex Pro Audio, Ampex Tape, Conrac, Auditronics, Crown, Lexicon, CEI.

10707 Amulet Place Cupertino, CA 95014 (408) 749-0900 Contact: Homer Hull, Pres.

WESTLAKE AUDIO, INC.

LINE: Auditronics, Otarl, BTX, Soundcraft; all microphone lines, RTS systems; HME

6311 Wilshire Blvd. Los Angeles, CA 90048 (213) 655-0303 Contact: John Carey, SIs. Mgr.

COLORADO

BROADCAST COMMUNICATION PRODUCTS

3085-A Bluff St. Boulder, CO 80301 (303) 442-3231 Contact: Greg Pine or Quin Morrison, Sales Managers

CEC. INC.

LINE: Wide-band spectrum analyzers, RF components, signal & sweep generators, counters, oscilloscopes, ampliflers, modulation and deviation meters

1602 South Parker Road Denver, Colorado 80231 (303) 751-3252 Contact: R. T. Seery, Sales Eng.

WHERE TO FIND IT

Continued on page 174

GENERAL INDEX, Pages 38-45

WHO MAKES IT

PRODUCT DIRECTORY, Pages 46-113

CUSTOM & STANDARD BROADCAST EQUIPMENT

- Master Control Switchers
- Machine Assignment Systems
- Audio/Video Routing Switchers $(10 \times 1 \text{ up to } 250 \times 250)$
- Custom Automated Systems
- Master Control Automation



Custom-designed Master Control

Modular design Readily available components Easy maintenance Microprocessor control for large systems

We can design a system for your specific requirements



IMINGE VIDED LIMITED

700 Progress Avenue, Scarborough, Ontario, Canada M1H 2Z7 Telephone: (416) 438-3940 Telex: 065-25392

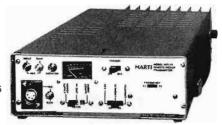
Circle (156) on Action Card



Circle (121) on Action Card

Live Remotes

Marti's RPT15 Transmitter has the power to bring difficult remotes back **LIVE**.



VHF-UHF Model RPT15 Transmitter

Delivering the maximum allowable (15 watts) power for aircraft ENG, the RPT15 produces outstanding results with traffic reports, mobile units and fixed remotes — and with clean broadcast-quality audio and continuous-duty operation. Built-in encoding permits operation with Marti Mobile Repeaters and Automatic Repeaters in wide coverage systems.

RPT15 FEATURES:

- ★ Type accepted on all VHF-UHF RPU channels
- ★ 15 watts continuous output
- ★ Dual frequency capability
- * Sub audible encoder
- ★ Built-in metering
- * Built-in AC supply
- * FM Compressor-Limiter
- ★ Mixing mic and line inputs

MARTI

MARTI Electronics, Inc.

1501 N. Main • P.O. Box 661 Cleburne, Texas 76031 (817) 645-9163 • Telex 794 835

Circle (122) on Action Card

Specializing in broadcast facility planning and design.



Circle (123) on Action Card

WHERE TO BUY IT

COLORADO MAGNETICS

LINE: Audiopak, Fidelpac, Audiolab, Aristocart, Audio Technica, Ampex.

P.O. Box 713 Colorado Springs, CO 80901

(303) 596-0684 Contact: Larry Wilson, Owner

COLUMBINE SYSTEMS, INC.

LINE: Data processing for the broadcast Industry.

> Seven Jackson Building Level 3 Plaza of the Presidents Golden, CO 80401 (303) 279-4000

Contact: Sue Thompson, VP/Marketing

DAVIS AUDIO VISUAL, INC.

LINE: Conrac, JVC, Panasonic, Scotch, Videotek.

1801 Federal Blvd. Denver, CO 80204 (303) 455-1122

Contact: David Marr, Video Mgr.

DIDIER / DENVER, INC.

LINE: Acrodyne, Adda Corporation, Central Dynamics Ltd., Leitch Video, Tektronix, Time & Frequency Technology, Etc.

P.O. Box 1599 Evergreen, CO 80439 (303) 674-6000

Contact: Herb Didier, Pres.

FILM / VIDEO EQUIPMENT SERVICE CO.

LINE: Cinema Products Corp., Swintek, Kangaroo Video Pack, Universal, O'Connor, Peter Lisand, Karl Heltz, Sennhelser, Matthews, Lowel, Fujinon warranty repair.

1875 S. Pearl St. Denver, CO 80210 (303) 778-8616

Contact: Dean Schneider, Pres.

GENERAL SOUND & ELECTRONICS

LINE: Altec, Electro-Volce, Soundoiler, Toa, Alphone, Shure, Clear-Com, HME, Orban, Matrecs Davis, BGW, AKG, Special Instruments Lab., University. 1369-A West Byers Place

1369-A West Byers Place Denver, CO 80223 (303) 744-1768

Contact: Jlm Husky, President

HIGHLAND ASSOCIATES, INC.

LINE: Antennas, consoles, transmitters, microphones, turntables, tape recorders.

Box 99 Broomfield, Colorado 80020 (303) 466-3851

Contact: Mrs. H. S. Broughall, President

McLOUD & RAYMOND CO.

LINE: Professional audio tape products, microphones, mixers, head-phones.

1562 South Parker Road #336 Denver, Colorado 80231 (303) 751-5305

Contact: W. Clif McLoud, Pres.

CONNECTICUT

JOHN B. ANTHONY CO.

LINE: AKG, Amber, AVS, Bozak, Cartalign, dbx, Eumig, HME, Kenwood Car & Home, Micron, Orban, Otarl, Sheffleld Labs, Stanton, UREI & Consilium Industri AB. 992 High Ridge Road Stamford, CT 06905 (203) 322-9202, (212) 585-2027 Contact: John B. Anthony, Pres.

AUDIOTECHNIQUES

LINE: MCI tape machine and consoles, Dolby, UREI, Crown, Lexicon, Neuman, AKG.

652 Glenbrook Rd. Stamford, CT 06903 (203) 359-2312

Contact: Mike Faulkner, V.P.

COMET SALES

LINE: Fixed & variable ceramic vacuum capacitors

38 Brushwood Lane Stamford, CT 06903 (203) 322-5272

Contact: H. Ripperger, Sales Coord.

CONCORD COMMUNICATIONS

LINE: Video equipment, audio equipment, lighting accessories, video services.

970 High Ridge Rd. Stamford, CT 06905 (203) 322-9322 Contact: Alan Rich, VP

DENSON ELECTRONICS CORP.

LINE: Video equipment.

P.O. Box 85 Rockville, CT 06066 (203) 875-5198

Contact: A. C. Denson, President

GLOBAL COMMUNICATIONS AND ENGINEERING, INC.

LINE: TV, AM, FM transmitters, towers, antennas, audio / visual equip., "Turnkey" installations & services.

914 White Plains Rd. Trumbull, CT 06611 (203) 261-2068

Contact: R. M. Read, Pres.

INMARK CORPORATION

LINE: Comet vacuum capacitors, Weber Circuit Breakers for equipment.

147 West Cedar St. Norwalk, CT 06854 (203) 866-8474

Contact Jacquelyn E. Nette, Dir.

NATIONAL VIDEO SERVICES, INC.

LINE: JVC, Panasonic, RCA, NEC, Sony, Lenco, Barco.

3 Pembroke Road Danbury, C[⊤] 06810 (203) 792-3862

Contact: G. Johnstone, Pres.

NEUTRIK PRODUCTS

77 Selleck St. Stamford, CT 06902 (203) 248-2121

Contact: Richard Pavich, Mkt. Mgr.

REDDING RADIO A Division of

SJ Industries, Inc.

LINE: Redding Radio microphone callletter plates, telephone coupling devices; 3M tape, Stanton cartridges/styli, Shure cartridges/styli/microphones, Electro-Voice mikes.

Box 344 Fairfield, CT 06430 Contact: Sascha Deale, VP/Mktg.

STATION BUSINESS SYSTEMS Div. Control Data Corp.

LINE: BAT1700 billing, accounting, and traffic systems; music playlist & Inventory systems; media cartridge inventory system; program package inventory system; and Newscom automated newsroom system for broadcast. Also subscriber processing & accounting systems for cable.

600 West Putnam Avenue Greenwich, CT 06830 (203) 622-2400

Contact: Joe Barbieri, VP, Sales

DISTRICT OF COLUMBIA

COMEX CORPORATION

LINE: JVC professional video, Terracom microwave, Shively FM antenna, Ikegami CCTV.

P.O. Box 17011 Dulles Int'l Airport Washington, D.C. 20041 (703) 471-4215

Contact: Jack Rickel, President

FLORIDA

AVS PROFESSIONAL

LINE: Tape machines, consoles, microhpones, signal processing, accessories, supplies, monitor speakers, amplifiers, turntables: all audio equipment.

5484 Jct. Port Ind. Blvd. Tampa, Florida 33614 (813) 884-1461

Contact: Michael Poles, Sales Eng.

ALEXANDER BATTERY SALES, INC.

LINE: Batteries; nicad, alkaline & mercury & gell cells.

P.O. Box 1053 Pompano Beach, FL 33061 (800) 327-1190

Contact: Charles Stinson, GM

BAA INTERNATIONAL, INC.

LINE: Ampliflers, cart machines, audio consoles, carts, mikes, limiters, compresors, open reel recorders, turntables, STL systems.

1229 NE 37th St. Ft. Lauderdale, Florida 33334 (305) 564-4422

Contact: K. Cameron, VP, Eng.

BENCSIK ASSOCIATES

LINE: McMartin, Teac Tascam, Lexicon, Telex, MacKenzie, Soundoller, Eastern Accoustic Works.

1627 E. Silver Springs Blvd. Suite F

Ocala, Florida 32670 (904) 732-9775

Contact: W.L. Bencsik, Pres.

BROADCAST AUTOMATION ASSOCIATES

LINE: Transmitters, consoles, cart machines, antennas, transmission line.

300 S. 6th St. Ft. Pierce, FL 33450 (305) 464-5465 Contact: Ron Crider, Pres,

BROADCAST INTERNATIONAL, INC.

LINE: Lexicon Model 1200, dbx, Otari, Phelps Dodge, Orban, Stanton, Eastern Acoustic Works, Technics, West Penn, Scotch, CSI, LPB, Belar.

1229 NE 37th St. Ft. Lauderdale, FL 33334 (305) 564-4422 (305) 945-0635 MIA. Contact: Ken Cameron, V.P., Eng.

CONTROL TECHNOLOGY INC.

LINE: MCI Auditronics, Technics, Orban, Eventide, JBL, Electro-Voice, UREI, Moseley.

2322 Davie Blvd. Ft. Lauderdale, FL 33312 (305) 587-2716 or (800) 327-4121

Contact: James Woodworth, President

CRESCENDO ASSOCIATES

LINE: AB Systems, Allen & Heath, Audio-Technics, dbx, Deltalab, ETA lighting, EXR, Mic-Mix, Nady Wireless, Furman Sound, Goldine Analyzers, Otari Corp., Roland Studio Systems, Rainbo lighting, Littlite lighting.

9766 Deer Run Drive Ponte Vedra Beach, FL 32082 (904) 285-6732

Contact: Patty Hall, Office Mgr.

DESIGN LINE, INC.

LINE: Berkey Colortran, Skirpan, Rosco, GE, Sylvania, Norelco, Strand, FDI. P.O. Box 260007 Tampa, Florida 33685 (813) 886-5073 or 886-5581 Contact: S.M. Goldman, GM

ELECTREX COMPANY

LINE: AKG, Ampex, Bird, CSI Electronics, Ramko, TFT, BE, Cableware, Elmac, Audiopac, Atlas, Lexicon, Optoelectronics, Regency, Otarl, Fidelipac, 3-M, Marti, Micro-Trak, Nortronics, Orban, Phelps Dodge, Russco, Shure, Stanton, Technics, Telex.

18680 NE 2 Avenue Miami, Florida 33179 (305) 651-5752, Tix: 51-4733 Contact: Ben Ostrovsky, Pres.

P. R. FERMAINTT

LINE: AM-FM-TV transmitters, towers, antenna, trans-line, pltasors, monitors.

1031 Southwest 74 Court Miami, Florida 33144 (305) 261-4755 Contact: Owner

FERMCO ELECTRONICS, INC.

LINE: Radio broadcasting & television equipment (transmitters, antenna, audio eqpt.

1031 SW 74 Court Miami, FL 33144 (305) 261-4755

Contact: P.R. Fermaintt, Pres.

FLORIDA VIDEO SYSTEMS

LINE: Sony, Sony Broadcast, Microtime, Sharp, Quanta, Videotek, Crosspoint, Convergence.

Continued on page 176

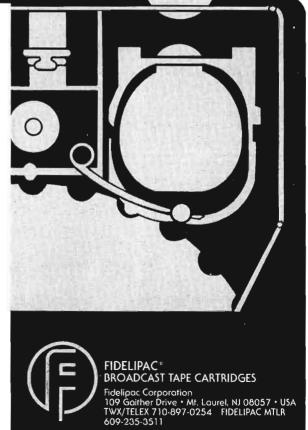
FIDELIPAC cartridges use tape for only sound reasons.

Somebody else's reasons are highly unsound.

Magnetic tape is sacred at Fidelipac. That's why we only use it to record and reproduce audio. Not to do jobs it was never intended to do. Like act as part of the cartridge brake. Induce drag. Or increase tape tension.

Fidelipac cartridges use a brake on the reel assembly. Not on the tape surface. Which means no stretched or broken tape, feathering or dropout. And far less wear and abrasion to critical tape surfaces.

Now you decide. Do you want a cartridge designed for sound reasons? Or for reasons that are highly unsound?



Who knows more about tape cartridges than Fidelipac?



GRAHAM-PATTEN SYSTEMS

INTRODUCES THE MODEL 9402

A Versatile New DA Featuring

Differential Input Switchable Clamping **Optional Cable Equalization** (fixed or variable)

And, like our already popular 9401 video/pulse DA, it fits in any Grass Valley Group, inc. standard 900 tray.



GRAHAM-PATTEN SYSTEMS, INC. P. O. BOX 1960, GRASS VALLEY, CA 95945 [916] 273-8412

Circle (125) on Action Card

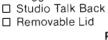
AUDIO ROUTING SWITCHERS REMOTE BROADCAST UNITS AUDIO DISTRIBUTION AMPLIFIERS

BSM Systems product line is growing - offering RBU; Audio DA's and our new routing switcher. Same high quality at a price you can afford. Replace

patch bays and eliminate a multitude of problems for your engineer.

RBU FEATURES:

- □ 2 Mike Channel
- □ 1 Tape Channel
- □ AC or Battery
- ☐ Rugged Case





ROUTING SWITCHER FEATURES:

- ☐ 10x10 Routing Switcher
- □ BCD Controlled.

MONO \$1995 STEREO \$2995

For complete information on the RBU-Audio DA's and our new routing switcher, call or write:



BSM SYSTEMS

P. O. Box 8081 Spokane, Washington (509) 448-0697

Circle (126) on Action Card

WHERE TO BUY IT

14422 NW 7th Ave Mlami, Florida 33168 (305) 688-6618 Contact: Phil Dubs, VP SIs.

GLOBAL VIDEO COMMUNICATIONS CORP

744 West Church St. Orlando, FL 32805 (305) 423-8356 Contact: David Antoniak, Pres. Larry Cunningham, GM

MART HALLER, INC.

LINE: Bird wattmeters, communication towers, insulators, isolation transformers, antennas, tubes, crystals, transmitter parts, test equip-

305 Palermo Avenue Coral Gables, Florida 33134 (305) 444-4617 & 4618 Contact: Edwin F. Haller

IMAGE DEVICES INC.

1825 NE 149 St. Miami, FL 33181 (305) 945-1111 Contact: Steve Ciffone, Rental Manager

LAUDERDALE ELECTRONIC

LABS LINE: Radio & TV broadcast equipment.

16 SW 13th St. Ft. Lauderdale, FL 33315 (305) 764-7755 (800) 327-3793 Contact: Russ Novak, Sales Mgr.

LITA BROADCSTING DIST.

LINE: Audio-Pak, Fidelipac, Broadcast Electronics. Eimac audio equipment: STL transmitters, anntenas, transmission systems, tapes, transmitting tubes.

Miami, FL 33166 (305) 887-1223 Contact: Luis Endara, Owner Rudy Estripeaut, Sales Manager

7154 N.W. 72th St.

MEDIA CONCEPTS, INC.

LINE: JVC, Shure, Video Data Systems, Comprehensive Video, Cable Works, DuPont, Ampex, 3M, Maxell, RDK, Fuji, GBC, Edutron, Welt, Smlth-Victor, Lowell, Quickset, MGA, Aquastar, Magnavox, Sylvania, MCI, Vico, and

559 49th St. So. St. Petersburg, FL 33707 (813) 321-2122, 821-2122 Contact: Bob Skidmore, Pres.

MIDWEST COMMUNICATIONS SYSTEMS DIVISION

LINE: Hitachi, Panasonic, Conrac, JVC, Digital Video, Edutron, Lenco, Ampex Vicon, Videotek, 3M.

3331 NW 82 Ave. Miami, FL 33122 (305) 592-5355 Contact: Lloyd Hicks, SIs. Mgr.

OVERSEAS, INC.

LINE: Radio broadcasting equipment. 444 Brickell Avenue Suite 51-140 Miami, FL 33131 (305) 371-4046 Contact: J.E. Clfuentes, Pres.

PHOTOMART

LINE: Cinema Products, Frezzolini, Cine 60, Chiles, Colortran, Smith Victor Lowel, Strand Century, EV, Shure, etc. 6327 South Orange Ave. Orlando, FL 32809 (305) 851-2780

Contact: Charles Sutyak, Sales Tony Delia, Sales

PRO AUDIO GENERAL STORE, INC.

LINE: MCI recorders, Auditronics, dbx, A&DR, MRL, Otari, EXR, DeltaLab, EV, Ruslang.

1378 N.W. 100th Ave. Coral Springs, FL 33065 (305) 752-0330 Contact: Bill Shute, Pres.

R & H ASSOCIATES

LINE: NEC America, Crest Electronics, Lee-Ray, Cinema Products.

1245 Hercules Ave. Clearwater, FL 33515 (813) 442-7505 Contact: Frank Fitzhenry, Pres.

RECORDING STUDIO

EQUIPMENT CO. LINE: Full line of audio equipment. 14205 N.E. 18th Ave. No. Miami, FL 33182 (305) 945-9774 Contact: Seth Snyder, Sales Mgr.

SOUTHEAST ELECTRONICS

LINE: Panasonic, Sony, JVC, Microtime, Videotek, 3M, American Data.

1125 Rosselle St. P.O. Box 41308 Jacksonville, Florida 32203 (904) 356-3007 Contact: James N. Overton, V.P.

SUN VIDEO COMMUNICATIONS

LINE: Sony, Panasonic, Microtime, 3M, Tektronix, Fuji, JVC, Quanta, Mincom. 8100 Ulmerton Road Largo, Florida 33541 (813) 536-9424 Contact: Dave Smith, V.P.

GEORGIA

C. M. ALLEN CO., INC.

LINE: Hand tools. 6145 Barfield Rd. NE Suite 190 Atlanta, GA 30328 (404) 256-0610 Contact: Charles Allen, Pres.

BCA, INC.

P.O. Box 2606 312 Highway 74 South Peachtree City, GA 30269 Contact: Ron Baker

BROADCAST COMMUNICATIONS ASSOC.

LINE: Moseley, Orban, Auditronics, LPB, Cablewave, Phelps Dodge. P.O. Box 2606

Peachtree City, GA 30269 (404) 487-9559

DOMINTER, INC.

LINE: Audio visual and video equipment, communication systems design

6000 Peachtree Rd., N.E. Atlanta, GA 30341

(404) 455-7626 Contact: D. B. Fincannon, Pres.

EME II. INC

LINE: Digital effects, monitors, cameras, test equipment.
2522 Tanglewood Rd.

Decatur, GA 30033 (404) 325-0165 Contact: Pete Scarborough, Pres.

ELREP SALES

LINE: Mikes, test & monitoring equipment, open reel recorders.

1874 Forge St. Tucker, Georgia 30084 (404) 938-7108 Contact: M. B. VanDeKreke, Pres.

FIDELICOM, INC.

LINE: Audio test equipment, real time analyzers; Sound Technology; Ivie Electronics.

P.O. Box 80644 Atlanta, Georgia 30366 (404) 458-3616 & 451-3471 Contact: Mort Liebman, Pres.

BEN GARVIN ELECTRONICS

LINE: Broadcast professional tape carts equipment; supplies to AM-FM-Typofessional audio accounts; (main line) Fidelipac professional tape carts & supplies, reel to reel tape.

2878 Dunnington Cr. NE Atlanta, GA 30341 (404) 938-1594 Contact: Ben Garvin, Owner

REGISTER DATA SYSTEMS

LINE: Computer broadcast business systems, using Tandy (Radlo Shack) and Texas Instruments.

P.O. Box 1246 Perry, GA 31069 (912) 987-2501 Contact: Lowell Register, Pres.

SIBONEY AUDIO VISUAL

LINE: Audio visual equipment. 1760 Tully Circle N.E. Atlanta, Georgia 30329 (404) 329-9200 Contact: Mark Henderson, Reg. Mgr.

MAITLAND K. SMITH, INC.

LINE: Test equipment, radio receivers. 2321 Fourth Street, Suite 210 Tucker, Georgia 30084 (404) 939-2053 Contact: Bob M. Tyler, President

STANCO COMMUNICATIONS PRODUCTS, INC.

2615 Shallowford Rd. N.E. Atlanta, GA 30345 (404) 636-3096 Contact: Marvin Boaz, V.P.

STOREEL CORPORATION

LINE: High-density storage systems for videotapes, cassettes, cartridges and film.

2050-C Carroll Ave., Ste. 2 P.O. Box 80523 Atlanta, GA 30341 (404) 458-3280 Contact: Ruth E. Schaeffer, Pres.

TECHNICAL INDUSTRIES, INC.

LINE: Sony, Panasonic, Harris Video, Convergence, Maxell, Strand Century, Ikegami, ITE, Cezar, 3M.

6000 Peachtree Rd., N.E. Atlanta, Georgia 30341 (404) 455-7610 Contact: Ed Matthews, V.P.

VISUAL SYSTEMS COMPANY

LINE: Hitachi, JVC, Panasonic, ISI, ITE, Conrac, Videotek, Dynair, Strand Century, Video Data Systems, Lenco. 3870 N. Peachtree Rd.

Atlanta, GA 30341 (404) 457-1388

Contact: Dale A. Schonmeyer, Pres.

HAWAII

THE AUDIO VISUAL COMPANY LINE: Sony, JVC, Singer, Kodak, Sharp,

B&O, MGA.

1071 South Beretania St.

Honolulu, Hawaii 96814 (808) 533-3848 Contact: Daniel H. Iki, V.P.

BROADCAST SERVICES, INC.

LINE: Moseley Associates, Econo Tubes, Micro-Trak and Autogram consoles, Fidelipac, Eimac, QRK

2877 Kalakaua Ave. Honolulu, Hawaii 96815 (808) 521-6311 Contact: Alan Roycroft, Pres.

JOHN J. HARDING CO., LTD.

LINE: Ampex, Orban, Altec, Vicon, RCA Solid State Div., Inovonics, Broadcast Electronics, Allison Research, Philips AV systems.

2825 Ualena Street Honolulu, Hawaii 96819 (808) 836-0941

Contact: Bob Edmondson, Sales Manager

OMEGA PACIFIC

LINE: Acrodyne, Conrac, Hitachi, Scala, CDL.

570 Auahi St., -204 Honolulu, Hawali 96813 (808) 533-7655 Contact: Mark Morrison, Owner

IDAHO

AMSCO (AMERICAN MEDIA SUPPLY CO.)

LINE: Full line of broadcast equipment. P.O. Box 44 Rexburg, ID 83440 (208) 356-0360 Contact: Joe Perry, Sts. Mgr.

ILLINOIS

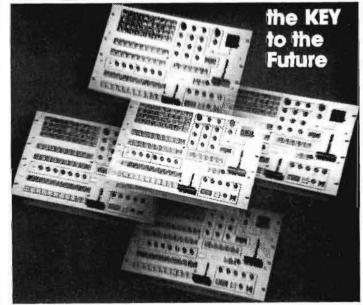
ADVANCED VIDEO COMMUNICATIONS

LINE: Sony, Hitachi, etc. 49 S. Washington Blvd. Hinsdale, IL 60521

Continued on page 178

isi

200 SERIES PRODUCTION SWITCHERS



the KEY PolyKey Effect System

200 Series Features:

The 200 Series is an advanced, state-of-the-art production switching system, offering one, two or three PolyKey_® Effects (PKE) Systems. Each PKE has a 5 level processor with the following features:

- 4 input busses
- Manual or auto transitions
- Video key plus title key over/under
- Black/white/color border edging
- Chroma key standard
- Rotary and spin wipes

Every 200 Series switcher also has a Downstream Transition Unit which includes:

- "Flip-flop" mixer with cut bar
- Fade-to-black with pulse processing
- DSK with border edging and color
- Pointer Generator



INDUSTRIAL SCIENCES, INC.

3521 S.W. 42nd Avenue P.O. Box 1495 Gainesville, Florida 32602 U.S.A

TELEPHONE

Outside U.S.A. 01 (904) 373-6782 In Florida (904) 373-6783 Sales (800) 874-7590 Service (800) 874-7874

CABLE

TWX 810-825-2307



MULTIDYNE CQ-4

Very low cost graphics-character generator. Features, too numerous to list, include RS232C computer interface, dynamic character reprogramming, 2 character sizes, capability to type only in the vertical interval, audio generation, etc. Prices start under \$1,000.

VPDA-2 VIDEO-PULSE EQUALIZING D.A.



The most useful distribution amplifier in the industry!

It cancels common-mode hum up to 10 volts, distributes video, pulses or subcarrier in six outputs. It has a feedback

clamp and a signal operated light. It equalizes up to 2500' of cable within 1% with a single control.

Portable units work on 117/230V AC, switch selectable, and give low D.C. warning when used with external battery. Rackmounted units can be single or dual. Typical distortion is .1 degree diff. phase .25% diff. gain.

Prices start at \$650.



Typical response after 2000" of 8281 cable equalization.

MULTIDYNE **ELECTRONICS**

P.O. Box 528 Locust Valley, NY 11560 (516) 671-7278

Circle (128) on Action Card

SIGMA Video D.A.s are available "off the shelf"...



...but every unit is 100% lab tested, aged and calibrated.

VDA 100A

- 1 loop-thru input, 6 outputs
- ± 0.2dB to 10 MHz
- Self contained power supply
- Rack mountable up to 3 in FR3-100



SIGMA ELECTRONICS INC.

1830 STATE STREET EAST PETERSBURG, PA 17520 (717) 569-2681

Circle (129) on Action Card

WHERE TO BUY IT

(312) 323-7464 Contact: Mike Vergauwen, VP Sales

ALLIED BROADCAST EQUIPMENT

LINE: Audio and RF broadcast equip-

3405 W. Balmoral Chicago, IL 60625 (312) 784-2257 Contact: Tom Harley

ANCHA ELECTRONICS

LINE: Pulse generators and distribution equipment, switchers, audio and video distribution, routing switchers, SMPTE time code generators, black and white and color monitors, audio consoles, and tape equipment.

189 Gordon St. Elk Grove Village, IL 60007 (312) 437-7712

Contact: F. Geyer, TV Sales Mgr.

AUDIO RESOURCES, INC.

LINE: Crown International, dbx, Ivle Electronics, Electro-Voice, Otari Corp. Orban Associates, Micmix Audio Products. Tapco

825 N. Cass Ave., Suite 205 Westmont, Illinois 60559 (312) 655-1180

Contact: Wayne Hrabak, Pres.

BEHREND'S, INC.

541 N. Franklin Chicago, IL 60610 (312) 527-3060 Contact: Jack Behrend, Pres.

COLUMBIA VIDEO SYSTEMS

LINE: Video equipment, lighting, microphones, cabinets, consoles, headphones.

The Columbia Building 1741 Second St. Highland Park, IL 60035 (312) 433-6010 Contact: Gene R. Kahn, V.P. Mk.

VICTOR DUNCAN, INC.

LINE: Full line of broadcast equipment. 200 E. Ontario Chicago, IL 60611 (312) 321-9406

JOSEPH FLECTRONICS, INC.

LINE: Sony & Panasonic exact replacement parts, test equipment.

8830 N. Milwaukee Ave. Niles, IL 60648 (312) 297-4200

KAPCO COMMUNICATIONS

LINE: Video editing / processing systems, consulting on CCTV systems. 5221 N. Elston Ave.

Chicago, IL 60630 (312) 545-2544 Contact: Kenneth Rubel, Pres.

WILLIAM M. LINZ ASSOC., INC.

LINE: Telex, Bogen, Mohawk wire, Pomona, SGL Waber.

821 Skokle Blvd. Northbrook, Illinois 60062 (312) 498-9600 Contact: Bill Linz, Pres.

MESOMET, INC.

LINE: Color radar, satellite receivers. lightning detectors, weather data computer, forecasts consulting to manage 35 E. Wacker Drive

Chicago, IL 60601 (312) 263-5921 Contact: Dr. Walter Lyons, Pres.

NEWMAN/LUSTIG & ASSOCIATES

1050 N. State Street Chicago, Illinois (312) 642-5364

Contact: Michael Lustig, Partner

OTTAWA EQUIPMENT CO.

LINE: Microwave General, Phelps Dodge, Broadcast Electronics, Aiphone Intercoms, Cablewave Systems, Fidelipac, Micro Communica-

6838 N. Ottawa Avenue Chicago, Illinois 60631 (312) 774-5115

Contact: Gorden Du Vall, Pres.

THEODORE PAPPAS & ASSOC. LINE: Tape recorders, signal processing equipment, professional micro-phones, radio horns, micro computer system, speakers, parametric equal-

5218 W. Diversey Ave. Chicago, IL 60639 (312) 685-2338 Contact: Terry DeRouin, Pres.

PAULMAR, INC.

3316 Commercial Ave. Northbrook, IL 60062 (312) 498-1020 Contact: R. Menary, Pres.

GEORGE PETITT CO., INC.

LINE: Communications, meters & test equip., MATV, PA horns, mlke stands, frequency meters, crystals, probes, switches, turntables & speakers.

5300 A McDermott Drive Berkeley, Illinois 60163 (312) 261-0342 Contact: George Petitt, President

POLYLINE CORPORATION

LINE: Reel-to-reel tape; cassettes, C-10 -C-90; leader and splicing tape; empty reels & boxes.

1233 Rand Road Des Plaines, IL 60016 (312) 298-5300

ROSCOR CORPORATION

LINE: Ikegami, Sony, Panasonic, JVC, Hitachi, Quanta, Control Video, Convergence Corp., Harris Video Systems.

6160 W. Oakton St. Morton Grove, IL 60053 (312) 539-7700 Contact: S. A. Detch, V.P.

ROSE GROUP

LINE: JBL, Teac-Tascam, Maxell, UREI, Deltalabs, Sound Technology, Sound-

3333 Commercial Ave. Northbrook, IL 60062 (312) 291-2260 Contact: Bill Steffey, V.P.

SCHUESSLER CASE CO., INC.

P.O. Box 39066 Chicago, IL 60639 (312) 227-0027 Contact: P.H. Kreft, Pres.

SONO-MAG CORPORATION

LINE: Exporter for products of Audicord Corporation.

1833 West Hovey Avenue Normal, IL 61761 (309) 452-5313

Contact: Stephen S. Sampson, Exec. VP

STEFFEY MARKETING ASSOCIATES

LINE: AKG, Tascam, JBL, Sound Technology, MXR, Standard Communications.

3575 Commercial Ave. Northbrook, IL 60062 (312) 480-3575 Contact: Bill Steffey, President

SWIDERSKI ELECTRONICS INCORPORATED

LINE: Hitachi Denshl America, Fernseh, Conrac, Microtime, Ampex Professional Audio, Auditronics, Electro Voice, Shure Brothers, Convergence Corp., Dynair Electronics, O'Connor Engineering, Quick Set, Arvin Echo, Sony Corp. of America, Panasonic, US JVC Corp.

1200 Greenleaf Avenue Elk Grove Village, IL 60007 (312) 364-1900

Contact: J. Swiderski III, Vice President SEE AD ON PAGE 151

TECH THEATRE, INC.

4724 Main St. Lisle, Illinois 60532 (312) 971-0855 Contact: Gary Timm, V.P.

WIDL VIDEO

LINE: Maxell, Switchcraft, Belden, Amphenol, Memorex, Vaco and 3M.

5245 W. Diversey Chicago, 1L 60639 (312) 622-9606

Contact: Sophie Wrublik, Sales Mgr. Jerry O'Connell, Sls. Desk

INDIANA

ADVANCED VIDEO COMMUNICATIONS

LINE: Video equipment. 49 S. Washington Hinsdale, IN 60521 (312) 323-7464 Contact: Clarence Norris, Pro. Mgr.

ALLIED BROADCAST

LINE: Audio and RF broadcast equip-

635 South E Street Richmond, IN 47374 (317) 962-8596 Contact: D. Burns, Sls. Mgr.

COMMUNICATION SYSTEMS

LINE: Panasonic, Sony, Vicon, Ampex tape.

1142 E. Mishawaka Ave. South Bend, Indiana 46615 (219) 289-6709, 289-3664 Contact: Frank Bogaert, Sis. Mgr.

CONSUMER SATELLITE SYSTEMS, INC.

LINE: TVRO receivers, satellite antennas, LNA's, feedhorns, cable, remote lifts, down converters & CCTV.

6206 La Pas Trail Indianapolis, IN 46268 (317) 299-0020 Contact: Jon Powell, President

ontact: Jon Powell, President Mike Schroeder, G.M.

DA-LITE SCREEN COMPANY, INC.

LINE: Projectors, tripods, screens, rear projection systems.

3100 State Road 15 North Warsaw, Indiana 46580 (219) 267-8101

Contact: E. J. Danch, Ad. Dir.

INDIANAPOLIS VIDEO, INC.

LINE: Hitachl, JVC, Sony, Lenco, Microtime, 3M Mincom. 8720 Robbins Road Indianapolis, Indiana 46268

Contact: W.T. Blackwell, Sales Mgr.

MAISH SALES

(317) 293-3313

LINE: Taco/Jerrold, Aiphone Intercom, McGohan, Remee Wire, Sound Technology.

500 S. Madison St. Box 548 Mulberry, Indiana 46058 (317) 296-2322 Contact: Charles Maish, Owner

JON POWELL & ASSOCIATES INC.

LINE: Vicon, Panasonic, Sanyo, Robot,

P.O. Box 68635 Indianapolls, Indiana 46268 (317) 848-7777 Contact: Jon Powell, Gen Mgr.

SMITH-VICTOR SALES CORP. 301 N. Colfax Griffith, IN 46319 (219) 924-6136 Contact: Bruce McCullough, Mktg. Director

SUKUP & COX, INC.

LINE: Sanyo, Astatic, Kalatel, Gyyr. 2060 East 54th St. Indianapolis, IN 46220 (317) 253-5501 Contact: Ronald M. Cox. V.P.

IOWA

KIMIAN SALES, INC.

LINE: Recorders, intercoms, speakers, horns, mikes, amplifiers.
P.O. Box 503
1804 Sycamore St.
Atlantic, Iowa 50022
(712) 243-1626
Contact: Robert C. Willms, Pres.

SITLER'S SUPPLIES, INC.

LINE: No. 2610.

702 E. Washington Washington, IA 52353 (319) 653-2123 Contact: Wm. C. Sitler, Pres.

WINEGARD COMPANY

3000 Kirkwood St. Burlington, IA 52601 (319) 753-0121 Contact: Jos. Ridge, SIs. Mgr.

Continued on page 180

NEW One Inch Video Tape Evaluator



- Full Cycle Clean & Evaluate 2.7 minutes
- Fast Clean & Rewind Cycle 1.8 minutes
- Ruggedized for 24 Hour OperationProven Safety and Reliability for Tapes

Recortec installed its first Video Tape Evaluator (VTE) over 12 years ago! Now, we have combined all our industry experience and customer feedback into a new design with all the desireable features at an unbeatable price.

The new VTE-101 provides a built-in diagnostic panel for ease of calibration and a microprocessor controlled printer to provide more meaningful outputs. Our VTE's have been known to pay for themselves faster than originally estimated. Why not order yours now? Satisfaction guaranteed! To find out more, call Sid McCollum, our National Sales Manager.

475 Ellis Street Mtn. View, CA 94043 Tel (415) 962-0220 TWX 910 339 5022

RECORTEC

Circle (130) on Action Card

KANSAS

DYTEC / SOUTH, INC.

LINE: Line test and measuring equipment.

8245 Nieman Road, Suite 123 Lenexa, Kansas 66214 (913) 888-0215

Contact: Bert Saunders, Sales Eng.

MIDTEC ASSOCIATES

LINE: Microwave equipment, including satellite-TV.

7702 Mize DeSota, KS 66018 (913) 441-6565

Contact: Gary Yantis, President

RADIO SUPPLY CO.

LINE: Videotape and recorders; test equipment, broadcast and camera tubes and accessories

131 Laura, P.O. Box 1220 P.O. Box 1220 Wichita, KS 67201 (316) 267-5213 Contact: Jeff Felzien, CSTV Mgr.

STEVE SMITH AUDIO VISUAL

LINE: Sony Video Products, Shintron, Bell & Howell Filmchain, Electronic Systems Products.

P.O. Box 1216 623 Kansas Ave. Topeka, Kansas 66601 (913) 235-3481 Contact: L. Heilman, Sls. Mgr.

THEATRICAL SERVICES, INC.

LINE: Manufacturers of studio lighting distribution equipment, studio cycloramas, curtains and scrims; distributors of studio and location lighting equipment for video or film; and design and installation of studio lighting and control systems.

128 South Washington Wichita, Kansas 67202 (316) 263-4415 Contact: M. Hostetler, V.P.

KENTUCKY

BRUCE DAWSON & ASSOCIATES

LINE: NEC Broadcast, Barco monitors. Central American Terminal -Bowman Field Louisville, KY 40205 (502) 456-6666

Contact: Bruce L. Dawson, Owner

CENTURY SOUND & RECORDING

LINE: Speaker systems, boards, amplifiers, microphones, tape, recorders.

3029 Oregon St. Paducah, KY 42001 (502) 554-2722 Contact: Thomas F. Morris, Owner

LOUISIANA

AUDIOMEDIA ASSOCIATES

LINE: Orban, Otari, Ampro/Scully, LPB, CCA, Potomac Instruments, UREI, Cablewave, Phelps Dodge. Transmitters, AM & FM audio consoles & studio equipment, audio processing equipment, turnkey installation services. 4657 Michoud Blvd.

P.O. Box 29264 New Orleans, LA 70189 (504) 586-0140 Contact: Corey G. Meyer, Owner

BASS ELECTRONICS, INC.

LINE: CCTV - specialized voice communication, pro sound.

1591 S. Elaine Drive Baton Rouge, LA 70815 Contact: Haywood Bass, Pres.

FREELAND PRODUCTS CO.

LINE: Rebuilt transmitter tubes. Rt 7 Box 628 Covington, LA 70433 (504) 893-1243

Contact: W.T. Freeland, Owner

FUTURE VIDEO PRODUCTS LTD.

LINE: Panasonic, JVC, Scotch, Sony, Belden, Amperey, Sanyo, Hitachi.

7130 Milford Ind. Rd. Baltimore, MD 21208 (301) 484-1449 Contact: David Snyder, Pres.

HOME AND COMMERCIAL SOUND

LINE: Technics, Vanderstein, Hafier, Onkyo, Tascam, Electro-Voice, B&W Meridian Mirage, Audio Research, RGR, 3D, Stax, GLI, BGW, Concord, Linear Power.

4773 Convention Street (Florida & Foster) Baton Rouge, LA 70806 (504) 924-1001 Contact: Paul Kadair, Pres.

MAINE

MAINE VIDEO SYSTEMS, INC.

LINE: Sony, Panasonic, JVC, Strand Century, Microtime, RCA, Electro-Voice, Quickset, KTH, Bretford, Sharp. 468 Forest Avenue

Portland, Maine 04101 (207) 773-2355 Contact: Jim Marshall, Sls. Dir.

MARYLAND

ASSOCIATED SALES REPRESENTATIVES, INC.

LINE: Audio Technica USA (microphones), HME (wireless microphones), Otari Corp (pro tape recorders, audio duplicators), Quantum Audio Labs (broadcast & studio audio boards), Tape Athon Corp. (back-ground), TOA Electronics (audio amps, mixer boards, wireless mikes), UREI (audio signal processors, 10 oct & 41/3 oct. eq, on-air boards, power amps, studio monitor speakers)

8969 B Yellow Brick Road Balto, MD 21237 (301) 574-0550 TELÉX 908313 (aus back asr bal) Contact: Philip Walter, Pres.

DAVID H. BROTHERS CO., INC.

LINE: Amperex, Bogen Div., White Instr., Audio-Technica, Telex Comm. Div., H.O.M.E. Inc.

19 Old Court Road Baltimore, MD 21208 (301) 764-7189 Contact: Alan Brothers, Pres.

FUTURE VIDEO PRODUCTS LTD.

LINE: Panasonic JVC, Scotch, Sony, Belden, Amperex, Sanyo, Hitachl.

7130 Milford Ind. Rd. Baltimore, MD 21208 (301) 484-1449

Contact: David Snyder, Pres.

INTERNATIONAL SOUND CORP.

LINE: Panasonic, JVC, Scotch, Sony, Beiden, Amperex, Sanyo, Hitachi. 7130 Milford Industrial Road

Pikesville, MD 21208 (301) 484-2244

Contact: Harold Snyder, Pres.

THE LRS DISTRIBUTING COMPANY

LINE: Professional tape, blank cassettes.

29 Stonehenge Circle Baltimore, Maryland 21208 (301) 484-7750 Contact: Bucky Buchman, V.P.

MUSIC / SOUND DIST.

LINE: Microphones, blank tape, cartridges, amplifiers, tuners, turntables, cassette decks, video recorders, cam-

7 C Aylesbury Rd. Timonium, MD 21093 (301) 252-9081

Contact: Bob Dawson, Div. Mgr.

PROFESSIONAL PRODUCTS, INC.

LINE: Sony, JVC, Panasonic, 3M, Systems Concepts Convergence, Har-

4964 Fairmont Avenue Bethesda, MD 20014 (301) 657-2141

Contact: Carter Kaufmann, Ex. V.P.

R. & R. LIGHTING CO., INC. & VOX CAM ASSOCIATES, LTD.

LINE: Theatrical, film, studio and stage lighting equipment. Renting and sales. 813 Silver Spring Ave. Silver Spring, MD 20910

(301) 589-4711 (301) 589-5377

Contact: Bernard Robertson II, VP

SEL · TRONICS, INC.

LINE: Test equipment, patch panels, RF connectors, RF switch matrix, cabinet racks; Trompeter Electronics, Equipto Electronics

721 Ellsworth Drive Silver Spring, MD 20910 (301) 589-3391

Contact: Jules Joslow, Treas.

SHAFER ASSOCIATES, INC.

9501 Briar Glen Way Gaithersburg, MD 20760 (301) 869-4477

Contact: Dr. Edw. Shafer, Pres.

TAUB SALES, INC.

12244 Veins Mill Rd. Wheaton, MD 20906 (301) 942-3100

Contact: Morton Taub, Pres.

THEATRE SERVICE & SUPPLY

LINE: Lighting, studio cyclorama curtains & tracks, scenic supplies, light bulbs.

1792 Union Ave. Baltimore, MD 21211 (301) 467-1225 Contact: R. Antsdel, Pres.

WILTRONIX, INC.

LINE: Leitch Video, NEC Broadcast, Ross Video, TFT.

16850 Oakmont Avenue P.O. Box 364 Washington Grove, MD 20880 (301) 258-7676 Contact: D. L. Wilcox, Pres.

MASSACHUSETTS

ALCO ELECTRONIC PRODUCTS, INC.

LINE: Miniature and sub-miniature switches, knobs, lights, relays, mini oil-tight controls.

1551 Osgood Street No. Andover, MA 01845 (617) 685-4371 Contact: Jay Webster, Ad. Mgr.

CRAMER VIDEO, INC.

LINE: Ampex, Sony, Panasonic, Hltachi, Ivie, 3M, JVC, Scully, Sharp, Raytheon, Amperex, Sanyo.

120 Hampton Ave Needham, MA 02194 (617) 449-2100 Contact: Don Mulhern, Ex. VP

CRIMSON CAMERA TECHNICAL

SALES, INC. LINE: Photographic, audio visual and video equipment and supplies.

325 Vassar St. Cambridge, MA 02139 (617) 868-5150 Contact: Helene Anderson, Sales Manager

INDUSTRIAL COMPONENTS CORPORATION

LINE: Audio equipment, electronic parts, wire & cable, test equipment.

2551 Boston Road P.O. Box 668 North Wilbraham, MA 01095 (413) 596-3854 Contact: Stephen R. Welch, V.P.

LAKE SYSTEMS CORPORATION

LINE: Broadcast and production audio and video hardware.

55 Chapel Street Newton, MA 02160 (617) 244-6881 Contact: BIII Dwyer, President

MALCO ELECTRONICS, INC.

LINE: Sony, Panasonic, JVC, Ikegami, Sharp, Videotek.

5 Wolcott Ave. Lawrence, MA 01843 (617) 685-4383 Contact: Bob Lamm, Video Mgr.

PROFESSIONAL VIDEO SYSTEMS/PROFESSIONAL RECORDING SOUNDS (PVS/PRS)

LINE: PVS, video equipment and telecommunications systems: PRS-Otari, Orban, Optimod, EYEI, Eventide, dbx, Neumann, Sennheiser, Crown, Cumig, BE, Ampex, Technics, Runisa. 1616 Soldiers Field Rd.

Boston, MA 02135 (617) 254-2101 Contact: Kip Johnson, Sls. Mgr.

PIPER ASSOCIATES, INC.

LINE: Communications, video, audio,

33 Marsh Rd. - Box 226 Needham, MA 02192

(617) 449-1144 Contact: Jim Piper, Pres.

MICHAEL SCOTT CO., INC.

LINE: Professional and commercial sound equipment.

P.O. Box 384
Wellesley Hills, MA 02181
(617) 235-0102
Contact: Michael Scott, Pres.

VF SALES, INC.

LINE: Audio equipment. 181 Worcester Rd. Nabick, MA 01760 (617) 237-6544 Contact: Victor Faucon, Pres.

F. M. VALENTI, INC.

LINE: Panasonic CCTV, Comprehensive Video, Smith Victor, Echolab, Hitachi, Maxeli, Knox, Sharp, Visual Methods, Zeimark.

16 Saddle Club Rd. Lexington, MA 02173 (617) 861-0089 Contact: Fran Valenti, Pres.

MICHIGAN

AUDIO DISTRIBUTORS, INC.

Ampex, Auditronics, Broadcast Electronics, Crown, ESE, EV, IVIE, Moseley, Otarl, QEI, Shure, Sony, UREI.

2342 S. Division Grand Rapids, MI 49507 (616) 453-0510

Contact: Dave Veldsma, Pres.

CM SALES

LINE: Otari, dbx, Studiomaster, Soundcraft, Hltachi Denshi, AudioTechnica, Calzone, Cetec Gauss, AB Systems.

2221 Lakeshire W. Bloomfield, MI 48033 (313) 626-2397 Contact: Casey McWilliams,

President CRUSE COMMUNICATIONS CO.

LINE: DVS, Sony, Panasonic, Colortran, Sharp, Cezar, American Data, 3M tape, 3M Mincom, Videomedia, Videotek.

4903 B Dawn Ave. East Lansing, MI 48823 (517) 332-3579 Contact: William H. Cruse, Pres.

VICTOR DUNCAN, INC.

32380 Howard Madison Heights, MI 48071 (313) 589-1900 SEE AD ON PAGE 172

H. M. DYER ELECTRONICS, INC.

LINE: Video and audio distribution, amplification, processing, etc. Video switching, video delays, studio and video routing, RF monitoring, transmitter controls, digital effects.

31185 Ten Mile Rd. Farmington Hills, MI 48024 (313) 478-2157 Contact: Mike Dyer, Pres. SEE AD ON PAGE 199

FANTASEE LIGHTING

LINE: Rainbo, Teatronics, Altman, GE, Lee fliters, PyroTech, Genie towers, Atlas Stands.

404 N. River Ypsilanti, MI 48197 (313) 482-6565 Contact: Stefan Grav. Pres.

GENERAL TELEVISION NETWORK

LINE: Sony, JVC, Panasonic, 3M, Microtime, Ikegami.

13225 Capital Avenue Oak Park, Michigan 48237 (313) 548-2500 Contact: R. Hippler, Pres.

NORWOOD SCROGGS COMPANY

LINE: Electronic components: heat sinks, caps, ferrites, keyboards, power supplies, cabinets, magnetic shielding, RFI/EMI filters, PC boards attenuators, square/rotary switches.

Jackson, MI 49201 (517) 750-1170

Contact: Woodie Scroggs, Owner

2221 Arbor Hills Rd.

O'HARA ASSOCIATES

LINE: Audio equipment, AC/DC power supplies, FET preamps.

36500 Weideman Drive Mt. Clemens, MI 48043 (313) 791-7140 Contact: Bob O'Hara, Mgr.

RAACO MARKETING

LINE: Nortronics, H-M Electronics, Sony Professional.

4379 Orion Road P.O. Box 410 Rochester, MI 48063 (313) 652-2520 Contact: R.E. Ridderhoff, VP

SOUND SOLUTIONS, INC.

LINE: NEC, Broadcast Electronics, miscellaneous audio lines.

7641 19 Mile Rd. Sterling Hts., MI 48077 (313) 739-7020 Contact: Dave Hill, Pres.

THALNER ELECTRONICS

LINE: Sony, Panasonic, JVC, Hitachi, CMX, Ikegami, Fernseh, ISI, Sharp, Harris and Dynair.

7235 Jackson Road Ann Arbor, MI 48103 (313) 761-4506 Contact: Karl Couyoumjian, Sales Manager

VIDICOM ENGINEERING INC.

LINE: Video production equipment and services for business & industry.

P.O. Box 308 County Road 652 Mattawan, MI 49071 (616) 668-3375

Contact: John Lepley, Sales Mgr.

WEBSTER COMMUNICATIONS

LINE: Commulcations equipment.

115 Bellarmine Rochester, MI 48063 (313) 375-0420 (800) 521-2333

Contact: Roger Webster, Owner

WOLF ASSOCIATES

LINE: Television lighting equipment, dimmer control systems, lighting distribution equipment. (Strand Century)

Continued on page 182



17200 W. 10 Mile Boad Suite 205 Southfield, MI 48076 (313) 552-8595 Contact: Stan Wolf, Owner

MINNESOTA

AVC SYSTEMS

LINE: Otari, Scully, Ampex, Ampro, JBL, Altec, Electro-Volce, Shure, AKG, Russco, UREI, Tascam, Tangent, Tap-co, Stanton, Scotch, BGW, 3M, Telex, Revox, Technics.

1517 East Lake St. Minneapolis, MN 55407 (612) 729-8305

Contact: Michael Siegel, Sls.

EMMONS ASSOCIATES, INC.

LINE: Broadcasting and production equipment.

1121 Riverwood Drive Burnsville, Minnesota 55337 (612) 890-8920

Contact: Keith Emmons, Pres.

KODO ASSOCIATES, INC.

9031 Penn Ave. S Minneapolis, MN 55431 (612) 881-1255

Contact: Kodo Kawamura, Pres.

METEOROLOGICAL **APPLICATIONS**

LINE: Color radar systems, computer graphics for weather, lightning location and display systems.

511 Eleventh Ave. South Minneapolis, MN 55415 (612) 333-1424

Contact: Dr. Walker Lyons, Pres.

MINNEAPOLIS MAGNETICS

LINE: Audio heads: Scully, Ampex, Revox. Cart heads.

7178 Shady Oak Road Eden Prairie, MN 55344 (612) 944-7660

Contact: Ron Floding, Dir. of Operations

PAUL OHLIN SALES CO.

LINE: Alexander Mfg. NiCad batteries, Marden crystals.

6004 Olinger Blvd. Minneapolis, MN 55436 (612) 929-6924 Contact: Paul Ohlin, Owner

T. R. PITTS CO.

LINE: Various, CATV 501 West 5th St. P.O. Box 57 Winona, MN 55987 (507) 452-2629 Contact: T. R. Pitts, Owner

SKOR, INC.

1821 University Ave. St. Paul, MN 55104 (612) 645-6461 Contact: H. E. Kurzweg, Pres.

SYNSAT COMMUNICATIONS

LINE: NVG weather satellite receiving system, MED-weather forecast, Vekton fish & game forecasts.

5202 Grandview Lane Minneapolis, MN 55436 (612) 927-0641 Contact: John Uldrich, President

TODD COMMUNICATIONS, INC.

LINE: Ikegami, Sony, Harris Video Systems, 3M, Panasonic, Lenco, Fernseh, Tektronix, Videomedia.

6545 Cecilia Circle Minneapolis, MN 55435 (612) 941-0556

Contact: Wayne Mayer, Director of Video

SEE AD ON PAGE 165

TODD COMMUNICATIONS R F Division

LINE: Scientific Atlanta, Emcee, Bogner, Microwave Associates, Cablewave, Andrew, Anixter Mark, Allied Tower.

6545 Cecilia Circle Minneapolls, MN 55435 (612) 941-0556

Contact: Tom Uppman, Gen. Mgr.

VIDEO MIDWEST, INC.

LINE: Convergence, Hitachi, JVC, Microtlme, Sony Video Products, Sony Professional, Quanta.

434 Stinson Blvd. Minneapolis, MN 55427 (612) 379-3300 Contact: Jon Larson, Rental Mgr.

THE WINSTED CORPORATION

LINE: Editing consoles, tape & film storage systems, dubbing and post production consoles.

8127 Pleasant Ave. So. Minneapolis, MN 55420 (612) 888-1957

Contact: G. R. Hoska, Sls. Mgr.

MISSISSIPPI

TRANSVOLT-INC

LINE: Parker suppressors, voltage spike damage.

1840 Capitol Towers Jackson, MS 39201 (601) 362-2697

Contact: Bill Fulgham, Eng.

MISSOURI

DYTEC/SOUTH INC.

LINE: Test equipment, component amplifiers, mixers, oscillators & antennas, A/D-D/A converters.

11657 Adie Road Maryland Hts., MO 63043 (314) 569-2990 Contact: H. Crain, Pres.

ELECTRONIC VIDEO SUPPLY

1856 S. Stewart Springfield, MO 65804 (417) 881-4766 Contact: Larry Welbern, Pres.

LINES VIDEO SYSTEMS Div. Lines Music Co.

LINE: Video equipment.

Jefferson at McDaniel Sts. Springfield, MO 65806 (800) 641-4674 (417) 862-5533 Contact: Bud Lines, V.P.

NATIONAL AUDIO CO., INC.

LINE: Ampex audio & video tapes, Fidelipac broadcast tape cartridges, Telex cassette copiers, Editali splicing & editing supplies.

Box 3657, G.S. 1911 S. Stewart Springfield, MO 65808 (417) 883-5377 Contact: Steve Stepp, Pres.

BADONICS ELECTRONICS

LINE: RCA, Panasonic, Videotek, Amtron, Scotch.

4445 Gustine St. Louis, MO 63116 (314) 481-2222

Contact: Harry Knapp, Salesman

TELEVISION ENGINEERING CORP.

LINE: Ikegami Broadcast, Conrac, Auditronics, Broadcast Electronics, BTX, Kaitronics, ISI, JVC, ITE, Microdyne, BAL, Videotek, Tektronix, Thomson-CSF, Colortran, Scully.

580 Goddard Ave. Chesterfield, MO (314) 532-4700 Contact: Sharon Sokup,

Sales Administrator

VIDEO MASTERS, INC.

LINE: Sony Industrial, Sony Broadcast, JVC, HVS, Hitachi Denshi, Lenco, Quanta, CMX, 3M Tape, 3M, Datavision-Mincom, Videotek, Tektronix

1616 Broadway P.O. Box 1963 Kansas Clty, MO 64141 (816) 474-8530 Contact: Virgil Jones, VP

MONTANA

HOLM - JAMES DIST., INC.

LINE: Sony video, Panasonic video, Shure, Bogen, Videotek, Telex.

P.O. Box 2487 320 6th Street Great Falls, Montana 59403 (406) 761-2420 Contact: R. E. Holm, Mgr.

NEBRASKA

ATV RESEARCH

LINE: CCTV cameras, monitors, modulators (RF), camera & modulator

13th & Broadway Dakota City, NE 68731 (402) 987-3771 Contact: Mel Shadbolt, Pres.

TODD COMMUNICATIONS

LINE: Ikegami, Sony, Harris video systems, 3-M, Panasonic, Lenco, Fernseh, Tektronix, Video-Media.

120 S. 41st St. Omaha, NE 68131 (402) 551-7600

Contact: Gordon Berry, Reg. Mgr.

VIDEO ASSOCIATES, INC.

LINE: Panasonic, Sony, Microtime, Convergence, ITE, Zenith, Vicon, Javelin, Hitachi, Bretford.

10135 "J" Street Omaha, NE 68127 (402) 331-1883

Contact: John G. Petersen, Pres.

NEVADA

AC & DC. INC.

LINE: Lighting equipment and accessories.

3049 Rigel Ave. Bldg. C-S10 Las Vegas, NV 89102 (702) 871-4777 Contact: John L. Murray,

General Manager

THE VIDEO CENTER, INC.

LINE: Video equipment and accessories.

4310 Paradise Road Las Vegas, NV 89109 (702) 732-3201

Contact: Philip Larschan, Pres.

NEW HAMPSHIRE

ASSOCIATED SYSTEMS

LINE: Electronic test equipment, monitors, data terminals, generators, video displays.

P.O. Box 5211 Manchester, NH 03108 (603) 472-2297 Contact: C.S. Miller

NEW JERSEY

9 WEST RECORDING STUDIO

Box 547 9 Westinghouse Plaza Bloomfield, NJ 07003 (201) 429-8996 Contact: Frank R. Dickinson, Jr., President

AVTEC INDUSTRIES, INC.

LINE: Ikegami, Hitachi, Sony, Grass Valley, NEC.

39 Industrial Ave. Teterboro, NJ 07608 (201) 288-6130 Contact: Oscar E. Kraut, VP Mktg. & Sls.

CALVERT ELECTRONICS INC.

LINE: Eimac, RCA, Amperex, GE, Quick Set, others.

1 Branca Road E. Rutherford, NJ 07073 (800) 526-6362 (201) 460-8800

Contact: Larry Broome, SIs. Mgr. SEE AD ON PAGE 65

COMPREHENSIVE VIDEO SUPPLY CORP.

LINE: Video cameras, monitors, VTRs, ampliflers, lighting systems, systems monitors, synchronizers, dollies and stands, switches, transmission cable, full video lines.

148 Veterans Drive Northvale, NJ 07647 (201) 767-7990 (800) 526-0242 Contact: H. E. Dunn, Sales Mgr.

CONRAC CORPORATION

LINE: Complete video installation, design, and service.

32 Fairfield Place West Caldwell, NJ 07006 (201) 575-8000 Contact: Len Blascovich, Prod. Mgr.

DAYSTRONG INTERNATIONAL

LINE: Cablewave Systems, Phelps Dodge, Fidelipac, Dielectric, American Data, Grass Valley.

1707 - 76th Street North Bergen, NJ 07047 (201) 868-6937 Contact: M. E. Arrue, Gen. Mgr.

FRANK R. DICKINSON, JR., INC. LINE: Motor & capstan assembly rebuilding.

Box 547 9 Westinghouse Plaza Bloomfield, NJ 07003 (201) 429-8996

H. M. HOLZBERG ASSOC., INC

LINE: NEC America, TFT inc., HEDCO, Dynatech Systems, Terracom, Logitek, Elcom-Bauer, Shively, Roh, Orban Associates, Audiographics, digital mix effects, TV cameras, flame synchronizers, STL, remote pickup, microwave, transmitters, studio equipment, towers, monitors, remote control, patches panels.

P.O. Box 322 Totowa, NJ 07511 (201) 256-0455 Contact: Herb Holzberg, Pres.

KOPPE RADEN CORP.

LINE: Cameras, monitors, VTRs, switchers, audio recorders, test equipment.

10 Stuyvesant Ave. Lyndhurst, New Jersey 07071 (201) 460-0800

Contact: Saul Raden, President,

LSI AVIONIC SYSTEMS CORP.

LINE: Eidophor large screen television projectors.

32 Fairfield Place West Caldwell, NJ 07006 (201) 575-8000 Contact: Len Blascovich, Prod. Mgr.

LANDY ASSOCIATES, INC.

LINE: Ikegami, Ampex, Conrac, Datatek, Leitch Video, O'Connor, JVC, Panasonic, Peter Lisand, Quick Set, RTS Systems, Recortec, Porta-Pattern, Kotel, Tektronix, Thomson-CSF, Videotek, Vinten, Image Video, etc.

1890 E. Marlton Pike Cherry hill, NJ 08003 (609) 424-4660 Contact: Jim E. Landy, Pres.

NEUTRIK PRODUCTS

LINE: Connectors, audio equipment. 91 McKee Drive Mahwah, NJ 07430 (201) 529-3800 Contact: Paul Roland, Asst. Tech. Mar.

NORTH AMERICAN SOAR CORP.

LINE: Electronic test and measuring equipment.

1126 Cornell Ave. Cherry Hill, NJ 08002 (609) 488-1060 Contact: Lys Grebla, Oper. Mgr.

OKI ELECTRIC OVERSEAS CORPORATION

One University Plaza Hackensack, NJ 07601 (201) 646-0011 Contact: Jim Tate, Mgr.

RCA SERVICE COMPANY

Bidg., 204-Z Technical Services Rt. 38 Cherry Hill, NJ 08358 (609) 338-5924 Contact: Edward B. Campbell, Manager

ROHDE & SCHWARZ SALES CO.

14 Gloria Lane Fairfield, NJ 07006 (201) 575-0750

SHEA SALES

LINE: Distortion analyzers, lowdistortion audio generators, tape tester audio DA's, audio control consoles, routing switchers, audio accessories.

Maplewood, NJ 07040 (201) 762-2382 Contact: Tom Shea, Pres.

552 Prospect St

SONNY SIMBERKOFF ASSOCIATES, INC.

LINE: Shure microphones, mixers, phono cartridges; Beckman digital multimeters; Hitachi oscilloscopes; ECS crystals; Waters faders.

71 Valley St. So. Orange, NJ 07079 (201) 763-7900 Contact: D.C. Miller, Pres.

STYLIST SYSTEMS, INC.

LINE: Microtime, Textronix, Videotek, Fernseh, Jerrold, Ikegami, Dynair, Altec, JBL, Ivie, Strand Century. 39 Industrial Ave. Teterboro, NJ 07608 (201) 288-6130 Contact: Mr. James Gore, Pres.

SYMCO, INC.

LINE: NEC, Hitachi, Comprehensive, Echolab, Smith-Victor, Dage/MTI, For-A, Panoak.

26 Lurline Dr. Millington, NJ 07946 (201) 647-6262 Contact: Frank Colotta, Pres.

T.V.G

LINE: Rental broadcast and production equipment.

555 Broad St. Glen Rock, NJ 07452 (201) 444-2911 Contact: C. Diehl

TELE-MEASUREMENTS, INC.

145 Main Avenue Clifton, NJ 07014 (201) 473-8822 Contact: W.E. Endres, Pres. D. Cook, VP Sales

TELEVISION PRODUCTION SERVICES

30 West Maple Avenue Bound Brook, NJ 08805 (201) 469-5743 Contact: R. S. Burks Exec. Prod./Dir.

THOR ELECTRONICS CORP.

LINE: Electronic components. 321 Pennsylvania Ave. P.O. Box 707 Linden, NJ 07036 (201) 486-3300 Contact: A. Crudele, Pres.

VALIANT UNIVERSAL VIDEO

LINE: Video accessories and supplies. 195 Bonhomme Street Hackensack, NJ 07602 (800) 631-0867 (201) 487-6340 In NJ Contact: S. Goldstein, SIs. Mgr.

VIDEO RENTALS, INC.

100 Stonehurst Ct. Northvale, New Jersey 07647 (201) 767-1006 Contact: Bill C. Ebell, Pres.

VISION-SOUND PROFESSIONAL AUDIO, INC.

LINE: Harrison Systems, recording & post-production consoles; Studer Revox, tape recording equipment.

110 Grand Avenue
Englewood, NJ 07631
(201) 871-4101
(800) 526-4710 E. of Ohio
Contact: Michael Salafia, Pres.

NEW MEXICO

DYMA ENGINEERING

LINE: Ikegami, RTS, Videotek, Ross, BE, Video Data, Lenco, Ampex. 213 Pueblo Del Sur P.O. Box 1697 Taos, NM 87571 (505) 758-8686 Contact: C. Cunningham, Pres. SEE AD ON PAGE 191

NEW YORK

ADCOM COMM., INC.

LINE: Videomedia Z-6, Hamsepic, EMS, Sony, JVC, Quanta.

555 West 57th St. New York, NY 10019 (212) 265-1760 Contact: Richard Alexander, Sales Manager

ADWAR VIDEO CORPORATION

LINE: Video equipment, microphones, lighting, transfers, editing, dubbing, modifications.

100 Fifth Avenue New York, NY 10011 (212) 691-0976 Contact: Jon Burris, Salesman

Continued on page 184

WEATHER RADIO

Model CRW



Price \$380.00

Sensitivity .28 microvolts for 12 dB quieting. All 3 frequencies. Alert tone demutes receiver, closes relay and gates audio to 600 ohm rear terminals. Another set of rear terminals has continuous 600 ohm audio output. Double conversion crystal controlled, crystal filter in first I.F., ceramic filter in second I.F. Dual gate MOS FET front end. 50 ohm coaxial input. Adjacent channel (j25 KHz) down 70 dB. 19" rack mount, 3½" H, all metal enclosure. In stock—available for immediate delivery.

EBS EQUIPMENT Required for L.P.T.V.



Model CEB Encoder-Decoder Model CE Encoder Model CD Decoder

Encoder FCC Type Accepted Decoder FCC Certified Exceeds FCC Specifications

Receiver can be supplied to drive Decoder.

\$100.00

Price

\$380.00

265.00

205.00

All interconnections to the EBS equipment are made through a barrier terminal block. No special connectors necessary. In stock—available for immediate delivery.

GORMAN REDLICH MFG. CO. 6 CURTIS STREET • ATHENS, OHIO 45701

• (614) 593-3150

Circle (132) on Action Card

Circle (131) on Action Card

ALBA VIDEO CENTER

LINE: VTR, VCR, TV, cameras, SEG, TBC, etc.

172 Madison Ave. New York City, NY (212) 886-0305

ARRIFLEX CORPORATION

LINE: ARRI daylight HMI lights, Arriflex motion picture equipment, Arriflex fluid head tripods.

500 Route 303 Blauvelt, NY 10913 (914) 353-1400 Contact: R. Schreibman, Sales Mgr.

EMIL ASCHER, INC.

LINE: Background music Ilbrary.
630 Fifth Ave.
Suite 660
New York, NY 10111
(212) 581-4504
Contact: Lauri Levinson
Robert Aster, SIs. Mgr.

AUDIO VIDEO CORPORATION

LINE: Sony, Panasonic, DVS, Convergence, ISI, Quanta, Ikegami, 3M.
213 Broadway
Menands (Albany), NY 12204
(518) 449-7213
Contact: Ted Klarsfeld, Gen. Mgr.

DAVID BAIN ASSOCIATES

LINE: Broadcast Electronics, Potomac Instruments, Moseley Assoc., Fidelpac, Audiopak, ESE, Beyer, Shure, Nortronics, Cablewave Systems, Television Equip. Assoc., Dictaphone, Stanton Magnetics, Belar Labs, Inovonics Inc., Eventide Clockworks, Micro-Trak, Audio-Technica.

P.O. Box 1014 Port Washington, NY 11050 (516) 883-4818 Contact: David Bain, President

BARBIZON ELECTRIC CO.

LINE: Mole-Richardson lighting equipment; GE, Sylvania, Osram, Thorn, Chicago Miniature, lamps and sockets; Rosco and Lee Color Media.

426 W. 55th St. New York, NY 10019 (212) 586-1620 Contact: Sidney Bloom, Pres.

BELDEN COMM., INC.

LINE: Lee filters, Color Media, Strand Century/laniro lighting, Lowel light location equipment, Matthews, Colortran; Dagmar, Sylvania & Osram bulbs.

534 W. 25th St. New York, NY 10001 (212) 691-1910 Contact: Michael Sheppard, Pres

BI-TRONICS, INC.

LINE: Mogami cable.
76 Main St.
Box 125
Tuckahoe, NY 10707
(212) 585-1645
Contact: Joel H. Schwartz, Pres.

BOYNTON STUDIO, INC.

LINE: AKG, Ampex, Atlas, Banner, Crown, dbx, EV, Inovonics, Micro-Trak, Orban, Ramsa, Sennhelser, Shure, Stanton, Revox, Tascam.

Melody Pines Farm Morris, NY 13808 (607) 263-5695 Contact: Fred Hohman, Tech. SIs.

BURNS AUDIOTRONICS, INC.

LINE: Mikes, amps, recorders.

5-05 Burns Ave. Hicksville, New York 11801 (516) 935-8000 Contact: Norm Wieland, V.P.

THE CAMERA MART, INC.

LINE: Ikegami, Panasonic, Sharp, Microtime, Videotek, JVC, Ronford, Listec, Peter Lisand, Oconnor, Sony, Sigma, For-A, RTS, Clear Com.

456 West 55th Street New York, NY 10019 (212) 757-6977 Contact: Shelly Brown, Gen. Mgr. SEE AD ON PAGES 28-29

CECO COMMUNICATIONS, INC.

LINE: Transmitting tubes, receiving tubes, camera tubes, CRT tubes, picture tubes, monitor tubes, serial conductors.

2115 Ave. X Brooklyn, NY 11239 (212) 646-6300 (800) 221-0860

Contact: Tony lanna, Brdcst. Mgr. SEE AD ON PAGE 81

CITYWIDE SALES

LINE: Sennhelser, Audio Technica, Ortofon, trade only.

1689 - 46th St. Brooklyn, NY 11204 (212) 435-5100

Contact: Morty Fogel, Mkt. Mgr.

DALIS INDUSTRIAL ELECTRONICS

LINE: Belden wire & cable, Potter & Brumfield relays, Switchcraft connectors, Premier metal, Bud metal, Amphenol connectors, Dialight, etc.

35-35 24th Street Long Island City, NY 11106 (212) 361-1100 Contact: Daniel Oberman, G.M.

BERNARD DARMSTEDTER ASSOC., INC.

LINE: Microphone and sound reinforcement

41 R. Oswego St. Baldwinsville, NY 13027 (315) 638-1261 Contact: Bernard Darmstedter, Pres.

DOLPHIN PRODUCTIONS, INC.

140 East 80th Street New York, NY 10021 (212) 628-5930 Contact: CeCe Lazarescu

D'SAN CORPORATION

25-30 163 St. Flushing, NY 11358 (212) 746-8857 Contact: O. Swarth, Pres.

ERCONA CORPORATION

LINE: Fuses, fuseholers, plugs & connectors, headphones, microphones, lenses.

2492 Merrick Road Bellmore, New York 11710 (516) 781-2770 Contact: M. Kandell, Sales Mgr.

F&B/CECO, INC.

315 West 43rd St. New York, NY 10036 (212) 974-4600 Contact: Walter Druker, VP

RF GAIN, LTD.

LINE: Elmac, RCA, Machlett, Amperex, National Electron Tubes, CTC, Motorola, Philips, Acrian, Amperex, Thomson-CSF, RF power transistor. 100 Merrick Rd. Rockville Centre, NY 11570 (800) 645-2322 NY State: (516) 536-8868

GOTHAM AUDIO CORP.

LINE: Neumann, EMT, Telefunken, Fabec/TTM K&H.

741 Washington St. New York, NY 10014 (212) 741-7411 Contact: Russ Hamm, VP

HAL - STAN ASSOCIATES

LINE: Police & fire flashlights. 160 New York Ave. N. Babylon, NY 11703 (516) 587-9384 Contact: S. C. Rothschild, Partner

LAWRENCE K. HANER ASSOC., INC.

LINE: Power supplies, cable assembles, switches, attenuators, filters, transformers, relays & triac devices.

900 Walt Whitman Rd. Melville, NY 11747 (516) 423-2444 Contact: Larry Haner, Pres.

KARL HEITZ, INC.

LINE: Photographic equipment (still, cine, video).

979 Third Ave. New York, NY 10022 (212) 421-5220 Contact: Christa Salmon, Adv. Manager

J B VIDEO SALES

LINE: TV cameras, film chains, production switchers, time lapse VTR.

Box 77 Amawalk, NY 10501 (914) 245-1955 Contact: Joe Bottali, Pres.

LCA SALES CO.

LINE: Closed-circuit TV systems, master antenna systems, cable TV, commercial sound products, professional audio products.

76 Main St. Tuckahoe, NY 10707 (914) 961-4700 Contact: Joel H. Schwartz, Partner

LEVIT ELECTRONICS, INC.

LINE: Electron tubes & semiconductors.

> 200 Park Avenue South New York, NY 10003 (212) 777-5517

Contact: Michel Levit, Exec. VP

LEWIS & DUNNIGAN CO., INC.

LINE: Steel towers, coax cable, microwave shortrange, 2-way radio, headphones, microphones, antennas, cabinets.

104 Jamesville Road Syracuse, NY 13214 (315) 446-5522 Contact: Dick Dunnigan, Pres.

LISTEC TV EQUIPMENT

LINE: W. Vinten Ltd. camera mounting equipment, Digivision monitor prompter, Electrohome video monitors.

39 Cain Drive Plainview, NY 11803 (516) 694-8963 Contact: Joanne Camarda, Manager

MPCS VIDEO, INC.

LINE: Sony, JVC, Panasonic, Ikegami, RCA, Quasar, Magnavox, 3M, TDK, Fuli.

514 W. 57th St. New York City, NY 10019 (212) 586-3690 Contact: Paul Wilson, V.P.-Sales

MARTIN AUDIO - VIDEO CORP.

LINE: More than 300 professional audio & video lines. 423 W. 55th St.

New York, NY 10019 (212) 541-5900 Contact: Mike Bogen

MICRON AUDIO PRODUCTS

LINE: Micron wireless microphone systems, Diversity receiving systems, VHF antenna systems, Tram lavalier microphone systems.

210 Westlake Drive Valhalla, NY 10595 (914) 761-6520 Contact: Paul Tepper, Pres. SEE AD ON PAGE 163

MICROPHONICS

LINE: Sennheiser microphones, headphones & accessories. Importer-exporter of tubes, cable, phono cartridges, styll. Audio-Technica cartridges styll, Omtofon cartridges & styll, electronic tubes.

P.O. Box 37 Brooklyn, NY 11204 (212) 438-6400 Contact: Joseph Schwartz, Sales Manager

MURA CORPORATION

LINE: Panel and indicating meters, potentiometers, IF tranformers and colls, microphones, multi-testers, speakers, submini and mini lamps.

177 Cantiague Rock Rd. Westbury, NY 11590 (516) 935-3640 Contact: William Mercurio, VP

NAGRA MAGNETIC RECORDERS INC.

19 W. 44th St. New York, NY 10036 (212) 840-0999 Contact: Dom Notto, VP

NORTHEAST BROADCAST LAB, INC.

P.O. Box 1176 15 Charles St. S. Glens Falls, NY 12801 (518) 793-2181 Contact: Bill Bingham, Pres. SEE AD ON PAGE 164

PINZ SALES CORP.

LINE: Soundoller, Pickering, AIWA, Weatheralert.

570 Yonkers Ave. Yonkers, NY 10704 (914) 423-4747 Contact: Ben Pinz, Pres.

PROFESSIONAL ELECTRONICS COMPANY

LINE: Harris, JVC, RCA, Panasonic, Sony, 3M, Dynair, Videodata, Videotek, Crosspoint, Lenco, Tektronix, Telex.

1594 State St. Woodlawn Plaza Schenectady, NY 12304 (518) 374-1515 Contact: Jerry H. Kolins, Pres.

JULES RACINE & CO., INC.

LINE: Stopwatches, chronographs, stop clocks.

85 Executive Blvd. Elmsford, NY 10523 (914) 592-4760 Contact: Roger B. Smith, VP

KOPPE RADEN CORP.

LINE: Audio video broadcast communications equip. & supplies.

34 South Broadway White Plains, NY 10601 (914) 682-8038 Contact: Lorraine Raden, VP

RAVEN SCREEN CORP. LINE: Projection screens. 124 East 124th St. New York, NY 10035 (212) 534-8408 Contact: Martin Soss, Pres.

ALAN SARFATY & ASSOC., INC.

26 Margaret Court Great Neck, NY 11024 (516) 466-6770 Contact: Alan Sarfaty, Pres.

THE KEN SCHAFFER GROUP

LINE: Eventide Clockworks; Redicom; Tamaphone, Swintek, Standard, Cetec-Vega.

10 E. 49th St. 3rd Floor New York, NY 10017 (212) 371-2335 Contact: Paul Auerbach, Dir. of Sales

SIGMUND LONDON, INC.

27-16 41 Avenue Long Island City, NY 11101 (212) 786-1800 Contact: Stephen London, Treas.

SINGER PRODUCTS

LINE: Wide line of broadcast products for all applications. 875 Merrick Avenue Holbrook, NY 11590 (516) 683-3000, ext. 602 Contact: J. Bicocchi, GM/Broadcast

SOS PHOTO CINE OPTICS

LINE: Hajnal snorkel lenses, Lowel lights, Strand Century, Bardwell & McAlister light and grip equipment, animation equip. & supplies, motion picture cameras, lenses and editing equipment, Nagra recorders, projectors, S-8-16mm, 35mm. Used equipment of all types.

315 West 43rd St. New York, NY 10036 (212) 974-4600 Contact: Hy Roth, VP Sales

TAPE CITY, INC.

LINE: Sony, Panasonic, JVC, RCA, Quasar, 3M, RDK.

404 Park Ave. South New York City, NY 10016 (212) 679-1606 Contact: Andy Wander, SIs. Mgr.

TEAM ELECTRONICS, INC.

LINE: RCA, Amperex, GE, Toshiba, Hitachi, Panasonic, EEV, Ampex, Scotch, 3M.

24-16 Queens Plaza South Long Island City, NY 11101 (212) 937-9200 Contact: Fred M. Samuel, Pres.

TELE · CINE, INC.

(A subsidiary of Schneider Corp. of America)

400 Crossways Park Drive Woodbury, NY 11758 (516) 496-8500 Contact: Bob Jones, SIs. Mgr. SEF AD ON PAGE 141

TELESCO INTERNATIONAL

LINE: Radio and television studio and transmitting equipment.

125 Mineola Avenue Roslyn Heights, NY 11577 (516) 484-3822 Contact: Gerald Lainer, Pres.

TELEVISION EQUIPMENT ASSOCIATES

LINE: Matthew, Rocal Acoustics, Elcom, Link.

Box 393 South Salem, NY 10590-0393 (914) 763-8893 Contact: Bill Pegler, Pres.

TEMTRON ELECTRONICS, LTD.

LINE: Transmitting tubes, camera pick up tubes, studio lamps, semiconductors.

15 Main St. East Rockaway, NY 11518 (516) 599-6400 Contact: Ed Kramer, VP Mktg.

TESCO ASSOCIATES

LINE: Test equipment, scopes, generators, cabinets, batterles, recorders.

2002 Teall Ave. Syracuse, NY 13206 (315) 463-4566 Contact: Ted Hendel, Owner

UNISTAGE, INC.

LINE: Yamaha, JBL, Eventide, Crown, AKG, Orban, Anvil, Clearcom, dbx, Spectrasonics.

330 Genesee St. Buffalo, NY 14204 (716) 853-6500 Contact: Robert Lovejoy Mgr. Pro-Sound

VIDEO COMPONENTS, INC.

LINE: Video accessories. 601 S. Main St. Spring Valley, NY 10977 (914) 356-3700 Contact: Dick Turchen, Pres.

WESTEC AUDIO VIDEO INC.

LINE: Ampro/Scully, Auditronics, BTX, ATI, ESE, Fidelipac, RTS, Orban, Spectra Sonics.

1841 Broadway Suite 1203 New York, NY 10023 (212) 586-1662 Contact: R. Maitland, Pres. S. Lane, Op./Sales Mgr.

ZELLAN ENTERPRISES LTD.

LINE: Aaton, Angenieux, Century-Precision, Cooke, Harrison, Lowel, Tiffen, Zeiss, Sachtler.

250 West 57th Street Room 414 New York, NY 10019 (212) 245-1598 Contact: Les Zellan, President

NORTH CAROLINA

ANGLE STEEL ERECTORS

LINE: Towers, lighting, painting, ground systems

P.O. Box 55 Greenville, NC 27834 (919) 752-7323 Contact: William Angle Jr., Owner

BROADCAST SERVICES CO.

LINE: Auditronics, Broadcast Electronics, Electro-Voice, Revox, Electro-Impulse, Fidelipac, Audiopak, Sennheiser, Russco, Cablewave, Phelps-Dodge.

Route 3 Box 45E Four Oaks, NC 27524 (919) 934-9590 Contact: Neal Davis, Owner

JIM CASON ELECTRONICS

5213A Trentwood Dr. P.O. Box 1254 New Bern, NC 28560 (919) 638-5956 Contact: James L. Cason, III, Owner

DOUG COOK & ASSOCIATES

LINE: Broadcast-professional. 6300 Carmel Road Charlotte, NC 28211 (704) 542-6510 (800) 438-6040 Contact: Al Ellinson, Doug Cook or Jim Claftin.

EME, INC.

LINE: Amber, Dage/MTI, Lightning Elimination Associates, NEC America, Terracom, TFT.

112 Buena Vista High Point, NC 27260 (919) 869-3335 Contact: George W. Gold, Pres.

KIRKMAN ELECTRONICS, INC.

LINE: JVC, 3M, Videotek, Fortel, Anton Bauer, ESP, Bogen, Quick-Set, Lowel, Anvil, AKG, Tektronix, Comprehensive, Shure.

901 W. 2nd Street P.O. Drawer K Salem Station Winston-Salem, NC 27108 (919) 722-9131 Contact: Read Clark, Mgr., Video

SOUTHEASTERN SIGHT & SOUND

LINE: Sony, Panasonic, JVC, Hitachi, HVS, Convergence, Strand Century.

P.O. Box 27786 Raleigh, NC 27611 (919) 828-2311 Contact: Lynn Irwin, G

Contact: Lynn Irwin, Gen. Mgr. Howard Rothstein, VP/Mktg.

SOUTHERN COASTAL MARKETING SERVICES, INC.

LINE: RF & studio equipment for radio stations.

6300 Carmel Road Charlotte, NC 28211 (704) 542-6543 Contact: Bob Cauthen, Gen. Mgr.

NORTH DAKOTA

AUDIO VISUAL, INC. LINE: JVC, Hitachi, Convergence, Microtime, Lenco, 3M, Panasonic, Shintron.

1818 East Broadway Bismarck, ND 58501 (701) 258-6360 Contact: Joe Stoebner, Sis. Mgr.

OHIO

CARTWRIGHT COMMUNICATIONS CO.

LINE: Two-way radio communications & accessories.

7812 Red Sky Dr.
Cincinnati, OH 45242
U.S. (800) 543-8614
OH (800) 582-2641
Contact: W. Y. Cartwright, Pres.

GRINNAN FIXTURE COMPANY

LINE: Loudspeakers, mikes & accessories, monitors, preamps, audio recorders, STL and SCA equipment, tape accessories, AM and FM transmitters, turnkey installation services, vans and mobile units.

16041 Georgetown St., N.E. Minerva, Ohio 44657 (216) 862-2323

Contact: John F. Grinnan, Owner

KAVCO INC.

LINE: Over 600 lines of audio and video products. Complete turnkey systems for master control, studio control, editing suites, mobile vans, etc.

3931 Image Dr.
Dayton, OH 45414
(513) 898-2003
Contact: John Ellis, Sales Coord.

KLOPF AUDIO / VIDEO COMPANY

LINE: JVC, Sony, Panasonic, Hitachi, CEI, Rauland, 3M, NEC. 3381 Successful Way

3381 Successful Way Dayton, Ohio 45414 (513) 236-5500 Contact: BIII Kane, Sales Coord.

MIDWEST CORPORATION Communications Systems Div.

LINE: Ikegami, Hitachi, DVS, Sony, JVC, Panasonic, Quanta, 3M, Videotek, NEC, Scientific Atlanta, Microwave Associates, Lenco, Tektronix, Grass Valley, Ampex, Auditronics, Control Video, Cezar Int., Crosspoint Latch, Echo Lab, ITE, O'Conner, Quick Set, Edutron, CVS, RTS.

1021 W. 8th Street Cincinnati, OH 45203 (513) 651-1904 Contact: Jay Adrick, Branch Mgr. SEE AD ON PAGE 9

R.E. INSTRUMENTS

LINE: Fiber optics, fiber-optic transmitters/receivers, digital modulators, demodulators.

31029 Center Ridge Road Westlake, OH 44145 (216) 871-7617 Contact: Bruce Gravens, Mkt. Sales Manager

OKLAHOMA

WALTER S. BREWER CO., INC.

LINE: Electro Controls (lighting control systems), Bardwell & McAliston (lighting fixtures), Thorn Lighting (quartz lamps), Rosco (color materials).

2216 E. 56th Pl. Tulsa, OK 74105 (918) 749-9894

Contact: Walter S. Brewer, Pres. Continued on page 186

DOUG BROWN ENTERPRISES, INC.

LINE: Audio equipment, supplies, turn-key design and installation services.

1703 East Skelly Drive Tulsa, OK 74105 (918) 747-3618

Contact: D. C. Brown, Pres.

DELCOM CORP.

LINE: Hitachi, Sony, Panasonic, ISI, Convergence, Microtime, Harris, For-A, Quanta, Laird.

6019 S. 66 E. Ave. Tulsa, OK 74145 (918) 494-9500

Contact: Sam Pate, President

SATELLITE SYNDICATED **SYSTEMS**

LINE: WTBS, Atlanta. 8252 South Harvard - 74136 P.O. Box 45684 Tulsa, OK 74145 (918) 481-0881 Contact: Sel Kremer

OREGON

VIDEO BROKERS, INC.

10110 SW Numbus Ave. B-1 Portland, OR 97223 (503) 620-9021 Contact: Van M. Faulk, Sls. Eng.

VIDEOSONICS, INC.

LINE: Television systems equipment & design.

> 821 S.E. 14th Ave. Portland, OR 97214 (503) 232-4632

Contact: George Morfin, Sls. Mgr.

PENNSYLVANIA

A B & T SALES CORP.

LINE: Speakers, amplifiers, receivers, and blank tape.

1000 Valley Forge Circle-109B King of Prussia, PA 19406 (215) 265-2028 Contact: Milt Dienes, Pres.

ALCARE COMM., INC.

LINE: Scott Time Lapse Weather Scan Box In addition to television programming.

1503-05 Walnut St. Philadelphia, PA 19102 (215) 568-6010 Contact: Frank Beazley, Chrmn.

ALPHA VIDÉO ELECTRONICS

LINE: Cameras, monitors, test equip-ment, VTRs, character generators, TBC, mikes, switchers.

28 East Mall Plaza Carnegie, PA 15106 (412) 279-6169 Contact: H. B. Lassige, Pres.

AUDIO INNOVATORS, INC.

LINE: The professional audio division of Audio Innovators Inc. carries more than 75 lines of pro audio equipment and accessories. 216 Blvd. of Allies

Pittsburgh, PA 15222 (412) 621-1950 Contact: M. J. Wilson, Op. Mgr.

BROADCOM T.M.

LINE: Cartridge machines; amplifiers;

equalizers; audio delay equipment; transmitters; mixers; studio furniture; noise reduction systems; turntables; headphones; mikes; monitoring de-

Tilghman at Jefferson Allentown, PA 18102 (215) 437-0607 Contact: Bill Davies

BRUSH MAGNETIC HEADS

3rd & Reagan Streets P.O. Box 638 Sunbury, PA 17801 (717) 286-5611

Contact: Bob Trachtenberg, VP

CERCONE VINCENT **ASSOCIATES**

LINE: Strand Century, Mole-Richardson, Bardwell & McAlister, Lowell, Teatronics, GE., Osram, Clear-Com, Matthews, Uni-Set, Rosco, Lee, Union Connector, Anvil Cases.

2741 Noblestown Road Pittsburgh, PA 15205 (412) 922-0901

Contact: Mark McGinnis, Sales

GEORGE M. CONNEEN CO., INC.

LINE: Wire & cable, microphones, monitor speakers, PA & pro sound speaker systems, audio amps. audio consoles, EQ.

P.O. Box 251 Springfield, PA 19064 (215) 544-5884

Contact: George Conneen, Sales

GRUVER RECORDING & SERVICE CO.

LINE: Used broadcast equipment, cassette tapes, NICad batteries, beautiful music and special format services.

214 N. Chestnut St. Palmyra, PA 17078 (717) 838-6973 Contact: Gary L. Gruver, Owner

JOA CARTRIDGE SERVICE

LINE: Fidelpac, Capitol tape cart-ridges; 3M, Nortronics products at discount prices

448 E. Hancock St. Lansdale, PA 19446 (215) 362-8796

LERRO ELECTRICAL CORP.

LINE: VTRs, cameras, monitors, editing systems, character generators, bat-tery/charges systems, mobile TV vans, professional audio and video equip-

3125 N. Broad Street Philadelphia, PA 19132 (215) 223-8200 Contact: Louis Lerro

LOFSTROM ELECTRONICS, INC.

LINE: Advance, Fujl, Hitachi Denshi, Jatex, Jerrold, JVC, Panasonic, Soundolier, Video Data, Winsted, World

Empire Building Glassport, PA 15045 (412) 461-2116 or (412) 672-2554 Contact: Tom Mossbarger, Sales

ROBERT MEYERS ASSOCIATES

David Owens, Sis. Engr.

613 W. Cheltenham Ave. Meirose Park, PA 19126 (215) 224-1663

RICHARD S. PASS ASSOCIATES, INC.

LINE: Swintek, Protech Audio, White Instruments, Mohawk Wire & Cable, Soundoller, AB Systems Design, ATS Cases, Minicom, Trutone Electronics, Ikegami Electronics (black & white only).

27 Oxford Drive Langhorne, PA 19047 (215) 757-6100 or (703) 370-9888

Contact: Richard Pass, President

PIERCE · PHELPS, INC.

LINE: CCTV, audio / visual equipment and supplies.

2000 N. 59th St. Philadelphia, PA 19131 (215) 879-7171

Contact: Frank Brady, Sales Mar.

PROCESSING PLUS

LINE: Distributor of broadcast equipment, audio processing specialist, and audio engineering consultants. IMP-3, Aphex, Fidelipac, Scotch 3M. 59 Brookside Road

P.O. Box 3303 Wescosville, PA 18106 (215) 398-3377 (800) 523-9396

Contact: Allan Winkler, VP/Sales SEE ADS ON PAGES 162, 164

RABAL ASSOC., INC.

LINE: Video delay lines (1H & 2H), tape cleaners.

> Box 114 Huntingdon Valley, PA 19006 (215) 947-4825

Contact: Allen S. Katz. Pres.

RO - CEL ELECTRONICS, INC.

LINE: Altec, JBL, Crown, E-V, AKG, Bi-Amp.

731 Butler St. Pittsburgh, PA 15223 (412) 781-2326 Contact: Don Rosenberger, V.P.

TONER CABLE EQUIPMENT

LINE: Specialize in earth stations, towers, antennas, headends and apartment house amplifiers.

969 Horsham Road Horsham, PA 19044 (800) 523-5947 In Pa call (800) 492-2512

VAL-TRONICS

Penn Park Bldg. Pittston, PA 18641 (717) 655-5937 Contact: Milan J. Krupa. Sales Manager

RHODE ISLAND

WRH BROADCAST SUPPLY

5 Industrial Way Riverside, RI 02915 (401) 434-6272 Contact: Warren Hartwell, Pres.

TENNESSEE

AUDICON MARKETING GROUP

LINE: AKG, Ampro, Audifad, Barth, Beyer, BGW, dbx, Dolby, Eela, JBL, Lexicon, MCI, Raindirk, Scully, Senn-heiser, Woelke.

1200 Beechwood Avenue Nashville, TN 37212 (615) 256-6900 Contact: Claude Hill, President

AUDIO ARCHITECTS, INC.

LINE: Sound Workshop, Tascam, Otari, JBL, Audio & Design Recording, Tangent, Ursa Major, AKG.

112 Space Park Drive Nashville, TN 37211 (615) 331-3247

Contact: Allen Rumbaugh, Sales Manager

BARRY TRADING COMPANY

LINE: FM antennas, transmitters P.O. Box 609 Lebanon, TN 37087

(615) 444-0305

Contact: William O. Barry, Owner

BROADCAST DISTRIBUTORS

LINE: 80 leading lines of audio & radio equipment.

3800 Keith St., N.W. Cleveland, TN 37311 (615) 472-8200

Contact: Thos. Duncan, Mgr.

BROADCAST EQUIPMENT & SUPPLY CO., INC.

LINE: Broadcast Electronics, Shure, Russco, Ampro, LPB, Switch-craft, Teac, Revox, Stanton, Micro-Trak, Fidelipac.

Rt. 1-Weaver Pike Bluff City, Tennessee 37618 (800) 251-0487 or (615) 878-2531

Contact: Clifton Droke, Sls. Mgr.

PHASE AUDIO

LINE: Audio equipment, Auditronics, JBI.

151 N. Angelus Memphis, TN 38104 (901) 726-1900

Contact: Bill Kenner, Sls. Mgr.

JOHN W. GARDNER, INC. D/B/A/ T.H.E. Co.

LINE: White Instruments, dbx, Dorrough, Sony Microphones, Eventide. Eastern Acoustics, AB Systems, Standard Wire & Cable.

28 Music Square East Nashville, TN 37203 (615) 320-0807 Contact: Sales Manager

REDWOOD MARKETING GROUP

LINE: Redwood Research param equalizer, R. Barth KG audios, V311, Musicoder, Woelke test and measuring equipment. Heads.

820 Redwood Drive Nashville, TN 37220 (615) 331-4743 Contact: Terry L. Hill, Mktg. Dlr.

VALLEY PEOPLE, INC.—RETAIL

LINE: Otari, Sound Workshop, Auditronics, Lexicon, BTX, Fostex, Dolby, UREI, Crown, JBL.

2820 Erica Place P.O. Box 40306 Nashville, TN 37204 (615) 383-4737

Contact: Bob Todrank, Exec. VP

TEXAS

ABADON / SUN., INC. dba ASi

LINE: Crown, JBL, AKG, Ampex, Auratone, dbx, Eventide, HME, Lex-icon, MRL, Neotek, Orban, Quantum, Sennheiser, Soundcraft, Tascam, Teac, Technics, UREI, White.

P.O. Box 6520

San Antonio, Texas 78209 (512) 824-8781 Contact: Galen Carol, Pres.

BOB AMOS &

ASSOCIATES, INC. LINE: Sennheiser: Frazier monitors. P.O. Box 3247 Irving, Texas 75061 (214) 827-8232, 252-1161 Contact: Bob Amos, Pres.

BRADENCO CORP.

LINE: Marconi Instruments, Kings Electronics, Allen Avionics, JFW, Western Microwaye.

11500 Stemmons Fwy. #107 Dallas, Texas 75229 (214) 243-7261 Contact: Robert Braden, Pres.

BROADCAST SYSTEMS, INC.

LINE: Conrac, Tektronix, Philips, Vinten, 3M, Dielectric, Cetec Antennas, Vinten, 3M, Dielectric, Cetec Antennas, Videotek, Microtime, RTS, Fartronics, HME, Dynatech, Moseley, Belar, Thomson-CSF, Gray Engineering, Myat, Electrohome, Approximately 80 other product lines of television support equipment.

8222 Jamestown Drive A103 Austin, TX 78758 (512) 836-6011 (800) 531-5232 In Texas (800) 252-9792 Contact: Cary Fitch, Sls. Mgr. SEE ADS ON PAGES 88, 170

CFA/MEDIA SPECIALTIES, INC.

LINE: Strand Century, dimming/fix-tures: Lowel, portable lighting; Union Connector, connectors; Matthews, grlp equipment; Paramount Sound, sound systems; Rosco and Lee, filters, Cam-Lok, connectors; Oshram, lamps; Sylvania, lamps.

P.O. Box 34567 San Antonio, TX 78233 8234 Vicar San Antonio TX 78218 (512) 657-5997 Contact: Marlene D. Hart, Sales T.L. Folsom, Pres.

CAMPION SALES CO., INC.

LINE: Shure, Tape-Athon, Robine, Gold Line, Audio Magnetics. P.O. Box 1830 Richardson, Texas 75080 (214) 238-8145

Contact: R. M. Campion, Pres.

COMPUCON

LINE: Consultant P.O. Box 401229 Dallas, Texas 75240 (214) 233-4380 Contact: D. Coupe, Mgr.

CROUSE - KIMZEY COMPANY

LINE: Broadcast studio equipment. 3507 West Vickery Fort Worth, Texas 76107 (817) 737-9911 Contact: M. Bradford, Sales Mgr.

VICTOR DUNCAN, INC.

LINE: Sony, JVC, Panasonic, Panavision, Barco, Fernseh, Tektronix. 2659 Fondren

Dallas, TX 75206 (214) 369-1165 Contact: Bill Ludwig, Sls. Mgr. SEE AD ON PAGE 172

EIDSON ELECTRONIC CO.

LINE: AM, FM & TV crystals for frequency

P.O. Box 3751 Temple, Texas 76501 (817) 773-3901 Contact: M. Eidson, Mgr.

GIESLER BROADCASTING SUPPLY

LINE: Ampex, Scully, Autogram, Broadcast Electronics, Cablewave, dbx, Fidelipac, Logitek, Moseley, Orban, Potomac Instruments, QEI, UREI, CSP.

9440-L Harwin Dr Houston, TX 77036 (713) 974-6205 Contact: Bernie Giesler, Pres. SEE AD ON PAGE 166

GUARANTEE RADIO SUPPLY

LINE: Ampro/Scully, ITC, Ampex, Singer, JVC, Sony, Eimac, Amperex, Autogram, Ramko, TFT, Logltek, Scotch 3M.

1314 Iturbide Laredo, TX 78040 (512) 723-6913 Contact: R. A. Reyes, Exec. V.P.

INDUSTRIAL AUDIO / VIDEO, INC.

LINE: Sony, JVC, Ikegami, Scotch, Conrac, Tektronix, ISI, Shintron, Harris Video Systems, CMX Orrox, JBL, RTS, AKG, Shure, EV.

2617 Bissonnet Houston, Texas 77005 (713) 524-1956 Contact: David Patton, Pres.

JBS ENTERPRISES, INC.

LINE: Communication, radio & pager batteries, VTR; biomedical batteries;

7817 Charter Oak Ct. Ft. Worth, Texas 76179 (817) 236-7606 Contact: James B. Schusler, Owner

LINROSE ELECTRONICS CORPORATION

202 West Nakoma San Antonio, Texas 78216 (512) 342-8849 Gordon W. Tobias, President

MEDIA SPECIALTIES, INC.

LINE: laniro, Strand Century, Paramount Sound Systems, Osram, Sylvani a, Lee Filters, Rosco Sharp.

P.O. Box 34567 San Antonio, TX 78233 (512) 657-5997 Contact: Thos. L. Folsom, Pres.

MICRO CONTROL ASSOC., INC.

P.O. Box 694 Cleburne, TX 76031 (817) 295-7771 Contact: Robt. E. Richards, Pres.

MIDCOM, INC.

LINE: AKG, Audio Interconnect, Audio Services, BGW, Belden, Beyer, Blamp, Cerwin Vega, Cetec Vega, Clearcom Countryman, Crown, Crown PZM, dbx, Editall, Electro-Voice, Emcor, Eventide, HME, ITC, Interface Elec., Ivie, JBL, Kenwood, Lexicon, MXR, Micmix, Mohawk, Orange County, Orban, Quantum, RTS, Sennheiser, Setcom, Shure, Sony, Soundcraft, Sound Workshop, Star Cases, Switchcraft, Studer Revox, Tannox, Technics, Tram, UREI, White Inst.

2231 E. Division Arlington, Texas 76011 (817) 461-2211

Contact: Mike Simpson, Pres.

MZB & ASSOCIATES

LINE: Video products and installation systems, cameras, etc.

4203 Beltway Dallas, TX 75234 (214) 233-5535 Contact: Richard W. Bock, VP

PROFESSIONAL AUDIO SERVICES

LINE: Fidelipac, Stanton, Nortronics, 3M, Ampex, Electro-Voice, Audiopak, Audiolab, Edita!!.

P.O. Box 1953 Ft. Worth, Texas 76101 (817) 536-6254

Contact: Jeanie, Telephone Sales

SAVCO

LINE: Audio, video, RF-most lines. P.O. Box 427 Richardson, Texas 75080 (214) 234-1841 Contact: N. Hughes, Gen. Mgr.

SPECTRUM PLANNING, INC.

1850 N. Greenville Richardson, TX 75081 (214) 699-3536 Contact: G.L. Armes, Exec. VP

THE GENE SUDDUTH CO., INC.

LINE: Central Dynamics, Leitch Video, Knox Video, Audiotronics, Howe Audio, Datatek, Skotel.

P.O. Box 1116 Paris, TX 75460 (214) 785-5727

Contact: Gene Sudduth, Owner

TENICKI & ASSOCIATES

LINE: Otari, Orban, Ransa, Audlo-Technica, URSA-Major, Cetec Gauss, AB Systems, Soundcraft, GLI, RSS,

5719 Kirby - Suite 17 Houston, Texas 77005 (713) 528-2005 Contact: Randy Tenicki, Pres.

WESTBROOK AUDIO, INC.

LINE: Otari, Sound Workshop, Amek, dbx, AD&R. Crown, Delta-Lab, Neumann,

11836 Judd Court, Suite 336 Dallas, Texas 75243 (214) 699-1203 Contact: Paul R. Westbrook, Pres.

WHALIN'S PRO AUDIO SALES

LINE: ADC Products, UREI, Electro-Volce, Shure.

2910 Buena Vista Arlington, Texas 76010 (817) 640-0261 Contact: Louis D. Whalin, Owner

UTAH

J. E. HALL CO.

LINE: Pro & consumer sound, Edcor, Emilar, JBL, Intermagnetics, Niko, Shakespeare.

220 E. 3900 South #10 Salt Lake City, Utah 84107 (801) 268-3263 Contact: J. E. Hall, Owner

SKAGGS VIDEO SALES

LINE: Ikegami, Conrac, Tektronix, Panasonic, 3M, Sony Broadcast, etc. 4865 Wiley Post Way

Salt Lake City, Utah 84116 (801) 539-1420

Contact: Sam N. Kichas, Gen. Mgr.

TV SPECIALISTS, INC.

LINE: Panasonic (professional, UHS, CCTV), Sharp, Sony, Edutron, Kloss,

180 Fast 21st South Salt Lake City, Utah 84115 (801) 486-5757 Contact: Ted Bollinger, SIs Mgr.

VIRGINIA

ALPHA AUDIO

LINE: Sonex-Sound absorbing anecholc wedge foam. Broadcast equipment consultation, design and fabrication services from concept to completion.

2049 W. Broad St. Richmond, VA 23220 (804) 358-3852 Contact: Dave Jones, Prod. Mgr. Eric Johnson, G.M.

BROADCAST ENGINEERS & EQUIPMENT REPS

LINE: Professional broadcast equipment for AM and FM radio.

P.O. Box 4777 Richmond, VA 23229 (804) 747-1212 Contact: Melvyn Lieberman, Mgr.

BOB DIX, INC.

LINE: Cetec. Singer, Moseley, Otari, Belar, ITC, Technics, dbx, Crown, JBL, Orban, TFT, Revox, Cablewave, Andrew, CRL, Urei, Sennheiser, Shure, Fidelipac, Eventide, Scully, Potomac, Blrd. Delta.

P.O. Box 31 Marion, Virginia 24354 (703) 783-2001 Contact: Bob Dix, President

DAVID GREEN BROADCAST CONSULTANTS CORP.

LINE: 135 lines of broadcast equip-ment. Finance and lease plans avail-

P.O. Box 590 Leesburg, Virginia 22075 (703) 777-6500, 8660 Contact: David Green, President Art Reed, Tech. Engineering Specialist SEE INSERT, PAGES 133-134

MULTIPHASE CONSULTING

LINE: AM / FM studio and transmission equipment and consulting.

4209 Lamarre Drive Fairfax, VA 22030 (703) 273-1960 Contact: H. I. Stewart, Partner

WASHINGTON

ALLIED BROADCAST EQUIPMENT

LINE: Audio and RF broadcast equip-

31003 - A 18th Ave. S. Federal Way, WA 98003 (800) 426-4254 (800) 562-0062 Contact: Cal Vandegrift

Continued on page 188

ARVA - HUDSON, INC.

LINE: Microwave, two-way radio, RF test equipment, Ni-Cad batteries.

P.O. Box 1512 Bellvue, WA 98009 (206) 455-0773

Contact: Bob Hudson, Pres.

BENNETT ENGINEERING ASSOC., INC.

LINE: Broadcast station equipment, audlo, video, transmitters and accessories for AM / FM and TV.

P.O. Box 76 Mercer Island, WA 98040 (206) 232-3550

Contact: S. D. Bennett, Pres.

BROADCAST SUPPLY WEST

LINE: Wide range of broadcast studio equipment, everything from microphones to sound reinforcement.

7012 27th St. W. Tacoma, Washington 98466 (206) 565-2301 National Watts (800) 426-8434 Contact: Tim Schwieger, Sis. Sup.

CUSTOM VIDEO SYSTEMS, INC.

LINE: Sony Broadcast, Harris Video Systems, Sharp, Sony, Panasonic, JVC, Ikegami, Convergence, O'Connor, Grass Valley, Tektronix.

17521 15th Ave. N.E. Seattle, Washington 98155 (206) 365-5400 Contact: Al Harwood, President

FLEEHART & SULLIVAN, INC.

LINE: Amperex, Comprehensive Video Knox, Shure Bros., JVC Pro Video, GE CCTV, Remee Wire, Thalner, Smith Victor, Ross, B&K Dynascan, Telex, ITT.

P.O. Box 77008 10109 Aurora Avenue N Seattle, Washington 98133 (206) 522-1533

Contact: Don Dussault, Sls. Mgr.

NORTHSHORE MARKETING,

LINE: Audio Technica, Crown International, EXR, JBL, Lexicon, Orban, Otari, UREI, Sound Workshop, MicMix, Ivie.

1800 NE 75th St. Seattle, WA 98115 (206) 524-8672 Contact: Lewis Barrett, Sls. Mgr.

NORTH WEST INDUSTRIES

LINE: Video equipment (GE, Conrac, RCA, Zenith).

5518 Empire Way So. Seatle, WA 98118 (206) 722-7400 Contact: J. Stanton Keck, Pres.

PUGET SOUND AUDIO

LINE: Otari, Quantum, Neumann, HME, dbx, Crown, Lexicon, E-V, Technics, Tascam, Sennhelser, Mic-Mix, JBL.

5105 N. 46th Tacoma, WA 98407 (206) 759-4701 Contact: Rob Denbrook, Sls. Mgr.

WEST VIRGINIA

C. R. V. SYSTEMS, INC.

860 Adams Ave.

LINE: Comprehensive Video, JVC, Panasonic, ISI, Lenco, PLS Sharp, Jatex, ITE, Knox, World Video.

Huntington, WV 25704 (304) 525-2633 Contact: Stuart Underwood, Pres.

WISCONSIN

AVONIX VIDEO SYSTEMS

21675 Doral Rd. Waukesah, Wisconisn 53186 (414) 784-1800

Contact: Warren Ribecky, Sales Representative

ELECTRONIC INDUSTRIES, INC.

LINE: Broadcast audio AM/FM, RF. 19 E. Irving Avenue Oshkosh, WI 54901 (800) 558-0222

Contact: Bud Tedlie, Bdcst. Sales

ELECTRONIC PRODUCTS, INC.

LINE: RF test equipment, towers, land mobile equipment and accessorles.

> Hartland, WI 53029 (414) 367-2929 or (800) 558-2331 (WATS)

140 N. Avenue

Contact: David Barquist, V.P.

FULL COMPASS SYSTEMS

LINE: Otari, Ampex Tape, Technics, EV, Tapco, Shure, Tascam, ClearCom, Ramsa, Crown, dbx, AKG, Sennheiser, Sony, Vega, HME.

6729 Seybold Rd. Madison, WI 53719 (608) 271-1100 Contact: Jonathan Lipp, Pres. SEE AD ON PAGE 166

TODD COMMUNICATIONS

LINE: Ikegami, Sony, Harris video systems, 3-M, Panasonic, Lenco, Fernseh, Tektronix, Videomedia.

1122 Queens Way West Nekoosa, WI 54457 (517) 325-2573 Contact: Howard Dougherty, Regional Manager SEE AD ON PAGE 165

VIDEO IMAGES

LINE: Hitachi, Sony, Panasonic, JVC, Microtime, Fernseh, ISI, Crosspoint Latch, Sharp, Acrodyne, Scientific-Atlanta

12200 W. Adler La. W. Allis (Milwaukee), WI 53214 (414) 475-0111

Contact: John Fuchs, V.P.

CANADA

AKG ACOUSTICS

LINE: Microphones & accessories, reverberation units, power supply unit, time delay units.

200 Consumers Rd. - 105 Willowdale, Ontario M2J 4R4 (416) 494-1453 Contact: Carlo Roletti, Sales Mgr.

BCB ELECTRONIC SALES LTD.

LINE: Videomedia, Technicolor, Cezar International, Tentel, Hitachi, Digital Video Systems, Automated Systems

98 Healey Rd., Box 315 Bolton, Ontario, LOP 1A0. (416) 857-0790,0791 Contact: R.H. Cook, President

BESELECTRONICS LIMITED

LINE: Audio recorders, antenna accessories & services, transmission cable

3212 Wharton Way Mississauga, Ontario L4X 2C1 Canada (416) 624-5624 24 Hr. Emerg. No. 276-0276 Contact: W. Onn, Pres. & Gen. Mgr.

B.S.R. (CANADA) LTD.

LINE: dbx & Otari.

26 Clairville Drive Rexdale, Ontario M9V 4B3 (416) 675-2425 Contact: R.W. (Rod) Marsh, Prod. Manager

CALDWELL EQUIPMENT

LINE: Wide array of audio and video equipment.

1080 Beliamy Road North Scarborough, Ontario M1H 1H2 Canada (416) 438-6230 Contact: Jim Smith, President

CAMARTRON COMMUNICATIONS, INC.

LINE: Commercial Electronics, NEC

America, Allen Avionics. 236 Yorkland Blvd. Willowdale, Ontario M2J 1R5 Canada (416) 494-6978

Contact: Ken Snowden, Pres.

CARR MCLEAN LIMITED

LINE: Library, audio visual, archival supplies, furniture, shelving,

461 Horner Ave. Toronto, Ontario, M8W 4X2 (416) 252-3371

Contact: W.G. Carr. Sales Mar.

CAVECO EQUIPMENT LTD.

1121 Bellamy Rd. North Unit 10 Scarborough, Ont. M1H 3B9 (416) 438-6230

Contact: Jim Smith, Pres.

CECOM COMMUNICATION PRODUCTS

1015 Matheson Blvd. Unit -3 Mississauga, Ont. L4W 2V3 (416) 624-9392 Contact: T. Rankine

CECOM ELECTRONICS LTD.

1015 Matheson Blvd. Unit 3 Mississauga, Ont. L4W 2V3 (416) 624-3420-21 Contact: Cecil Son Hing, Pres.

COMAD COMMUNICATIONS LIMITED

LINE: McMartin, Townsend, ESE, ITE, Knox Video, Studer Revox, Shure, Shively.

91 Kelfield St., Unit 5 Rexdale, Ontario M9W 5A3 Canada (416) 245-1734 Contact: Emil Adamyk, Pres.

CROWDER COMMUNICATIONS LTD.

LINE: Satellite turo equipment, rebroadcast equipment, system engi-

4312 Norfolk St. Burnaby, British Columbia V5G 4J9 Canada (604) 437-4433

Contact: J.G. Edwards, V.P. Finance & Marketing

FEV CANADA LTD

LINE: Specialized electron tubes, solidstate devices.

67 Westmore Drive Rexdale Ontario Canada M9V 3Y6 (416) 745-9494

Contact: D. Clissold, Gen. Mar.

ELECTRO & OPTICAL SYSTEMS LIMITED

31 Progress Court Scarborough, Ontario Canada M1G 3V5 (416) 439-9333 Contact: Maurice Evans

GERR ELECTRO - ACOUSTICS

LINE: Midas, Sound Workshop, HME, Lexicon, TRS, Otari.

363 Adelaide Street East Toronto, Ontario, Canada M5A 1N3 (416) 868-0528 Contact: Robt. Snelgrove, Pres.

GLENTRONIX (U.S.) INC.

LINE: Video & pulse delay lines, NTSC & RGB monitors, video production, routing & master control switchers, time code equipment, video & audio patchfields, camera test charts, slides, film & transparencies, tape synchronizer, video & audio head refurbishing, oscilloscopes & waveform monitors, automatic tape degaussers, lock analyser hoard tape conditions logic analyzer board, tape conditions, evaluators & tape timers, side band analyzers, clock drivers & clocks, machine control equipment temperature equipment, cable strippers.

160 Duncan Mill Road Don Mills, Ontario M3B 1Z5 (416) 444-8497 Contact: Debra Carter

GRAYGALE ENTERPRISES LTD.

LINE: Hughey & Phillips Inc., tower obstruction lighting & related products.

P.O. Box 1581 Kitchener, Ontario N2G 4P2 (519) 884-5351 Contacta: Win Nightingale, Pres.

MARKETING CO. LTD.

LINE: Loudspeakers, audio equalizers, amplifiers, tape players, recorders, duplicators, mixers.

6445 Cote de Liesse Road Montreal, Quebec H4T 1E5 Canada (514) 342-4441 Contact: Kevin G. Knoll, Prod. Mgr.

EARTH STATION TECH. INC. (E.S.T.)

LINE: Elpro transmitters, Elpro translators, E.S.T. receiver stations, Andrew antennas.

#114 - 5910 No. 6 Road Richmond, B.C. Canada V6V 1Z1 (604) 270-9544 Telex: 04-357745

Contact: Sonny Kosuljandic, GM

IMMAD BROADCAST SERVICES

LINE: TV & FM RF components, combiners, diplexers, filters, antennas, video distribution equip, turnkey, installation & testing services for studio, transmitters and antennas.

233 Carlaw Ave.

Toronto, Ontario Canada (416) 465-2463 Contact: N. Brian Everett, G.M.

J-MAR ELECTRONICS LTD.

LINE: Audio equipment. 6 Banigan Dr. Toronto, Ontario M4H 1E9 (416) 421-9080 Contact: Chris Brooks, Sales Mgr.

R.C. KAHNERT SALES LTD.

15 Bunty Lane Willowdale, Ontario Canada M2K 1W4 (416) 221-7755

Contact: R.C. Kahnert, Pres.

LEADER BROADCAST SYSTEMS INC.

LINE: Audio products, mixers, recorders, studio systems. 195 W. 7th Avenue Vancouver B.C. Canada V5Y 1L8 (604) 685-6043

Contact: Michael K. Leader, Pres.

LUMITROL LTD.

LINE: Colortran, Stanley ASH Theatrical, Rual Industries, Larcan, Sylvania, Philips, Hubbell.

5 Walker Ave. Toronto, Ontario M4V 1G3 Canada (416) 921-6060 (416) 921-6688

Contact: Bruce Whitehead, Pres.

MSC ELECTRONICS

LINE: BEI, Broadcast Electronics, Capitol/Audiopak, Comark, EMCEE, Evershed Power Optics, Howell/Shively Labs, LEA, LPB, NEC, Orban, QEI, Rankcinter, Roh Corp., Telemet, TFT, UMC Electronics.

254 Wildcat Road Downsview, Ont. Canada M3J 2N5 (416) 661-4180 Contact: David La Frenais, Pres.

NATIONAL ELECTROLAB LTD.

LINE: RF test equipment, signal generators, spectrum analyzers, solidstate analyzers, time & frequency receivers, oscilloscopes, general test equipment.

1536 Columbia St. North Vancouver, BC V7J 1A4 Canada (604) 985-0511 Contact: E. J. Frazier, Pres.

NATIONAL ELECTRONIC AGENCIES LIMITED

LINE: Hitachi professional broadcast ENG/EFP video camera equipment; Microtime, TBCs, image enhancers; Video Data production titlers, broadcast video products; Lenco; Cine 60; Crosspoint Latch switchers; E-V products, Hitachi oscilloscopes

2137 Commercial Drive Vancouver, British Columbia V5N 4B3 Canada (604) 253-3192

Contact: Chuck Spencer, Tech. Sup.

NORBEC VIDEO LTD.

LINE: Cameras, U-matic recorders, VHS recorders, time base correctors, monitors, tape.

4315 Girouard Ave. Montreal, Quebec

Canada H4A-3E5 (514) 481-3483 Contact: Roger J. Archambault. President

NORTEC WEST LIMITED

LINE: Ampex Audio, Spotmaster, Auditronics, Inovonics, Revox, Conrac, CEI, Convergence, Leitch, Moseley, Fernseh, Quantel

325 West 5th Avenue Vancouver, B.C. V5Y 1J6 Canada (604) 872-8525 Contact: R. Whitehouse, Pres.

OPTICOM DISTRIBUTORS LTD.

LINE: Cosmicar, Computar, Tokina, Smith-Victor, Universal, Fluid Head, Fulinon, Opticom Motorized Zoom Lenses, Kowa, Peter Lisand, Davis & Sanford.

301-1589 W. 8th Ave. Vancouver, British Columbia V6J 1T5 (604) 734-4511 Contact: David Boyd, Pres/Owner

RACAL (CANADA) LIMITED

LINE: Radio communications products (non domestic).

1806 Woodward Drive Ottawa, Ontario K2C 0P7 Canada (613) 225-4640 Contact: A.H. Blow, Gen. Mgr.

RADIO SERVICE, INC.

2500 Bates Rd. Montreal, Quebec H3S 1A6 Canada (514) 342-4503 TLX 055-60070

Contact: M. Vallee, Brdcst. Mgr.

RUSINT ELECTRONICS & SALES CANADA LTD.

LINE: Measuring, monitoring and transmission equipment for TV, FM broadcasting; Interference simulators and RFI suppression filters; test equipment for telecommunication including fibre optics; radio communication and monitoring equipment and systems.

25 D Northside Road Nepean, Ontario Canada (613) 829-3944 Contact: R. Pauk, Sales TV & FM Broadcast Equipment

A. C. SIMMONDS & SONS LTD.

LINE: Antenna Specialtists Co. Acoustic Research, Cetec Vega, Sound Guard, Shure, SME, RKO Tape Corp., Midland International, Schroff.

975 Dillingham Rd. Pickering Ontario L1W 3B2 Canada (416) 839-8041 Contact: W. B. Campion, Mkt. Mgr., Prof. Audio

SMYTH SOUND EQUIPMENT

LINE: Grado, Ikegami, KEF, UREI. 595 rue Parc Industriel Longueuil, Quebec J4H 3V7 Canada (514) 679-5490 Contact: Michel Girand, Sis. Mgr.

SONO VIDEO INC.

LINE: Sony Broadcast, Sony Industrial, Microtime, Ikegami, Shintron, Technics, Ampex Audio.

1010 Berlier St. Chomedey, Laval, Quebec, Canada H7L 3R9

(514) 677-5861 or 384-4546 Contact: Serge Shanks, VP Daniel Langelier

TENNAPLEX SYSTEMS LTD.

LINE: Broadcasting antennas and comblners systems

> 34 Bentley Ave. Ottawa, Ontario Canada K2E 6T8 (613) 226-5870 Telex -053-4962

Contact: Marvin Crouch, Pres.

TRI-TEL ASSOCIATES LTD.

LINE: Maxell, Stanton, Denon, Onkyo, Thorens.

> 105 Sparks Ave. Willowdale, Ont. M2H 2S5 (416) 499-5044

Contact: Hank Gruenstein, VP

TURNELLE VIDEO INC.

LINE: Broadcast and industrial video products; audio products; surveillance products

1050 Baxter Rd. Ottawa, Canada K2C 3PI (613) 829-8790 Contact: J.P. Clermont, SIs. Mgr.

UNITED VIDEO LTD.

LINE: Color cameras, video recorders, b/w cameras, switchers & sync gen., editing systems, production & test equipment, lighting systems, time base correctors, videotape, audio equipment, CCTU, processing equipment.

1230 Old Innes Rd., Unit 409 Ottawa, Ont K1B 3V3 (613) 741-5554 Contact: Dino DiMarino, Pres.

WESTRONIC ENGINEERING SALES LTD.

LINE: McCurdy Radio Industries Ltd., AVL Digital Ltd., Studer-Revox, Aristocart, Decibel Products, Arco Solar, IGM, McCurdy Telecommunica-

tions Ltd., L.M. Erlcsson Ltd., Station **Business Systems**

7 West 7th Ave. Vancouver, B.C. Canada (604) 872-0636 Contact: Rod Maddison,

Prod. Mar.

INTERNATIONAL

LINE: Audio and video studio products, OB vans, turnkey.

6500 Mainz-Gonsenheim Fed. Republic of Germany Contact: K.K. Feldweg, President

CROW OF READING LTD.

P.O. Box 36 Reading RG1 2NB England 44 0734-595-025 TELEX: 847056 Contact: Mike Angelou,

Marketing Manager

JOERGEN ANDERSEN INGENIOER&IRMA

LINE: Video equipment for broadcast and independent stations, total prod-uct range from cameras to VTRs.

Produktionsvej 1, 2600 Glostrup Denmark (02) 9188 88

Contact: A. Lillevang, Sales Mar.

MALDWYN BOWDEN INTERNATIONAL LTD.

69 Ship Street Brighton, England BN1 1AE (0273) 24928

Contact: Michael Fabricant, Dir.

OPTICAL AND TEXTILE LTD.

22-26 Victorla Road New Barnet Hertfordshire England (01) 441-0098 (01) 441-2199

Contact: Bernard Bush, SIs. Mgr.

MISS ANYTHING? If you missed the category you were looking for, turn to the General Index on page 38. This index will tell you WHERE TO FIND IT: the page that the category is listed on, and all advertisements in this issue which feature products in this category.

FIND SOMETHING? If you found the right product and are interested in making a sales contact, use this section as a guide to dealers, distributors, and reps, or turn to the alphabetical listing of Manufacturers and Service Companies.

Tell them you read it in THE DIRECTORY.



NAB'82 unveils a record number of new products

PART 2

he 1982 version of the NAB convention has been committed to memory, but not yet laid to rest. If your memory isn't so good (or if you didn't make it to the convention), this second in a series of NAB review articles will fill in the blanks.

With a record number of exhibitors showing this year, it was necessary to split our coverage into two issues. This way you'll have a more complete record of what was introduced at the convention.

Meanwhile, this convention won't be laid to rest until the next one comes 'round. There were too many major issues that were left hanging. Take teletext, for example. It's another victim of the FCC's marketplace concept. Instead of affecting a standard, they sidestepped the issue.

AM stereo is another example. We may never know who had the best system. In this case we may just see who can bring the greatest influence to the marketplace.

Other standards were at issue, but their immediate impact will be of much less importance. Still, equipment manufacturers were offering both improved products at improved prices. Business was as brisk as it was serious.

As we return once more to the exhibit hall, remember that this issue is the annual Directory of Equipment, Services & Suppliers. The Action Cards can be used throughout the next 12 months. If you need further information on any of the ads or products described in this issue, circle the appropriate numbers on the Action Card, put a stamp on it, and drop it in the mail.

AKG ACOUSTICS-Microphones, reverberation units, headphones, and

phono cartridges were on display at the AKG booth. Among this company's professional products are "Golden Diaphragm" stereo condenser microphones, polydirectional studio condenser microphones, modular condenser microphone system, prepolarized condenser microphone series, the "Performing Arts Series" microphones, exclusive two-way dynamic microphones, dynamic microphones, paging and communications microphones, and torsional transmission line reverberation systems.

AKG's completely modular C-450 condenser microphone system comprises a basic preamplifier with interchangeable capsules, and accessories, each with different characteristics.

Circle (273) on Action Card

ACCURATE SOUND—Staying on top of the state-of-the-art in high-speed duplication is Accurate Sound's way of doing business. This year they introduced the System 200 high-speed duplicator.

The System 200 offers a crystal-referenced design, a servo-controlled capstan, and the unit is very compact. This system design eliminates the capstan-idler and the need for mechanical brakes. Tape duplication speeds available are 60, 120 and 240 inches per second.

The master can be either ¼-inch or ½-inch tape, and in either two or four channels. According to the company, tape duplication speed accuracy is down to 0.08 percent maximum, and flutter is listed at below 0.15 percent RMS.

Slave units can handle 150-mil cassettes or ¼-inch reel-to-reel tapes.

Circle (274) on Action Card

ALLIED BROADCAST EQUIPMENT— This company offers a comprehensive line of radio broadcast equipment.

Circle (275) on Action Card

AMBER ELECTRO DESIGN—The hottest product at the Amber Electro booth was the model 3501 distortion and noise measuring system. Successor to the popular 3500, this new instrument provides the highest performance distortion measurement commercially available with typical system (oscillator and analyzer) level of 0.0005% (-106 dB). It is also an extremely sensitive true RMS noise meter able to measure to -120 dBm with and without weighting. Comprehensive filtering allows compliance with FCC, NAB, IHF, and other standards.

Circle (276) on Action Card

AMCO ENGINEERING—New from Amco were economy EMI cabinets designed to meet FCC/EMI regulations. Also shown was a new line of computer desk cabinets and consoles.

Circle (277) on Action Card

AMPEREX—Amperex showed their full line of Plumbicon® television camera tubes, ranging in size from the hybrid ½-inch Diode GunTM 80XQ to the 30mm high-resolution Diode Gun Frog Head 45XQ. This includes the ¾-inch ENG XQ1427, the ¾-inch EFP Diode Gun XQ3427, the XQ1070, XQ1080, and XQ2070 Diode Gun 1-inch families, and the 30mm XQ1410/1415 family.

Circle (278) on Action Card

ANGENIEUX—Angenieux unveiled their new 15x9 all-weather 9-135mm, f/1.5 zoom lens with diascope for

BROADCAST COMMUNICATIONS/JUNE 1982

automatic ENG/EFP cameras. This lens features a new diascope design for precise registration even under field conditions.

With a photometric factor of 1.1 and an aperture of f/1.5, this lens is unique in the ENG/EFP field. In addition to its low light level capability, a built-in 2X range extender turret allows instant changing of the focal length range from 9-135mm to 18-270mm. Further versatility is achieved by the use of front optical attachments giving the lens an extreme focal length range of 7.2mm to 450mm. Minimum object distance of this new lens is 31 inches. At 270mm FL, the smallest object that will fill the screen is only 18x24.

Circle (279) on Action Card

ANTIOPE VIDEOTEX—The Antiope exhibit this year leaned toward exhibiting the established Antiope teletest operations in Los Angeles, San Francisco, and elsewhere. Their booth had a series of U.S. made color TV receivers, arranged in a pseudo living-room with comfortable couches. Visitors to the booth could pick up the remote control units, and call up teletext pages from CBS' Extravision, NBC's Tempo, KCET's NOW Electronic Magazine, and KPIX's Direct Vision. The teletext signals were brought in by phone line, and updated on a three-hour sequence.

Tony Barnett, president, and Marvin Segel, marketing manager, of Antiope & Telematics Corporation, agreed that teletext was still in the investigative phase among broadcasters. The standards dilemma in the teletext field still inhibits any major purchases, except among those avant-garde stations that want to experiment with this new medium.

However, Segel did find a very high interest by current users of Antiope equipment, in the new Unitel DRCS (soft-alphabet) equipment now operating in NTSC. This was the first display of a new keyboard editing console that does the finer graphics Antiope is capable of. The show equipment will go to KCET in Los Angeles for a few weeks, then on to the NCTA show in Las Vegas.

Circle (280) on Action Card

APERT-HERZOG—This company, located in San Jose, California, displayed digital video processing equipment and the new TDAC-1. The TDAC-1 (travelling digital-to-analog converter) is an 8-bit digital-to-analog converter in a probe for observation of address ramp functions, video waveforms, etc.

Circle (281) on Action Card

AGFA-GAVAERT—This New Jersey company displayed their ¼-inch U-Matic cassettes dubbed the KCA-60, KCA-30, and KCS-20 Mini. The company also showed their ½-inch videocassettes, the Beta L500, and the VHS T120. Other tapes included their Studio Mastering Tape designed for SMPTE lock-up.

Circle (282) on Action Card

ARRIFLEX—A complete line of ARRI daylight HMI lights and accessories were exhibited at this booth. Included in this line are the 200W AC/DC portable HMI light; AC lights in 575- to 6000-watt sizes for 120V/220V AC operation; a complementary system for distribution boxes, various outputs, and voltages; and shipping and storage cases.

Circle (283) on Action Card

ARVIN/DIAMOND—Arvin/Diamond introduced the Sat-Weather System, which provides direct conversion of weather data to color video, including satellite-generated infrared signals.

Circle (284) on Action Card

AUBURN INSTRUMENTS—Auburn Instruments featured their new MC/1 two-wire machine control system which eliminates cumbersome and time-consuming wiring of multi-conductor cables and connectors, and makes delegation of control possible with simple single-pole switching. The MC/1's basic features include 8 commands, 8 return tallies and DC power on a two-wire bus; two 4-button remote units which combine to control 8 functions; master/slave and gang start capabilities; and reliable opto-isolated machine interface (relays optional).

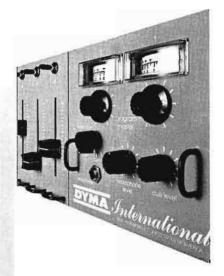
Circle (285) on Action Card

BGW SYSTEMS—The BGW 250 and 750 Series power amps employ fully modular construction, fool-proof speaker protection, and one-piece construction. According to the company, the 250 Series uses three times as many output devices as the competition, enabling it to last three times longer. The 750 uses a heavy-duty rearmounted two-speed industrial fan to move large volumes of air in from the back, over the internal circuitry and up through exhaust ports.

Circle (286) on Action Card

THE BTX CORPORATION—The new BTX Shadow is a fully intelligent interface for audio, video, and film transports. It provides the production and post-production industries with Continued on page 192

compact audio console!



The INTERNATIONAL is an 8 channel audio mixer that fits in everywhere, especially where space is limited...announce booths, news studios, eng. editing suites and remote locations.... it takes only $5\frac{1}{2}$ inches of vertical rack space.

Unit features slide fader w/cue on all eight channels.

Channel module features switchable mike/line operation.

Available in mono, dual mono and stereo models; 16 in-mono out, 8 in-dual mono out and 16 in-stereo out.

DYMA

ENGINEERING

(505) 758-8686 P.O.Box 1697 213 Pueblo del Sur Taos, New Mexico 87571

Circle (133) on Action Card

NAB '82 Products

new capabilities for complete, economical, multi-machine control.

Circle (287) on Action Card

william bal corporation—A new design in heavy-duty shipping cases for video cameras and player/recorders was the highlight at this booth. Several cases are available. Also, the company has complete in-house design service for custom-case interiors.

Circle (288) on Action Card

BASYS—Peter Kolstad and company

were showing a full line, including News Fury, Cart Fury and Clip Fury. The Basys booth was a mob scene. In fact, all the newsroom computer vendors were enjoying heavy traffic.

Basys just sold a big system to KRON-TV in San Francisco, and apparently word of that sale has changed the company's image as a network-only vendor. In fact, Basys is developing some revised formats for KRON to meet the specific needs of a large-market TV station.

Circle (289) on Action Card

BEAVERONICS—Beaveronics markets three standard video production switching systems: the J&D 712, the BI-154, and the BI-156. With the appropriate options, the user can customize these switchers to meet specific requirements. In the case of the BI-154 and BI-156 systems, most of the options can either be ordered initially or added at a later date since, for many of them, removable control panel cover plates and wired rack frames easily accommodate this modular expansion when desired.

Circle (290) on Action Card

BELDEN—Belden is the sole distributor of Lee Filters color media. Lee Filters are made from a tough polyester base, and they offer excellent consistency. They will not only stand up to the hottest quartz lights, but will always retain the highest degree of optical clarity. Lee Filters are available for immediate delivery through Belden's dealers across the U.S. and Canada.

Circle (291) on Action Card

BELL HELICOPTER—Being shown in the Bell Helicopter was a TV system specially designed for operation in the noisy environment of an airborne helicopter.

Circle (292) on Action Card

BIRD ELECTRONIC—Bird introduced the Digital Hi-Power wide-range RF Calorimeter (1000 W to 80 kW). Conveniently portable, it measures RF power quickly with precision, after simple set-up. Other advantages include automatic processing of all sensor inputs, displaying of power directly without charts or calculations, and accuracy of $\pm 3\%$ of reading.

Circle (293) on Action Card

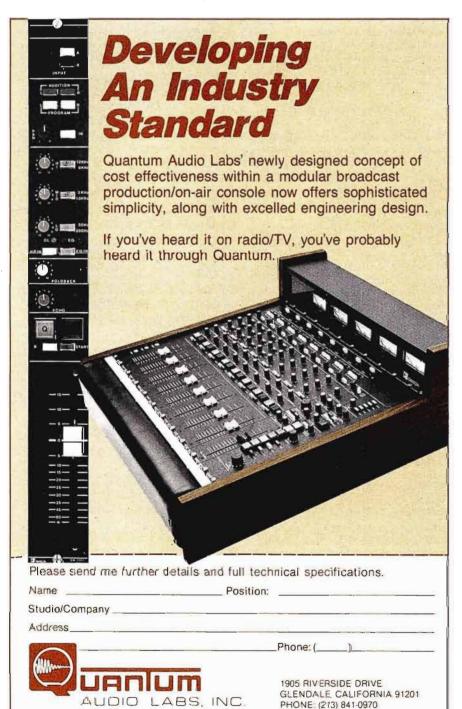
BRITISH VIDEOTEX & TELETEXT—The British have been among the leaders in the development of teletext and videotex systems, and this booth provided American broadcasters an opportunity see these systems first-hand. This display featured Logica's new Context teletext system, as well as Jasmin Electronics' new JTS4 teletext generation system.

Circle (294) on Action Card

BROADCAST AUDIO—There was no lack of excitement at this booth because Broadcast Audio introduced the System 14 digitally-controlled audio console. Digital slide faders and digitally controlled CMOS high-resolution logarithmic audio attenuators reduce signal paths, and do not exhibit the disadvantages associated with VCAs.

Also on display was the Broadcast Audio line of accessory amplifiers: the

BROADCAST COMMUNICATIONS/JUNE 1982



BA-235/435 monitor amplifier; the BA-6x4 distribution amplifier; and the BA-205/405 phono preamplifier.

Circle (295) on Action Card

BROADCAST SYSTEMS—Shown for the first time at NAB was the Broadcast Systems pre-wired audio patch panel. This new product greatly simplifies the proper installation of audio circuits to a patch panel removing hours of tedious on-site labor previously required in wiring up patch panels and "T" blocks, as well as providing a professional looking, easy-to-maintain audio jack field installation.

Circle (296) on Action Card

BROADCAST TECHNOLOGY-Highlighted was the new DC Controlled Equalizer. The EG3501 and EG3502, when used together, form a 10-band graphic equalizer. Either card can be used as a 5-band graphic with center frequency points 2 octaves apart. Both offer differential bridging inputs and are capable of driving 600-ohm loads differentially to +26 dBm.

Also new was the model VU3722, a VU and peak level indicator that consists of 20 LED segments in a 1.5-inch by 3.375-inch panel. The electronics that drive the VU3722 bridge a 600-ohm line differentially and can be

adjusted for O VU from -20 to +8 dBm.

Both the DC Controlled Equalizer and the VU and Peak Level Indicator -as well as other units in the line—are designed to be used with their new selfpowered, rack mount enclosure.

Circle (297) on Action Card

BROADCAST VIDEO SYSTEMS-The EV4060 color signal monitor shown at this booth offers many attractive features, including full broadcast specifications; A-B inputs with buffered video output; and sharp, high-brightness trace. The EV4060 is switchable between waveform and vector display; mounts beside all popular halfrack pix monitors; and is ideal for mobile and studio applications. The EV4060 is available now, and is priced at \$4500 (FOB Buffalo, New York).

Circle (298) on Action Card

CMC TECHNOLOGY-This Californiabased company offers quad video head refurbishing services. CMC refurbishes Ampex Mark XX, Mark XV, Mark X, Mark III, and RCA High-Band. And, the company offers refurbishment of these units in either Alfesin or Ferrite materials.

Circle (299) on Action Card

CABLEWAVE SYSTEMS-Among their transmission lines, Cablewave was showing the FLC 7/8-inch foam coaxial cable that's been designed for lower attenuation than previous foam coax cables. These cables have low loss characteristics that are almost as low as those for air dielectric. Of course the FLC cables don't require pressurization.

Circle (300) on Action Card

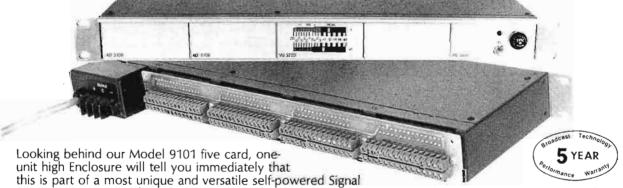
CENTRO—Vans aren't just vans any more. Centro is proof of that. When Centro builds a van they spend as much time on rebuilding the vehicle as they do setting it up for the electronics. Van ride and handling characteristics are modified to accommodate the new configuration the van will have when it is completely outfitted with EFP and ENG equipment. Centro also installs their own custom air conditioning system because the original van design does not call for cooling the equipment racks that will be installed.

Circle (301) on Action Card

JOHN CHILES—New at this booth was an on-board-type battery pack which complements almost all existing industrial and professional cameras not utilizing on-board packs. Variable voltage and amp ranges provide for the

Continued on page 194





Processing System with barrier type terminals. By simply plugging in any of the BTI Series 3000 Cards, the system becomes a D.A., Switcher, an Intercom, an Equalizer, one or more Line, Power, or Pre-Amplifiers.

The VU/Peak Level Indicators provide continuous in-line displays of VU and Peak information over a wide range of "0 VU" for all system configurations.

What's behind Broadcast Technology is more than meets the eye. We are seasoned audio professionals who are committed to technical excellence in the design and manufacture of audio components and systems.

There is also more behind our products as evidenced by our exclusive 5 Year Performance Warranty.

Look at us, and then look behind us. You'll find a lot more at Broadcast Technology. broadcast technology inc.

33 Comac Loop, Ronkonkoma, NY 11779 (516) 588-6565

proper adaptation to all camera makes and models. John Chiles also introduced a new modular-type battery system which can be custom engineered to meet individual requirements concerning amphere hours and voltage specifications.

Circle (302) on Action Card

CHRISTIE ELECTRIC—The 20-minute miracle was the talk of the Christie booth. They were referring to their "burping" charger-and-battery system that gives a full recharge in under 20

minutes with longer battery life for NiCad batteries. The burping is accomplished with reflex negative pulses interjected between the positive pulses. By doing this, Christie finds they can use larger charging currents all the way to a full charge, thus cutting down the charge time. They also displayed a new AC/DC KS1 camera-mounted power supply.

Circle (303) on Action Card

CLEAR-COM—System II intercoms feature increased station capability,

higher output levels, and a very stable side tone. The system will operate from 12 volts on remote assignments. They also showed a new custom line of double muff headsets, the CC-75B and the CC-240B.

Circle (304) on Action Card

COLORADO VIDEO-This manufacturer of video instruments for data acquisition, processing, transmission and display introduced Commpressed Video, the transmission of still pictures over ordinary telephone circuits. The term "compressed video" refers to frequency or bandwidth compression, and the process involves stretching out the picture in time, so that approximately one minute is required to transmit a single image.

Circle (305) on Action Card

COLORGRAPHICS WEATHER SYS-TEMS-The LiveLine System III from Colorgraphics is an ultra highresolution weather graphics computer system featuring one of the highest picture resolutions in the industry: 760 x 480. This system combines in one package weather animations, the first national and regional radar pictures in full color, and automatic weather updates from WSI. Color digital weather satellite pictures are also automatically ingested and displayed.

The System III stores 100 graphics at any time on an 11-megabyte hard disc system. Over 4,000 color choices in high resolution are user-selectable. Automatic sequencing permits recall live on the air of any selection of graphics, radar, and weather satellite pictures.

The LiveLine System III is available for delivery 30 days after order. The complete system price is \$39,900, including delivery and training.

Circle (306) on Action Card

COLORTRAN—A new high-efficiency spotlight family was introduced by Colortran. Called the 1 kW and 2 kW Fresnels, the units represent a new advance in performance in compact, professional lighting equipment. The Fresnals are designed in manual- and pole-operated versions, and employ a new steel and aluminum construction to provide maximum cooling and structural strength.

Circle (307) on Action Card

COMPREHENSIVE VIDEO-Comprehensive's new ULTRA-BOOM allows the user to vary camera height, pan, and tilt simultaneously in one smooth, continuous motion. This is made possible by ULTRA-BOOM's counter-balanced parallelogram design



Record, play and dub complete sporting events and full-length movies ... non-stop.

Record and playback up to 2 hours, 40 minutes on any standard Sony BVH 1000, 1100, and 1100A or Ampex VPR-1C, VPR-2 and VPR-2B Type CVTR with the Merlin ME 238 conversion kit.

Extended play time allows most full-length movies and sporting events to be recorded on a single 121/2" reel. Ideal for master playback when dubbing to small format machines as well as for cable and broadcast automated programming.

TERLIE

1880 Embarcadero, Palo Alto, CA 94303 Call Toll Free — 800-227-1980 (California — Call Collect 415-856-0900)

CANADA

Electro & Optical Systems, Ltd., 3015 Kennedy Rd., Scarborough, Ont. M1V 1E7 (416)439-9333

AUSTRALIA

Advanced Automation, Pty, Ltd., 6 Dansie St., Greenslopes, Brisbane 4120 (07)397-2611 **EUROPE**

Tomislav Marjanovic. Wilhelmstr 52E, D-6200 Wiesbaden, Germany (06121) 30 26 14 U.K.

F.W.O, Bauch Ltd., 49 Theobald St., Boreham Wood, WD6 4RZ 01-953 0091

which is invaluable for getting "above the crowd", to achieve dramatic camera movement effects in commercial productions, to create "dolly shots" while remaining stationary, and many other applications. The ULTRA-BOOM mounts on tripod or camera truck.

Circle (308) on Action Card

COMPUTER GRAPHICS—IMAGES®, an Image Manipulation and Graphics Enhancement System, was one of the hits among the graphics crowd. IMAGES is a computer-based graphics system which allows an artist to draw directly in an electronic medium, maintaining the precision, comfort, and quality of conventional methods, while providing the speed, versatility, and processing power of a computer-controlled video medium.

Circle (309) on Action Card

COMTECH DATA—The emphasis at the Comtech booth was their satellite equipment lineup. Among a variety of products, the company showed their new model 650 satellite video receiver with a 24-channel LED readout, an agile cable modulator dubbed the CDM

1155 (it handles 59 channels), and their 5-meter satellite earth terminals for both audio and video receive installations. The dishes are easily convertible to circular polarization and/or 12/14 GHz.

Circle (310) on Action Card

CONRAC—Conrac showed a full line of professional broadcast color and monochrome video monitors for studio and teleproduction applications. Among the featured monitors was the 6100 Series master color monitors. These top-of-the-line monitors feature automatic stability of color temperature reference, precise colorimetry, and switchable comb filter. The series was designed to satisfy the most critical demands for signal evaluation in broadcasting and teleproduction.

Circle (311) on Action Card

CONTRO VIDEO—The hottest product at this booth was the new LightfingerTM, a microprocessor-based, mutiple-machine, SMPTE time code editing system that is completely controlled through an interactive CRT. The system starts out as a two-machine editor, but is expandable into a data-

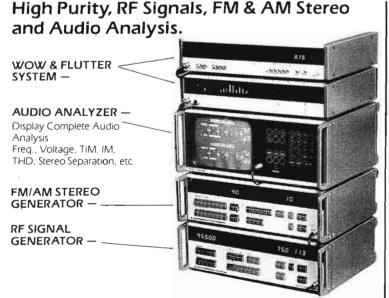
based multi-machine system that controls time base correctors, color correctors, audio mixers, and every other remoteable parameter required in high-level editing.

What's unique about Lightfinger is the CRT itself, which serves as the control panel. By utilizing the CRT control, Lightfinger gives the editor all of the capabilities of a computerized editing system, without the large, complicated, and cumbersome keyboard. Unnecessary functions are eliminated from the CRT, being displayed only as they are necessary for a particular editing procedure.

Circle (312) on Action Card

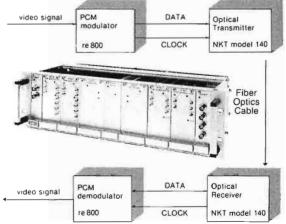
CUSTOM BUSINESS SYSTEMS—The CBSI broadcast business computer system is designed especially to handle the requirements of radio stations. It uses heavy-duty, business-quality, American-made Wang computers in either floppy-diskette or hard-disc configurations. Both versions can assemble and print a 24-hour program log for a busy station in less than 10 minutes, maintaining separation, proper dayparting, desired rotation, and Continued on page 196

re TESTING & FIBER OPTICS



Optical terminal equipment with advanced digital video and audio capabilities.

Studio quality in audio & video to NTSC7 standard.



Presently operating with high quality fiber optics cable system.

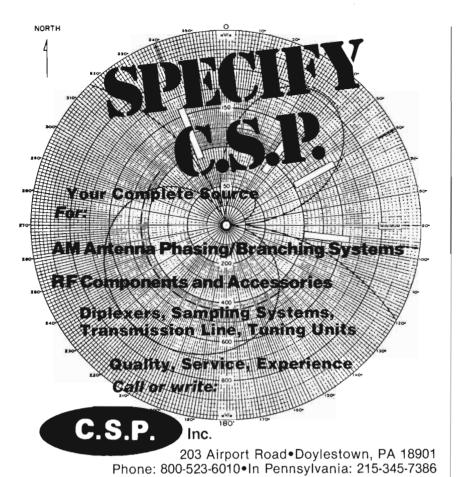
For details contact our Engineering Applications Department:

Manual & Semi- automatic Systems available.

RE-INSTRUMENTS U.S.

31029 Center Ridge Road, Westlake, Ohio 44145 (216) 871-7617

Circle (137) on Action Card



Circle (138) on Action Card



Thanks to the unique design of the patented Beau pancake motor, our Type 100 Recorder/Reproducer gives you space economy (it's only 3 5/8" high and stackable) and power economy, too. Also cool-running and compact, there's the inexpensive Beaucart II Reproducer.

Simple design means greater efficiency. Our versatile Model SFE-1 Automatic Splice Finder and Bulk Eraser combines two machines in one.

A common-sense approach makes Beau-Master Stereo Console and its companion Beau-Pro easy to operate—with the performance you demand.

Simple functional design makes UMC stand out from the crowd.



UMC Electronics Company 460 Sackett Point Road North Haven, Connecticut 06473 Phone (203) 288-7731 **UMC**

Outside Connecticut, toll free, (800) 243-6178

Circle (139) on Action Card

NAB '82 Products

numerous priority levels. CBSI allows locally designed and easily changeable TAP plans and dayparts, spot clusters and fill orders, package billing, or rate per spot.

Circle (313) on Action Card

dbx INCORPORATED—The two newest additions to the dbx line were unveiled at the NAB convention: the model 610 Autographic Computerized Room Equalizer and the model 907 Stereo/Gated Compressor Slave.

The model 610 is a microprocessor-controlled room equalization system designed for professional applications like broadcast or recording studio monitor equalization and fixed or portable sound reinforcement system equalization. The model 610, using its own calibrated microphone, pink noise generator, real time analyzer, and digitally-controlled filters, can automatically equalize an area for flat or specified response in less than 15 seconds.

The model 907 Stereo Gated Compressor Slave is designed to work with the model 903 compressor/limiter. While the 903/907 combination offers all of the features of the 903, it adds a sophisticated high-speed release gate and true dual RMS-detected stereo compression.

Circle (314) on Action Card

DATAMETRICS—On display in this booth were SMPTE time code generators, readers, character generators, vertical interval tune code readers, and generators.

Circle (315) on Action Card

DATATEK-One of the features of the Datatek booth was the Identification of Source (IDS) system which is made up of a family of plug-in modules designed to insert identification codes into a line in the vertical interval of a television signal; to read the codes, generate alphanumeric characters, and key the source ID characters into the active portion of the signal for display on picture monitors. A deleter module can be used to delete the vertical code where desired. The family of IDS modules include the D-657 encoder, D-658 reader, D660 deleter, and D-659 alphanumeric display unit.

Circle (316) on Action Card

DELCOM—The hot product at the Delcom booth was the AE-3 auto effects interface. The AE-3 auto effects interface combines the editing capabilities of the Convergence ECS-103 with the special effects of the ISI 902 production switcher, resulting in greatly expanded post-production techniques. All equip-

BROADCAST COMMUNICATIONS/JUNE 1982

ment retains its original abilities, as well as automatic transitions, while requiring no modification.

Circle (317) on Action Card

DIGITAL COMMUNICATIONS-M/A-COM DCC Inc. of Germantown, Maryland, presented the MAESTROTM digital audio satellite receiver. This is a complete 3-meter satellite terminal designed for the reception of highquality digital audio channels for radio networking. MAESTROTM users can select from multiple 15 kHz circuits; all channels are useable for stereo. The 3-meter system is totaly integrated and can be installed without any extensive ground preparation or technical knowhow. Each system is made of a 3-meter antenna, receive feed, and pedestal; 120°K low noise amplifier; microstrip down converter; digital program terminal (DPT); and interconnecting cables and connectors.

Circle (318) on Action Card

DOLBY LABORATORIES—Dolby unveiled a new line of audio noise reduction modules for the Sony BVH 1000 and 1100, and Ampex VPR-2 1-inch VTRs. These modules incorporate improved record-play electronics with two channels of Dolby A-type noise reduction, into a single package requiring no modifications to the VTR.

Circle (319) on Action Card

DUBNER COMPUTER SYSTEMS—Animation systems were very popular at this year's show, and Dubner exhibited one of the impressive systems. The CBG-2 is a sophisticated computer graphics system that produces broadcast-quality color images and animation sequences. The CBG combines into a single system the power of a character generator, a painting system, a frame storage device, and a digital video effects generator.

A new feature of the CBG system is the ability to rotate an image with perspective around any point in space. The resulting image, when viewed as part of an animation sequence, gives the enhanced sense of depth and three-dimensionality generally associated with a digital effects generator.

The CBG-2 system is available immediately. The price of the system ranges from \$76,000 to \$100,000.

Circle (320) on Action Card

VICTOR DUNCAN—Victor Duncan is a full-service company, supplying a wide range of broadcast equipment. Their expert staff can work with you to design the system you need. And they also Continued on page 198

TENTEL GAGES

DO THINGS EVEN THE FACTORY GAGES DON'T DO!

FOR U-MATIC, BETA, VHS AND 1" TYPE "C" RECORDERS . . .

TENTEL GAGES ARE SO EASY TO USE EVEN NON-TECHNICAL PERSONS CAN DIAGNOSE PENDING PROBLEMS.

The TENTELOMETER Tape Tension Gage will help if you want to prevent problems with:

- Interchange
- Hooking and flagging
- Tape destruction

The TENTEL Spindle Height (TSH) Gage will help if you want to prevent problems with:

- Tape edge damage
- Cassette binding
- Tape destruction

TENTEL is ready to help with your video recorder service needs. Thousands of service engineers rely on TENTEL daily!

Send for the TENTEL Tape Tips Guide or call us TOLL FREE (800) 538-6894. In California call (408) 379-1881.





1506 Dell Avenue Campbell, CA 95008

Circle (142) on Action Card

TALK SHOWS SAVE NOREY TODAY



NEW DIGITAL DELAY BLEEPMATE™ 675/IIfixed, 6 second delay

BLEEPMATE™ 675 3 or 6 second delay operator selectable \$1,625

\$1,940*

*We've held the price line!

Both units available for immediate delivery. Order from your favorite distributor or Systems.



2 Columbia Drive Amherst, New Hampshire 03131 (603) 889-8564 A Division of The Successor Corporation

Circle (143) on Action Card

NAB '82 Products

feature a rental department. For more information, contact one of their three offices, located in Dallas, Chicago, and Detroit.

Circle (321) on Action Card

EEG ENTERPRISES—Closed captioning was demonstrated in this booth. EEG has a deep line of captioning equipment that includes the encoder disc reader model MCZ-210, the tele-copy-floppy model MCZ-TC, and the dual computer model MCZ-DP. The company

also has a new line of video decoders and test encoders to go along with their Line 21 Simple Encoder.

Circle (322) on Action Card

EG&G—EG&G, Electro-Optics, based in Salem, Mass., displayed aircraft avoidance lighting systems for towers and other tall structures. These systems (high-intensity, capacitor-discharge, xenon-strobe type) are approved to FAA Advisory Circular AC150/5345-43.

Circle (323) on Action Card

EASTMAN KODAK—"FutureVision" was the theme of the two-story exhibit presented by Eastman Kodak. The ground floor featured Kodak's latest in film and video technologies, including the Eastman color high-speed negative film 5293/7293.

Due to the film's broad latitude, it can be exposed at very low light levels, creating many opportunities for originating programs at locations which were impractical or impossible to use before. It also presents opportunities for reduced lighting, power, and associated costs.

In the 16mm format, the high-speed film provides new magazine and documentary crews with opportunities for traveling lighter and moving faster, in addition to recording images at extremely low light levels.

Circle (324) on Action Card

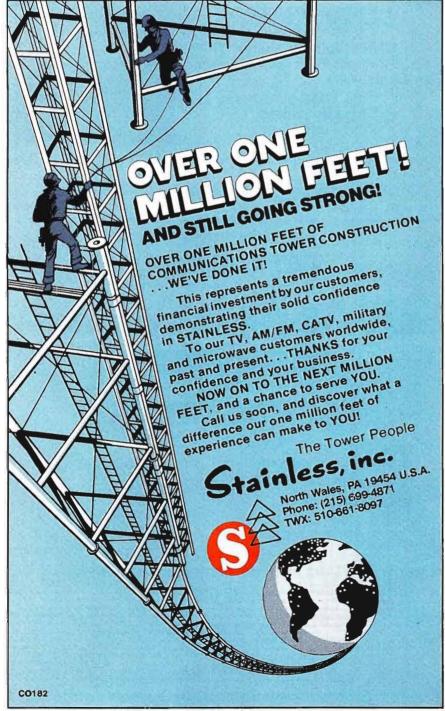
ECHO SCIENCE—Echo Sciences' lastest television tool, The Frame Bank, was introduced. Retaining all the same features of its predecessor, the EFS-1A, it has been made even more productive, reliable, and economical. Also introduced was the Image Maker, a highband, color disc recording system that uses state-of-the-art electronics and an exclusive Discassete recording medium to perform a number of professional television production tasks from still frame storage to special effects. The Image Maker's functions include variable speed operation from freeze frame to real time, random access of as many as 512 frames on line, and the ability to preset 64 locations.

Circle (325) on Action Card

ELECTRO IMPULSE—This company displayed high-power RF loads, attenuators, baluns, and wattmeters.

Circle (326) on Action Card

EVENTIDE CLOCKWORKS-One of the more popular attractions at NAB'81 was Eventide's TimesqueezeTM. And at this year's show, Eventide produced another winner with Timesqueeze Jr. TM. The new Timesqueeze Jr. is an economical solution to time compression for television broadcasters, commercial producers, and filmmakers. The running time of audio, video, and film program material can be altered without editing or deleting material. Modular in design, this system consists of the PTC960 Precision Tape Controller and the H949 Harmonizer. And making time changes is simple: enter the percentage of time change desired on front-panel thumb-wheel switches on the PTV960, and Timesqueeze Jr. does the rest. When the H949 is not being used for time compression, the har-



Circle (141) on Action Card

monizer, by itself, is a superb audio production tool-for pitch change, delav and reverb, flanging, repeat, and time reversal. Timesqueeze Jr. provides full 15 kHz bandwidth and 96 dB dynamic range. The system provides all the control signals that are needed for operation with most 1-inch VTRs, film chains, and audio tape recorders. Units to be controlled must be specified when ordering.

Circle (327) on Action Card

FARRTRONICS—The M81 intercom system was shown by Farrtronics. This system, designed for television or radio use, features self-contained amplifiers in each station; line-level, direct audio switching with a cross-connect point; and totally passive matrix. The system connects to matrix via standard 25 pair cable and connectors. Each station is powered separately, with this de-centralized approach allowing for maximum reliability. Interfaces are available.

FILM/VIDEO EQUIPMENT—This company's featured products were the Wide Eye I and Wide Eye II wide-angle adapters for video lenses. The Wide Eye I has a conversion factor of 6.4, and the Wide Eye II has a conversion factor of 5.1. These adapters can, for example, change the focal length of a 10-140 zoom lens to either a 6.4mm or a 5.1mm wide-angle lens. They are excellent for use in news or production.

Circle (328) on Action Card

FINNTEK-This company, located in Riverton, Utah, displayed audio consoles, audio test generators, and video test generators.

Circle (329) on Action Card

FLASH TECHNOLOGY—This company specializes in obstruction lighting. Featured at NAB was an obstruction

warning beacon system controller for use as part of an FAA L-856 obstruction lighting system. The ElectoFlashTM Controller SC-205 controls flashing operation of beacons, monitors flashing operation of beacons, activates a remote failure alarm, offers optional output and test functions by addition of plug-in modules, and mounts in conventional rack cabinet.

Circle (330) on Action Card

GARNER INDUSTRIES—Garner premiered its 1100 tape erasers, featuring a one-pass, endless belt operation that allows complete erasures at the rate of 13 reels per minute. Made of heavyduty aluminum, the Garner 1100 has an internal fan for heat dissipation and an automatic thermal cutoff switch to prevent overheating. The eraser carries Garner's one-year guarantee.

Circle (331) on Action Card

GENERAL ELECTRIC-Two new families of GE Quartzline® tungsten halogen lamps for Fresnal spotlights used in studio, theater, and display lighting were announced, both having longer life and/or higher light output, plus more constant color and light output throughout life than the incadescent lamps they can replace.

Circle (332) on Action Card

THE GERSTENSLAGER COMPANY-As the networks begin to replace portions of their remote fleets now 15 to 18 years old, Wayne Bayer in the Gerstenslager booth was looking forward to one of their better years for broadcast vehicles. Already under construction is one W-33798 curb-side expandable. semi-trailer style unit for NBC with four similar units for CBS in the engineering phase. Also in the works for CBS is one of the V-5138S modular body units in which cable operators have been showing a lot of interest.

Circle (333) on Action Card

GLENTRONIX-Introduced by Glentronix was the model PC12 precision impulse clock, designed to operate with Torpey Controls & Engineering model CLK-2 and CLK-5 clock drivers. Features of the model PC12 include low power consumption, super-quiet movement, and jump second hand. It is resettable without being removed from the wall, and is designed to operate on standard 12 V alternate polarity pulse systems.

Circle (334) on Action Card

GORMAN REDLICH—Updated versions of the company's EBS encoders and decoders were shown. All equipment is in stock and available for immediate delivery. Prices are as follows: model C.E.B. encoder/decoder, \$345; model C.E. encoder, \$250; model C.D. decoder, \$195; modified AM/FM tunable receiver, \$100. Encoders are FCC type-accepted.

Circle (335) on Action Card

GOTHAM AUDIO-Included in this display were Neumann microphones, EMT Broadcast equipment and reverberation units, Digiphon audio storage systems, Telefunken tape machines, Telcom noise reduction systems, TTM frames, and NTP meters.

Circle (336) on Action Card

GREAT AMERICAN MARKET-New at NAB was STARSTROBE 2, a new version of the popular STARSTROBE. STARSTROBE 2 features a rugged, attractive, contoured housing, and a durable, clear molded one-piece lens cap. The cap is secured to the body by two set screws so that it can be easily removed and colored with lamp dip or gel. The new unit also incorporates an electronic circuit that operates on most AC dimmers as well as the main line. The unit's variable speed rate is designed to strobe at approximately 60 Continued on page 200

THE IDEAL WAY TO SWITCH MONITOR FEEDS

- Audio Follow Video 2-Channel Audio
- Rack Mount 19" x 1-3/4"
- BNC Connectors Video
- TRW Multiple Connector Audio
- Centralab Switches Interlocking
- **Bifurcated Silver Contacts**
- Legend Strip
- Unswitched Video Terminated 75 OHMS
- Unswitched Audio Easily Terminated
- No Signal Loss
- No Signal Degradation
- Cross Talk Better Than -60db
- No Power Required
- Simple Construction Long Life

IN A PROBLEM-FREE, ECONOMICAL MANNER.

10 x 1 PASSIVE SWITCHER



LOW COST

\$295,00

Model AFV - 10

H.M. DYER Electronics. Inc.

31185 Ten Mile Road Farmington Hills, Michigan 48024 Telephone (313) 478-2157

SPILL COFFEE IN OUR FADERS!



Our revolutionary new slide faders, made by P&G, literally deflect dust, dirt and spills to keep our boards running smoothly and quietly. Just one more way Logitek keeps you out front, year-in, year-out!

CALL TOLL-FREE 800-231-5870 (Texas call collect 713-782-4592)

We'll tell you about our full line of top-quality consoles, preamps, amplifiers and accessories!



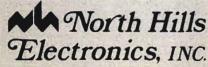
Circle (144) on Action Card



Your answer: NORTH HILLS ultra-wideband isolation transformers.

We have a comprehensive line of standard models, designed for —

- 75 ohm coax and 124 ohm balanced video lines with flat frequency and linear phase characteristics over video range.
- High frequency 50 and 75 ohm coax pulse transmission systems in 1:1 and 50 to 75 ohm adapter versions.
- 10 kV isolation in public utility data transmission with 6 kHz to 2.5 MHz bandwidth in 75 ohm coax, 124 ohm balanced line and hybrid versions.



GLEN COVE, N.Y. 11542 • 516-671-5700

Circle (145) on Action Card

NAB '82 Products

flashes per minute when 120 volts are applied. Lowering the voltage will slow the flash rate.

Circle (337) on Action Card

DAVID GREEN BROADCAST CONSULTANTS—Being shown in the David Green booth was the Composite Processor from Modulation Sciences. This unit delivers up to 6 dB more RMS modulation with less audible distortion per unit loudness than compressor/limiters. Even a station with the latest integrated compressor/limiter/stereo generator can add significantly to its loudness.

Circle (338) on Action Card

GREGG LABORATORIES-Gregg Laboratories has developed an all-new AM audio processing system which will solve bandwidth reduction problems, as well as loudness and audio quality problems faced by broadcasters. The 2540 AM audio broadcast processor is offered to the broadcaster as a complete AM broadcast audio processing system available in one complete package. The 2540 includes a broad-band gain control, band-limiting filters, specialized equalization, a symmetry synthesizer, a five-band compressor, a five-band clipper, low-pass filters, a transmitter phase/amplitude corrector, and two line amplifiers. The system may be divided in two using the optional mainframe to house the broad-band gain control in the event an STL is utilized. The 2540 is in stock and ready for immediate delivery.

Circle (339) on Action Card

HM ELECTRONICS-Well known in the field of wireless microphones, HME's Dynamic Expansion Systems were featured, including the 22E, 25E, 22EF, and the 25EF. The sound quality of these systems comes from a new approach to the compansion technique for noise reduction. Unique signal processing in the transmitters softly compresses the input signal, providing optimum modulation. A companion expansion circuit is included in the receivers, which precisely tracks the transmitter compression, resulting in an undistorted, virtually noise-free dynamic range of 100 dB.

Circle (340) on Action Card

HARRISON SYSTEMS—Well-known for their music recording consoles, Harrison Systems introduced the TV-3 series mixing console as a new solution to TV stereo sound. The TV-3 offers VCA grouping and automation in several variations as options.

Conductive VCA faders, full functions, automation control, three-band

equalization, filtering, and patch point and phase reversal switching are all available on the TV-3.

Harrison also unveiled the DS-1, a versatile, multi-channel audio-level metering system. Based on a powerful Z8000TM high-resolution color videographics processor, this new metering system offers a practical, cost-effective addition to a pointer or discrete bar graph audio-level metering system.

Circle (341) on Action Card

HOWE AUDIO/BCP—The Howe Series 2000 Phase 0 Chaser is an electronically controlled, precision, time-delay network which corrects for the relative phase-errors between the left and right channels of a stereo audio signal. This provides for optimum combining of left-plus-right signals for monaural compatibility. No other audio parameter is affected.

The Series 2000 features a dual-response, error-correction feedback loop having a long-term correction of phase of plus or minus 360 degrees and instantaneous correction to plus or minus 20 degrees. (This accurately characterizes stereo tape cartridge playback conditions). Measurements are at 10 kHz. Other features include a voltage-controlled time-delay network modeled to within 1% of "real world" time delay errors; and a wideband phase-error detector accurate to within 0.5% at all frequencies from 20 Hz to 20 KHz.

The Howe Series 2000 is available as a module for multiple use (either for individual tape playback systems or connected in series to achieve greater phase-correction range).

Circle (342) on Action Card

HUGHES HELICOPTERS—The Hughes' 300C/ENG helicopter drew the attention of crowds of exhibit viewers. Described as the most cost-effective ENG system available, Hughes offers it under the industry's best warranty.

Circle (343) on Action Card

IGM COMMUNICATIONS—IGM's brochure at their exhibit booth asked, "Are you ready for the new satellite music service?" Their answer: "We are." As sales representative Nick Solberg explained, "The equipment doesn't know what it's listening to," so it can interface with satellite, live assist, or other automation equipment.

There were no new showings by IGM, so the company concentrated on its reliable Instacart and the Go-Cart 24, 42, and 78 cartridge players, claiming the fastest access time in the automation industry.

BROADCAST COMMUNICATIONS/JUNE 1982

Another feature at the IGM exhibit was the "Basic A" programming controller. Since the "Basic A" is programmed in simple English, it allows the station program director more flexibility than he has achieved with other automation controllers, the company says.

Circle (344) on Action Card

IMAGE VIDEO—This Canadian company offered several products, including routing switchers, master control switchers, machine assignment systems, and automation systems. Image Video custom designs switchers and control systems for television and radio.

Circle (345) on Action Card

INTERNATIONAL TAPETRONICS—This company returned with their standard line of audio tape recorders, but the Series 99 underwent some modifications since the last NAB convention, and the 99B includes these improvements: a bottoming solenoid that's easier to adjust; a less complicated, easier to adjust splice locator; lower THD and better response electronics; a higher slew rate; an improved erase coil; azimuth control routing; and a more accurate splice detector filter.

ITC claims theirs is the only totally compatible system for automatic azimuth/phase control. The 99B includes a built-in test generator that allows stand alone evaluation.

Circle (346) on Action Card

JBL (JAMES B. LANSING SOUND)— A variety of JBL monitor speakers for stations and recording studios were on display, and one of the featured products was their JBL 4411 control monitor. It's a three-way system with the drivers arranged in a closure cluster to permit close-in monitoring. The monitor includes a high-frequency dome radiator, mid-frequency driver, and a low-frequency driver. The 4411 could set the standard for today's compact studio monitors.

Circle (347) on Action Card

JAMIESON & ASSOCIATES—This Minneapolis-based firm offers consulting information, including development of business plans, A/V and media usage planning, and satellite communication; facility design services including the planning, design and equipment specification of broadcast and non-broadcast facilities, radio stations, training spaces, theaters, etc.; and consultive and production services in all major media formats.

JATEX—The Jatex VSEC-62TMX A/B roll editing controller has recently been

expanded to a full computer-assisted system that will operate on Jatex Scene-Dex time code or on SMPTE code. Regardless of the time code chosen by the purchasing agency, the VSEC-62TMX delivers such standard features as interface to any ½-inch, ¾-inch, 1-inch, or 2-inch editing player/recorder with no VTR modification or kits; three separate and independent transport controls; self-contained VTR status display (no CRT needed); return to edit; random access search; auto tag; LAP time display; and more.

Circle (348) on Action Card

JEFFERSON DATA SYSTEMS—Jefferson Data was showing its enhanced System 90 traffic, sales, and accounting system. Emphasis is on fast delivery of data for quick response to availability requests and inquiries regarding accounts payable. Jefferson Data also showed a station-rep interface and an automatic switching interface for other manufacturers.

The folks from Charlotte, N.C., did not bring their ENP electronic newsroom system, although Bill Ballard was on hand to talk to the many interested parties. ENP is now being used to produce all news shows for WBTV, Charlotte.

Circle (349) on Action Card

KAMAN SCIENCES—Kaman has complete computer systems for television and radio in the areas of sales, traffic, billing, accounting, film inventory and amortization, cartridge and news inventory programs.

Circle (350) on Action Card

KINGS ELECTRONICS—Kings Electronics manufactures connectors, panels, and accessories for the broadcast industry.

Circle (351) on Action Card

KLIEGL BROTHERS—The Entertainer introduced by Kliegl is a portable memory lighting control console which provides proportional patching of dimmers to 12, 24, 36, or 48 group masters, and up to 48 memories within a simple two-scene preset system. Playback functions provide flash button operation of memorized "looks," and chase and latch functions with level controls. Other features include simultaneous manual and group controller operation, and optional library storage and hard copy printer.

Circle (352) on Action Card

LTM CORP. OF AMERICA—Highlighted at this booth was the Micro Set Lighting System (MSL) 250 which Continued on page 202



WIDE ANGLE VIEWING ON STANDARD OR REAR SCREENS



IMAGE MAGNIFICATION INC. 739 Airway Circle, New Smyrna Beach Fla. 32069

(904) 427-5294

Circle (146) on Action Card



Circle (147) on Action Card

utilizes fiber optics. The MSL 250 System is in three parts: the power supply (ballast), the light box, and the Cable Micro Lights (CML).

Circle (353) on Action Card

LW INTERNATIONAL—Exhibited by LW International was the Athena 6000 telecine projector for on-line and filmto-tape transfer.

Circle (354) on Action Card

LAIRD TELEMEDIA—Film chain and previously introduced charactergenerator products were on display in Laird Telemedia's booth, but the attention was centered on this year's new introduction, the 7200 COMMUNI-CATOR character generator. This is their first high-resolution generator with features such as 4 resident fonts out of 128 available, 35ns resolution, 32 resident colors out of 32,000 possible, dual 8-inch disc drives and a 100-row resident memory.

Circle (355) on Action Card

LARCAN COMMUNICATIONS-Larcan, formerly known as Canadian General Electric, came to NAB '82 with a new 30 kW low-band TV transmitter

and a new 25 kW FM transmitter. Circle (356) on Action Card

LeBLANC & ROYLE COMMUNICA-TIONS-This is one of the largest companies in Canada engaged in the design, manufacture, and erection of communications towers. LeBlanc & Royle also installs microwave antennas. broadcast antennas, and transmission lines.

Circle (357) on Action Card

LEITCH VIDEO-Leitch Video manufactures NTSC video synchronizing equipment, NTSC video calibration test generators, video/pulse processing, equalizing, and distribution amplifiers, master clock systems, and PAL/SECAM equipment. Among their products is the SPG-130N, an NTSC source synchronizing pulse generator. The SPG-130N is used primarily as a slave generator at picture source locations.

Circle (358) on Action Card

LEXICON-The Lexicon model 1200 audio time compressor provides a significant new capability: it allows you to play back recorded audio tape or videotape and film faster or slower without altering the original pitch.

With this remarkable audio processor, you can speed recorded materials up or slow them down, and get broadcast-quality sound, free of distortion. The 1200 makes it "pushbutton easy" to shrink or expand recorded material to meet allotted time requirements. Time-consuming editing and expensive re-takes are eliminated.

Circle (359) on Action Card

LOWEL-LIGHT - Lowel-Light featured the new Lowel DP, a 1,000-watt focusing spotlight. This new fixture, an updated version of the popular Lowel D light, features a 7:1 (150 to 1,050 foot candle) focussing range, built-in receptacle for new Lowel DP umbrella and gel frame, improved 4-way barndoor system, and a comfortable new pan/tilt handle.

Circle (360) on Action Card

McINNIS-SKINNER & ASSOCIATES-The jubilant folks at McInnis-Skinner arrived at the NAB fresh from announcing the first sale of their NEWSCAN newsroom computer system to WBNS-TV in Columbus, Ohio.

The firm showed both NEWSCAN and their popular WEATHERSCAN system. The graphics for WEATHER-SCAN have been improved, and the product is getting almost as much attention as a graphics system as it is in its primary role as a means to illustrate TV weather. Circle (361) on Action Card

MATTHEWS STUDIO EQUIPMENT— New from Matthews was the Video Matth-Pak, an assortment of Matthews equipment designed for effective video lighting control. The Matth-Pak offers video lighting control to the professional with the maximum of ease. Three cases, portable and lightweight in design, permit the mobility required in today's location video lighting.

Also new this year were additions to the Matthews Tuplic Crane, a portable, lightweight crane system designed for

video applications.

MAXELL CORP. OF AMERICA-Maxell introduced a high-quality one-inch broadcast tape that is expected to be widely used at production houses as well as by television station engineers. The new tape is characterized by high signal-to-noise ratio; low chroma noise; low dropout rate; high color stability; and excellent audio quality. The new Maxell tape will be available in a shelf box and plastic shipper. It will be ready in commercial quantities by mid summer and will come in three lengths: 30, 60, and 90 minutes.

Circle (362) on Action Card

MEAD DATA CENTRAL—NEXIS is a computer-assisted information retrieval service that provides instant access to the full texts of stories from leading newspapers, magazines, wire services, newsletters, and other information services. This firm was showing its enhanced on-line data retrieval system. Mead brought its new "VBIQ" terminal with soft-touch keyboard.

Circle (363) on Action Card

MICRO COMMUNICATIONS—Circular waveguide transmission line developed for UHF-TV was featured at the Micro Communications booth. Some noteworthy features of the new transmission line are greater efficiency than either coax or rectangular waveguide, and the cylindrical shape reduces drag coefficient which lowers the wind load.

Circle (364) on Action Card

MICRO CONTROL-The booth included a line of studio to transmitter links and subcarrier equipment. The STL system is a wideband composite/narrowband single and dual-channel capacity operating on 10 watts. The frequency models available include 900 MHz, 215-235 MHz, 300-325 MHz, 450-470 MHz, and 1.2 GHz. The subcarrier system includes the PLG-10 generator, and the PLR-10 receiver, using PLL circuitry.

Circle (365) on Action Card

MICRODYNE—New from Microdyne

BROADCAST COMMUNICATIONS/JUNE 1982





GCR-501



ELECTRONICS LIMITED

Geleco Canada address: 2 Thorncliffe Park Drive, Unit 28 Toronto, Canada. M4H 1H2 (416) 421-5631

Geleco U.S.

U.S. Western Office: 1809-North 107th St., Unit 3-201 Seattle, Wash. 98133 (206) 362-0403

Circle (157) on Action Card

was the model 1100-TVR X-24 B-2 electronically tuned satellite TV receiver complete with internal polarization switching and two audio demodulators. This frequency-synthesized, 24-channel receiver can be tuned manually using front panel controls, or remotely via a BCD interface. A front-panel digital display indicates the locally or remotely selected channel. Unique threshold circuitry (patent pending) is a standard feature that assures optimum FM demodulator C/N performance. Other features include automatic antenna polarization selection; digital channel display, and optional audio subcarrier demodulators. The receiver is also available with switchable IF bandwidths and automatic video polarity reversal

Circle (366) on Action Card

MODULATION SCIENCES—Eric Small burst on the NAB scene in Dallas with a new company that was promoting and selling a legal composite processor. According to Small, it's a new type of processor which delivers up to 6 dB more loudness while still complying with FCC regulations, and it produces less audible distortion per unit loudness than standard limiter/compressors.

Circle (367) on Action Card

NADY SYSTEMS—The newest addition to their product line is the Nady Wireless Communicator System, comprised of three units: the RT-201, a miniature push-to-talk two-way transceiver that attaches to the body and allows hands-free communication between two or more parties; the T-201, a miniature transmitter with the same housing and circuitry as the RT-201; and the R-1000, a miniature pocket FM receiver that is compatible with the RT-201 and T-201 systems.

Circle (368) on Action Card

NORTRONICS—Unveiled this year was the PF-208 Professional Head Degausser. It is designed with a super high-flux coil-core to demagnitize heavy duty 2-inch tape heads and guides. With a peak magnetic field strength of 1000 gauss, the PF-208 is one of the most powerful handheld degaussers currently on the market.

Circle (369) on Action Card

FRED NUDD COMPANY—This company designs, manufactures, and installs broadcast and communications towers and monopoles. Fred Nudd also provides tower repair, modification, and engineering services.

OAK COMMUNICATIONS—This California-based company offers

subscription television equipment, technology, and expertise to UHF station owners across the U.S. The licensing agreement calls for Oak to install, service, and maintain the STV equipment; prepare technical and business manuals; train STV operators and servicemen; and provide additional technical know-how as required.

Circle (370) on Action Card

O'CONNOR ENGINEERING—Displayed with O'Connor's camera support equipment, the Hydro-Ped model 102-B gives the cameraman several advantages over traditional tripods. The Hydro-Ped levels and locks hydraulically on any terrain up to 40°. The center column is hydraulically adjustable from 30 to 60 inches, and is hydraulically balanced so that it can handle its own weight and the weight of the camera and head up to 100 pounds on the column. The Hydro-Ped weighs only 29 pounds and folds to 30 inches long with a single centered handle.

Circle (371) on Action Card

PEP INC.—PEP demonstrated their new line of premium ENG power packs featuring the heavy-duty and lightweight on-board batteries, and the new 3-pound HAC3 on-board adapter.

Circle (372) on Action Card

QEI—The OEI model 691 FM monitor offers several features in a single 10½-inch-high, standard rack-mount unit. When combined with a singletrace oscilloscope, the model 691 becomes a spectrum analyzer. Front panel switches allow selection of either 240 kHz or 600 kHz bandwidth in the spectrum analyzer mode. A vector display function is also available for stereo phase adjustments and continuous monitoring of the off-air signal. Bessel null calibration of the monitor is easily accomplished with the built-in calibration oscillator and lowfrequency oscilloscope.

Circle (373) on Action Card

QSI SYSTEMS—At the heart of the QSI Demod 400, exhibited at NAB, is a QSI-designed sync generator with switch-selectable original or replacement sync, burst, and blanking. The user has full control of burst gain and phase, sync level, and set level in process mode. Vertical blanking ends at line 10 for preservation of any test signals or data transmitted with original programming. The price of the Demod 400 is \$1895.

Circle (374) on Action Card

R-COLUMBIA PRODUCTS—New from R-Columbia Products was a wireless

base station that interfaces existing hard-wired intercom systems to FM wireless intercom headphones. The new System 50 base station provides full duplex intercommunication between a producer, director, etc. (wearing a R-Columbia FM wireless intercom headphone) and camera, lighting, and/or sound equipment operators who communicate via existing hard-wired intercom systems like Clear-Com, RTS. etc. Within its range (150 yards), the System 50 provides crystal-clear twoway voice communication between studio, stage, and/or set management personnel, and technical operators without using wires.

Circle (375) on Action Card

RANK PRECISION—Scotty Campbell of Rank Precision was very pleased with booth traffic this year and with the response to two new options for their popular Mk III flying spot film scanner: an X-Y Zoom and a Varispeed control.

The X-Y Zoom extends production versatility by allowing the user to alter the position and size of the picture being shown. Zoom range is 4:1 in and out. Anamorphic and non-anamorphic controls are provided with preset format ratios for 1.85:1, 1.66:1 and variable. A joystick adjusts position, and automatic blanking to the image position is provided. The TOPSY automation system can program X-Y Zoom functions automatically.

Varispeed gives scanner users the ability to precisely alter film running times. It provides speed control in 64 descrete steps from 16 fps to 30 fps with fixed speeds of 18 fps and 24 fps in the 525/60 version. Interface to audio pitch correctors is provided.

Circle (376) on Action Card

SAKI MAGNETICS—Saki supplies ferrite heads for Ampex, Scully, Studer, and most professional recorders.

Circle (377) on Action Card

SCIENTIFIC-ATLANTA—This booth was about what you'd expect, but S-A was pushing digital audio this year, and they did it with a 3-meter earth station. This earth station is designed for reception of media information broadcast via satellite using digital data techniques. It's been designed to receive high-speed TDM digital data at about 9 mb/s, demodulate, and then multiplex the data into the desired audio and data channels. That's new.

Circle (378) on Action Card

SCRIBE RECORDERS—Last fall Frank Beaman surveyed RTNDA Conference delegates asking what radio newspeople Continued on page 204 needed in a rugged, reasonably-priced cassette recorder. Beaman brought his prototype to the NAB and asked newspeople to tear it apart. He went home with a notebook full of suggestions and a healthy collection of orders. The Scribe is a tough, no-frills cassette recorder, which drops into a sturdy lined canvas case which has big side pockets for accessories. The Scribe will weigh less than 3½ pounds and features single-button recording and talk-overtape. The connections are sturdy XLRs for input and output. Production was scheduled to begin just as soon as the post-NAB modifications were worked out.

Circle (379) on Action Card

SHINTRON—New from Shintron was the model 515 FonTex Graph-Titler, a software-base, microprocessor-controlled graphic titler. The model 515 features microprocessor-based multiple fonts with 20 nanosecond resolution, color graphics, color background, color characters, automatic page and line centering, expandable floppy disc memory, character over input video, and self-contained enclosure with an edit monitor and disc memory. According to the company, deliveries will begin this month.

Circle (380) on Action Card

SKOTEL—Time code readers and generators were on display, including portable models. Interesting in their new line was the VITC (vertical interval time code) approach. According to Skotel, the content is compatible to longitudinal time control and control format. It includes even/odd field identification, and it mounts internal to and is powered by your time code reader or generator.

Circle (381) on Action Card

SOUND TECHNOLOGY—The newest product to be added to the Sound Technology line is the model 1501A Balancing System. This is a dual-channel device that interfaces any single-ended signal generator and measuring system to a balanced and/or floating device under test. It is specifically designed for use with the 1500A tape recorder/audio test system.

Circle (382) on Action Card

SPHERE ELECTRONICS—The 1604 Satellite Mixer is available from Sphere, featuring 16 inputs, 4 outputs, and 7 inches of rack space, in addition to mike or line input selection, and channel on/off LED. Options include stereo modules to allow panning between any two selected buses, and VU meter panel

for the 4-bus outputs.

Circle (383) on Action Card

STATION BUSINESS SYSTEMS—Station Business System featured the BAT 1700 business, accounting, and traffic system for radio and television stations. The BAT 1700 System is an in-house, minicomputer-based system which integrates order entry and availabilities, scheduling, invoicing, and accounts receivable functions along with producing on demand a broad range of management reports and analyses designed to increase station productivity and profitability.

Circle (384) on Action Card

STOREEL—Storell displayed a wide assortment of storage racks and cabinets.

Circle (385) on Action Card

STRAND CENTURY—Strand Century introduced an addition to the Mantrix/CD80 Pack portable dimming family: the CD80 6KW Pack has 6-6000-watt dimmers for high-wattage loads and is available with optional Cam-lok connectors for portable applications or may be wall-mounted for permanent installations.

Circle (386) on Action Card

SYLVANIA/GTE—New from Sylvania was the Big BeamTM 1200 PAR 64 5600°K Studio Lamp. Designed for use as a daylight fill-light for film, television and theatre, the medium arc length light source has an initial color temperature of 5600°K. Fewer lamps are needed to provide desired illumination levels, and the cooler-operating properties of the Brite Beam result in significantly less heat output in the light beam and the fixture.

Circle (387) on Action Card

TDK ELECTRONICS—TDK showed a full line of audio and video cassette products for industrial and broadcast applications, including professional-use VHS videocassettes, and test and calibration audio cassettes.

Circle (388) on Action Card

TELEVISION EQUIPMENT—Elcon Tape Cleaner/Profiler is a new machine dedicated to the evaluation of 1-inch videotape. This machine retains the popular cleaning and evaluating features of Elcon's 2-inch/1-inch model, and incorporats a modified display and printout which were developed for the ³/₄-inch cassette unit.

Circle (389) on Action Card

TELEVISION TECHNOLOGY —Traffic was good at the booth where translators

and amplifiers were in the spotlight. Highlighted was the TTC model T-99 solar-powered translator series. The translator comes in a 1-watt FM version, and a 1 or 5-watt VHF TV version. Included is a solar panel, storage battery, and an optional system regulator. CTC translators are available in FM, UHF, and VHF models. Their highest powered rig is the XL 1000 UHF translator.

Circle (390) on Action Card

TENTEL—Tentelometer® Tape Tension gages measure dynamic tape tension to diagnose problems in videotape recorders. Models are available for 2-inch quad; 1-inch Type C and B; and ¾-inch U-matic, Beta, and VHS. Prices range from \$279 to \$740. Delivery is normally 2 to 3 weeks ARO.

Circle (391) on Action Card

THERMODYNE—This company manufactures equipment shipping and field cases, and their latest emphasis is on what they call the Rack Pack. You can install your field equipment in it, and at the site of a remote or EFP assignment, you pop off the covers and the protected equipment is already in the rack and ready to go.

Circle (392) on Action Card

TIFFEN—The Universal Matte Box from Tiffen consists of five parts: the rotating body assembly, two filter frames for holding 3x3 inch filters, the front mount with the rubber lens shade, and a Series 9 insert ring.

Circle (393) on Action Card

TRUE TIME INSTRUMENTS—From the True Time Instruments division of Kinermetrics came a display of WWV time receivers, satellite synchronized clocks, remote time displays, WWVB time phrase comparator, WWV antennas, HF time and frequency receivers, and even WWV antenna kits.

Circle (394) on Action Card

URSA MAJOR—New enhancements on the 8X32 digital reverberator were unveiled by Ursa-Major. These enhancements include an optional remote, and capability for computer-automated mixdown interface. Also, early reflections, initial reverberation, decay time, and low and high frequency decay are pushbutton adjustable within each of four basic programs. The system will synthesize reverberation over a wide range of natural and unnatural spaces, including decay times up to 20 seconds.

Circle (395) on Action Card

VIDEOMAGNETICS—Videomagnetics,

BROADCAST COMMUNICATIONS/JUNE 1982

which specializes in head refurbishing and definition to sound. (Circle 164) services, introduced a warranty extension on VMI strong-back ferrite heads to 36 months retroactive to June 30, 1981. VMI also announced that they will be refurbishing and repairing 1-inch and 3/4-inch heads by mid-year.

Circle (396) on Action Card

WILKINSON ELECTRONICS—A longtime builder of AM and FM transmitters, including low-power solid-state rigs, Wilkinson showed a lineup of transmitters with the new, modern look. Known for their reliability, the transmitters on display included 10- to 250-watt rigs in the low-power FM solid-state class, and four rigs in the 500- to 2500-watt FM group (using solid-state exciters and power supplies). In the FM high-power FM line, Wilkinson rigs range from 5,000 to 30,000 watts. The AM solid-state rigs hit 125 and 250 watts, while the higher power models handle 1, 3, 5, and 10 kW.

Circle (397) on Action Card

WOLD COMMUNICATIONS-Wold was promoting its Woldcom transportable uplinks. Wold has acquired 4 transponders on Westar IV to expand its newsfeed and syndication services. The satellite company was also promoting the Wold Satellite TV Network, which distributes programming for syndicators.

Circle (398) on Action Card

WOLF COACH—This company custom builds mobile units for the broadcast, production, and cables industries. Wolf Coach can handle anything from basic vans for single-camera local access programming, to 42-foot trailers for complete multi-camera production.

Circle (399) on Action Card

ZENITH RADIO-On display in the Zenith booth were multi-channel STV and tiered teletext decoders.

Circle (400) on Action Card

The following companies also exhibited at NAB '82. For more information on these companies, circle the appropriate number on the Action Card in this issue.

ADC PRODUCTS-Enclosed video jackfield. (Circle 228)

ADVANCED DESIGNS-Weather presentation system. (Circle 160)

ADVANCED MUSIC SYSTEMS—Digital reverberation system. (Circle 161)

PETER ALBRECHT-TV studio machinery control. (Circle 162)

ANVIL CASES-Full line of heavyduty rack-mount cases. (Circle 229)

APHEX SYSTEMS—Aural exciter that restores presence, clarity, naturalness,

ARBEN DESIGN-Set design. (Circle

TOBY ARNOLD & ASSOCIATES-Music formats.

AUDICO-Videocassette loader/reloader designed for loading tape directly in U-matic, VHS, and Betamax cassettes. (Circle 246)

AUDIO KINETICS- Synchronizer for controlling up to three video/audio tape transports. (Circle 165)

AUDIO TECHNICA-Phantom power shotgun microphone. (Circle 230)

BIW SYSTEMS—Complete line of optical fiber cables. (Circle 166)

BILL BLACK & ASSOCIATES-Turnkey newsgathering vehicle, the Mobile-Cam One. (Circle 167)

BROADCAST CARTRIDGE-Audio cartridge reconditioning. (Circle 231)

BRYSTON MANUFACTURING-Power amplifiers. (Circle 227)

CBS RADIO—New network for 18-34 market. (Cicle 169)

CAMBRIDGE PRODUCTS-Fast-fit connector. (Circle 232)

CANFORD AUDIO—Conductive thermo-plastic shielded microphone cables. (Circle 170)

CELESTIAL MECHANIX—Radio promotion services. (Circle 233)

CENTURY 21-Automation equipment and music formats. (Circle 171)

CLYDE ELECTRONICS—Full line of broadcast equipment, including Alpha modular mixer. (Circle 172)

COLUMBINE SYSTEMS—Computer packages to handle all business functions, plus music inventory and rotation, sales analysis, media inventory, and more. (Circle 247)

COMPUCON—Engineering services. (Circle 173)

COMPUTER OPERATIONS—Realtime animation system. (Circle 174)

CONCEPT PRODUCTIONS-Program formats designed for use on automated stations. (Circle 175)

CONTINENTAL RECORDINGS-Ingle packages for radio. (Circle 176)

COOL LIGHT-Mini-Cool 250-watt light. (Circle 177)

PETER DAHL COMPANY-Highefficiency modulation transformers and reactors for 1 kW and 5 kW AM transmitters. (Circle 234)

DATA COMMUNICATIONS CORP.-Business computer system. (Circle 235)

DATUM-Model 9400-630 VBI data encoder and associated reader. (Circle 178)

DE WOLFE MUSIC LIBRARY— Library of sound effects for production uses. (Circle 236)

DRAKE-CHENAULT-Radio formats. (Circle 179)

DYNAMIC TECHNOLOGY—Datalite lighting control equipment, remote control and data transmission equipment, and distribution equipment. (Circle 180)

E-N-G CORPORATION—ENG Surburban truck and ENG/EFP van. (Circle 237)

ECHOLAB—SE-3 production switcher. (Circle 238)

EIGEN VIDEO-Videograph, an artist-oriented illustration and animation system for video and slide production. (Circle 248)

ELECTRO CONTROLS-A new patching system using custom keyboard and CRT terminal to assign and display control-dimmer cross connections. (Circle 249)

EMCOR PRODUCTS-The 10 Series of cabinets. (Circle 181)

ENVIRONMENTAL CONTAINER SYS-TEMS—The ECS transportable electronics enclosure. (Circle 182)

EXCALIBAR INDUSTRIES—VTR case. (Circle 183)

FIBERBILT—Carrying and shipping system for photographic equipment. (Circle 250)

FIRSTCOM-Production and commercial library. (Circle 184)

FITZCO SOUND-Professional mixing console for large-scale reinforcement and remote applications. (Circle

FORT WORTH TOWER-Guyed and self-supporting towers, and factoryfabricated communications buildings. (Circle 252)

FOSTEX—Recorder/reproducer featuring 8 tracks on ¼-inch tape. (Cir-

GENERIC COMPUTERS-Poly Morphic System 8810. (Circle 185)

GOLDEN IMAGE—Syndicated TV commercials for radio stations. (Circle 254)

GRUMMAN AEROSPACE—Combination synchronizing generator/processing amplifier for a subcarrier/horizontal sync-timed broadcast facility. (Circle 186)

HARDIGG INDUSTRIES—Package cushioning products. (Circle 187)

IMMAD BROADCAST SERVICES— Turnkey broadcast systems. (Circle

INNOVATIVE TV EQUIPMENT-Fluid heads featuring adjustable counter-balance. (Circle 188)

INTERACTIVE MARKET SYSTEMS-Computer time-sharing services. (Circle 189)

INTERACTIVE SYSTEMS—Super Edit, a complete editing system operating program. (Circle 190)

INTERAND/TELESTRATOR—Telestrator 440, a new product designed for real-time television programming plus quick pre- or post-production anima-

Continued on page 206

tion and graphics effects. (Circle 191)

INTERFACE DATA SYSTEMS—Model 2000 station automation system and new machine control unit. (Circle 192)

INTERFACE ELECTRONICS—Battery-operated portable professional 8-in/2-out stereo mixer. (Circle 193)

JENEL CONSULTANTS—Video Frame Storer which permits inexpensive storing of color video signals on removable discs. (Circle 239)

JENSEN TOOLS—JTK-85 installer's tool kit. (Circle 194)

KLARK-TEKNIK—Stereo profanity delay unit. (Circle 195)

KOBOLD LICHT—DLF 200 S Unit featuring lockable pivoting bracket which permits inclination within 270°. (Circle 196)

LEADER INSTRUMENTS—NTSC vectorscope. (Circle 258)

LEMO—Connectors for broadcast and recording applications. (Circle 256)

LIBRA PROGRAMMING—Computer broadcast system for traffic, sales, general ledger, and payroll. (Circle 197)

LIGHTNING ELIMINATION ASSO-CIATES—Protective device that guards your sensitive equipment against all types of powerline irregularities. (Circle 259)

Product Specialist Cartridge Machines

Career opportunity for a technically trained individual with strong interest in cartridge machine performance and application. Must have practical up-to-date experience with cart machines and good communication skills to interface with design engineers and with customers. BS Degree preferred. This important new position reports to company Vice President.

Excellent company benefits including Profit Sharing Plan.

Please send resume, in strict confidence to Personnel Department.



4100 NORTH 24TH STREET, P.O. BOX 3606 QUINCY, IL 62305, PHONE (217) 224-9600

An Equal Opportunity Employer

LIPSNER-SMITH—CF-100 ultrasonic film-cleaning machine. (Circle 240)

LIVE SOUND—Syndicated radio formats. (Circle 198)

LOGICA—Teletext system based on the BBC Ceefax system and Flair videographics system. (Circle 260)

MAGNASYNC/MOVIOLA—Film-totape unit. (Circle 261)

MAGNUM TOWERS—Fabrication of radio and TV towers, and related hardware. (Circle 241)

THE MANAGEMENT—Computer software programs for radio station traffic and billing. (Circle 242)

MINOLTA—Luminance and chroma meters. (Circle 199)

KEITH MONKS AUDIO—Record cleaning machines. (Circle 262)

MOTOROLA—Microprocessorcontrolled, portable base/repeater featuring 35 watts in repeat mode. (Circle 263)

MUSIC DIRECTOR PROGRAMMING SERVICE—Complete line of Joel Whitburn's Record Research Books. (Circle 200)

NOVA—Tape cleaner that fits all formats and all videotape recorders. (Circle 264)

NTI AMERICA—Animation system which converts analog signals into digital and stores the code on a disc. (Circle 257)

NAUTEL MAINE—Modular 5 kW AMPFET 5 AM broadcast transmitter. (Circle 201)

NETWORK PRODUCTIONS—Whisper Disc, a new form of record with brighter, clearer, and quieter sound. (Circle 202)

NEUTRIK—Professional connectors for broadcasters.

NYTONE ELECTRONICS—Flying Spot Scanner System. (Circle 203)

OLESEN—The Wizard computerized lighting control console. (Circle 204)

PACE—Micro portable desoldering/soldering system. (Circle 205)

PARSONS—Cases with recessed wheels and handles. (Circle 243)

PETERS PRODUCTIONS—Music formats. (Circle 206)

THE PHOEBUS CORPORATION—Ultra Quartz lamp. (Circle 207)

PORTA-PATTERN—Test charts and chart systems for studio, EFP, and ENG applications. (Circle 265)

POWER OPTICS—Synchronized background equipment for chroma key. (Circle 266)

PROCART—Audio cartridge that exceeds type AA cartridge standards. (Circle 267)

PUBLISON AUDIO—Stereo audio computer. (Circle 208)

Q/TV/TELESYNC—Cueing equipment, console transport, and conveyor

transport for studio and on-location prompting. (Circle 268)

QUAD-EIGHT—Consoles designed for TV post-production audio enhancement. (Circle 269)

RADIOCOM—Computer system for handling all business functions. (Circle 209)

ROSCO LABS—Fog/Smoke Machine for theater and television applications. (Circle 270)

HOWARD W. SAMS—New catalog, Silent Salesman, that allows you to present your total product line. (Circle 271)

SOUNDCRAFT—Stereo mixer. (Circle 272)

SPECTRUM—Analization and design of high-quality communications systems. (Circle 210)

STANTRON—Rack cabinets, console cabinets, turret cabinets, bench cabinets, and accessories. (Circle 244)

STEPHENS ELECTRONICS—Professional recorder/reproducers. (Circle 222)

SYMETRIX—Hybrid telephone interface. (Circle 211)

SYSTEM ASSOCIATES—Brokers for used broadcast equipment. (Circle 212)

TAMRON—Lens for ²/₃-inch color separation prism-type cameras. (Circle 213)

WILLIAM B. TANNER CO.—Music IDs and background music. (Circle 214) TECHTRAN INTERNATIONAL—This company featured a portable video unit for sales and training presentations. (Circle 215)

TELESCRIPT—Terminal-prompter combination which can be applied to newsroom word processing. (Circle 216)

TELFAX—Miniature telephone remote unit. (Circle 217)

TENNAPLEX SYSTEMS—UHF combiner package for satellite receive/terrestrial rebroadcasting. (Circle 218)

THEATRE SERVICE—Cyclorama curtains. (Circle 219)

THEATRE VISION—Turnkey studio installations. (Circle 220)

TRIDENT USA AUDIO—Expandable audio consoles. (Circle 221)

TWEED AUDIO—Custom consoles for radio and television. (Circle 168)

UNI-SET—Studio and news set designs. (Circle 223)

UNITED RESEARCH—Solid-state erase/play/record amplifier. (Circle 224)

UTILITY TOWER—Tower sections. (Circle 225)

VLAHOS-GOTTSCHALK—Video matting. (Circle 226)

WEATHER STATION—Complete television weather program with high-quality color animation. (Circle 245)

BROADCAST COMMUNICATIONS/JUNE 1982

SBE MONTHLY LOG

ARIZONA:

PHOENIX (Chapter 9)—Dalis Electronics sponsored their Ninth Annual Pizza & Beer Party for the chapter members. New officers are Bill Beckner, chairman; Bill Strube, vice-chairman; and Pat Porter, sec/treas.

CALIFORNIA:

EUREKA (Chapter 71)—James Thibodeaux of Videomedia/SED demonstrated and discussed the Hitachi VKC-1000 CCD color camera.

FRESNO (Chapter 66)—Mac Mehaffey of RCA demonstrated and discussed the TK-86 and TK-710 ENG cameras.

LOS ANGELES (Chapter 47)—John Sullivan of Econco Tube Rebuilders led a discussion on the techniques of lowering the cost of staying on the air (using rebuilt tubes, of course). Also, members discussed the highlights of the NAB convention in Dallas.

NORTH VALLEY (Chapter 83)—Jim Wilson of Alamo Communications in Anderson gave an overview of the communications equipment and theory in use today by many services, and explained proper installation and service on the equipment.

ORANGE COUNTY (Chapter 77)—Ed Gordon, national SBE board member, provided a detailed update on SBE's national doings and presented the new promotional videotape that will be available to all chapters from the national office.

SACRAMENTO (Chapter 43)—Dave Ericksen, of the FCC field office in San Francisco, talked about some of the effects that deregulation will have upon broadcasters—not the least of which is the need for local frequency coordination. New officers are Dave Porte (KXTV), chairman; Ken Blue (Sacramento State University), vice-chairman; and Kent Randles (KXOA), sec/treas.

SAN FRANCISCO (Chapter 40)—A review of the 1982 NAB convention technical sessions and equipment exhibits was conducted.

COLORADO:

DENVER (Chapter 48)—Bill Harris discussed the SBE Certification Program plus the entry-level "Broadcast Technologist" and explained that details on this level have been mailed to all SBE chapters. New officers for Chapter 48 are Chuck Waltman (KIMN-KYGO), chairman; Paul Montoya (KBPI), vice chairman; and Gary Nakashima (KFTM-KBRU), secretary-treasurer.

CONNECTICUT:

CONNECTICUT VALLEY (Chapter 14)—Bill Bansavage and his staff conducted a tour of their plant in Manchester. Multi-Circuits produces circuit boards of all types and is the fourth largest producer of boards in the country.

FLORIDA:

JACKSONVILLE (Chapter 7)—There was a presentation by US JVC (southeastern division), made possible by Southeast Electronics and Gray Communications. Several ENG-type cameras were demonstrated, as well as a new model of a VHS recorder with stereo audio.

ILLINOIS:

CHICAGO (Chapter 26)—Bill Carpenter of Ampex presented a program on "How Cost Effective Technical Changes Allowed the Introduction of a Lower Cost 1-Inch Type C Recorder, the Ampex VPR-80." This recorder is designed to be a more economically priced machine than the VPR-2 series, but more useful than the ¾-inch machines.

QUAD CITIES (Chapter 65)—Bob Henson of Lenco gave a presentation on subcarrier to H-phasing of RS-170A and the Lenco PVS-430 Videoscope.

INDIANA:

INDIANAPOLIS (Chapter 25)—Bob Griffiths of Telemet discussed "Fiber Optics Applications for Broadcasters" with a demonstration over 300 feet of line. New officers are Steve Brant (Midwest Corp.), chairman; Doug Garlinger (WHMB-TV), vice-chairman; Norm Birnbaum (WTHR-TV), sec/treas; and Otis Robinson, Jr. (WRTV), re-elected treasurer.

KANSAS:

KANSAS (Chapter 3)—Gene Beaver of the Sedgwick County office of Civil Preparedness conducted a tour of the police and sheriff radio dispatch area and described the operation of the 911 emergency phone number.

MARYLAND:

BALTIMORE (Chapter 46)—Leonard Kahn, president, Kahn Communicatione, gave a presentation on AM stereo and summarized the various marketplace systems offered. He also discussed the technical developments of AM stereo receivers both on and off the drawing board.

MICHIGAN:

SOUTHEASTERN MICHIGAN (Chapter 82)—Ed Portman of Detroit Edison described how they are set up and the types of transmission systems used. He also discussed procedures during power outages and how to interface with Detroit Edison lines. This was a joint meeting with AES.

MINNESOTA:

MINNEAPOLIS/ST. PAUL (Chapter 17)—A joint meeting with the local chapter of the Audio Engineering Society featured a Nortronics presentation of the manufacture of tape recording heads, along with discussion of the pros and cons of various head types. Bruce Larsen of Nortronics conducted a tour of their manufacturing facility.

MISSOURI:

KANSAS CITY (Chapter 59)—Phil DeSantis of Lexicon gave a presentation on "Audio Time Compression & Expansion." He demonstrated the operation of the Lexicon model 1200 audio time compressor working in conjunction with a 1-inch Type C video recorder.

ST. LOUIS (Chapter 55)—Chris Kreger & Joe DeAngelo of Harris Broadcast Products discussed their new line of AM transmitters. The transmitters include a fully automatic control and diagnostic system that is operated by two microprocessors.

NEW YORK:

CENTRAL NY (Chapter 22)—David Schnirman, audio technician working for Syracuse State (Theatre Group), discussed and demonstrated the use of Pressure Zone Microphones (PZM) manufactured by Crown International.

NEW YORK CITY (Chapter 15)

—Review of the NAB convention was conducted. New officers are Herb Squire (WHN Radio), chairman; Richard Silvera, vice chairman; and David Bain, treasurer.

NORTHEAST NY (Chapter 58)—Tom Oliviero and Bert Hilaire of Chyron discussed the operation of the latest Chyron character generation equipment.

OHIO:

CENTRAL OHIO (Chapter 52)—William L. Ammons of Broadcast Electronics, gave a slide presentation and talk on FM exciters; he also discussed practical RFI elimination techniques for the broadcast engineer. New officers

Continued on page 208

are John Battison, chairman; John Cooper, vice-chairman; and Rick Farquhar, sec/treas.

NORTHEAST OHIO (Chapter 70)

—The program was presented by the Midwest Teleproductions. They are a complete television production house, with a mobile truck which was on display. Midwest handles all television feeds from the coliseum for all cable broadcasts of any sporting event from the coliseum to ESPN and the USA Cable nets.

SOUTHWESTERN OHIO (Chapter 33)—Bill Brock of Pacific Recorders & Engineering Corp. gave an interesting talk on recorders and audio systems.

OKLAHOMA:

TULSA (Chapter 56)—Jennifer Lloyd, assistant safety director for the American Red Cross of Tulsa, presented a program on CPR.

PENNSYLVANIA:

PHILADELPHIA (Chapter 18)—Phil Gant, Larry Will, and Glenn Romsos discussed the ideas and equipment presented at the NAB.

PITTSBURGH (Chapter 20)—Ted Washburn of Fujinon Inc. presented a

program entitled "Zoom Lenses, The Quiet Front End of Camera Technology": a detailed presentation of the structure and uses of zoom lenses for ENG, studio, and other applications.

TENNESSEE:

MEMPHIS (Chapter 61)—A tour of the satellite dish at WLVS was conducted.

TEXAS:

CENTRAL TEXAS (Chapter 79)—Sandra Morris of the Dallas office of the FCC discussed the role of the FCC. The major topic was the FCC is no longer the "bad guy"; instead, they want to work with the broadcaster in any way they can to resolve problems, questions, etc.

NORTH TEXAS (Chapter 67)—Leo MacWilliams, stage manager, Dallas Communications Complex, conducted a tour of this rental, television, and film sound stage complex. New officers are Gerry Dalton, chairman; Clyde Miller, vice-chairman; and Josh Socolof was reelected sec./treas.

SOUTH TEXAS (Chapter 69)—Joe DeAngelo and Jack Ducart of Harris Broadcast Products Division presented a program on AM stereo.

VIRGINIA:

RICHMOND (Chapter 60)—A field tour of WWBT-TV was conducted.

TIDEWATER AREA (Chapter 54) — Art Constantine of Fidelipac presented a program on cartridge tape alignment techniques and characteristics of the new "Master Cart II" tape cartridge.

WASHINGTON:

SPOKANE (Chapter 21)—T. O. Jorgenson, chapter member, gave a report on tube rebuilding techniques and recommended procedures in the use of rebuilt tubes.

TRI-CITIES (Chapter 51)—Don Eckis of Cascade Broadcasting discussed their new ¼-inch videotape machine. The videocassette is not much larger than an audio cassette box.

WISCONSIN:

FOX VALLEY (Chapter 80)—Peter Thorpe of Robert Jones Consulting Engineers gave a talk on Alaskan radio stations and demonstrated the use of minicomputers in designing directional antenna arrays. Bob Gorjance of the Harris Corp. updated the group on AM stereo progress.

Register Now for the

1982 RTNDA CONVENTION

September 30 - October 2 Las Vegas

Emphasis:

Day 1. "Improving the News Product"

Day 2. "Utilizing the New Technology"

Day 3. "Sharpening Management Skills"

See us at NAB BOOTH 3205A



or phone **202/737-8657**

If you're in the market for a newsroom computer...

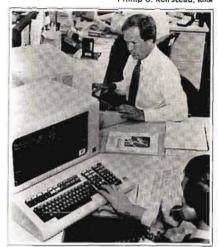
. . . this could be the smartest \$10 investment you've ever made.

Sooner or later, your newsroom will be revolutionized by the innovative marvels of computer technology. But before you spend thousands of dollars-or tens of thousands—on a newsroom computer system, invest \$10 in the industry's first authoritative guide to newsroom computers. THE COMPLETE GUIDE TO NEWSROOM COMPUTERS contains factual, applicationsoriented information on every aspect of newsroom computers...from understanding computer basics and making the initial purchase, to utilizing the computer to full potential in daily radio and TV news operations. And featuring a detailed description of systems currently on the market. Chapters include:

- **★ Understanding how a** computer works
- ★ Developing a buyer's checklist
- * Financial aspects of a

The Complete Guide to Newsroom Computers

Phillip O. Keirstead, EDITO



computer purchase

- * Selling management on the benefits of a computer
- **★ Training people to use computers**
- ★ Radio and TV applications
- * Future applications of computer technology
- ★ Descriptions of systems now available
- * And more

Edited by Phillip Keirstead and published by BROAD-CAST COMMUNICATIONS magazine, THE COMPLETE GUIDE TO NEWSROOM COMPUTERS is the only single source of information about newsroom computers...available anywhere.

LIMITED PRESS RUN. SEND YOUR ORDER TODAY!

Newsroom Compu BROADCAST COMMUN 4121 West 83rd Stre Prairie Village, KS 66	NICATIONS eet; Suite 132	
Please send Newsroom Compute check or money ord	copies of The Complete ers at \$9.50 plus .50 handling pe er is enclosed.	Guide to r copy. My
NAME		
COMPANY/STATION		
ADDRESS		
CITY	STATE	ZIP
Make checks payable residents, please add	to BROADCAST COMMUNICATIONS. k sales tax.	(ansas

(ADVERTISERS INDEX)

ADM To should be 150	D-1 104	la supplies 106	December 170
ADM TechnologyIFC	Delcom	Inovonics 126	Recortec179
ATI-Audio Technoligies Inc 142	Circle (110) on Action Card	Circle (71) on Action Card	Circle (130) on Action Card
Circle (88) on Action Card	Delta Electronics71	Integrated Sound Systems 45	Rohde & Schwarz(foreign)25
	Circle (41) on Action Card	Circle (153) on Action Card	Circle (19) on Action Card
AVL Digital Ltd 125			
Circle (69) on Action Card	Deltamod Corp135	Integrated Technology 30	Sachtler181
Adda Corp	Circle (91) on Action Card	Circle (23) on Action Card	Circle (151) on Action Card
Circle (1) on Action Card	Di-tech	K & H Products201	Saki Magnetics 132
			9
Alexander Manufacturing 124	Circle (34) on Action Card	Circle (147) on Action Card	Circle (82) on Action Card
Circle (68) on Action Card	Victor Duncan 172	LPB, Inc	Satt Electronics95
Allen Avionics 169	Circle (118) on Action Card	Laird Telemedia123	Circle (55) on Action Card
		Circle (67) on Action Card	Schneider TV Lenses 141
Circle (140) on Action Card	H.M. Dyer 199		
Allen Osborne 12	Circle (148) on Action Card	Linrose	Circle (87) on Action Card
Circle (8) on Action Card	Dyma Engineering191	Circle (111) on Action Card	Sescom147
Ampex AVSD	Circle (133) on Action Card	Listec TV Equipment119	Circle (92) on Action Card
•			
Circle (9) on Action Card	Dynacom Electronics 172	Circle (63) on Action Card	Shane Media Services 164
Ampex MTD	Circle (119) on Action Card	Logitek	Circle (26) on Action Card
Circle (21) on Action Card	Dynair Electronics . 127, 129, 131	Circle (144) on Action Card	
			Sharp Electronics34-35
Anders, Inc	Circle (72), (73), (76)	3M	Circle (27) on Action Card
Circle (85) on Action Card	(77), (80) on Action Card	Circle (14) on Action Card	Siemens (Austria) 97
Angenieux, Inc 101	EEV, Inc	MCI, Inc	
- '			Circle (56) on Action Card
Circle (58) on Action Card	Circle (39) on Action Card	Circle (48) on Action Card	Siemens (Germany) (foreign) .31
Aristocart116	EMCEE Broadcast Products .53	MCI/Quantel36	Circle (25) on Action Card
Circle (60) on Action Card	Circle (32) on Action Card	Circle (101) on Action Card	Sigma Electronics178
Asaca32, 121	E.S.E	Magna-Tech75	
			Circle (129) on Action Card
Circle (83), (65) on Action Card	Circle (152) on Action Card	Circle (43) on Action Card	Sony 6-7, 22-23
Audio Accessories, Inc 88	Elector	Marcom	Circle (5), (28) on Action Card
	Circle (2) on Action Card	Circle (113) on Action Card	
Circle (51) on Action Card			Spectra Computer Systems . 115
Audiomedia Associates 167	Electronic Devices137	Marconi Electronics 49	Circle (59) on Action Card
Circle (112) on Action Card	Circle (84) on Action Card	Circle (30) on Action Card	Spencer Broadcast 168
Autogram	Electro-Voice 14	Marti Electronics174	
			Circle (114) on Action Card
Circle (95) on Action Card	Circle (10) on Action Card	Circle (122) on Action Card	Stainless
BSM176	Elektroimpex 149	Merlin Engineering Works 194	Circle (141) on Action Card
Circle (126) on Action Card	Circle (94) on Action Card	Circle (136) on Action Card	Studer ReVox128
	Fernseh	Micron	
Bal, William Corp 170			Circle (75) on Action Card
Circle (116) on Action Card	Circle (100) on Action Card	Circle (102) on Action Card	Surcom Associates147
Belar Electronics Labs 152	Fidelipac175	Midwest Corp	Circle (93) on Action Card
Circle (99) on Action Card	Circle (124) on Action Card	Circle (8) on Action Card	
			Swiderski151
Broadcast Electronics206	Finntek Ltd 132	Moseley Associates 117	Circle (97) on Action Card
Circle (149) on Action Card	Circle (81) on Action Card	Circle (61) on Action Card	TFT Inc
Broadcast Systems 88, 170	Fluxcom Systems 137	Motorola89	Circle (44) on Action Card
•	-	Circle (52) on Action Card	
Circle (50), (115) on Action Card	Circle (155) on Action Card		Tech Laboratories 151
Broadcast Technology, Inc 193	For-A Corp118	Multidyne Electronics178	Circle (98) on Action Card
Circle (135) on Action Card	Circle (62) on Action Card	Circle (128) on Action Card	Telemet
	Fulinon, Inc69	Northeast Broadcast Labs 164	
CEI (Commercial Elec. Inc.) 87			Circle (47) on Action Card
Circle (49) on Action Card	Circle (40) on Action Card	Circle (105) on Action Card	Tentel
CMX Systems/Orrox 3	Full Compass Systems 166	North Hills Electronics 200	Circle (142) on Action Card
Circle (3) on Action Card	Circle (107) on Action Card	Circle (145) on Action Card	Todd Communications 165
	GE VDEO 61	Orban Associates (Pro-Audio) 16	
C.S.P., Inc 196			Circle (108) on Action Card
Circle (138) on Action Card	Circle (36) on Action Card	Circle (12) on Action Card	True Time Instruments 173
Calvert Electronics 65	Geleco	Orban Associates (OPTIMOD) 21	Circle (121) on Action Card
Circle (38) on Action Card	Circle (157) on Action Card	Circle (16), (17), (18) on Card	
			UMC Electronics 196
Camera Mart 28-29	Giesler Broadcasting Suppy 166	Pacific Recorders & Engr47	Circle (139) on Action Card
Circle (22) on Action Card	Circle (109) on Action Card	Circle (29) on Action Card	U.S. JVC Corporation 51
Canon U.S.A	Gorman Redlich Mfg. Co 183	Perrott Engineering 93	Circle (31) on Action Card
	Circle (131), (132) on Action Card	Circle (54) on Action Card	
Circle (35) on Action Card			Vacuum Tube Industries150
Capitol Magnetic Products . 143	Graham-Patten Systems176	Philips Test & Measuring 11	Circle (96) on Action Card
Circle (89) on Action Card	Circle (125) on Action Card	Circle (7) on Action Card	Varian
CeCo Communications 81	Grass Valley Group 5	Potomac Instruments 130	
			Circle (57) on Action Card
Circle (46) on Action Card	Circle (4) on Action Card	Circle (79)) on Action Card	Videomedia iBC
Central Dynamics 31	David Green Broadcast	Processing Plus162, 164	Circle (150) on Action Card
Circle (24) on Action Card	Consultants 133-134	Circle (120), (106 on Action Card	
			Videotek
Cine 60	HEDCO120	QEI	Circle (11) on Action Card
Circle (154) on Action Card	Circle (64) on Action Card	Circle (117) on Action Card	Ward-BeckBC
Comad Comm 164, 166	Harris Video Systems 79	Quantum Audio Labs 192	
	•		
Circle (103), (104) on Action Card	Circle (45) on Action Card	Circle (134) on Action Card	WHERE TO FIND IT
Comex Systems 197	Hitachi55	Racal-Decca Canada Inc	
Circle (143) on Action Card	Circle (33) on Action Card	Insulators Division 130	GENERAL INDEX,
	, .	Circle (78) on Action Card	Pages 38-45
Comrex26	Howe Audio 146	Circle (70) on Action Card	
Circle (20) on Action Card	Howe Audio145		
Continental Electronics 17	Circle (90) on Action Card	R. E. Instruments 195	WHO MAKES IT
		R. E. Instruments 195 Circle (137) on Action Card	WHO MAKES IT
Circle (12) on Action Cord	Circle (90) on Action Card !kegami Electronics Inc63	Circle (137) on Action Card	PRODUCT DIRECTORY,
Circle (13) on Action Card	Circle (90) on Action Card Ikegami Electronics Inc 63 Circle (37) on Action Card	Circle (137) on Action Card RTS Systems 126, 128	PRODUCT DIRECTORY,
Cosmin Electronics139	Circle (90) on Action Card !kegami Electronics Inc 63 Circle (37) on Action Card !mage Magnification 201	Circle (137) on Action Card RTS Systems	PRODUCT DIRECTORY, Pages 46-113
Cosmin Electronics139	Circle (90) on Action Card Ikegami Electronics Inc 63 Circle (37) on Action Card	Circle (137) on Action Card RTS Systems 126, 128	PRODUCT DIRECTORY, Pages 46-113
Cosmin Electronics 139 Circle (88) on Action Card	Circle (90) on Action Card Ikegami Electronics Inc 63 Circle (37) on Action Card Image Magnification 201 Circle (146) on Action Card	Circle (137) on Action Card RTS Systems	PRODUCT DIRECTORY, Pages 46-113 WHERE TO BUY IT
Cosmin Electronics	Circle (90) on Action Card Ikegami Electronics Inc	Circle (137) on Action Card RTS Systems	PRODUCT DIRECTORY, Pages 46-113
Cosmin Electronics	Circle (90) on Action Card Ikegami Electronics Inc	Circle (137) on Action Card RTS Systems	PRODUCT DIRECTORY, Pages 46-113 WHERE TO BUY IT MANUFACTURERS,
Cosmin Electronics	Circle (90) on Action Card Ikegami Electronics Inc	Circle (137) on Action Card RTS Systems	PRODUCT DIRECTORY, Pages 46-113 WHERE TO BUY IT MANUFACTURERS, Pages 114-162
Cosmin Electronics	Circle (90) on Action Card Ikegami Electronics Inc	Circle (137) on Action Card RTS Systems	PRODUCT DIRECTORY, Pages 46-113 WHERE TO BUY IT MANUFACTURERS,
Cosmin Electronics	Circle (90) on Action Card Ikegami Electronics Inc	Circle (137) on Action Card RTS Systems	PRODUCT DIRECTORY, Pages 46-113 WHERE TO BUY IT MANUFACTURERS, Pages 114-162