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daptors to prevent inadvertent etting changes. And both lockng XLR and barrier-strip input onnectors to ensure lasting onnections.



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Yamaha Music Corporation, Professional Audio Division, P.O. Box 6600, Buena Park, CA 90622. In Canada, Yamaha Canada Music Ltd., 135 Milner Avenue, Scarborough, Ontario M1S 3R1.



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### BLUE BOOK '87— Better Than Ever

Welcome to the biggest and the best Sound & Communications BLUE BOOK— the industry's only comprehensive "A to Z" reference guide for sound contractors, suppliers and specifiers! Now in its 27th year, this annual **BLUE BOOK** lists virtually every major category of manufacturers who



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5500 Bolsa Ave., Suite 245, Huntington Beach, California 92649

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supply today's contracting market.

This year's **BLUE BOOK** is over 200 pages — 45 percent bigger than last year's. It includes over 1,500 listings from over 920 companies whose products and systems you bid on, spec and install throughout the year.

The hard-driving efforts of the Sound & Communications editorial and marketing staff came up with new ways to make this book a huge success. They carefully weeded out the companies that didn't belong in this book and added the ones that are truly part of this industry. They decided to make the category index more complete by adding different types of systems and products under each of the 46 categories.

Why is the Sound & Communications **BLUE BOOK** the most important reference guide to the sound contracting industry? Because it provides a service that no other directory or buyer's guide does. Do you need to know who makes paging systems or who at an intercom company you should talk to about their industrial intercoms? The BLUE BOOK has all the answers. It lists all the manufacturers, the products and the manufacturer's key personnel vou need to know. Plus, it includes the manufacturer's rep network or district offices, because those offices are often your links with a manufacturer.

In addition to the **Blue Book** Directory, we added a contractor's notebook which includes a calendar of industry events and a list of associations. This handy notebook will help the contractor stay on top of this market.

The **BLUE BOOK** is just one example of Sound & Communications' ongoing dedication to the industry that was started 30 years ago...Sound & Communications magazine was there...it's still here with an unending commitment to innovative editorial and marketing excellence.

Enjoy.

Vincent P. Testa Editorial Director/Publisher

Sound & Communications

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#### ASSOCIATIONS

#### AIA

1735 New York Ave. NW Washington, DC 20006 (202) 626-7300 AES

60 E. 42nd St. Suite 2520 New York, NY 10165 (212) 661-8528

#### ANSI

1430 Broadway New York, NY 10018 (212) 354-3300

#### EIA

2001 Eye St. NW Washington, DC 20006 (202) 457-4900

#### ETA

Iowa State University Station PO Box 1258 Ames, IO 50010 (515) 294-5060

#### IAAM

500 N. Michigan Ave., Suite 1400 Chicago, IL 60611 (312) 661-1700

#### IBMA

280 Federal Ave. NW Massillon, OH 44646 (216) 833-4164

#### ICIA

3150 Spring St. Fairfax, VA 22031 (703) 273-7200

#### IEEE

345 East 47th St. New York, NY 10017 (212) 705-7900

#### ISCET

2708 W. Berry St. Ft. Worth, TX 76109 (817) 921-9101

#### NAB

1771 N St. NW Washington, DC 20036 (202) 429-5300

#### NABER

1501 Duke St. Alexandria, VA 22314 (703) 739-0300



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# 1987 Blue Book Products Directory & Index

The 46 categories listed in alphabetical order on these two pages start off the Blue Book. To help you find exactly what you're looking for, we've listed different types of systems and products under each category. In addition, a complete manufacture's index begins on page 203, followed by a brand name index on page 210.

ACOUSTICAL TREATMENT

absorption; absorptive partitions; ceiling panels; dampening material; diffusion; electroacoustical systems; grille cloth; noise control panels, and enclosures; spray-on absorption materials; vibration isolation materials, systems, and devices; wall coverings; wall panels

#### **ALARM & SECURITY**

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access control; ancillary components; announcement systems; audio surveillance; burglar alarms; CCTV; door-lock systems; duress; fire alarm; intercom; intrusion detection; signalling devices; sirens; smoke detectors; sound equipment; strobes; vibration sensing; video motion detection; video surveillance; wireless systems

#### ANTENNA SYSTEMS

cellular telephone; mobile base; portable; VHF; UHF; frequency and broadband FM antennas; single channel and broadband television antennas

#### AUDIO AMPLIFIERS

70-volt amplifiers; bi-amp systems; dual-channel; lowfrequency amplifiers; mixer amplifiers; modular amplifiers; monitor amplifiers; portable; signal processing amplifiers; single-channel; telephone paging amplifiers; tri-amp systems; zone-paging amplifiers

#### AUDIO SIGNAL PROCESSORS

1/3 octave equalizers; ambient noise controlled level controllers; audio/video synchronizers; automatic equalizers, preamps; crossovers; de-essers; digital effects; digital encoding; digital reverbs, digital delays; digital signal processors; equalizers, compressors; graphic equalizers; interface units; levelers; limiters; noise gates; notch filters; parametric equalizers, octave equalizers; signal enhancers; signal metering; transcription preamps; VCAs

#### AUDIO-VISUAL EQUIPMENT/SYSTEMS

A/V speakers; audio for A/V; boardroom sound systems; closed-loop audio systems; computer control; electronic displays; image projectors; intercom; interface units; lecturns; multi-media controls; screens; supplies; wireless control

#### 56 BACK/FOREGROUND SYSTEMS & LIBRARIES

amplifiers; automatic mixers; CATV; CD changers; music libraries, stock and custom; music services; powered speakers; SCA equipment; speakers; tape systems

#### CABINETS, FURNITURE, CASES, & RACKS

accessories; ATA cases and racks; chassis; computer consoles; consoles; electronic racks; enclosure systems, custom cabinets & consoles; equipment cabinets & enclosures; flight cases; furniture systems; hardware; instrument cabinets; modular boxes; molded racks & cases; panels; portable tables; rack AC power; rack fans; rack hardware; shelves, rack-mounts; shock-mount racks & cases; slides; soft cases & bags; specialty cases; stands; storage racks & cases; tables; technical workbenches; tool cases

#### **CARILLONS & CHIMES**

analog & digital tones for time and signalling; music playback-type

#### 65 **CCTV/VIDEO COMPONENTS & SYSTEMS**

70

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72

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86

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92

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accessories; cameras; channel converters; computer interfaces; connectors; dummy cameras; effects generators; enclosures: fiber optics: hardware: lenses: message generators; modulators; monitors; multiplexers; pan/tilts; remote controls; signal distribution; specialty cameras; surveillance; switchers; time-lapse recorders; transmission systems; video mixers; video projectors; VTRs

#### **DISCO COMPONENTS & SYSTEMS**

amplifiers; DJ mixers; headphones; lighting controls & effects; mixers; processors; speakers; sub-woofers; turntable cartridges, and accessories; turntables

#### HARDWARE & TOOLS

cabinet hardware; cable clamps; cleaning chemicals; connectors; fabrication supplies; hanging systems; knobs; lamps; linemen's test sets; markers; panels; raceways, stands; speaker hardware; tool kits; wire pulling devices; wire terminations 74

#### **HEADPHONES & HEADSETS**

boom-mic headsets; communications headsets; intercommunications headsets; isolation headsets; personal headsets;stereo headphones; telecommunications headsets; telephone headsets 78

#### HEARING ASSISTANCE SYSTEMS

closed loops inductive; infrared systems; multi- channel; processors; programmable; wireless systems AM/FM

#### **IN/OUT REGISTERS**

access control; intercom; manual personnel; medical; monitor reporting; PC-based; telephone reporting; terminal reporting; visual

INTERCOM—APARTMENT/RESIDENTIAL

access control; apartment station; custom; duplex; lobby; mailbox panels; microprocessor; music combination; panel/entrance; simplex; talk-back; telephone; video

#### INTERCOM—DUPLEX

closed-circuit; custom; digital; drive-thru; loudspeaking; microprocessor; multi-channel; programmable; telephone; telephone; video/audio; VOX; wireless 95

#### INTERCOM-HOSPITAL HEALTH CARE

A/V; annunciators; direct select; emergency call; microprocessor; nurse-call; pillow speakers; visual; voice paging

#### INTERCOM—INDUSTRIAL

drive-thru; environmentally protected; headset/handset; loudspeaking; telephone

INTERCOM—INSTITUTIONAL/SCHOOL

clock; console; microprocessor; multi-channel; paging; talkback; telephone; video

#### INTERCOM—PRODUCTION & THEATRICAL 100 handset; headset; IFB; loudspeaker; microprocessor; multichannel; processors; radio interface; VOX; wireless

#### INTERCOM—SIMPLEX closed-circuit, custom; digital; IFB; loudspeaking;

microprocessor; multi-channel; programmable; telephone; video/audio; VOX; wireless

#### LIFE-SAFETY & VOICE EVACUATION SYSTEMS 102 audio; DC battery supply; emergency intercom; handset; horns; loudspeakers; message announce; tone; visual

#### OUDSPEAKER ACCESSORIES

attenuators; baffles; connectors; crossovers; enclosure hardware; enclosure; grille cloth; grilles; mounting devices; mounting hardware; stands; transformers 104

#### OUDSPEAKERS

ceiling; columns; compact; components; custom; decorative; environment protected; explosion-proof; flushmount; foreground; full-range loudspeakers; high-frequency drivers; high-power; horns; low-frequency drivers; mid-bass; monitor panels; multi-way/high-powered; music system speakers; noise masking; omni-directional; outdoor; PA horns; paging horns; paging; portable; powered; processor controlled; stage monitors; studio/reference monitors; sub-woofer; surface-mount; systems; talkback; tweeters; underwater; voice communications

#### AGNETIC TAPE SYSTEMS & SUPPLIES

cart recorders/players; carts; cassette players & changers: cassette recorders; cassette tape; cleaners; degaussers; demagnetizers; heads; high-speed duplicators; labeling systems; multi-tracks; reel tape; reel-to-reel recorders & players; tape splicers; test tapes; transcription systems; videotape 136

#### MESSAGE REPEATERS/STORECASTERS

digital systems; cart machines; message units; digital voice recording; sign systems

#### MICROPHONES

body packs; boundary; carbon; communications; condenser; contact pickups; dynamic; electret condenser; goosenecks; hand-held; headset boom; implant; instrumentation; mic-splitters; miniature; podium; push-to-talk; ribbon; shotgun; specialty; stands; stereo; wireless 148

#### **MIXERS & MIXING CONSOLES**

automatic; broadcast; combo; compressor/leveler; computer controlled; custom; digital; disco; ENG; gated; microprocessor; MIDI; modular; monitor; paging; portable; powered; production; rack-mount; recording; theatrical; VCA

#### PAGING SYSTEMS

AM/FM; amplifiers; common-talk; DC battery backup; mixer/amplifier; mixer/preamps; modular; music distribution; pocket-pagers; processors; SCA pager; self-amplified speakers; signalling; speakers; talkback; telephone; zoned 165

#### PATCH BAYS & ROUTING SWITCHERS

audio/video; cleaners; components; digital; matrix; microprocessor; mult boxes; pre-wired; remote controllable; telephone type 166

#### PORTABLE SOUND SYSTEMS

amplifiers; columns; DC battery powered; lecturns; megaphones; mixer amplifiers; mixers; powered lecturns; powered speakers; processors; speakers; weatherproof speakers; wireless

#### **POWER PROTECTION/CONDITIONERS**

inverters; line isolators; line protectors; noise suppression; outlet strips; power control; power conversion; power relays; transformers; uninterrupted power

#### **PRO-AUDIO SOUND SYSTEMS & PRODUCTS** 169

audio processors; auxiliary accessories; distribution systems; interface devices; loudspeaker systems; PA

systems; sound reinforcement systems

#### REMOTE CONTROLS

A/V; audio level; boardroom; custom; DTMF; EQ/remote; hardwired; microprocessor; remote monitoring; video; wireless

#### 125 SIGNALING SYSTEMS

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alarm: annunciator: audio: bell: call-light: intercom; telephone: tone: visual

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	data compression; voice/data systems	

#### 187 **TEST EQUIPMENT & TOOLS** AM stereo testing; analog multimeters; audio tape

diagnostics; bench-top instrumentation; cable testers; calibrated noise sources; calibrated plane wave tube systems; car audio testing; data acquisition; digital multimeters; digital panel meters; digital storage oscilloscopes; distortion analyzers; DSP hardware; DSP software; dual-channel spectrum analyzers; electronic tools; FFT-spectrum analyzers; filter sets; FM stereo testing; frequency comparators; frequency-domain acquisition/analysis; function generators; hand-held instruments; linemen's test sets; logic analyzers; metering systems; microprocessor systems; MTS test equipment; noise & vibration analyzers; oscilloscopes; PC systems, software; plotters; precision amplifiers; realtime analyzers; RF signal generators; RT60 meters; sound intensity measurement equipment & microphones; speech transmission analysis; SPL meters; stress and load meters; time-domain acquisition/analysis; tool kits; transducers; transmission link testing; vector scopes; video test signal generators; waveform recorders

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peripherals; conduits; connectors; control; data; fiber optics; fuses and holders; hardware; hybrids; jacks; low-capacitance; markers; panels; plenum cable; plugs; pre-wired systems; raceways; security; shielded; sleeving; solid; specials; stranded; switches; telecommunications; terminals; transformers; tubing; video; XLR connectors

#### WIRE/CABLE SYSTEMS

audio; cable reels; custom; data; direct boxes; fiber optics; instrument; mic cable testers; microphone cable, snakes; MIDI; multi-pair; multi-pin disconnect; panels; speaker; splitting; stageboxes; video;

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200

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#### ACOUSTICAL TREATMENTS

Acoustic Development Group/Div. of NEFCO, P.O. Box 425, Jewitt City, CT, 06351, 203-376-9805

Acoustiflex Corp., 811 Center St., Plainfield, IL, 60544, 815-436-4640

Acoustone Grille Cloth, 80 Wythe Ave, Brooklyn, NY, 11211, 718-782-5560 President: George Backer Production Mgr.: Larry Lubliner

Office Manger.: Al Allentoff

Order Dept.: Inge

Order Dept.: Judy

Products: acoustic and fire retardent fabrics, grille cloth, acoustic panel coverings, fire retardent wall coverings. District Offices:

Jack Brown Electronics, Whitestone, NY, 718-767-1977 R. G. Assoc., Stow, MA, 617-897-1742 Adams and Assoc., Greensboro, NC, 919-272-6838 Bencsik Assoc., Ocala, FL, 904-732-9775

Teqni Rep Assoc., Sun Valley, CA, 818-768-4223

Aerocoustic Corp., 4876 Victor St., Jacksonville, FL, 32207, 904-731-3577

Alcoa, 1501 Alcoa Bldg., Pittsburg, PA, 15219, 412-553-3770

Alpha Audio, 2049 W. Broad St., Richmond, VA, 23220, 804-358-3852 Sales Administrator: Kathy Fitzgerald Acoustic Salesperson: Bobbie Winn General Manager: Eric Johnson Products: acoustic products.

American Acoustic Products, 9 Cochituate St., Natick, MA, See full listing under Intercom Hospital Health Care 01760, 617-237-4223

Armstrong Cork Co., W. Liberty St., Lancaster, PA, 17604, 404-945-2929 717-397-0611

ASC Acoustic Sciences Corp., 385 Lawrence St., Eugene, OR, 97401, 800-ASC-TUBE President: Arthur M. Noxon Business Manager: Jim Low Technical: Mike Nemeth Customer Relations: Lisa Ehrlich Products: Tube Traps™, a complete line of sound absorption/diffusion devices. Prefabricated and portable Tube

Traps<sup>™</sup> provide absorption to 20 Hz and diffusion above 400 Hz. From room resonances to hall articulation, Tube Traps<sup>™</sup> control performing, recording and listening room acoustics.

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BLI Corp., 33 Parker Ave., Stamford, CT, 06906, 203-325-3883

Bostick, Boston St., Middleton, MA, 01949, 617-777-0100

Capaul Corp., 1300 Division St., Plainfield, IL, 60544, 815-436-8500, 800-421-8368 V.P. Sales: Craig Lindblad Products: high-performance acoustical ceiling and wall panels for commercial office interiors. Standard or C.O.M. fabric and durable vinyl facings available on most products. District Offices: LaVigne-Muffie, Inc., Santa Fe Springs, CA, 213-692-9074 ALI, NYC, NY, 212-620-3086 Judkins, Assoc., Baltimore, MD, 301-234-0010 MBK, Boston, MA, 617-269-0629 Designed Performance, Dallas, TX, 214-458-1655

Celotex Corp., PO Box 22602, Tampa, FL, 33622, 813-871-4811

Certainteed Corp. (Insulation Group), PO Box 15080, Kansas City, KS, 66115, 913-342-6624

Controlled Acoustics Corp., 221 E. Hartsdale Ave., Hartsdale, NY, 10530, 914-725-1700

Conwed Corp./Ceiling Prod. Div., 332 Minnesota St., St. Paul, MN, 55101, 612-221-1184

Cornell Electronics Products, Inc., 4911 W. Good Hope Rd., Milwaukee, WI, 53223, 414-351-4660 President: Donald Glaubitz V.P. and Chief Engineer: Gary Butler Sales Manager: Pauline Haack See full listing under Intercom Hospital Health Care

Doug Biron Assoc., Inc., PO Box 413, Buford, GA, 30518, 404-945-2929

Duracote Corp., 350 N. Diamond St., Ravennia, OH, 44266, 216-296-3486

Eckel Industries Inc., 155 Fawcett St., Cambridge, MA, 02138, 617-491-3221 President: Alan Eckel Vice President: John W. Flood Engineering Sales: Jeff Morse Sales Coordinator: Joe McDonough Products: acoustical treatment, functional sound absorptive panels for auditoriums, gyms, computer rooms, offices, etc. Medical test rooms (audiometric), research rooms (anechoic), noise control panels and enclosures, and engineered custom noise control treatments.

General Design Group, 3664 W. 2100 Street, Salt Lake City, UT, 84120, 801-973-6497 President: Per Haugen Vice President: Perry Haugen Sec. Treasurer: Harold HaugenJohns-Manville Corp., HDesigner: Mark Vought80217, 303-979-1000Designer: Kari NielsonKorfund Dynamics CorpProducts: acoustical panels that provide excellentKorfund Dynamics Corpabsorption for use in commercial, industrial and recreational11590, 516-333-7580environments. Is an easy-to-install, durable, andMason Industries, Inc.,aesthetically versatile absorption unit, with a noiseMason Industries, Inc.,reduction coefficient (NRC) of 1.0.11788, 516-348-0282District Offices:President: Norman J. MGeneral Communications, Inc., Murray, UT, 801-266-5731Vice President: Patrick

Industrial Acoustics Company, 1160 Commerce Ave., Bronx, NY, 10462, 212-931-8000

Insul-Art Acoustics Corp., 107 Allen Blvd., Farmingdale, NY, 11735, 516-694-0002, 800-526-0908 President: Jack D. Leonard Vice President: Harold Goldstein Sales Coordinator: Johnathan Leonard Sales Coordinator: Marge Lohr Plant Manager: Richard Brunson Products: Centralite sound masking system, 1/3 band equalizer with built-in noise source, matching preamp and amplifiers. Satellite sound masking system, 10 band equalizer with preamp and noise source, all built in. Scamp sound masking system, self-contained speaker with noise source built in, and volume control. See full listing under Sound Masking Products & Systems

Insul-Coustic Corp., Jernee Mill Rd., Sayerville, NJ, 08872, 77045, 713-433-6761 201-257-6674

Johns-Manville Corp., Ken-Caryl Ranch, Denver, CO, 80217, 303-979-1000

Korfund Dynamics Corp., PO Box 235, Westbury, NY, 11590, 516-333-7580

Mason Industries, Inc., 350 Rabro Dr., Hauppauge, NY, 11788, 516-348-0282 President: Norman J. Mason Vice President: Patrick J. Lama National Sales Mgr.: Rick Sabilia E. Reg. Sales Manager: Steve Fey W. Reg. Sales Manager: Rich Lloyd Products: architectural acoustical treatments consisting of Jack-up Floating Floor systems, isolated walls and isolated suspended ceilings. Engineered noise and vibration control systems. Mason Industries, Inc., Anaheim, CA, 714-535-5738 Mellotone, 108 Church St., Blacksburg, SC, 29702, 803-839-6341 Manager: Sherrie Traub Products: acoustical fabrics to assure unobstructed,

distortion free passage of sound. The fabric is dust resistant, mildew proof and has a zero flame spread rating. District Offices:

Raleigh Perry & Assoc., Buford, GA, 404-945-3142 David L. Brothers, Finksburg, MD, 301-833-0920

National Cellulose Corp., 12315 Robin Blvd., Houston, TX, 77045, 713-433-6761

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Dobbins Theatre, San Francisco

#### **APPLICATIONS**

Recording/Broadcast/Post Facilities Audio/Video & Teleconference Rooms Worship Spaces • Acoustical Shells Music Rehearsal Rooms • Auditoriums Audiophile Home Listening Rooms Performing Arts Facilities • Schools



RPG Diffusor Systems, Inc. 12003 Wimbleton St., Largo, MD 20772 Phone 301-249-5647 Telex 5106004126 RPG RPG Europe – Phone 01-900-0355 Telex 935847 CETECA G RPG Far East – Phone 3-7446189 Telex 393097 POSOD HX

Patent Pending

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Northern Sound, 2401 Lowry Ave. NE, STE 201, Minneapolis, MN, 55418, 612-788-9296 Products: materials for noise control, measurement of sound.

O'Brien Partition Co., 5301 E. 59th Street, Kansas City, MO, 64130, 816-361-2334 Products: wall treatments.

Owens Corning Fiberglass Corp., Acoustic Products Div., Grandville, OH, 43023, 614-587-9610

Pittsburgh Corning Corp., 800 Presque Isle Dr., Pittsburgh, PA, 15239, 412-327-6100

Proudfoot Co., Inc., PO Box 9, Greenwich, CT, 06830, 203-869-9031

Pyrok Inc., 136 Prospect Park West, Brooklyn, NY, 11215, 879-4159 718-788-1225 Pyrok materials.



RPG Diffusor Systems, Inc., 12003 Wimbleton St., Largo, MD, 20772, 301-249-5647 President/CEO: Dr. Peter D'Antonio Vice President: Dr. John Konnert Production Mgr.: Doug Morgan Accounting: Dr. Judy Konnert Products: a complete acoustical treatment system consisting of a broad-bandwidth sound diffusor, the QRD DIFFUSOR®, a broad-bandwidth sound absorber, the ABFFUSOR® and a variable acoustics module, the TRIFFUSOR™.

District Offices: RPG Europe, Wembley Middlesex, U. K., 01-900-0355

Sims Vibration Dynamics, 17724 15th Ave. N.E., Seattle, WA, 98155, 206-362-0700

Soundcoat Co., Inc., 175 Pearl St., Brooklyn, NY, 11201, 212-858-4100

Sound Control Technologies, Inc., 114A Washington Street, Norwalk, CT, 06854, 203-854-5701 President: Adolph Neaderland Sales/Mkt'g: David Neaderland See full listing under **Teleconferencing Systems** 

Soundforms, PO Box 1588, Lemon Grove, CA, 92045, 619-753-4634, 800-822-0354 Marketing Manager: Lee Benelli Operations Manager: Phillip Neal Products: Soundforms Sound Control Systems are portable sound baffles that are lightweight and modular. Panels easily snap together to form SoundWalls of any

size, SoundBooths of SoundRooms. Used on-location or in studio. District Offices:

Adventure Communications, Inc., San Diego, CA, 619-753-4634 Thermocon Products Co., 2508 Marlin Hwy., Waco, TX, 76705, 817-756-3713

USG Corp., 101 S. Wacker Dr., Chicago, IL, 60606, 312-321-3865

Vibration Specialty Corp., 100 Geiger Rd., Philadelphia, PA, 19115, 215-698-0800

Wenger Corp., PO Box 448, Owatonna, MN, 55060-0448, 507-451-3010

#### ALARM & SECURITY

Adpro Pty. Ltd., P.O. Box 324, Chester, NJ, 07930, 201-879-4159

Products: video motion detection systems.

AES Corp., 285 Newbury St., Peabody, MA, 01960, 617-535-7310 President: Michael J. Sherman V.P. Sales: Anthony Albano V.P. Consulting: Philip Huntley Marketing: Brian Rockett Products: integrated electronic security systems for commercial and residential applications, domestic and overseas. Intrusion detection, duress, emergency response, CCTV, access/door control systems. Full consulting and design services.

Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products. See full listing under Intercom Duplex

Alarm Controls Corp., 19 Brandywine Dr., P.O. Box 280, Deer Park, NY, 11729, 516-586-4220 President: Howard Berger General Manager: John Benedetto Products: electronic security equipment and all accessories.

Alphametrics Controls Corp., 4865 Pasadena Ave., Sacremento, CA, 95841, 916-485-4051

Ambeti Corp., P.O. Box 395, Westland, MI, 48185, 313-326-3007, 800-223-5274

AMSECO, 228 E. Star of India Lane, Carson, CA, 90746, 213-538-4670, 800-421-1096

Amtel Security Systems, Inc., 8525 N.W. 53rd Terrace, Miami, FL, 33166, 305-591-8200

Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026,

Director of Sales: Paul Grote E. Region/Sales: Andy Musci W. Region/Sales: Bud Waters V.P., Consultant for Mkt'g.: Herbert Jaffe Products: UL-listed re-entrant and cone type loudspeakers, audio-visual signal devices for indoor and outdoor installation in conjunction with security, life-safety and fire alarm systems. Incandescent and strobe lights, piezo and chime annunciators, siren generators. See full listing under Loudspeakers

Auth Company, 505 Acorn St., Deer Park, NY, 11729, 516-667-9000 Products: intercom, nurse call, fire alarms, telephone access intruder, all needs for the multihousing market.

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500 P John H. Ochtera V.P. Marketing: Carl C. Dorwaldt Nat'l. Sales Mgr.: David A. Chambers Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types),

telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor. See full listing under Audio Amplifiers

C&K Systems, Inc., 2040 Fortune Dr., San Jose, CA, 95131, 408-434-1149, 800-227-8065 Products: burglar alarms

Cambridge Electronics Laboratories, 20 Chester St., Sommerville, MA, 02144-3005, 617-629-2805 President: Dr. Jeffrey Race Sales Manager: Charlotte Bissell Products: telecom accessories including PABX/Key System music-on-hold source, mini telephone ringing generator, and Quiklink™ self-contained automatic ringdown unit for office, residence, and security use as a "hotline" and sales/trade-show use as a CO line simulator. See full listing under Telephone System Peripherals

Cepco, 21515 Parthenia St., Canoga Park, CA, 91304, 818-998-7315

Communications Equipment Co., Inc., 6443 Western Ave., President: Willard Nix Glen Arbor, MI, 49636, 616-334-3081 President: Darrell W. Thomas Sales Manager: Thomas A. Garmhausen Products: audio surveillance systems, detecting and locating crashes, screams, etc., in public buildings, parking District Offices: garages, penal institutions. Large rack-mounted systems for station capacities in 25-station increments; smaller units Mid-Central, Mike McMahon, 312-843-8800 in 5-station increments. Intercom and all-call features.

Computational Systems Inc., 1900 N. Winston Road, Knoxville, TN, 37919, 615-693-0551 Products: surveillance systems, vibration monitoring equipment/instrumentation.

Computer Application Systems, Inc., 552 NW 77th St., Boca Raton, FL, 33431, 305-997-9660

#### Conquest Electronic Wire & Cable, 7319 Duvan Dr.,

Box 757, Tinley Park, IL, 60477, 312-429-1770, 800-323-7671, in IL 800-344-2667 President: Robert Jares, Jr. Vice President: Larry Spalla Sales Manager: Al Novak Plant Manager: Mike Sanfilippo Plant Manager: Dennis Wood Products: 250 types of bulk wire including alarm, security, co-ax, plenum, telephone, multi-pair audio, microphone, speaker, multi-conductor unshielded, data transmission, computer, station, TELCO cables, computer cables.

De-Tech Systems Inc., 3407 Rose Ave., Ocean, NJ, 07712, 201-918-0800

Detection Systems, Inc., 130 Perinton Pkwy., Fairport, NY, 14450, 716-223-4060, 800-521-0096

DIA General Inc., 47 Kearney Rd., Needham, MA, 02192, 617-449-1533

Diamond Electronics Inc., P.O. Box 200, Lancaster, OH, 43130, 614-756-9222, 800-443-6680

Dorado Systems Corp., 1842 Sabre St., Hayward, CA, 94521, 415-783-2000 Products: access control product.

Electro-Vox Industries, Inc. (Santel Group), 2626 Bates Rd., Montreal, Quebec, Canada, H3S 1B2, 514-731-3771

Elenex, Inc., 7392 Trade St., San Diego, CA, 92121, 619-566-7515

President: Sten Persson V.P. Marketing: Dennis Berglund Product Sales: Dave Arseneau **Business Manager: Sally Marshall** Products: Freedom<sup>™</sup> wireless drive-thru communications, Moducom<sup>™</sup> intercom for drive-thru/correctional high-noise applications, vehicle sensing equipment, Touch-Mic™ microphone systems, amplifiers, horns, and speech processing systems. See full listing under Intercom Duplex

Emergency Products Corp., 10 Bloomfield Ave., Pinebrook, NJ, 07058, 201-882-8010, 800-631-8054 Gen. Sales Manager: Norman S. Carlo Chief Engineer: Ken Bergstorm Products: full line of quality fire alarm products to service the sound industry from basic systems to sophisticated. NE., Bob Bernstein, 201-882-8010 West, Dan Lopez, 213-327-0001 S.W., Jim Devlin, 214-556-1426 S.E., Rick Elder, 404-691-4844

Fire Burglary Instruments, Inc., 50 Engineers Road, Hauppauge, NY, 11788, 516-582-6161

Firecom/Auth Co., 39-27 59th Street, Woodside, NY, 11377, 718-899-6100

Floyd Bell Inc., 897 Higgs Ave., Columbus, OH, 43212, 614-488-3193 PMC 20 alarms & tone ringer.

Fourjay Industries, Inc., 3400 Stop Eight Road, Dayton, OH, 45414, 513-890-6444 President: J. M. Fulkerson II Director of Sales: M. W. (Bud) Frawley Products: ceiling white recessed baffles, time saving baffle mounting devices, protective covers, wall baffles and music speakers, horn speakers for paging/talkback, intercom, telephone and security systems. See full listing under **Loudspeakers** 

Gentex Corp., 10985 Chicago Dr., Zeeland, MI, 49464, 616-392-7195 Products: smoke detectors, rear view car mirrors.

Home Safegaurd Industries Inc., 29706 Baden Place PO Box 4073, Malibu, CA, 90265, 213-457-5813 President: Leon Cooper Vice President: Wm. Haines Products: "Smoke Detector Tester," a hand-held aerosol device for testing all kinds of smoke detectors. A 1 to 2 second spray will give the user assurance that the smoke

detector is operating satisfactorily.

Intelligent Controls, Inc., 6825 216th St. SW, Lynnwood, WA, 98036, 206-771-8107, 800-842-0221, in Canada 800-843-0221 President: Robert Perciual V.P. Sales/Mkt'g.: Ronald I. Katzin

V.P. Eng.: Brian Mallabon

V.P. Finance: Jeff Kruse Products: barcode readers for card access control

systems. User may print own barcode and make own cards on site. Readers are intelligent for stand alone or networked on one pair of wires. District Offices: Marlee Electronics Corp. 900 W. Olive St

Sesco-Mid Atlantic, Toms River, NJ, 201-929-1705 Garreaul & Assoc., Atlanta, GA, 404-458-8030 Repworks, Inc., Chicopee, MA, 413-533-0845 Keith Parker & Assoc., Northbrook, IL, 312-498-0353 Rittner Products, Rochester, MI, 313-651-1333

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers

Jensen Video Sonics, 11 West Park Boulevard, Villa Park, IL, 60181, 312-833-1767

Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: audio/visual communications systems providing effective security with the DS-100 door-sentry intrusion annunciators. Com-CAre emergency call systems for health care facilities.

See full listing under Intercom Apartment/Residential

LeFebure, 308 29th Street NE, Cedar Rapids, IA, 52406, 319-366-2771

Louroe Electronics, 6158 Lemona Ave., Van Nuys, CA, 91411. 818-994-6498 President: Louis F. Weiss Marketing Director: Lillian Turnbull Prod./Purchasing Mgr.: Robert Graff Products: audio surveillance equipment for monitoring parking structures, elevators, stairwells, prison cells, therapy rooms, etc. This equipment was designed to verify all sound within a designated area. The multi-functional base station is vox controlled, and any utterance above a reset ambient level will put the system into an alarm state. **District Offices:** Givan Assoc., West Boylston, MA, 617-835-3161 E. A. Garreau Assoc., Atlanta, GA, 404-458-8030 Repcoa, Dallas, TX, 214-363-0977 Warren Assoc., Santa Clara, CA, 408-988-7762 Eesco Systems, Los Angeles, CA, 818-242-8823

MacKenzie Laboratories, Inc., 5507 Peck Rd., Arcadia, CA 91006, 818-579-0440, 800-423-4147 President: Addison R. Taylor V.P./Chief Engineer: Nagy Khattar Sales & Systems: Joe Vitale Products: solid-state, digital audio message repeaters, heavy-duty, endless-loop message repeaters, voice alarm and evac. equipment, voice security equipment, boardroom A/V equipment control systems. See full listing under **Message Repeaters/Storecasters** 

Marlee Electronics Corp., 900 W. Olive St., Englewood, CA, 90301, 213-568-8982

MG Electronics, 32 Ranick Rd., Hauppauge, NY, 11788, 516-582-3400, FAX: 516-582-3229 President: Louis Maltz Vice President: Elliott Maltz Sales Manager: Stan Grey Products: commercial sound and security speakers, paging horns, electronic sirens, general replacement speakers, OEM speakers (custom design available), foreground music speaker systems, and toggle switches. See full listing under Loudspeakers

Mitel/Datacom, Inc., Hallmark Building, Suite 553, 13873 Park Center Road, Herndon, VA, 22071-3279, 703-471-1000 Products: modems British telecommunications, phone enhancements.

Napco Security System, 6 DiTomas Court, Copiague, NY, 11726, 516-842-9400, 800-645-9445

Navco Security Systems, 16600 Aston Street, Irvine, CA, 92714, 714-250-4352, 800-221-0819 Products: video surveillance.

Orevox Corp., 512 35th St. NE, Auburn, WA, 98002, 206- Securitron Magnalock Corporation, 1815 W. 205th Street, 735-0220, 800-237-0700 CEO: Daniel Wu

Sales Mgr.: Russ Stanford Products: loudspeakers specializing in foreground speakers, outdoor paging and intercom speakers, selfcontained sirens, metal siren/speaker enclosures, and metal utility cabinets for residential and commercial applications.

See full listing under Loudspeakers

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson **Operations Manager: Anthony Squeglia** Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under Audio Amplifiers

Pinkerton Controls System Corp., 1123 E. Walnut Street, Carson, CA, 90746, 213-638-0400 Products: axis control equipment.

Powertronix, 10623 Lawson River Ave., Fountain Valley, CA, 92708, 714-963-5411 President: Robert Gehlke Sales Mgr.: Bill Organ Products: self-contained 200 watt voice evacuation system; 400 watt current drive distribution amplifiers with 24V-48VDC emergency back-up power capability; 24VDC mobile amplifier with three electronically-switched, prioritized inputs. See full listing under Audio Amplifiers

Progressive Electronics, Inc., 325 S. El Dorado, Mesa, AZ, 85202, 602-966-2931, 800-528-8224 President: Richard L. Anderson Sales Mgr.: Scott D. Anderson Engineer: Brian D. Clark Sales Rep.: Michael J. Horn Sales Rep.: Rich Anderson, Jr. (RJ) Products: specialized in tone test sets to identify wires and

Pulnix America, Inc., 770-A Lucerne Drive, Sunnyvale, CA, 94086, 408-733-1560, 800-445-5444 Products: photoelectric controls.

Pyrotronics, 13281 Barton Circle, Whittier, CA, 90605. 213-946-7646 Products: fire detection.

Reliable Security Systems, Inc., 10604 Beaver Dam Road, Cockeysville, MD, 21030, 301-785-3316, 800-638-5865

Rofu International Corp., 5331G Hempstead Way, Springfield, VA, 22151, 800-255-763 Products: electric strike doors.

Suite 103, Torrance, CA, 90501, 213-618-0204, 800-MAG-LOCK

Security Intercom Inc., 1833 No. 15th, Seattle, WA, 98133, 206-523-6170 Products: video entry control systems.

Security Resources, 21 Castle Avenue, Fairfield, CT, 06430, 203-334-3233, 800-243-2878 Products: cameras.

Select Engineered Systems, 7991 W. 26th Ave., Hialeah. FL, 33016, 305-823-5410 Products: access control.

Silent Watchman, 2461 McGaw Road, Columbus, OH, 43207, 614-491-5200, 800-848-2872

Sonitrol Corp., 6161 Lake Ellenor Drive, Orlando, FL, 32809, 305-859-3350, 800-327-2834

Sony Security, 15 Essex Rd., Paramus, NJ, 07652, 201-368-5000

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516 President: Louis W. Keller V.P. & General Manager: James J. Ganci V.P./Sales & Marketing: Mel Hulkower Regional Sales Manager: Eric Forman Regional Sales Manager: Bruce Kurtz Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; complete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, background/foreground enclosed speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, attenuators, microphones, & intercoms.

See full listing under Audio Amplifiers T.S.K. Electronics, Inc., 564 Young St., P.O. Box 190, Tonawanda, NY, 14151-0190, 716-693-3916 President: Theodore S. Kedzierski Chief Engineer: Kevin T. Kedzierski measure resistance, and locators to find wires behind walls. Products: zero-level loudspeaking intercommunication systems for use on very long twisted or leased telephone

lines, communication system design and fabrication, audio detection systems and warehouse telephone intercoms. See full listing under Intercom Industrial

Tektone Sound & Signal Mfg. Inc., 1331 S. Killian Dr., Lake Park, FL, 33403, 305-844-2383, FAX: 305-845-1587 President: Manuel Mira General Manager: Carlos Mira Sales Mkt'g Director: Tom Hendricks Chief Engineer: Jim Switzer Products: intercom/video intercom systems, vandal resistant lobby panels, telephone entry control systems, intruder alarm system, UL listed nurse call and emergency call systems.





The annual <u>Sound & Communications BLUE BOOK</u> has all the answers. Whether it's stadium power amplifiers, graphic equalizers, intercoms, CCTV monitors, or background music receivers ...you can find it all in the BLUE BOOK the purchasing directory of manufacturers.

#### See full listing under Intercom Apartment/Residential

Tel-tron (Division Radio Manufacturers Inc.), 220 Fentress Blvd., Daytona Beach, FL, 32014, 904-255-1921, 800-874-5622

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: Engineered/commercial sound systems; prosound systems; amplifiers, signal processors,

loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems.

See full listing under Pro Audio Sound Systems & Products

TOA Electronics, Inc.-Security Group, 480 Carlton Ct. S.,



San Francisco, CA, 94080, 415-588-2538 Products: Video observation systems including video cameras, monitors, switchers, remote control equipment, rack mounting equipment, and video camera equipment.

Transcience, 179 Ludlow, Stamford, CT, 06902, 203-327-7810, 800-243-3494 Products: supervised wireless security systems.

UNIVERSITY SOUND, Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Chief Engineer: Earl Harris Marketing Mgr., Commercial Products: W. Douglas Wilkens Products: complete line of horns, drivers, speakers, and transformers. See full listing under **Loudspeakers** 

VCS, Inc., 262 Carlton Dr., Carol Stream, IL, 60188, 312-690-1400
President: Matthew J. Tummillo
V. P. of Marketing: Jack O'Neill
V. P. of Finance: Dwight Dreger
National Sales Manager: Debbie Rust
Director of Engineering: Donald Null
Products: Audio and video security equipment including
CCD, 2/3", 1" High Performance, and Low Light Level
cameras; monitors, video processing equipment, digital
control systems, computer based card access and
specialty systems.

Visual Methods Inc., 35 Charles Street, Westwood, NJ, 07675, 201-666-3950 Products: access control system & CCTV components.

Wheelock, Inc., 273 Branchport Ave., Long Branch, NJ, 07740, 201-222-6880, FAX: 201-222-8707 President: P. W. Tarlton V.P. Mktg/Sales: W.L. Goldstein V.P. Engineering: Stephan W. Andrews Market Mgr. Tel./Paging: Art Arlow Market Mgr. Life Safety/Ind.: Rein Haus Products: audible/visual signalling devices for life safety, alarm, industrial, and telephone systems applications. Paging systems for telephone system access. Products include bells, horns, speakers, strobes, chimes, speaker amplifiers, talk-back speakers, zone controls & power supplies. District Offices:

Joseph McCaffrey, W.-Mid-W. Reg Mgr., IL, 312-790-2898 Frank Malloy, S. Reg. Mgr., GA, 404-394-8813 Stephen Goldberg, Mid-Atl. Dist. Mgr., NJ, 609-448-1457 Peter Koehler, S.W. Dist. Mgr., TX, 214-350-1232

Whelen Engineering Co., Inc., Rte. 145, Winthrop Rd., Chester, CT, 06412-1036, 203-526-9504 President: John Olson General Sales Manager: Howard Berke International Sales Mgr.: Keith Nelson Advertising Director: Wendy Roulier Products: audible and visual signaling devices for automotive and industrial applications, including strobe and rotating beacons, lightbars, vehicle sirens and public address systems.



Provide the foundation for expanding your multipurpose sound installations with the modular 900 Series. Toa's extensive assembly of mixers, interchangeable plug-in modules, power amps, and accessory equipment satisfies even the toughest system requirements.



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Toa Electronics, Inc. Commercial/Engineered Sound Division

480 Carlton Court South San Francisco California 94080 (415) 588-2538

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Toa Canada: (403) 489-5511 Edmonton, or (416) 624-2317 Toronto Solar Toa U.K.: (0277) 233882 Essex Toa Europe: (040) 811127 Hamburg Circle 205 on Reader Response Card

#### ANTENNA SYSTEMS

Antenna Specialist Co., 30500 Bruce Ind. Pkwy, Cleveland, OH, 44139-3996, 216-349-8400 Dir. of Nat'l Sales: Robert Levy V. P. Product Mkt'g/Sales: Larry Kline W. Reg. Manager: Patricia Fritz E. Reg. Manager: Ray Ditomas Products: antennas for land mobile and cellular telephone systems. Mobile base, and portable applications that cover VHF, UHF, 800 MHz, and are designed for vehicle, boats, aircraft and towers.

Antennacraft, PO Box 1005, Burlington, IA, 52601, 319-754-7575 General Manager: George Kollar

Production Manager: Charles Goff Sales & Svc. Coordinator: Jean Harwood

Traffic Manager: Shelly Moyers

Chief Engineer: Howard Whitcomb

Products: frequency and broadband FM antennas, single channel and broadband television antennas for professional antenna systems.

#### AUDIO AMPLIFIERS

AB International Electronics Inc., 1830-6 Vernon St., Roseville, CA, 95678, 916-783-7800 President: Robert Bird V. P. Mkt'g: Irwin Laskey

V. P. Engineering: George Anderson

Chief Engineer: Jeff Kuells

Products: precision power amplifiers for the commercial audio and musical sound industries, models range in power from 50 watts per channel to 500 watts per channel stereo.

District Offices:

Hanoud & Assoc., Rehobath, MA, 617-252-3735 ProAudio Marketing, Melville, NY, 516-367-8620 MBT, Pittsburgh, PA, 412-344-1360

Yore Company, White Bear Lake, MN, 612-770-9760 Professional Sound & Lighting, Lakewood, CO, 303-986-5999

Murphy & Cota, Atlanta, GA, 404-875-2526 Metro Joe's Marketing, Metairie, LA, 504-887-1885 Ludwig Marketing, Kenosha, WI, 414-697-9355 Nead & Assoc., Shawnee Mission, KS, 913-268-8763

Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products. See full listing under **Intercom Duplex** 

Altec Lansing Corp., Box 26105, Oklahoma City Box, OK, 73126-0105, 405-324-5311 P F.: Davis Merrey

V.P. Mkt'g.: Gary Rilling

SM: Gayle Campbell

Products: industrial and professional electronic and loudspeaker products including mixers, mixing consoles, power amplifiers, equalizers, compressor/limiters, high power speakers and compression drivers, constant directivity horns, crossovers, and microphones. See full listing under **Loudspeakers** 



Ashly Audio, Inc., 100 Fernwood Ave., Rochester, NY, 14621, 716-544-5191 President: William Thompson V.P. Sales/Mkt'g.: Robert French V.P. Finance/Export Accts.: David Malloy Products: MOS-FET power amplifiers, graphic equalizers, noise gates, limiter/compressors, electronic crossovers, parametric equalizers, notch filters, and OEM products. See full listing under **Pro Audio Sound Systems &** 

Products

ATI - Audio Technologies, Inc., 328 Maple Ave., Horsham, PA, 19044, 215-443-0330

President: Sam Wenzel

Vice President: Edward M. Mullin

Products: precision audio equipment for the broadcast including 8 & 12 mixer consoles, mike, line, turntable, distribution and power amplifiers, and the Match-Maker and Disc Patcher IHF to PRO interface amplifiers.

Audisar, Box 1561, Bellevue, WA, 98009, 206-454-2040 Owner: R. Munger

Products: industrial audio and broadcast equipment, audio transformers, loudspeakers, power amplifiers, mixers, sound projector interface device, test equipment, specials, and engineered sound systems.

See full listing under Pro Audio Sound Systems & Products

BGW Systems, Inc., 13130 S. Yukon Ave., Hawthorne, CA, 90251-5042, 213-973-8090 President: Brian Wacher V. P.: Barbara Wacher Controller: Jim Ebert Products: 7 complete lines of audio power amplifiers including: Professional, Commercial, Broadcast, Proline II,

# introducing the DX300, DX800 and DX1500 power amplifiers



The DX300, DX800 and DX1500 amplifiers all feature balanced XLR inputs, balanced and unbalanced ¼" inputs, banana outputs, ground lift switch and a terminal block with access to all inputs and outputs.

**DX300** output power: 200 watts into 8 $\Omega$  (per channel, both channels driven, 20Hz - 20kHz, -0.5dB) 400 watts into 8 $\Omega$ , 450 watts into 4 $\Omega$  (burst power\*) distortion (250mW to rated power at 8 $\Omega$ ): IMD SMPTE: < 0.01%. THD (1kHz): < 0.01%. THD (20kHz DIN): < 0.02% size: 2 rack spaces, 8½" behind front panel weight: 7Kgs, 16 lbs. cooling: 2 passive heatsinks.

**DX800** output power: 250 watts into 8 $\Omega$ , 400 watts into 4 $\Omega$  (per channel, both channels driven, 20Hz - 20kHz, -0.5dB), 800 watts into 8 $\Omega$  (bridged mono), 800 watts into 4 $\Omega$ , 900 watts into 2 $\Omega$  (burst power\*) distortion (250mW to rated power at 8 $\Omega$ ): IMD SMPTE: < 0.01%. THD (1kHz): < 0.01%. THD (20Hz-20kHz DIN): < 0.02% size: 2 rack spaces, 13" behind front panel weight: 13Kgs, 29 lbs. cooling: 1 servo controlled DC fan.

**DX1500** output power: 300 watts into 8 $\Omega$ , 500 watts into 4 $\Omega$ , 750 watts into 2 $\Omega$  (per channel, both channels driven, 20Hz - 20kHz, -0.5dB), 1000 watts into 8 $\Omega$ , 1500 watts into 4 $\Omega$  (bridged mono) 1500 watts into 2 $\Omega$ , 1600 watts into 1 $\Omega$  (burst power\*) distortion (250mW to rated power at 8 $\Omega$ ): IMD SMPTE: < 0.01%. THD (1kHz): < 0.01%. THD (20Hz-20kHz DIN): < 0.02% size: 2 rack spaces, 13" behind front panel weight: 15Kgs, 34 lbs. cooling: 2 servo controlled DC fans.

\*Burst power is a 1kHz tone for 10ms every 100ms, single channel (an indication of the amplifiers ability to handle inusic transients and tolerate deviations in nominal speaker impedance)

#### **Total Audio Transparency**

Vorld Radio History

#### Manufactured in the UK:

Hill Audio Ltd., Hollingbourne House, Hollingbourne, Kent ME17 1QJ England Tel: (062 780) 555/6/7 Tlx: 966641 HILL



Hill Audio Inc., 5002B N. Royal Atlanta Dr., Tucker, GA 30084 USA Tel: (404) 934-1851 Tlx: 293827 HLAD



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Signal Processing Amplifiers, Professional Mobile Audio and the New Grand Touring Amplifiers. District Offices: Peter Schmitt Co., Leonia, NJ, 201-944-2806 Lienau Assoc., Columbia, MD, 301-621-4113 Evans Sales & Mkt'g, Nashville, TN, 615-297-7997 Dick Bellew Sales, Dallas, TX, 214-644-7881 Berman-Gravley Co., Inc., Costa Mesa, CA, 714-549-2122

Biamp Systems, 14270 NW Science Park, Portland, OR, 97229, 503-641-7287 President: Ralph Lockhart V.P. Engineering: Bob Doty V.P. Finance: Jerry Payette V.P. Manufacturing: Ralph Tennant Sales Manager: Ron Camden Products: American-made, high-quality, audio equipment for the sound contractor that includes; mixers, live and recording, rack-mount or console; powered mixers; microphone mixers; amplifiers; equalizers; and crossovers. See full listing under **Pro Audio Sound Systems & Products** 

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500 President: John H. Ochtera V.P. Marketing: Carl C. Dorwaldt Nat'l. Sales Mgr.: David A. Chambers Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor.

District Offices:

Bi-State Marketers, Ridgefield, NJ, 201-943-5888 Dimension/Point IX Mkt'g., Dallas, TX, 214-348-9657 J.C. Electronics, Honolulu, HI, 808-943-8514 Kingston Sales, Indianapolis, IN, 317-876-2545 R.W. Kunz & Assoc., Praire Village, KS, 913-648-8427 Lichtenauer & Assoc., Antioch, CA, 415-757-1200 William M. Linz Assoc., Deerfield, IL, 312-945-9600 Lowery Assoc., Broomall, PA, 215-356-5300 Pacnor Marketing, Lynwood, WA, 206-771-6016 Paston-Hunter, Syracuse, NY, 315-437-2992 W.B. Pray Sales, Northboro, MA, 617-393-3434 Riley & Petchell Sales, Detroit, MI, 313-937-3000 Rohr-Wanger-Roberts, Rock Hill, SC, 803-324-5111 Shamrock Electronics Sales, Dayton, OH, 513-258-1227 Silver Peak Marketing, Wheat Ridge, CO, 303-467-9042 SRT Marketing, Tampa, FL, 813-884-4805 Westech Marketing, Culver City, Ont, CD, 416-632-6894 Yore Co., White Bear Lake, MN, 612-770-9760 White Radio, Burlington, Ont., CD, 416-632-6894 Roburn Agencies, NY, NY, 212-989-5939 (Export Representative)

Boulder Amplifiers, 3101 Third St., Boulder, CO, 80302, 303-449-8220

Broadcast Audio Corp, 11306 Sunco Dr., Rancho Cordova, CA, 95670, 916-635-1048 President: John Fernandez CEO: David Evans Products: audio consoles and amplifiers for sound reinforcement and broadcasting. See full listing under **Mixers & Mixing Consoles** 

BrystonVermont Ltd., RFD #4, Box 2255, Montpelier, VT, 05602, 802-223-6159, 800-451-4160 President: John Day Russell Products: audio amplifiers and preamplifiers for professional and broadcast use.

**C-Audio**, Kuniholm Dr., Box 521, Holliston, MA, 01746, 617-429-6706 Exec. V.P. & Gen. Manager: Peter Willie Koff Nat'l. Sales Manager: David Deranian Mkt'g./Sales Support Admn: Barry Fox Credit Manager: Kathy Maguire Products: super high powered, high quality MOS-FET power amplifiers from Great Britain available in the following models: SR202, SR404, SR606, SR808. The SR808 is capable of producing 850 watts per channel @ 4 $\Omega$ , the 2400B and 2600B are also available at lower cost, the 2600B is capable of producing 600 watts @ 4 $\Omega$ .

Carver Corp., 20121 48th Ave. W., Wynnwood, WA, 98036, 206-775-1202 Nat'l. Sales Manager/Pro: Will Lewis Products: professional power amplifiers that are powerful and lightweight, internal stereo crossover modules, crossover modules for Carver power amplifiers.

**Celestion Industries, Inc.**, Kuniholm Dr., Box 521, Holliston, MA, 01746, 617-429-6706 Exec. V.P. & Gen. Mgr.: Peter WelliKoff Nat'l. Sales Manager: David Deranian Mkt'g./Sales Support Admn: Barry Fox Credit Manager: Kathy Maguire Products: sound reinforcement loudspeakers with highfidelity sound called the SR Series; established line of rawframe drivers for a variety of applications. See full listing under **Loudspeakers** 

Cetec Ivie, 1366 West Center St, Orem, UT, 84057, 801-224-1800 President: Craig Berry Mkt'g Manager: Glen Meyer Production Manager: Larry Driskill Products: a complete line of modular sound reinforcement electronics including mixers, equalizers, amplifiers, etc. We also have a line of octave & 1/3 octave hand-held real time analyzers and stand alone automatic microphone mixers. See full listing under **Audio Signal Processors** 

Cetec Raymer, 7315 Fulton Ave., N. Hollywood, CA, 91605, 213-875-0423 President: Hugh T. Wilcox Products: audio equipment for paging, background music and sound systems, including amplifiers, tuners, receivers, test equipment, telephone interconnect devices and accessories. Direct connection telephone trunk and station access paging devices.

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GTA Packs 1800 Watts Into Just 5<sup>1</sup>/<sub>4</sub>". That's more than 2 horsepower! The GTA delivers 900 watts per channel than 2 horsepower! The GTA delivers 900 watts per channel into 2 ohm loads; 1800 watts bridged mono into 4 ohms—yet it's into 2 ohm loads; 1800 watts bridged mono into 4 ohms—yet it s just 3 rack spaces high. For unbelievable punch, the GTA's massive power supplies store an enormous 320 joules of energy. It's the most powerful amplifier ever from BGW.

It's Heavy-Duty All The Way. Make no mistake, this is It s neavy-buty All the vvay. Wake no mistake, this is no "flyweight wonder". Qur engineers don't believe in taking shortcuts. From its one-piece welded steel chassis to totally redundant shortcuts. From its one-piece welded steel chassis to totally redundant dual-mono design (with field-swappable modules), the Grand Touring aual-mono design (with field-swappable modules), the Grand Touring Amplifier is built to take everything the road can dish out. It's the first powerful compact amp with legendary BGW reliability.

Details, Details, Details. For all its raw power, the GTA is **3.** Details, Details, Details. For all its raw power, the GIA is a highly refined amplifier. It features low feedback circuitry for superb sonic performance. D.C. speaker protection is included, of course. superb sonic performance. U.C. speaker protection is included, of course. The GTA internally accommodates two BGW crossover cards. And BGW builds-in the subsonic filters that you need, but other manufacturers "forget".

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5. What Price Glory? Under a dollar per watt buys You the massive power, small You the massive power, smain size, full roster of features, mag Dire, I un toolet of teatures, they nificent performance, and rock-Solid reliability of the GTA.

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#### See full listing under Paging Systems

Connectronics Corporation, 652 Glenbrook Road, Stamford, CT, 06906, 203-324-2889, 800-322-2537 Exec. V.P. Richard Chilvers Products: specialized high-flexibility colored audio wire and accessories. cable-everything from microphone cable through 32-pair foil-shielded multipair, from phono cable to individually shielded and jacketed and color-coded multipairs, from "starquad" to heavy-duty four conductor speakerflex. Portable audio mixing console from "SECK." See full listing under Wire/Cable Components

Crest Audio, 150 Florence Ave., Hawthorne, NJ, 07506, 201-423-1300 President: John Lee Division Manager: Craig Hannabury

Products: a full range of professional power amplifiers ranging from 50W per CH@ 8 Ohms to over 1200W per CH@ 4 Ohms. Models are suited for touring concert sound, studio monitoring and installation use.

Crown International Inc., 1718 W. Mishawaka Road, Elkhart, IN, 46517, 219-294-8000 President: Max Scholfield Mkt'g Manager: Charles W. Gushwa PR Coordinator: Margo Sousley Microphone Prod. Mgr.: Bill Raventos Amplifier Prod. Mgr.: Verne Searer Products: premium quality professional power amplifiers from 35 to 400 watts per channel, PZM® microphones & hand held microphones for performance, musical instruments & sound reinforcement.

David Hafler Company, 5910 Crescent Blvd., Pennsauken, EMS/Music, 2264 15th Ave. W., Seattle, WA, 98119, 206-President: E. Gately Sales Manager: L. Schneider Dir. Mkt'g. Services: R. Tucker Products: professional power amplifiers. District Offices: Ortofon, Plainview, NY, 516-349-9180 Wilson Audio Sales, Nashville, TN, 615-646-4477 Lichtenauer & Assoc., Antioch, CA, 415-757-1200 New West Audio, Burbank, CA, 818-955-9700 Richard Lewis Sales, Glenside, PA, 215-886-1555

DAX Audio Group, Inc., 1231 S.E. Gideon St., Portland, OR, 97202, 503-232-4445 President: Rich Stevenson Engineering Manager: Bob Herb Products: graphic equalizers, 31-bands, dual 15-band, and President: Frank Blaha dual 31-bands; mixing consoles from 8x2 to 32x8; powered mixers in 6 and 8 channels; real-time analyzer; amplifier; crossover.

See full listing under Mixers & Mixing Consoles

DCS Audio Products Inc, 335 E 21st St, New York, NY, 10010, 212-9823654

Dean Markley Electronics Inc., 3350 Scott Blvd., Suite 45, FM Acoustics Limited (USA), PO Box 854, Benicia, CA, Santa Clara, CA, 95054, 408-988-2456, 800-538-8330 94510, 707-745-4444 President: Dean Markley Pres.(FM Acoustics LTD): Manuel Huber

Executive V. P.: Bari Wilson

Nat'l Sales Manager: Tom Dreibelbis

Products: professional audio sound systems and support, powered and non-powered mixers, powered and unpowered enclosures, power amps, microphones, cables and

See full listing under Pro Audio Sound Systems & Products

Delta Magnetics, 16782 Hale Ave., Irvine, CA, 92714, 714-863-1537 Products: amplifiers, mixers, and headphones.

Dukane Corporation, 2900 Dukane Dr., St. Charles, IL. 60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson Division General Mgr.: Steve Deppe Products: standard and special systems of products: nurse call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. See full listing under Portable Sound Systems

Dyma Engineering, PO Box 1535, Los Lunas, NM, 87031, 505-865-6700 Products: audio terminal equipment, amps and mikes, installation and design for radio and TV.

281-8686 V.P. Nat'l. Music Svc. Sales: Bernard Kron Nat'l. Dealer Sales Desk: Mark Rubin Steve Ducharme Anne Walker Products: Current-Drive Amplifiers for transformerless distributed speaker systems. Automated mixer system that permits segues with various music services. Tape cartridge players, foreground music libraries, and message inserters. See full listing under Back/Foreground Systems Libraries

Fanon Courier, 14281 Chambers Road, Tustin, CA, 92680, 714-669-9890, 800-345-1354 Director Sales/Mkt'g: Murray Trotiner Director of Engineering: Miguel Santana Products: PA amplifiers and systems, paging/talkback speakers, intercom systems, megaphones, FM scanning monitors, and CB transceivers. See full listing under Pro Audio Sound Systems & Products

Sound & Communications

## **New Carver Amps** for permanent installation, studio, and concert use. **PM-175 and PM-350**.

#### NOW THAT THE CARVER PM-1.5 IS PROFESSIONALLY SUCCESSFUL, IT'S STARTED A FAMILY, INTRODUCING THE NEW CARVER PM-175 AND PM-350.

Month after month on demanding tours like Bruce Springsteen's and Michael Jackson's, night after night in sweltering bars and clubs, the Carver PM-1.5 has proven itself. Now there are two more Carver Professional Amplifiers which deliver equally high performance and sound quality - plus some remarkable new features that can make your life even easier.

SERIOUS OUTPUT. The new PM-175 delivers 250 watts RMS per channel into 4 ohms. As much as 500 watts RMS into 8 ohms bridged mode. The larger PM-350 is rated at 450 watts per channel into 4 ohms. Up to a whopping 900 watts in 8 ohm bridged mode. Both with less than 0.5% THD full bandwidth at any level right up to clipping. Plus 2 ohm capability as well.

SERIOUS PROTECTION. Like the PM-1.5, both new amplifiers have no less than five special protection circuits including sophisticated fault interruption against dead shorts, non-musical high frequency, and DC offset

ing modules. Soon to be available is an electronic, programmable 2-way stereo crossover, with 24 dB per octave Linkwitz-Reilly phase -aligned circuitry, a built-in adjustable high-end limiter and balanced outputs. And more modules will be available in the near future to further help you streamline your system.

PRO FROM CONCEPTION. The PM-175 and PM-350 inherited their father's best features. Including slow startup and input muting to eliminate turn-on current surge, 11-detent level controls, phone jacks, power, signal, clipping and protection indicators as well as balanced XLR input connectors. In a bridged mode, both amplifiers will drive 70-volt lines without the need for external transformers.

MEET THE FAMILY AT YOUR CARVER DEALER. All remarkable Carver Professional Amplifiers await your own unique applications. Hear their accuracy and appreciate their performance soon.

SPECIFICATIONS: CARVER PM-175 Power: 8 ohms. 175 w/channel 20-20kHz both channels driven with no more than 0.5% THD. 4 ohms. 250 w/channel 20-20kHz both channels driven with no more than 0.5% THD. 2 ohms 300 w/channel 20-20kHz both channels driven with no more than 0.5% THD. Bridging: 500 watts into 8 ohms; 400 watts into 16 ohms. THD-less than 0.5% at any power level from 20 mW to clipping. IM Distortion less than 0.1% SMPTE. Frequency Bandwidth: 5Hz-40kHz. Gain: 29 200 at 1 kHz. Slew rate: 25V/ micro second. Noise: Better than 115 dB bedev 175 watts. Aweighted. Input: Balancet to ground, XLR or TRS phone jacks. Input Impedance: 15k of TRS phone jacks. Input Impedance: 15k percleifcat100xs. CARVER PM-350 Power.

ohm each leg. Comparible with 25V and 70V systems. 19\*Wx 3.5\*H x11.56\*D SPECIFICATIONS: CARVER PM-350 Power: 8 ohms, 350 w; channel 20-20kHz both channels driven with no more than 0.5% THD. 4 ohms, 450 w; channel 20-20kHz both channels driven with no more than 0.5% THD. 2 ohms 450 w; channel 20-20kHz both channels driven with no more than 0.5% THD. Bridging: 900 watts into 8 ohms; 750 watts into 16 ohms. THD-less than 0.5% at any power level from 20 mW to clipping. IM Distortion less than 0.1% SMPTE. Frequency Bandwidth: 5Hz-80kHz, Gain: 31dB. Input Sensitivity: 1.5 V rms, Damping: 200 at 1kHz. Siew rate: 25V micro second. Noise: Better than 115 dB below 350 watts, A-weighted. Inputs. Balanced to ground, XLR or TRS phone jacks. Input Impedance: 15k ohm each leg. Compatible with 25V and 70V systems. 19\*Wx3.5\*Hx11.56\*D

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protection, as well as low level internal power supply

fault and thermal overload safeguards. The result is an

amplifier which is kind to your expensive drivers - as

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has an internal circuit card bay which accepts Carver's new plug-in signal process-

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Dir. (FM Acoustics USA): Gene Michalski Products: line of swiss made amplification equipment for studio, theatre and quality sound enhancement applications. Electronic crossovers with 36db attenuation and linear phase. Precision balanced line drivers and line level interfaces. High energy transfer speaker cable. District Offices: FM Acoustics USA, Benicia, CA, 707-745-4444

Hacoustic USA, Inc., 209 August Rd. N., Babylon, NY, 11703, 516-242-6205

President: Bert Aarts Sales Assistant: Ursula Aarts

Products: mixers and mixing amplifiers with an output of

30, 60, 75, or 120W; mixers with 7 inputs/4 inputs and 9 inputs/6 mixable inputs; supplementary circuits such as an equializer, compressor/limiter, voice activated control unit, priority/chime/alarm unit.

District Offices:

Pinz Sales, Rockville Centre, NY, 516-678-6887 Raleigh Perry & Assoc. Inc., Buford, GA, 404-945-3142 Design Factors, La Habra Heights, CA, 213-697-7576

Hill Audio, Inc., 5002#B N. Royal Atlanta Dr., Tucker, GA, 30084, 404-934-1851 President: David Ash Sales Manager: Bob Allen Chief Engineer: Rick Rogers Financial Administrator: Viginia Ash

Products: power amplifiers from 200 to 3,000 watts and mixing consoles featuring 16-channel rack-mount through See full listing under Pro Audio Sound Systems & 48-channel modular. The modular consoles have the new Products

#### "Sidetraker" EQ as standard equipment. See full listing under Pro Audio Sound Systems & Products

HM Electronics, Inc., PO Box 261669, San Diego, CA, 92131, 619-578-8300 President: Harry Y. Miyahira Vice President: Donald Kutz Director of Mkt'g: J. Michael Hughes National Sales Manager: Randy Opela Mkt'g Coordinator: Tonnia B. Sills Products: a complete line of wireless and cabled microphones, wireless and cabled intercom systems, DJ mixers, cordless guitar systems, power amplifiers, and accessories. See full listing under Microphones

Holophonics, 1120 Ave. of the Americas, Ste.4270, New York, NY, 10036, 212-787-7767

Ibanez, P.O. Box 2009, Idaho Falls, ID, 83403, 208-522-8691

Industrial Research Products, 321 Bond St., Elk Grove Village, IL, 60007, 312-439-3600 General Manager: Mahlon Burkhard Marketing Manager: Roger Carroll Products: transversal equalizers, automatic microphone mixers, digital delay lines, power amplifiers, level-matic limiter.





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In Canada: Paco Electronics Ltd. + 20 Steelcase Rd. W., Unit 10, Markham, Ontario L3R 1B2 + Phone: 416-475-0740 Telex: 06-966655

Innovative Electronic Designs, Inc., 9701 Taylorsville Rd., V.P. Sales: Ken Lopez Louisville, KY, 40299, 502-267-7436 President: Hardison G. Martin V.P. Engineering: Robert Ponto Treasurer: Ray Allen Dir. Mkt'g. & Sales: Tom Roseberry Products: models 500 & 500AC microcomputer controlled crossover; special loudspeakers for musical instruments; audio systems, controlling mixing, routing, and level adjustment. 4000 automatic mixer, 5000 audio processing system. 70-volt and low impedance 80hm version 6270 power amplifier.

#### See full listing under Pro Audio Sound Systems & **Products**

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. **District Offices:** Benesik Assoc., Ocala, FL, 904-732-9775 David H. Brothers, Baltimore, MD, 301-764-7189

Murphy & Cota, Atlanta, GA, 404-875-2525 J. Y. Schoonmaker, Dallas, TX, 214-349-1650

JBL Professional, 8500 Balboa Blvd., Northridge, CA, 91329. 818-893-8411 President: Ron Means

V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Market Manager/Sound Contracting: Steve Romeo Products: high quality loudspeakers and loudspeaker systems of all kinds; automatic microphone mixer; electronic video projector. See full listing under Loudspeakers

Jensen Transformers, Inc., 10735 Burbank Blvd., N. Hollywood, CA, 91601, 213-876-0059 President: Deane Jensen Products: audio transformers, microphone preamplifiers-Jensen Twin Servo 990, power amplifiers-Boulder 500, 160, Opamps-990-C, software-circuit simulation for HP desktops.

JL Cooper Electronics, 1931 Pontius Avenue, Los Angeles, CA, 90025, 213-473-8771

Johnson Electronics, Inc., 4301 Metric Drive, PO Box 4728, Winter Park, FL, 32793, 305-677-4030 Chairman of the Board: Ralph Weber President: AI Schell V. P./Engineering: Ken St. John Dir. Mkt'g/Sales: Mel Kelch Products: SCA tuners/receivers for music, voice, data and emergency broadcast systems. Also audio amplifiers, mixers, Rx antenna systems and computerized display equipment.

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MSWM-403L 40 All amplifiers feature three mixer inputs with separate bass & treble controls and have outputs of 8 ohm, 25 volts or 70 volts. Other features include circuit breaker protection, music muting, a switched convenience outlet, and screwdriver adjustable controls with covers provided to prevent tampering once desired settings are made.

MSWM-203L

**MSWM-403** 

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The MSWM series have provisions on the page input for either balanced microphone or telephone paging.

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Len Finkler Company, 80 Alexdon Road, Downsview, Ontario, M3J2B4, 416-630-9103 Products: amplifiers, speakers for ceiling,& wall bafflers. See full listing under **Pro Audio Sound Systems & Products** 

, McGohan Electronics, Inc., 1033 Fairway Dr., Bensenville, IL, 60106, 312-595-2342 President: Jim McGohan Sec./Treas.: Rosalie (McGohan) Monk

Chief Engineer: Bill Everhart

Production & Services: Ronald Johnston

Products: amplifiers from 1 to 100 watts. There are over 30 sound amplifiers, mixers, preamps, line amplifiers, commodels available within this power range including basic power amps and mixer amps. Zone paging preamplifiers, tone generators, 70 volt line transformers, and rack and shelf mounting kits are also available. District Offices:

Austin Assoc., Willingboro, NJ, 609-871-9290 Irv Brown Company, Brooklyn, NY, 718-493-1379 Ted Firaneck Sales Company, Pontiac, MI, 313-373-9595 Don Forth Assoc., West Covina, CA, 818-919-2322 Givan Associates, West Boyleston, MA, 617-835-3161 J. W. Lehner, Stow, OH, 216-686-1965 Maish Sales Company, Mulberry, IN, 317-296-2322 Meyer Marketing, Deerfield Beach, FL, 305-481-9250 Miller Assoc., Richardson, TX, 214-437-5733 Chuck Olson Assoc., Renton, WA, 206-226-2112 Henry Phillips Co., Roswell, GA, 404-992-3070 Rancilio Assoc., St. Louis, MO, 314-631-3326 Stan Sliz Assoc., Broomfield, CO, 303-466-1608 Sunrise Sales Company, Romeoville, IL, 815-886-6034 Brian Trankle & Assoc., Belmont, CA, 415-595-4004 R. W. Sales, St. Paul, MN, 612-646-2710

McMartin International, Inc., 111 Camino Dil Rio, Gunnison, CO, 81230, 303-641-5500 President: Ray R. McMartin bir. of Engineering: Robert W. McMartin Dir. of Engineering: Robert German Dir. of Manufacturing: Wayne Allen Dir. of Supplies/Prod.: Louise Rundock Products: FM/SCA generators and receivers; commercial sound amplification mixers and test sets; engineered sound amplifiers, mixers, preamps, line amplifiers, compressor/limiters, equalizers, automatic level controllers, and supervisory control systems; broadcast receivers and EBS systems; and satellite modulators and demodulators. District Offices: Eorti Assoc, Inc. Wash, D.C. 301-949-1706

Forti Assoc., Inc., Wash., D.C., 301-949-1706 Murphy & Cota., Inc., Atlanta, GA., 404-875-2525 Stiffler Marketing, Chicago, IL, 312-480-3575 S & F Northwest, Inc., Seattle, WA, 206-525-5203 Bob White Assoc., Cleveland, OH, 216-248-1317

Millbank Electronics Group Ltd., Bellbrook Industrial Estate, Uckfield, East Sussex, England, TN22 1QL,-0825-4811 Chairman/Chief Exec.: A. E. Walker

Sales/Mkt'g Director: D. H. Eaton App. Engineer Dir.: D. G. G. Edworthy Director - CTSD: B. A. Skinner App. Engineer: C. K. Pike Products: high quality modular amplifiers, digital announc-

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Modular Audio Products, P.O. Box 488, Barrington, IL, 60010, 312-382-4550

Numark Electronics, 503 Newfield Ave., Edison, NJ, 08837, 201-225-3222 President: Harry Kotovsky Vice President: Robert Kotovsky National Sales Mgr.: Richard Krochmal Technical/Serv. Manager: Rick Kamlet

National Sales Manager: Dewitt Smith

Products: professional music mixers, turntables, equalizers, mobile DJ systems, speaker systems, professional audio/video digital mixers, and a complete line of audio accessories. Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of comme equipment including 4000 series engine

See full listing under Disco Components & Systems

Panasonic Industrial Company/Ramsa, 6550 Katella Ave, Cypress, CA, 90630, 714-895-7272 National Marketing Mgr.: Steve Wooley Products: Ramsa, the professional audio division of

Panasonic Industrial Company's Audio/Video Systems Group, markets a comprehensive line of mixing and production consoles, power amplifiers, microphones and speaker systems.

#### See full listing under Pro Audio Sound Systems & Products

Parasound Products, Inc., 945 Front St., San Francisco, CA, 94111, 415-397-7100 President: Richard Schram Sales & Marketing: Bonnie Perella Technical Services: Rich Rogers Products: high-end quality electronics specializing in home and semi-professional audio for the price concious consumer.

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. District Offices: All West Electronics, Camarillo, CA, 805-388-1789

All West Electronics, Camarillo, CA, 805-388-1789 Anderson SAles, Braintree, MA, 617-848-9194 Jim Church Marketing, Bloomington, IN, 812-334-0383 De Witt Austin Co., Alpharetta, GA, 404-442-1326 Thomas L. Dowell & Assoc., St. Louis, MO, 314-849-4234 Thomas L. Dowell & Assoc., Overland Park, KS, 913-648-7373



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#### YOU BE THE JUDGE.

SPECIFICATIONS	RAYMER 9012	TUA A-912A	SPECIFICATIONS	RAYMER 9012	T0A A-912A
OUTPUT POWER 120 watts RMS.	Yes	Yes	CONTROLS 6 Input gain controls; 1 Bass tone control; 1 Power ON/OFF switch; 1 Tone defeat switch; 1 Master gain control; 1 Treble tone control; 1 Link switch; 1 Low-cut (60Hz/6dB octave). Built-in locking of front panel controls. 1 Adjustable EQ bypass control (rear panel). 1 Remote master volume (rear panel).		
POWER BAND WIDTH           Direct: 20 - 20,000Hz ± 1dB, 0.5% THD.           Transformer: 50 - 20,000Hz ± 1dB, 0.5% THD.           0.5% THD.	Yes	Yes		Yes Yes	Yes
FREQUENCY RESPONSE Direct: 20 – 20.000Hz ± 1dB. Transformer: 20 – 15.000Hz ± 1dB. Transformer: 20 – 20.000Hz + 3dB. – 3dB.	Yes	Yes		Yes Yes	NO NO NO
INPUTS 6 Input Ports. 1 bridging Input/Output.	Yes	Yes	INTERNAL BUSS STRUCTURE Independent signal processing buss. Standard screw terminal mute	Yes Yes	No No
OUTPUTS Transformer: 8 ohms, 25 & 70 volts, balanced.	Yes	Yes	connection (rear panel). 2 Separate mute busses (rear panel). Full module compatibility.	Yes Yes	No Yes
Direct: 4 ohms, unbalanced. Aux: 10k ohms, (1 volt).			DIMENSIONS 145mm high x 420mm wide x 315mm deep;	Yes	Yes
SIGNAL TO NOISE RATIO (BAND PASS 20 – 20,000Hz, TONE CONTROLS CENTERED) Master volume min: 90dB. Master volume max: 77dB. Power amplifier only: 105d3.	Yes	Yes	5.71° x 16.54 x 12.4". Rack-mounting space: 5.21".	Yes	Yes
			COLOR	Black	Silver
			OTHER FEATURES 5-sec. delay of output connection after		
TONE CONTROLS Bass: ± 10dB at 100Hz. Treble: ± 10dB at 10kHz.	Yes	Yes	power switched on. Automatic resetting thermal overload on power transformer.	Yes Yes	Yes No

TOA specifications per 833-61-702-80

#### Raymer's 9012 vs. TOA's A-912A

Take a look at the six-channel 120 watt Raymer Model 9012 Modular Mixer Power Amplifier' It's TOA compatible. Interchangeable with TOA's A-912A in both installation and application. And it accepts **all** TOA 900 Series plug-in modules.

Compare them feature for feature, spec by spec: the made-in-the-USA Raymer 9012 not only competes — it *surpasses* the TOA import with *seven* unique engineering features for added performance and useability. Then check our pricing and compare the value — the Raymer 9012 is the clear competitive choice! For more information write or call today.

#### Cetec Raymer

Commercial sound products division of Cetec Corporation

7315 Fulton Avenue North Hollywood CA 91605 818-764-3434 213-875-0423 FAX 818-765-2534 *Circle 207 on Reader Response Card* 

Cetec Raymer products are distributed in Canada by Engineered Sound Systems, Ltd., Mississauga, Ontario

J.Y.S. Comm. Co., Dallas, TX, 214-349-1650 Lienau Assoc., Inc., Columbia, MD, 301-621-4113 Lienau Assoc., Inc., New Town, PA, 215-860-2100 Lintern Assoc., Naperville, IL, 312-983-0935 Miguel Lopez, Hialeah, FL, 305-822-6853 Marketline, Inc. AV only, Atlanta, GA, 404-972-9048 Jack Mesnick Sales, Liverpool, NY, 315-622-3211 Miller Assoc., Ltd., Greenwich, CT, 203-840-2866 Robert Milsk Co., Inc., Southfield, MI, 313-354-3310 Mountain Representatives, Denver, CO, 303-623-0972 Northland Assoc., Moorehead, MN, 218-223-4616 Pace Sales, Inc., Charlotte, NC, 704-365-3216 SLK Tech Rep, Hayward, CA, 415-785-4531 Weller Electronic SAles, Inc., Columbus, OH, 614-885-7819 Mel Yarish & Assoc., Hollywood, FL, 305-625-1300 Paco Electronics, Ltd., Markham, Ont, CD, 416-475-0740 hold amplifier, and sound accessories. Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365 Prod Mgr/Sound Reinf.: Hollis Calvert Prod Mgr/Digital Product: Ken Valentine Products: audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker systems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater systems. See full listing under Pro Audio Sound Systems & Products Perreaux/GMI Distributors, 5000 Birch St, Ste.3000,W Tower, Newport Beach, CA, 92660, 714-476-3606 Power Solutions, Inc., 10681 Haddington, # 190, Houston, TX, 77043, 713-932-9847, 800-345-9130 President: Peter Cole Marketing Mgr.: Glenn Messerschmitt Products: high power digital amplifiers for the sound reinforcement industry. **District Offices:** Bob White Assoc., Solon, OH, 216-248-1317 Hustling Enterprises, Redington Beach, FL, 813-393-8982 Professional Audio Marketing, Melville, NY, 516-367-8620 Products: two complete series of professional two-channel Pro-Tech Marketing, Newport Beach, CA, 714-650-5633 Prof. Sound and Lighting Products, Lakewood, CO, 303-986-5999 Repworks, Inc., Chicopee, MA, 413-533-0845 Signal Marketing, Valley Forge, PA, 215-783-6666 Steffey Marketing, Northbrook, IL, 312-480-3575 Upstate Marketing, Burnt Hills, NY, 518-399-6311 Powertronix, 10623 Lawson River Ave., Fountain Valley, CA, 92708, 714-963-5411 President: Robert Gehlke Sales Mgr.: Bill Organ Products: self-contained 200 watt voice evacuation system; 400 watt current drive distribution amplifiers with 24V-48VDC emergency back-up power capability; 24VDC mobile amplifier with three electronically-switched, prioritized 91506, 818-840-7119 inputs. District Offices: Lichtenauer & Assoc., Antioch, CA, 415-757-1200 Chuck Olson & Assoc., Renton, WA, 206-271-5416

Bi-State Marketers, Ridgefield, NJ, 201-943-5888 R.G. Assoc., Stow, MA, 617-897-7146 John S. Wilken & Assoc., Hillsboro, OH, 513-393-1137 Pro-Marketing Systems, Indianapolis, IN, 317-846-9591 Raleigh Perry & Assoc., Buford, GA, 404-945-3142 SAGA, Oswego, NY, 315-343-5739

Precision Electronics, Inc., 9101 King St., Franklin Park, IL, 60131, 312-678-5350 President: William S. Grommes Chief Engineer: A.A. Hart Sales Manager: William Stow General Manager: G. Hussain Products: PA amplifiers, mixer preamplifiers, power amplifiers, am/fm tuners, tuner amplifiers with paging, graphic equalizers, automatic volume limiter, telephone music-on-District Offices: Associated Systems, Manchester, NH, 603-473-2297 Sheldon A. Goodman Assoc., Oswego, NY, 315-343-5739 Hollingsworth & Still, Norcross, GA, 404-447-1700 George M. Conneen Co., Inc., Springfield, PA, 215-544-5884 Bidwell Sales Assoc., Gardena, CA, 213-770-0300 Protech Audio Corp., Flowerfield, Bldg. #1, St. James, NY, 11780, 516-584-5855 Sales Mgr.: Bill Murphy Sales Engineering: Joe Giambone Products: automatic level controls, voltage controlled amplifiers, distribution amplifiers, mixers, tone supervisor systems, microphone and line preamplifiers, compressor/limiters, switching cards, ramp controlled preamplifiers, engineered and modular sound systems. See full listing under Pro Audio Sound Systems & Products QSC Audio Products, Inc., 1926 Placentia Ave., Costa Mesa, CA, 92627, 714-645-2540

President: Barry Andrews V.P. Engineering: Pat Quilter Chief Operations Mgr.: John Andrews

Nat'l. Sales Mgr,: Greg McVeigh

power amplifiers with  $8\Omega$  rating from 35-375 watts/channel, which accepts a full line of plug-in accessory modules. Also, a new series of 70V amplifiers for music and paging applications.

District Offices:

QSC Audio Products, Costa Mesa, CA, 714-645-2540

Ramko Research, Inc., 11355 "A" Folsom Blvd., Rancho Cordova, CA, 95670, 916-635-3600 Products: switchers and power amplifiers.

Round & Bidnick Assoc., 2631 Rocky Trail Rd., Diamond Bar, CA, 91765, 714-861-3928

RTS Systems, 1100 West Chestnut St, Burbank, CA, President: Bob Ringer V. P. Mkt'g: Douglas Leighton Sales Manager: Shelley Harrison Sales Engineer: Dave Richardson

# Kilroy Hughes holds the power to drive 1000 speakers.

**EMS president, Kilroy** Hughes is the creative force behind the incredible sonic performance of **Current Drive Amplifica**tion (CDATM\*).

This man holds the secret to your success in foreground music sales. His inventiveness has turned the sound industry on its ear. Resulting in EMS products that can boost your profits. Make you a hero to your customers. Enable you to sell more easily. And simplify installations.

S/MUSIC

Kilroy's brainchild, Current Drive Amplification, allows EMS amps to drive over a thousand\*\* speakers. While costing two-tothree times *less* than competitive systems. Which translates to higher gross profit margins for you.

CDA<sup>™</sup> means we can create an incredibly compact dual channel amp. An amp that can also be configured to mono or stereo with each channel having separate music and page inputs. So you can give your customers triple the amp in a *third* less space.

Call EMS today. To start making your fortune in foreground music sales.





MI SI

\* Patent Applied For

\* 500 speakers per channel, 25 volt ceiling speakers

- at 1 watt tap, SPL 87 dB at 4 ft. World Radio History
- Circle 215 on Reader Response Card

# ONE FOR ALL. **BROADCASTING CONTRACTING**

"This industry needs companies like Crown, that pay attention and design products to help solve our problems." The broadcast industry shares many common needs with others in the

Crown Hand Held mics on the show, and quite frankly they were astounding.

from Crown is there, the new **CM™** Series

will definitely put Crown at the forefront

of the hand held market."

"All the sonic excellence you expect



Ron Estes, NBC Burbank, California

audio business, but the special needs outweigh the commonalities. For ENG, studio news, broadcast variety and entertainment, broadcasters have special problems, special needs.

Crown spends a great deal of time working with professional broadcasters at both network and local levels to develop specific products that solve the problems, meet the needs, make sense. That's why top audio pros like Ron Estes of NBC's Tonight Show enjoys his relationship with Crown for developing and testing new products that are specifically aimed at helping him get the job done. "We tested the very first of the new

"If I can pick only one mike supplier it will be Crown - they just always work."

Over the last 38 years, Crown has become known for high-technology, high quality, reliable products. Crown microphones have been used all over the world by demanding professionals in the kinds of conditions that really test a product's ability to perform, Crown continues to pass the test with flying colors. That's why a professional like Tom Durell, with the experience of 14 years in the Disney organization, independent credits such as the audio for the opening and closing ceremonies of the 1984 Olympic Games and full audio project coordination, 1986 Liberty Weekend, chooses Crown.

"When you live by the motto 'no go, no show', you have to depend on reliability as well as quality. Crown puts those two attributes together better than any manufacturer I have seen. I can depend on consistent, reliable, quality performance from Crown every time."

> Tom Durell, Tom Durell Enterprises, Inc. North Hollywood, California

## 

World Radio History
# ALL FOR ONE. FILM SOUND LIVE SOUND

"I've always enjoyed using Crown products because of their reliability. In the motion picture industry, down-time is very expensive and Crown helps us keep that to a minimum."

In the motion picture industry Crown has been a fixture ever since the introduction of the legendary **DC-300**. From powering the speakers behind the screen to providing **GLMs®**, **PZMs®** and other mics, Crown has been involved in this field for years. As in many other businesses, there is a direct correlation between a company's success and its ability to listen to the pros for designing products that meet their needs.

"Crown's accuracy and reliability make it the natural choice where down-

time is so costly. In my job I have used Crown in many wide-ranging applications and have never had cause for disappointment."

Ken Wilson, Sound Engineer/ Film Production Hollywood, California "Crown's commitment to putting new technology to practical use has given me products that make a real difference."

At Crown the philosophy is the product must be specifically designed to meet the rigorous demands of the end user.

Achieving this design philosophy is a matter of being innovative in putting new technologies to work. Always searching for new ways to gain efficiency of performance results in products such as **PZM®**, **PCC®** and **GLM®**. Unique and well developed to satisfy discriminating professionals like David Andrews.

David's success and reputation in the audio business is widely known, his live sound productions are a standard that others look to and his choice of mic is Crown.



David Andrews Andrews Audic Consultants New York, New York

"Live sound has to be intimate and real yet deal with the realities of gain before feedback, temporary set-ups, less than optimum placement, etc.

"If a microphone cannot perform correctly I don't need it - I can't use it. I have tested and utilized every mic in the Crown line and have always been extremely satisfied with the consistency and accuracy of reproduction." Chief Engineer: Stan Hubler Products: Professional Intercommunications Systems conference-line and dedicated-line, IFB systems. Professional Audio Products - amplifiers, preamps, 10-watt monitor amp and buffer amp. See full listing under Intercom Duplex

SCS/Sound Code Systems, PO Box 2198, Garden Grove, CA, 92643, 714-554-0903 President: M.C. Halverson V.P. Engineering: Kevin Halverson Sales Manager: Tim Edwards Products: four models of power amplifiers ranging from 150 to 600 watts/channel into 4Ω for concert sound, studio, and permanent installations. Features are: fan-cooled MOS-FET output devices, balanced/unbalanced inputs, discrete front end, 350 damping factor, and 70V/usec. slew rate.

Sequential, 3051 N. First St., San Jose, CA, 95134, 408-946-5240

SMC International, Inc., 2505 N. 24th St., Ste. 501, Omaha, NE, 68110, 402-453-0332 Chief Opt'g. Ofc'r.: Jay B. McMartin Dir. of Engineering: Richard L. Dircks Products: FM/SCA products, commercial sound products,

Sontec Electronics Inc., Audio Dr., Goldbond, VA, 24094, President: Gene Kornblum 703-626-7256

Sales Manager: Burgess Macneal

Products: amplifiers and signal processors for use where extremely low distortion and noise are the most important performance criteria.

See full listing under Audio Signal Processors

Sound Products/3M, 3M Center 225-S-10, St. Paul, MN, TN, 37210, 615-254-5651 55144-1000, 612-733-0447

Marketing Manager: Don Rada

Sales Manager: Don Sluder

Products: music libraries for all purposes. Reliable players. Industrial quality intercoms and vehicle detectors. Top-line sional CD players & cassette recorders; computer conmessage repeater. Speaker assemblies for distributed systems. Microphones, amplifiers and other sound system portable units to complete studio systems; amplifiers & components.

See full listing under Back/Foreground Systems Libraries

Soundcraftsmen, 2200 S. Richey, Santa Ana, CA, 92705, Sunn, 1130 Columbia Street, Brea, CA, 92621, 714-990-714-556-6191

V.P. Sales & Mkt'g.: Roger Hagemeyer Products: MOS-FET power amplifiers for touring sound systems, recording studios, night clubs, churches, etc. **District Offices:** 

Component Marketers, Leonia, NJ, 201-947-9300 Protech Marketing, Newport Beach, CA, 714-650-5633 New Resource, Norwell, MA, 617-659-1463 Mid America, Milwaukee, WI, 414-742-2211 Summit Sales, Wylie, TX, 214-442-6052

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516 President: Louis W. Keller

V.P. & General Manager: James J. Ganci V.P./Sales & Marketing: Mel Hulkower Regional Sales Manager: Eric Forman Regional Sales Manager: Bruce Kurtz Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; complete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies. outdoor/indoor, background/foreground enclosed speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, attenuators, microphones, & intercoms.

Spectra Sonics, 3750 Airport Rd., Ogden, UT, 84405, 801-392-7531

President/Owner: William G. Dilley

Engineer/Sales: Gregory D. Dilley Products: amplifiers, mixers, equalizers, compressor/limiters, power supplies, speaker systems, and consoles. We specialize in sound reinforcement equipment. See full listing under Pro Audio Sound Systems & **Products** 

St. Louis Music, 1400 Ferguson Avenue, St. Louis, MO, 63133, 314-727-4512 Sales Training Dir.: Tony Moscal satellite receiving products and telephone test equipment. Product Manager: Gary Byers Dir. of Operations: John Karpowicz

Products: musical instrument amplifiers, sound reinforcement equipment, mixing consoles, loudspeakers, power amplifiers.

See full listing under Pro Audio Sound Systems & **Products** 

Studer Revox America, Inc., 1425 Elm Hill Pike, Nashville,

V. P./Gen. Mgr.: Thomas E. Mintner

Dir. of Prof. Products: David C. Bowman Products: audio recorders - super low speed loggers and

playback only machines to 2-inch multichannel; profestrolled automation interface; mixing consoles - 19-inch & loudspeakers.

See full listing under Pro Audio Sound Systems & Products

0909

President: Bill Schultz

Director of Mkt'g: Joe Green

National Sales Mgr.: Don Johnston

Products: sound reinforcement products include: powered and non-powered mixers, mixing consoles, power amplifiers and speaker enclosures. Professional stage lighting products.

See full listing under Pro Audio Sound Systems & Products

Symetrix, Inc., 4211 24th Ave. West, Seattle, WA, 98199, 206-282-2555, 800-288-8855 President: Dane Butcher Marketing Director: Doug Schauer



## IF YOUR PROJECTOR ISN'T THIS FLEXIBLE NOW, IT NEVER WILL BE.

JBL's new Model 6810 Video Projector offers off-the-shelf flexibility the others can't touch.



The Model 6810's 40-function remote control puts sophisticated command in the palm of your hand.

An input panel that's worthy of a blue ribbon panel.

It's just one of the many reasons why JBL's new Model 6810 Video Projector is your most complete choice for a wide range of professional applications.

Unlike most other projectors, the Model 6810 is *born* brilliant. We knew you needed plenty of inputs, so we gave you six: enough RF inputs to accommodate antenna, cable, and satellite dish simultaneously. Plus plenty of inputs to handle your VCR, videodisc player, or computer. (Many competitive models give you just one or two inputs.)

Because your professional needs can change quickly, the Model 6810 offers impressive off-the-shelf flexibility. You can choose from floor or ceiling mounting, front or rear projection. And the picture size goes from five to fifteen feet diagonally on virtually any type of screen surface, flat or curved.

But flexibility wouldn't mean much without a sharp, superior picture. The Model 6810 gives you an extra crisp picture because it has the widest video amplifier bandwidth of any projector on the market.



JBL's Model 6810 fits right into your environment, offering a choice of front or rear projection (5 to 15 feet diagonally) on all types of screens.

And just take a look at some of these Model 6810 exclusives:

...the only video projector with a built-in 178-channel tuner and stereo decoder for Zenith/dbx\*stereo and Second Audio Program broadcast signals.

... the only video projector with a wireless 40-function remote control.



If floor space is at a premium, the Model 6810 can be ceiling mounted quickly and easily.

...the only video projector that supports onscreen graphics and lets you superimpose text.

...the only video projector that accommodates a variety of personal computers with just a flick of a switch (from analog to TTL). Many competitive models don't allow for TTL input, something that's absolutely necessary to connect an IBM PC.

JBL Professional, an audio legend for more than four decades, now offers a remarkably complete vision of what video projection is all about. To learn more about the Model 6810's professional performance and flexibility, contact your authorized JBL Dealer today.



Circle 223 on Reader Response Card

<sup>\*</sup>Zenith is a registered trademark of Zenith Electronics Corporation dbx is a registered trademark of BSR North America Ltd

Mkt'g/Sales Admin: Lavina Speer Products: signal processing equipment includes compressors, limiters, MIC input processor, expanders, gates, near-field monitoring power amp, and the 571 SPL computer microprocessor driven ambient sensing automatic level controller.

#### See full listing under Pro Audio Sound Systems & **Products**

Tannoy North America Inc., 300 Gage Ave. Unit-1, Kitchener, Ontario, Canada, N2M 2C8, 519-745-1158 Marketing Mgr.: Bill Calma Sales Mgr.: Rob Hofkamp Credit Mgr.: Kathy Kent Products: dual concentric studio and broadcast reference monitors and amplifiers, wildcat professional P.A. for MI and for contractor applications. See full listing under Loudspeakers

Tape-Athon Corp., 13633 Crenshaw Blvd., Hawthorne, CA, 90250, 213-676-6752 President: Leon E. "Lee" Tate General Manager: Bob Haller **Director Engineering: Bernie Sayers** Director Finance/Mkt'g: John Bagley Sales Manager: Rick Bottom Products: reel-to-reel, cassette environmental on-site music systems, rack mount or portable. Chimes & carillon systems, messager insertion units, full amplifier line. Customized background/foreground libraries. See full listing under Back/Foreground Systems Libraries

Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman Director of Marketing: Donald Mereen Products: dual antenna (diversity) wireless microphome systems, single antenna wireless microphone systems, wired microphones.

See full listing under Pro Audio Sound Systems & Products

Times One Technology, 22937 Arlington Ave., Torrance, CA, 90501, 213-325-5200, 714-554-0903 plies. General Manager: Leo Young CEO, Dir. of Engineering: Brahm Segal Applications Engineer: Chris Calnan Sales: Tim Edwards in the signal at low and high level. Discmastering, and 9011 mixing studios have verified significant improvement in Europe, USA, Brazil, and Canada. **District Offices:** Design Workshop, New York, NY, 212-935-7222 Lakeside Assoc., Irvine, CA, 714-730-1333

Roger Questo, London, UK, 01-731-7434 Bill Kelsey, London, UK, 01-960-8178

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: Engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems. See full listing under Pro Audio Sound Systems & **Products** 

UREI, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Mkt'g. Mgr. Sound Contracting: Steve Romeo Products: power amplifiers, limiters, compressors, equalizers, filters, Time Aligned™ speakers, direct boxes, electronic crossover, digital metronome, transcription preamplifier, disco mixers, broadcast consoles. See full listing under Audio Signal Processors

Van Etten Audio Labs, P. O. Drawer 667, Shelby, NC, 28151-0667, 704-434-9365 President: David Cantrell

Wheelock, Inc., 273 Branchport Ave., Long Branch, NJ, 07740, 201-222-6880, FAX: 201-222-8707 President: P. W. Tarlton V.P. Mktg/Sales: W.L. Goldstein V.P. Engineering: Stephan W. Andrews Market Mgr. Tel./Paging: Art Arlow Market Mgr. Life Safety/Ind.: Rein Haus Products: audible/visual signalling devices for life safety, alarm, industrial, and telephone systems applications. Paging systems for telephone system access. Products include bells, horns, speakers, strobes, chimes, speaker amplifiers, talk-back speakers, zone controls & power sup-

See full listing under Alarm & Security

Yamaha International Corp., Audio Products Division, 6600 Products: a patented design concept reduces phase delay Orangethorpe Ave., Buena Park, CA, 90620, 714-522-Gen. Mgr.: John Gatts signal clarity. 100 watts @ 8Ω to 500 watts @ 8Ω, and 200 Nat'l. Sales Mgr.: Bob Shomaker watts @ 4Ω to 960 watts @ 4Ω, 4-year warranty; depots in Adv. Mgr.: Robert T. Davis Products: full line of audio mixing consoles, power amplifiers, speaker systems, digital signal processing equipment, and microphones. See full listing under Pro Audio Sound Systems & James McFarren, Nashville, TN, 615-227-5027 **Products** 

## AUDIO SIGNAL PROCESSORS

ADA Signal Processors, Inc., 7303 D Edgewater Dr., Oakland, CA, 94621, 415-632-1323, 800-241-8888 President: David Tarnowski General Manager: Michael Maia National Sales Mgr.: Larry Marcus Artist Relations/Sales: Dave Gonden Technical Services Mgr.: Curtis Gomez

Products: MQ-1 is a fully programmable 2/3 octave stereo MIDI EQ designed for automated equalization in audio for video post production, MIDI and Project Studios. The MQ-1 has full MIDI implementation. Constant Q fulters for minimizing sideband frequency interaction; active balanced inputs, 12 dB boost/cut on 2/3 octave ISO centers and 102 dB minumum EIN.

Advanced Music Systems, Billington Rd., Burnley, Lancashire, UK, BB11 5ES, 0282-57011 Managing Director: Mark Crabtree Sales and Marketing Mgr.: Stuart Nevison Sales Manager: John Gluck Products: AMS Audiofile is a hard-disk based linear 16-bit

record/edit/playback system, easily configured as a mono, stereo, or multitrack system, incorporating SMPTE/EBU timecode reader/generator for synchronization. District Offices:

Harris Sound, Inc., Hollywood, CA, 800-233-1580 Calrec By AMS, Seattle, WA, 206-633-1956

Manta Electronics Group, Toronto, Ont, CD, 416-868-0513

Heaton Communications PTY, Ltdd., Sydney, Australia, 02-428-3430

Continental Farest, Inc., Tokyo, Japan, 583-8451

#### AKG Acoustics, Inc., 77 Selleck St, Stamford, CT,

06902, 203-348-2121

President: Richard Ravich

**Operations Manager: Derek Pilkington** 

Sales Manager: David Talbot

Service Manager: John T. Pyrch

Products: studio condenser microphones; prepolarized condenser microphones; professional dynamic microphones; wireless microphones, special purpose microphones, stereo microphones; headset microphones; stereo headphones; microphone stands; digital delays; digital reverbs; phonocartridges; and accessories. See full listing under **Microphones** 

Alesis Studio Electronics, 7336 Hinds Ave., N. Hollywood, CA, 91605, 213-467-8000 President: Keith Barr

V.P. Gen./Sales Mgr.: Russell Palmer

V.P. Marketing: Allen Wald

Products: a line of professional quality 16-bit digital signal processors including Midiverb II and Microverb. Features include numerous digital reverb programs, chorus and flange, delay functions, and special effects such as stereo generation. Alesis also makes a stereo signal gate, stereo enhancer, and stereo compressor/limiter. District Offices:

Western Audio, Glendale, CA, 818-246-3806 Peter E. Schmitt Co., Leonia, NJ, 201-944-2806 Future Sales, Fairfax, CA, 415-459-6880 Applied Audio, Ashville, NC, 704-252-9313 Dobbs-Stanford, Dallas, TX, 214-358-0800



Altec Lansing Corp., Box 26105, Oklahoma City, OK, 73126-0105, 405-324-5311 President: F. Davis Merrey V.P. Mkt'g.: Gary Rilling Sales Manager: Gayle Campbell Products: industrial and professional electronic and loudspeaker products including mixers, mixing consoles, pow-

speaker products including mixers, mixing consoles, power amplifiers, equalizers, compressor/limiters, high power speakers and compression drivers, constant directivity horns, crossovers, and microphones. See full listing under **Loudspeakers** 

Aphex Systems Ltd, 13340 Satico St. N., N.Hollywood, CA, 91605, 818-765-2212 Sales Manager: Paula Lintz Product Manager: Jon Sanserino Chief Engineer: Donn Werrbach Technician: James Martindale President: Marvin Caesar Products: Aphex Compellor Model 300 stereo/model 301 mono - "Intelligent" leveling, compression and peak limiting simultaneously. All operating parameters are under control of compellor's analog computer circuits. Result is totally "invisible" audio dynamics control with no "pumping", "breathing" or other artifacts.

#### Applied Research and Technology, Inc.,-ART, 215

Tremont St, Rochester, NY, 14608, 716-436-2720, TLX:4949-793 ARTROC President: Philip Betette V.P. Sales & Marketing: Peter Beverage V.P. Engineering: Tony Gambacurta V.P. Manuf.: John Langlois V.P. Engineering: Richard Neatrour Products: digital signal processors including software-updateable; DR1 and Proverb digital reverberation systems; PD3 1-in 3-out fixed-installation delay; graphic equalizers; pitch transposers (timecompression/expansion); IEQ family

of intelligent equalizers. District Offices:

ART, Rochester, NY, 716-436-2720 ART, Mount Laurel, NJ, 609-778-3882



Ashly Audio, Inc., 100 Fernwood Ave., Rochester, NY, 14621, 716-544-5191 President: William Thompson V.P. Sales/Mkt'g.: Robert French V.P. Finance/Export Accts.: David Malloy Products:MOS-FET power amplifiers, graphic equalizers, noise gates, limiter/compressors, electronic crossovers, parametric equalizers, notch filters, and OEM products. See full listing under **Pro Audio Sound Systems &** 

Products

World Radio History

ATI - Audio Technologies, Inc., 328 Maple Ave., Horsham, PA, 19044, 215-443-0330 President: Sam Wenzel

Vice President: Edward M. Mullin

Products:precision audio equipment for the broadcast including 8 & 12 mixer consoles, mike, line, turntable, distribution and power amplifiers, and the Match-Maker and Disc Patcher IHF to PRO interface amplifiers. See full listing under **Audio Amplifiers** 



Audio/Digital, Inc., 1000 S. Bertelsen Rd, Suite 4, Eugene, OR, 97402, 503-687-8412, 800-423-1082

President: Gary Hardesty Sales Mgr.: Virginia Nott Chief Engr.: Gary Hardesty

Products: specialializes in Digital Signal Processing, provides DSP equipment for permanent installation, touring, recording studio, and radio broadcasting applications, including the ADD series of 2 and 3 output digital delays. District Offices:

Triad Marketing Assoc., Wayne, NJ, 201-696-8625 WesTech Marketing, Culver Clty, CA, 213-870-1030 Gerald Horne Assoc., Stow, MA, 617-897-1741 Lichtenauer & Assoc., Antioch, CA, 415-757-1200 C.L. Pugh & Assoc., Columbus, OH, 614-486-9678 Shalco, Inc., Ferndale, MI, 313-547-4771 Meyer Marketing, Deerfield Beach, FL, 305-481-9250 Monfort Electronics Marketing, Indianapolis, IN, 317-872-8877

New Horizons Electronics Marketing, Bannockburn, IL,



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Richard S. Pass Assoc., Inc., Lanhorne, PA, 215-757-6100

Rancilio Assoc., Inc., St. Louis, MO, 314-631-3326 Peregrine Southwest Reps, Houston, TX, 713-589-8481 RW Sales, Inc., St. Paul, MN, 612-646-2710 Wilson Audio Sales, Nashville, TN, 615-646-4477

Barcus Berry Electronics Inc., 5500 Bolsa Ave, Suite 245, Huntington Beach, CA, 92649, 714-897-6766, 800-233-8346

Chairman of the Board: John C. McLaren Vice President: Scott Anderson Nat'l. Sales Mgr.: Jim Lucas Operations Mgr.: Jennifer Drescher Products: audio signal processors.

District Offices:

John B. Anthony Co., Stamford, CT, 203-322-9202

McFadden Sales & Marketing, Columbus, OH, 614-761-3177

New Horizons Electronics, Bannockburn, IL, 312-234-5911

MetroRep Sales, Freehold, NJ, 201-462-1221 Ron Tunk Sales, Tamarac, FL, 305-722-2803

Biamp Systems, 14270 NW Science Park, Portland, OR, 97229, 503-641-7287 President: Ralph Lockhart

V P. Engineering: Bob Dot

V.P. Engineering: Bob Doty V.P. Finance: Jerry Payette

V.P. Manufacturing: Ralph Tennant

Sales Manager: Ron Camden

Products:American-made, high-quality, audio equipment for the sound contractor that includes; mixers, live and recording, rack-mount or console; powered mixers; microphone mixers; amplifiers; equalizers; and crossovers. See full listing under **Pro Audio Sound Systems & Products** 

Brooks Electronic System Technology, 4061 E. La Palma Ave., Suite B, Anaheim, CA, 92807, 714-630-2383

C-T Audio Marketing Inc., 3050 SW 14th Place, Suite 3, Boynton Beach, FL, 33435, 305-738-0622, 282-8346 President: Andre Walton

Dir. Sales/Mkt'g: Sam Spennacchio

Products:c-ducer contact microphone, particularly popular for studio quality sound from piano. Stanz - range of speaker and lighting stands. O + M - range of high quality PA speakers. Omni Craft - range of studio noisegates. See full listing under **Microphones** 

Cetec Ivie, 1366 West Center St, Orem, UT, 84057, 801-224-1800

President: Craig Berry

Mkt'g Manager: Glen Meyer

Production Manager: Larry Driskill

Products: a complete line of modular sound reinforcement electronics including mixers, equalizers, amplifiers, etc. We also have a line of octave & 1/3 octave hand-held real time analyzers and stand alone automatic microphone mixers.

Circuit Research Labs, Inc., 2522 W. Geneva Dr., Tempe, AZ, 85282. 800-535-7648

Marketing Director: Ray Updike Sales Manager: Bob Richards

Products: Dynafex® single ended noise reduction systems.

Connectronics Corporation, 652 Glenbrook Road, Stamford, CT, 06906, 203-324-2889, 800-322-2537 Exec. V.P.: Richard Chilvers Products:specialized high-flexibility colored audio wire and

cable-everything from microphone cable through 32-pair foil-shielded multipair from phono cable to individually shielded and jacketed and color-coded multipairs, from "starquad" to heavy-duty four conductor speakerflex. Portable audio mixing console from "SECK." See full listing under Wire/Cable Components

Creative Audio Design + Development, 18750 Panama, Brossard, Que., CD, J4W2S8, 514-672-8862 President: Pierre Pare V.P. Engineering: Shane Morris Engineering R&D: Denis Lambert Products:house console w/40 mic inputs, 8 stereo returns, 8 mono line inputs, 8 mono aux, 4 stereo aux, 8 matrix outputs, 2 stereo mixing busses, and 3 stereo outputs. Monitor console w/40 mic inputs, 4 aux outputs (remixable to groups), 4 sub inputs, 16 group outputs with 5-band

parametric EQ. Digital crossover w/full 16-bit, 3 band stereo 60 dB/oct linear phase.

See full listing under Mixers & Mixing Consoles

D & R USA, 1720 Chip N Dale Drive, Arlington, TX, 76012, 817-548-1677

Nat'l Sales Director: Paul Westbrook Products:US distribution for II mixers, from disco to fully automated studio console. Sound reinforcement and recording mixers with up to 80 inputs. More than 15 different rack-mount signal processors.

See full listing under Mixers & Mixing Consoles

DAX Audio Group, Inc., 1231 S.E. Gideon St., Portland, OR, 97202, 503-232-4445 President: Rich Stevenson Engineering Manager: Bob Herb Products:graphic equalizers, 31-bands, dual 15-band, and dual 31-bands; mixing consoles from 8x2 to 32x8; powered mixers in 6 and 8 channels; real-time analyzer; amplifier; crossover.

See full listing under Mixers & Mixing Consoles

dbx, Div. of BSR North America, Ltd., 71 Chapel St., Newton, MA, 02195, 617-964-3210 SIs Mgr., Pro/OEM Products: John Stiernberg Dir. of Prod. Development: Scott Berdell V.P. Engineering: Les Tyler V.P. Sales: Jim Tipton President: A.J. Menozzi Products: patented noise reduction equipment, compressor/limiters, de-essers, noise-gates, RTA-1 real-time analysis system, equalizers, signal routing and processing equipment; patented OEM components, and licensed technology; digital signal processors. District Offices: Scott Sylvester, San Diego, CA, 619-267-4143 Mitch Zusman, Mississauga, ON, 416-275-0363

August 1097

DOD Electronics Corp., 5639 South Riley La., Salt Lake City, UT, 84107, 801-268-8400, FAX 801-262-4966, TLX 4943178

President: John Johnson

V. P. Engineering: David DiFrancesco

V. P. Finance: Jay Fuller

International Sales: Wayne Morris

Mkt'g Communications: Dean Stubbs

Products: DOD Signal Processing products: graphic equalizers, compressors, cross-overs, mixer, digital delay. DigiTech products: digital delays, reverberation units. Audio Logic products: noise gate, compressor/limiter, cross-over, graphic equalizers, room delay, Psychoacoustic Processor.

Dorrough Electronics, 5221 Collier Pl., Woodland Hills, CA, 91364, 818-999-1132

President: Mike Dorrough

Products:Bourrough Loudness Meter simultaneously displays peak and average on one LED array. The ballastics were designed to show equal preceived power between peak and average regardless of the complexity of audio waveforms.

#### See full listing under Pro Audio Sound Systems & Products

Edcor, 1948 East Pomona, Santa Ana, CA, 92705, 714-863-1529, 800-854-0259 Sales Manager: Deanna Weston Chief Engineer: Luis Bonand Production Manager: Tina Lopez Treasurer: Phyllis Weston Products:complete line of electronic commercial sound

products including power & mixer amplifiers, E-Q amps,

microphone/line mixers, automatic & gated mixers, wireless microphones systems, translation systems, transformers and private label products.

#### See full listing under Pro Audio Sound Systems & Products

Editron USA, Inc., 748 N. Seward St., Hollywood, CA, 90038, 213-464-8723 Products: audio/video synchronizers.

Eltrex International, 2 Columbia Dr., Amherst, NH, 03031, 603-886-3500 Products: digital voice recorder, auto answer and playback. See full listing under Message Repeaters/Storecasters

Eventide, Inc., One Alsan Way, Little Ferry, NJ, 07643, 201-641-1200 President: Richard Factor Sales Manager: Gil Griffith

Products: Precision Audio Delay, Model PD860-two channel device with user selectable delay increments of 1 microsecond. Ideal for AM synchronons transmission, speaker array time alignment, lab & test functions. Harmonizer® pitch chance/effects units, SP2016 digital reverb, real-time spectrum analyzers with RT-60 and spectra surface analysis capabilities.

**District Offices:** 

Innovative Sales and Mkt'g, Santa Ana, CA, 714-549-7770 Innovative Sales and Mkt'g, San Francisco, CA, 415-952-0943

FM Acoustics Limited (USA), PO Box 854, Benicia, CA, 94510, 707-745-4444 Pres.(FM Acoustics LTD): Manuel Huber

# WE INTERRUPT THIS MAGAZINE...



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#### Dir.(FM Acoustics USA): Gene Michalski Products:line of premium swiss made amplification equipment for studio, theatre and quality sound enhancement applications. Electronic crossovers with 36db attenuation and linear phase. Precision balanced line drivers and line level-interfaces. High energy transfer speaker cable. See full listing under **Audio Amplifiers**

Furman Sound, Inc., 30 Rich St., Greenbrae, CA, 94904, 415-927-1225

President: Jim Furman

Sales Manager: Joseph Desmond

Chief Engineer: Jim Murphy

Materials Manager: Ed Specht

Products: 24 DB/Octave crossovers; graphic and parametric equalizers, limiter/compressor/expanders; quad noise gates; patch bays; power conditioner and light modules (PL-8 and PL-PLUS); rack mount mixers; power output monitors; digital reverb systems. District Offices;

S. F. Marketing, St. Laurent, Quebec, 514-733-5344 Metropolis Marketing, Edison, NJ, 201-225-0085 New Horizons, Bannockburn, IL, 312-234-6500 Secom Systems, Atlanta, GA, 404-455-0672 Professional Audio Assoc., Burlington, MA, 617-229-6050

Gold Line, P.O. Box 115, W. Redding, CT, 06896, 203-938-2588

President: Martin E. Miller

V.P. Marketing: Marj Miller

Products:10-band and 1/3-octave real-time analyzers, Loft Professional crossovers and quad-gate limiters, and Loftech audio test sets.

See full listing under Pro Audio Sound Systems & Products

Gotham Audio Corp., 1790 Broadway, New York, NY. 10019-1412, 212-765-3410 President: Russ R. Hamm Eastern Sales Mgr.: Jerry Graham Western Sales Mgr.: Juergen Wahl Sales Engineer: Peter Engel Products:Neumann condenser microphones, limiters/compressors, and equalizers and accessories; EMT digital delays; Gotham audio cable; K & H loudspeakers, and parametric equalizers; Audio Developments mixers; NTP limiters/compressors and meters. See full listing under **Microphones** 

Industrial Research Products, 321 Bond St., Elk Grove Village, IL, 60007, 312-439-3600 General Manager: Mahlon Burkhard Marketing Manager: Roger Carroll Products:transversal equalizers, automatic microphone mixers, digital delay lines, power amplifiers, level-matic limiter.

## See full listing under Pro Audio Sound Systems & Products

Innovative Electronic Designs, Inc., 9701 Taylorsville Rd, Louisville, KY, 40299, 502-267-7436 President: Hardison G. Martin V.P. Engineering: Robert Ponto Treasurer: Ray Allen Dir. Mkt'g. & Sales: Tom Roseberry Products:models 500 & 500AC microcomputer controlled audio systems, controlling mixing, routing, and level ad-

justment. 4000 automatic mixer, 5000 audio processing system. 70-volt and low impedance 80hm version 6270 power amplifier.

## See full listing under Pro Audio Sound Systems & Products

Inovonics, Inc., 1305 Fair Ave., Santa Cruz, CA, 95060, 408-458-0552 President: James B. Wood Operations Mgr.: Ann Pelz Products: a line of audio recording, signal processing and instrumentation equipment for studio, film and broadcast.

International Music Co. (I. M. C.), PO Box 2344, Ft. Worth, TX, 76113, 817-336-5114 Chairman of the Bd./CEO: Tommy Moore President: Jerry Freed V.P. Sales: C.H. Murray Dir. of Akai EMI: Mike McRoberts Akai Product Specialist: Kevin Kennedy Products:Akai: multitrack recorders, digital patch bays, digital samplers, electronic wind instruments, and synthesizers. Ross: multitrack recorders, PA systems, guitar amps, microphones, and effects. See full listing under **Pro Audio Sound Systems &** 

#### Products

IQS, Inc., 12812-J Garden Grove Blvd., Garden Grove, CA, 92643, 714-539-7842 President: William Elder V. P.: Douglas Evered Products:Audio Signal Analyzers, PC-based Models 401 and 416-2a single and dual channel; Reference Microphones - Model 302, 20-20kHz; Model 312, 5-40kHz; Arbitrary Waveform Signal Generator - Model SSM-1; Audi Analysis FFT Software - Spectrum Analyst Pak 1®; Signal Analyst Pak®.

See full listing under Test Equipment & Tools

JBL Professional, 8500 Balboa Blvd, Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Market Manager/Sound Contracting: Steve Romeo Products:high quality loudspeakers and loudspeaker systems of all kinds; automatic microphone mixer; electronic crossover; special loudspeakers for musical instruments; video projector. See full listing under Loudspeakers

#### Klark-Teknik Electronics, Inc., 30B Banfi Plaza N,

Farmingdale, NY, 11735, 516-249-3660 President: Jack Kelly Sales Manager: Keith Worsley

Salesman: Harry Klane

Service Manager: Jim Jacobelli

Products: 1/3 and 2/3 octave graphic equalizers, parametric equalizers, digital delay lines, digital reverberation systems, sound masking processors, reference monitors, 1/3 octave RTA w/RT-60 measurement capabilities, BSS crossovers, compressor/limiter, MIDI noise gate, mic splitter, ancillary equipment.

**District Offices:** 

Klark-Teknik West, Oakland, CA, 415-482-1800 Derek Allen Assoc., Toluca Lake, CA, 818-840-8327

# LEGENDARY POWERS.

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Professional Audio Mkt'g, Melville, NY, 516-367-8620 Audio Resources, Westmont, IL, 312-655-1180 M. Chaffe Enterprises, Sarasota, FL, 813-921-4294

Korg U.S.A., Inc., 89 Frost St., Westbury, NY, 11590, 516-333-9100 President: Don England Exec. V.P.: Michael Kovins V.P. Sales: Art Miller Products:synthesizers, signal processing equipment, drum computers, electronic tuners, and Marshall amplification.

See full listing under Pro Audio Sound Systems & Products

Leitch Video Limited, 10 Dyas Road, Don Mills,Ontario, Canada, M3B1V5, 416-445-9640 Products: Audio distribution amplifiers. District Offices: Leitch Video of America, Inc., Chesapeake, VA 23320 Leitch Video of America, Inc., Grass Valley, CA, 95945

Lexicon, Inc., 100 Beaver ST., Waltham, MA, 02154, 617-891-6790 President: Ronald Noonan Dir. of Sales: Joel Silverman Advanced Prod. Sales Mgr.: Brian Zolner B'cast. Sales Mgr.: Lawrence Rich Products: digital audio delay and reverberation systems., broadcast quality audio time compressor/expanders, digital audio/video delaycompensators, random access digital

Lyntec/Technical Visuals, 7030 Grandview, Merriam, KS, 66204, 913-722-4047

President: Lynn J. Potter

production system.

Products:programmable audio controller for time/level control of masking noise & music/paging. Masking noise source with SLO-START. Programmable Multi-channel attenuator for remote selection of A, B, or C field presettable levels & mute.

See full listing under Sound Masking Products & Systems

Marcom/The Scotts Valley Group, Inc., P. O. Box 66507, Scotts Valley, CA, 95066, 408-438-4273 Products: modulator/monitor-stereo generator.

Micro Audio, Inc., 4438 S.W. Hewett, Portland, OR, 97221, 503-292-8896, 800-445-1248 President: Eugene B. Rimkeit Dir. of Engineering: Richard Schomburg V.P. Manufacturing: David Elsbernd Sales Mgr.: M.C. Garrison Products: computer-controlled 1/3 octave equalizers, programmers include the μA2800 EQ POD Programmer/Automatic EQ/RTA, a hand-held programmer.

and the software/hardware to turn the IBM PC® into a programmer. District Offices: Professional Sound & Light, Lakewood, CO, 303-Western Audio Sales, Glendale, CA Signal Marketing Powerlines Marketing McFadden Sales

Orban Associates, Inc., 645 Bryant St., San Francisco, CA. 94107, 415-957-1067 Marketing Manager: Sid Goldstein Products: full line of signal processing including equalizers and multi-function level control devices for protecting sound systems.

Oxmoor Corporation, 237 Oxmoor Circle, Birmingham, AL, 35209, 205-942-6779 President: Lynn A. McCroskey Production Manager: Steve Holt National Sales Mgr.: Richard Mitchell Products: DEQ-29 Programmable 1/3 Octave Equalizer with 100 non-volatile memory locations; DCA-2 Digital Control Attenuator and RC-16 remote control unit; 4x4 Buffer Amplifier with independent mixing busses, any of the four inputs can be assigned to any of the four outputs. District Offices: Allwest Electronics, Camaville, CA, 805-388-1789 Dimension IX Marketing, Dallas, TX, 214-348-9657 Loppnow & Assoc., Redmond, WA, 206-883-3205 Yore Company, White Bear Lake, MN, 612-770-9760

Paso 5 and Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products:comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products.

See full listing under Audio Amplifiers

Repworks, Chicopee, MA, 413-533-0845

Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365 Prod Mgr/Sound Reinf.: Hollis Calvert Prod Mgr/Digital Product: Ken Valentine Products:audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker systems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater systems.

See full listing under Pro Audio Sound Systems & Products

Protech Audio Corp., Flowerfield, Bldg. #1, St. James, NY, 11780, 516-584-5855 Sales Mgr.: Bill Murphy Sales Engineering: Joe Giambone Products:automatic level controls, voltage controlled amplifiers, distribution amplifiers, mixers, tone supervisor systems, microphone and line preamplifiers, compressor/limiters, switching cards, ramp controlled preamplifiers, engineered and modular sound systems. See full listing under **Pro Audio Sound Systems &** 

#### Products

Rane Corp., 6510 216th S.W., Mountlake Terrace, WA, 98043, 206-774-7309 V.P. Marketing: Larry Winter Dir. Tech. Dev.: Terry Pennington Products: graphic and parametric equalizers, real-time analyzers, headphone amps, active crossovers, program mixers, splitters, compressor/limiters.

RTS Systems, 1100 West Chestnut St, Burbank, CA, 91506, 818-840-7119 President: Bob Ringer V. P. Mkt'g: Douglas Leighton Sales Manager: Shelley Harrison Sales Engineer: Dave Richardson Chief Engineer: Stan Hubler Products:Professional Intercommunications Systems conference-line and dedicated-line, IFB systems. Professional Audio Products - amplifiers, preamps, 10-wat monitor amp and buffer amp. See full listing under Intercom Duplex

Scantek Inc./Norwegian Electronics, a/s, 1559 Rockville Pike, Rockville, MD, 20852, 301-468-3502 President: Richard J. Peppin, P.E. Service Manager: Gary Fraiman Business Manager: Susan Yardin Products: precision electronic instrumentation for sound analysis and measurement, includes real-time analyzers, automatic spectrum shapers, building acoustic instruments. District Offices: Klaveness & Assoc., Fair Oaks, CA, 916-966-1227 ESC, St. Louis, MO, 314-725-0933

SCV Inc., 1101-A Air Way, Glendale, CA, 91201, 818-50(0137

Sonic Research Assoc., PO Box 13744, Arlington, TX, 76094-0744, 817-792-2061



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President/Marketing: Kyle A. Holbrook V.P. Technology: Michael J. Yacavone Operations Manager: Olvy L. Johnson Products: Tri-Ambient Synthesis Stereo Enhancement System<sup>™</sup>, the operating priciple is to combine a specific loudspeaker geometry with electronic circuitry in order to present the brain with information necessary to perceive the finer detail in stereo recordings.

Sontec Electronics Inc., Audio Dr., Goldbond, VA, 24094, 703-626-7256 Sales Manager: Burgess Macneal Products: amplifiers and signal processors for use where

extremely low distortion and noise are the most important performance criteria.

Sound Control Technologies, Inc., 114A Washington Street, Norwalk, CT, 06854, 203-854-5701 President: Adolph Neaderland Sales/Mkt'g: David Neaderland Products:full duplex patented VOICELIFT<sup>™</sup> voice reinforcement and TELEPLEX<sup>™</sup> teleconferencing systems for boardrooms, conference and training rooms and teleconferencing areas. Proprietary implant microphones for both plenum and non-plenum installations. See full listing under **Teleconferencing Systems** 

Spectra Sonics, 3750 Airport Rd., Ogden, UT, 84405, 801-392-7531 President/Owner: William G. Dilley Engineer/Sales: Gregory D. Dilley Products:amplifiers, mixers, equalizers, compressor/limiters, power supplies, speaker systems, and consoles. We specialize in sound reinforcement equipment. See full listing under **Pro Audio Sound Systems & Products** 

Studio Master Systems, 229 Sunny Isles Blvd.-PO Drawer P, N. Miami Beach, FL, 33160

Studio Technologies, Inc., 5520 West Touhy Ave., Skokie, IL, 60077, 312-676-9177 President: Gordon Kapes Director of Marketing: Carolyn Cashel Products: The Mic-PreEminence is a high performance, two channel microphone preamplifier designed to produce a transparent, extremely clean sound. The ISS Integrated Simulator System is a completely modular audio simulator designed for flexible, reliable and great sounding MTS broadcasting.

Sunn, 1130 Columbia Street, Brea, CA, 92621, 714-990-0909

President: Bill Schultz Director of Mkt'g: Joe Green National Sales Mgr.: Don Johnston Products:sound reinforcement products include: powered and non-powered mixers, mixing consoles, power amplifiers and speaker enclosures. Professional stage lighting products.

See full listing under Pro Audio Sound Systems & Products

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Symetrix, Inc., 4211 24th Ave. West, Seattle, WA, 98199, 206-282-2555, 800-288-8855

President: Dane Butcher

Marketing Director: Doug Schauer

Mkt'g/Sales Admin: Lavina Speer

Products:signal processing equipment includes compressors, limiters, MIC input processor, expanders, gates, nearfield monitoring power amp, and the 571 SPL computer microprocessor driven ambient sensing automatic level controller.

See full listing under Pro Audio Sound Systems & Products

Tascam/TEAC Professional Division, 7733 Telegraph Road, Montebello, CA, 90640, 213-726-0303 Marketing Manager: Bill Mohrhoff Sales Manager: Gregg Hildebrand W. Reg. Manager: Fred Allard S. Reg. Manager: Bill Stevens E. Reg. Manager: Chuck Prada Products:professional recorder/reproducers from 1/4" 2track to the ATP 90, a pow 2" 24 track designed for video

track to the ATR-80, a new 2" 24-track designed for video production. Recording and performance consoles from 6input to the M-600, a 32-input/16-buss large frame console. Also, receivers, cassette decks, and CD players. See full listing under **Magnetic Tape Systems & Supplies** 

TDM Design, Route 1, Box 573, Hillsboro, OR, 97124, 503-647-5957 Products: crossovers. Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman Director of Marketing: Donald Mereen Products:dual antenna (diversity) wireless microphome systems, single antenna wireless microphone systems, wired microphones. See full listing under **Pro Audio Sound Systems & Products** 

UREI, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Mkt'g. Mgr. Sound Contracting: Steve Romeo Products: power amplifiers, limiters, compressors, equalizers, filters, Time Aligned<sup>™</sup> speakers, direct boxes, electronic crossover, digital metronome, transcription preamplifier, disco mixers, broadcast consoles. District Offices: Neil Conly, Bedford, TX, 817-540-3066 Bill Hamilton, Eoloom, BA, 215, 542, 4677

Bill Hamilton, Folsom, PA, 215-543-4677 Steve Armstrong, Northridge, CA, 818-707-2529 Steve Armstrong, Northridge, CA, 818-707-2529

Valley International, Inc., P.O. Box 40306, 2817 Erica PI., Nashville, TN, 37204, 615-383-4737 President: Norman Baker



## What's new? Sound & Communications

Products section showcases several products every month by both large and small manufacturers.

## Sound & Communications

also includes commentary by Gary Davis (noted technical writer and consultant) in our Products in Review section. This commentary helps sort out what is a new product and what is an update on a previous product.

Send all your product news with pictures to: Debra A. Pagan Sound & Communications 25 Willowdale Avenue Port Washington, NY 11050

### Sales Manager: Tom Irby

Chief Engineer: Michael Morgan

Products: limiters, compressors, expanders, noise gates, de-essers, equalizers, microphone processors, line amplifiers/attenuators, voltage controlled amplifiers, gain cells, transistor arrays.

White Instruments, P.O. Box 698, Austin, TX, 78767, 512-892-0752, TLX: 776-409 INST AUS President: Carl Van Ryswyk V.P.: Shirley Van Ryswyk

Mkt'g. Mgr.: Emory Straus

Products: graphic equalizers, real-time analyzers, crossover networks & filters for audio applications, masking generators.

**District Offices:** 

Audio Marketing Assoc., Brecksville, OH, 216-526-2426 Avwest, Inc., Fountain Hills, AZ, 602-946-1811 Bensik Assoc., Inc., Ocala, FL, 904-732-9775 Design Factors, La Habra Heights, CA, 213-697-7576 Gemini Electronic Marketing, Edmonds, WA, 206-776-3121

L.S.M., Phelps, NY, 315-548-4891

Metrorep Sales, Inc., Freehold, NJ, 201-462-1221

Monfort Electronics Marketing, Indianapolis, IN, 317-872-8877

New Resources, Inc., Norwell, MA, 617-659-1463

Rancilio Assoc., St. Louis, MO, 314-631-3326

Rep Tech, Inc., Terrell, TX, 214-222-2131

Richard S. Pass Assoc., Inc., Langhorne, PA, 215-757-6100

Shalco, Inc., Ferndale, MI, 313-547-4771

Warren Associated Sales Reps, Santa Clara, CA, 408-988-7762

Wilson Audio Sales, Nashville, TN, 615-646-4477 Ziskind Assoc., Inc., Rolling Meadows, IL, 312-577-1624

Yamaha International Corp., Audio Products Division, 6600 Orangethorpe Ave., Buena Park, CA, 90620, 714-522-9011

Gen. Mgr.: John Gatts

Nat'l. Sales Mgr.: Bob Shomaker

Adv. Mgr.: Robert T. Davis

Products:full line of audio mixing consoles, power amplifiers, speaker systems, digital signal processing equipment, and microphones.

See full listing under Pro Audio Sound Systems & **Products** 

## **AUDIO-VISUAL** EQUIPMENT/SYSTEMS

Adaptive Micro Systems, Inc., 7840 N. 86th St., Milwaukee, WI, 53224, 414-357-2020, 800-558-7022 Products: electronic display units.

AMX, 12506 Forestgate Dr., Dallas, TX, 75243, 214-644-3048

President: Scott Miller

V.P. Sales/Mktg.: Bruce Christianson Products: remote control systems for media & environmental equipment. SX Series features: programmable controls, wireless (RF), software (3-6 wires) or custom control panels. SX16+ & DCU for infrared & serial data control unit. See full listing under Remote Controls

Anchor Audio Inc., 913 West 223rd St, Torrance, CA, 90502, 213-533-5984 President: Jim Van Waay National Sales Manager: Jon Peirson Products: portable sound systems and accessories, lecturns, as well as powered speaker systems for foreground and background applications. See full listing under Portable Sound Systems



Argos Products Co., 600 S. Sycamore St., Genoa, IL, 60135, 815-784-5118 President. Donald C. MacLaughlin Sales, V.P.: Ronald Evers Credit Manager: Rosella Johnson Chief Engineer: Loren Schrader Products: indoor /outdoor Sound Columns, packaged sound systems, Portable PA systems, Sound powered lecturns, background & foreground speakers, baffle/speaker combinations, baffles & enclosures. See full listing under Loudspeakers

Avtec Industries, Inc, 5 Audrey PI., Fairfield, NJ, 07006, 201-882-9460

Products: Vantage Point™ multi-media lecturn and Conferscan™ boardroom conference table designed to record meetings (audio and video).

Barcus Berry Electronics Inc., 5500 Bolsa Ave, Suite 245, Huntington Beach, CA, 92649, 714-897-6766, 800-233-8346 Chairman. of the Board: John C. McLaren Vice President: Scott Anderson Nat'l. Sales Mgr.: Jim Lucas Operations Mgr.: Jennifer Drescher Products: audio signal processors. See full listing under Audio Signal Processors

## **Boston** Acoustics

Boston Acoustics, 247 Lynnfield St., Peabody, MA, 01960, 617-532-2111 Chairman of the Board: Frank Reed President: Andy Petite Director of Mkt'g: Richard Frank Sales Manager: Fred Pinkerton Products: Boston Acoustics Designer Series Products: high fidelity loudspeakers can be used as main or extension speakers in the home and commercial spaces. They mount flush in new or existing walls or ceilings and can be painted.

See full listing under Loudspeakers

Centro Corp., 369 Billy Mitchell Rd., Salt Lake City, UT, 84116, 801-537-7779 President: Don Skaggs Exec. V.P./General Manager: John Harris V.P. Mkt'g & Product Dev.: Curtis Chan V.P. Sales: Bob Strout

V.P. Special Projects: Rex Reed

Products: specialties in design, fabrication and implementation of facilities in the broadcast, production, business, and institutional marketplaces. Also, mobile units, and custom racks and consoles.

Jim Schlott, Ramsey, NJ, 201-934-7574

Communications Co., Inc, 3490 Noell St., San Diego, CA, 92110, 619-297-3261

Products: programmable two-way intercom amplifier w/vox., media distribution amplifier, projector patch, room combining systems, record pattch, RT-60 reverberation measuring device, burst octave noise generator, 1/3 octave real time analyzer, 27 B.I.T. oscillosope adapter, audio inductive loop receivers.

See full listing under Intercom Institutional/School

Crestron Electronics, Inc., 101 Broadway, Cresskill, NJ, 07626, 201-894-0660

Sales Manager: George Herbert

Dir. of Dealer Sales: Patricia Large

Products: off-the-shelf and custom designed wired and wireless a/v control systems with a variety of interface modules; dissolve controls; audio-video-control switchers; architectural dimming systems; random access projectors. R. C. S., LTD., Yorktown Heights, NY, 914-245-2866 R. C. S., LTD., Zionsville, IN, 317-873-4740 Marketline Inc., Snellville, GA, 404-972-9048 Lex Lawson & Assoc., Garland, TX, 214-272-8482 Loomis & Assoc. Inc., Alameda, CA, 415-865-2200

D.O. Industries, 317 East Chestnut St., E. Rochester, NY, 14445, 716-385-4920 Products: slide projectors, laser pointers, video pointers.

Da-Lite Screen Co., Inc., P.O. Box 137, Warsaw, IN, 46580, 219-267-8101

FSR, Inc., 220 Little Falls Rd, Cedar Grove, NJ, 07009, 201-239-0988

President: William G. Fitzsimmons

Vice President: Janice Sandri

Engineering Mgr.: Joseph Fischer

Production Mgr.: John Macaluso Service Dept.: Robert Allen

Products: boardroom control systems (digital, IR and hardwired); hotel audio combining systems; remote control modules for audio and video applications; custom engineering and metal products.

See full listing under Remote Controls

GBE Group, P.O. Box 118, Fair Oaks, CA, 95628, 916-967-5946 President: Robert Bird Vice President: George Anderson Products: medical/dental, audio/visual communications; audio distribution & selection equipment; medical/dental call light systems.

Hudson Photographic Industries, Irvington-On-Hudson, NY, 10533, 914-591-8700 Products: screen rear projections, mirrors, video transfers, screen, tape menders and splicers.

JBL Professional, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels See full listing under Loudspeakers



Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: Enterview<sup>™</sup> combination audio/visual intercom and door control systems for private homes, commercial applications and multi-unit housing. Sony Watchcam<sup>™</sup> systems. See full listing under Intercom Apartment/Residential

Omni Q Inc., 925 Boblett St., Blaine, WA, 98230, 206-384-1750

Products: sound imaging, multi-media control systems and computer response systems.

See full listing under Power Protection/Conditioners

Opamp Labs Inc., 1033 N. Sycamore Ave., Los Angeles, CA, 90038, 213-934-3566 Chief Engineer: B. Losmandy Products: audio/video equipment, audio/video distribution amplifiers & routing switchers.

P/H Electronics, Inc., 117 E. Helena St., Dayton, OH, 45404, 513-461-5898 General Mgr: Noel Anderson Sales Coordinator: Donna Martin Products: simultaneous interpretation systems, cordless, for international meetings or conferences, unlimited number of listeners, portable.

Panasonic Industrial Company/Ramsa, 6550 Katella Ave, Cypress, CA, 90630, 714-895-7272 National Marketing Mgr.: Steve Wooley Products: Ramsa, the professional audio division of Panasonic Industrial Company's Audio/Video Systems

Group, markets a comprehensive line of mixing and pro-See full listing under Magnetic Tape Systems & duction consoles, power amplifiers, microphones and **Supplies** speaker systems. See full listing under Pro Audio Sound Systems & Telex Communications, Inc., Audio/Visual Dept., 9600 Products Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5531 President: John Howe Sales Manager: Jerry Hines Sales Manager: John Serio Paso Sound Products, 14 First St., Pelham, NY, 10803, Director of Marketing: Dan Paulnock 914-738-4800 Products: 16mm film projectors, 35mm slide projectors, Executive V.P.: Paul Mastrangelo 35mm filmstrip projectors, cassette tape copiers, reel-to-Sales Manager: David Moore reel tape copiers, headsets, language labs; Product Manager: Ken O'Brien MAGNABYTE™ computer-to-overhead-projector adaptor. Credit Manager: Marilyn Beckerson **Operations Manager: Anthony Squeglia** Products: comprehensive line of commercial sound equipment including 4000 series engineered sound sys-TOA Electronics, Inc., 480 Carlton Court, South San tems. Hexcolumn loudspeakers, Handler's microphones, Francisco, CA, 94080, 415-588-2538 CMDS components, Elvox intercoms, packaged sound President: Yoshiro Ishida systems, Nikko Audio products. V. P./Treasurer: Tom Kohsaka See full listing under Audio Amplifiers V. P.: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeak-Portland Instrument, 1101A Air Way, Glendale, CA, 91201, ers, microphones, mixers and mixing consoles, wireless 818-500-0137, TX-989-473Portland systems, microcomputerized intercom systems, CCTV and President: Ronald Fuller security systems. Prod. Mar/Outdoor Sys.: Hendri Smit See full listing under Pro Audio Sound Systems & P. R. Cable Assembly: Jack Sympson **Products** Prod. Mgr./Indoor Sys.: Jack Sympson Production Manager: Scott Teffin Products: Paramount pictures "omnispeaker" an outdoor waterproof landscape speaker for background music and Touch Technologies, Inc., 363 Adelaide St. E., Toronto, paging, 80 Hz to 18 KHz, 50 watts RMs. Also viro square & Ontario, M5A IN3, 416-865-1877 viro dome waterproof wall and pole mount, 70V and 8 Ohm President: W. R. Snelgrove versions of outdoor speakers. Director of Engineering: P. Giddings See full listing under Loudspeakers Director of Mkt'g/Com.: A. Hardman Products: audio and control systems for distribution and recording of legislature proceedings, routing and level of sound effects for live theatre, and audio/visual controllers Research Technology International, 4700 W. Chase Ave., for dark rides, exhibits and displays. Lincolnwood, IL, 60646, 312-677-3000 President: Ray L. Short, Jr. V.P. Sales: Thomas Tisch Utah Scientific, Inc., 1685 W. 2200 S., Salt Lake City, UT, V.P. Sales: Thomas Boyle 84119, 801-973-6840, 800-453-8782 Chief Financial Officer: Rick Peterson President: Jerald C. Murphy Advertising Manager: Sherwin Berger V.P. Operations: Earl G. Gray Products: Video/Film Care Products including inspection V.P. Engineering: Ben VanBenthem and cleaning machines, accessories, storage racks, and V.P. Special Products: Dale Buzan film reels and cans. Nat'l. Sales Mgr.: C. Gary LaMunyan Products: a full lineof audio and video routing switchers, master control and automation systems, and audio and video distribution amplifiers. Tascam/TEAC Professional Division, 7733 Telegraph Dan Antonellis, Metuchen, NJ, 201-494-1019 Road, Montebello, CA, 90640, 213-726-0303 Lyle Bailey, Canoga Park, CA, 818-704-5601 Marketing Manager: Bill Mohrhoff Tom Harmon, North Royalton, OH, 216-237-9642 Sales Manager: Gregg Hildebrand Eric S. King, Lynchburg, VA, 804-384-7001 W. Reg. Manager: Fred Allard S. Reg. Manager: Bill Stevens E. Reg. Manager: Chuck Prada Products: professional recorder/reproducers from 1/4" 2-Vansan, 16735 E. Johnson Dr., City of Industry, CA, track to the ATR-80, a new 2" 24-track designed for video 91745, 818-961-7211 Products: handcrafted lecterns equipped with a light, digiproduction. Recording and performance consoles from 6input to the M-600, a 32-input/16-buss large frame contal clock and self-contained PA system, plus Lectrajust®

electric height control.

sole. Also, receivers, cassette decks, and CD players.

# What To Look For When You Listen To A Power Amplifier.

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Red spikes in the TIM Spectrum reveal the dramatic differences in distortion output.

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Instead of sloppily forcefeeding massive amounts of



output signal back into input stages, and congesting it all into one circuit loop, we've established operating points at *each* gain stage. This allows signal purity to be maintained along the entire circuit. And permits optimized use of the type and amount of feedback for each individual gain stage.

In a simple analogy, the new JBL/UREI Amplifiers do each signal track right the first time, so that you don't have to fix it in the mix. The result is sound far cleaner than typical quasicomplementary and fullycomplementary output stages only. And far more pleasing

to the ear. Put JBL/UREI's

remarkable new Amplifiers to the test at your local JBL/UREI dealer today. We're confident you'll think it's the finest amplified sound you've ever heard. Or seen.

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## **BACK/FOREGROUND** SYSTEMS & LIBRARIES

Anchor Audio Inc., 913 West 223rd St. Torrance, CA. 90502, 213-533-5984 President: Jim Van Waay National Sales Manager: Jon Peirson

Products: portable sound systems and accessories, lecturns, as well as powered speaker systems for foreground and background applications.

See full listing under Portable Sound Systems



Argos Products Co., 600 S. Sycamore St., Genoa, IL, 60135, 815-784-5118 President: Donald C. MacLaughlin Sales, V.P.: Ronald Evers Credit Manager: Rosella Johnson Chief Engineer: Loren Schrader Products: indoor /outdoor Sound Columns, packaged sound systems, Portable PA systems, Sound powered lecturns, background & foreground speakers, baffle/speaker combinations, baffles & enclosures. See full listing under Loudspeakers

Audio Environments, Inc (AEI), 900 E. Pine St., Seattle, WA, 98122, 206-329-1400 Vice President: Jack D. Craig Reg. Mgr. Dealer Sales: Denny Thompson Reg. Mgr. Dealer Sales: Jeff Yircott Products: AEI ProPac 4 commercial cassette system features a rugged cassette player with a drive transport mechanism designed to last ten times longer than conventional cassette decks. AEI commercial cassettes provide four hours of uninterrupted original artist programming on pure chrome tape that has superior fidelity and is virtually maintenance-free. The ProPac 4 is the most dramatic breakthrough in playback technology in the last 15 years. District Offices:

AEI, Chicago, IL, 312-337-7737

AEI, Cincinnati, OH, 513-772-2021

AEI, Los Angeles, CA, 213-651-1260

- AEI, Orange, CA, 714-998-6880
- AEI, New York, NY, 212-431-6655

Benjamin International, Inc., 1460 Old Country Road, Plainview, NY, 11803, 516-753-0700 President: Joseph N. Benjamin Vice President: Charles Tanner Products: background music equipment including cassette and CD changers, bulk tape erasers and professional Chief Engineer: Tom Durston tape splicers.

BGM international, P.O. Box 8057, Pensacola, FL, 32505, paging voice systems, linemen's test sets, craft tools, ex-904-434-1953

Products: background music programs for SCA, central studio telephone, CATV, on premise; general, up-tempo, beautiful music; associated studio equipment also available.

## **Boston** Acoustics

Boston Acoustics, 247 Lynnfield St., Peabody, MA, 01960, 617-532-2111 Chairman of the Board: Frank Reed President: Andy Petite Director of Mkt'g: Richard Frank Sales Manager: Fred Pinkerton Products: Boston Acoustics Designer Series high fidelity loudspeakers can be used as main or extension speakers in the home and commercial spaces. They mount flush in new or existing walls or ceilings and can be painted. See full listing under Loudspeakers

Bozak, Inc., 326 South St, New Britain, CT, 06051-3721, 203-225-0555 President: Donald D. Bowers Dir. of Marketing: William J. Kieltyka Chief Engineer: Sheldon Glick Products: foreground speaker systems and professional speakers. See full listing under Disco Components & Systems

Casco/MTN Sound, P.O. Box 115, 50 Terminal St., Charlestown, MA, 02129, 617-242-2983 President: Samuel J. Blengs Products: on-premise 4-track/4-channel player with auto switching, continuous-loop tape cartridge with built-in head, 18-20 hours continuous music. All categories, specializing in international and ethnic music.

Clarity, 1111 Industry Ave., Roanoke, VA, 24013, 800-962-6009 Products: a full line of paging products. See full listing under Paging Systems

EMS/Music, 2264 15th Ave. W., Seattle, WA, 98119, 206-281-8686 V.P. Nat'l. Music Svc. Sales: Bernard Kron Nat'l. Dealer Sales Desk: Mark Rubin Steve Ducharme Anne Walker Products: digitally mastered foreground/background music, complete music service, tape cartridge players, message insertion systems, Current-Drive Amplifiers for transformerless distributed speaker systems. Automated mixer system that permits segues with various music services.

#### Harris Corporation, Dracon Division, 809 Calle Plano,

Camarillo, CA, 93010, 805-987-9511 V.P. Gen'l. Mgr.: John R. Mason Dir., Domestic Sales: Tom Erdmann V.P. Sales & Mkt'g .: Jack McGuigan Products: PAGEPAC telephone integrated loudspeaker tensive line of relay racks. See full listing under Paging Systems

International Satellite Systems, 104 Constitution Dr. #4, Menlo Park, CA, 94025, 415-853-0833

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers

Johnson Electronics, Inc., 4301 Metric Drive, PO Box 4728, Winter Park, FL, 32793, 305-677-4030 Chairman of the Board: Ralph Weber President: AI Schell V. P./Engineering: Ken St. John Dir. Mkt'g/Sales: Mel Kelch Products: SCA tuners/receivers for music, voice, data and emergency broadcast systems. Also audio amplifiers, mixers, Rx antenna systems and computerized display equip-

ment. See full listing under Audio Amplifiers

Magne-Tronics, Inc., 93 Broad St., Matawan, NJ, 07747, 201-566-9600 President: John Bolendz

Vice President: Gloria Bolendz

Products: subscription service featuring many formats of taped music programs for background music services via FM, SCA, phone lines, on premise and cable.

MG Electronics, 32 Ranick Rd., Hauppauge, NY, 11788, 516-582-3400, FAX: 516-582-3229 President: Louis Maltz Vice President: Elliott Maltz Sales Manager: Stan Grey Products: commercial sound and security speakers, paging horns, electronic sirens, general replacement speakers, OEM speakers (custom design available), foreground music speaker systems, and toggle switches. See full licting under Loudspeakers

See full listing under Loudspeakers

Music Programming, Inc., 265 Concord St., Framingham, MA, 01701, 617-875-3530 President: Raymond J. Regis Vice President: Dutch L. Blue Products: three music programs for central studio, cable and satellite systems: STARLINE (background); LITE 'N EASY (mid-ground); E/Z ROCK (foreground).

Muzak, 915 Yale Ave. N., 3rd Flr., Seattle, WA, 98109, 206-682-3737, 800-331-3340 President: Mark Torrence Senior V.P. Sales/Marketing: Tom Evans V.P. Finance: Phil Jordan Dir. of Programming: Bruce Funkhauser V.P. Operations: Ken Cross Products: foreground and background music service delivered via sattellite or taped service using several different tape formats.

**Oaktron Industries, Inc.**, 1000 30th St., Monroe, WI, 53566, 800-257-4538 President/CEO: Jerry Disch Executive V. P.: Bob Taller V. P. Sales: Jim Hendrickson Products: commercial loudspeakers and accessories, sound masking speakers. Background and paging systems and a total line of accessories. See full listing under **Loudspeakers** 

Quam-Nichols Co., 234 E. Marquette Rd., Chicago, IL, 60637, 312-488-5800 President: W.G. Little Distributor Sales Mgr.: G.L. Johns Chief Engineer: Oswald Rohrbacher Products: loudspeakers, ceiling baffles, line matching transformers and back box enclosures for background mu sic, public address system and other commercial sound applications, and attenuators. District Offices: Chuck Olson Assoc., Renton, WA Given-Flanagan Assoc., W. Boylston, MA R.E. Breuer Co., Pt. Washington, NY Cartwright & Bean of Georgia, Atlanta, GA The Lewis & Dunnigan Co., Inc., Syracuse, NY Mandabach-Lehner Co., Columbus, OH McBride Loudspeaker Source, Inc., Waterloo, Ont., CD Foster Technical Sales Co., Edina, MN Robert Milsk Co., Southfield, MI Brian Trankle & Assoc., Belmont, CA Bidwell Sales Assoc., Gardena, CA J.Y. Schoonmaker Co., Inc., Dallas, TX Ken Levy & Assoc., Chicago, IL Lowery Assoc., Broomall, PA R.W. Kunz & Assoc., Prairie Village, KS

Revere Industries, 1101 Bienville St., New Orleans, LA, 70112, 504-523-3503, 800-843-8321, FAX: 504-525-6361 V.P. Sales: Lori Kanelos

Director of Marketing: Richard Harris

Products: sound and fire alarm system and components.

Rowe International, Inc., 75 Troy Hills Road, Whippany, NJ 07981, 201-887-0400 Sales Manager: Beverly LaForte Products: Custom music Programasters in 3 modes with accessories. Customusic® programs: two 60-hour libraries with refresher program every 120 days. Atmosphere—commercial and one 24-hour library with refresher program every 30 days, foreground.

SCA Data Systems, 3000 Ocean Park #3002, Santa Monica, CA, 90405, 213-452-2506 Dir. of Sales/Mkt'g.: Robert W. Peters Products: multi-channel S.C.A. generator and receiver; all equipment capable of 50 to 10,000 KHZ frequency response with two channels being placed on a single subcarrier. Music 4 system also capable of 0 to 1800 band on a single 5 KHZ channel.

Seeburg Corp., 1105 Westwood Avenue, Addison, IL, 60101, 312-543-1270

Seeburg Music Satellite Network, 5706 New Chapel Rd., Raleigh, NC, 27607, 919-851-5823, 800-334-1561 General Manager: William E. Fox Mgr., Aff. Rel.: Sherrill R. Williams, Sr. National Sales Cdr.: Bonnie Sullivan Products: background and foreground music for all commercial applications delivered via satellite direct. Seven Systems, Inc., 2602 Artie St., Huntsville, AL, 35805, 205-533-2193 Products: background music equipment.

Sight & Sound Entertainment, 915 Yale Ave. N., Suite 100, Seattle, WA, 98109, 206-343-0111

SMC International, Inc., 2505 N. 24th St., Ste. 501, Omaha, NE, 68110, 402-453-0332 Chief Opt'g. Ofc'r.: Jay B. McMartin Dir. of Engineering: Richard L. Dircks Products: FM/SCA products, commercial sound products, satellite receiving products and telephone test equipment. See full listing under Audio Amplifiers

**Sound Products/3M**, 3M Center 225-S-10, St. Paul, MN, 55144-1000, 612-733-0447 Marketing Manager: Don Rada Sales Manager: Don Sluder Products: music libraries for all purposes. Reliable players. Industrial quality intercoms and vehicle detectors. Top-line message repeater. Speaker assemblies for distributed systems. Microphones, amplifiers and other sound system components.

Speco Div., Components Specialties, Inc., 1172.Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516 President: Louis W. Keller

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V.P. & General Manager: James J. Ganci V,P,/Sales & Marketing: Mel Hulkower Regional Sales Manager: Eric Forman Regional Sales Manager: Bruce Kurtz Products: 60-W PA amp with AM/FM & auto reverse cassette, 45-W PA tuner/amp; complete line of PA amps; complete line of 8" speakers w/Xformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, back/foreground enclosed speakers w/25/70V Xformers; high-tech ceiling grille, columns, & a full line of PA horns, Lpads, multitesters & oscilloscopes, megaphones, attenuators, microphones, & intercoms. See full listing under **Audio Amplifiers** 

Tape-Athon Corp., 13633 Crenshaw Blvd., Hawthorne, CA, 90250, 213-676-6752 President: Leon E. "Lee" Tate General Manager: Bob Haller Director Engineering: Bernie Sayers Director Finance/Mkt'g: John Bagley Sales Manager: Rick Bottom Products: reel-to-reel, cassette environmental on-site music systems, rack mount or portable. Chimes & carillon systems, messager insertion units, full amplifier line. Customized background/foreground libraries. District Offices:

Chuck Olson Assoc., Renton, WA, 206-271-5416 Warren Assoc., Santa Clara, CA, 408-988-7762 Greg Dzubay & Assoc., Peoria, AZ, 602-979-2358 Spivey-Leboeuf Assoc., Richardson, TX, 214-231-3190 Central Marketing Group, Kansas City, MO, 816-741-7460 John E. M. Anderson, Minneapolis, MN, 612-823-6459 Gustafson System Sales, Palatine, IL, 312-358-2505 Avcom, Inc., N. Olmsted, OH, 216-777-2060 Elmarcon, Inc., Indianapolis, IN, 317-846-0221 Saga, Oswego, NY, 315-343-5739 Pinz Sales Corp., Rockville Centre, NY, 516-678-6887 ASR Enterprises, LTD., Fallston, MD, 301-893-0001 Murphy & Cota, Atlanta, GA, 404-875-2525 Bencsik Assoc., Ocala, FL, 904-732-9775 Design Factors, La Habra Heights, CA, 213-697-7576

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka Vice President: Bill Hooper Controller: Cal Weddle Products: Engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems. See full listing under **Pro Audio Sound Systems & Products** 

Yesco Foreground Music, 915 Yale Ave. N., Seattle, WA, 98109, 206-682-3737, 800-426-9248 Products: full service audio and video company. Foreground and background music programs nationally distributed, playback units (amplified and non amplified) on premise and central studio formats.

# Your one-stop source for Music Systems

#### STEREO FOREGROUND BACKGROUND BROADCAST NARRATION

Tape-Athon offers a complete line of Audio-Systems for any application you can name. We've added new Electronic and Mechanical designs to all our equipment to make the best even better; solid-state electronics; ball bearing capstan assemblies; improved clutch mechanisms to mention a few, along with the Worlds Largest Environmental Music Library . . . . Need details, facts, or prices?

Literature will be on its way the same day we receive your request. Or for even faster turn around, call our Sales Department, at (213) 676-6752



The Messenger III System is designed for inserting messages in a Environmental Music System for use in Supermarkets, Department Stores, Mass Merchanisers, and others wanting point point of purchase advertising.



Why Tape-Athon Environmental Music? Because Tape-Athon, alone, offers the finest, most complete systems and formats, customfitted to your needs!

The Tape-Athon Library is the largest of its kind in the World as a source medium. From this vast Library, our "Musicologists" painstakingly create a Master Program that is an artistic, psychological, and scientific blend of the best Environmental Music in the World!



The 702, a Reel-to-Reel Type Tape Playback Unit, the standard of the Industry, for Environmental Music and Narrative applications. A truly high reliable system, it is in use at over 100,000 locations. Also available in a rack mounted and a stereo version



Electronic Tower Chimes are tape transport systems supplied in modular or rack-mounted versions to provide hour strike, followed by an interval of carillon music two, three, or four times per day. Ideal for banks, churches, schools, and similar institutions, Tape-Athon Chimes are a proven builder of good-will and community relations.



The Cassette Music System is ideal for on-location music in Offices, Retail Stores, Restaurants, or any location where music can assist in providing a atmosphere. Uses convenient tape cassettes from Tape-Athon's extensive library.



The complete line of Audio-Master Amplifiers are designed for Paging, Speech Reproduction and especially music. Unique design allows inputs to be field changed without costly plug-in modules, whether microphones, tape head, phono, tuner, telephone lines or auxiliary.



The Programmer for S.C.A. or Wire Operation Background Music Centers. It offers an integral "Time of Day" and sequencing control of 3 programs with a multitude of pre-selected music tempos eliminating repetition.

Tape-Athon manufactures more than a dozen varieties of Multi-Transport Inter-Mix Systems.



## CORP. 13633 Crenshaw Blvd. • Hawthorne, CA 90250 • (213) 676-6752

## CABINETS, FURNITURE, CASES, & RACKS

Aarmor Case Co., 2100 Lapo Road, Lake Odessa, Ml, 48849, 616-374-5431

President: Steven J. Catlin

Products: "Rack Pod" molded electronics racks, "Trans Pod" molded keyboard and accessory cases. Aarmor case ATA heavy duty flight cases, Series-2 medium heavy duty cases and Series-3 medium light duty cases, for all electronic, lighting, audio/visual and musical equipment. Also custom cases.

Amco Engineering Co., 3801 Rose St., Schiller Park, IL, 60648, 312-671-6670 Products: modular closure systems

Anvil Cases, Inc, 4128 Temple City Blvd., Rosemead, CA, 91770, 818-575-8614

Products: Anvil manufactures heavy duty and light duty cases and containers for the sound and communications market.

**District Offices:** 

Anvil Cases, Inc., Rosemead, CA, 818-575-8614

Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026, 314-349-3110

Director of Sales: Paul Grote

E. Region/Sales: Andy Musci

W. Region/Sales: Bud Waters

V.P., Consultant for Mkt'g .: Herbert Jaffe

Products: equipment cabinets, upright racks, consoles and enclosure systems for commercial sound, studio and pro audio systems, telecommunications, electronic and industrial products. Standard models for cost-eficiency. Modified standard for functional flexibility, custom design for specialized requirements. Complete selection of decorative accessories and application-oriented hardware. See full listing under **Loudspeakers** 

Bretford Mfg. Co., Inc., 9715 Soreng Ave., Schiller Park, IL, 60176

Bud Industries Inc., 4605 E. 355th St, Willoughby, OH, 44094, 216-946-3200

Cabtron Systems Inc., 200 Anets Dr., Northbrook, IL, 60062, 312-498-6090

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

Cases Inc., 1745 W. 134th St., Gardenia, CA, 90249, 818-575-8614

CTS Corp./Metal Products Group, State Road 16 West, Monon, IN, 47959, 219-253-6666, 800-558-7297 General Manager: Joe Rogers Sales Manager: Kirk Kirlin Sales: Duane Nagel Sales: Jim Mann Sales: Angie Minix Products: standard, modified standard, & custom electronic enclosures, cabinets, chassis, & racks. Modular Vertical Enclosures: 19" vertical racks, Moduline: all-aluminum rectangular instrument chassis, Modubox: aluminum sloped front, keyboard, and rectangular styled enclosures.

**District Offices:** 

E.B. King & Assoc., Saratoga,CA, 408-867-2111 Lessing Assoc., Newhall, CA, 805-254-0274 Brainard-Wiwon Mkt'g, Arlington Hts., IL, 312-437-2700 Schmitt Industrial Mktg, W. Hempstead, NY, 516-486-3510 CompRep Systems, Nashua, NH, 603-883-1212

Diversified Case Co., 34 Main Street, Whitesboro, NY, 13492, 315-736-3028

Products: specialty cases for all uses, standard and custom molded, plastic, aluminum, wood and soft. District Offices:

ABS Technologies, Islip, NY, 516-277-7101 Abbott Allison Company, Branford, CT, 203-481-0405 Liebel & Merle Sales, Rochester, NY, 716-385-3961 Pantech, Inc., Springrield, VA, 703-451-5700 PMC Packaging Co., Warrington, PA, 215-628-0560

Dukane Corporation, 2900 Dukane Dr., St. Charles, IL,

60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson Division General Mgr.: Steve Deppe Products: standard and special systems of products: nurse call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. See full listing under **Portable Sound Systems** 

EAR/Caraway Audio, 1775 Old Country Road, Suite 19, Belmont, CA, 94002, 415-594-1790 Products: speaker cabinets and sound reinforcements.

Eastboard Consoles, 2200 Richmond St., Philadelphia, PA, 19125, 215-425-3121 Products: custom work stations for video, audio, and computer electronics; consoles, editing stations, cabinetry, etc., are all precision-crafted with birch plywwod, laminates, and hardwoods.

El Mar Plastics, Inc., 821 E. Artesia Blvd., Carson, CA, 90746, 213-327-3180 Products: plastic items, audio cassette cases and reels.

Electro Space Fabricators, P.O. Box 67, Topton, PA, 19562-0067, 215-682-7181

Electrorack Products Co., 1443 S. Sunkist St., Anaheim, CA, 92806, 714-776-5420 President: Yvonne Rumbles Secretary/Treasurer: Wayne Rumbles Operations Manager: Ken Seidel Sales Manager: Mike Deming V.P. Engineering: Allen Benson Products: high quality custom and standard electronic cabinets, racks, computer consoles and related accessories for electronics, aerospace and government programs.

District Offices:

Intersell, Burlington, MA, 617-273-3844 Interconnect Sales Group, Santa Clara, CA, 408-980-1166 Spectra Sales Corp., Richardson,TX 214-234-3600 REMCO, Huntsville, AL, 205-533-3763 Beams Company, Des Moines, IA, 515-255-1148

ELMA Electronic Inc., 41440 Christy St., Fremont, CA, 94538, 415-656-3400

Products: enclosures, VME bus systems, backplanes, power supplies, rotary & DIP switches, collet safety knobs, LED arrays, test & switch sockets, plugs, cabinets, and DIN-connectors. District Offices:

S.K. MacDonald, Inc., Lisbon, MD, 301-982-1088

## Sound & Communications is not just a magazine, it's an industry.

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editorial staff, contributing and technical editors are driving the marketplace and covering the burning issues in all areas related to professionals and sound installation design and system maintenace.

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- Industry News and Convention Calendar
- Business and Marketing
- Product Test Reports
- New Product News/ Close-ups

### Sound & Communications

is written, designed, edited and published to meet the needs of qualified professionals in the sound, security and telephone industry. F.F./Hill-Gray, Inc., Elmhurst, IL, 312-832-4101 Bell Controls, Inc., Nashua, NH, 603-882-6984 Harold Gray Assoc., Englewood, NJ, 201-894-0894 Impact Electronics, Inc., Anaheim, CA, 714-533-1351

EMCOR Products/Crenlo, Inc., 1600 Fouth Ave. NW, Rochester, MN, 55901, 507-289-3371 Sales Manager: John Horton Products: modular electronic enclosure systems, computer support furniture, chassis slides, instrument cases, EMI/RFI Emission Control cabinets and Instant EMCORquick ship program.

Equipto Electronics Corp., 351 Woodlawn Ave., Aurora, IL, 60506, 312-897-4691



The "RACK POD" designs by Aarmor Case are the cumulative result of over three years of research and design done originally for four separate military projects. Together these projects concentrated on the major concerns associated with container design, structural integrity, minimum weight, shock attenuation, environmental exposure, adaptability to various load weights and gravity centers, secure nesting ability, and COST. Combining the best solutions to these design concerns has yielded the "RACK POD". The "RACK POD" is the LEAST EXPENSIVE, STRUCTURAL-LY STRONGEST, and LIGHTEST WEIGHT mobile electronics rack available.

Circle 266 on Reader Response Card

2100 Lapo Rd., Lake Odessa, Mi. 48849 World Radio (1974-374-5651, 616-374-5431 Director of Sales/Mkt'g: Kent Jarnig Products: electronic cabinets, vertical racks, sloped front consoles, work stations, instrument cabinets, EMI/RFI shielding for FCC and military requirements.

Flight Form Cases, Inc., 13102 Stone Ave. N., Seattle, WA, 98133, 206-365-5210 President: Dale J. Lorang Vice President: Glenn Stenson Sales & Design: Don Cole Products: reusable shipping cases providing protection for your equipment which are designed to withstand the hazards of travel and shipping. District Offices: Bob Bryan & Assoc., Ft. Worth, TX, 817-237-5603

Chuck Stieff & Assoc., Platteville, CO, 303-587-2500 Double Edge Audio, Haverhill, MA, 617-372-5526 Northwest Sales Firm, Tacoma, WA, 206-759-9995 Texas Pro Reps, Ft. Worth, TX, 817-847-0625

General Devices Co., Inc., 1410 S. Post Rd. P.O Box 39100, Indianapolis, IN, 46239, 317-897-7000, FAX: 317-898-2917

President: Gladys K. Fall

Secretary/Treasurer: Mary E. Davis

V. P. Manufacturing: Ed Hansen

Nat'l Sales Mgr.: Jack Bradford

Marketing: Ronald Stalzle

Products: manufacturers of electronic hardware including commercial cabinets, shielded enclosures, solid bearing chassis slides, ball bearing slides, cooling modules, card cages, chassis, cabinet-mount shelves and more.

Great American Market, 826 N. Cole Ave., Hollywood, CA, 90038, 213-461-0200, FAX: 213-461-4308 General Manager: Joseph N. Tawil Sales Manager: Mofid Bissada Operations Manager: Jeffrey C. Lind Products: Excalibur Cases are manufactured for a wide range of equipment, from wireless microphones to large communications systems. They meet or exceed A.T.A. specifications for construction.Standard or custom cases for all equipment. District Offices:

Light America, New York, NY, 212-260-7860 WD Marketing, Silver Spring, MD, 301-585-5311

Impart, Inc., 2225 4th Ave., Seattle, WA, 98121, 206-728-0184, 800-544-3343 General Mgr: Steven Corey Mkt'g Director: Peter Sherwin Sales Manager: Laird Laabs Office Manager: Michelle Helmacy Products: tv/monitor wall and ceiling brackets manufactured by Lucasey. New modular system allows you to interchange locking and non-locking units. Adjustable platforms to fit your set exactly.

Jan-Al Cases, 4452 E. Washington Blvd., Los Angeles, CA, 90023, 213-669-0550, 260-7212 Owner: Jan Michael Alevandro Owner: Miriam "Muffie" Alevandro Sales Manager: Todd Morgan Office Manager: Magi Lujan Plant Manager: Bill Prentice Products: custom and standard reusable shipping cases, ATA road and flight cases, rack mount cases, shock mount racks, also "Pro Rack" knock-down rack cabinets. District Offices:

C. L. Pugh & Assoc., Cleveland, OH, 216-238-1777 Sherwood Assoc., Endicott, NY, 607-785-1590 Rep Tech, Inc., Terrell, TX, 214-222-2131 Evans Sales/Mkt'g, Nashville, TN, 615-297-7997 Ludwig Mkt'g, Kenosha, WI, 414-697-9355 Lex Lawson Assoc., Coarland, TX, 214-272-8482 Metropolis Audio Mkt'g, Edison, NJ, 201-225-0085 New Resource, Norwell, MA, 617-659-1463 Prorepco, Foster City, CA, 415-570-5055 R. J. Mkt'g Ltd, Rockville, MD, 301-251-0330 Hustrinco Enterprises, Reddington Beach, FL, 818-393-8982

Parsons Mfg. Corp., 1055 O'Brien Dr., Menlo Park, CA, 94025-1476, 415-324-4726 President: A.R. Parsons Vice President: C.E. Plummer Products: cases, foam padded for equipment to sales demo, airline travel and shipping; travel carts and customized packaging. District Offices: Thermopak, Philadelphia, PA, 215-742-0447 Instrument Dynamics, Boston, MA, 617-245-5100 Trembly Assoc., Alburqueque, NM, 505-266-8616 Teplitz Assoc., Cleveland, OH, 216-439-3265 Brennan Assoc., Clearwater, FL, 216-439-3265

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under **Audio Amplifiers** 

Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365 Prod Mgr/Sound Reinf.: Hollis Calvert Prod Mgr/Digital Product: Ken Valentine Products: audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker sys-

tems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater systems.

See full listing under Pro Audio Sound Systems & Products

Premier Metal Products Co., 381 Canal Pl., Bronx, NY, 10451, 212-993-9200 President: Stanley F. Kwasnicki Sales Manager: Anthony E. Bozza Design Engineer: Frank Sonanno Products: cabinets, racks, cases, chassis, panel fans, slides, and blowers for the electronics industry. Modified standards and special designs are manufactured on order. District Offices: Premier Metal Products, Fontana, CA, 714-829-3089

Research Technology International, 4700 W. Chase Ave., Lincolnwood, IL, 60646, 312-677-3000 President: Ray L. Short, Jr. V.P. Sales: Thomas Tisch V.P. Sales: Thomas Boyle Chief Financial Officer: Rick Peterson Advertising Manager: Sherwin Berger Products: Video/Film Care Products including inspection and cleaning machines, accessories, storage racks, and film reels and cans. See full listing under **A-Visual Equipment/Systems** 

Roadrunner Cases, 1745 W. 134 St., Gardenia, CA, 90249, 213-770-4444 President: Howard Chatt Sales: Tony Castillo Sales: Carlos Nieto Products: cases for all products in many different styles for shipping, carrying, and storage.

Skydyne, 21 River Road, Port Jervis, NY, 12771, 914-856-6655, 800-428-CASE Sales/Mkt'g Manager: M. Timney Products: protective transit and operational cases and costainers: development and manufacture in fiber-

containers; design development and manufacture in fiberglass, aluminum, aluminum composite and ABS materials.

Solid Support Industries, 2453 Chico St., South El Monte, CA, 91733, 818-579-6063 Sales Manager: Richard Wilson Products: 19" open frame racks, mixing console stands, computer workstations & keyboard stands. All constructed of 1 1/4" steel square wall tubing.

Star Case, 648 Superior, Munster, IN, 46321, 219-922-4440, 800-822-STAR

President: Dennis Toma Vice President: Bernard Fryman Dir. of Manufacturing: Roger Hallberg Products: four lines of reusable shipping containers featuring Ultra-Star, heavy-duty flight cases, Super Star premium flight cases, ATA Star ATA flight cases, and Carry Star surface travel cases. District Offices: Audio Resources, Westmont, IL, 312-655-1180

Audio Resources, Westmont, IL, 312-655-1180 John B. Anthony Co., Stamford, CT, 203-322-9202 Aim Marketing, Mishawaka, IN, 219-256-2025 RJ Throckmorton, Glencoe, MO, 314-227-7222 Jones Audio Sales, Plano, TX, 214-867-0202

Teclab, 310 Perkstok Road, Kalamazoo, MI, 49001, 800-832-5227 President: J. Draves Sales Manager: B. Smith Customer Service: J. Savan Products: technical workstations, lab benches, and complete lab furniture systems.

Thermodyne International Ltd., 20850 S. Alameda Street, Long Beach, CA, 90810, 213-603-1976 Products: custom cases.

Ultimate Support Systems, Inc., 2506 Zurich Dr., Fort Collins, Co, 80522, 303-493-4488 Marketing Manager: Thomas B. Kellenberger National Sales Manager: Glen Snider Account Executive: Tom Clagett Account Executive: Preston Glaude Account Executive: Monica Kadillac Products: superior quality support structures for musical and sound reinforcement equipment with a full line from tripods and portable tables to keyboard stands and microphone stands. All products are constructed of lightweight aluminum and glass-reinforced polycarbonate fittings, making them lightweight, yet strong enough to support heavy equipment.

Viking Cases, 10480 Oak St. NE, St. Petersburg, FL, 33716, 813-577-1216, 800-237-8560 President: Art Stemler Vice President: William Strickland Products: ATA shipping cases and carrylite, carry cases for video, musical and sound reinforcement.

Winsted Corp., 9801 James Circle, Minneapolis, MN, 55431, 612-888-1957 V.P. Marketing: Jerry Hoska Sales & Marketing: Randy R. Smith Customer Service: Judy Ruzek Products: rack cabinets, stands, computer tables, tape storage cabinets, and AV cabinets.

Wyle Laboratories/Electronic Enclosures Division, 6995
Airport Highway Ln., Dept. M, Pennsauken, NJ, 08109, 609-665-6810, FAX: 609-665-6810
Vice President: T. F. Keller
Sales Manager: Ron Pache
Products: metal cabinets and consoles for sound and telecommunications equipment. All accessories including shelves, fans, plexiglass doors, blowers and A/C strips are offered. Design service available.
District Offices:
Electronic Enclosures, El Segundo, CA, 213-643-8181
Imagitron Sales, Upperco, MD, 301-374-5600
Zieco Inc., Lexington, MA, 617-861-8300
Zonk & Assoc., Richardson, TX, 214-238-7651
Carlson & Assoc., Campbell, CA, 408-370-1284

Zero-West Div., 777 Front St., Burbank, CA, 91503, 818-846-4191 President: B. Wood V.P. Sales: D. Griffith V.P. Manufacturing: J. Frickel Engineering Mgr.: P. Johnson Controller: S. Holt Products: electronic cabinets, enclosures, drawn boxes, military and commercial containers, sheet metal fabrication, slides, and blowers. District Offices: N. Calif. Office, San Jose, CA, 408-435-1113 McKinley Sales, San Diego, CA, 619-271-7221 RTS, Inc., Vashon, WA, 206-285-1363 Cadon Technical Sales, St. Louis, MO, 314-645-8670

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The Panasonic\* WJ-450 Quad System. It will make any CCTV system better because it lets you watch four camera locations simultaneously on one monitor. No matter what kind of monitors or cameras you have: black and white, color, or both,

Still, there's more to the WJ-450 than turning one monitor into four. Take its alphanumeric character generator. Each camera location can be instantly identified by using up to six characters. That's important.

You can even stop the action in any of the four "blocks" thanks to the WJ-450's digital processor. And freeze-framing can mean a lot when it comes to making a clean ID.

So can a time-lapse VCR. In fact, when connected to an alarm-activated time-lapse VCR, the WJ-450 will not only record the four Quad "blocks," it will automatically go to the full-screen mode and display the location where the sensor has been tripped.

There's also a remote-control function for selecting quad mode, camera channel and still picture.

The Panasonic WJ-450. It's the one quad system that can make any CCTV system four times better.

## Panasonic

Closed Circuit Video Equipment





Monitor pictures simulated.

## CCTV/VIDEO **COMPONENTS &** SYSTEMS

American Fibertek, Inc, 1662 63rd St., Brooklyn, NY, 11204-2713, 718-236-3739 President: Robert Klein Vice President: Jim McLaughlin Vice President:Jack Krol

Products: fiberoptic CCTV & data transmission systems. modules and sub-rack mounted slide-in cards. Fiberoptic cables including general purpose, plenum, aerial, and burial. Termination and splice tool kits, reusable SMA optical connectors, power test meter and light source, and power supplies.

Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026, Cohu Inc., Electronics Div., P.O. Box 85623, San Diego, 314-349-3110

Director of Sales: Paul Grote

E. Region/Sales: Andy Musci

W. Region/Sales: Bud Waters

V.P., Consultant for Mkt'g .: Herbert Jaffe

Products: enclosures, enclosure mounts, mounting adaptors, sunshields, blowers and heaters for CCTV cameras. Cabinets, racks, consoles and accessories for engineered CCTV and video systems, security and surveillance applications.

See full listing under Loudspeakers

Audio/Video Supply Inc., 4674 Cardin St., Ste. D, San Diego, CA, 92111, 619-565-1101 President: R.T. Moore Products: industrial and professional video equipment.

AVA Electronics & Machine Co., 4000 Bridge St., Drexel Hill, PA, 19026, 215-284-2500 V. P. Sales/Mkt'g: Michael Shore District Mgr.: Mike Ward OEM Mgr.: William McKinley Products: RF connectors, special connector designs. adapters, baluns.

Blonder-Tongue Laboratories, Inc, 1 Jake Brown Rd., Old Bridge, NJ, 08857, 201-679-4000. Chairman of the Board: I. S. Blonder President: B. H. Tongue Sr. Vice President: D. J. Altiere Vice President: G. H. Tongue Vice President: A. J. Bruno Products: SMATV/MATV signal distribution headends and equipment. A/V modulators, channel converters, amplifiers, filters. CCTV A/V signal distribution equipment. TVRO antennas, receivers, LNA's. **District Offices:** W. H. Hendrickson Co., N. Scituate, MA, 617-545-0652 LCA Sales Inc., Tuckahoe, NY, 914-961-4700 Adams & Assoc., Greensboro, NC., 919-272-6838 EESCO, Inc., Los Angeles, CA, 818-242-8823 George Petitt Co., Berkeley, IL, 312-449-3443

Catel Telecommunications, Inc., 4050 Technology Plaza, Fremont, CA, 94537, 415-659-8988, 800-225-4046

President: Dr. James Hood Director of Sales: Wendell Woody Product Manager: Dennis Donnelly Products: multichannel FM processing equipment for video, audio and digital data transmission over fiber optic o coaxial cable, microwave, satellite or IR links. **District Offices:** North Kansas City, MO

Coherent Communications Inc., 13756 Glenoaks Blvd., Sylmar, CA, 91342, 818-362-9393 President: I. Kruglak Vice President: S. DeFeo Service Manager: P. Spinelli Sales App. Engineer: H. Howard Products: SMPTE-Time code products, portable audio mixer, wireless microphones, miniature-portable video transmitters.

CA, 92138, 619-277-6700 Products: closed circuit TV.

Crest Electronics, Inc., 4921 Exposition Blvd., Los Angeles, CA, 90016, 213-731-1105 Chairman & CEO: Irv Rossman President: Hope Borows V.P. Mkt'g.: Dennis Castelli Products: closed circuit TV products, video cameras, video monitors, time lapse recorders, guad & split screen systems, switchers, scanners, lenses, housings, mounting hardware, pan & tilt, time date generator, video sender, video controls & amps. **District Offices:** Crest Electronics, Inc., Greensboro, NC, 919-288-2787 Irv Brown Co., Brooklyn, NY, 718-493-1379 Forti Assoc., Kensington, MD, 301-949-1706 Wm. Linz Assoc., Deerfield, IL, 312-945-9600 Pacnor Mkt'g., W. Lynwood, WA, 206-771-5576

Dynair Electronics, Inc., 5275 Market St., San Diego, CA, 92114, 619-263-7711, 800-854-2831 President: E. G. Gramman V. P. Marketing: D. Castellini Systems Mkt'g Manager: R. A. Jacobs V. P. Engineering: T. R. Meyer Mgr. Mkt'g Communications: P. L. Lynch Products: video and audio switching and distribution systems with automation interface: passive switchers; microwave IF switching systems video and audio accessories special purpose equipment for broadcast educational industrial and closed-circuit TV systems. **District Offices:** Robert McAll, New York, 516-966-8000 Al Wilson, California, 619-541-0859 Vern Pearson, Illinois, 800-255-2255 ext 8874

E.R.L. Electronic Products, Inc., 65-50 Austin St., Rego Park, NY, 11374, 718-275-7700 Products: aprtment house intercoms, MATV systems, closed circuit television accessories.

Elbex America, 20360 S. Leapwood Ave., Unit F, Carson, CA, 90746, 213-515-0854, 800-421-5206



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Toa Electronics, Inc.

480 Carlton Court South San Francisco, California 94080 Telephone: (415) 588-2538

Vice President: Harry Rosenblatt Sales Administrator: Ken J. Gien Sales Orders: Edith Gutierrez Tech. Engineer: Mohammad H. Bigdeli Products: full range of quality CCTV equipment, cameras with built-in auto-iris lens, universal mounts/outdoor housings in one economic package, complete video interphone systems for single or multi-story dwelling, mobile camera and monitor systems for R. V.'s, campers, etc. **District Offices:** Graystone Systems Inc., Blauvelt, NY, 914-353-0600 Jayso Elect. Corp., Bronx, NY, 212-798-1050 Exec. Sec. Inc., Nashville, TN, 615-331-6700 Broadway Exec. Sec., Kansas City, MO, 816-474-1771 Wagners S.P.D., Anaheim, CA, 714-630-6671 Alarm Center, San Diego, CA, 619-571-3535 American General Dist. Corp., Miami, FL, 305-649-5408 Arizona Lock and Safe, Phoenix, AZ, 602-278-4582 Audio/Video, San Diego, CA, 619-565-1101 Cartland Alarm & Comm., S. Federal Way, WA, 206-839-8433 Futura, Lomita, CA, 213-539-1710 Row & Sons, Fort Myers, FL, 813-481-2949 Save on Video, N. Hollywood, CA, 213-875-1235 Vision Video, Los Gatos, CA, 408-356-1286

Electrohome Ltd., 809 Wellington St. N., Kitchener, ONT, N2G 4J6, 519-744-7111 Products: large screen projection systems and display monitors.

EMI, Inc., 11411 Bradley Ave., Pacoima, CA, 91331, 818-896-6700, 800-628-5858, FAX: 818-899-1599 President: Joel Gary Rutberg Secretary/Treasurer: Eilleen Rutberg National Marketing Mgr.: Michael Moll Dir. of Accounting: Debra Cota Plant Coordinator: Andy Culp Products: CCTV support equipment including housings, mounts, indoor and outdoor enclosures, environmental camera enclosures, and precision custom sheet metal fabrication. Complete line of "chip" housings and mounts accomodates solid-state cameras, "Specialty" line of detention/security housings for jailhouses & holding cells.

GBC Closed Circuit TV Corp., 315 Hudson St., New York, NY, 10013, 212-989-4433, 800-422-2288 Board Chairman: Harry Lefkowitz President: Steve Lefkowitz Sales Manager: Gary Perlin Export Manager: Sydelle Ranzman Products: complete line of closed circuit TV cameras, monitors and accessories including products for business and home use. Solid state CCD cameras, low light level and star light cameras, RF cameras for use on home TV sets. District Offices: GBC CCTV Corp., New York, NY, 212-989-4433

GBC CCTV Washington Corp., Washington, D. C., 202-882-6131



Graystone Systems Ltd., Bradley Corp. Pk, 300 Corp. Dr., Ste #5, Blauvelt, NY, 10913, 914-353-0600, 800-952-9528, FAX: 914-353-0657 President: Ruben F. Graystone

V.P. Engineering: Steve Shaki

Sales Manager: Christopher LoCascio

Products: manufacturer of intercom equipment and distributors of closed circuit television equipment for homes, condos, and industry. Suppliers of residential and commercial selective call video intercom systems. Specializing in intercommunications for computer room application. Exclusive east coast distributor of ELBEX AMERICA. See full listing under Intercom Apartment/Residential

Hedco, P.O. Box 1985, Grass Valley, CA, 95945, 916-273-9524

Sales Manager: Ross Shelton

Products: Video and audio distribution amplifiers, Video and audio routing switchers, NTSC Source Sync Pulse Generators.

Hirschmann of America, P.O. Box 229, Industrial Row, Riverdale, NJ, 07457, 201-835-5002, 800-225-0524 Sales Manager: Andy Swenson

Products: Visonik "David" family of monitor mini-speakers,

Hirschmann fiber optical transmission systems for audio, video and data up to 4 miles. See full listing under **Loudspeakers** 

Ikegami Electronics (USA), 37 Brook Ave., Maywood, NJ, 07607, 201-368-9171

Intec Video Systems, 23132 La Cadena, Laguna Hills, CA, 92653, 714-859-3800

ISS Engineering, Inc., 104 Constitution Dr., #4, Menlo Park, CA, 94025, 800-227-6288 V.P. Mkt'g.: Lydia Gillaspie V.P. Sales: John Coiro Products: CATV audio video frequency agile modulators, demodulators, satellite receivers, for background music, data, LAN, CCTV. Family of products includes proprietary technology of PC satellite receivers and VHF/UHF demods that plug in and are controlled by a personal computer, the units are trademarked PC-SAT. District Offices: ISS Engineering East, Birmingham, AL, 800-351-4477

JBL Professional. 8500 Balboa Blvd.. Northridge. CA. 91329. 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Market Manager Sound Contracting: Steve Romeo Products: high quality loudspeakers and loudspeaker sys.

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tems of all kinds; automatic microphone mixer: electronic crossover: special loudspeakers for musical instruments: video projector.

See full listing under Loudspeakers

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers

Javelin Electronics, 19831 Magellan Dr., Torrance, CA, 90502, 213-327-7440 Products: complete CCTV security systems including cameras, monitors, video tape recorders, lenses, cable, pan/titls, video signal equipment and other especies

pan/tilts, video signal equipment and other accessories. Also, night viewing equipment.

JVC Co. of America, 41 Slater Drive, Elmwood Park, NJ, 07407, 201-794-3900

Kloss Video Corp., 42 Fourth Avenue, Waltham, MA, 02254, 617-890-1245, 800-556-7733

Koyo International Inc. of America, 325 Marcus Blvd., Hauppauge, NY, 11788, 516-434-8484, 800-645-9818 Products: camera monitors.



Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: Enterview<sup>™</sup> combination audio/visual intercom and door control systems for private homes, commercial applications and multi-unit housing. Sony authorized CCTV distributor. See full listing under Intercom Apartment/Residential

Lightwave Communications, Inc., 650 Danbury Road, Ridgefield, CT, 06877, 203-438-3591 Products: fiber optic audio and video links.

Math Associates Inc., 2200 Shames Dr., Westbury, NY,<br/>11590, 516-334-6800Racon, Inc., 12628 Interurban Ave<br/>98168-3383, 206-241-1110, 800<br/>President: Ellen MathV. P. Sales/Mkt'g: Robert DeliaPresident: Daniel Blattman<br/>National Sales Manager: David Ba<br/>Video Sales Manager: Don Bolen<br/>V. P. Sales/Mkt'g: Robert Kirkaldie

MFJ Enterprises, Inc., 921 Louisville Road, Starkville, MS, 39759, 601-323-5869, 800-647-1800

Mikrolab Video Inc., 4121 Redwood Avenue, Suite 215, Los Angeles, CA, 90066, 213-306-0120

MPO Videotronics Inc., 619 West 54th Street, New York, NY, 10019, 212-708-0550 Products: integrated video units, VCR/monitor.

Multiplex Technology, Inc., 251 Imperial Hwy, Fullerton, CA, 92635, 714-680-5848, 800-423-0584 National Sales Manager: Frank White Products: custom residential video and commercial private cable accessories, including ChannelPlus brand video multiplexers, ChannelPlus brand distribution amplifiers, and ChannelPlus brand Gen-Lock message generators.

NEC America Inc., 4936 Rosecrans Ave., Hawthorne, CA, 90250, 213-973-2071

Northern Information Technology, 750 West Algonquin Road, Arlington Heights, IL, 60005, 312-640-3220, 800-528-4343

Numark Electronics, 503 Newfield Ave., Edison, NJ, 08837, 201-225-3222 President: Harry Kotovsky Vice President: Robert Kotovsky National Sales Mgr.: Richard Krochmal Technical/Serv. Manager: Rick Kamlet National Sales Manager: Dewitt Smith Products: professional music mixers, turntables, equalizers, mobile DJ systems, speaker systems, professional audio/video digital mixers, and a complete line of audio accessories. See full listing under **Disco Components & Systems** 

Panasonic Ind. Co., CCTV Div., One Panasonic Way, Secaucus, NJ, 07094, 201-392-6688 Gen. Mgr.: Milton A. Landau Nat'l. SAles Mgr.: Joseph O. Goetz Tech Support Mgr.: Robert Klein Products: complete line of CCTV products including timelapse recorders, cameras, monitors, and complementing accessories. District Offices: Reg. Sales Office N.E., Secaucus, NJ, 201-348-7303

Reg. Sales Office S.E., Norcross, GA, 404-925-6835 Reg. Sales Office M.W., Arlington Hts., IL, 312-981-4826 Reg. Sales Office S.W., Irving, TX, 214-580-0518

Reg. Sales Office W., Cypress, CA, 714-895-7265

Quickset International, Inc., 3650 Woodhead Drive, Northbrook, IL, 60062, 312-498-0700, 800-247-6563 Products: tripods, camera housing, & common tilts.

Racon, Inc., 12628 Interurban Ave. South, Seattle, WA, 98168-3383, 206-241-1110, 800-426-5245 President: Daniel Blattman National Sales Manager: David Babbitt Video Sales Manager: Don Bolen V. P. Sales/Mkt'g: Robert Kirkaldie V. P. Operations: Steven Critchlow Products: the micropass system from Racon is designed for cable free transmissions of voice, data or video up to fifteen miles. Utilizing 23GHz microwave capabilities, micropass systems are simple to install and use. District Offices:

Col-Ins-Co, Orlando, FL, 305-423-7615 Hite Electronics, Mansfield, TX, 817-483-7077 SEA, Inc., Carmel, IN, 317-846-2591 SAC Communications, Vienna, VA, 703-281-2558 DGH Communications, Scarborough, ON, 416-499-4746

RCA, New Products Division (Closed-Circuit Video Equipment), New Holland Ave., Lancaster, PA, 17604-3140, 717-295-6123

Products: RCA Closed-circuit video equipment is a manufacturer and distributor of a complete line of CCTV components, systems, and support services. The RCA CCVE product lines include: CCTV cameras, monitors, video recorders, switchers, control systems, and a full line of video accessories to complete CCTV systems.

Robot Research, Inc., 7591 Convoy Court, San Diego, CA, 92111, 619-279-9430, 800-854-2057

Runco Video Corp., 1163 Chess Dr., Suite J, Foster City, CA, 94404, 415-349-7459

Sanyo Electric, Inc., 1200 West Artesia Boulevard, Compton, CA, 90224, 213-537-5830

Sharp Electronics Corp., 10 Keystone Pl. P.O. Box 588, Paramus, NJ, 07652

Surveillance Video Systems, 258 "A" St., P.O. Box 1349, Ashland, OR, 97520, 503-482-4500 President: Bud Wilkey Products: state of the art "dummy" cameras in scanning, stationary and battery models manufactured in the USA.

Also, live CCTV cameras and systems.

TOA Electronics, Inc.—Security Group, 480 Carlton Ct. S., San Francisco, CA, 94080, 415-588-2538 Products: Video observation systems including video cameras, monitors, switchers, remote control equipment, rack mounting equipment, and video camera equipment. See full listing under **Alarm & Security** 

Usatco (Universal Satellite Corp.), 300 E. 59th St., New York, NY, 10022, 718-786-1510 Products: videomate large screen video and data projectors, computer interfaces.

VCS (Visual Communications Specialists), 8586 Miramar Place, San Diego, CA, 92121, 619-455-7252 Products: camera/video coax control, switching system.

Vicon Industries, 525 Broad Hollow Rd., Melville, NY, 11747, 516-293-2200, 800-645-9116 President: Donald N. Horn Executive V. P.: Arthur Wallace V. P. Finance: Kenneth Darby V. P. Corp. Com.: Frances McArdle National Sales Mgr.: Dar Hyatt Products: tube-type and CCD video cameras, a full line of lenses, monitors, mounting accessories, remote positioning devices, VCRs, consoles and desk-top systems. The company's products are used in a variety of surveillance, security, safety, and control applications, in robotics, banks, gaming casinos, traffic control, hospitals, retailing, multiple commercial and industrial installations, etc. District Offices:

Vicon Industries, Norcross, GA, 404-449-0499 Vicon Industries, River Forest, IL, 312-848-5100 Vicon Industries, San Jose, CA, 408-297-0377 Vicon Industries, Brea, CA, 714-990-3858 Vicon Industries, Dallas, TX, 214-631-0887

Video Accessory Corp., 2450 Central Avenue, Boulder, CO, 80301, 303-443-1319, 800-821-0426

Videoplex Inc., 2 World's Fair Dr., Somerset, NJ, 08873, 201-469-9038 President: Martin Horak Executive V. P.: Gerald Kalb Chief Engineer: Bruce Fogelstrum Products: video multiplexers capable of displaying, taping or transmitting up to 16 non-synchronous video feeds, in color or black & white, to one monitor one VCR, or one videopath.

Vidicraft Inc., 0704 SW Bancroft Street, Portland, OR, 97201, 503-223-4884, 800-547-1491

Got an itch to tell someone about your latest installation? Tell us about it so we can tell everyone else. We'll publish it in our Contracting Close-up section. Write to: Debra A. Pagan Managing Editor Sound & Communications 25 Willowdale Avenue Port Washington, NY 11050 or call: (516) 767-2500

## **CARILLONS & CHIMES**

Schulmerich Carillons, Inc., Carillon Hill, Sellersville, PA, 18960, 215-257-2771

Marketing Secretary: Sally E. Mandes Products: bellwrights since 1935, Schulmerich Carillons, Inc. manufactures cast bronze bells, carillons, glockenspiels, clock towers, standard or custom design freestanding towers, electromechanical/digital keyboard carillon instruments.

Tape-Athon Corp., 13633 Crenshaw Blvd., Hawthorne, CA, 90250, 213-676-6752 President: Leon E. "Lee" Tate General Manager: Bob Haller Director Engineering: Bernie Sayers Director Finance/Mkt'g: John Bagley Sales Manager: Rick Bottom Products: reel-to-reel, cassette environmental on-site mu-

sic systems, rack mount or portable. Chimes & carillon systems, messager insertion units, full amplifier line. Customized background/foreground libraries.

See full listing under Back/Foreground Systems Libraries

## DISCO COMPONENTS & SYSTEMS



Ashly Audio, Inc., 100 Fernwood Ave., Rochester, NY, 14621, 716-544-5191 President: William Thompson V.P. Sales/Mkt'g.: Robert French V.P. Finance/Export Accts.: David Malloy Products: MOS-FET power amplifiers, graphic equalizers, noise gates, limiter/compressors, electronic crossovers, parametric equalizers, notch filters, and OEM products. See full listing under **Pro Audio Sound Systems & Products** 

Barcus Berry Electronics Inc., 5500 Bolsa Ave, Suite 245, Huntington Beach, CA, 92649, 714-897-6766, 800-233-8346 Ch'mn. of the Board: John C. McLaren V.P.: Scott Anderson Nat'l. Sales Mgr.: Jim Lucas Operations Mgr.: Jennifer Drescher Products: audio signal processors. See full listing under Audio Signal Processors

Bose Corp, The Mountain, Framingham, MA, 01701, 617-879-7330

Mgr./Pro Products: David Bell E. Reg. Sales Mgr.: Tim Dorwart Nat'l Technical Rep.: Bruce Myers Mkt'g Dev. Specialist: Mark Mayfield Products: professional loudspeaker systems for portable and installed applications including sound reinforcement, commercial sound, background/foreground music, cinema sound. Modeler™ computer software for sound system design assistance. See full listing under **Pro Audio Sound Systems &** 

See full listing under Pro Audio Sound Systems & Products

**Bozak, Inc.**, 326 South St, New Britain, CT, 06051-3721, 203-225-0555 President: Donald D. Bowers Dir. of Marketing: William J. Kieltyka Chief Engineer: Sheldon Glick Products: foreground speaker systems and professional speakers.

Cerwin-Vega, 555 E. East St., Simi Valley, CA, 93065, 805-584-9332, TLX:662250 President: Gene Czerwinski Sales Manager: Rich Mandella Chief Engineer: Marshall Buck, Ph.D Products: electronic and acoustic systems for domestic and auto sound systems; MI, sound reinforcement, motion picture, broadcast, recording, and commercial sound products.

See full listing under Loudspeakers

**Community Light & Sound, Inc.**, 333 E 5th St., Chester, PA, 19013, 215-876-3400 President: Bruce Howze V. P. of Engineering: John Wiggins Vice President: Christine Howze Director of Mkt'g: John Strand Products: sound reinforcement loudspeakers for background, foreground and paging. Two, three, & four way loudspeakers systems for use in churches, schools, niteclubs, restaurants, and portable live applications. Pattern Control horns, midrange compression loudspeakers and components for engineered sound systems. See full listing under **Pro Audio Sound Systems & Products** 

Eastern Acoustics Works, 59 Fountain St., Framingham, MA, 01701, 617-620-1478 President: Kenneth Berger V.P. Engineering: Kenton Forsythe V.P. Marketing: Frank Loyko Sales Administrator: Daniel McDonald Other Personnel: Max Berger Products: precision-crafted professional loudspeaker products including full-range systems, bass and mid-bass horns, drivers, and studio monitor systems. See full listing under **Loudspeakers** 

Eden Electronics, Inc., 1st St., PO Box 338, Montrose, MN, 55363, 612-675-3650 President: David D. Nordschow Products: pro audio sound systems including constant directivity horns and mid-bass devices; small to large 2-way, 3-way, and 4-way systems for PA and music play-back; touring systems; stage monitors; passive crossovers; custom enclosures.

## See full listing under Pro Audio Sound Systems & Products

Maas-Rowe Carillons, 2255 Meyers Ave, Escondido, CA, 92025, 619-743-1311

McCauley Sound, Inc., 13608 94th Ave. E., Puyallup, WA, 98373, 206-848-0363

Pres./Sales Mgr.: Tom McCauley

V.P./Production: Pete McCauley

Products: a complete line of touring and commercial loudspeaker systems. They feature a high powered series of low-, mid-, and high-frequency loudspeakers and compression drivers, as well as CD horns, passive networks, and enclosure hardware.

See full listing under Pro Audio Sound Systems & Products

Numark Electronics, 503 Newfield Ave., Edison, NJ, 08837, 201-225-3222

President: Harry Kotovsky

Vice President: Robert Kotovsky

National Sales Mgr.: Richard Krochmal

Technical/Serv. Manager: Rick Kamlet

National Sales Manager: Dewitt Smith

Products: professional music mixers, turntables, equalizers, mobile DJ systems, speaker systems, professional audio/video digital mixers, and a complete line of audio accessories.

District Offices:

Numark/PPD, Simi Valley, CA, 805-522-3550

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800

Executive V.P.: Paul Mastrangelo

Sales Manager: David Moore

Product Manager: Ken O'Brien

Credit Manager: Marilyn Beckerson

Operations Manager: Anthony Sgueglia

Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products.

See full listing under Audio Amplifiers

Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365

Prod Mgr/Sound Reinf.: Hollis Calvert

Prod Mgr/Digital Product: Ken Valentine

Products: audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker systems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater systems.

## See full listing under Pro Audio Sound Systems & Products

Rane Corp., 6510 216th S.W., Mountlake Terrace, WA, 98043, 206-774-7309 V.P. Marketing: Larry Winter Dir. Tech. Dev.: Terry Pennington Products: graphic and parametric equalizers, real-time analyzers, headphone amps, active crossovers, program mixers, splitters, compressor/limiters. See full listing under **Audio Signal Processors** 

Roctronics Entertainment Lighting & Special Effects, Inc. 100-SAC Roctronics Park, Pembroke, MA, 02359, 617-826-8888

President: Dr. Richard Iacobucci

Products: dimmers, spotlights, rotating lights, laserlight shows, foggers, strobes, bubbles, video projectors, panchromatic animated displays, music-into-color & motion, line lights, holograms, 3D & prismatic sheeting, etc. 100 page catgalog and 4 hr. videotape. District Offices: 500 dealers worldwide

Stanton Magnetics Inc., 200 Terminal Dr., Plainview, NY, 11803, 516-349-0235 President: Walter O. Stanton V. P. of Mkt'g: Joseph S. Woodstock Professional Sales Mgr.: Pete Bidwell Products: turntable broadcast/disco magnetic cartridges, replacement styli, professional headphones, announcer's earphones, turntable slip mats, turntable preamp/equalizer, record care products.

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems.

See full listing under Pro Audio Sound Systems & Products

Turbosound, Inc, 611 Broadway, #841, New York, NY, 10012, 212-460-9940 President: Alan Wick V. P. Sales/Mkt'g: Dan Abelson V. P. Operations: Hilary Michener Products: Turbosound loudspeaker enclosures utilize patented principles to provide the installer pre-engineered loudspeaker systems complete with certified rigging hardware designed for ease of install and safety. See full listing under **Loudspeakers** 

UREI, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Mkt'g. Mgr. Sound Contracting: Steve Romeo Products: power amplifiers, limiters, compressors, equalizers, filters, Time Aligned<sup>™</sup> speakers, direct boxes, electronic crossover, digital metronome, transcription preamplifier, disco mixers, broadcast consoles. See full listing under Audio Signal Processors

## HARDWARE & TOOLS

CAE, Inc., (Littlite),10087 Industrial Drive, Hamburg, MI, 48139. 313-231-9373 President: Jim Fackert Sales Manager: Fred Mikeska Marketing Manager: Barb Burns Products:Littlite gooseneck lamps and accessories and worklamps for audio mixers, duplicating machines, synthesizers, and work panels.)

D. J. Associates, Inc., 8411 S. Zero, Unit 5, Ft. Smith, AR, 72903, 501-452-3987 President: I. Jean Beck Vice President: Michael P. Beck Secretary/Treasurer: I. Jean Beck Products: cable clamps, pigtails, solderless terminals, Cable and wire ties. We specialize in small quantities. Mil spec parts available.

Harris Corporation, Dracon Division, 809 Calle Plano. Camarillo, CA, 93010, 805-987-9511 V.P. Gen'l. Mgr.: John R. Mason Dir., Domestic Sales: Tom Erdmann Chief Engineer: Tom Durston V.P. Sales & Mkt'g.: Jack McGuigan Products: PAGEPAC telephone integrated loudspeaker paging voice systems, linemen's test sets, craft tools, extensive line of relay racks. See full listing under Paging Systems

Jensen Tools, Inc., 7815 S. 46th St., Phoenix, AZ, 85044, 602-968-6241 President/Gen. Mgr.: Arnold Schwartz Sales Manager: Herb Oberman Prod. Engineer Mgr.: Sherman Jensen Products: electronic tools, tool kits, test equipment for service, maintenance and repair of electronics, telecommunications, and computer equipment. See full listing under Test Equipment & Tools

Labor \$aving Devices, 815 Benton St., Lakewood, CO, 80214, 303-232-6341 President: Roy Bowling Sec'y.: Kathy Bowling Products: specialty tools for running wire, pulling wire, fishing wire in finished homes and/or commercial buildings.

Unique tools designed to save time and professionalize any installer who runs wire.

Lowell Manufacturing Co., 3030 Laclede Sta. Road, St. Louis, MO, 63143, 314-781-9058, 800-325-9660 Chairman: Ben W. Lowell President: Dorothy H. Lowell Sales Manager: John J. Lowell

Sales: Wilhelm R. Lowell Engineering: Karl R. Schneider

Products: loudspeakers, baffles, enclosures, mounting devices, attenuators, UL 8" speaker assemblies, sound masking speakers, blank and custom rack panels, custom fabrication services.

See full listing under Loudspeaker Accessories

Miller-Stephenson Chemical Co. Inc., P.O. Box 950, Danbury, CT, 06813, 203-743-4447

Music Supply Co., Inc., 809 N. Madison, Dallas, TX, 75208 214-946-8450, 800-527-1522 President: W. E. Brown Sales: Betty Brown Products: installation and service aids for the sound contractor and background music operator.

#### Neutrik/DIALIGHT Corp., 1913 Atlantic Ave.,

Manasquan, NJ, 08753, 201-223-9400 Product Mgr.: James Cowan Dir. of Sales/Mkt'g .: John McNamara CEO: H. Miller Products: an extensive line of XLR connectors, receptacles, transformers, goosenecks, modules, patch plugs, phone jack/plugs. Included in the line are weatherproof XLR connectors, a new speaker connector, and "Neutricon" a new miniature connector system. See full listing under Wire/Cable Components

Omnimount Systems, 10850 Van Owen St., N. Hollywood, CA, 91605, 818-766-9000, FAX: 818-766-9669, TÉLEX: 181149 WEST LSA President: Alex Cyrell Sales Manager: Jim Schaller Vice President: Susan Michelson Products: universal mounting assemblies for hanging speaker, monitors or other products, full product line supports a broad spectrum of weight loads, from ounces to hundreds of pounds, with flexibility and stability at any anale.

See full listing under Loudspeaker Accessories

Paladin Corp., 3543 Old Conejo Road, Suite #102, Newbury Park, CA, 91320, 805-499-0318

Panduit Corp., 17301 Ridgeland Ave., Tinley Park, IL, 60477, 312-532-1800 National Sales Manager: Paul Trunk Product Mgr./Wiring Duct: Tom Orton Products: one and two piece, adhesive-backed surface raceway system for data, security and communication systems. Available in 3 sizes and five decorator colors. Full range of fittings and accessories also available. District Offices:

Panduit Corp., Tinley Park, IL, 312-532-1800

Penn Fabrication NJ, Inc., Box 356, 29B Ethel Ave., Hawthorne, NJ, 07506, 201-423-4404 Products: flight-case and speaker cabinet hardware, con-
nectors and electrical fittings, microphone stands, and acoustical foam.

Seal-O-Matic Co., 900 Passaic Ave., East Newark, NJ, 07029, 201-481-6500

Selco Products Co., 7580 Stage Rd., Buena Park, CA, 90621, 714-521-8673 General Manager: Bill Wilkinson Product Manager: Diane Duquette Product Manager: Celeste Martinez Regional Manager: Bill Keneipp

Products: control collet and push-on knobs are available in different sizes from 10 mm-38 mm diameters. They are

constructed in a matte finish nylon. Caps, pointers, nut covers, and dials are available in several different colors. District Offices:

HMC, Inc., Arcadia, CA, 818-447-0958 Pass Assoc., Sunnyvale, CA, 408-735-9040 Dolan Assoc., Watchung, NJ, 201-753-2671 Crawford Assoc., Andover, MA, 617-470-2122 Parcom, Elk Grove, IL, 312-228-6360

Tek Trak International, Highway 165, Box 431, Voluntown, CT, 06384, 203-376-0433 President: Michael Panasuk

Products: an exclusive source of every type of hardware

and accessory required for cabinet and case construction, including speakers, horns, crossovers, mixers and power amplifiers for installations and repair. District Offices: East Coast Lighting & Sound, Wyckoff, NJ, 201-652-7641 Sound Marketing, Palos Heights, IL, 312-448-6715 Sturgill Assoc., Columbia, MD, 301-995-1578

Texwipe, 650 E. Crescent Avenue, Upper Saddle River, NJ, 07458, 201-327-9100

Vaco Products Co., 1510 Skokie Blvd., Northbrook, IL, 60062, 312-564-3300.

Waldom Electronics, 4301 West 69th Street, Chicago, IL, 60629, 312-585-1212

Yale Audio of Florida Corp., P.O. Box 2661, Tampa, FL, 33601, 813-876-6789 President: Y. Brevda Sales Manager: David Kentwood Products: position markers for knobs, switches, push buttons, etc. on amplifiers and control panels, self-adhesive vinyl, miniature designs of various controls in different switching positions.

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## HEADPHONES & HEADSETS

Accusonics Systems Corp., 2101 Jericho Turnpike, New Hyde Park, NY, 11040, 516-328-3300 General Manager: Dennis Goodman Products: severe environment headsets, microphones, and loudspeakers. See full listing under **Loudspeakers** 

ACS Communications, 250 Technology Circle, Scotts Valley, CA, 95066, 408-438-3833 (in CA), 800-538-0742 President: Al Butcher Executive V.P.: Phil Gattey V.P. Sales: Kurt Siem

V.P. Consumer: George Poston

Products: pioneer line of ultra-light wireband and contour (over-the-ear) telephone headsets, the newest model is the MicroSet<sup>TM</sup>, a minicontour weighing less than 1/5 oz.; units available with connectors compatible with virtually any telephone made today; TelecTret II<sup>TM</sup> designed specifically for the business user in mind.

See full listing under Telephone System Peripherals

AKG Acoustics, Inc, 77 Selleck St, Stamford, CT, 06902, 203-348-2121 President: Richard Ravich Operations Manager: Derek Pilkington Sales Manager: David Talbot Service Manager: John T. Pyrch Products: studio condenser microphones; prepolarized condenser microphones; professional dynamic microphones; wireless microphones, special purpose microphones, stereo microphones; headset microphones; stereo headphones; microphone stands; digital delays; digital reverbs; phonocartridges; and accessories. See full listing under **Microphones** 

Audiosears Corp, 2 South ST., Stamford, NY, 12167, 607-652-7305

Beyer Dynamic, Inc, 5-05 Burns Ave, Hicksville, NY, 11801, 516-935-8000 General Manager: Paul Murphy Marketing Manager: Bob Lowig Marketing Manager: Mike Solomon Products: dynamic and condenser microphone, professional headphones and headsets, wireless microphones, microphone stands and booms, sound contracting components and accessories.

See full listing under Microphones

Danavox Inc./Telecommunications Div., 6400 Flying Cloud Dr., Minneapolis, MN, 55344, 612-941-0690

David Clark Co., Inc., 360 Franklin St. Box 155, Worcester, MA, 01613-0155, 617-756-6216 Product Mgr. Comm.: George R. Conlon Products: portable and fixed communication systems featuring noise attenuating (reducing) headsets for use in high noise areas. VOX systems for portable radios with throat microphones, headsets and adapters for use with mobile and portable radios. District Offices: Atlanta, GA, 404-461-2946 Chicago, IL, 312-657-7575 San Antonio, TX, 512-654-7568 Los Angeles, CA, 213-776-4571 Seattle, WA, 206-885-7431 Philadelphia, PA, 215-343-5334

### Fostex Corp. of America, 15431 Blackburn Ave,

Norwalk, CA, 90650, 213-921-1112 President: Y. Abe V.P. General Manager: Fred Huang V.P. Sales/Marketing: Mark Cohen National Sales Manager: Mike Flynn Products: a full-line for the Pro contractor including the MP Series multi-purpose powered mixers, SP & SPA11 portable speakers, raw frame speaker components from 18" to super tweeter, monitors, headphones, and microphones.

See full listing under Pro Audio Sound Systems & Products

Koss Corp., 4129 N. Port Washington Rd., Milwaukee, WI, 53212, 414-964-5000 CEO/Chairman/President: John C. Koss Executive V.P.: Michael Koss V.P. Marketing: Don Wagner V.P. Sales: John C. Koss, Jr. Sec./Corp. Legal Coun.: Michael Moore Products: the Koss SST/10 stereophone has been designed for use with digital audio and video equipment.Product includes Koss Hold-a-Fone Stereophone holder for convenient storage.

Nady Systems, Inc., 1145 65th St., Oakland, CA, 94608, 415-652-2411 Sales Manager: Peter Kalmen Products: wireless microphone systems, video camera, wireless system for ENG/EFP. See full listing under **Microphones** 

R-Columbia Products Co. Inc., 15 Huntington Avenue, New Bedford, MA, 02740, 617-994-4213 Products: headphones.

RTS Systems, 1100 West Chestnut St, Burbank, CA, 91506, 818-840-7119 President: Bob Ringer V. P. Mkt'g: Douglas Leighton Sales Manager: Shelley Harrison Sales Engineer: Dave Richardson Chief Engineer: Stan Hubler sumber 1

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A COST

The AKG Q 15 is the perfect headset for monitor work, cue pick-ups, and two-way intercom communications. Feather-light and adjustable, comfortable enough to wear all day but snug enough not to slip, you'll hardly know it's there — and yet it's so rugged you can tie it in a knot and it snaps right back.

More important, the Q 15 doesn't buy comfort at the cost of quality. Its pre-polarized condenser mic offers fullfrequency response and its monaural earpiece — the one that rests gently on the ear instead of clamping down on it – is distortion free. There are even models designed to meet

specialized needs, with additions like carbon equivalent pre-amps and squeich controls.

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Write or call for Catalog and name of nearest local dealer.



Products: Professional Intercommunications Systems conference-line and dedicated-line, IFB systems. Professional Audio Products - amplifiers, preamps, 10-watt monitor amp and buffer amp. See full listing under Intercom Duplex

Sennheiser Elec. Corp., 48 W. 38th St., New York, NY, 10018, 212-944-9440 Products: a full line of microphones (dynamic, electret, and condenser) as well as RF (hand-held, body-pac, single channel, diversity/non-diversity, and rack-mount), infrared listening equipment, headphones and portable mixers. See full listing under **Microphones** 

Setcom Corp., 1400 Stierlin Rd., Mountain View, CA, 94043, 415-965-8020 Sales Manager: Steve Kilczewski Products: headphones and headsets.

**Sound Powered Communications Corp.**, 335 Robbins Ave., PO Box 5569, Trenton, NJ, 08638, 609-883-1180 Sales Manager: Harry Mosle Products: sound-powered communications equipment including intercom stations, field telephones, handsets, noise-attenuating headsets, hook-up cable, reel systems, and accessories.

Tascam/TEAC Professional Division, 7733 Telegraph Road, Montebello, CA, 90640, 213-726-0303 Marketing Manager: Bill Mohrhoff Sales Manager: Gregg Hildebrand W. Reg. Manager: Fred Allard S. Reg. Manager: Bill Stevens E. Reg. Manager: Chuck Prada Products: professional recorder/reproducers from 1/4" 2track to the ATR-80, a new 2" 24-track designed for video production. Recording and performance consoles from 6-



## Moving up that ladder of success?

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Debra A. Pagan Managing Editor Sound & Communications

25 Willowdale Avenue Port Washington, NY 11050

Circle 255 on Reader Response Card

input to the M-600, a 32-input/16-buss large frame console. Also, receivers, cassette decks, and CD players. See full listing under **Magnetic Tape Systems & Supplies** 

**Technical Projects**, **Inc.**, 449 Princeton Ave., P.O. Box 1449, Barrington, IL, 60010, 312-381-5350, 800-562-5872

President: Glenn Mullis

Secretary/Treasurer: Sibbelina Mullis

Technician: Mike Barrett

Products: full-line wired production Intercom Systems for industrial, theatre, educational and sports. Plus "unique problem solving" devices. Also includes headsets for fast food drive-thru.

See full listing under Intercom Production & Theatrical

Telephone Components, Inc., 3180 Expressway Dr., S., Central Islip, NY, 11722, 516-582-4745 Products: telephone handsets, headsets, plugs, jacks and hardware.

See full listing under Telephone System Replacement Parts

Television Equipment Associates Inc., P.O. Box 393, Boway Road, So. Salem, NY, 10590, 914-763-8893 President: Bill Pegler

Manager: Steve Tocidlowski

Products: headsets and related products such as field telephone systems. Headsets for many applications such as intercom and broadcasting. T. E. A. provides many options and accessories for their headsets including connectors for two-way radio and intercom systems. Other divisions supply video delay lines, video tape cleaners, video filters.

**District Offices:** 

Television Equipment Assoc., Los Angeles, CA, 213-271-9570

Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman Director of Marketing: Donald Mereen Products: single and dual muff monitor headphones, single and dual muff boom mic headsets for broadcast, communication, specialty, and intercom use. See full listing under **Pro Audio Sound Systems & Products** 

Yamaha International Corp., Audio Products Division, 6600 Orangethorpe Ave., Buena Park, CA, 90620, 714-522-9011 Gen. Mgr.: John Gatts Nat'l. Sales Mgr.: Bob Shomaker Adv. Mgr.: Robert T. Davis Products: full line of audio mixing consoles, power amplifiers, speaker systems, digital signal processing equipment, and microphones. See full listing under **Pro Audio Sound Systems & Products** 





World Radio History

## HEARING ASSISTANCE SYSTEMS

Barcus Berry Electronics Inc., 5500 Bolsa Ave, Suite 245', Huntington Beach, CA, 92649, 714-897-6766, 800-233-8346 Ch'mn. of the Board: John C. McLaren V.P.: Scott Anderson Nat'l. Sales Mgr.: Jim Lucas Operations Mgr.: Jennifer Drescher Products: audio signal processors. See full listing under Audio Signal Processors

Communications Co., Inc, 3490 Noell St., San Diego, CA, 92110, 619-297-3261

Products: programmable two-way intercom amplifier w/vox., media distribution amplifier, projector patch, room combining systems, record patch, RT-60 reverberation measuring device, burst octave noise generator, 1/3 octave real time analyzer, 27 B.I.T. oscillosope adapter, audic inductive loop receivers.

See full listing under Intercom Institutional/School



Comtek, Inc., 357 W. 2700 St., Salt Lake City, UT, 84115, 801-466-3463 President: Ralph Belgique

Application Engineer: Steve Kartchner

In-House Sales: LeeAnne Richards

Products: wireless microphone systems operating up to 216 MHz and RF assistive listening systems for the hearing impaired for use in auditoriums, churches and theaters, wireless tour guide systems, wireless intercom systems, and wireless cuing systems.

See full listing under Microphones

LPB Inc., 28 Bacton Hill Rd., Frazier, PA, 19355, 215-644-1123

President: Richard H. Crompton

Sales Manager: Charles J. Sheridan

Products: LPB Radio-Aide Systems provide hearing assistance through the use of unused commercial AM frequencies and standard AM pocket radios with headsets. Standard systems include 300' antenna. Additional lengths available. District Offices:

Burden Assoc., Canoga Park, CA, 818-340-4590

Nady Systems, Inc., 1145 65th St., Oakland, CA, 94608, 415-652-2411 Sales Manager: Peter Kalmen

Products: wireless microphone systems, video camera, wireless system for ENG/EFP. See full listing under **Microphones** 

Oval Window Audio, 4 Collins Avenue, Yarmouth, ME, 04096, 207-846-6250

Products: assistive listening systems for the hearing impaired.

Phonic Ear Inc., 250 Camino Alto, Mill Valley, CA, 94941, 415-383-4000 President: James C. Mulford Vice President: Richard Pimentel Products: wireless microphone and FM assistive listening systems for the hearing-impaired in auditoriums, churches, theaters, and outdoor events.

Quest Electronics, 510 S. Worthington St., Oconomowoc, WI, 53066, 414-567-9157 V.P./General Manager: Robert J. Wurm Ass. Manager: Rita Suechting National Sales Manager: Paul James Products: complete line of sound measuring and analyzing instruments, and the Silent Page Assistive Listening Device for the hearing impaired. See full listing under **Test Equipment & Tools** 

Schell Electronics, Inc., 120 N. Lincoln, Chanute, KS, 66720, 316-431-2350 President: Jerry Schell Sec'y./Treas.: Janice Schell Products: The Transwave Wireless FM System for the hearing impaired designed especially for use in churches, auditoriums, theaters, or any place where hearing can be a problem. The system allows the hearing impaired individual the freedom to sit anywhere in the space and hear the

speaker's voice clearly transmitted. Sennheiser Elec. Corp., 48 W. 38th St., New York, NY,

10018, 212-944-9440

Products: a full line of microphones (dynamic, electret, and condenser) as well as RF (hand-held, body-pac, single channel, diversity/non-diversity, and rack-mount), infrared listening equipment, headphones and portable mixers. See full listing under **Microphones** 

Telex Communications, Inc., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager: Gary Fisher Dir. of Marketing: Donald Mereen Products: wireless base station transmitter and pocket sized receiver system for churches, theaters, outdoor

sized receiver system for churches, theaters, outdoevents, and more.

See full listing under **Pro Audio Sound Systems & Products** 

Unex, A Dynatech Company, 4 Kidder Road, Chelmsford, MA, 01824, 617-256-8222

Products: infrared professional sound system for churches, schools, nursing homes, and auditoriums; connects easily to audio systems for interference-free aid to the hearing-impaired who wear lightweight wireless receivers.

Williams Sound Corp., 5929 Baker Rd., Minnetonka, MN, 55345-5997, 612-931-0291, 800-328-6190 President: Gerald I. Williams General Manager: James M. Broz Dir. of Marketing: Paul S. Ingebritsen Sales Manager: Jeff Peters Chief Engineer: Jay Kershaw Products: FM wireless hearing-assistance systems; programmable wireless microphone systems; wireless tour guide systems; talent cueing and loop systems.

## IN/OUT REGISTERS

Alpha Communications, 89-D Cabot Ct., Hauppauge, NY, 11788-3717, 516-434-8080, FAX: 516-434-8334 President: Mark S. Goldberg Vice President: Madelyn R. Goldberg Products: intercom and video/intercom systems for apartment, home, and industry, custom-made vandal-resistant lobby panels and apartment stations for new and retrofit, 2wire apartment intercom, non-coax video/intercom. See full listing under Intercom Apartment/Residential

Com-Tec Inc., P.O. Box 965, 639 Hickory Farm Lane, Appleton, WI, 54914, 414-734-7105 President: Ken McLellan Vice President: Tony Leslie Products: Med-Index, and Staff Register System.



Cornell Electronics Products, Inc., 4911 W. Good Hope Rd., Milwaukee, WI, 53223, 414-351-4660 President: Donald Glaubitz V.P. and Chief Engineer: Gary Butler Sales Manager: Pauline Haack Products: visual nurse call, audio visual nurse call, door monitors, apartment intercom, in/out register, institutional intercom, silent paging.

See full listing under Intercom Hospital Health Care

Fisher-Berkeley Corp.—Ektacom, 5800 Christie Ave., Emeryville, CA, 94608, 415-655-9696 President: Robert S. Fisher V.P. Engineering: Robert T. Shipley Sales Engineer: Michael D. Lagrimas Sales Engineer: Roger E. Stewart Products: duplex and simplex intercom systems, annunciator and voice call-in; visual and audio/visual nurse call systems; MMC microcomputer nurse call; manual personnel registers and apartment signaling systems. See full listing under Intercom Hospital Health Care

Franklin Instrument Co., Inc., P. O. Box 2949, Warminster, PA, 18974, 215-355-7942 Products: time systems.



Jeron Electronic Systems, Inc., 1743 W. Rosehill Dr., Chicago, IL, 60660, 312-275-1900, 800-621-1903 President: Jerome Chesnul V.P. Sales: John Charczuk

Products: nurse call, intercommunication and signalling systems for hospitals and institutions. In-out registers, room status-clinic call, door surveillance. Apartment intercom-security systems. Telephonic and video entry. See full listing under Intercom Hospital Health Care Radionics, Inc., 920 Holt Rd., Webster, NY, 14580, 716-872-2100

President: A.J. Ozminkowski

Distributor/Sales Mgr.: Roger Moore

Products: telecommunications peripheral systems including in/out registery and messaging, corporate directory assistance, and silent visual intercom systems. Tel Trak 2 allows users to determine the in/out and available/not available status of colleagues from terminals, monitors, or tone telephones. Printed messages at entry stations.

### Ring Group of North America, Inc., 230 Community

Drive, Great Neck, NY, 11021, 516-487-0250, 800-645-9690

Chief Operating Officer: Paul Ruggieri Vice President: Peter McLean

Sales & Material: Craig Krsanac

Technical: John Camello

Software: Chris Gruber

Products: hands free intercom systems, microprocessor, field programmable interface with telephone, paging, alarm systems, school and annunciator communications systems-simplex and microprocessor operation. Speakers, amplifiers, and baffles.

See full listing under Intercom Duplex

Sensor Engineering Co., 2155 State Street, Hamden, CT 06517, 203-777-7443

Synergistics, Inc., 3 Erie Drive, Natick, MA, 01760, 617-655-1340

## **EDSTAN** Doctors Register

**Time & Sound Co., Inc.**, 14120 Live Oak Ave., Baldwin Park, CA, 91706, 818-960-7781, 800-423-4765 Products: IBM PC-based staff register systems with video displays, smart entrance stations, visual paging option, message printer option now offers flush wall mounting printers for doctors' messages and patient location.

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## INTERCOM DUPLEX



Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison

Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products.

Alpha Communications, 89-D Cabot Ct., Hauppauge, NY, 11788-3717, 516-434-8080, FAX: 516-434-8334 President: Mark S. Goldberg Vice President: Madelyn R. Goldberg Products: intercom and video/intercom systems for apartment, home, and industry, custom-made vandal-resistant lobby panels and apartment stations for new and retrofit, 2wire apartment intercom, non-coax video/intercom. See full listing under Intercom Apartment/Residential

Alternative Communications Corp, 110 Williams St., New York, NY, 10038, 212-693-1440 President: Alan R. Fitzpatrick Executive V.P.: Sonny Greco District Offices: ATC, Santa Monica, CA, 213-395-5055 ATC, San Francisco, CA, 415-981-0880

Amplyvox USA/Security Intercom, Inc., 1833 N. 105th, Seattle, WA, 98133, 206-523-6170 President: Gerard H. Mooyman Director of Sales: Jeffrey L. Groth Sales Manager: Claudio Mazzola National Advertising: John Bernard

Products: video-audio entry-control duplex intercom systems, interior-exterior entrance panel modules with built-in incandescent lighting. Colored finished choice of gold, aluminum, and bronze, for one residential to large number multi-residential.

See full listing under Intercom Apartment/Residential

ATC Supply Corp., 106 Hobart St., Hackensack, NJ, 07601, 201-488-0776 President: Alan R. Fitzpatrick Sales Manager: Ed Charrier Products: hands-free intercom manufactured by LM Ericsson. Fully digital, user-programmable, features include netwroking capability and paging interface.

Columbia Scientific, Inc, P.O. Box 203190, Austin, TX, 78720, 512-258-5191

Products: multi-channel VOX intercom systems for bank drive-ins, self service gas stations, security stations, cashiers, etc.

Communications Co., Inc, 3490 Noell St., San Diego, CA,

### 92110, 619-297-3261

Products: programmable two-way intercom amplifier w/vox., media distribution amplifier, projector patch, room combining systems, record patch, RT-60 reverberation measuring device, burst octave noise generator, 1/3 octave real time analyzer, 27 B.I.T. oscillosope adapter, audio inductive loop receivers.

See full listing under Intercom Institutional/School

Comtek, Inc., 357 W. 2700 St., Salt Lake City, UT, 84115, 801-466-3463 President: Ralph Belgique Application Engineer: Steve Kartchner In-House Sales: LeeAnne Richards Products: wireless microphone systems operating up to 216 MHz and RF assistive listening systems for the hearing impaired for use in auditoriums, churches and theaters, wireless tour guide systems, wireless intercom systems, and wireless cuing systems. See full listing under **Microphones** 

### Dukane Corporation, 2900 Dukane Dr., St. Charles, IL,

60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson Division General Mgr.: Steve Deppe Products: standard and special systems of products: nurse call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. See full listing under **Portable Sound Systems** 



Elenex, Inc., 7392 Trade St., San Diego, CA, 92121, 619-566-7515

President: Sten Persson V.P. Marketing: Dennis Berglund Product Sales: Dave Arseneau Business Manager: Sally Marshall Products: Freedom™ wireless drive-thru communications, Moducom™ intercom for drive-thru/correctional high-noise applications, vehicle sensing equipment, Touch-Mic™ microphone systems, amplifiers, horns, and speech processing systems. District Offices: Elenex, Inc., N. Conocton, NY, 716-534-5950

Fisher-Berkeley Corp.—Ektacom, 5800 Christie Ave., Emeryville, CA, 94608, 415-655-9696 President: Robert S. Fisher V.P. Engineering: Robert T. Shipley Sales Engineer: Michael D. Lagrimas Sales Engineer: Roger E. Stewart Products: duplex and simplex intercom systems, annunciator and voice call-in; visual and audio/visual nurse call systems; MMC microcomputer nurse call; manual personnel registers and apartment signaling systems. See full listing under Intercom Hospital Health Care



Shown: the LAF 10B, also available in 1, 3, and 7 call-masters.

7

# Homebuilder Hot Button

Want to make a homebuilder happy? Just push the right button: Aiphone's *new* LAF home intercom. It does the job every time. Because no other system is built to communicate like Aiphone.

## Household communication, not home entertainment.

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See why dealers prefer Aiphone over all other brands combined.<sup>\*</sup> For more information on the LAF Flushmount Series, or many other reliable Aiphone products, call or write our sales department today.



\*Results of a 1987 Brand Awareness/Brand Preference Survey by Security Distributing & Marketing Magazine.

Aiphone Corporation 1700-130th Ave. N.E. Bellevue, WA 98009 (206) 455-0510 FAX (206) 455-0071 Circle 219 on Reader Response Card

World Radio History

Graystone Systems Ltd., Bradley Corp. Pk, 300 Corp. Dr., Ste #5, Blauvelt, NY, 10913, 914-353-0600, 800-952-9528, FAX: 914-353-0657 President: Ruben F. Graystone V.P. Engineering: Steve Shaki Sales Manager: Christopher LoCascio Products: manufacturer of intercom equipment and distributors of closed circuit television equipment for homes, condos, and industry. Suppliers of residential and commercial selective call video intercom systems. Specializing in intercommunications for computer room application. East coast distributor of ELBEX AMERICA. See full listing under Intercom Apartment/Residential

ITT/DES, Inc., 20 Mayfield Ave., Edison, NJ, 07607, 201-225-6121, 800-524-1646 Vice President: Donald Duthaler Chief Engineer: Jeffrey Stellman Products: full line of microprocessor-based duplex intercom systems with capabilities from 8-4000 lines. Full-

featured systems with a variety of stations. J. W. Davis & Co., 3030 Canton Street, Dallas, TX.

75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under **Audio Amplifiers** 



Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: communication and security systems for apartment house, home, and industry. Intercom, music and paging systems, mailboxes, directories, annunciators, signaling devices, communications cable, nurse-call systems, Enterview audio/visual intercom systems. See full listing under Intercom Apartment/Residential

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under Audio Amplifiers Rauland-Borg Corp., 3535 W. Addison St., Chicago, IL, 60618, 312-267-1300 President: William Krucks Sr. V. P.: Kenneth T. James National Sales Manager: Rick Blunt Chief Engineer: Lawrence Gleason Products: amplifiers, preamplifiers, mixers, equalizers, intercoms, telephone systems, school communications systems, health care communications systems, professional sound systems, paging systems, AM-FM tuners, loudspeaker systems. See full listing under **Pro Audio Sound Systems &** 

Products

**Ring Group of North America, Inc.**, 230 Community Drive, Great Neck, NY, 11021, 516-487-0250, 800-645-9690 Chief Operating Officer: Paul Ruggieri

Vice President: Peter McLean

Sales & Material: Craig Krsanac

Technical: John Camello

Software: Chris Gruber

Products: hands free intercom systems, microprocessor, field programmable interface with telephone, paging, alarm systems, school and annunciator communications systems-simplex and microprocessor operation. Speakers, amplifiers, and baffles.

District Offices:

Ring Group of N. A., Cambridge, MA, 617-661-8400 Klumpp Sales Co., Jacksonville, FL, 904-268-1529 Allwest Electronics, Cambrillo, CA, 805-388-1789 Corrigan Agencies, Covington, LA, 504-893-7455 Poetker Communications, Ontario, Canada, 519-893-1010 Gordy Duval, Chicago, IL, 312-774-5115 J. C. Electronics, Honolulu, HI, 808-943-8514

**RTS Systems**, 1100 West Chestnut St, Burbank, CA, 91506, 818-840-7119 President: Bob Ringer V. P. Mkt'g: Douglas Leighton Sales Manager: Shelley Harrison Sales Engineer: Dave Richardson Chief Engineer: Stan Hubler Products: Professional Intercommunications Systems conference-line and dedicated-line, IFB systems. Professional Audio Products - amplifiers, preamps, 10-watt monitor amp and buffer amp.

Stentofon Communications, Inc., 6012 Paretta Dr., Kansas City, MO, 64120, 816-231-7200 President: Ken Jensen Vice President: Jim Pierce Regional Sales Mgr.: Fred Hall Business Manager: Doug Caldwell Telecourier Mkt'g: Linda Wick Products: a full line of internal communications products including microprocessor based duplex and simplex intercoms, telecourier wireless paging producers, and digilarm wireless duress system. District Offices: Stentofon Communications Inc., San Dimas, CA, 714-599-9323 Stentofon Communications Inc., Fairfax, VA, 703-378-0367

Swintek Enterprises, Inc., 587 Division St., Campbell, CA, 95008, 408-378-8091

President: William P. Swintek

V.P.: Les Underwood

Products: RF full-duplex intercoms, switching diversity receivers for sound reinforcement, mini receivers for video cameras, lavalier and hand-held FM transmitters, antenna distribution amplifiers to 470 mHz. See full listing under **Microphones** 

**Technical Projects, Inc.**, 449 Princeton Ave., P.O. Box 1449, Barrington, IL, 60010, 312-381-5350, 800-562-5872 President: Glenn Mullis Secretary/Treasurer: Sibbelina Mullis Technician: Mike Barrett

Products: full-line wired production Intercom Systems for industrial, theatre, educational and sports. Plus "unique problem solving" devices. Also includes headsets for fast food drive-thru.

See full listing under Intercom Production & Theatrical

Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman

Director of Marketing: Donald Mereen

Products: closed circuit intercom systems for headset or speaker station listening with 2, 3, and 4 channel master-stations.

See full listing under Pro Audio Sound Systems & Products

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems. See full listing under **Pro Audio Sound Systems & Products** 

Westpark Communications, Inc., 2408 Superior Dr., Arlington, TX, 76013, 817-469-1144 President: Jim Burke V. P. Marketing: Sam Smith V. P. Engineering: Larry Norris Products: drive-thru communication systems for fast food restaurants. Features include hands free operation, multiple order stations, headsets and background music.

## NEW! ST TZC INTERCOM SYSTEM

#### FEATURING STATE-OF-THE-ART DESIGN AT DOWN-TO-EARTH COST.

Now you can offer your customers a totally new simplex intercom system that provides the high quality sound and high tech design of the more expensive duplex systems.

#### The advance-design Master Station features:

- Microprocessor control.
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### ST 129 Substations feature:

- Desk and wall models.
- LED signal and Privacy Switch.

Master Station

Desk Substation

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Choice of one or three call buttons for contacting Master Station(s).

 Hands-free communication.

Easy expandability:

System can consist of one to three Master Stations, plus add-on Handset Units, Switch Modules and Power Supply Units, for direct lines to as many as 120 substations. Whether upgrading old systems or installing new, the ST 120 offers top-line quality to your customers and bottom-line benefits to you.

Call or write for details, today.

**Stentofon Communications, Inc.** 6012 Parretta Drive Kansas City, MO 64120 (816) 231-7200 FAX (816) 231-7203



## INTERCOM SIMPLEX

Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products. See full listing under Intercom Duplex

Alpha Communications, 89-D Cabot Ct., Hauppauge, NY, 11788-3717, 516-434-8080, FAX: 516-434-8334 President: Mark S. Goldberg Vice President: Madelyn R. Goldberg

Products: intercom and video/intercom systems for apartment, home, and industry, custom-made vandal-resistant lobby panels and apartment stations for new and retrofit, 2 wire apartment intercom, non-coax video/intercom. See full listing under Intercom Apartment/Residential

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500

President: John H. Ochtera

V.P. Marketing: Carl C. Dorwaldt

Nat'l. Sales Mgr.: David A. Chambers

Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor.

See full listing under Audio Amplifiers

Communications Co., Inc, 3490 Noell St., San Diego, CA, 92110, 619-297-3261

Products: programmable two-way intercom amplifier w/vox., media distribution amplifier, projector patch, room combining systems, record pattch, RT-60 reverberation measuring device, burst octave noise generator, 1/3 octave real time analyzer, 27 B.I.T. oscillosope adapter, audio inductive loop receivers.

See full listing under Intercom Institutional/School

Communications Equipment Co., Inc., 6443 Western Ave., Glen Arbor, MI, 49636, 616-334-3081 President: Darrell W. Thomas Sales Manager: Thomas A. Garmhausen Products: commercial/industrial telephone and loudspeaking intercom systems, self-contained intercom masters for service windows, fast-food restaurants, self-serve gas stations.

See full listing under Alarm & Security

Fanon Courier, 14281 Chambers Road, Tustin, CA, 92680, 714-669-9890, 800-345-1354 President: Frank Blaha Director Sales/Mkt'g: Murray Trotiner Director of Engineering: Miguel Santana Products: PA amplifiers and systems, paging/talkback speakers, intercom systems, megaphones, FM scanning monitors, and CB transceivers. See full listing under Pro Audio Sound Systems & Products

Fisher-Berkeley Corp.—Ektacom, 5800 Christie Ave., Emeryville, CA, 94608, 415-655-9696 President: Robert S. Fisher V.P. Engineering: Robert T. Shipley Sales Engineer: Michael D. Lagrimas Sales Engineer: Roger E. Stewart Products: duplex and simplex intercom systems, annunciator and voice call-in; visual and audio/visual nurse call systems; MMC microcomputer nurse call; manual personnel registers and apartment signaling systems. See full listing under Intercom Hospital Health Care

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Jeron Electronic Systems, Inc., 1743 W. Rosehill Dr., Chicago, IL, 60660, 312-275-1900, 800-621-1903 President: Jerome Chesnul V.P. Sales: John Charczuk Products: nurse call, intercommunication and signalling systems for hospitals and institutions. In-out registers, room status-clinic call, door surveillance. Apartment intercom-security systems. Telephonic and video entry. See full listing under Intercom Hospital Health Care



Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: communication and security systems for apartment house, home, and industry. Intercom, music and paging systems, mailboxes, directories, annunciators, signaling devices, communications cable, nurse-call systems, Enterview audio/visual intercom Systems. See full listing under Intercom Apartment/Residential Marsh Products Inc., 336 McKee Street, Batavia, IL, 60510, 312-879-8008 Products: audio communications, drive-thru.

Norçon Electronics, Inc., 1260 Ralph Ave., Brooklyn, NY, 11236, 718-451-1112 Products: talk-thru-communicator in subways through the glass.

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under **Audio Amplifiers** 

Ring Group of North America, Inc, 230 Community Drive, Great Neck, NY, 11021, 516-487-0250, 800-645-9690 Chief Operating Officer: Paul Ruggieri Vice President: Peter McLean Sales & Material: Craig Krsanac Technical: John Camello Software: Chris Gruber Products: hands free intercom systems, microprocessor, field programmable interface with telephone, paging, alarm systems, school and annunciator communications systems-simplex and microprocessor operation. Speakers,

amplifiers, and baffles.

See full listing under Intercom Duplex

RTS Systems, 1100 West Chestnut St, Burbank, CA, 91506, 818-840-7119 President: Bob Ringer V. P. Mkt'g: Douglas Leighton Sales Manager: Shelley Harrison Sales Engineer: Dave Richardson Chief Engineer: Stan Hubler Products: Professional Intercommunications Systems conference-line and dedicated-line, IFB systems. Professional Audio Products - amplifiers, preamps, 10-watt monitor amp and buffer amp. See full listing under Intercom Duplex

Sound Products/3M, 3M Center 225-S-10, St. Paul, MN, 55144-1000, 612-733-0447 Marketing Manager: Don Rada Sales Manager: Don Sluder Products: music libraries for all purposes. Players, Industrial quality intercoms and vehicle detectors. Top-line message repeater. Speaker assemblies for distributed systems. Microphones, amplifiers and other sound system components.

See full listing under Back/Foreground Systems Libraries

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516 President: Louis W. Keller V.P. & General Manager: James J. Ganci V.P./Sales & Marketing: Mel Hulkower Regional Sales Manager: Eric Forman **Regional Sales Manager: Bruce Kurtz** Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; complete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, background/foreground enclosed speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, attenuators, microphones, & intercoms. See full listing under Audio Amplifiers

T.S.K. Electronics, Inc., 564 Young St., P.O. Box 190, Tonawanda, NY, 14151-0190, 716-693-3916 President: Theodore S. Kedzierski Chief Engineer: Kevin T. Kedzierski Products: zero-level loudspeaking intercommunication systems for use on very long twisted or leased telephone lines, communication system design and fabrication, audio detection systems and warehouse telephone intercoms. See full listing under **Intercom Industrial** 

Tektone Sound & Signal Mfg. Inc., 1331 S. Killian Dr., Lake Park, FL, 33403, 305-844-2383, FAX: 305-845-1587 President: Manuel Mira General Manager: Carlos Mira Sales Mkt'g Director: Tom Hendricks Chief Engineer: Jim Switzer Products: intercom/video intercom systems for home, apartment, commercial, institutional with telephone or loudspeaking operation and door answering. UL listed nurse call, security/alarm, emergency call and AM/FM radio intercom systems. See full listing under Intercom Apartment/Residential

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems. See full listing under **Pro Audio Sound Systems &** 

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### INTERCOM APARTMENT/RESIDENTIAL

Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products. See full listing under **Intercom Duplex** 

Amplyvox USA/Security Intercom, Inc., 1833 N. 105th, Seattle, WA, 98133, 206-523-6170 President: Gerard H. Mooyman Director of Sales: Jeffrey L. Groth Sales Manager: Claudio Mazzola National Advertising: John Bernard

Cambridge Electronics Laboratories, 20 Chester St., Sommerville, MA, 02144-3005, 617-629-2805 President: Dr. Jeffrey Race Sales Manager: Charlotte Bissell See full listing under **Telephone System Peripherals** 

Cornell Electronics Products, Inc., 4911 W. Good Hope Rd., Milwaukee, WI, 53223, 414-351-4660 President: Donald Glaubitz V.P. and Chief Engineer: Gary Butler Sales Manager: Pauline Haack Products: visual nurse call, audio visual nurse call, door monitors, apartment intercom, in/out register, institutional intercom, silent paging. See full listing under Intercom Hospital Health Care

Fisher-Berkeley Corp.—Ektacom, 5800 Christie Ave., Emeryville, CA, 94608, 415-655-9696 President: Robert S. Fisher V.P. Engineering: Robert T. Shipley Sales Engineer: Michael D. Lagrimas Sales Engineer: Roger E. Stewart Products: duplex and simplex intercom systems, annunciator and voice call-in; visual and audio/visual nurse call systems; MMC microcomputer nurse call; manual personnel registers and apartment signaling systems. See full listing under Intercom Hospital Health Care



Graystone Systems Ltd., Bradley Corp. Pk, 300 Corp. Dr., Ste #5, Blauvelt, NY, 10913, 914-353-0600, 800-952-9528, FAX: 914-353-0657 President: Ruben F. Graystone V.P. Engineering: Steve Shaki Sales Manager: Christopher LoCascio Products: manufacturer of intercom equipment and distributors of closed circuit television equipment for homes,

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condos, and industry. Suppliers of residential and commercial selective call video intercom systems. Specializing in intercommunications for computer room application. East coast distributor of ELBEX AMERICA. **District Offices:** 

Frank Assoc., Sudbury, MA, 617-443-5131 Professional Electric, Yonkers, NY, 914-779-6118 Freedman & Assoc., Cherry Hill, NJ, 609-751-0157 Marketline Ltd., Baltimore, MD, 301-944-2111 Westech. Fountain Valley, CA, 714-962-2545



Jeron Electronic Systems, Inc., 1743 W. Rosehill Dr., Chicago, IL, 60660, 312-275-1900, 800-621-1903 President: Jerome Chesnul V.P. Sales: John Charczuk

Products: nurse call, intercommunication and signalling systems for hospitals and institutions. In-out registers, room status-clinic call, door surveillance. Apartment intercom-security systems. Telephonic and video entry. See full listing under Intercom Hospital Health Care

Siedle Intercom, 780 Parkway, Broomal, PA, 19008, 215-353-9595 President: Earl Zausmer Sales/East Coast: Steve Camp

Sales/West Coast: Jim Scholl

Products: 2-wire apartment systems, open view push to talk intercom, video intercom, school & hospital systems.



Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: apartment house intercom from two units up. Custom made lobby panels and apartment stations for retrofit applications. Enterview combination audio/visual intercom. Government approved mailboxes.

Multi-Vox Ltd., 9967 St. Michel Blvd., Montreal- Nord, Quebec, Canada, H1H 5G7, 514-321-3131 President: Fernand Parent Engineer: Dominique Malenfant **Operations Mgr.: Georges Morissette** Sales/Technical Cdr.: Antoine Krelio Products: solid state and microprocessor controlled intercom systems for apartments, hospital and health care facilities, schools, institutions and industries, paging systems, audio amplifiers, chimes, simplex intercom systems.



Circle 248 on Reader Response Card

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under **Audio Amplifiers** 

Sentex Systems, Inc., 20732 Lassen St., Chatsworth, CA, 91311, 818-700-9800

President: William R. Davis

Exec. V.P.: Richard P. Greenthal

Mgr. of Admin.: Frances H. Butler

Sales: Andrew M. Greenthal

Operations Mgr.: Sharon A. Dawson

Products: access control equipment including telephone entry, card access, and keypad entry systems. All systems are rugged, stand-alone systems, ideally suited for outdoor applications.

**District Offices:** 

Bi-State Marketers, Ridgefield, NJ, 201-943-5888 Austin Assoc., Willingboro, NJ, 609-871-9290 Coaxial Systems Assoc., Inc., Tequesta, FL, 305-746-6626

Denning Electronics, Hinsdale, IL, 312-920-1488 Technical Products Corp., Denver, CO, 303-333-1141 Boggs & Assoc., Ft. Washington, MD, 301-292-2047



Tektone Sound & Signal Mfg. Inc., 1331 S. Killian Dr., Lake Park, FL, 33403, 305-844-2383, FAX: 305-845-1587 President: Manuel Mira General Manager: Carlos Mira Sales Mkt'g Director: Tom Hendricks Chief Engineer: Jim Switzer Products: intercom/video intercom systems for home, apartment, commercial, institutional with telephone or loudspeaking operation and door answering. UL listed nurse call, security/alarm, emergency call and AM/FM radio intercom systems. District Offices: Alarmtronics, Burnsville, MN, 612-890-0309 Wm, B. Allen Supply Co., New Orleans, LA, 504-525-8222

Wm. B. Allen Supply Co., New Orleans, LA, 504-525-8222 Alvan C. Chaney & Assoc., Healeah, FL, 305-558-3933 Dardon & Assoc., Olmstead Township, OH, 216-234-4555 Klumpp Sales Co., Jacksonville, FL, 904-268-1529 Lee Dan Communications, Hauppauge, NY, 516-231-1414

Lichtenauer & Assoc., Antioch, CA, 415-757-1200 Majestic Sales, Chicago, IL, 312-582-4300 Mountain Representatives, Denver, CO, 303-623-0972 Chuck Olson Assoc., Renton, WA, 206-271-5416 Universal Agents & Assoc., Bloomington, MN, 612-894-3660

Westech Marketing, Culver City, CA, 213-870-9286 Hallwood Agencies, Ltd., Burnaby, BC, CD, 604-294-8581 Alpha Communications, Hauppauge, NY, 516-434-8080



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- Nurse call systems



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## INTERCOM INSTITUTIONAL/SCHOOL

Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products. See full listing under Intercom Duplex

BCE/Edcom, Inc., 1585A Britannia RD. E., #7, Mississauga, Ont., CD, L4W 2M4, 416-678-0801 President: Peter Jova Sales Manager: Keith Moore Project Manager: Alan Butterfield Products: administrative communications systems for use in schools, hospitals, correctional institutes, military personnel housing, retirement complexes, airports, etc.,  $100\% \mu$ -processor-controlled. District Offices: Wood & Co., Buffalo, NY, 716-886-0019

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500 President: John H. Ochtera

V.P. Marketing: Carl C. Dorwaldt

Nat'l. Sales Mgr.: David A. Chambers

Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor.

See full listing under Audio Amplifiers

Communications Co., Inc, 3490 Noell St., San Diego, CA, 92110, 619-297-3261

Products: programmable two-way intercom amplifier w/vox., media distribution amplifier, projector patch, room combining systems, record pattch, RT-60 reverberation measuring device, burst octave noise generator, 1/3 octave real time analyzer, 27 B.I.T. oscillosope adapter, audio inductive loop receivers.

Communications Equipment Co., Inc., 6443 Western Ave., Glen Arbor, MI, 49636, 616-334-3081 President: Darrell W. Thomas Sales Manager: Thomas A. Garmhausen Products: selective signal, common talk, telephone systems; including multiple talk channels, paging access, internal speakers for hands-free answering; other special features.

See full listing under Alarm & Security

Cornell Electronics Products, Inc., 4911 W. Good Hope Rd., Milwaukee, WI, 53223, 414-351-4660 President: Donald Glaubitz V.P. and Chief Engineer: Gary Butler Sales Manager: Pauline Haack Products: visual nurse call, audio visual nurse call, door monitors, apartment intercom, in/out register, institutional intercom, silent paging.

See full listing under Intercom Hospital Health Care

Delta Communications Co., 7852 78th Ave., S.W., Tacoma, WA, 98498, 206-582-2201 President: Sid C. Flothe Sales Manager: Sid C. Flothe Products: school & institutional intercom systems designed to replace existing systems, or new construction 10 rooms and up; two sizes; #2600 & #2500 Series; Time-Tone signals; Telephone or speakers; selector panels.

Dukane Corporation, 2900 Dukane Dr., St. Charles, IL,

60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson Division General Mgr.: Steve Deppe Products: standard and special systems of products: nurse call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. See full listing under **Portable Sound Systems** 

Graystone Systems Ltd., Bradley Corp. Pk, 300 Corp. Dr., Ste #5, Blauvelt, NY, 10913, 914-353-0600, 800-952-9528, FAX: 914-353-0657 President: Ruben F. Graystone V.P. Engineering: Steve Shaki Sales Manager: Christopher LoCascio Products: manufacturer of intercom equipment and distributors of closed circuit television equipment for homes, condos, and industry. Suppliers of residential and commercial selective call video intercom systems. Specializing in intercommunications for computer room application. East coast distributor of ELBEX AMERICA.

See full listing under Intercom Apartment/Residential

Jeron Electronic Systems, Inc., 1743 W. Rosehill Dr., Chicago, IL, 60660, 312-275-1900, 800-621-1903 President: Jerome Chesnul V.P. Sales: John Charczuk Products: nurse call, intercommunication and signalling systems for hospitals and institutions. In-out registers, room status-clinic call, door surveillance. Apartment intercom-security systems. Telephonic and video entry

com-security systems. Telephonic and video entry. See full listing under Intercom Hospital Health Care



Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: Com-Care emergency call systems for multiAre you a consultant with a job coming up and are looking for a qualified contractor? Sound & Communications Job Report is the place where these qualified people will see it and respond. Send vour Job Report information to: Debra A. Pagan Managing Editor Sound & Commuications 25 Willowdale Avenue Port Washington, NY 11050

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### **RAULAND-BORG CORPORATION**

3535 W. Addison St., Chicago, III, 60618 • 1-312-267-1300 In Canada: Rauland-Borg Corporation (Canada) Inc. • 6535 Millcreek Dr., Unit 5, Mississauga, Ont., Can. L5N 2M2 dwelling senior citizen housing. UL nurse-call systems. Intercom systems for dormitories. See full listing under Intercom Apartment/Residential

Multi-Vox Ltd., 9967 St. Michel Blvd., Montreal- Nord, Quebec, Canada, H1H 5G7, 514-321-3131 President: Fernand Parent Engineer: Dominique Malenfant Operations Mgr.: Georges Morissette Sales/Technical Cdr.: Antoine Krelio Products: solid state and microprocessor controlled intercom systems for apartments, hospital and health care facilities, schools, institutions and industries, paging systems, audio amplifiers, chimes, simplex intercom systems. See full listing under Intercom Apartment/Residential

Poetker Communications, Ltd., 461 Manitou Dr., Kitchner, Ontario, N2JIH3, 519-893-1010 President: B. W. Poetker

Sales Manager: G. R. Ertel

Products: 2200 Series school or institutional communication system, 25 STN thru 250 STN; MCS250 Series microprocessor based school or institutional communication system, 16 STN thru 256 STN.

District Offices:

Ring Group of North America, Great Neck, NY, 800-645-9690

Powertronix, 10623 Lawson River Ave., Fountain Valley, CA, 92708, 714-963-5411

President: Robert Gehlke

Sales Mgr.: Bill Organ

Products: self-contained 200 watt voice evacuation system; 400 watt current drive distribution amplifiers with 24V-48VDC emergency back-up power capability; 24VDC mobile amplifier with three electronically-switched, prioritized inputs.

See full listing under Audio Amplifiers

Rauland-Borg Corp., 3535 W. Addison St., Chicago, IL, 60618, 312-267-1300

President: William Krucks

Sr. V. P.: Kenneth T. James

National Sales Manager: Rick Blunt

Chief Engineer: Lawrence Gleason

Products: amplifiers, preamplifiers, mixers, equalizers, intercoms, telephone systems, school communications systems, health care communications systems, professional sound systems, paging systems, AM-FM tuners, loudspeaker systems.

## See full listing under Pro Audio Sound Systems & Products

**Ring Group of North America, Inc.**, 230 Community Drive, Great Neck, NY, 11021, 516-487-0250, 800-645-9690

Chief Operating Officer: Paul Ruggieri Vice President: Peter McLean Sales & Material: Craig Krsanac Technical: John Camello Software: Chris Gruber

Products: hands free intercom systems, microprocessor, field programmable interface with telephone, paging, alarm systems, school and annunciator communications systems-simplex and microprocessor operation. Speakers, amplifiers, and baffles. See full listing under Intercom Duplex

RTS Systems, 1100 West Chestnut St, Burbank, CA, 91506, 818-840-7119 President: Bob Ringer V. P. Mkt'g: Douglas Leighton Sales Manager: Shelley Harrison Sales Engineer: Dave Richardson Chief Engineer: Stan Hubler Products: Professional Intercommunications Systems conference-line and dedicated-line, IFB systems. Professional Audio Products - amplifiers, preamps, 10-watt monitor amp and buffer amp. See full listing under Intercom Duplex

Siedle Intercom, 780 Parkway, Broomal, PA, 19008, 215-353-9595 President: Earl Zausmer Sales/East Coast: Steve Camp Sales/West Coast: Jim Scholl Products: 2-wire apartment systems, open view push to talk intercom, video intercom, school & hospital systems. See full listing under Intercom Apartment/Residential

**Sound Powered Communications Corp.**, 335 Robbins Ave., PO Box 5569, Trenton, NJ, 08638, 609-883-1180 Sales Manager: Harry Mosle Products: sound-powered communications equipment including intercom stations, field telephones, handsets, noise-attenuating headsets, hook-up cable, reel systems,

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516 President: Louis W. Keller V.P. & General Manager: James J. Ganci V,P,/Sales & Marketing: Mel Hulkower Regional Sales Manager: Eric Forman Regional Sales Manager: Bruce Kurtz Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; complete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, background/foreground enclosed speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, attenuators, microphones, & intercoms. See full listing under Audio Amplifiers

**Tektone Sound & Signal Mfg. Inc.**, 1331 S. Killian Dr., Lake Park, FL, 33403, 305-844-2383, FAX: 305-845-

1587 President: Manuel Mira

General Manager: Carlos Mira

and accessories.

Sales Mkt'g Director: Tom Hendricks

Chief Engineer: Jim Switzer

Products: intercom/video intercom systems, common talk paging intercom system, intruder alarm system, audiovisual emergency alarm and monitoring system, UL listed audio-visual and visual only nurse call systems, emergency call system, in/out register.

See full listing under Intercom Apartment/Residential

Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe

Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman

Director of Marketing: Donald Mereen

Products: closed circuit intercom systems for headset or speaker station listening with 2, 3, and 4 channel master-stations.

See full listing under **Pro Audio Sound Systems & Products** 

Touchplate International Inc., 16530 Garfield Ave., Paramount, CA, 90723, 213-636-8171 Products: all-master intercom systems, low-voltage light switching, signal, and room-status systems. Flush plate line of wall plates, speaker baffles and accessories.

Valcom Inc., 1111 Industry Ave., Roanoke, VA, 24013, 703-982-3900

President: J.W. Mason

Sales Manager: Donald Buck

Chief Engineer: D. Lynch

Products: telephone integrated paging and intercom systems, talkback, bell-buzzer, code call, PBX adapters, key telephone systems ancillaries, loud-ringers, power supplies, amplified and talkback speakers.

See full listing under Paging Systems

### INTERCOM HOSPITAL HEALTH CARE

Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products. See full listing under **Intercom Duplex** 

Alpha Communications, 89-D Cabot Ct., Hauppauge, NY, 11788-3717, 516-434-8080, FAX: 516-434-8334 President: Mark S. Goldberg

Vice President: Madelyn R. Goldberg Products: intercom and video/intercom s

Products: intercom and video/intercom systems for apartment, home, and industry, custom-made vandal-resistant lobby panels and apartment stations for new and retrofit, 2wire apartment intercom, non-coax video/intercom. See full listing under Intercom Apartment/Residential

American Zettler Corp., 16881 Hale Ave., Irvine, CA, 92714, 714-660-1670 National Mkt'g Mgr.: Michael Nathanson Products: nurse call systems ranging from simple directselect type with "no-loss" speech, to sophisticated computer-based nurse call/patient information systems.

Bunting Inc., 46 Beatrice St., Bridgeport, CT, 06607, 203-384-0081

Products: nurse call equipment, small TV for hospitals.

Communications Equipment Co., Inc., 6443 Western Ave Glen Arbor, MI, 49636, 616-334-3081 President: Darrell W. Thomas Sales Manager: Thomas A. Garmhausen Products: five different nurse-call systems including audio visual, visual only, and doctor's in-out registers. Included are emergency call systems for nursing homes and elderly housing, both new construction and rehabilitation. See full listing under Alarm & Security



Cornell Electronics Products, Inc., 4911 W. Good Hope Rd., Milwaukee, WI, 53223, 414-351-4660 President: Donald Glaubitz V.P. and Chief Engineer: Gary Butler Sales Manager: Pauline Haack Products: visual nurse call, audio visual nurse call, door monitors, apartment intercom, in/out register, institutional intercom, silent paging. **District Offices:** SLK Tech Rep Assoc., Hayward, CA, 415-785-4531 Gustafson System Sales, Inc., Palatine, IL, 312-358-2505 Bidwell Sales Assoc. of AZ, Mesa, AZ, 602-265-2029 Pinz, Rockville Centre, NY, 516-678-6887 Dick Belew Sales, Inc., Dallas, TX, 214-644-7881 Cavendish and Winchester, Inc., Atlanta, GA Avcom, Inc., N. Olmsted, OH Richard S. Pass Assoc., Langhorne, PA Kingston Sales Corp., Indianapolis, IN Rancillio Assocs., St. Louis, MO Russ Bidwell Sales, Gardena, CA CB Electronic Marketing, Arvada, CO Cartwright & Bean, Inc., Orlando, FL Avwest, Inc., Fountain Hills, AZ LSM Assoc., Phelps, NY McLaughlin-Long Marketing, Inc., Woodinville, WA William A. Ellinger, Palm Coast, FL W.A. Hendrickson Co., Inc., Scituate, MA Kodo Assoc., Inc., Minneapolis, MN

Crest Electronics Inc., Simon at Third, Dassel, MN, 55325, 612-275-3382, 800-328-8908 President: James H. Holm Engineering Support Mgr.: Brian Torney CFO: Bob Zahler Production Mgr.: Jerry Kumpula Products: pillow speakers, nurse-call cords, bed controls, annunciators, security control systems, doctors' registers, patient lighting, audio and visual nurse-call systems, clinic systems.

Diversatronics, 620 Park Way, Broomall, PA, 19008, 215-356-3995 President: Wilfred Klein Sales Mgr.: Wilfred Klein

#### Chief Engineer: Wilfred Klein

Products: doctor-locating and patient-flow monitors in many configurations utilizing colored lights and various flashing rates to send information from exam rooms to reception areas.

Dukane Corporation, 2900 Dukane Dr., St. Charles, IL, 60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson Division General Mgr.: Steve Deppe Products: standard and special systems of products: nurse call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. See full listing under **Portable Sound Systems** 

Edstan Doctors Register Div. of Time & Sound Co., Inc., 14120 Live Oak Ave., Baldwin Park, CA, 91706, 818-960-7781-960-7781, 800-426-4765

Engineered Electronics, Inc., 4301 Industrial Access Rd., Douglasville, GA, 30134, 404-949-3290 President: Roy J. Caviness Secretary/Treasurer: Anthony W. Bunch Products: door monitor panels, pillow speakers with assorted plug types, and a complete line of U. L. listed visual and audio/visual nurse call equipment.

Fisher-Berkeley Corp.-Ektacom, 5800 Christie Ave.,

Emeryville, CA, 94608, 415-655-9696 President: Robert S. Fisher V.P. Engineering: Robert T. Shipley Sales Engineer: Michael D. Lagrimas Sales Engineer: Roger E. Stewart Products: duplex and simplex intercom systems, annunciator and voice call-in; visual and audio/visual nurse call systems; MMC microcomputer nurse call; manual personnel registers and apartment signaling systems. District Offices: Arthur E. Tilley, Jr., Fayetteville, PA, 717-352-8432 Walter D. Radner, Westfield Center, OH, 216-887-5646

ITT/DES, Inc., 20 Mayfield Ave., Edison, NJ, 07607, 201-225-6121, 800-524-1646 VP Donald Duthaler CE Jeffrey Stellman Products: full line of microprocessor-based duplex intercom systems with capabilities from 8-4000 lines. Totally fullfeatured systems with a complete variety of stations. See full listing under Intercom Duplex

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers



### What's new? Sound & Communications

Products section showcases several products every month by both large and small manufacturers.

### Sound & Communications

also includes commentary by Gary Davis (noted technical writer and consultant) in our Products in Review section. This commentary helps sort out what is a new product and what is an update on a previous product.

Send all your product news with pictures to: Debra A. Pagan **Sound & Communications** 25 Willowdale Avenue Port Washington, NY 11050

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Jeron Electronic Systems, Inc., 1743 W. Rosehill Dr., Chicago, IL, 60660, 312-275-1900, 800-621-1903 President: Jerome Chesnul

V.P. Sales: John Charczuk

Products: nurse call, intercommunication and signalling systems for hospitals and institutions. In-out registers, room status-clinic call, door surveillance. Apartment intercom-security systems. Telephonic and video entry. District Offices:

M. Schlarman, Wanaque, NJ, 201-839-2243 ASR Enterprises, Ltd. Fallston, MD, 301-893-0001 Burcaw Company & Assoc., Warren, MI, 313-573-4605 Central Marketing Group, Kansas City, MO, 816-741-7460 Jim Church Marketing, Bloomington, IN, 812-334-0383 Crockett/Petty, Dallas, TX, 214-350-3377

Greg Dzubay & Assoc., Peoria, AZ, 602-979-2358 Gemini Electronics Marketing, Edmonds, WA, 206-776-3121

Gustafson Sales, Red Wing, MN, 612-388-4277 J.W. Lehner Co., Stow, OH, 216-686-1965 Meyer Marketing, Deerfield Beach, FL, 305-481-9250 Meyer & Ross, Burlingame, CA, 415-348-6800 New West Agency, San Diego, CA, 619-299-3269 Pacific West Marketing, Honolulu, HI, 803-923-5563 Henry Philips Co., Roswell, GA, 404-992-3070 RG Assoc., Stow, MA, 617-897-7146 Silver Peak Marketing, Ltd., Wheat Ridge, CO, 303-467-9042 John S. Wilkin & Assoc., Hillboro, OH, 513-393-1137

### Lee Dan Communications, 155 Adams Ave.,

Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: UL 1609 listed nurse call systems, Ccm-Care emergency call system for multi-dwelling senior citizen housing. Intercom systems for doctor's offices and examining rooms. Sony Watchcam systems. See full listing under Intercom Apartment/Residential

Multi-Vox Ltd., 9967 St. Michel Blvd., Montreal- Nord, Quebec, Canada, H1H 5G7, 514-321-3131 President: Fernand Parent Engineer: Dominique Malenfant Operations Mgr.: Georges Morissette Sales/Technical Cdr.: Antoine Krelio Products: solid state and microprocessor controlled intercom systems for apartments, hospital and health care facilities, schools, institutions and industries, paging systems, audio amplifiers, chimes, simplex intercom systems. See full listing under Intercom Apartment/Residential



Powertronix, 10623 Lawson River Ave., Fountain Valley, CA, 92708, 714-963-5411 President: Robert Gehlke Sales Mgr.: Bill Organ Products: self-contained 200 watt voice evacuation system; 400 watt current drive distribution amplifiers with 24V-48VDC emergency back-up power capability; 24VDC mobile amplifier with three electronically-switched, prioritized inputs.

See full listing under Audio Amplifiers

Rauland-Borg Corp., 3535 W. Addison St., Chicago, IL, 60618, 312-267-1300 President: William Krucks Sr. V. P.: Kenneth T. James National Sales Manager: Rick Blunt Chief Engineer: Lawrence Gleason Products: amplifiers, preamplifiers, mixers, equalizers, intercoms, telephone systems, school communications systems, health care communications systems, professional sound systems, paging systems, AM-FM tuners, loudspeaker systems.

See full listing under Pro Audio Sound Systems &

**Ring Group of North America, Inc.**, 230 Community Drive, Great Neck, NY, 11021, 516-487-0250, 800-645-9690

Chief Operating Officer: Paul Ruggieri Vice President: Peter McLean Sales & Material: Craig Krsanac Technical: John Camello



Software: Chris Gruber

Products: hands free intercom systems, microprocessor, field programmable interface with telephone, paging, alarm systems, school and annunciator communications systems-simplex and microprocessor operation. Speakers, amplifiers, and baffles.

See full listing under Intercom Duplex

Siedle Intercom, 780 Parkway, Broomal, PA, 19008, 215-353-9595

President: Earl Zausmer Sales/East Coast: Steve Camp Sales/West Coast: Jim Scholl Products: 2-wire apartment systems, open view push to talk intercom, video intercom, school & hospital systems. See full listing under Intercom Apartment/Residential

Tektone Sound & Signal Mfg. Inc., 1331 S. Killian Dr., Lake Park, FL, 33403, 305-844-2383, FAX: 305-845-1587 President: Manuel Mira General Manager: Carlos Mira Sales Mkt'g Director: Tom Hendricks Chief Engineer: Jim Switzer Products: UL 1609 listed audio-visual and visual only nurse call systems, microprocessor nurse call system, emergency call system, audio-visual emergency alarm and monitoring system, in/out register.

See full listing under Intercom Apartment/Residential



Sound & Communications

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World Radio History

## INTERCOM INDUSTRIAL

Atkinson Dynamics, 10 W. Orange Ave., S. San Francísco, CA, 94080, 415-583-9845

Encom Products Co., Inc., P.O. Box 300, 502 Lower Hopewell Road, Oxford, PA, 19363-0300, 215-932-9600 Sales: Bob Mallalieu

Products: Interphone equipment for commercial/industrial applications ranging from retail stores to offshore drilling rigs. Watertight/dustproof and explosion-proof phone units are available in the 200 Series intercom family of common-talk phones. Common-talk page phone equipment for commercial/industrial applications ranging from bowling alleys to waste water treatment plants.

### Lee Dan Communications, 155 Adams Ave.,

Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: communication and security systems for apartment house, home, and industry. Intercom, music and paging systems, mailboxes, directories, annunciators, signaling devices, communications cable, nurse-call systems, Enterview audio/visual intercom systems.

See full listing under Intercom Apartment/Residential

Metragen Ltd., 3701 Chesswood Dr., #309, Downsview, Ont., CD, M3J 2P6, 416-635-9212 Manager: Edward Wigdor Products: intercom handphones and hands-free intercom headphones, working long distances over ordinary 2-conductor wire. Internal batteries, no external power needed. Built-in buzzers. District Offices:

Cambridge Co., Niles, IL, 312-647-8100

T.S.K. Electronics, Inc., 564 Young St., P.O. Box 190, Tonawanda, NY, 14151-0190, 716-693-3916 President: Theodore S. Kedzierski Chief Engineer: Kevin T. Kedzierski Products: zero-level loudspeaking intercommunication systems for use on very long twisted or leased telephone lines, communication system design and fabrication, audio detection systems and warehouse telephone intercoms.

Talk-A-Phone Co., 5013 N. Kedzie Ave., Chicago, IL, 60625, 312-539-1100 SM Dan F. Kagen VP S. Shanes Products: intercom systems for office, industry, home, apartment house, security, bank drive-ins, restaurant, and other commercial drive-thrus.

Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman Director of Marketing: Donald Mereen Products: closed circuit intercom systems for headset or speaker station listening with 2, 3, and 4 channel masterstations.

See full listing under **Pro Audio Sound Systems & Products** 

## BURGER KING HAS MUSIC "THEIR WAY"



Functional Communications Corp., the Muzak affiliate in upstate New York, serves the business areas of Rochester, Albany and Syracuse, NY. They provide background and foreground music for a broad spectrum of retail, restaurant, and industrial locations Wendell Martin, Vice President of Engineering for Functiona Communications Corp., has designed the Muzak background music system for many BURGER KING Restaurants. Reviewing the drawings at the S. Salina Street, Syracuse location he concluded that using standard loudspeakers would require the need to install six units. However, Wendell determined that one Soundsphere #110 in the center of the dining area would do the job effectively.

Choosing a sandtone color, the speaker blended in with the wooden ceiling decor. By utilizing one speaker unit, a cos saving was effected in materials and labor. When asked abou the Soundsphere #110, the manager stated, "It's the best Burge King I have been in for even background music."

FCC has also used Soundspheres in the main terminal building a Syracuse Airport and the Danbury Fair Mall in Connecticut John Romig, President of FCC, stated "Soundsphere equipmen is an effective tool for acoustically challenging environment .....that means business!" *Circle 249 on Reader Response Card* 

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## INTERCOM PRODUCTION & THEATRICAL

Barcus Berry Electronics Inc., 5500 Bolsa Ave, Suite 245, Huntington Beach, CA, 92649, 714-897-6766, 800-233-8346 Ch'mn. of the Board: John C. McLaren Vice President: Scott Anderson Nat'I. Sales Mgr.: Jim Lucas Operations Mgr.: Jennifer Drescher Products: audio signal processors. See full listing under Audio Signal Processors

Clear-Com Intercom Systems, 1111 17th St, San Francisco, CA, 94107, 415-861-6666 President: Bob Cohen Sales Manager: Michael Goddard Products: a variety of wired and wireless conference line intercommunications equipment, designed for both headset and speaker/microphone operation.

David Clark Co., Inc., 360 Franklin St. Box 155, Worcester, MA, 01613-0155, 617-756-6216

Product Mgr. Comm.: George R. Conlon Products: portable and fixed communication systems featuring noise attenuating (reducing) headsets for use in high noise areas. VOX systems for portable radios with throat microphones, headsets and adapters for use with mobile and portable radios.

See full listing under Headphones & Headsets

Durcom Inc., PO Box 315, Bristol, CT, 06010, 203-584-5955

President: Robert Beyus

Vice President: Elizabeth Miller

Products: intercom system components and amplifiers for carbon and dynamic headsets.

District Offices:

Comprehensive Video Supply Corp., Northvale, NJ, 800-526-0242

Quality Video Supply, Hackensack, NJ, 201-488-8336 P.A.S., Ft. Worth, TX, 817-483-7474 Videoplay Industries, Tolland, CT, 203-872-9195

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo

Sales Manager: David Moore

Product Manager: Ken O'Brien

Credit Manager: Marilyn Beckerson

Operations Manager: Anthony Sgueglia

Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound

systems, Nikko Audio products.

See full listing under Audio Amplifiers

ROH , 913 W. 223rd St., Torrance, CA, 90502, 213-533-1498 Director of Mkt'g: Dan Garrigan

Director of Mikt g: Dan Garrigan

Mgr./Sales Engineering: Saul Walker Products: broadcast intercoms with beltpack and IFB accessories, Modular Audio Systems including distribution, control and buffer modules and Audio Line Monitors with built-in Bridging Switchers and VU or Peak meters. District Offices: Executive Audio, Ltd., Kingston, U. K., 01-541-0180

RTS Systems, 1100 West Chestnut St, Burbank, CA, 91506, 818-840-7119 President: Bob Ringer V. P. Mkt'g: Douglas Leighton Sales Manager: Shelley Harrison Sales Engineer: Dave Richardson Chief Engineer: Stan Hubler Products: Professional Intercommunications Systems conference-line and dedicated-line, IFB systems. Professional Audio Products - amplifiers, preamps, i0-wat monitor amp and buffer amp. See full listing under Intercom Duplex

Technical Projects, Inc., 449 Princeton Ave., P.O. Box 1449, Barrington, IL, 60010, 312-381-5350, 800-562-5872 President: Glenn Mullis Secretary/Treasurer: Sibbelina Mullis Technician: Mike Barrett Products: full-line wired production Intercom Systems for industrial, theatre, educational and sports. Plus "unique problem solving" devices. Also includes headsets for fast food drive-thru. **District Offices:** Professional Audio Mkt'g, New York, NY, 516-367-8620 Sound Sales, Lanham, MD, 301-731-6355 Audio Marketing Assoc., Brecksville, OH, 216-526-2426 Wm. M. Linz & Assoc., Deerfield, III, 312-945-9600 Design Factors, Hacienda Heights, CA, 213-697-7576

Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman Director of Marketing: Donald Mereen Products: closed circuit intercom systems for headset or speaker station listening with 2, 3, and 4 channel masterstations. See full listing under **Pro Audio Sound Systems & Products** 

Wheelock, Inc., 273 Branchport Ave., Long Branch, NJ, 07740, 201-222-6880, FAX: 201-222-8707 President: P. W. Tarlton V.P. Mktg/Sales: W.L. Goldstein V.P. Engineering: Stephan W. Andrews Market Mgr. Tel./Paging: Art Arlow Market Mgr. Life Safety/Ind.: Rein Haus Products: audible/visual signalling devices for life safety, alarm, industrial, and telephone systems applications. Paging systems for telephone system access. Products include bells, horns, speakers, strobes, chimes, speaker amplifiers, talk-back speakers, zone controls & power supplies.

See full listing under Alarm & Security

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Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026, 314-349-3110

Director of Sales: Paul Grote E. Region/Sales: Andy Musci

W. Region/Sales: Bud Waters

V.P., Consultant for Mkt'g.: Herbert Jaffe

Products: UL-listed: audio, visual and audio visual signalling devices. Voice/Tone and audio evacuation system loudspeakers and emergency warning lights. Fireman's intercom system and components, emergency telephone communications and accessories, cabinets, racks and enclosures.

See full listing under Loudspeakers

Barcus Berry Electronics Inc., 5500 Bolsa Ave, Suite 245, Huntington Beach, CA, 92649, 714-897-6766, 800-233-8346 Ch'mn. of the Board: John C. McLaren V.P.: Scott Anderson Nat'l. Sales Mgr.: Jim Lucas Operations Mgr.: Jennifer Drescher Products: audio signal processors. See full listing under Audio Signal Processors

**Community Light & Sound, Inc.**, 333 E 5th St., Chester, PA, 19013, 215-876-3400 President: Bruce Howze V. P. of Engineering: John Wiggins Vice President: Christine Howze Director of Mkt'g: John Strand Products: sound reinforcement loudspeakers for background, foreground and paging. Two, three, & four way loudspeakers systems for use in churches, schools, niteclubs, restaurants, and portable live applications. Pattern Control horns, midrange compression loudspeakers and components for engineered sound systems. See full listing under **Pro Audio Scund** Sustems.

See full listing under Pro Audio Sound Systems & Products

Dukane Corporation, 2900 Dukane Dr., St. Charles, IL, 60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson Division General Mgr.: Steve Deppe Products: standard and special systems of products: nurse call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. See full listing under **Portable Sound Systems** 

IGM Communications, Inc., 282 West Kellogg Road, Bellingham, WA, 98226, 206-733-4567 President: James F. Wells V. P. Engineering: Steve Brockway Dir. of Mkt'g/Sales: Thomas R. Ransom Products: multi-cartridge playback machines. The IGM Instacart provides instant access to any of 48 NAB-style cartridges. The IGM GoCart provides random access to any of 24 NAB-style cartridges.

ITT/DES, Inc., 20 Mayfield Ave., Edison, NJ, 07607, 201-225-6121, 800-524-1646 VP Donald Duthaler CE Jeffrey Stellman Products: full line of microprocessor-based duplex intercom systems with capabilities from 8-4000 lines. Totally fu featured systems with a complete variety of stations. See full listing under Intercom Duplex

MacKenzie Laboratories, Inc., 5507 Peck Rd., Arcadia, C/ 91006, 818-579-0440, 800-423-4147 President: Addison R. Taylor V.P./Chief Engineer: Nagy Khattar Sales & Systems: Joe Vitale Products: solid-state, digital audio message repeaters, heavy-duty, endless-loop message repeaters, voice alarm and evac. equipment, voice security equipment, boardroom AAV equipment control systems. See full listing under **Message Repeaters/Storecaster** 

Powertronix, 10623 Lawson River Ave., Fountain Valley, CA, 92708, 714-963-5411 President: Robert Gehlke Sales Mgr.: Bill Organ Products: self-contained 200 watt voice evacuation system; 400 watt current drive distribution amplifiers with 24V-48VDC emergency back-up power capability; 24VDC mobile amplifier with three electronically-switched, prioritized inputs. See full listing under **Audio Amplifiers** 

Rauland-Borg Corp., 3535 W. Addison St., Chicago, IL, 60618, 312-267-1300 President: William Krucks Sr. V. P.: Kenneth T. James National Sales Manager: Rick Blunt Chief Engineer: Lawrence Gleason Products: amplifiers, preamplifiers mixers, equalizers, inter coms, telephone systems, school communications systems, health care communications systems, professional sound systems, paging systems, AM-FM tuners, loudspeaker systems. See full listing under **Pro Audio Sound Systems** 

See full listing under Pro Audio Sound Systems & Products

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516 President: Louis W. Keller V.P. & General Manager: James J. Ganci V,P,/Sales & Marketing: Mel Hulkower Regional Sales Manager: Eric Forman Regional Sales Manager: Bruce Kurtz Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; complete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, background/foreground enclosed speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, attenuators, microphones, & intercoms. See full listing under Audio Amplifiers

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Y-SEVENTH

EDITIO

## LOUDSPEAKERS

Accusonics Systems Corp., 2101 Jericho Turnpike, New Hyde Park, NY, 11040, 516-328-3300 GM: Dennis Goodman Products: severe environment headsets, microphones

Products: severe environment headsets, microphones, and loudspeakers.



Altec Lansing Corp., Box 26105, Oklahoma City Box, OK, 73126-0105, 405-324-5311 President: Davis Merrey

V.P. Mkt'g.: Gary Rilling

Sales Manager: Gayle Campbell

Products: industrial and professional electronic and loudspeaker products including mixers, mixing consoles, power amplifiers, equalizers, compressor/limiters, high power speakers and compression drivers, constant directivity horns, crossovers, and microphones.

District Offices:

1-800-824-7888

Allen McAlister, S. CA, AZ, NM, HI, S. NV, W. TX, Ext M-266

Bill Sparling, N. CA, CO, ID, MT, WY, OR, UT, N. NV, WA, AK, Ext M-267

Steve Fauchier, IL, IA, KS, MN, MO, NE, SD, WI, N. MI, Ext M 268

Dave Read, AR, LA, MS, OK, TX, Ext M-269

Jerry Spriggs, IN, KY, Iower MI, W. NY, OH, W. PA, WV, Ext M-270

Mike Sturgeon, AL, FL, GA, NC, SC, TN, S. VA, Ext M-271 George Solti, CT, DE, MA, MD, ME, NH, NJ, RI, VT, DC, E. NY, E. PA, N. VA, Ext M-273

American Acoustics, The Mitek Group, One Mitek Plaza, Winslow, IL, 61089, 815-367-3000 President: Loyd Ivey

V.P. of Manufacturing: Dave Smythe

Products: D-Series digital loudspeakers ideal for

commercial and industrial applications where aesthetics and hi-fidelity are key considerations.

District Offices:

Pete Kallaos, Creve Coeur, MO, 314-878-3365 Dennis Ramer, Walton, IN, 219-626-3115 Thom Fehrman, Winslow, IL, 815-357-3000 William Warnock, Barrington, IL, 312-382-4550

Anchor Audio Inc., 913 West 223rd St, Torrance, CA, 90502, 213-533-5984 President: Jim Van Waay National Sales Manager: Jon Peirson Products: portable sound systems and accessories, lecturns, as well as powered speaker systems for foreground

and background applications.

See full listing under Portable Sound Systems

Apogee Sound Inc, 1150 Industrial Ave, Suite C & D, Petaluma, CA, 94952, 707-778-8887 President: Ken Deloria V.P. Marketing: Brian Glenn V.P. Sales: Joe Manning General Manager: Lynn Baker Production Manager: Jim Sides Products: sound reinforcement application loudspeaker systems from monitors to full-range high-level systems, passive and bi-amp.



Argos Products Co., 600 S. Sycamore St., Genoa, IL. 60135. 815-784-5118 President: Donald C. MacLaughlin Sales, V.P.: Ronald Evers Credit Manager: Rosella Johnson Chief Engineer: Loren Schrader Products: indoor /outdoor Sound Columns, packaged sound systems, Portable PA systems, Sound powered lecturns, background & foreground speakers, baffle/speaker combinations, baffles & enclosures. District Offices: Ted Firaneck Sales, Pontiac, MI, 313-373-9595 Nevco, Inc., Kansas City, MO, 816-421-1751 W.A. Hendrickson Co., N. Scituate, MA, 617-545-0652 Maish Sales, Mulberry, IN, 317-296-2322 TMC Sales, Ft. Lee, NJ, 201-944-8340 Shamrock Sales, Dayton, OH, 513-258-1227 Pacnor Marketing, Lynwood, WA, 206-771-6016 Murphy & Cota, Atlanta, GA, 404-875-2525 Mel Foster Tech. Sales, Edina, MN, 612-941-9800 Peregrine Southwest Reps, Houston, TX, 713-589-8481 Stinson Assoc., Havertown, PA, 215-446-8585 Lewis & Dunnigan, Syracuse, NY, 315-446-5522 G. MCL Cole Co., PArkridge, IL, 312-692-6040 Wes Tech. Marketing, Culver City, CA, 213-837-1398 Bensik Assoc., Ocala, FL, 904-732-9775

Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026, 314-349-3110 Director of Sales: Paul Grote E. Region/Sales: Andy Musci W. Region/Sales: Bud Waters V.P., Consultant for Mkt'g.: Herbert Jaffe Products: the industry's largest selection of loudspeaker systems and components for commercial sound and proaudio applications. Complete catalog of high compliance and co-axial models, UL-listed, reflex, radial, explosionproof, weather-resistant options, cone and re-entrant type loudspeakers-for communications, background/foreground music, public address, intercom and telecommunications, security and alarm systems. **District Offices:** Atlas/Soundolier, Parsippany, NJ, 201-887-7800 Atlas Electronics Ltd., Toronto, Ont., CD, 416-789-7761 Bensik Assoc., Ocala, FL, 904-732-9775 EESCO, Inc., Los Angeles, CA, 818-242-8823 Graham/Davis, Inc., Dallas, TX, 214-231-3034 Key Marketing, Plymouth, MI, 313-459-6040 Monfort Electronics Marketing, Indianapolis, IN, 317-872-9977

JR Morgan Agency, Inc., Phoenix, AZ, 602-268-3464

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Audio-Technica U. S., Inc., 1221 Commerce Drive, Stow, OH, 44224, 216-686-2600 President: Jon R. Kelly V.P. Marketing: Ken Reichel Nat'l. Sales Mgr./Pro Products: Mark Taylor Mk'tg. Mgr./Pro Products: Grea Silsby Sales Mgr./Pro Products: Mike Wuellner Products: studio condenser microphones, fixed charge condenser microphones, dynamic microphones, UniPoint™ Microphone Series, boundary layer microphones, microphone accessories, mixers, cables, direct boxes, microphone stands and booms, weatherproof hi-fidelity speaker systems. See full listing under Microphones

Audiotech, 410 South Cedar, Lansing, MI, 48912, 517-371-4148 President: Dave MacPherson Production: Mike Cosgrove Sales: Dave Arnold Products: hi-fidelity loudspeakers for sound reinforcement, touring sound rentals/installations.

Audisar, Box 1561, Bellevue, WA, 98009, 206-454-2040 Owner: R. Munger

Products: industrial audio and broadcast equipment, audio transformers, loudspeakers, power amplifiers, mixers,

sound projector interface device, test equipment, specials, Bose Corp, The Mountain, Framingham, MA, 01701, 617and engineered sound systems.

See full listing under Pro Audio Sound Systems & Products

Auernheimer Labs and Co, 4561 E. Florence Ave., Fresno, CA, 93725, 209-442-1048 **Owner: Curly Auernheimer** Products: loudspeaker systems for control rooms, studios, auditoriums, churches, business, and mixdown.

Auratone Corp, P.O. Box 698, Coronado, CA, 92118, 619-297-2820 President: Jack Wilson V.P. Finance: H.E. Wilson

V.P. Sales: S.E. Wilson

Products: recording and broadcast monitor and reference loudspeaker systems. Commercial and residential sound distribution loudspeaker systems. Also, security system audio monitor loudspeaker systems.

BES/Bertagni Electroacoustical Systems, Inc., 12753 Moore St, Cerritos, CA, 90701, 213-926-0201, 800-592-4644

President: K.L. Ching

Sales Manager: Dennis Schulgen

Chief Engineer: Alex Bertagni

Products: high-performance, hemispherically-radiating ceiling speakers with 180° dispersion pattern, closely resembles flat ceiling tiles. Omnidirectional outdoor sound reinforcement speakers with 360° dispersion.

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District Offices:

Peregrine Southwest Reps, Houston, TX, 713-772-6765 Powerlines Marketing, Evanston, IL, 312-864-1147 L.C.A. Sales, Tuckahoe, NY, 212-402-6600 World-Wide Electronics, Pembroke Pines, FL, 305-584-7024 H.W. Philips Co., Roswell, GA, 404-992-3070 Design Factors, LaHabra, CA, 213-697-7576 J.C. Electronics, Honolulu, HI, 808-943-8514 New Resource, Norwell, MA, 617-659-1463 MJA, Inc., St. Charles, MO, 314-723-0400 Mel Foster Tech. Sales, Edina, MN, 612-941-9800 SLK/Tech Rep., Hayward, CA, 415-785-4531 Greg Dzubay & Assoc., Peoria, AZ, 602-979-2358 Alby Currant Sales, Pittsford, NY, 716-586-1100 AMA, Brecksville, OH, 216-526-2426 Charlie Winkler & Assoc., Uniontown, OH, 216-699-9511 Vector, Inc., Seattle, WA, 206-322-4343

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500 President: John H. Ochtera V.P. Marketing: Carl C. Dorwaldt Nat'l. Sales Mgr.: David A. Chambers Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor. See full listing under Audio Amplifiers

879-7330

Mgr./Pro Products: David Bell E. Reg. Sales Mgr.: Tim Dorwart Nat'l Technical Rep.: Bruce Myers

Mkt'g Dev. Specialist: Mark Mayfield

Products: professional loudspeaker systems for portable and installed applications including sound reinforcement, commercial sound, background/foreground music, cinema sound. Modeler<sup>TM</sup> computer software for sound system design assistance.

See full listing under Pro Audio Sound Systems & **Products** 

## **Boston** Acoustics

Boston Acoustics, 247 Lynnfield St., Peabody, MA, 01960, 617-532-2111 Chairman of the Board: Frank Reed President: Andy Petite Director of Mkt'g: Richard Frank Sales Manager: Fred Pinkerton Products: Boston Acoustics Designer Series high fidelity loudspeakers can be used as main or extension speakers in the home and commercial spaces. They mount flush in new or existing walls or ceilings and can be painted.

Bozak, Inc., 326 South St, New Britain, CT, 06051-3721, 203-225-0555

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234 E. Marquette Road • Chicago, IL 60637 312/488-5800 National Sound and Communications Association for sound and electronics system contractors President: Donald D. Bowers Dir. of Marketing: William J. Kieltyka Chief Engineer: Sheldon Glick Products: foreground speaker systems and professional speakers.

### See full listing under Disco Components & Systems

C-T Audio Marketing Inc., 3050 SW 14th Place, Suite 3, Boynton Beach, FL, 33435, 305-738-0622, 282-8346 President: Andre Walton Dir. Sales/Mkt'g: Sam Spennacchio

Products: c-ducer contact microphone, particularly popular for studio quality sound from piano. Stanz - range of speaker and lighting stands. O + M - range of high quality PA speakers. Omni Craft - range of studio noisegates. See full listing under Microphones

Calibration Standard Instruments, P.O. Box 2727, Oakland, CA, 94602, 415-531-8725 Owner: Edward M. Long Products: MDM-4 Nearfield Monitor™, MDM-TA2 Time Align® Nearfield Monitor™, MDM-TA3 Time Align® Monitor, LE-1C, LHE-1C, and LHE-2C ELF™ Crossover Electronics.

Celestion Industries, Inc., Kuniholm Dr., Box 521, Holliston, MA, 01746, 617-429-6706 Exec. V.P. & Gen. Mgr.: Peter Wellikoff Nat'l Sales Manager: David Deranian Mkt'g./Sales Support Admn: Barry Fox Credit Manager: Kathy Maguire Products: powerful sound reinforcement loudspeakers with high-fidelity sound called the SR Series; established line of raw-frame drivers for a variety of applications.

Cerwin-Vega, 555 E. East St., Simi Valley, CA, 93065, 805-584-9332, TLX:662250 President: Gene Czerwinski Sales Manager: Rich Mandella Chief Engineer: Marshall Buck, Ph.D. Products: electronic and acoustic systems for domestic and auto sound systems; MI, sound reinforcement, motion picture, broadcast, recording, and commercial sound products.

Cetec Gauss, 9130 GlenOaks Blvd., Sun Valley, CA, 91352, 213-875-1900 President: Jim Williams Chief Engineer: Walter Dick Products: loudspeakers for the professional market, a full range of products are available for sound reinforcement. musical instrument reproduction, studio control rooms, and sound contractors.

Clarity, 1111 Industry Ave., Roanoke, VA, 24013, 800-962-6009 Products: a full line of paging products. See full listing under Paging Systems

Community Light & Sound, Inc., 333 E 5th St., Chester, Eastern Acoustics Works, 59 Fountain St., Framingham, PA, 19013, 215-876-3400 President: Bruce Howze V. P. of Engineering: John Wiggins Vice President: Christine Howze

Director of Mkt'g: John Strand

Products: sound reinforcement loudspeakers for background, foreground and paging. Two, three, & four way loudspeakers systems for use in churches, schools, niteclubs, restaurants, and portable live applications. Pattern Control horns, midrange compression loudspeakers and components for engineered sound systems. See full listing under Pro Audio Sound Systems & Products

Compact Monitor Systems Corp., P.O. Box 1965, Studio City, CA, 91604, 818-763-8000

DCL Company, 6340 S.W. 145th St., Miami, FL, 33158, 305-232-2199

Dean Markley Electronics Inc., 3350 Scott Blvd., Suite 45, Santa Clara, CA, 95054, 408-988-2456, 800-538-8330 President: Dean Markley Executive V. P.: Bari Wilson Nat'l Sales Manager: Tom Dreibelbis Products: professional audio sound systems and support, powered and non-powered mixers, powered and unpowered enclosures, power amps, microphones, cables and accessories.

### See full listing under Pro Audio Sound Systems & Products

Design Direct Sound, 6850 35th N.E., Suite 1, Seattle, WA, 98115, 206-527-4371 President: Bob Rice Vice President: Pat Peterson Vice President: Marc Hall Marketing: Mark Dodge Products: Walker/DDS 80 Series mixing desk is an 8 buss board with a 10 X 8 matrix output, resulting in 18 balanced outputs. The 80 Series offers many of the benefits of full blown 8 buss boards with substantial savings. See full listing under Pro Audio Sound Systems & Products

Dukane Corporation, 2900 Dukane Dr., St. Charles, IL, 60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson Division General Mgr.: Steve Deppe Products: standard and special systems of products: nurse call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. See full listing under Portable Sound Systems



MA, 01701, 617-620-1478 President: Kenneth Berger V.P. Engineering: Kenton Forsythe V.P. Marketing: Frank Loyko
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They are reference monitors. They tell you exactly what you have and let you hear precisely what you're doing. Period. With neither apologies nor pamperings. Just the point blank truth. What's more, when you mix with RM-765s or 780s, tape playback remains relatively the same from studio mains, to home stereo to car.

How many times have you heard just the right sound on a mix, only to find a completely different sound when you hear the tape on other monitors?

When you work with sound, you need a truthful reference. One that lets you hear the misses as well as the hits.

We encourage you to audition these Fostex reference monitors with a known source. Because we're confident that you'll know the truth when you hear it.

Point Blank.







Pro Sound Division 15431 Blackburn Ave. Norwalk, CA 90650 (213) 921-1112

# To solve the most in sound reinforcement uncommon

We've seen and heard what's out there and, frankly, we are not impressed.

Of course, this comes as no surprise to anyone familiar with

Celestion. We remain wary of conventional thinking because, too often, ordinary solutions produce only the most common results.

Let's face it. Anyone genuinely committed to high quality sound reinforcement must feel a real, almost tangible need to improve the status quo. Here are the 1980s and supposedly "full-range" systems are still large, heavy boxes crammed

full of drivers, crossovers and God knows what kind of miscellaneous hardware.

What it is. Because sound quality doesn't improve exponentially with increased cabinet size and system complexity, we thought: "Simple, accurate, and *small*." A compact and true fullrange system able to reproduce music at supersonic volume levels with absolute fidelity and full low frequency impact.

Too much to ask? We don't think so, though it wasn't easy. Well into it, we realized our goals actually compelled us to redesign the conventional driver. Only this would allow the Celestion *SR1 speaker cabinet* to function with just two 8" drivers, free from the typically massive array of specialized units

and crossovers.

First you notice the sound. The difference is dramatic, even breathtaking: clear, natural and unusually discrete reproduction of any program material. Deep, fundamentally powerful lows. Brilliant, clarion highs. Audio quality of such transparence that one never tires of listening.

How we did it. The success of the SR system is based on the realization that

you actually *can* build a single 8" integrated dome/cone driver with an expansive frequency response of 50 Hz to 20 kHz. Putting our oft-mentioned but sadly misunderstood Laser Interferometry mapping system to this purpose, we built one.

Now, just think beyond the immediate sonic impact of the SR 1 cabinet to the practical benefits derived from single point source drivers. No intermodulation distortion typical of cross-overs, no phase-/time- coherence problems or coaxial coloration. In general, fewer things to go wrong.



SR 1 Speaker Cabinet

# common problems we had to design a most speaker system.



How we protect it. No matter how good, or how simple, a speaker system is of little value when it becomes yet another downtime statistic on the road. With this in mind, we designed the "thinking" *SRC1 electronic controller*. It carefully monitors amplifier distortion and

voice coil temperature. Circuitry senses potentially damaging low frequency transients and inaudibly compresses them before instantly restoring complete low end power.

The result? Deep, visceral low end impact and miraculous clarity, while you bask in the knowledge that the speakers are completely protected from thermal or mechanical failure and amplifier distortion. The optional *SR 2 subwoofer*, easily capable of handling 1000 watts RMS, accurately reproduces ultra low frequencies from 40-150 Hz at maximum volume.

How we package it. Eminently transportable, SR1 cabinets are made of rigid and durable non-resonant highdensity polymers to better isolate the sound and protect internal components from external damage. Fitted with flexible mounting options, they are easily integrated into any sound reinforcement setting. Internally, the speakers are resistant to humidity and

adverse weather conditions because of our sealed hard dome tweeter design, and the fact that we impregnate the paper cones with special waterproofing agents.

What is it good for? The SR system radically upgrades the audio quality of many critical sound reinforcement applications, like near-field monitor systems (drums, keyboards and vocals) and small group PA. Not to mention sound installations for clubs, bars, restaurants and auditoriums.

Why we did it. Because we know the potential for better sound exists, even in the none too imaginative arena of sound reinforcement. And that only by risking uncommon solutions could we solve problems common to us all while maintaining our own high standards.



Celestion Speakers, Kuniholm Drive, Box 521, Holliston, MA 07146 (617) 429-6707



SR1 Speaker Cabinet, SRC1 Controller with optional SR2 Subwoofer Sales Administrator: Daniel McDonald Other Personnel: Max Berger Products: precision-crafted professional loudspeaker products including full-range systems, bass and mid-bass horns, drivers, and studio monitor systems. District Offices: Marketing Concepts, Dallas. TX, 214-869-0669 Kevin Talmant Assoc., Madison, IN, 812-866-5533 Elrep, Atlanta, GA, 404-938-7108

GMI, Avon, MA, 617-588-8043

World Wide Electronics, Miramar, FL, 305-966-6622

Eden Electronics, Inc., 1st St., PO Box 338, Montrose, MN, 55363, 612-675-3650 President: David D. Nordschow Products: pro audio sound systems including constant directivity horns and mid-bass devices; small to large 2-way, 3-way, and 4-way systems for PA and music play-back; touring systems; stage monitors; passive crossovers; cus-

tom enclosures. See full listing under Pro Audio Sound Systems & Products

Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Director of Marketing: Jim Long Chief Engineer: Earl Harris Products: public address and component high-fidelity

loudspeakers and systems, high-performance compression drivers, horns, low-frequency systems, mixers, mixing consoles, signal processors and crossover networks. See full listing under **Pro Audio Sound Systems & Products** 

Electronic Systems Group, Inc., 4405 Vineland Rd., St. C-8, Orlando, FL, 32811, 305-423-2363 Products: outdoor speakers that are buried in the earth.

Emilar, 1365 N. McCan St., Anaheim, CA, 92806, 714-632-8500

Eminence, 4237 W. 42nd Pl., Chicago, IL, 60632, 312-927-3715

Environmental Sound, 31220 La Baya Dr. Boulevard, Suite 110, Westlake Village, CA, 91362, 818-706-0228, TLX: 299353 POST UR, FAX 818-889-5605 President: Pascal Delbuck Mkt'g Director: Ron Glathoffer Advertising Mgr.: Dean McEntyre Chief Engineer: Pascal Delbuck Plant Manager: Bill Ward Products: PRO DROP CEILING MONITOR I; 8" 2-way isosceles cabinet for multiple mounting applications/theater reinforcement, churches, nightclubs; ES-Series includes ES-502, ES-602, ES-802, ES-1002, ES-2802 our Flush Mount Loudspeakers have multiple mounting offering a variety of grille and matching baffle colors for architectural and interior designers that require high power audiophile custom home loudspeakers. See full listing under Pro Audio Sound Systems & Products

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Fane, 1316 East Lancaster St., Fort Worth, TX, 76102, 317-336-5114

Fostex Corp. of America, 15431 Blackburn Ave, Norwalk, CA, 90650, 213-921-1112 President: Y. Abe /.P. General Manager: Fred Huang /.P. Sales/Marketing: Mark Cohen National Sales Manager: Mike Flynn Products: a full-line for the Pro contractor including the MP Series multi-purpose powered mixers, SP & SPA11 portable speakers for every application, raw frame speaker components from 18" to super tweeter, excellent monitors, headphones, and microphones. See full listing under **Pro Audio Sound Systems & Products** 

Fourjay Industries, Inc., 3400 Stop Eight Road, Dayton, OH, 45414, 513-890-6444 President: J. M. Fulkerson II Director of Sales: M. W. (Bud) Frawley Products: ceiling white recessed baffles, time saving baffle

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mounting devices, protective covers, wall baffles and music speakers, horn speakers for paging/talkback, intercom, telephone and security systems. In stock, immediate delivery.

Frazier, A Division of Sound-Craft Systems, Inc., Petit Jean Mountain Rt 3, Box 319, Morrilton, AR, 72110, 501-727-5476, 800-643-8747 Marketing: Earle Love Sales Manager: Hank Shaw Secretary/Treasurer: Katherine Foust V.P. Sales & Marketing: James Truelsen Sr. Engineer: Jay Mitchell Products: premium sound reinforcement loudspeaker systems featuring coincident-aligned transducers which offer superior frequency response and intelligibility and greater utility in a variety of light-weight compact designs. An exclusive mounting system minimizes installation time.

Galaxy Audio, 625 East Pawnee, Wichita, KS, 67211, 316-263-2852 Manager: R. D. Moneyhun Products: Hot Spot Monitors - Hot Spot P.A. moni-

tor/portable P.A. - Pro Spot Speakers/stage monitors mixers, 8, 12 and 16 channels. See full listing under **Pro Audio Sound Systems & Products** 

Gemco Electronics, Inc., P.O. Box 993, 550 Airport Rd., Gallatin, TN, 37066, 615-452-5960 President: Jerry A. Graves



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Don't be left out. Send all your information on supplies, services and support to: Debra A. Pagan Managing Editor Sound & Communications 25 Willowdale Avenue Port Washington, NY 11050 Sales Mgr.: Byron Graves Chief Engineer: Todd Adams Office Manager: Mrs. Tiny Brown Products: wall baffles, speakers, ceiling grills, sound columns, transformers for the background music and paging industry.

Gollehon Industries, Inc., 3105 Madison Ave. SE, Grand Rapids, MI, 49508, 616-247-8231

Gotham Audio Corp., 1790 Broadway, New York, NY, 10019-1412, 212-765-3410 President: Russ R. Hamm Eastern Sales Mgr.: Jerry Graham Western Sales Mgr.: Juergen Wahl Sales Engineer: Peter Engel Products: Neumann condenser microphones, limiters/compressors, and equalizers and accessories; EMT digital delays; Gotham audio cable; K & H loudspeakers, and parametric equalizers; Audio Developments mixers; NTP limiters/compressors and meters. See full listing under **Microphones** 

Harris Corporation, Dracon Division, 809 Calle Plano, Camarillo, CA, 93010, 805-987-9511 V.P. Gen'l. Mgr.: John R. Mason Dir., Domestic Sales: Tom Erdmann Chief Engineer: Tom Durston V.P. Sales & Mkt'g.: Jack McGuigan Products: PAGEPAC telephone integrated loudspeaker paging voice systems, linemen's test sets, craft tools, extensive line of relay racks.

See full listing under Paging Systems

Hirschmann of America, P.O. Box 229, Industrial Row, Riverdale, NJ, 07457, 201-835-5002, 800-225-0524 Sales Manager: Andy Swenson Products: Visonik "David" family of monitor mini-speakers, Hirschmann fiber optical transmission systems for audio, video and data up to 4 miles.

Intersonics, Inc., 3453 Commercial Ave., Northbrook, IL, 60062, 312-272-1772 President: Dr. Charles Rey Acoustical Engineering: Thomas Danley Sales Manager: Tom Melzer Products: Servodrive Subwoofers(SDL), featuring the nev line of SDL-series subwoofers. These are run by a hi-tech servomotor and a rotary-to-linear converter, no coice-coils. An active cooling system eliminates output loss caused by heat - an industry first. **District Offices:** Metrorep Sales, Freehold, NJ, 201-462-1221 Audio Mkt'g, Brecksville, OH, 216-526-2426 Audio Resources, Westmont, IL, 312-655-1180 Rep Tech, Terrell, TX, 214-222-2131 Darmstedter Assoc., Baldwinsville, NY, 315-638-1261 Pacific Audio Group, Torrance, CA, 213-375-2611 Meyer Marketing, Deerfield, FL, 305-481-9250 Prof. Sound Products, Lakewood, CO, 303-986-5999 Innovated Audio Sales, Pontiac, MI, 313-673-2280

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally



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### 800-527-5705

President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70. Bessel Array Columns. See full listing under Audio Amplifiers



JBL Professional, 8500 Balboa Blvd, Northridge, CA, 91329. 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Market Manager/Sound Contracting: Steve Romeo Products: loudspeakers and loudspeaker systems of all kinds; automatic microphone mixer; electronic crossover; special loudspeakers for musical instruments; video

projector. **District Offices:** 

Neil Conly, Bedford, TX, 817-540-3066 Bill Hamilton, Folsom, PA, 215-543-4677 Steve Armstrong, Northridge, CA, 818-707-2529 Steve Armstrong, Northridge, CA, 818-707-2529

Joe's Sound and Salami Co., 981 S. Broad St., Trenton, NJ. 08611, 609-394-5637

Klark-Teknik Electronics, Inc., 30B Banfi Plaza N, Farmingdale, NY, 11735, 516-249-3660 President: Jack Kelly Sales Manager: Keith Worsley Salesman: Harry Klane Service Manager: Jim Jacobelli Products: 1/3 and 2/3 octave graphic equalizers, parametric equalizers, digital delay lines, digital reverberation systems, sound masking processors, reference monitors, 1/3 octave RTA w/RT-60 measurement capabilities, BSS crossovers, compressor/limiter, MIDI noise gate, mic splitter, ancillary equipment.

See full listing under Audio Signal Processors

Klipsch & Assoc., PO Box 688, Hope, AK, 71801, 501-777-6751

Vice President: Jerry Werner National Sales Mgr.: P. Woody Jackson Int'l Sales Manager: Jack Fountain Sales Engineer: Tracy Crawford Products: professional loudspeaker systems for professional installation or portable use. Wide range of size and applications featuring high output, high fidelity, and low distortion.

LAR Sound, 718 Ninth St., Niagara Falls, NY, 14301, 716-282-2442

President: Lawrence Kutner

Products: loudspeaker assemblies for hi-fi and commercial/pro sound application, 6" to 18" low-frequency assemblies, patented "Ferralipse" 140° dispersion high frequency component.

**District Offices:** 

Wood & Co., Buffalo, NY, 716-886-0019

### Lee Dan Communications, 155 Adams Ave.,

Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414. USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: communication and security for apartment house, home and, industry. Intercom, music and paging systems, mailboxes, directories, annunciators, signaling devices, communications cable, nurse-call systems, Enterview audio/visual intercom systems. See full listing under Intercom Apartment/Residential

Len Finkler Company, 80 Alexdon Road. Downsview. Ontario M3J2B4, 416-630-9103 Products: amplifiers, speakers for ceiling, & wall bafflers. See full listing under Pro Audio Sound Systems & **Products** 

Lowell Manufacturing Co., 3030 Laclede Sta. Road, St. Louis, MO, 63143, 314-781-9058, 800-325-9660 Chairman: Ben W. Lowell President: Dorothy H. Lowell Sales Manager: John J. Lowell Sales: Wilhelm R. Lowell Engineering: Karl R. Schneider Products: loudspeakers, baffles, enclosures, mounting devices, attenuators, UL 8" speaker assemblies, sound masking speakers, blank and custom rack panels, custom fabrication services. See full listing under Loudspeaker Accessories

Martin America, PO Box 5139, Chatsworth, CA, 91313, 818-718-1031

McCauley Sound, Inc., 13608 94th Ave. E., Puyallup, WA, 98373, 206-848-0363 Pres./Sales Mgr.: Tom McCauley V.P./Production: Pete McCauley Products: a complete line of touring and commercial loudspeaker systems. They feature a high powered series of low-, mid-, and high-frequency loudspeakers and compression drivers, as well as CD horns, passive networks, and enclosure hardware. See full listing under Pro Audio Sound Systems & Products

Meyer Sound Laboratories, Inc., 2832 San Pablo Ave., Berkeley, CA, 94702, 415-486-1166 President: John Meyer Vice President: Helen Meyer Mkt'g/Sales Manager: Gary Hudson Products: complete line of professional loudspeakers, amplifiers, and electronics for sound reinforcement and studio applications.

MG Electronics, 32 Ranick Rd., Hauppauge, NY, 11788, 516-582-3400, FAX: 516-582-3229 President: Louis Maltz Vice President: Elliott Maltz Sales Manager: Stan Grey

Products: commercial sound and security speakers, paging horns, electronic sirens, general replacement speakers, OEM speakers (custom design available), foreground music speaker systems, and toggle switches. District Offices:

Miller Assoc., Stamford, CT, 203-869-7793 Forti Assoc., Kensington, MD, 301-949-1706 Raliegh Perry Assoc., Buford, GA, 404-945-3142 Miller & Assoc., Richardson, TX, 214-437-5733 Bob White Assoc., Solon, OH, 216-248-1317 Misco/Minneapolis Speaker Co., 3806 Grand Ave., Minneapolis, MN, 55409, 612-825-1010 President: Cliff Digre Sales Manager: Don Ringham Chief Engineer: Cliff Digre General Manager: Dan Digre Products: complete line of loudspeakers, ceiling baffles, and transformers for commercial sound applications, waterproof, special impedance, coaxial, voice communications, and custom design.

World Wide Electronics, Pembroke Pines, FL, 305-584-7024

**District Offices:** 

Lichtenauer & Assoc., Antioch, CA, 415-757-1200 Dick Bellew Sales, Dallas, TX, 214-644-7881 W.A. Hendrickson Co., Scituate, MA, 617-545-0652 Pacnor Marketing, Lynwood, WA, 206-771-6016

Modular Sound Systems - The Mitek Group , One Mitek Plaza, Winslow, IL, 61089, 815-367-3000 President/CEO: Loyd Ivey

V.P. of Manufacturing: Dave Smythe

Products: Bag End loudspeakers systems, custom cabinetry, rack-mount enclosures, and sound system design District Offices:

Pete Kallaos, Creve Coeur, MO, 314-878-3365 Dennis Ramer, Walton, IN, 219-626-3115 Thom Fehrman, Winslow, IL, 815-367-3000 William Warnock, Barrington, IL, 312-382-4550

Motorola, Inc./Ceramic Products, 4800 Alameda Blvd. N.E., Albuerque, MN, 87113, 505-822-8801 International Sales Mgr: Bob Munn W. Reg. Sales Mgr.: Al Lowenstein C. Reg. Sales Mgr.: Roger Milewski E. Reg. Sales Mgr.: Don Bacso Programs Cdr.: Cheryl Iverson Products: piezo speakers and tweeters for sound reinforcement designs, voice warning systems, paging systems and associated alarm and siren applications. Harsh environment and water resistant devices are available. District Offices: Motorola, Inc./Ceramic Products, Albuquerque, NM, 505 822-8801 Motorola, Inc./Ceramic Products, Parma, OH, 216-267-2210

MTX Loudspeakers - The Mitek Group , One Mitek Plaza, Winslow, IL, 61089, 815-367-3000 President/CEO: Loyd Ivey V.P. of Manufacturing: Dave Smythe Products: professional replay sound reinforcement loud

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District Offices: Pete Kallaos, Creve Coeur, MO, 314-878-3365 Dennis Ramer, Walton, IN, 219-626-3115 Thom Fehrman, Winslow, IL, 815-367-3000 William Warnock, Barrington, IL, 312-382-4550

Music Supply Co., Inc., 809 N. Madison, Dallas, TX, 75208, 214-946-8450, 800-527-1522 President: W. E. Brown Sales: Betty Brown Products: installation and service aids for the sound contractor and background music operator. See full listing under Hardware & Tools

**Oaktron Industries, Inc.**, 1000 30th St., Monroe, WI, 53566, 800-257-4538 President/CEO: Jerry Disch Executive V. P.: Bob Taller V. P. Sales: Jim Hendrickson Products: commercial loudspeakers and accessories, sound masking speakers. Background and paging sys-

tems and a total line of accessories.

Olson Acoustics, 920 Grayson St., Berkeley, CA, 94710, 415-644-2500

Orevox Corp., 512 35th St. NE, Auburn, WA, 98002, 206-735-0220, 800-237-0700 CEO: Daniel Wu Sales Mgr.: Russ Stanford

Products: loudspeakers specializing in foreground speakers, outdoor paging and intercom speakers, self-contained sirens, metal siren/speaker enclosures, and metal utility cabinets for residential and commercial applications.

OWI, Inc., 1160 Mahalo Pl., Compton, CA, 90220, 213-638-4732

Director of Marketing: Ned Morioka

V.P. Engineer: Hiro Okayama

Products: Full line: Hi fidelity mini speaker (2-way or 3-way) s/built-in 70V or 25v line transformer with selector switch 2.5, 5, 10, or 15 watts. Weatherized/standard systems for foreground and background applications.

PA Concepts, 450 Taft Drive, South Holland, IL, 60473, 312-339-8014 speaker wonderbox.

Panasonic Industrial Company/Ramsa, 6550 Katella Ave, Cypress, CA, 90630, 714-895-7272

National Marketing Mgr.: Steve Wooley

Products: Ramsa, the professional audio division of Panasonic Industrial Company's Audio/Video Systems Group, markets a comprehensive line of mixing and production consoles, power amplifiers, microphones and speaker systems.

### See full listing under Pro Audio Sound Systems & Products

Paramount Sound Systems, 5555 Melrose Ave., Los Angeles, CA, 90038, 213-468-4601

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800

Executive V.P.: Paul Mastrangelo

Sales Manager: David Moore

Product Manager: Ken O'Brien Credit Manager: Marilup Backgroup

Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia

Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under Audio Amplifiers

Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365

Prod Mgr/Sound Reinf.: Hollis Calvert

Prod Mgr/Digital Product: Ken Valentine

Products: audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker systems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater systems.

### See full listing under Pro Audio Sound Systems & Products

Poly-Planar Inc., 50 Graphic Place, Moonachie, NJ, 07074, 201-641-2206

President: Norm Lange

Products: polystyrene loudspeakers for foreground or background use. Units are totally waterproof, very thin & light in weight. Ideal for suspended ceilings, outdoor or high humidity use.

Portland Instrument, 1101A Air Way, Glendale, CA, 91201, 818-500-0137, TX-989-473Portland President: Ronald Fuller Prod. Mgr/Outdoor Sys.: Hendri Smit

P. R. Cable Assembly: Jack Sympson Prod. Mgr./Indoor Sys.: Jack Sympson

Production Manager: Scott Teffin

Products: Paramount pictures "omnispeaker" an outdoor waterproof landscape speaker for background music and paging, 80 Hz to 18 KHz, 50 watts RMs. Also viro square & viro dome waterproof wall and pole mount, 70V and 8 Ohm versions of outdoor speakers.

**District Offices:** 

C. L. Pugh & Assoc., Cleveland, OH, 216-238-1777 Chuck Milck, Southfield, MI, 313-354-3310 Dick & Roy Pass, Langhorne, PA, 215-757-6100 Brian Rumohr, Ontario, Canada, 416-625-4527 Ed Wolf, Atlanta, GA, 404-455-0672

### Professional Audio Systems (PAS), 1224 West 252nd

St., Harbor City, CA, 90710, 213-534-3570 Products: a high performance loudspeaker system that will blend with the decor of your installation; co-axial loudspeakers with constant-coverage horn, trapezoidal enclosures can be arranged for 360° coverage. TOC<sup>™</sup> Time Offset Correction in both passive and active crossovers. District Offices:

Innovative Audio Sales, Pontiac, MI, 313-673-2280 Clearview Marketing, Forest Hills, NY, 718-592-0710 Professional Audio Assoc., Burlington, MA, 617-229-6050 MBT, Pittsburg, PA, 412-344-1360 Applied Audio, Ashville, NC, 704-252-9313 Music Sales Unlimited, Orlando, FL, 305-898-6645 Stan Sliz Assoc., Broomfield, CO, 800-525-2670 Tenicki Assoc., Houston, TX, 713-528-2005 Innovative Sales & Marketing, Fountain Valley, CA, 714-549-7770 Future Sales, Redmond, WA, 206-868-5577 Charlie Winkler & Assoc., Uniontown, OH, 216-699-9511 Wayne Fuday, Fairfax, CA, 415-459-6880

Projected Sound, Inc., 469 Avon Ave., Plainfield, IN, 46168, 317-839-4111 President: F. O. Hilligoss Vice President: Thomas Hilligoss Vice President: Forest O. Hilligoss Secretary/Treasurer: J. Mark Hilligoss Products: Ioudspeakers.

Pyle Industries, Inc., 501 Center St., Huntington, IN, 46750, 219-356-1200

Quam-Nichols Co., 234 E. Marquette Rd., Chicago, IL, 60637, 312-488-5800 President: W.G. Little Distributor Sales Mgr.: G.L. Johns Chief Engineer: Oswald Rohrbacher Products: loudspeakers, ceiling baffles, line matching transformers and back box enclosures for background music, public address system and other commercial sound applications, and attenuators.

### See full listing under Back/Foreground Systems Libraries

Red Acoustics (USA) Ltd., 1231 Roth Dr., Lansing, MI, 48911, 517-694-3618 President: Thomas E. Cooley Chairman of the Bd.: D. Bruce Stratton Internat'l SIs Mgr.: Daniel G. Vartanian Director of Corp. Admin.: Jill E. Cooley Products: range of active and passive RED loudspeaker systems with complimenting accessories. Applications in all areas of professional use. Distributorships available.

Renkus-Heinz, Inc., 17191 Armstrong Ave., Irvine, CA, 92714, 714-250-0166, FAX: 516-767-9335 President: Harro K. Heinz Dir. of Mkt'g.: G.R. "Russ" Farrell Nat'l. Sales Mgr.: Greg McLagan Products: compact processor-controlled sound reinforcement systems providing studio monitor sound quality at high SPL. Performance-ready systems including power racks & cabling are factory assembled and tested, and have multiple speaker protection features. See full listing under **Pro Audio Sound Systems & Products** 

**Ring Group of North America, Inc.**, 230 Community Drive, Great Neck, NY, 11021, 516-487-0250, 800-645-9690

Chief Operating Officer: Paul Ruggieri Vice President: Peter McLean



World Radio History

Sales & Material: Craig Krsanac Technical: John Camello Software: Chris Gruber Products: hands free intercom systems, microprocessor, field programmable interface with telephone, paging, alarm systems, school and annunciator communications systems-simplex and microprocessor operation. Speakers, amplifiers, and baffles.

### See full listing under Intercom Duplex

Rockustics Inc., 41 E. Main St., Bayshore, NY, 11706, 516-665-6497

President: Anthony F. Mule

Vice President: Bruce R. Marcel

Secretary: Thomas S. Maxey

Products: full fidelity, simulated stone, outdoor speaker systems. Completely water and weatherproof.

District Offices:

Metro Rep Sales, Inc., Freehold, NJ, 800-526-2331 Benesik Assoc., Ocala, FL, 904-732-9775

Apotorio Mikt'a Dopodono CA 714 004 440

Asoteric Mkt'g, Pasadena, CA, 714-964-4433 Audio Mkt'g Assoc., Brecksville, OH, 800-331-8478

S & F Northwest Inc., Seattle, WA, 206-525-5203

San Ming Sound Co., 5282 Research Avenue, Huntington Beach, CA, 92649, 714-891-2252 Sales/Marketing: Leon C. Hsieh President/General Mgr.: Hugh C. Hsieh Chief Engineer: S. W. Hsu Products: high intelligence multi-tap paging horns. Heavyduty driver units for PA and size applications. Form

duty driver units for PA and siren applications. Extraheavy-duty driver horns for community warning systems, megaphones. District Offices:

Forti Assoc. Inc., Kensington, MD, 301-949-1706 Henry W. Phillips Co., Inc., Roswell, GA, 404-992-3070 Design Factors, La Habra Heights, CA, 213-697-7576 Weller Electronic, Columbus, OH, 614-885-7819 Robert Milsk Co., Inc., Indianapolis, IN, 317-842-3400



Sonic Systems Inc., 737 Canal St., Bldg. 23B, Stamford, CT, 06902, 203-356-1136

President: Peter Hamilton

V. P. Marketing: John J. Karamon

V. P. Special Projects: Carl N. Erca

Products: six models of soundsphere loudspeakers for use in churches, gymnasiums, shopping malls, airports, auditoriums, and other locations that require sound reinforcement.

Sony Professional Audio , 1600 Queen Anne Road, Teaneck, NJ, 07666, 201-833-5200 President: William G. Connolly Vice President: Jerry Smith Products: analog and digital audio recorders, compact disc mastering systems, mixing consoles, microphones(wired and wireless), monitoring equipment and public address systems.

See full listing under Pro Audio Sound Systems &



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Whether for external or internal applications, OWI-702 and BAP-101 is a 2-way mini extension speaker system designed for high fidelity sound performance and easy installation. Available in colors Black or Cream.

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Housed in a watertight, aluminum die cast enclosure — including features such as an INPUT POWER SELECT KNOB (2.5W, 5W, 10W or 15W) and a built-in transformer for background/foreground music. These high fidelity speakers satisfy the complete need for easy handling and quality sound.



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OWI Incorporated

1160 Mahalo Place Compton, CA 90220 213•638•4732

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Really, there's nothing we can say about our JF-500 that will induce you to buy it except this: try it. Because the evidence provided by your own two ears will be, as it should be, far more convincing than anything you'll read here.

True, we invented the horn-loaded singlebox reinforcement system over a decade ago. True, we continually refined it to stay well ahead of our imitators. And, true, our single-box system is still the qualitative standard of the industry.

But, enough words. You can buy anybody's single-box reinforcement system you choose We're utterly confident you'll choose the one that sounds best to you. Our JF-500.



Eastern Acoustic Works, Inc., 59 Fountain Street, Framingham, MA 01701 • (617) 620-1478

World Radio History Circle 218 on Reader Response Card

### Products

Sound Development Industries, 428 Ft. Denaud Rd., La Belle, FL, 33935, 813-675-0100, 800-675-3656 Owner: Uolevi L. Lahti CE David Friday

Products: AI-10 drawn stainless steel speaker systems utilizing the patented pressure-velocity principle coupled with a high-compliance five-inch driver with a 3/4 pound magnet, applications include masking, music, and paging.

Sound Products/3M, 3M Center 225-S-10, St. Paul, MN, 55144-1000, 612-733-0447

Marketing Manager: Don Rada Sales Manager: Don Sluder Products: music libraries for all purposes. Players, industrial quality intercoms and vehicle detectors. Top-line message repeater. Speaker assemblies for distributed systems. Microphones, amplifiers and other sound system components.

See full listing under Back/Foreground Systems Libraries

Soundscape Speakers, Inc., 4405 Vineland Rd., Ste. C-8, Orlando, FL, 32811, 305-423-2363

President: Martin Collins

Project Engineer: Robb Resler

Products: outdoor loudspeakers for direct burial in gardens. Five year warranty, weatherproof, small size, and high fidelity. Used in major theme parks nationwide.

SpeakerCraft, 3615 Presley Avenue, Riverside, CA, 92507, 714-787-0543 Products: plate speakers (5-6" two-way) for surface may

Products: plate speakers (5-6" two-way) for surface mount applications.

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516

President: Louis W. Keller

V.P. & General Manager: James J. Ganci

V,P,/Sales & Marketing: Mel Hulkower

Regional Sales Manager: Eric Forman

Regional Sales Manager: Bruce Kurtz

Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; complete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, background/foreground enclosed speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, attenuators, microphones, & intercoms. See full listing under **Audio Amplifiers** 

Spectra Sonics, 3750 Airport Rd., Ogden, UT, 84405, 801-392-7531 President/Owner: William G. Dilley Engineer/Sales: Gregory D. Dilley

Products: amplifiers, mixers, equalizers, compressor/limiters, power supplies, speaker systems, and consoles. We specialize in sound reinforcement equipment. See full listing under **Pro Audio Sound Systems & Products**  St. Louis Music, 1400 Ferguson Avenue, St. Louis, MO, 63133, 314-727-4512 Sales Training Dir.: Tony Moscal Product Manager: Gary Byers Dir. of Operations: John Karpowicz President: Gene Kornblum Products: musical instrument amplifiers, sound reinforcement equipment, mixing consoles, loudspeakers, power amplifiers. See full listing under **Pro Audio Sound Systems & Products** 

Studer Revox America, Inc., 1425 Elm Hill Pike, Nashville, TN, 37210, 615-254-5651

V. P./Gen. Mgr.: Thomas E. Mintner

Dir. of Prof. Products: David C. Bowman

Products: audio recorders - super low speed loggers and playback only machines to 2-inch multichannel; professional CD players & cassette recorders; computer controlled automation interface; mixing consoles - 19-inch & portable units to complete studio systems; amplifiers & loudspeakers.

See full listing under **Pro Audio Sound Systems & Products** 

Sunn, 1130 Columbia Street, Brea, CA, 92621, 714-990-0909

President: Bill Schultz

Director of Mkt'g: Joe Green

National Sales Mgr.: Don Johnston

Products: sound reinforcement products include: powered and non-powered mixers, mixing consoles, power amplifiers and speaker enclosures. Professional stage lighting products.

See full listing under Pro Audio Sound Systems & Products

Tannoy North America Inc., 300 Gage Ave. Unit-1, Kitchener, Ontario, Canada, N2M 2C8, 519-745-1158 Marketing Mgr.: Bill Calma Sales Mgr.: Rob Hofkamp Credit Mgr.: Kathy Kent Products: dual concentric studio and broadcast reference monitors and amplifiers, wildcat professional P.A. for MI and for contractor applications. District Offices: Audio Assoc., Glenwood, MD, 301-854-6122 Hot House Marketing, Highland, NY, 914-691-6077 Disc Mastering, Nashville, TN, 615-254-8825 Technical Marketing, Atlanta, GA, 404-457-0988 GMI Marketing, Avon, MA, 617-588-8043 World Wide Electronics, Pembrooke Pines, FL, 305-Pro Tech Marketing, Newport Beach, CA, 714-650-5633 Power Lines Marketing, Chicago, IL, 312-864-1147 Black Hawk Marketing, Pacific Palisades, CA, 213-454-8196

JMS Marketing, Austin, TX, 512-266-1113

Technical Audio Devices (TAD) Pioneer Electronics (USA), Inc., 2265 E. 220th St., Long Beach, CA, 90810, 213-835-6177 V.P. Marketing: Mike Fidler Sr. Mgr. Product Planning: Mark Makabe

### Market Planner: Deanna Lee

Products: specializing in speaker components designed for professional applications such as recording studios, sound reinforcement systems, PA and concert-hall audio systems, and other places where dependable, highly specialized components are required for the reproduction of sound.

**District Offices:** 

T.C. Marketing, Woodland Hills, CA, 818-710-9580 Secom Systems, Doraville, GA, 404-455-0672 Bensik Assoc., Ocala, FL, 904-732-9775 Marketing Concepts, Irving, TX, 214-869-0669 Powerlines Marketing, Evanston, IL, 312-864-1147

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper

Controller: Cal Weddle

Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems.

See full listing under Pro Audio Sound Systems & Products

Turbosound, Inc, 611 Broadway, #841, New York, NY, 10012, 212-460-9940 President: Alan Wick V. P. Sales/Mkt'g: Dan Abelson

V. P. Operations: Hilary Michener

Products: Turbosound loudspeaker enclosures utilize patented principles to provide the installer pre-engineered loudspeaker systems complete with certified rigging hardware designed for ease of install and safety. District Offices:

Western Audio Sales, Glendale, CA, 818-246-3806 Applied Audio Marketing, Asheville, NC, 704-252-9313 Michael Chafee Assoc., Sarasota, FL, 813-921-4294 Tenicki and Assoc., Houston, TX, 713-528-2005 Audio Assoc., Baltimore, MD, 301-854-6122 Northmar, Seattle, WA, 206-524-5170 Steffey Marketing, Northbrook, IL, 312-480-3575 Jamm Distributing, Matteson, IL, 312-747-6363 AMH Sales, Denver, CO, 303-429-2203

UNIVERSITY SOUND, Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Chief Engineer: Earl Harris Marketing Mgr., Commercial Products: W. Douglas Wilkens Products: complete commercial sound line includes horns public address, and explosion-proof drivers, paging/talkback speakers, weatherproof high-fidelity systems, submergence-proof and underwater speakers, and transform-

ers. District Offices:

George M. Conneen Co., Inc., Springfield, PA, 215-544-5884

Metropolis Audio Marketing, Inc., Edison, NJ, 201-225-

# **SOLVING SOUND PROBLEMS WITH SOUNDSPHERE**

**C** Rev. Clifford Ruskowski, Vice Chancellor of the Our Lady of Orchard Lake Schools was delighted to discover that the installation of the correct product could solve the sound problems of the Shrine-Chapel. He stated, "a word about the Soundsphere system installed in our Shrine-Chapel: wonderful, magnificent. The clarity, the fullness, the sensitivity of the microphones and speakers have greatly enhanced our Liturgical celebrations. For years we labored under a sound illusion: that the architectural design of the building prohibited full and clear sound reproduction. How wrong we were! Faculty, students and our many guests to the campus this summer remarked about the quality of 'our' new sound system. It has made public prayer in the building an uplifting, joyous and total experience."

**66** Soundsphere loudspeakers have helped many churches solve difficult problems, like: reverberation, feedback, hot spots and dead spots. In many instances, one Soundsphere is installed and it operates as a single point source (the best approach for any highly reverberant location). Often one Soundsphere replaces many existing loudspeakers. In Pastor Stewart Yandle's church, First Presbyterian Church, Monroe, NC., one #110 Soundsphere replaced seven loudspeakers. He writes...

"You must surely have worked a miracle with our public-address system. The response by the members of the congregation has been marvelous. Those persons who used to complain regularly about not being able to hear are actually praising the systems we are using now.

The first Sunday we used the system with the single Soundsphere there were many questions and compliments — I heard several say, 'I just can't believe that much sound comes from just one speaker.'

On behalf of this congregation I say, 'Thank you very much!' My own personal appreciation continues to increase the longer I use the system."



If you wish to read more of Pastor Yandle's letter, contact:



#### 0085

R.J. Marketing Ltd., Rockville, MD, 301-251-0330 The Smith Company, Hartford, CT, 203-523-0512 Ron Tunks Sales, Inc., Tamarac, FL, 305-722-2803 Wilson Audio Sales, Nashville, TN, 615-646-4477 Audio Resources, Westmont, IL, 312-655-1180 B.C. Electronic Sales, Inc., Mission, KS, 913-262-1720 Jones Audio Sales, Plano, TX, 214-867-0202 C.L. Pugh & Assoc., Inc., Columbus, OH, 614-486-9678 Riley & Petchell Sales, Inc., Detroit, MI, 313-937-3000 Loppnow & Assoc., Redmond, WA, 206-883-3205 Radon & Assoc., Sacramento, CA, 916-923-2524 Silver Peak Marketing Ltd., Wheat Ridge, CO, 303-467-9042

Western Audio Sales, Glendale, CA, 818-246-3806

UREI, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Mkt'g. Mgr. Sound Contracting: Steve Romeo Products: power amplifiers, limiters, compressors, equalizers, filters, Time Aligned<sup>TM</sup> speakers, direct boxes, electronic crossover, digital metronome, transcription preamplifier, disco mixers, broadcast consoles. See full listing under **Audio Signal Processors** 

Valcom Inc., 1111 Industry Ave., Roanoke, VA, 24013, 703-982-3900 President: J.W. Mason Sales Manager: Donald Buck Chief Engineer: D. Lynch Products: telephone integrated paging and intercom systems, talkback, bell-buzzer, code call, PBX adapters, key

he Editors of Sound & Communications ...are always looking for qualified contributors who wish to write for the publication on a freelance basis.

If you are involved in the Sound & Communications industry, and would like to write for the magazine bearing its name, please write to the editor at the below address and outline your experience and particular interests.

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The Editor Sound & Communications 25 Willowdale Avenue Port Washington, NY 11050 (516) 767-2500

Do you need to know who makes paging systems or who at an intercom company you should talk to about their industrial intercoms? You'll find all the answers in the SOUNDE UNICATIONS

telephone systems ancillaries, loud-ringers, power supplies, amplified and talkback speakers. See full listing under **Paging Systems** 

Wheelock, Inc., 273 Branchport Ave., Long Branch, NJ, 07740, 201-222-6880, FAX: 201-222-8707
President: P. W. Tarlton
V.P. Mktg/Sales: W.L. Goldstein
V.P. Engineering: Stephan W. Andrews
Market Mgr. Tel./Paging: Art Arlow
Market Mgr. Life Safety/Ind.: Rein Haus
Products: audible/visual signalling devices for life safety, alarm, industrial, and telephone systems applications.
Paging systems for telephone system access. Products include bells, horns, speakers, strobes, chimes, speaker amplifiers, talk-back speakers, zone controls & power sup-

plies. See full listing under Alarm & Security

Wissco, 1599 Superior Ave., A-1, Costa Mesa, CA, 92627, 714-645-1281

President: J. Wanlass

Products: wireless microphones and receivers, power megaphones, sound lecterns, mobile sound systems, portable PA systems, mixers, speakers, telephone intercom systems, professional sound systems, amplifiers, power supplies, AC regulators, IR links. See full listing under **Microphones** 

Workman Electronic Products, P.O. Box 3828, 75 Packinghouse Rd., Sarasota, FL, 33578, 813-371-4242 Products: speakers, baffles, grilles, line transformers, Lpads, grilles and speakers and transformer combinations, baffles, speakers and trans. combinations; any combination is available.

### LOUDSPEAKER ACCESSORIES

Acoustone Grille Cloth, 80 Wythe Ave, Brooklyn, NY, 11211, 718-782-5560 President: George Backer Production Mgr.: Larry Lubliner Office Mgr.: Al Allentoff Order Dept.: Inge Order Dept.: Judy Products: acoustic and fire retardant fabrics, grille cloth, acoustic panel coverings, fire retardant wall coverings. See full listing under **Acoustical Treatment** 

AKG Acoustics, Inc., 77 Selleck St, Stamford, CT, 06902, 203-348-2121 President: Richard Ravich Operations Manager: Derek Pilkington Sales Manager: David Talbot



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#### Service Manager: John T. Pyrch

Products: studio condenser microphones; prepolarized condenser microphones; professional dynamic microphones; wireless microphones, special purpose microphones, stereo microphones; headset microphones; stereo headphones; microphone stands; digital delays; digital reverbs; phonocartridges; and accessories. See full listing under **Microphones** 

Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026, 314-349-3110 Director of Sales: Paul Grote E. Region/Sales: Andy Musci W. Region/Sales: Bud Waters V.P., Consultant for Mkt'g.: Herbert Jaffe Products: decorative baffles, mounting rings and backboxes for ceiling and wall installation. Indoor and outdoor vandal proof enclosures, surface-mounting baffles, line matching transformers, attenuators, loudspeaker stands and cost-efficient installation accessories. See full listing under **Loudspeakers** 

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500 President: John H. Ochtera V.P. Marketing: Carl C. Dorwaldt Nat'l. Sales Mgr.: David A. Chambers Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor. See full listing under **Audio Amplifiers** 

Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Director of Marketing: Jim Long Chief Engineer: Earl Harris Products: broadcast, recording, communications and PA microphones, public address and component high-fidelity loudspeakers and systems, high-performance compression drivers, horns, low-frequency systems, mixers, mixing consoles, signal processors and crossover networks. See full listing under **Pro Audio Sound Systems & Products** 

FM Tubecraft Support Systems Inc., 1121-26 Lincoln Ave., Holbrook, NY, 11741, 516-567-8588

Fourjay Industries, Inc., 3400 Stop Eight Road, Dayton, OH, 45414, 513-890-6444 President: J. M. Fulkerson II Director of Sales: M. W. (Bud) Frawley

The Editors of **Sound & Communications** ...are always looking for qualified contributors who wish to write for the publication on a freelance basis.

If you are involved in the Sound & Communications industry, and would like to write for the magazine bearing its name, please write to the editor at the below address and outline your experience and particular interests.

Thousands may share your interests and we're willing to share them with our readers.

The Editor Sound & Communications 25 Willowdale Ave., Port Washington, NY 11050 • (516) 767-2500 Products: ceiling white recessed baffles, time saving baffle mounting devices, protective covers, wall baffles and music speakers, horn speakers for paging/talkback, intercom, telephone and security systems.

See full listing under Loudspeakers

Frazier, A Division of Sound-Craft Systems, Inc., Petit Jean Mountain Rt 3, Box 319, Morrilton, AR, 72110, 501-727-5476, 800-643-8747 Marketing: Earle Love Sales Manager: Hank Shaw Secretary/Treasurer: Katherine Foust V.P. Sales & Marketing: James Truelsen Sr. Engineer: Jay Mitchell Products: sound reinforcement loudspeaker systems featuring coincident-aligned transducers which offer frequency response and intelligibility and utility in a variety of light-weight compact designs. Special mounting system minimizes installation time. See full listing under Loudspeakers

Gemco Electronics, Inc., P.O. Box 993, 550 Airport Rd., Gallatin, TN, 37066, 615-452-5960 President: Jerry A. Graves Sales Mgr.: Byron Graves Chief Engineer: Todd Adams Office Manager: Mrs. Tiny Brown Products: wall baffles, speakers, ceiling grills, sound columns, transformers for the background music and paging industry. See full listing under **Loudspeakers** 

International Music Co. (I. M. C.), PO Box 2344, Ft. Worth, TX, 76113, 817-336-5114 Chairman of the Bd./CEO: Tommy Moore President: Jerry Freed V.P. Sales: C.H. Murray Dir. of Akai EMI: Mike McRoberts Akai Product Specialist: Kevin Kennedy Products: Akai: multitrack recorders, digital patch bays, digital samplers, electronic wind instruments, and synthesizers. Ross: multitrack recorders, PA systems, guitar amps, microphones, and effects. See full listing under **Pro Audio Sound Systems & Products** 

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers

Lowell Manufacturing Co., 3030 Laclede Sta. Road, St.





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A Copy To A Friend

# We don't mind looking a bit ridiculous if it helps make live sound sublime.



Curves have been smoothed tor purposes of comparison.

Engineering live sound means solving a multitude of "impossible" problems. Every audience - and every artist expects great sound. Unfortunately, venues rarely cooperate with those expectations. Fortunately, Turbosound goes to any lengths to develop effective solutions to sound reinforcement problems - even when that entails a total re- looking part goes inside the box. examination of fundamental principles.

Our determined refusal to rehash the conventions of enclosure design has led us to develop several patented 2nd Harmonic design principles. And to produce unusual-looking loading techniques like our unrivalled TurboMid™ and TurboBass™ devices. Our search for a solution to the dilemmas of HF projection and distortion has now produced the radically advanced V Series.

V Series combines aspects of manifold technology with Turbosound loading techniques to blend the outputs of

multiple drivers gradually, minimizing phase cancellation. The first realization of the V Series principle is the V-2 shown here. Available initially for the T-3 flare in our world-travelling TMS-3 full-range enclosure, this central focussing device couples two custom-built 1" drivers. It extends the TMS-3's HF response to a true -3 dB at 20 KHz. reduces harmonic distortion dramatically and paves the way for the soon-to-be-released UHQ system, incorporating Turbosound Flashlighf<sup>™</sup> technology.

The V-2 also solves "impossible" problems of intelligibility without artificial electronic enhancement or extraneous ultra-HF devices. It transmits every nuance of the performance to every seat in the house. And makes live sound more "lifelike" than it's ever been.

Finally, we'd like to point out one more important fact about this unique advance in professional audio performance - the ridiculous-



an C.EdgeTech company

\*TurboMid\* and TurboBass\* devices are covered worldwide by Principle Patents, not simple design paterus. Principle Patents covering V Series have been applied for The concepts embodied in these designs are, therefore, entirely unique. See Turbosound literature for full information

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Louis, MO, 63143, 314-781-9058, 800-325-9660 Chairman: Ben W. Lowell President: Dorothy H. Lowell Sales Manager: John J. Lowell Sales: Wilhelm R. Lowell Engineering: Karl R. Schneider Products: loudspeakers, baffles, enclosures, mounting devices, attenuators, UL 8" speaker assemblies, sound masking speakers, blank and custom rack panels, custom fabrication services. **District Offices:** Design Factors, Hacienda Heights, CA, 213-697-7576 Henry W. Phillips Co., Inc., Roswell, GA, 404-992-3070 Peregrine S.W. Reps Inc., Houston, TX, 713-772-6765 Pusecker Sales, Upper Montclair, NJ, 201-744-1834 Silver Peak Marketing, Ltd., Wheat Ridge, CO, 303-467-9042

McCauley Sound, Inc., 13608 94th Ave. E., Puyallup, WA, 98373, 206-848-0363

Pres./Sales Mgr.: Tom McCauley

V.P./Production: Pete McCauley

Products: a complete line of touring and commercial loudspeaker systems. They feature a high-powered series of low-, mid-, and high-frequency loudspeakers and compression drivers, as well as CD horns, passive networks, and enclosure hardware. See full listing under Pro Audio Sound Systems & Products

Middle Atlantic Audio Products, P.O. Box 96, Haskell, NJ, 07420, 201-839-1011

Neutrik/DIALIGHT Corp., 1913 Atlantic Ave., Manasquan, NJ, 08753, 201-223-9400 Product Mgr.: James Cowan Dir. of Sales/Mkt'g.: John McNamara CEO: H. Miller Products: an extensive line of XLR connectors, receptacles, transformers, goosenecks, modules, patch plugs, phone jack/plugs. Included in the line are weatherproof XLR connectors, a new speaker connector, and "Neutricon" a new miniature connector system. See full listing under Wire/Cable Components

**Oaktron Industries, Inc.**, 1000 30th St., Monroe, WI, 53566, 800-257-4538 President/CEO: Jerry Disch Executive V. P.: Bob Taller V. P. Sales: Jim Hendrickson Products: commercial loudspeakers and accessories, sound masking speakers. Background and paging systems and a total line of accessories. See full listing under **Loudspeakers** 



Omnimount Systems, 10850 Van Owen St., N. Hollywood, Q-Line Corp., P.O. Box 20037, 2808 Lakeside Dr., CA, 91605, 818-766-9000, FAX: 818-766-9669, TELEX: Oklahoma City, OK, 73120, 405-751-3294 181149 WEST LSA President: John W. Quade

President: Alex Cyrell

Sales Manager: Jim Schaller Vice President: Susan Michelson

Products: universal mounting assemblies for hanging speaker, monitors or other products, full product line supports a broad spectrum of weight loads, from ounces to hundreds of pounds, with flexibility and stability at any angle.

Orevox Corp., 512 35th St. NE, Auburn, WA, 98002, 206-735-0220, 800-237-0700 CEO: Daniel Wu

Sales Mgr.: Russ Stanford

Products: loudspeakers specializing in foreground speakers, outdoor paging and intercom speakers, self-contained sirens, metal siren/speaker enclosures, and metal utility cabinets for residential and commercial applications. See full listing under **Loudspeakers** 

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products.

See full listing under Audio Amplifiers

Q-Line Corp., P.O. Box 20037, 2808 Lakeside Dr., Oklahoma City, OK, 73120, 405-751-3294 President: John W. Quade Products: Q liner speaker shield. Speaker enclosure, matches speaker flange, protects against foreign matter, weather. Available in semi-rigid plastic/flame retardant plastic for background music and PA systems, auto

radio/tape systems.

Libraries

Sound Products/3M, 3M Center 225-S-10, St. Paul, MN, 55144-1000, 612-733-0447

Marketing Manager: Don Rada Sales Manager: Don Sluder Products: music libraries for all purposes. Reliable players. Industrial quality intercoms and vehicle detectors. Top-line message repeater. Speaker assemblies for distributed systems. Microphones, amplifiers and other sound system components. See full listing under **Back/Foreground Systems** 

UNIVERSITY SOUND, Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Chief Engineer: Earl Harris Marketing Mgr., Commercial Products: W. Douglas Wilkens Products: complete commercial sound line includes horns public address, and explosion-proof drivers, paging/talkback speakers, weatherproof high-fidelity systems, sub-

mergence-proof and underwater speakers, and transformers.

See full listing under Loudspeakers



Orevox PA and talk back speakers. With features like externally selectable wattage taps, high impact weather resistant construction, and versatile swivel mounts..., there's only one feature that we can think of adding: The best prices in the industry.



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### MAGNETIC TAPE SYSTEMS & SUPPLIES

AGFA-Gevaert, Inc., Magnetic Tape Div., 100 Challenger Rd., Ridgefield Park, NJ, 07660, 201-440-2500 V.P. General Manager: Maria A. Curry Nat'l. Sales Manager: Andrew Da Puzzo Audio Prod. Manager: Joe Tibensky Video Prod. Manager: Chris Emery Mkt'g. Comm. Manager: Teri Sosa Products: audio and videotape for the professional and industrial markets. AGFA video products include "Broadcast Pro" U-Matic videocassettes, packaged KCS 10, 20 (mini); KCA 5, 10, 20, 30, and 60; "Super HGX" 1/2" VHS videocassetes packaged as T-30, T-60, T-90, and T-120; 1/2" bulk videocassete tape PEV 192 HGX (highgrade) and PEV 192 (standard-grade); and 3/4" bulk videocassete tape Pev 297. **District Offices:** AGFA-Gevaert, Inc., Atlanta, GA, 404-955-4326 AGFA-Gevaert, Inc., Dallas, TX, 214-258-1441

AGFA-Gevaert, Inc., Oakbrook, IL, 312-242-1951 AGFA-Gevaert, Inc., Los Angeles, CA, 213-552-9622 AGFA-Gevaert, Inc., San Francisco, CA, 415-589-0700

American Recorder Technologies, Inc., P.O. Box 3592, Simi Valley, CA, 93063, 800-624-0918, 800-782-6911 President: Alan Adelstein Products: S-711 INTRACLEAN Professional Tape Head Cleaner, Audio & Video Swabs, Demagnetizers, Dispencer Pumps.

Apex Machine Co., 3000 N.E. 12th Terrace, Ft. Lauderdale, FL, 33334, 305-566-1572 Sales Executive: Alfred Coningsby III Sales Executive: Todd Coningsby Products: on-audio and on-video cassette printing systems, systems range from small hand-operated units up to fully automated systems.

Audico Inc, 219 Crossen Ave., Elk Grove, IL, 60007, 312-640-1030 P: Bill Hinkle VP: Norm Deletzke

Products: video (U-matic, VHS & Beta) and audio cassette tape loaders, reloaders, rewinders, length verifiers, and pressure-sensitive label sheets. Cart and reel tape winders. Impulser.

Audiolab Electronics, Inc., 3725 Esperanza Dr., Sacramento, CA, 95864, 916-348-0200 President: Robert E. Stofan Marketing/Sales Mgr.: Ronald A. Stofan Production Engineer: Marc A. Moore Products: professional line of bulk tape degaussers (erasers) that return all magnetic media to a neutral position . For use on any tape up to 16" in diameter and 2" wide.

AVSC, 1880 Embarcadero Rd., Palo Alto, CA, 94303, 415-493-3814 President: Richard Wilson General Manager: Veldon Leverich Office Manager: Diane Leverich

Products: recording heads for audio and video tape recorders; bulk tape erasers for all formats of magnetic tape.

BASF Corporation, Information Systems, 19 Crosby Drive, Bedford, MA, 01730-1471, 617-271-6642

Benjamin International, Inc., 1460 Old Country Road, Plainview, NY, 11803, 516-753-0700 President: Joseph N. Benjamin Vice President: Charles Tanner Products: background music equipment including cassette and CD changers, bulk tape erasers and professional tape splicers. See full listing under **Back/Foreground Systems** 

See full listing under Back/Foreground Systems Libraries

Broadcast Electronics Inc., 4100 N. 24th St., Quincy, IL, 62305, 217-224-9600 President: L. Cervon Vi.P.Marketing: C. Kring Audio Sales Manager: T. Bealor RF Sales Manager: B. Harland Int'l. Sales Manager: E. Corujo Products: audio mixing consoles, tape cartridge recorders/players, FM transmitting equipment (low, medium, and high power). See full listing under **Mixers & Mixing Consoles** 

Burlington Audio/Video Tapes, Inc., 106 Mott St., Oceanside, NY, 11572, 516-678-4414, 800-331-3191 President: Ruth Schwartz Vice President: Rudy Schwartz Jr. Vice President: Jan Schwartz Sales Manager: Ray Colon Products: professional quality video and audio tapes, reel to-reel tape, and accessories.

Capitol Magnetic Products, 6902 Sunset Blvd., Hollywood, CA, 90028, 213-461-2701 President: Edward C. Khoury Senior V. P./Sales: H. J. "Bud" Jackson V. P. Int'l Sales: Larry Krutsinger Managing Dir./U. K.: Steve Castle Dir./Technical Mkt'g: Joseph Kempler Products: Audiopak broadcast cartridges; bulk open-reel magnetic cassette/duplicator audio tape; Apollo master lacquer discs. **District Offices:** Capitol Magnetic Products, Hollywood, CA, 213-461-2701 California Sales Office, Los Angeles, CA, 213-254-9111 Pennsylvania Sales Office, Bethlehem, PA, 215-868-1401 Illinois Sales Office, Arlington Hghts, IL, 312-577-6773 CMP, LTD., Hayes, Middlesex (U. K.), 011-44-1-561-0922

Chemtronics Inc., 681 Old Willets Path, Hauppauge, NY, 11788, 516-582-3322 Products: cleaning chemicals for circuit boards and computer equipment, head recorders. Electronic Specialists, Inc., 171 S. Main St., P.O. Box 389, Natick, MA, 01760, 617-655-1532 Products: interference control devices, and filters.

Fidelipac Corp., P.O. Box 808, Moorestown, NJ, 08057, 509-235-3900, 800-468-8273 Sales Director: Jack Ducart

V.P. Marketing: Arthur Constantine

Products: reel-to-reel and back-lubricated 1/4 inch recordng tape, NAB broadcast Tape Cartridges in sizes A,AA,B, and C; DYNAMAX brand broadcast cartridge machines and accessories.

200 distributors nationwide, contact factory for your area distributor.

Geneva Group of Companies, Inc., 7255 Flying Cloud Dr., Eden Prarie, MN, 55344, 612-829-1724 President: Edward E. Griffin Sales Manager: Bruce A. Bowen Products: PF-211 Eliminates previous recordings in seconds. For cassette tapes, reel-to-reel tapes up to 1/2" and video tapes. 2300 gauss, UL/CSA approved.

Gyyr Products, div. of Odetics, Inc., 1515 South Manchester Ave, Anaheim, CA, 92802-2907, 714-772-1000

- General Manager: Dave Lewis
- Dir. of Marketing/Audio: Robert Hageman

Dir. of Marketing/Video: Terry Tedrick

Nat'l. Service Manager: Harvey Taylor

Products: multitrack audio tape recorders for conference and courtroom use; video cassette time lapse recorders and products for security use.

Infonics, Inc., 2302 E. Michigan Blvd., Michigan City, IN, 46360, 219-879-3381 President: Carol Lant Vice President: David Smith Products: mid speed audio duplication equipment, real.

Products: mid-speed audio duplication equipment, reel-toreel, reel-to-cassette, and cassette-to-cassette, 3 3/4, 7 1/2, 15 IPS masters 1/4" or 1/2", frequency response 20-20,000 Hz. In-house duplication services.

International Electro-Magnetics, Inc., 350 North Eric Drive, Palatine, IL, 60067, 312-358-4622 Products: magnetic recorders/heads.

International Music Co. (I. M. C.), PO Box 2344, Ft. Worth, TX, 76113, 817-336-5114 Chairman of the Bd./CEO: Tommy Moore President: Jerry Freed V.P. Sales: C.H. Murray Dir. of Akai EMI: Mike McRoberts Akai Product Specialist: Kevin Kennedy Products: Akai: multitrack recorders, digital patch bays, digital samplers, electronic wind instruments, and synthesizers. Ross: multitrack recorders, PA systems, guitar amps, microphones, and effects.

### See full listing under Pro Audio Sound Systems & Products

International Tapetronics/3M, 2425 S. Main St., P.O. Box 241, Bloomington, IL, 61702, 309-828-1381, 800-447-0414 Marketing Manager: Bob Bomar Sales Manager: Chuck Kelly Sales Rep.: John Schaab Sales Rep.: John Schaab Sales Rep.:Jim Woodworth Products: digital and analog tape cartridge systems, audio routing switchers, telephone answering interfaces and accessories.

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers

JRF Magnetic Sciences Inc., 101 Landing Road, Landing, NJ, 07850, 201-398-7426

MacKenzie Laboratories, Inc., 5507 Peck Rd., Arcadia, CA 91006, 818-579-0440, 800-423-4147 President: Addison R. Taylor V.P./Chief Engineer: Nagy Khattar Sales & Systems: Joe Vitale Products: solid-state, digital audio message repeaters, heavy-duty, endless-loop message repeaters, voice alarm and evac. equipment, voice security equipment, boardroom AAV equipment control systems. See full listing under **Message Repeaters/Storecasters** 

Magnefax International, Inc., Route 1, Box 764, Rogers, AR, 72756, 501-925-1818 Products: high-speed tape duplicators.

Magnetic Reference Lab (MRL), 229 Polaris Ave., Suite 4, Mountain View, CA, 94043, 415-965-8187

Nakamichi America, Corp., 19701 South Vermont Ave., Torrance, CA, 90502, 213-538-8150 President: Yas Yamazaki Exec. V.P. & G.M.: Dean A. Miller V.P. Sales: Jett Logan V.P. Mkt'g.: Bill Rosenzweig V.P. Operations: Ray Privette Products: MR-1 discrete head professional cassette deck, MR-2 2-head professional cassette deck, SP-7 stereo headphones, RM-5 remote control for MR-1 and MR-2, DM-10 head demagnetizer. See full listing under **Pro Audio Sound Systems & Products**  Nortronics Co., Inc., 8101 Tenth Ave. North, Minneapolis, MN, 55427, 612-545-0401 President: John A. Yngve Mkt'g Oper. Mgr.: Karen Nickolauson Engineering Mgr: Mike Drees Products: magnetic tape heads for reel-to-reel and cartridge tape recorders for the replacement and original equipment marketplace.

Otari Corp., 2 Davis Dr., Belmont, CA, 94002, 415-592-8311

Nat'l. Sales Mgr.: David Roudebush

Product Specialist: Tom Burrows

Products: a comprehensive line of professional magnetic tape recorders, reproducers, hi-speed cassette duplicators, video and audio cassette tape winders, loaders, and tailoring equipment. Also, Otari manufactures digital audio tape and magnetic disc based recording and playback systems.

**District Offices:** 

Otari, New York, NY, 212-580-5947 Otari, Nashville, TN, 615-367-1023

PHI Technologies, Inc, 4605 North Stiles, Oklahoma City, OK, 73105-3328, 405-521-9000 President: Gary Zebrowski Director of Operations: Bill Seaman Sales Mgr., Consumer: Dan Reynolds Sales Mgr., Systems/OEM: Michael Morgan Products: custom voice/data storage systems as well as "off-the-shelf" voice logging systems & message repeaters.

Projector Recorder Belt Corp., P.O. Box 176, Whitewater, WI, 53115, 414-473-2151

R.B. Annis Co. Inc., 1101 N. Delaware St., Indianapolis, IN, 46202, 317-637-9282 Products: tape demagnetizers.

Recortec, Inc., 275 Santa Ana Court, Sunnyvale, CA, 94086, 408-737-8441 President: Lester H. Lee Vice President: Eldon A. Corl Marketing Director: Ronald Truxell Products: magnetic tape handling equipment for cleaning, evaluating, certifying, duplication, and cassette and cartridge loading equipment for all widths of magnetic tape.

Saki Magnetics, Inc., 26600 Agoura Road, Calabasas, CA, 91302, 818-880-4054

President: Eugene Sakasegawa Director/Sales & Mkt'g: Trevor Boyer Products: magnetic tape heads of ferrite or metal construction for: reel to reel recorders, high speed duplicators, spin cassette duplicators, in-cassette voice loggers, tape certifiers, instrumentation & aerospace recorders & broadcast cart machines. District Offices: Auteri Assoc., Inc., Miller Place, NY, 516-331-5022 Coast Recording Equip., Hollywood, CA, 213-462-6058 JRF/Magnetic Sciences, Inc., Greendell, NJ, 201-579-5773 Nortec West, Vancouver, Canada, 403-252-8141 Teletek Electronics, Ltd., Ontario, Canada, 416-499-3242

Sony Professional Audio , 1600 Queen Anne Road, Teaneck, NJ, 07666, 201-833-5200 President: William G. Connolly Vice President: Jerry Smith Products: analog and digital audio recorders, compact disc mastering systems, mixing consoles, microphones(wired and wireless), monitoring equipment and public address systems.

See full listing under Pro Audio Sound Systems & Products

Soundcraft USA, PO Box 2200, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411, FAX: 818-893-3639 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Nat'l. Sales Mgr.: David Kimm Tech. Applications: Gordon Cochran Products: audio mixing consoles and multi-track tape machines. Applications include sound reinforcement, live recording, studio recording, remote recording, broadcast and post production. See full listing under Mixers & Mixing Consoles

Standard Tape Laboratory Inc., 26120 Eden Landing Rd., Suite 5, Hayward, CA, 94545, 415-786-3546 President: Frank G. Lennert Products: test tapes for precision alignment of magnetic recorder/reproducers. Formats available for reel-to-reel, cartridge, and cassette machines. Tones are made to conform to appropriate NAB, IEC, and AES Standards.

Stellavox, Jardillets 18, Hauterive, Switzerland, 2068

Studer Revox America, Inc., 1425 Elm Hill Pike, Nashville, TN, 37210, 615-254-5651 V. P./Gen. Mgr.: Thomas E. Mintner Dir. of Prof. Products: David C. Bowman Products: audio recorders; super low speed loggers and playback only machines to 2-inch multichannel; professional CD players & cassette recorders; computer controlled automation interface; mixing consoles, 19-inch & portable units to complete studio systems; amplifiers & loudspeakers.

See full listing under Pro Audio Sound Systems & Products

Taber Mfg. & Eng. Co./AVSC, Inc., 1880 Embarcadero Rd., Palo Alto, CA, 94303, 415-493-3814

Tascam/TEAC Professional Division, 7733 Telegraph Road, Montebello, CA, 90640, 213-726-0303 Marketing Manager: Bill Mohrhoff Sales Manager: Gregg Hildebrand W. Reg. Manager: Fred Allard S. Reg. Manager: Bill Stevens E. Reg. Manager: Chuck Prada Products: professional recorder/reproducers from 1/4" 2track to the ATR-80, a new 2" 24-track designed for video production. Recording and performance consoles from 6input to the M-600, a 32-input/16-buss large frame console. Also, receivers, cassette decks, and CD players.

Technics Professional, One Panasonic Way, Secaucus, NJ, 07094, 201-348-7000 Products: full line of professional reel-to-reel tape recorders, cassette decks, tuners, receivers, and CD players.

### See full listing under Pro Audio Sound Systems & Products

Uher of America, 7067 Vineland Ave., N. Hollywood, CA, 91605, 818-764-1120 President: John Belgiorno Executive V. P./Mkt'g: George A. Rose Products: professional heavy-duty open-reel and cassette recorders which provide high performance and reliability along with innovative features for commercial and industria applications. Choice of mono/stereo portable models. Film sync and long play speeds available.

Versadyne International, 504-C Vandell Way, Campbell, CA, 95008, 408-379-0900 Products: duplicating tape supplies.

VIF International, P.O. Box 1555, Mountain View, CA, 94042, 408-739-9740 President: Nancy Mackechnie Advisor, Int'l Op.: Gordon Mackechnie Products: spare parts, accessories, motor remanufacturing for ampex and scully professional audio tape recorders.

Xedit Corp., 133 S. Terrace Ave., Mount Vernon, NY, 10550



World Radio History

### MESSAGE REPEATERS/ STORECASTERS

360 Systems, 18730 Oxnard St., Tarzana, CA, 91356, 818-342-3127

Sales Manager: Ralph Goldheim

Products: Permanent Playback is a high reliability message player that reproduces audio directly from digital memory chips. It is used as a replacement for cartridge tape machines in applications where the same message must be played many times.

Audi-Cord Corp., 1845 W. Hovey Ave., Normal, IL, 61761, 309-452-9461 Products: cartridge tape machines.

Audiocom, Inc., 8100 Oak La., Penthouse 401, Miami Lakes, FL, 33016, 305-825-4653, 800-272-0555 Products: Promotion-on-hold.

Automation Devices, Inc, Automation Park, Box AD, Fairview, VA, 16415-0904, 814-474-5561

Brooks Scientific, Inc., 55 Wheeler St., Cambridge, MA, 02138, 617-491-9220 Products: message center.

Eltrex International, 2 Columbia Dr., Amherst, NH, 03031, 603-886-3500 Products: digital voice recorder, auto answer and playback.

EMS/Music, 2264 15th Ave. W., Seattle, WA, 98119, 206-281-8686

V.P. Nat'l. Music Svc. Sales: Bernard Kron Nat'l. Dealer Sales Desk: Mark Rubin Other Personnel: Steve Ducharme

Other Personnel: Anne Walker

Products: digitally mastered foreground/background music, complete music service, tape cartridge players, message insertion systems, Current-Drive Amplifiers for transformerless distributed speaker systems. Automated Automixer system that permits segues with various music services.

See full listing under Back/Foreground Systems Libraries

Heliotrope General, 3733 Kenora Drive, Spring Valley, CA, 92077, 619-460-3930, 800-854-2674 Products: electronics, thermostats, tapeless recorder

La Belle, 510 W. Worthington, Oconomowoc, WI, 53066, 414-567-9101 Products: LED sign systems & networking.

MacKenzie Laboratories, Inc., 5507 Peck Rd., Arcadia, CA, 91006, 818-579-0440, 800-423-4147 President: Addison R. Taylor V.P./Chief Engineer: Nagy Khattar Sales & Systems: Joe Vitale Products: solid-state, digital audio message repeaters, heavy-duty, endless-loop message repeaters, voice alarm and evac. equipment, voice security equipment, board-

room AAV equipment control systems.

Nel-Tech Labs, Inc., PO Box 1030, Londonderry, NH, 03053, 603-434-8234 President: Gary Stapleford Vice President: Douglas Brown Products: digital voice announcement systems featuring nonvolatile memory, user recordable, 100% solid state,

multimessage with random access capabilities. Designed specifically for applications where repetitive high quality natural voice announcements are required.

Pentagon Industries, Inc., 5115 N. Sheridan Rd., Chicago, IL, 60640, 312-271-8300

Portac, Inc., 108 Aero Camino, Santa Barbara, CA, 93117, 805-685-2960 Products: keyboard message generators.

Sierra Video Systems, P. O. Box 2462, Grass Valley, CA, 95945, 916-273-9331

Sound Products/3M, 3M Center 225-S-10, St. Paul, MN, 55144-1000, 612-733-0447 Marketing Manager: Don Rada Sales Manager: Don Sluder Products: music libraries for all purposes. Players, industrial quality intercoms and vehicle detectors. Top-line message repeater. Speaker assemblies for distributed systems. Microphones, amplifiers and other sound system components. See full listing under Back/Foreground Systems Libraries

Tape-Athon Corp., 13633 Crenshaw Blvd., Hawthorne,<br/>CA, 90250, 213-676-6752President: Leon E. "Lee" Tate<br/>General Manager: Bob Haller<br/>Director Engineering: Bernie Sayers<br/>Director Finance/Mkt'g: John Bagley<br/>Sales Manager: Rick Bottom<br/>Products: reel-to-reel, cassette environmental on-site mu-<br/>sic systems, rack mount or portable. Chimes & carillon systems, messager insertion units, full amplifier line.<br/>Customized background/foreground libraries.<br/>See full listing under Patch Bays & Routing Switchers

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems. See full listing under **Pro Audio Sound Systems & Products** 

### MICROPHONES

Accurate Sound Corp., 3315 Edison Way, Menlo Park, CA, 94025, 415-365-2843

Accusonics Systems Corp., 2101 Jericho Turnpike, New Hyde Park, NY, 11040, 516-328-3300 GM: Dennis Goodman Products: severe environment headsets, microphones, and loudspeakers. See full listing under **Loudspeakers** 

ACO Pacific, Inc., 2604 Read Ave., Belmont, CA, 94002, 415-595-8588, FAX: 415-591-2891, TLX: 650-273-1078 President: Noland L. Lewis

Products: the ACOustical Interface<sup>™</sup> System and "Alternative" Type 1 Microphones for digital recording and acoustic measurements with audio instrumentation. The "GHOST" provides 2 channels of 48V phantom from a single 9 volt battery.

District Offices:

Lee Assoc. Mid-South, Huntsville, AL, 205-533-5896

AKG Acoustics, Inc., 77 Selleck St, Stamford, CT,

06902, 203-348-2121

President: Richard Ravich

**Operations Manager: Derek Pilkington** 

Sales Manager: David Talbot

Service Manager: John T. Pyrch

Products: studio condenser microphones; prepolarized condenser microphones; professional dynamic microphones; wireless microphones, special purpose microphones, stereo microphones; headset microphones; stereo headphones; microphone stands; digital delays; digital reverbs; phonocartridges; and accessories.

Altec Lansing Corp., Box 26105, Oklahoma City Box, OK, 73126-0105, 405-324-5311

President: F. Davis Merrey

V.P. Mkt'g.: Gary Rilling

Sales Manager: Gayle Campbell

Products: industrial and professional electronic and loudspeaker products including mixers, mixing consoles, power amplifiers, equalizers, compressor/limiters, high power speakers and compression drivers, constant directivity horns, crossovers, and microphones. See full listing under **Loudspeakers** 

Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026, 314-349-3110

Director of Sales: Paul Grote

E. Region/Sales: Andy Musci

W. Region/Sales: Bud Waters

V.P., Consultant for Mkt'g.: Herbert Jaffe

Products: professional floor. boom and desk stands. USmade for communication and sound systems, performer and musician, studio and stage, recreation and work area applications. Choice of over 40 microphone accessories, adaptors and fittings.

See full listing under Loudspeakers

Audio Engineering Associates, 1029 N. Allen Ave., Pasadena, CA, 91102, 213-684-4461 Audio-Technica U. S., Inc., 1221 Commerce Drive, Stow, OH, 44224, 216-686-2600 President: Jon R. Kelly V.P. Marketing: Ken Reichel Nat'l. Sales Mgr./Pro Products: Mark Taylor Mk'tg. Mgr./Pro Products: Greg Silsby Sales Mgr./Pro Products: Mike Wuellner Products: studio condenser microphones, fixed charge condenser microphones, dynamic microphones, UniPoint<sup>™</sup> Microphone Series, boundary layer microphones, microphone accessories, mixers, cables, direct boxes, microphone stands and booms, weatherproof hi-fidelity speaker systems.

Audix, P.O. Box 265, San Carlos, CA, 94070, 800-222-8349

Audra International, P.O. Box 38, Silverado, CA, 92676, 714-649-2207, TLX: 493 1854 Owner: Algis Renkus Products: miniature microphones, mic splitters, precision audio transformers, and made-to-order transformers.

Beyer Dynamic, Inc, 5-05 Burns Ave, Hicksville, NY, 11801, 516-935-8000 General Manager: Paul Murphy Marketing Manager: Bob Lowig Marketing Manager: Mike Solomon Products: dynamic and condenser microphone, professional headphones and headsets, wireless microphones, microphone stands and booms, sound contracting components and accessories. District Offices: Hudson Marketing, Bayside, NY, 718-352-7365 Pro Audio Associates, Burlington, MA, 617-229-6050

New Horizons, Bannockburn, IL, 312-234-5911 Derek Allen Assoc., Burbank, CA, 818-840-8327

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500 President: John H. Ochtera V.P. Marketing: Carl C. Dorwaldt Nat'l. Sales Mgr.: David A. Chambers Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor.

See full listing under Audio Amplifiers

C-T Audio Marketing Inc., 3050 SW 14th Place, Suite 3, Boynton Beach, FL, 33435, 305-738-0622, 282-8346 President: Andre Walton Dir. Sales/Mkt'g: Sam Spennacchio

Products: c-ducer contact microphone, particularly popula for studio quality sound from piano. Stanz - range of speaker and lighting stands. O + M - range of PA speakers Omni Craft - range of studio noisegates.

Calrec Audio Limited (Calrec By AMS), P. O. 31864, Seattle, WA, 98103, 206-633-1956, TLX: 4900001180 (CAL UI) Managing Director: K. Farrar Director: D. S. Jagger Director: C. M. Waddington Director: J. S. Nevison Sales/Mkt'g Manager: N. Branwell Products: high grade and audio mixing systems, microphones include the "soundfield" and full range of condensor microphones. Calrec is a custom console builder and also produces the UA8000 music console and digitally assignable broadcast consoles. District Offices:

Westlake Audio, Los Angeles, CA, 213-851-9800 Martin Audio, New York, NY, 212-541-5900 Valley Audio, Nashville, TN, 615-383-4732 Harris Audio, Miami, FL, 305-944-4448 Technical Audio Systems, Atlanta, GA, 404-457-0988

Cetec Vega, 9900 Baldwin Pl., El Monte, CA, 91731-2204, 818-442-0782 President: Gary J. Stanfill Director of Mkt'g: Kenneth M. Bourne National Sales Manager: Paul Baughman Dir. of Engineering: Mark Rodighiero Dir. of Operations: David Duran

Products: wireless microphone systems with Dynex® II audio processing, true dual-receivers, bodypack or handheld transmitters, and full range of accessories; "Q" plus full-duplex beltpack wireless intercom systems (Single-package portables); tone signaling, monitoring, and control equipment.

Clarity, 1111 Industry Ave., Roanoke, VA, 24013, 800-962-6009 Products: a full line of paging products. See full listing under **Paging Systems** 



Comtek, Inc., 357 W. 2700 St., Salt Lake City, UT, 84115, 801-466-3463 President: Ralph Belgique Application Engineer: Steve Kartchner In-House Sales: LeeAnne Richards Products: wireless microphone systems operating up to 216 MHz and RF assistive listening systems for the hearing impaired for use in auditoriums, churches and theaters, wireless tour guide systems, wireless intercom systems, and wireless cuing systems.

Conneant Technologies, Inc., Harbor & Jackson St., Conneaut, OH, 44030,-Chief Op. Officer: Adolph Santorine Dir. Mkt'g & Sales: James A. Edwards Products: microphones for commercial, industrial, communications, institutional, and musical applications. District Offices: Roburn Agencies, Inc, New York, NY, 212-989-5939

Countryman Associates, Inc., 417 Stanford Ave., Redwood City, CA, 94063, 415-364-9988 Products: tiny precision condenser microphones designed specifically for podiums, choirs, boardrooms, theater, vocalists, and musical instruments with a wide variety of features and options. Also, a studio-quality direct-box. Crown International Inc., 1718 W. Mishawaka Road, Elkhart, IN, 46517, 219-294-8000 President: Max Scholfield Mkt'g Manager: Charles W. Gushwa PR Coordinator: Margo Sousley Microphone Prod. Mgr.: Bill Raventos Amplifier Prod. Mgr.: Verne Searer Products: professional power amplifiers from 35 to 400 watts per channel, PZM® microphones & hand held microphones for performance, musical instruments & sound reinforcement. See full listing under **Audio Amplifiers** 

Dean Markley Electronics Inc., 3350 Scott Blvd., Suite 45, Santa Clara, CA, 95054, 408-988-2456, 800-538-8330 President: Dean Markley Executive V. P.: Bari Wilson Nat'l Sales Manager: Tom Dreibelbis Products: professional audio sound systems and support, powered and non-powered mixers, powered and unpowered enclosures, power amps, microphones, cables and accessories.

See full listing under Pro Audio Sound Systems & Products

Edcor, 1948 East Pomona, Santa Ana, CA, 92705, 714-863-1529, 800-854-0259 Sales Manager: Deanna Weston Chief Engineer: Luis Bonand Production Manager: Tina Lopez Treasurer: Phyllis Weston Products: complete line of electronic commercial sound products including power & mixer amplifiers, E-Q amps, microphone/line mixers, automatic & gated mixers, wireless microphones systems, translation systems, transformers and private label products. See full listing under **Pro Audio Sound Systems &** 

Products

Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Director of Marketing: Jim Long Chief Engineer: Earl Harris Products: broadcast, recording, communications and PA microphones. See full listing under **Pro Audio Sound Systems & Products** 

Fostex Corp. of America, 15431 Blackburn Ave, Norwalk, CA, 90650, 213-921-1112 President: Y. Abe V.P. General Manager: Fred Huang V.P. Sales/Marketing: Mark Cohen National Sales Manager: Mike Flynn Products: a full-line for the Pro contractor including the MP Series multi-purpose powered mixers, SP & SPA11 portable speakers for many applications, raw frame speaker components from 18" to super tweeter, monitors, headphones, and microphones. See full listing under **Pro Audio Sound Systems &** 

Gotham Audio Corp., 1790 Broadway, New York, NY, 10019-1412, 212-765-3410 President: Russ R. Hamm

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Eastern Sales Mgr.: Jerry Graham Western Sales Mgr.: Juergen Wahl Sales Engineer: Peter Engel Products: Neumann condenser microphones, limiters/compressors, and equalizers and accessories; EMT digital delays; Gotham audio cable; K & H loudspeakers, and parametric equalizers; Audio Developments mixers; NTP limiters/compressors and meters. **District Offices:** Gotham Audio Corp., Van Nuys, CA, 818-785-2211 Gotham Audio Corp., Salem, MA, 617-745-8522 HM Electronics, Inc., PO Box 261669, San Diego, CA, 92131, 619-578-8300 President: Harry Y. Miyahira Vice President: Donald Kutz Director of Mkt'g: J. Michael Hughes National Sales Manager: Randy Opela Mkt'g Coordinator: Tonnia B. Sills Products: a complete line of wireless and cabled microphones, wireless and cabled intercom systems, DJ mixers, cordless guitar systems, power amplifiers, and accessories. District Offices: HM Electronics, Inc. Anaheim, CA, 714-635-0190 John B. Anthony Co., Stamford, CT, 203-322-9202 Applied Audio Mkt'g, Asheville, NC, 704-252-9313 Dobbs-Stanford, Dallas, TX, 214-358-0800 Sound Marketing, Palos Park, IL, 312-448-6715 International Music Co. (I. M. C.), PO Box 2344, Ft. Worth, TX, 76113, 817-336-5114 Chairman of the Bd./CEO: Tommy Moore President: Jerry Freed V.P. Sales: C.H. Murray Dir. of Akai EMI: Mike McRoberts Akai Product Specialist: Kevin Kennedy Akai: multitrack recorders, digital patch bays, digital samplers, Products: electronic wind instruments, and synthesizers. Ross: multitrack recorders, PA systems, guitar amps, microphones, and effects. See full listing under Pro Audio Sound Systems & **Products** IQS, Inc., 12812-J Garden Grove Blvd., Garden Grove, CA, 92643, 714-539-7842 President: William Elder V. P.: Douglas Evered Products: Audio Signal Analyzers, PC-based Models 401 and 416-2a single and dual channel; Reference Microphones - Model 302, 20-20kHz; Model 312, 5-40kHz; Arbitrary Waveform Signal Generator - Model SSM-

1; Audi Analysis FFT Software - Spectrum Analyst Pak 1®; Signal Analyst Pak® . See full listing under **Test Equipment & Tools** 

Knowles Electronics, Inc., 3100 N. Mannheim Rd., Franklin Park, IL, 60131, 312-455-3600

Larson-Davis Laboratories, 280 S. Main, Pleasant Grove, UT, 84062, 801-785-6352

Lectrosonics, Inc., P.O. Box 12617, Albuquerque, NM, 87195, 505-831-1010 President: John Arasim V.P. Engineering: Larry Fisher Mkt'g. Manager: Bruce Jones Sales Manager: Jim Madden Production Manager: Keith Philips Products: Freedommike® wireless microphone systems; single antenna and diversity receivers in both standard and miniature configurations; a wide variety of body-pack and hand-held transmitters for many applications; Voice Projector® portable sound systems with rechargeable, self-contained power supplies. District Offices: Gary Castelluccio & Assoc., Patterson, NJ, 201-278-2500

Milab/ Exp, 11288 Ventura Boulevard, Suite 304, Studio City, CA, 91604, 818-843-1830 National Sales Mgr.: Colin Waters Marketing: Susan Tesh Product Mgr.: Kurt Wolfgang Products: professional studio/broadcasting/PA condenser microphones.

Milliphonics, Salina Star Route, Boulder, CO, 80302, 303-444-3167 Products: implant microphones for all electroacoustical applications.

Nady Systems, Inc., 1145 65th St., Oakland, CA, 94608, 415-652-2411 Sales Manager: Peter Kalmen Products: wireless microphone systems, video camera, wireless system for ENG/EFP.

Panasonic Industrial Company/Ramsa, 6550 Katella Ave, Cypress, CA, 90630, 714-895-7272 National Marketing Mgr.: Steve Wooley Products: Ramsa, the professional audio division of Panasonic Industrial Company's Audio/Video Systems Group, markets a comprehensive line of mixing and production consoles, power amplifiers, microphones and speaker systems.

See full listing under Pro Audio Sound Systems & Products

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under **Audio Amplifiers** 

Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365 Prod Mgr/Sound Reinf.: Hollis Calvert Prod Mgr/Digital Product: Ken Valentine Products: audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker systems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater

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#### systems.

### See full listing under Pro Audio Sound Systems & Products

Posthorn Recording, 142 West 26th St., New York, NY, 10001, 212-242-3737 Owner/President: Jerry Bruck Technical Services: Michael P. Hesse Public Relations: Louise A. Bloomfield Products: Schoeps studio condenser microphones are professional, high-definition types with interchangeable capsules. A wide choice of pickup patterns and characteristics tailor each microphone for a specific range of uses. Sonotrim electret condenser microphones are ultra-miniature, phantom or battery powered, units designed for lavalier or other unobtrusive placement.

Roanwell Corporation, 180 Varick St., New York, NY, 10014, 212-989-1090 Products: hand mikes and headsets.

Samson Technologies Corp., 124 Fulton Ave., Hempstead, NY, 11550, 516-489-2203 Vice President: Scott Goodman Vice President: Doug Bryant Export Manager: Kevin Moran Sales: Richard Perl Sales: Gary Jakery Products: wireless systems, "Broadcast STD Seri

Products: wireless systems, "Broadcast STD Series", true diversity channel selectable system with dbx noise reduction. "Concert TD Series", true diversity crystal controlled wireless system with dbx noise reduction. "Stage Series" VHF portable wireless system. District Offices:

Jamm Distributing, Matteson, IL, 312-747-6363 Image Mkt'g, Costa Mesa, CA, 714-650-7718 Chris Pelzar, N. Canton, CT, 203-693-1501 Ron Tunks Sales, Tamarac, FL, 305-722-2803 JMS Marketing, Austin, TX, 512-266-1113

Sanken Microphone, Ltd./Pan Communications, Inc., Roppongi 1-5-10, Suite 607, Minato-ku, Tokyo, Japan, 106, (03)-505-5463

Sennheiser Elec. Corp., 48 W. 38th St., New York, NY, 10018, 212-944-9440

Products: a full line of microphones (dynamic, electret, and condenser) as well as RF (hand-held, body-pac, single channel, diversity/non-diversity, and rack-mount), infrared listening equipment, headphones and portable mixers.

Shure Brothers, Inc, 222 Hartrey Ave, Evanston, IL, 60202-3696, 312-866-2200 President: James Kogen V.P. Sales/Mkt'g: Richard Murphy Marketing Manager: Sandy Schroeder Sales: Tim Vear Sr. Product Cdr: Max Ann Buchanan Products: microphones and accessories, wireless microphone systems, mixers and related circuitry products, automatic microphone systems. compact sound relatered

tomatic mictrophone systems, compact sound reinforcement systems, teleconferencing systems. District Offices:

Peter E. Schmitt, Co., Leonia, NJ, 201-944-2806 Steffey Marketing, Northbrook, IL, 312-480-3575 Berman-Gravley Co., Costa Mesa, CA, 714-549-2122 Rep Tech, Terrell, TX, 214-222-2131 S.K. Macdonald, Lisbon, MD, 301-982-1088

Sony Professional Audio , 1600 Queen Anne Road, Teaneck, NJ, 07666, 201-833-5200 President: William G. Connolly Vice President: Jerry Smith Products: analog and digital audio recorders, compact disc mastering systems, mixing consoles, microphones(wired and wireless), monitoring equipment and public address systems.

### See full listing under Pro Audio Sound Systems & Products

Sound Control Technologies, Inc., 114A Washington Street, Norwalk, CT, 06854, 203-854-5701 President: Adolph Neaderland Sales/Mkt'g: David Neaderland Products: full duplex patented VOICELIFT<sup>IM</sup> voice reinforcement and TELEPLEX<sup>TM</sup> teleconferencing systems for boardrooms, conference and training rooms and teleconferencing areas. Proprietary implant microphones for both plenum and non-plenum installations. See full listing under **Teleconferencing Systems** 

Sound Products/3M, 3M Center 225-S-10, St. Paul, MN, 55144-1000, 612-733-0447 Marketing Manager: Don Rada Sales Manager: Don Sluder Products: music libraries for all purposes. Players, industrial quality intercoms and vehicle detectors. Top-line message repeater. Speaker assemblies for distributed systems. Microphones, amplifiers and other sound system components. See full listing under Back/Foreground Systems Libraries

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516

President: Louis W. Keller V.P. & General Manager: James J. Ganci V,P,/Sales & Marketing: Mel Hulkower Regional Sales Manager: Eric Forman Regional Sales Manager: Bruce Kurtz Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; complete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, background/foreground enclosed speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, attenuators, microphones, & intercoms. See full listing under Audio Amplifiers

Swintek Enterprises, Inc., 587 Division St., Campbell, CA, 95008, 408-378-8091 President: William P. Swintek V.P.: Les Underwood Products: RF full-duplex intercoms, switching diversity re-

e

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The 501 VHF is available with a up and use it. good-looking handheld microphone transmitter or a bullet-proof lavalier microphone transmitter. A lightweight, portable AC or DC-powered receiver

completes the system. Nady VHF wireless is the choice of today's major musical groups. Nine out of ten (based on Billboard Magazine's 1985 Talent Almanac) use our wireless microphone and instrument systems.

There are reasons for this. Nady Wireless is road-proven depend

able. With audio quality that measures up to these artists' demanding standards. (Try a side-by-side comparison yourself -Nady Wireless always sounds best.) Send for the specs on

our affordable 501 VHF Wireless System, or ask your Nady rep for a demonstration. You' like what vou see -

and hear

Nady Systems, Inc. 1145 65th St. **Oakland CA 94608** 415/652-2411

ceivers for sound reinforcement, mini receivers for video cameras, lavalier and hand-held FM transmitters, antenna distribution amplifiers to 470 mHz. District Offices:

Cinequip, Inc., Toronto, Ont., CD, 416-920-5424 Maga Techtronics, Artarmon, NSW, Australia, 02-438-3377 Commercial Electronics, Vancouver B.C., CD, 604-669-5525



Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe

Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman Director of Marketing: Donald Mereen Products: dual antenna (diversity) wireless microphome systems, single antenna wireless microphone systems, wired microphones.

See full listing under Pro Audio Sound Systems & **Products** 

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems.

See full listing under Pro Audio Sound Systems & Products

Uniprise International, 15 Hickory Dr., Roslyn, NY, 11576, 516-621-6987

Sales Director: Stanley Hirsch

Chief Engineer: David Porter

Production Manager: Philip Porter

Products: flexible arms (goosenecks) and flexible tubing used on microphones, intercoms, lecterns, head-sets, and lamps.

Williams Sound Corp., 5929 Baker Rd., Minnetonka, MN, 55345-5997, 612-931-0291, 800-328-6190 President: Gerald I. Williams General Manager: James M. Broz Dir. of Marketing: Paul S. Ingebritsen Sales Manager: Jeff Peters Chief Engineer: Jay Kershaw


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\*Shure is a registered tradename of Shure Brothers Inc.

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Such annual reports as the May Contracting Business In-Depth Market Report and the December Industry Report keep readers wellinformed on new industry

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Products: FM wireless hearing-assistance systems; programmable wireless microphone systems; wireless tour guide systems; talent cueing and loop systems. See full listing under **Hearing Assistance Systems** 

Wissco, 1599 Superior Ave., A-1, Costa Mesa, CA, 92627, 714-645-1281

President: J. Wanlass

Products: wireless microphones and receivers, power megaphones, sound lecterns, mobile sound systems, portable PA systems, mixers, speakers, telephone intercom systems, professional sound systems, amplifiers, power supplies, AC regulators, IR links.

Wright Microphones, 2093 Faulkner Rd. N.E., Atlanta, GA, 30324, 404-321-3886 Products: TSR-2 transformerless condenser microphone for studio use.

Yamaha International Corp., Audio Products Division, 6600 Orangethorpe Ave., Buena Park, CA, 90620, 714-522-9011

Gen. Mgr.: John Gatts Nat'l. Sales Mgr.: Bob Shomaker Adv. Mgr.: Robert T. Davis Products: full line of audio mixing consoles, power amplifiers, speaker systems, digital signal processing equipment, and microphones.

See full listing under Pro Audio Sound Systems & Products



# Leading the Way

Every month, Sound & Communications editorial staff and contributing and technical editors are leading the sound contracting marketplace with powerful issues. Columns include Consultant's Comments, which offers pointers on how contractors can get the most from their market; Theory & Applications, which gives readers insight on acoustical theories and applications; Computers & Digital Audio, which explains how computer processing becomes audio processing; and the Business Front, which offers business tips to contractors, consultants and reps so they can keep that competitive edge in this fastgrowing industry.

Regular feature columns include Lab Test, which takes the reader into the scientist's lab and provides the reader with an unbiased product test report each month. Another monthly feature, Installation Profile is a case study of a contractor's installation. This feature takes a close look at how the contractor completed his job, how he solved problems along the way, and offers tid bits and sales techniques that another contractor could use.

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### MIXERS & MIXING CONSOLES

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

### Allen and Heath Brenell USA Ltd. (AHB), 5 Connair

Rd., Orange, CT, 06477, 203-795-3594 V.P./Sales Manager: Chuck Augustowski Service Manager: Kevin Macdowall Engineer/R&D: John Petrucelli Engineer: Joseph Boerst General Manager: Jean Rathgeber Products: professional sound reinforcement and recording consoles as well as mixers for sound contractor applica-

tions. A complete line of Broadcast Equipment is manufactured under the MBI name. District Offices:

GMI/New England, Avon, MA, 617-588-8043 Sherwood Assoc., Endicott, NY, 607-785-1590 Metropolis Marketing, Edison, NJ, 201-225-0085 Audio Assoc., Glenwood, MD, 301-854-6122 Ron Tunks Sales, Tamarac, FL, 305-722-2803 Cambridge Marketing, Euclid, OH, 614-890-7788 Jamm Dist., Matteson, IL, 312-747-6363 Centurian Marketing, Ballwin, MO, 314-227-7229 JMS Marketing, Austin, TX, 512-266-1113 Loppnow & Assoc., Redmond, WA, 206-883-3205 AMH Sales, Palos Verdes, CA, 213-373-2034

Altec Lansing Corp., Box 26105, Oklahoma City Box, OK, 73126-0105, 405-324-5311 President: F.: Davis Merrey V.P. Mkt'g.: Gary Rilling Sales Manager: Gayle Campbell Products: industrial and professional electronic and loudspeaker products including mixers, mixing consoles, power amplifiers, equalizers, compressor/limiters, high power speakers and compression drivers, constant directivity horns, crossovers, and microphones. See full listing under Loudspeakers

Amek Consoles, Inc, 10815 Burbank Blvd., N. Hollywood, CA, 91601, 818-508-9788 Technical Director: Tim Wilson Sales Director: Arnold Toshner Sales Administrator: Sue Jones Tech. Support: Robert Jaxson Parts & Shipping Mgr.: Bruce Kiewall Products: a full range of audio consoles for all applications of sound reinforcement, multi-track recording, and broadcast applications.

API Audio Products, Inc., 7953 Twist Lane, Springfield, VA, 22153, 703-455-8188

ATI - Audio Technologies, Inc., 328 Maple Ave., Horsham, PA, 19044, 215-443-0330 President: Sam Wenzel

Vice President: Edward M. Mullin

Products: precision audio equipment for the broadcast including 8 & 12 mixer consoles, mike, line, turntable, distribution and power amplifiers, and the Match-Maker and Disc Patcher IHF to PRO interface amplifiers. See full listing under **Audio Amplifiers** 

Audio-Technica U. S., Inc., 1221 Commerce Drive, Stow OH, 44224, 216-686-2600 President: Jon R. Kelly V.P. Marketing: Ken Reichel Nat'l. Sales Mgr./Pro Products: Mark Taylor Mk'tg. Mgr./Pro Products: Greg Silsby Sales Mgr./Pro Products: Mike Wuellner Products: studio condenser microphones, fixed charge condenser microphones, dynamic microphones, UniPoint<sup>™</sup> Microphone Series, boundary layer microphones, microphone accessories, mixers, cables, direct boxes, microphone stands and booms, weatherproof hidelity speaker systems. See full listing under **Microphones** 

Audioarts Engineering, Five Collins Road, Bethany, CT, 06525, 203-393-0887

Audisar, Box 1561, Bellevue, WA, 98009, 206-454-204 Owner: R. Munger Products: industrial audio and broadcast equipment, auc

transformers, loudspeakers, power amplifiers, mixers, sound projector interface device, test equipment, specia and engineered sound systems.

# See full listing under Pro Audio Sound Systems & Products

Autogram Corp., 1500 Capital Ave., Plano, TX, 75075, 214-424-8585 Products: audio consoles.

Biamp Systems, 14270 NW Science Park, Portland, OR, 97229, 503-641-7287 President: Ralph Lockhart V.P. Engineering: Bob Doty V.P. Finance: Jerry Payette V.P. Manufacturing: Ralph Tennant Sales Manager: Ron Camden Products: American-made, high-quality, audio equipmen for the sound contractor that includes; mixers, live and recording, rack-mount or console; powered mixers; micro phone mixers; amplifiers; equalizers; and crossovers. See full listing under **Pro Audio Sound Systems & Products** 

Bogen Communications, Inc., PO Box 575, 50 Spring St. Ramsey, NJ, 07446, 201-934-8500 President: John H. Ochtera V.P. Marketing: Carl C. Dorwaldt Nat'l. Sales Mgr.: David A. Chambers Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor. See full listing under **Audio Amplifiers** 

Broadcast Audio Corp, 11306 Sunco Dr., Rancho Cordova, CA, 95670, 916-635-1048 President: John Fernandez CEO: David Evans

# In sound reinforcement, there are no insignificant details.

# An infinite capacity for taking pains

It's an apt description of genius, especially in the arena of sound reinforcement. Each job comes with its own endless list of minor obstacles, all ready to become major headaches at a moment's notice. That would be reason enough for us to design every section of D Series consoles for maximum performance; even if we weren't committed to finding out just how good sound reinforcement consoles can be.

### Technical advances are raising audience expectations

CDs, digital recording and related developments have created higher fidelity in the home - and higher standards for live sound reinforcement. Still, some consider our approach to console engineering extremist. They think it unnecessary to reduce crosstalk between groups to a level typically 17 dB below conventional mixing consoles. Or to utilize a military multiple grounding system that virtually eliminates hum generation. To offer transformer balanced mic inputs and line outputs as options, or use rigid steel center trusses and





**DETAIL:** Auxiliary modules have three band EQ with variable Mid frequency for more usable, functional outputs.

DETAIL: Standard inputs have LED level meters next to input faders for accurate, timely signal monitoring.

flexible "mother loom" wiring harnesses to minimize mechanical stress on circuit cards.

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# Options for job-specific configurations

Your live sound console must have the flexibility to do the job your way - and the versatility to cope with unexpected difficulties. The informed, insightful design of D Series consoles gives you a selection of eleven different module types, each optimized for a different job. Configure 36-, 48- or 56-space frames with any combination of Standard, Monitor, Theater or Stereo inputs, Recording, PA or Matrix outputs and Stereo, Monitoring or Auxiliary Master modules. All achieve audio performance that is equal to the most demanding applications, including live-to-digital recordings. D Series consoles are presently used by major British sound companies and studios for reinforcement and remote recording applications.

The extensive features and functions of D Series modules and consoles are detailed in an eight page brochure. To get one, send your business card or letterhead to:



Klark-Teknik Electronics Inc., 30B Banfi Plaza North Farmingdale, NY 11735 (516) 249-3660 Unit #1, Inwood Business Pk., Whitton Rd. Hounslow, Middlesex, UK TW3 2EB



Products: audio consoles and amplifiers for sound reinforcement and broadcasting.

Broadcast Electronics Inc., 4100 N. 24th St., Quincy, IL, 62305, 217-224-9600 President: L. Cervon V.P. Marketing: C. Kring Audio Sales Manager: T. Bealor RF Sales Manager: B. Harland Int'I. Sales Manager: E. Corujo Products: audio mixing consoles, tape cartridge recorders/players, FM transmitting equipment (low, medium, and high power).

CADD, Inc., 1875-D Panama St., Brossard, Que., Canada, J4W 2S8, 514-672-8862 Products: touring consoles, digital crossovers.

Calrec Audio Limited (Calrec By AMS), P. O. 31864, Seattle, WA, 98103, 206-633-1956, TLX: 4900001180 (CAL UI) Managing Director: K. Farrar Director: D. S. Jagger Director: C. M. Waddington Director: J. S. Nevison Sales/Mkt'g Manager: N. Branwell Products: high grade and audio mixing systems, microphones include the "soundfield" and full range of condensor microphones. Calrec is a custom console builder and also produces the UA8000 music console and digitally assignable broadcast consoles. See full listing under **Microphones** 

Cetec Ivie, 1366 West Center St, Orem, UT, 84057, 801-224-1800

President: Craig Berry

.

Mkt'g Manager: Glen Meyer

Production Manager: Larry Driskill Products: a complete line of modular sound reinforcement electronics including mixers, equalizers, amplifiers, etc. We also have a line of octave & 1/3 octave hand-held real time analyzers and stand alone automatic microphone mixers.

See full listing under Audio Signal Processors

Cetec Raymer, 7315 Fulton Ave., N. Hollywood, CA, 91605, 213-875-0423

President: Hugh T. Wilcox

Products: audio equipment for paging, background music and sound systems, including amplifiers, tuners, receivers, test equipment, telephone interconnect devices and accessories. Direct connection telephone trunk and station access paging devices. See full listing under **Paging Systems** 

Clarity, 1111 Industry Ave., Roanoke, VA, 24013, 800-962-6009 Products: a full line of paging products. See full listing under **Paging Systems** 

Connectronics Corporation, 652 Glenbrook Road, Stamford, CT, 06906, 203-324-2889, 800-322-2537 Exec. V.P.: Richard Chilvers

Products: specialized high-flexibility colored audio wire and cable-everything from microphone cable through 32-pair

foil-shielded multipair, from phono cable to individually shielded and jacketed and color-coded multipairs, from "starquad" to heavy-duty four conductor speakerflex. Portable audio mixing console from "SECK." See full listing under **Wire/Cable Components** 

Creative Audio Design + Development, 18750 Panama, Brossard, Que., CD, J4W2S8, 514-672-8862 President: Pierre Pare V.P. Engineering: Shane Morris Engineering R&D: Denis Lambert Products: house console w/40 mic inputs, 8 stereo returns, 8 mono line inputs, 8 mono aux, 4 stereo aux, 8 matrix outputs, 2 stereo mixing busses, and 3 stereo outputs Monitor console w/40 mic inputs, 4 aux outputs (remixable to groups), 4 sub inputs, 16 group outputs with 5-band parametric EQ. Digital crossover w/full 16-bit, 3 band stere 60 dB/oct linear phase.

D & R USA, 1720 Chip N Dale Drive, Arlington, TX, 76012 817-548-1677

Nat'l Sales Director: Paul Westbrook Products: US distribution for II mixers, from disco to fully automated studio console. Sound reinforcement and recording mixers with up to 80 inputs. More than 15 differ ent rack-mount signal processors.

DAX Audio Group, Inc., 1231 S.E. Gideon St., Portland, OR, 97202, 503-232-4445 President: Rich Stevenson Engineering Manager: Bob Herb Products: graphic equalizers, 31-bands, dual 15-band, ar dual 31-bands; mixing consoles from 8x2 to 32x8; powered mixers in 6 and 8 channels; real-time analyzer; amplifi er; crossover. District Offices: Bob White Assoc., Solon, OH, 216-248-1317 Professional Sound & Lighting, Lakewood, CO, 303-986-5999 Innovative Sales & Marketing, Fountain Valley, CA, 714-549-7770

DDA, 30B Banfi Plaza N, Farmingdale, NY, 11735, 516-249-3660 President: Jack Kelly Sales Manager: Keith Worsley Salesman: Harry Klane Service Manager: Jim Jacobelli Products: PMC Series for portable use (ENG/EFP), two, four (S Series), and eight bus (D Series) for production,

reinforcement, and recording applications, AMR Series 24 bus split, 32 bus in-line.

District Offices:

DDA/Klark-Teknik West, Oakland, CA, 415-482-1800 Derek Allen Assoc., Toluca Lake, CA, 818-840-8327 Professional Audio Marketing, Melville, NY, 516-367-862( Audio Resources, Westmont, IL, 312-655-1180 M. Chafee Enterprises, Sarasota, FL, 813-921-4294

Dean Markley Electronics Inc., 3350 Scott Blvd., Suite 45 Santa Clara, CA, 95054, 408-988-2456, 800-538-8330 President: Dean Markley Executive V. P.: Bari Wilson

Nat'l Sales Manager: Tom Dreibelbis Products: professional audio sound systems and suppor powered and non-powered mixers, powered and unpowered enclosures, power amps, microphones, cables and accessories.

## See full listing under Pro Audio Sound Systems & Products

Design Direct Sound, 6850 35th N.E., Suite 1, Seattle, WA, 98115, 206-527-4371 President: Bob Rice Vice President: Pat Peterson

Vice President: Marc Hall

Marketing: Mark Dodge

Products: Walker/DDS 80 Series mixing desk is an 8 buss board with a 10 X 8 matrix output, resulting in 18 balanced outputs. The 80 Series offers many of the benefits of full blown 8 buss boards with substantial savings.

See full listing under Pro Audio Sound Systems & Products

Dorrough Electronics, 5221 Collier Pl., Woodland Hills, CA See full listing under Pro Audio Sound Systems & 91364, 818-999-1132 Products

President: Mike Dorrough

Products: Bourrough Loudness Meter simultaneously displays peak and average on one LED array. The ballastics were designed to show equal preceived power between peak and average regardless of the complexity of audio waveforms. Fostex Corp. of America, 15431 Blackburn Ave, Norwalk, CA, 90650, 213-921-1112 President: Y. Abe V.P. General Manager: Fred Huang V.P. Sales/Marketing: Mark Cohen

See full listing under **Pro Audio Sound Systems & Products** 

Edcor, 1948 East Pomona, Santa Ana, CA, 92705, 714-863-1529, 800-854-0259

Sales Manager: Deanna Weston Chief Engineer: Luis Bonand Production Manager: Tina Lopez Treasurer: Phyllis Weston Products: complete line of electronic commercial sound products including power & mixer amplifiers, E-Q amps, microphone/line mixers, automatic & gated mixers, wireless microphones systems, translation systems, transformers and private label products. See full listing under **Pro Audio Sound Systems & Products** 

Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Director of Marketing: Jim Long Chief Engineer: Earl Harris Products: mixers, mixing consoles. See full listing under **Pro Audio Sound Systems & Products** 

Fostex Corp. of America, 15431 Blackburn Ave, Norwalk, CA, 90650, 213-921-1112 President: Y. Abe V.P. General Manager: Fred Huang V.P. Sales/Marketing: Mark Cohen National Sales Manager: Mike Flynn Products: a full-line for the Pro contractor including the MP Series multi-purpose powered mixers, SP & SPA11 portable speakers for many applications, raw frame speaker components from 18" to super tweeter, monitors,

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headphones, and microphones. See full listing under Pro Audio Sound Systems & Products

Furman Sound, Inc., 30 Rich St., Greenbrae, CA, 94904, 415-927-1225 President: Jim Furman Sales Manager: Joseph Desmond Chief Engineer: Jim Murphy Materials Manager: Ed Specht Products: 24 DB/Octave crossovers; graphic and parametric equalizers, limiter/compressor/expanders; quad noise gates; patch bays; power conditioner and light modules (PL-8 and PL-PLUS); rack mount mixers; power output monitors; digital reverb systems. See full listing under **Audio Signal Processors** 

Galaxy Audio, 625 East Pawnee, Wichita, KS, 67211, 316-263-2852

Manager: R. D. Moneyhun

Products: Hot Spot Monitors - Hot Spot P.A. monitor/portable P.A. - Pro Spot Speakers/stage monitors mixers, 8, 12 and 16 channels.

See full listing under Pro Audio Sound Systems & Products

Gotham Audio Corp., 1790 Broadway, New York, NY, 10019-1412, 212-765-3410 President: Russ R. Hamm Eastern Sales Mgr.: Jerry Graham Western Sales Mgr.: Juergen Wahl Sales Engineer: Peter Engel Products: Neumann condenser microphones, limiters/compressors, and equalizers and accessories; EMT digital delays; Gotham audio cable; K & H loudspeakers, and parametric equalizers; Audio Developments mixers; NTP limiters/compressors and meters. See full listing under **Microphones** 

Harrison Systems Inc., P.O. Box 22964, Nashville, TN, 37202, 615-834-1184, TLX 555133, Fax 615-834-1365 V. P. Sales/Mkt'g: Claude Hill

V. P. Mkt'g Comm.: Brad Harrison

V. P. Broadcast Sales: Dave Purple

Broadcast Prod. Mgr: Martin Burns

Products: audio mixing consoles for primary applications in music scoring and remix; sound reinforcement; radio production and on-air; television production, post-production, and edit suite; motion picture sound post-production. District Offices:

Jerry Smith, Los Angeles, CA, 818-763-2349

Hill Audio, Inc., 5002#B N. Royal Atlanta Dr., Tucker, GA, 30084, 404-934-1851 President: David Ash Sales Manager: Bob Allen Chief Engineer: Rick Rogers Financial Administrator: Viginia Ash Products: power amplifiers from 200 to 3,000 watts and mixing consoles featuring 16-channel rack-mount through

48-channel modular. The modular consoles have the new "Sidetraker" EQ as standard equipment.

See full listing under Pro Audio Sound Systems & Products

Industrial Research Products, 321 Bond St., Elk Grove

Village, IL, 60007, 312-439-3600 General Manager: Mahlon Burkhard Marketing Manager: Roger Carroll Products: transversal equalizers, automatic microphone mixers, digital delay lines, power amplifiers, level-matic lin iter.

See full listing under Pro Audio Sound Systems & Products

Innovative Electronic Designs, Inc., 9701 Taylorsville Rd Louisville, KY, 40299, 502-267-7436 President: Hardison G. Martin V.P. Engineering: Robert Ponto Treasurer: Ray Allen Dir. Mkt'g. & Sales: Tom Roseberry Products: models 500 & 500AC microcomputer controlle audio systems, controlling mixing, routing, and level adjustment. 4000 automatic mixer, 5000 audio processing system. 70-volt and low impedance 80hm version 6270 power amplifier. See full listing under **Pro Audio Sound Systems & Products** 

JBL Professional, 8500 Balboa Blvd, Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Market Manager/Sound Contracting: Steve Romeo Products: high quality loudspeakers and loudspeaker sys tems of all kinds; automatic microphone mixer; electronic crossover; special loudspeakers for musical instruments; video projector. See full listing under Loudspeakers

Logitek, 3320 Bering Dr., Houston, TX, 77057, 713-782-4592

Products: audio consoles and amplifiers.

Micro-Trak Corp., 620 Race St., Holyoke, MA, 01040, 41( 594-8501

Products: consoles, tone arms, amplifiers, packaged audi systems.

Midas Audio Systems Ltd., 54-56 Stanhope St., London, UK, NW1 3EX, 01-388-7060 Managing Director: John Grumbridge Sales Manager: Peter Cornell Products: audiophile-quality signal processing and routing of great adaptability are combined in a console of renowned durability and reliability. New features for 1987 include 8x8 matrix and stereo subgroups.

Neotek Corporation, 1154 West Belmont Avenue, Chicago, IL, 60659, 312-929-6699 Chief Executive: Craig Connally Director Marketing: David Ruttenberg Sales Manager: Sue Gosstrom Production Manager: Oliver Masciarotte Products: professional audio consoles for sound recording, broadcast, film, theater, video-post, and production applications. Each console is custom-hand built in the United States per user specification. District Offices:

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Martin Audio, New York, NY, 212-541-5900 Audio Engineering Assoc., Pasedena, CA, 818-798-9127 Pyramid Audio, South Holland, IL, 312-339-8014 Pro Media, San Francisco, CA, 415-957-1383 Sonotechnique, Montreal, CN, 514-739-3368

Numark Electronics, 503 Newfield Ave., Edison, NJ, 08837, 201-225-3222 President: Harry Kotovsky Vice President: Robert Kotovsky National Sales Mgr.: Richard Krochmal Technical/Serv. Manager: Rick Kamlet National Sales Manager: Dewitt Smith Products: professional music mixers, turntables, equalizers, mobile DJ systems, speaker systems, professional audio/video digital mixers, and a complete line of audio accessories.

See full listing under Disco Components & Systems

Panasonic Industrial Company/Ramsa, 6550 Katella Ave, Cypress, CA, 90630, 714-895-7272

National Marketing Mgr.: Steve Wooley

Products: Ramsa, the professional audio division of Panasonic Industrial Company's Audio/Video Systems Group, markets a comprehensive line of mixing and production consoles, power amplifiers, microphones and speaker systems.

# See full listing under Pro Audio Sound Systems & Products

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800

Executive V.P.: Paul Mastrangelo Sales Manager: David Moore

Product Manager: Ken O'Brien

Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products.

See full listing under Audio Amplifiers

Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365

Prod Mgr/Sound Reinf.: Hollis Calvert

Prod Mgr/Digital Product: Ken Valentine

Products: audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker systems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater systems.

# See full listing under Pro Audio Sound Systems & Products

Professional Sound Corporation, 5707 Cahuenga Blvd., N. Hollywood, CA, 91601, 818-760-6544 President: Al Krist

President: Al Krist

Chief Engineer: Ron Meyer

Products: mobile soundmixers specializing in import and distribution of brand names in high technology products for the entire entertainment industry. District Offices:

Audio Services, Los Angeles, CA, 818-980-9891 Audio Services, New York, NY, 212-977-5150 Cell Communications, Miami, FL, 305-584-8331 Cinequipt, St. Paul, MN, 612-646-1780 H. Y. James, Framington Hills, MI, 313-471-0027

Quantam Audio Labs, 2752 Walnut Ave., Tustin, CA, 92680, 714-838-8833 CEO/Chairman: Roger L. Bailey General Manager: Stuart J. Dunford Communications Manager: Dan Hair Products: the QS 22 range of broadcast/production audio consoles from 8- to 28-input modular configurations for the world market.

Rane Corp., 6510 216th S.W., Mountlake Terrace, WA, 98043, 206-774-7309 V.P. Marketing: Larry Winter Dir. Tech. Dev.: Terry Pennington Products: graphic and parametric equalizers, real-time analyzers, headphone amps, active crossovers, program mixers, splitters, compressor/limiters.

See full listing under Audio Signal Processors

Recordex Corp., 1935 Delk Industrial Blvd., Marietta, GA, 30067, 404-955-7368

Richmond Sound Design Ltd., 1234 West 6th Ave., Vancouver, BC Canada, V6H 1A5, 604-734-1217 President: Charlie Richmond Products: Command/Cue 4096 Automation Systems & Modules are designed to control up to 4096 separate audio channels. Software is disk based and may be customized for any particular application. Technical specifications are high and operation friendly.

District Offices:

Full Compass Systems, Madison, WI

Rupert Neve Inc., Berkshire Industrial Park, Bethel, CT, 06801, 203-744-6230

President: Barry J. Roche

V. P. of Sales: Anthony H. Langley

E. Reg. Sales Mgr.: Phil Wagner

S. E. Reg. Sales Mgr.: Tom Semmes

W. Reg. Sales Mgr.: Rick Plushner

Products: audio consoles for the music, television, post production, film and mastering industries. Consoles include Neve's V Series multitrack recording console, Necam 96 - Neve's computer assisted mixdown system, 8232 music recording console, 51 Series stereo console for broadcast, the 542 Series consoles tabletop and portable for remote broadcast and the Digital Transfer Console (DTC) for compact disc mastering.

**District Offices:** 

Hollywood, CA, 213-874-8124 Nashville, TN, 615-385-2727

New York, NY, 212-956-6464 Neve Electronics, Melbourg, Bouctor

Neve Electronics, Melbourn, Royston, Eng.

Sennheiser Elec. Corp., 48 W. 38th St., New York, NY, 10018, 212-944-9440

Products: a full line of microphones (dynamic, electret, and condenser) as well as RF (hand-held, body-pac, single channel, diversity/non-diversity, and rack-mount), infrared listening equipment, headphones and portable mixers. See full listing under **Microphones** 

Such annual reports as the May Contracting Business In-Depth Market Report and the December Industry Report keep readers wellinformed on new industry trends, what's on the horizon in the sound and communications contracting market and the state of the economy as it relates to the industry. Special pull-out sections—from mixing consoles to alarm & securityprovide the sound contractor with a diverse selection of products to choose from to suit his particular needs.

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# OR A LARGE ONE ....



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Circle 240 on Reader Response Card

August 1987

World Radio History

# You're looking at the

In developing our newest console, we invited the engineers, consultants and contractors you see here to be a vital part of the mix. We asked them what works and what doesn't. What they like and don't like. What they want. And what they don't want.

We took this input and combined it with our own experience that includes nothing less than the development of the well-known PM1000 and PM2000. The result is an extraordinarily responsive, reliable, versatile mixing console, the PM3000. A console able to meet the demands of concert tours, fixed installations and broadcast applications by combining new technologies and ideas with proven Yamaha reliability.

In designing the PM3000, we considered not only where it will be used but also how it will be used. That's why the overall size and weight of the PM3000 are less than its predecessor's. Why the meter bridge height has been lowered. And why the 40-channel model has a center master configuration.

Greater control over equalization was another important consideration. Each input channel has a four-band parametric equalizer with a variable frequency high pass filter. The 12dB/octave high pass filter has its own in/out switch and its -3dB

MIX Magazine 1986 TEC Award for technical achievement.

its own in/out switch and its -3dB cutoff frequency is sweepable from 20Hz to 400Hz. This range makes it useful in minimizing the effects of low frequency stage rumble, vocal pops or wind noise. This high pass filter is also useful when micing high-hats or cymbals, to reduce the

unwanted pick-up of nearby drums. Each of

Pictured (rear, I. to r.) Jay Kingery, Recording Consultants, Inc.; Herb Swartz, Harrah's Tahoe; John Windt, Windt Audio; Rick Southern, Southern Star Engineering; Gary Dan Wales, Sonics Assoc.; Al Siniscal and Bobby Ross, A-I Audio; Craig Olsen, Product Mgr./Yamaha. Not pictured: Chris "Smoother" Smyth and Steve Venezia, Delicate Audio



# M3000's input channels.

the four stereo AUX returns also has its own two-band sweep-type EQ.

The PM3000's transparent sound quality is achieved by utilizing matched components in its electronic differential input stages. Yet it still retains a high degree of stability and common mode rejection. For those situations where the extra common mode rejection of a transformer is needed or where total grounding isolation is necessary, the optional IT3000 input transformers can be installed on a channel-by-channel basis.

To help accommodate the increased number of effects used in the real world today, the PM3000 provides eight AUX sends, each with level control and pre/off/post switch.

There are also eight VCA groups. We designed and built our own VCAs to insure that they would be stable enough to withstand

ary Davis & Assoc (front, 1. to r.) Bill Schuermann, Antech Labs; Lynn McCrosky and Alvis ichael Wickow and John Henderson, Little River Band; Ken Fause, Smith, Fause & Assoc.



the effects of constantly changing environmental conditions.

We also incorporated extensive and flexible muting capabilities into the PM3000. Each input channel has eight mute assign switches that permit the channel's on/off function to be controlled by the eight master mute switches. That means multiple channels can be muted or turned on at once, making scene changes or punch-ins quick and convenient. The mute-safe switch on each channel guards against inadvertent channel muting, if desired.

While the VCAs allow tremendous level control flexibility, conventional group busses and faders are provided for routing and signal processing purposes. These master faders are assignable to our unique mix matrix feature, the stereo buss and to the rear panel XLR connectors.

You'll appreciate the convenience of the PM3000's extensive cue and solo capability. Especially during sound checks. The ability to solo one channel while muting all inputs except the one being monitored makes sound checks a lot easier.

As previously stated, it was input from professionals like the ones you see here that enabled us to design a console as impressive and versatile as the PM3000. The result of all this can be heard at your Yamaha Professional Audio Dealer. More complete technical information is available from Yamaha Music Corporation, Professional Audio Division, P.O. Box 6600, Buena Park, CA 90622. In Canada, Yamaha Canada Music Ltd., 135 Milner Avenue, Scarborough, Ontario M1S 3R1.



Engineering Imagination

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Shure Brothers, Inc, 222 Hartrey Ave, Evanston, IL, 60202-3696, 312-866-2200 President: James Kogen V.P. Sales/Mkt'g: Richard Murphy Marketing Manager: Sandy Schroeder Sales: Tim Vear Sr. Product Cdr: Max Ann Buchanan Products: microphones and accessories, wireless microphone systems, mixers and related circuitry products, automatic microphone systems, compact sound reinforcement systems, teleconferencing systems. See full listing under Microphones

Sony Professional Audio, 1600 Queen Anne Road, Teaneck, NJ, 07666, 201-833-5200 President: William G. Connolly Vice President: Jerry Smith

Products: analog and digital audio recorders, compact disc mastering systems, mixing consoles, microphones(wired and wireless), monitoring equipment and public address systems.

See full listing under Pro Audio Sound Systems & **Products** 

Sound Workshop Professional Audio Products, Inc., 50 Werman Ct., Plainview, NY, 11803, 516-756-0140 Sales Manager: Lee Pomerantz

Products: the Series 34C Record/Mix Console, which is used in all audio production applications including music recording, film and video post production and industrial applications. Console is available in a wide range of sizes and configurations to suit most needs.

Soundcraft USA, PO Box 2200, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411, FAX: 818-893-3639

President: Ron Means

V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander

Nat'l. Sales Mgr.: David Kimm

Tech. Applications: Gordon Cochran

Products: audio mixing consoles and multi-track tape machines. Applications include sound reinforcement, live recording, studio recording, remote recording, broadcast and post production.

**District Offices:** 

Neil Conly, Bedford, TX, 817-540-3066 Bill Hamilton, Folsom, PA, 215-543-4677 Steve Armstrong, Northridge, CA, 818-707-2529 Steve Armstrong, Northridge, CA, 818-707-2529

Soundtracs USA, 77 Selleck St, Stamford, CT, 06902, 203-348-2121 President: S. Richard Ravich

**Operations Manager: Derek Pilkington** Product Specialist: Tim Derwallis

Products: mixing consoles for all applications including; sound reinforcement, studio recording, remote recording, post production, broadcast, MIDI, monitoring, rack mountable, computer automation and public address. Spectra Sonics, 3750 Airport Rd., Ogden, UT, 84405, 801-392-7531 President/Owner: William G. Dilley

Engineer/Sales: Gregory D. Dilley

Products: amplifiers, mixers, equalizers, compres-

sor/limiters, power supplies, speaker systems, and consoles. We specialize in sound reinforcement equipment See full listing under Pro Audio Sound Systems & Products

St. Louis Music, 1400 Ferguson Avenue, St. Louis, MO, 63133, 314-727-4512 Sales Training Dir.: Tony Moscal Product Manager: Gary Byers Dir. of Operations: John Karpowicz President: Gene Kornblum Products: musical instrument amplifiers, sound reinforce ment equipment, mixing consoles, loudspeakers, power amplifiers. See full listing under Pro Audio Sound Systems & **Products** 

Studer Revox America, Inc., 1425 Elm Hill Pike, Nashville TN, 37210, 615-254-5651

V. P./Gen. Mgr.: Thomas E. Mintner

Dir. of Prof. Products: David C. Bowman

Products: audio recorders - super low speed loggers and playback only machines to 2-inch multichannel; professional CD players & cassette recorders; computer controlled automation interface; mixing consoles - 19-inch & portable units to complete studio systems; amplifiers & loudspeakers.

See full listing under Pro Audio Sound Systems & Products

Sunn, 1130 Columbia Street, Brea, CA, 92621, 714-990 0909

President: Bill Schultz

Director of Mkt'g: Joe Green

National Sales Mgr.: Don Johnston

Products: sound reinforcement products include: powered and non-powered mixers, mixing consoles, power amplifiers and speaker enclosures. Professional stage lighting products.

See full listing under Pro Audio Sound Systems & Products

Tascam/TEAC Professional Division, 7733 Telegraph Road, Montebello, CA, 90640, 213-726-0303 Marketing Manager: Bill Mohrhoff Sales Manager: Gregg Hildebrand W. Reg. Manager: Fred Allard S. Reg. Manager: Bill Stevens E. Reg. Manager: Chuck Prada Products: professional recorder/reproducers from 1/4" 2track to the ATR-80, a new 2" 24-track designed for video production. Recording and performance consoles from 6input to the M-600, a 32-input/16-buss large frame console. Also, receivers, cassette decks, and CD players. See full listing under Magnetic Tape Systems & Supplies

Television Technology Corp., P.O. Box 1385, Broomfield CO, 80020-8385, 303-465-4141 Products: AM, FM, and TV transmitters; FM & TV rebroadcast translators; audio cartridge machines and open-reel

recorders.

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538

President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka

V. P.: Bill Hooper

Controller: Cal Weddle

Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems.

# See full listing under Pro Audio Sound Systems & Products

Trident Audio USA, 2720 Monterey St., Ste. 403, Torrence, CA, 90503, 213-533-8900 President: Wayne D. Freeman Sales Mgr.: Lon LeMaster Products: analog and digitally-controlled analog mixing consoles for recording and sound reinforcemnt application.

UREI, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Mkt'g. Mgr. Sound Contracting: Steve Romeo Products: power amplifiers, limiters, compressors, equalizers, filters, Time Aligned™ speakers, direct boxes, electronic crossover, digital metronome, transcription preamplifier, disco mixers, broadcast consoles. See full listing under Audio Signal Processors

Ward-Beck Systems Ltd., 841 Progress Ave., Scarborough, Ontario, Canada, MIH 2X4, 416-438-6550, FAX: 416-438-3865 President: Ronald W. Ward Vice President: Rodger K. Beck Dir. of Engineering: Arthur A. Schubert, Jr., P. Eng. Canadian Sales Mgr., Eugene L. Johnson Sales Cdr.: Sylvia Fantin-Napper Products: Professional audio mixing consoles, for the radio and television industries; Broadcast type communications systems; and audio accessories including Distribution amplifiers, Extended range VU amd PPM meters, and Audio jackfield products. District Offices: William F. McFadden, Danvers, MA, 617-777-7228 Duke McLane, Dallas, TX, 214-247-5999 Wheatstone Corporation, 6720 VIP Parkway, Syracuse, NY, 13211, 315-455-7740 President: Gary Snow V. P. Engineer: Andrew Calvanese

Marketing Coordinator: Michael Shane

National Salesman: Tim Guhl Sales: Pattye Bagshaw

Products: Wheatstone MTX-1080 Sound Reinforcement Console features programmable muting, 8 effects send controls, 4-band sweepable, equalization with switchable Q and peak/shelf modes; tunable HPF; separate electronically balanced MIC and line inputs; XLR direct channel outputs; 8-11 X 1 input matrix mixes.

Wissco, 1599 Superior Ave., A-1, Costa Mesa, CA, 92627,

### 714-645-1281

President: J. Wanlass

Products: wireless microphones and receivers, power megaphones, sound lecterns, mobile sound systems, portable PA systems, mixers, speakers, telephone intercom systems, professional sound systems, amplifiers, power supplies, AC regulators, IR links. See full listing under **Microphones** 

Yamaha International Corp., Audio Products Division, 6600 Orangethorpe Ave., Buena Park, CA, 90620, 714-522-9011 Gen. Mgr.: John Gatts

Nat'l. Sales Mgr.: Bob Shomaker Adv. Mgr.: Robert T. Davis Products: full line of audio mixing consoles, power amplifiers, speaker systems, digital signal processing equip-

ment, and microphones.

See full listing under Pro Audio Sound Systems & Products

# A TOTAL COMMITMENT

### SOUND & COMMUNICATIONS

is published 12 times a year and includes bonus distribution at the NSCA Expo (May), AES (Nov.) and IBMA (Oct.).

### SOUND & COMMUNICATIONS

publisher and editors also produce NSCA-TV News, the only closedcircuit television news program of the National Sound and Communications Association Expo. NSCA-TV is seen in every hotel room and on the convention floor, keeping attendees up-to-date on Expo happenings. In addition, <u>SOUND &</u> COMMUNICATIONS publishes its

annual August Blue Book. the sound contracting industry's only "A to Z" reference guide. Special editions also include the annual May Contracting Business In-Depth Market Report and the annual Industry Report published in December.

# PAGING SYSTEMS

Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products. See full listing under Intercom Duplex

Amplyvox Communication Products/Security Intercom, Inc., 1833 N. 105th, Seattle, WA, 98133, 206-523-6170 President: Gerard H. Mooyman Director of Sales: Jeffrey L. Groth Sales Manager: Claudio Mazzola National Advertising: John Bernard Products: centralized sound distribution P. A. background music systems up to 50 zones in hotels, motels, department stores and convention centers. Five F. M. programs distributed system wide, self-amplified speakers, microphones, horns, directional sound columns. **District Offices:** 

RIK Assoc., Inc., Tacoma, WA, 206-759-0833

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500 President: John H. Ochtera

V.P. Marketing: Carl C. Dorwaldt Nat'l. Sales Mgr.: David A. Chambers

Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor.

### See full listing under Audio Amplifiers

Cetec Raymer, 7315 Fulton Ave., N. Hollywood, CA, 91605, 213-875-0423

President: Hugh T. Wilcox

Products: audio equipment for paging, background music and sound systems, including amplifiers, tuners, receivers, test equipment, telephone interconnect devices and accessories. Direct connection telephone trunk and station access paging devices.

Clarity, 1111 Industry Ave., Roanoke, VA, 24013, 800-962-6009 Products: a full line of paging products.

Communications Products, Inc., 4911 W. Good Hope Rd., Milwaukee, WI, 53223, 414-351-4660 Products: door monitor systems, silent paging.

Communitron Corp., 1004 S. Main St., Hutchison, KS, 67501, 800-835-2256 Products: paging telephone systems, telephones, amplifiers and control equipment.

Community Light & Sound, Inc., 333 E 5th St., Chester,

PA, 19013, 215-876-3400

President: Bruce Howze

V. P. of Engineering: John Wiggins

Vice President: Christine Howze

Director of Mkt'g: John Strand

Products: sound reinforcement loudspeakers for background, foreground and paging. Two, three, & four way loudspeakers systems for use in churches, schools, nite clubs, restaurants, and portable live applications. Patter Control horns, midrange compression loudspeakers and components for engineered sound systems. See full listing under Pro Audio Sound Systems &

#### **Products**

Cornell Electronics Products, Inc., 4911 W. Good Hope Rd., Milwaukee, WI, 53223, 414-351-4660 President: Donald Glaubitz V.P. and Chief Engineer: Gary Butler Sales Manager: Pauline Haack Products: visual nurse call, audio visual nurse call, door monitors, apartment intercom, in/out register, institutiona intercom, silent paging.





Dukane Corporation, 2900 Dukane Dr., St. Charles, IL, 60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson **Division General Mgr.: Steve Deppe** Products: standard and special systems of products: nur call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. **District Offices:** Doug Randle, Carpentersville, IL, 800-445-0152(2301#) Don Mouritzen, Chicago Heights, IL, 800-445-0152(2303#) Art Sbrilli, Edison, NJ, 800-445-0152(2302#) Pete Kendall, Jacksonville, FL, 904-262-6025 Jack Brown, Dallas, TX, 214-943-7528 Gabriella Chambers, Westminster, CA, 714-839-8835 Ed Nuhring, Portland, OR, 503-244-4264 Ken Lind, Wellesley Hills, MA, 617-235-6817 Bruce Barrett, Garland, TX, 214-495-2751 Norm Hagemann, Batavia, IL, 312-584-2300 Wally Smutts, Toronto, Ontario, Canada, 312-584-2300 Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Director of Marketing: Jim Long Chief Engineer: Earl Harris Products: communications and PA microphones, public address and loudspeaker systems. See full listing under Pro Audio Sound Systems & Products

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Selling and installing Wheelock telephone system peripherals gives you a strong competitive edge.

You can help your customers meet their requirements while increasing your sales and profits. And you'll have another edge, too ... Wheelock knowhow and experience going back 55 years as a supplier to Western Electric.

For a free demonstration or more information on the growing line of Wheelock telephone peripherals, contact the Customer Service Manager, Wheelock, Inc., 273 Branchport Avenue, Long Branch, New Jersey 07740, (800) 631-2148; in New Jersey (201) 222-6880.



Eltrex International, 2 Columbia Dr., Amherst, NH, 03031, 603-886-3500

Products: digital voice recorder, auto answer and playback. See full listing under Message Repeaters/Storecasters

Encom Products Co., Inc., P.O. Box 300, 502 Lower Hopewell Road, Oxford, PA, 19363-0300, 215-932-9600 Sales: Bob Mallalieu

Products: Common-talk page phone equipment for commercial/industrial applications ranging from bowling alleys to waste water treatment plants.

See full listing under Intercom Industrial

Graystone Systems Ltd., Bradley Corp. Pk, 300 Corp. Dr., Ste #5, Blauvelt, NY, 10913, 914-353-0600, 800-952-9528, FAX: 914-353-0657

President: Ruben F. Graystone

V.P. Engineering: Steve Shaki

Sales Manager: Christopher LoCascio

Products: manufacturer of intercom equipment and distributors of closed circuit television equipment for homes, condos, and industry. Suppliers of residential and commercial selective call video intercom systems. Specializing in intercommunications for computer room application. East coast distributor of ELBEX AMERICA.

See full listing under Intercom Apartment/Residential

Harris Corporation, Dracon Division, 809 Calle Plano, Camarillo, CA, 93010, 805-987-9511 V.P. Gen'l. Mgr.: John R. Mason Dir., Domestic Sales: Tom Erdmann Chief Engineer: Tom Durston V.P. Sales & Mkt'g.: Jack McGuigan Products: PAGEPAC telephone integrated loudspeaker paging voice systems, linemen's test sets, craft tools, extensive line of relay racks. District Offices: John Muller, Chesapeake Beach, MD Bob Lincoln, Alpharetta, GA Chuck Ferreri, Succasunna, NJ Don Bivens, Lake Elsinore, CA Jim Orr, Aurora, CO

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers

Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: communication and security for apartment house, home and, industry. Intercom, music and paging systems, mailboxes, directories, annunciators, signaling devices, communications cable, nurse-call systems, Enterview audio/visual intercom systems.

### See full listing under Intercom Apartment/Residential

MG Electronics, 32 Ranick Rd., Hauppauge, NY, 11788, 516-582-3400, FAX: 516-582-3229 President: Louis Maltz Vice President: Elliott Maltz Sales Manager: Stan Grey Products: commercial sound and security speakers, paging horns, electronic sirens, general replacement speakers, OEM speakers (custom design available), foreground music speaker systems, and toggle switches. See full listing under Loudspeakers

Midwest Electronics Industries, Inc., 4945 W. Belmont, Chicago, IL, 60641, 312-685-3500 Products: public address systems for buses and trains.

Multi-Vox Ltd., 9967 St. Michel Blvd., Montreal- Nord, Quebec, Canada, H1H 5G7, 514-321-3131 President: Fernand Parent Engineer: Dominique Malenfant Operations Mgr.: Georges Morissette Sales/Technical Cdr.: Antoine Krelio Products: solid state and microprocessor controlled intercom systems for apartments, hospital and health care facilities, schools, institutions and industries, paging systems, audio amplifiers, chimes, simplex intercom systems. See full listing under Intercom Apartment/Residential

Newbridge Networks, Inc., 13873 Park Center Road #160, Herndon, VA, 22071, 703-834-3600 President: Peter Madsen Dir. Distributor Sales: Buzz Carder Mkt'g Services Cdr.: Liz Youngs Tech. Training Mgr.: Dewayne Gimpel Dir./Var. Dealer Sales: Frank Ford Products: GRAPEVINE is the paging and public address network from Newbridge accessed through you home, office, or business telephone system, with speakers designed for large and small, quiet and noisy environments. **District Offices:** John Paonessa, District Offices: Denver, CO, 303-986-3600 Jim Darrah, Atlanta, GA, 404-395-6611 Glenn McDaniel, Dallas, TX, 214-385-3322 Gary Angell, Wellesley, MA, 617-235-1110 Richard Smith, Herndon, VA, 703-834-3600

**Oaktron Industries, Inc.**, 1000 30th St., Monroe, WI, 53566, 800-257-4538 President/CEO: Jerry Disch Executive V. P.: Bob Taller V. P. Sales: Jim Hendrickson Products: commercial loudspeakers and accessories, sound masking speakers. Background and paging systems and a total line of accessories. See full listing under **Loudspeakers** 

Orevox Corp., 512 35th St. NE, Auburn, WA, 98002, 206-735-0220, 800-237-0700 CEO: Daniel Wu Sales Mgr.: Russ Stanford Products: loudspeakers specializing in foreground speakers, outdoor paging and intercom speakers, self-contained sirens, metal siren/speaker enclosures, and metal utility abinets for residential and commercial applications. See full listing under **Loudspeakers** 

Panasonic Industrial Company/Ramsa, 6550 Katella Ave,
Pypress, CA, 90630, 714-895-7272
Vational Marketing Mgr.: Steve Wooley
Products: Ramsa, the professional audio division of
Panasonic Industrial Company's Audio/Video Systems
Paroup, markets a comprehensive line of mixing and proluction consoles, power amplifiers, microphones and speaker systems.

See full listing under Pro Audio Sound Systems & Products

Paso Sound Products, 14 First St., Pelham, NY, 10803, 314-738-4800

Executive V.P.: Paul Mastrangelo

Sales Manager: David Moore Product Manager: Ken O'Brien

Credit Manager: Marilyn Beckerson

Operations Manager: Anthony Squeglia

Products: comprehensive line of commercial sound equipment including 4000 series engineered sound sysems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products.

See full listing under Audio Amplifiers

<sup>3</sup>owertronix, 10623 Lawson River Ave., Fountain Valley, 2A, 92708, 714-963-5411 President: Robert Gehlke Sales Mgr.: Bill Organ

Products: self-contained 200 watt voice evacuation system; 400 watt current drive distribution amplifiers with 24V-48VDC emergency back-up power capability; 24VDC mobile amplifier with three electronically-switched, prioritized inputs.

See full listing under Audio Amplifiers

Precision Electronics, Inc., 9101 King St., Franklin Park, IL, 60131, 312-678-5350 President: William S. Grommes Chief Engineer: A.A. Hart Sales Manager: William Stow General Manager: G. Hussain Products: PA amplifiers, mixer preamplifiers, power amplifiers, am/fm tuners, tuner amplifiers with paging, graphic equalizers, automatic volume limiter, telephone music-onhold amplifier, and sound accessories.

See full listing under Audio Amplifiers

Protech Audio Corp., Flowerfield, Bldg. #1, St. James, NY, 11780, 516-584-5855 Sales Mgr.: Bill Murphy Sales Engineering: Joe Giambone Products: automatic level controls, voltage controlled amplifiers, distribution amplifiers, mixers, tone supervisor systems, microphone and line preamplifiers, compres-



Circle 275 on Reader Response Card



Reach Electronics, Inc., 1600 W. 13th St., P.O. Box 308, Lexington, NE, 68850, 308-324-6661 Products: pocket radio pagers and manual and dial access paging terminals. Pagers feature Lifeguard® circuitry for long battery life, with no charges.

Sony Professional Audio , 1600 Queen Anne Road, Teaneck, NJ, 07666, 201-833-5200 President: William G. Connolly Vice President: Jerry Smith Products: analog and digital audio recorders, compact disc mastering systems, mixing consoles, microphones(wired and wireless), monitoring equipment and public address systems.

See full listing under Pro Audio Sound Systems & Products

Spantel Corp., 968 NBC Center, Lincoln, NE, 68508, 402-475-8881

Products: pagers - four year battery life, no recharging; manual encoders, dial access computer memory paging terminals. SCA pagers tone and voice, digital display, generators, paging systems, voice mail.

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516

President: Louis W. Keller

V.P. & General Manager: James J. Ganci V,P,/Sales & Marketing: Mel Hulkower

Regional Sales Manager: Eric Forman

Regional Sales Manager: Bruce Kurtz

Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; complete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, background/foreground enclosed speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, attenuators, microphones, & intercoms. See full listing under **Audio Amplifiers** 

Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager/Microphones: Gary Fisher

Sales Manager/Intercom: Claude Kleiman

Director of Marketing: Donald Mereen

Products: dual antenna (diversity) wireless microphome systems, single antenna wireless microphone systems, wired microphones. See full listing under Pro Audio Sound Systems & Products

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV ar security systems. See full listing under **Pro Audio Sound Systems &** 

UNIVERSITY SOUND, Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831 President: Robert D. Pabst V.P. Sales and Marketing: Paul McGuire Chief Engineer: Earl Harris Marketing Mgr., Commercial Products: W. Douglas Wilken Products: horns, drivers, paging/talk-back speakers, and transformers.

See full listing under Loudspeakers

Products

Valcom Inc., 1111 Industry Ave., Roanoke, VA, 24013, 703-982-3900 President: J.W. Mason Sales Manager: Donald Buck Chief Engineer: D. Lynch Products: telephone integrated paging and intercom systems, talkback, bell-buzzer, code call, PBX adapters, key telephone systems ancillaries, loud-ringers, power supplies, amplified and talkback speakers. **District Offices:** Kristi LeBlanche, Cardiss By the Sea, CA, 619-463-2662 Terminal Sales, Seattle, WA, 206-441-9610 Dick Kemar, McHenry, IL, 312-699-8656 James F. Somers, Geneva, NY, 315-789-7938 Sandra Sheppard, Carrollton, TX, 214-394-8472 Bill H. Bailey, Hopewell, VA, 804-748-4149 Jeff Steen, Phoenix, AZ, 602-431-1206 Lynn Sandefur, Tampa, FL, 813-391-1231

Wheelock, Inc., 273 Branchport Ave., Long Branch, NJ, 07740, 201-222-6880, FAX: 201-222-8707 President: P. W. Tarlton V.P. Mktg/Sales: W.L. Goldstein V.P. Engineering: Stephan W. Andrews Market Mgr. Tel./Paging: Art Arlow Market Mgr. Life Safety/Ind.: Rein Haus Products: audible/visual signalling devices for life safety, alarm, industrial, and telephone systems applications. Paging systems for telephone system access. Products include bells, horns, speakers, strobes, chimes, speaker amplifiers, talk-back speakers, zone controls & power supplies.

See full listing under Alarm & Security

# PATCH BAYS & ROUTING

\DC Telecommunications, 4900 W. 78th St., Minneapolis, *J*N, 55435, 612-835-6800

Audio Accesories, Inc, Mill St., Marlow, NH, 03456, 603-146-3335

President: M.B. Hall General Manager: David Hall Production Manager: T.J. Symonds Products: jack panel assemblies, patch cords, bakelite

panels, telephone jacks, all miniature and full-size. Patch cord holders.

Audio Visual Systems, 725 Lorraine Blvd., Los Angeles, CA, 90005, 213-934-3006 Products: patch bay system with switchable normals, PCB construction, switches audio and video.

BSM Systems, Inc, W. 7106 Will D. Alton Lane, Suite 106, Spokane, WA, 99204, 509-838-0110 Sales/Mkt'g Director: David M. Pope General Manager: J. Mike Fitzsimmons President: Bruce Morse Products: audio/video routing switchers and distribution amplifiers for use in radio, television, CCTV paging, security, intercom and numerous other applications. BSM's routing switchers are alternatives to patch bays.

Cal Switch, 13717 S. Normandie Ave, Gardenia, CA, 90249, 800-CAL—S—W—C—H President: Irwin Perlman Vice President: Bob Andrade Vice President: Herb Poncher Products: patch bays, pre-wired jack panels, audio connectors, switch assemblies, test equipment, I.D. collars, wire and cable, amp connectors.

Conex Electro-Systems, Inc., P.O. Box 1342, 1602 Carolina St., Bellingam, WA, 98227, 206-734-4323 Eng. Director: Bill Hamelin Gen. Mgr.: John Plattner Service Mgr.: Jerry Huddle Products: AS-101 remote controllable audio switcher with RS-422/232 option. UM-33 multi-input monitor/cue amplifier. Sub-audible tone generators and sensors.

EECO Inc., 1601 E. Chestnut Ave., Santa Ana, CA, 92702, 714-835-6000 Products: electronic component switchers.

Gaines Audio, P.O. Box 17888, Rochester, Ny, 14617, 716-266-0780

Grass Valley Group, P.O. Box 1114, Grass Valley, CA, 95945, 916-478-3000 Executive V. P.: Dan Wright V. P. Marketing: Bob Cobler

Director of Sales: Randy Hood

Products: production and post-production switchers, routing switchers, fiber optic transmission and other telecommunications systems, digital effects systems (Kaleidoscope<sup>™</sup>), effects memory systems, tape editing and video graphics systems, signal timing/processing/distribution equipment. District Offices: Grass Valley Group, Paramus, NJ, 201-845-7988 Grass Valley Group, Elkhart, IN, 219-264-0931 Grass Valley Group, Woodland Hills, CA, 818-999-2303

Hughes Electronic Devices Corp., P. O. Box 1985, Grass Valley, CA, 95945, 916-273-9524, 800-HEDCO GV Products: audio video rounding switchers

Innovative Electronic Designs, Inc., 9701 Taylorsville Rd, Louisville, KY, 40299, 502-267-7436 President: Hardison G. Martin V.P. Engineering: Robert Ponto Treasurer: Ray Allen Dir. Mkt'g. & Sales: Tom Roseberry Products: models 500 & 500AC microcomputer controlled audio systems, controlling mixing, routing, and level adjustment. 4000 automatic mixer, 5000 audio processing system. 70-volt and low impedance 80hm version 6270 power amplifier. See full listing under **Pro Audio Sound Systems & Products** 

International Music Co. (I. M. C.), PO Box 2344, Ft. Worth, TX, 76113, 817-336-5114 Chairman of the Bd./CEO: Tommy Moore President: Jerry Freed V.P. Sales: C.H. Murray Dir. of Akai EMI: Mike McRoberts Akai Product Specialist: Kevin Kennedy Products: Akai: multitrack recorders, digital patch bays, digital samplers, electronic wind instruments, and synthesizers. Ross: multitrack recorders, PA systems, guitar amps, microphones, and effects. See full listing under **Pro Audio Sound Systems & Products** 

Neutrik/DIALIGHT Corp., 1913 Atlantic Ave.,

Manasquan, NJ, 08753, 201-223-9400 Product Mgr.: James Cowan Dir. of Sales/Mkt'g.: John McNamara CEO: H. Miller Products: an extensive line of XLR connectors, receptacles, transformers, goosenecks, modules, patch plugs, phone jack/plugs. Included in the line are weatherproof XLR connectors, a new speaker connector, and "Neutricon" a new miniature connector system. See full listing under **Wire/Cable Components** 

Patch Bay Designation Co., P.O. Box 6278, Glendale, CA, 91205, 818-241-5585

Pro Co Sound, Inc., 135 E. Kalamazoo Ave., Kalamazoo, MI, 49007, 616-388-9675 President: Charlie Wicks Vice President: Tish Weber Nat'l. Sales Mgr. Com.: Jeff Garstick Nat'l. Sales Mgr. Studio: Jerry Smelker Chief Engineer: Scott Burnham Products: wire, connectors, audio interface products, cabling assemblies, and custom fabrication. Helix Standard HC/20 multi-pair audio systems for portable and permanen installation, TT448 Patch Bay Systems, Audio Interface, Linear Crystal Multi-pair, and Quad Microphone Cable. See full listing under **Wire/Cable Systems** 

Radical Electronics, 2872 Hartland Road, Falls Church, VA 22043, 703-573-6910

Products: press mult boxes, 20-80 audio feeds.

Touch Technologies, Inc., 363 Adelaide St. E., Toronto, Ontario, M5A IN3, 416-865-1877 President: W. R. Snelgrove Director of Engineering: P. Giddings Director of Mkt'g/Com.: A. Hardman Products: audio and control systems for distribution and recording of legislature proceedings, routing and level of sound effects for live theatre, and audio/visual controllers for dark rides, exhibits and displays.

See full listing under A-Visual Equipment/Systems

Vertigo Recording Products, 12115 Magnolia Blvd. #116, N. Hollywood, CA, 91607, 818-769-5232 Products: patch bay cleaning tolls for 1/4 inch/TRS and TT/Bantam jacks.

### PORTABLE SOUND SYSTEMS

Anchor Audio Inc., 913 West 223rd St, Torrance, CA, 90502, 213-533-5984 President: Jim Van Waay National Sales Manager: Jon Peirson Products: portable sound systems and accessories, lecturns, as well as powered speaker systems for foreground and background applications.

Argos Products Co., 600 S. Sycamore St., Genoa, IL, 60135, 815-784-5118 President: Donald C. MacLaughlin Sales, V.P.: Ronald Evers Credit Manager: Rosella Johnson Chief Engineer: Loren Schrader Products: indoor /outdoor Sound Columns, packaged sound systems, Portable PA systems, Sound powered lecturns, background & foreground speakers, baffle/speaker combinations, baffles & enclosures. See full listing under Loudspeakers

Barcus Berry Electronics Inc., 5500 Bolsa Ave, Suite 245, Huntington Beach, CA, 92649, 714-897-6766, 800-233-8346 Ch'mn. of the Board: John C. McLaren Vice President: Scott Anderson Nat'l. Sales Mgr.: Jim Lucas Operations Mgr.: Jennifer Drescher Products: audio signal processors. See full listing under Audio Signal Processors

Bose Corp, The Mountain, Framingham, MA, 01701, 617-

879-7330

Mgr./Pro Products: David Bell E. Reg. Sales Mgr.: Tim Dorwart Nat'l Technical Rep.: Bruce Myers

Mkt'g Dev. Specialist: Mark Mayfield

Products: professional loudspeaker systems for portable and installed applications including sound reinforcement commercial sound, background/foreground music, ciner sound. Modeler™ computer software for sound system design assistance.

See full listing under Pro Audio Sound Systems & Products

Cerwin-Vega, 555 E. East St., Simi Valley, CA, 93065, 805-584-9332, TLX:662250 President: Gene Czerwinski Sales Manager: Rich Mandella Chief Engineer: Marshall Buck, Ph.D Products: electronic and acoustic systems for domestic and auto sound systems; MI, sound reinforcement, motic picture, broadcast, recording, and commercial sound products. See full listing under **Loudspeakers** 

Clarity, 1111 Industry Ave., Roanoke, VA, 24013, 800-962-6009 Products: a full line of paging products. See full listing under **Paging Systems** 

Community Light & Sound, Inc., 333 E 5th St., Cheste

PA, 19013, 215-876-3400 President: Bruce Howze V. P. of Engineering: John Wiggins Vice President: Christine Howze Director of Mkt'g: John Strand Products: sound reinforcement loudspeakers for background, foreground and paging. Two, three, & four way loudspeakers systems for use in churches, schools, niteclubs, restaurants, and portable live applications. Pattern Control horns, midrange compression loudspeakers and components for engineered sound systems. See full listing under **Pro Audio Sound Systems & Products** 

Eastern Acoustics Works, 59 Fountain St., Framingham, MA, 01701, 617-620-1478 President: Kenneth Berger V.P. Engineering: Kenton Forsythe V.P. Marketing: Frank Loyko Sales Administrator: Daniel McDonald Other Personnel: Max Berger Products: precision-crafted professional loudspeaker products including full-range systems, bass and mid-bass horns, drivers, and studio monitor systems. See full listing under Loudspeakers

Eden Electronics, Inc., 1st St., PO Box 338, Montrose, MN, 55363, 612-675-3650

President: David D. Nordschow
Products: pro audio sound systems including constant diectivity horns and mid-bass devices; small to large 2-way,
B-way, and 4-way systems for PA and music play-back; ouring systems; stage monitors; passive crossovers; custom enclosures.

See full listing under Pro Audio Sound Systems & Products

International Music Co. (I. M. C.), PO Box 2344, Ft. Worth, TX, 76113, 817-336-5114 Chairman of the Bd./CEO: Tommy Moore President: Jerry Freed V.P. Sales: C.H. Murray Dir. of Akai EMI: Mike McRoberts Akai Product Specialist: Kevin Kennedy Products: Akai: multitrack recorders, digital patch bays, digital samplers, electronic wind instruments, and synthesizers. Ross: multitrack recorders, PA systems, guitar amps, microphones, and effects.

See full listing under Pro Audio Sound Systems & Products

JBL Professional, 8500 Balboa Blvd, Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Market Manager/Sound Contracting: Steve Romeo Products: high quality loudspeakers and loudspeaker systems of all kinds; automatic microphone mixer; electronic crossover; special loudspeakers for musical instruments; video projector.

See full listing under Loudspeakers

Lectrosonics, Inc., P.O. Box 12617, Albuquerque, NM, 87195, 505-831-1010 President: John Arasim V.P. Engineering: Larry Fisher Mkt'g. Manager: Bruce Jones Sales Manager: Jim Madden Production Manager: Keith Philips Products: Freedommike® wireless microphone systems; single antenna and diversity receivers in both standard and miniature configurations; a wide variety of body-pack and hand-held transmitters for many applications; Voice Projector® portable sound systems with rechargeable, self-contained power supplies. See full listing under Microphones

MagnaSound (Division of UXL Corp.), 108-02 Otis Ave., Corona, NY, 11368, 718-271-5200 President: Ben Frankenstein Sales Manager Neil Howard Chief Engineer: Salverio Guardi Office Manager: Dorothy Davis Products: VoiceBeamer (Sound lecturn with optional cassette player in floor and table-top models—15W and 30W power). PortaCaster (Battery-powered PA with half-mile range)> Campaigner (car-top PA system). PA Amplifiers, and FM tuner.

McCauley Sound, Inc., 13608 94th Ave. E., Puyallup, WA 98373, 206-848-0363 Pres./Sales Mgr.: Tom McCauley V.P./Production: Pete McCauley Products: a complete line of touring and commercial loudspeaker systems. They feature a high-powered series of low-, mid-, and high-frequency loudspeakers and compression drivers, as well as CD horns, passive networks, and enclosure hardware. See full listing under **Pro Audio Sound Systems & Products** 

Panasonic Industrial Company/Ramsa, 6550 Katella Ave, Cypress, CA, 90630, 714-895-7272 National Marketing Mgr.: Steve Wooley Products: Ramsa, the professional audio division of Panasonic Industrial Company's Audio/Video Systems Group, markets a comprehensive line of mixing and production consoles, power amplifiers, microphones and speaker systems. See full listing under **Pro Audio Sound Systems & Products** 

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under **Audio Amplifiers** 

Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365 Prod Mgr/Sound Reinf.: Hollis Calvert Prod Mgr/Digital Product: Ken Valentine Products: audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker systems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater systems.

See full listing under Pro Audio Sound Systems & Products

Precision Electronics, Inc., 9101 King St., Franklin Park, IL 60131, 312-678-5350

President: William S. Grommes Chief Engineer: A.A. Hart Sales Manager William Stow General Manager: G. Hussain Products: PA amplifiers, mixer preamplifiers, power amplifiers, am/fm tuners, tuner amplifiers with paging, graphic equalizers, automatic volume limiter, telephone music-onhold amplifier, and sound accessories. See full listing under **Audio Amplifiers** 

Shure Brothers, Inc, 222 Hartrey Ave, Evanston, IL, 60202-3696, 312-866-2200 President: James Kogen V.P. Sales/Mkt'g: Richard Murphy Marketing Manager: Sandy Schroeder Sales: Tim Vear Sr. Product Cdr: Max Ann Buchanan Products: microphones and accessories, wireless microphone systems, mixers and related circuitry products, automatic microphone systems, compact sound reinforcement systems, teleconferencing systems.

See full listing under Microphones

Sieler Design Products, 1308 W. 130th St., P.O. Box 2128, Gardenia, CA, 90247, 213-324-9663 President: Patrice Sieler Chief Engineer: George Sieler Products: portable, battery operated high power/high clarity public address systems: from 4 Lb. hand held 25 watt systems to 25 watt Systems. AC/DC table top lecterns.

District Offices:

Sunrise Sales, Romeoville, IL, 815-886-2300 Alan Sarfaty & Assoc., Great Neck, NY, 516-466-6770 TorTech Mkt'g, Toronto, CN, 416-536-1441

Sound Craft Systems, Inc., Rt. 3, Box 319, Morrilton, AR, 72110-9532, 501-727-5476 President: Earle Love Vice President: Hugh McDonnell Secretary/Treasurer: Katherine Foust Sales Manager: Hank Shaw Products: compact, easy-to-use portable lecterns; solid wood lecterns which will complement the most distinctive of interiors; wireless microphone systems that provide

freedom of movement; and complete accessories.

Soundcraft USA, PO Box 2200, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411, FAX: 818-893-3639 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Nat'l. Sales Mgr.: David Kimm Tech. Applications: Gordon Cochran Products: audio mixing consoles and multi-track tape machines. Applications include sound reinforcement, live recording, studio recording, remote recording, broadcast and post production. See full listing under Mixers & Mixing Consoles

Sunn, 1130 Columbia Street, Brea, CA, 92621, 714-990-0909 President: Bill Schultz Director of Mkt'g: Joe Green National Sales Mgr.: Don Johnston Products: sound reinforcement products include: powered and non-powered mixers, mixing consoles, power amplifiers and speaker enclosures. Professional stage lighting products. See full listing under **Pro Audio Sound Systems & Products** 

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless

systems, microcomputerized intercom systems, CCTV and security systems.

See full listing under Pro Audio Sound Systems & Products

Turbosound, Inc, 611 Broadway, #841, New York, NY, 10012, 212-460-9940 President: Alan Wick V. P. Sales/Mkt'g: Dan Abelson V. P. Operations: Hilary Michener Products: Turbosound loudspeaker enclosures utilize patented principles to provide the installer pre-engineered loudspeaker systems complete with certified rigging hardware designed for ease of install and safety. See full listing under Loudspeakers

UREI, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Mkt'g. Mgr. Sound Contracting: Steve Romeo Products: power amplifiers, limiters, compressors, equalizers, filters, Time Aligned<sup>™</sup> speakers, direct boxes, electronic crossover, digital metronome, transcription preamplifier, disco mixers, broadcast consoles. See full listing under Audio Signal Processors

Wissco, 1599 Superior Ave., A-1, Costa Mesa, CA, 92627, 714-645-1281 President: J. Wanlass Products: wireless microphones and receivers, power

megaphones, sound lecterns, mobile sound systems, portable PA systems, mixers, speakers, telephone intercom systems, professional sound systems, amplifiers, power supplies, AC regulators, IR links. See full listing under **Microphones** 

### POWER/PROTECTION/ CONDITIONERS

Dynamote Corp., 1200 W. Nickerson, Seattle, WA, 98119, AB International Electronics Inc., 1830-6 Vernon St., 206-282-1000 Roseville, CA, 95678, 916-783-7800 President: Robert Bird

Ethereal Concepts, 210 Golden Gate Drive, Dayton, OH, 45459, 513-433-8610 Products: power control box, lighting equipment.

Linear & Digital Systems, Inc., 46 Marco Lane, Centerville, OH, 45459, 513-439-1758 Products: noise suppression and protection systems.

Lumitrol Corp., 110 Bi-County Blvd., Farmingdale, NY, 11735, 516-752-1411 Products: lighting for audio systems.

Omni Q Inc., 925 Boblett St., Blaine, WA, 98230, 206-384-562-3801 1750 President: Products: sound imaging, multi-media control systems and V.P. Sales

computer response systems.

Perma Power Electronics, Inc., 5601 W. Howard Ave., Chicago, IL, 60648, 312-647-9414

Polyphaser Corporation, 1425 Industrial Way, Gardnerville, NY, 89410-1237, 702-782-2511, 800-325-7170 Products: lightening, EMT devices.

Powermark, Inc., 3855 Ruffin Road, San Diego, CA, 92123, 619-565-8363 Products: power conversion equipment.

RTE Deltec Corp., 2727 Kurtz Road, San Diego, CA, 92110, 619-291-4211 Products: uninterrupted power assistance/line conditioners.

SL Waber Electric, 300 Harvard Ave., Westville, NJ, 08093, 609-456-5400 President: John A. Ralston Dir. of Manufacturing: John Instone Dir. of Engineering: Jeff Wright Marketing Manager: Gary Oswald Advertising Manager: Barbara McNally Products: multiple outlet strips, surge and noise protectors, power relays & uninterruptible power supplies.

Superior Electric Co., 383 Middle Street, Bristol, CT, 06010, 203-582-9561

Topaz Inc., 9150 Topaz Way, San Diego, CA, 92123, 619-279-0831

Tripp Lite, 500 N. Orleans, Chicago, IL, 60610, 312-329-1777 Products: lights and power equipment.

Whitenton Industries, Inc., 7320 Ashcroft, Suite 302, Houston, TX, 77081, 713-772-1404 Products: line conditioners, power protectors and distribution.

# PRO AUDIO SOUND SYSTEMS & PRODUCTS

AB International Electronics Inc., 1830-6 Vernon St., Roseville, CA, 95678, 916-783-7800 President: Robert Bird V. P. Mkt'g: Irwin Laskey V. P. Engineering: George Anderson Chief Engineer: Jeff Kuells Products: precision power amplifiers for the commercial audio and musical sound industries, models range in power from 50 watts per channel to 500 watts per channel stereo. See full listing under **Audio Amplifiers** Acoustic, 8052 Lankershim Blvd., N. Hollywood, CA, 91605, 818-765-0866 Adams-Smith, 34 Tower St., Hudson, MA, 01749, 617-562-3801

562-3801 President: A. Simon V.P. Sales: H. Adams General Manager Adams-Smith U.K. Ltd D. Godsmark Products: time code, tape synchronizing, sound sweetening, and audio-for-video editing equipment. District Offices: Adams-Smith, Great Neck, NY, 516-365-6664 Adams-Smith, Burbank, CA, 818-840-9588 Adams-Smith UK Ltd., Cambridge, England, 44-223-410104

Aiphone Intercom Systems, 1700 130th Ave. N.E., Bellevue, WA, 98005, 206-455-0510 President: Hiko Shinoda National Sales Mgr.: Jim Morrison Products: industrial, business, residential, loudspeaking, telephone-type, video intercom entry systems, paging talkback, microprocessor intercom systems, mixer amplifiers, paging speakers, horns, drivers, ceiling speakers, tuners, and special order products.

See full listing under Intercom Duplex



Ashly Audio, Inc., 100 Fernwood Ave., Rochester, NY, 14621, 716-544-5191 President: William Thompson V.P. Sales/Mkt'g.: Robert French V.P. Finance/Export Accts.: David Malloy Products: MOS-FET power amplifiers, graphic equalizers, noise gates, limiter/compressors, electronic crossovers, parametric equalizers, notch filters, and OEM products. District Offices: George Markunas Industries, Avon MA, 617-588-8043 Triad Marketing, Wayne, NJ, 201-696-8625 Bert Ziskind & Assoc., Rolling Meadows, IL, 312-577-162-A/V Marketing, Carmel, IN, 317-846-1034 Dick Bellew Sales, Dallas, TX, 214-644-7881 Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026, 314-349-3110 Director of Sales: Paul Grote E. Region/Sales: Andy Musci W. Region/Sales: Bud Waters V.P., Consultant for Mkt'g.: Herbert Jaffe Products: ceiling speaker systems, professional grade loudspeaker assemblies, line transformers. Microphone floor, boom, desk stands for stage and studios. Consoles, racks, enclosure systems for control equipment. See full listing under **Loudspeakers** 

Audio/Digital, Inc., 1000 S. Bertelsen Rd, Suite 4, Eugene, OR, 97402, 503-687-8412, 800-423-1082 President: Gary Hardesty Sales Mgr.: Virginia Nott Chief Engr.: Gary Hardesty Products: specialializes in Digital Signal Processing, provides DSP equipment for permanent installation, touring, recording studio, and radio broadcasting applications, including the ADD series of 2 and 3 output digital delays. See full listing under Audio Signal Processors

Audiotech, 410 South Cedar, Lansing, MI, 48912, 517-371-4148 President: Dave MacPherson Production: Mike Cosgrove Sales: Dave Arnold Products: hi-fidelity loudspeakers for sound reinforcement, touring sound rentals/installations. See full listing under **Loudspeakers**  Audisar, Box 1561, Bellevue, WA, 98009, 206-454-2040 Owner: R. Munger

Products: industrial audio and broadcast equipment, audic transformers, loudspeakers, power amplifiers, mixers, sound projector interface device, test equipment, specials and engineered sound systems.

Barcus Berry Electronics Inc., 5500 Bolsa Ave, Suite 245, Huntington Beach, CA, 92649, 714-897-6766, 800-233-8346 Ch'mn. of the Board: John C. McLaren V.P.: Scott Anderson Nat'l. Sales Mgr.: Jim Lucas Operations Mgr.: Jennifer Drescher Products: audio signal processors. See full listing under Audio Signal Processors

BEL Electronics, 745 109th St., Arlington, TX, 76011, 817-640-6447

Benchmark Media Systems, Inc., 3817 Brewerton Rd., N. Syracuse, NY, 13212, 315-452-0400 President: Allen H. Burdick Products: modular audio processing and distribution system for mono, stereo, and mic-level audio. Includes remote gain control, equalization, oscillators, and stereo processors.

Biamp Systems, 14270 NW Science Park, Portland, OR, 97229, 503-641-7287 President: Ralph Lockhart



V.P. Engineering: Bob Doty V.P. Finance: Jerry Payette V.P. Manufacturing: Ralph Tennant Sales Manager: Ron Camden Products: American-made, high-quality, audio equipment for the sound contractor that includes; mixers, live and recording, rack-mount or console; powered mixers; microphone mixers; amplifiers; equalizers; and crossovers. District Offices: Bob Brennon, Hempstead, NY, 516-565-2323 Bob Edsall, Ashville, NC, 704-252-9313 Susan Stamm, Pittsburg, PA, 412-344-1360 Andy Combs, Pontiac, MI, 313-673-2280 Steve Gleason, Burbank, CA, 818-848-7512 Bose Corp, The Mountain, Framingham, MA, 01701, 617-879-7330 Mgr./Pro Products: David Bell E. Reg. Sales Mgr.: Tim Dorwart Nat'l Technical Rep.: Bruce Myers Mkt'g Dev. Specialist: Mark Mayfield Products: professional loudspeaker systems for portable and installed applications including sound reinforcement, commercial sound, background/foreground music, cinema sound. Modeler<sup>™</sup> computer software for sound system design assistance. Products: E. Reg Sales Office, Whitehall, PA, 215-266-0971. Bozak/TAI, Inc, 326 South St, New Britain, CT, 06051-3721, 203-2250555 Carvin Corp., 1155 Industrial Ave., Escondido, CA, 92025, Director of Mkt'g: John Strand 619-747-1710 Celestion Industries, Inc., Kuniholm Dr., Box 521,

Holliston, MA, 01746, 617-429-6706 Exec. V.P. & Gen. Mgr.: Peter Wellikoff Nat'l. Sales Manager: David Deranian Mkt'g./Sales Support Admn: Barry Fox Credit Manager: Kathy Maguire Products: sound reinforcement loudspeakers with highfidelity sound called the SR Series; established line of rawframe drivers for a wide variety of applications.

Cerwin-Vega, 555 E. East St., Simi Valley, CA, 93065, 805-584-9332, TLX:662250 President: Gene Czerwinski Sales Manager: Rich Mandella Chief Engineer: Marshall Buck, Ph.D Products: electronic and acoustic systems for domestic and auto sound systems; MI, sound reinforcement, motion picture, broadcast, recording, and commercial sound products. See full listing under Loudspeakers

Cetec Ivie, 1366 West Center St, Orem, UT, 84057, 801-

224-1800 President: Craig Berry Mkt'g Manager: Glen Meyer Production Manager: Larry Driskill Products: a complete line of modular sound reinforcement electronics including mixers, equalizers, amplifiers, etc. We also have a line of octave & 1/3 octave hand-held real

time analyzers and stand alone automatic microphone mixers.

See full listing under Audio Signal Processors

Cetec Raymer, 7315 Fulton Ave., N. Hollywood, CA, 91605, 213-875-0423 President: Hugh T. Wilcox Products: audio equipment for paging, background music and sound systems, including amplifiers, tuners, receivers test equipment, telephone interconnect devices and accessories. Direct connection telephone trunk and station access paging devices. See full listing under Paging Systems

Clarity, 1111 Industry Ave., Roanoke, VA, 24013, 800-962-6009 Products: a full line of paging products. See full listing under Paging Systems

Clarity, Nelson Lane, Garrison, NY, 10524, 914-424-4071 President: Gregory Kramer Mkt'g & Sales Mgr.: Colleen Donnelly Products: the XLV, an effects automation interface that provides full MIDI controlof the 224XL, 480L, rmx-16, QRS and REV-1. It also provides 8 channels of MIDI-to-controlvoltage conversion for DDL's, VCA's, etc.

Community Light & Sound, Inc., 333 E 5th St., Chester

PA, 19013, 215-876-3400 President: Bruce Howze V. P. of Engineering: John Wiggins Vice President: Christine Howze Products: sound reinforcement loudspeakers for background, foreground and paging. Two, three, & four way loudspeakers systems for use in churches, schools, niteclubs, restaurants, and portable live applications. Pattern Control horns, midrange compression loudspeakers and components for engineered sound systems. District Offices: New Resource, Norwell, MA, 617-659-1463 Metrorep Sales, Inc., Freehold, NJ, 201-462-1221 Audio Mkt'g Assoc., Breckville, OH, 216-526-2426 Bencsik Assoc., Ocala, FL, 904-732-9775 Texas Pro Reps, Inc., Ft. Worth, TX, 817-847-0625 Key Marketing, Plymouth, MI, 313-459-6040 Pro Marketing Co. Inc., Indianapolis, IN, 317-846-9591 Steffey Marketing, Northbrook, IL, 312-480-3575 Evans Sales & Marketing, Nashville, TN, 615-297-7997 Mel Foster Technical Sales, Edina, MN, 612-941-9800 R.J. Throckmorton Sales Co. Inc., Ballwin, MO, 314-227-7222

Pearson & Pearson, Denver, CO, 303-722-6996 Gemini Electronics Marketing, Edmonds, WA

# СОМТЕК

Comtek, Inc., 357 W. 2700 St., Salt Lake City, UT, 84115, 801-466-3463

President: Ralph Belgique Application Engineer: Steve Kartchner In-House Sales: LeeAnne Richards

Products: wireless microphone systems operating up to 216 MHz and RF assistive listening systems for the hearing impaired for use in auditoriums, churches and theaters, wireless tour guide systems, wireless intercom systems, and wireless cuing systems. See full listing under **Microphones** 

**Conquest Sound, Inc.**, 7319 Duvan Dr., Box 757, Tinley Park, IL, 60477,-, 800-323-7671, in IL 800-344-2667 President: Robert Jares, Jr. Vice President: Larry Spalla Sales Manager: Al Novak Plant Manager: Dennis Wood Products: audio wiring systems from mic cables to splitting systems to multi-channel systems; supplier of Switchcraft connectors and parts to audio industry; stock of over 1,000,000 Ft. assorted wire and 200,000 Switchcraft parts; separate division for alarm, co-ax security wire. See full listing under **Wire/Cable Systems** 

Dean Markley Electronics Inc., 3350 Scott Blvd., Suite 45, Santa Clara, CA, 95054, 408-988-2456, 800-538-8330 President: Dean Markley Executive V. P.: Bari Wilson Nat'l Sales Manager: Tom Dreibelbis Products: professional audio sound systems and support, powered and non-powered mixers, powered and unpowered enclosures, power amps, microphones, cables and accessories.

Design Direct Sound, 6850 35th N.E., Suite 1, Seattle, WA, 98115, 206-527-4371 President: Bob Rice Vice President: Pat Peterson Vice President: Marc Hall Marketing: Mark Dodge Products: Walker/DDS 80 Series mixing desk is an 8 buss board with a 10 X 8 matrix output, resulting in 18 balanced outputs. The 80 Series offers many of the benefits of full blown 8 buss boards. District Offices: Warren & Assoc., Santa Clara, CA, 408-988-7762 Hustling Enterprises, Redington, FL, 813-393-8982 New Horizons, Bannockburn, IL, 312-234-5911 Heaton Communications, New S. Wales, Australia, 02-428-

Dolby Laboratories, Inc., 100 Potero Ave., San Francisco, CA, 94103, 415-558-0200 Chairman: Ray Dolby President: Bill Jasper Vice President: Ioan Allen V.P. Sales & Mkt'g.: Ed Schummer US Sales Mgr.: George Douglas Products: noise reduction and spectral recording equipment, signal processing systems all for the recording, broadcast, video, and cinema industries.

Dorrough Electronics, 5221 Collier Pl., Woodland Hills, CA, 91364, 818-999-1132 President: Mike Dorrough Products: Bayrough Loudnoon Mater simultaneously dis

Products: Bourrough Loudness Meter simultaneously displays peak and average on one LED array. The ballastics were designed to show equal preceived power between peak and average regardless of the complexity of audio waveforms.

Dyna-Might Sound & Lighting Inc., 3119-A S. Scenic, Springfield, MO, 65807, 417-883-4549

Eastern Acoustics Works, 59 Fountain St., Framingham, MA, 01701, 617-620-1478 President: Kenneth Berger V.P. Engineering: Kenton Forsythe V.P. Marketing: Frank Loyko Sales Administrator: Daniel McDonald Other Personnel: Max Berger Products: precision-crafted professional loudspeaker products including full-range systems, bass and mid-bass horns, drivers, and studio monitor systems. See full listing under **Loudspeakers** 

Edcor, 1948 East Pomona, Santa Ana, CA, 92705, 714-863-1529, 800-854-0259 Sales Manager: Deanna Weston Chief Engineer: Luis Bonand Production Manager: Tina Lopez Treasurer: Phyllis Weston Products: complete line of electronic commercial sound products including power & mixer amplifiers, E-Q amps, microphone/line mixers, automatic & gated mixers, wireless microphones systems, translation systems, transformers and private label products.

Eden Electronics, Inc., 1st St., PO Box 338, Montrose, MN, 55363, 612-675-3650 President: David D. Nordschow Products: pro audio sound systems including constant directivity horns and mid-bass devices; small to large 2-way, 3-way, and 4-way systems for PA and music play-back; touring systems; stage monitors; passive crossovers; custom enclosures. District Offices:

William M. Linz Assoc., Deerfield, IL, 312-945-9600 J.M.S. Marketing, Austin, TX, 512-266-1443 Pro Music Sales, Keene, NH, 603-352-4831 Greg Dzubay & Assoc., Peoria, AZ, 602-979-2358 AV Marketing, Carmel, IN, 317-846-1034 Music America, Columbia, MD, 301-995-1578

Electro-Voice, Inc., 600 Cecil St, Buchanan, MI, 49107, 616-695-6831

President: Robert D. Pabst

V.P. Sales and Marketing: Paul McGuire

Director of Marketing: Jim Long

Chief Engineer: Earl Harris

Products: broadcast, recording, communications and PA microphones, public address and component high-fidelity loudspeakers and systems, high-performance compression drivers, horns, low-frequency systems, mixers, mixing consoles, signal processors and crossover networks. District Offices:

George M. Conneen Co., Inc., Springfield, PA, 215-544-5884

Metropolis Audio Marketing, Inc., Edison, NJ, 201-225-0085

R.J. Marketing Ltd., Rockville, MD 301-251-0330

2727

The Smith Company, Hartford CT, 203-523-0512 Ron Tunks Sales, Inc., Tamarac, FL, 305-722-2803 Wilson Audio Sales, Nashville, TN, 615-646-4477 Audio Resources, Westmont, IL, 312-655-1180 B.C. Electronic Sales, Inc., Mission, KS, 913-262-1720 Jones Audio Sales, Plano, TX, 214-867-0202 C.L. Pugh & Assoc., Inc., Columbus, OH, 614-486-9678 Riley & Petchell Sales, Inc., Detroit, MI, 313-937-3000 Loppnow & Assoc., Redmond, WA, 206-883-3205 Radon & Assoc., Sacramento, CA, 916-923-2524 Silver Peak Marketing Ltd., Wheat Ridge, CO, 303-467-9042 Western Audio Sales, Glendale, CA, 818-246-3806 Eltrex International, 2 Columbia Dr., Amherst, NH, 03031, 603-886-3500 Products: digital voice recorder, auto answer and playback. See full listing under Message Repeaters/Storecasters Environmental Sound, 31220 La Baya Dr., Bldg. 110, Westlake Village, CA, 91362, 818-706-0228, TLX: 299353 POST UR, FAX 818-889-5605 President: Pascal Delbuck Mkt'g. Director: Ron Glathoffer Advertising Mgr.: Dean McEntyre Chief Engineer: Pascal Delbuck Plant Manager: Bill Ward Products: PRO DROP CEILING MONITOR I; 8" 2-way isosceles cabinet for multiple mounting applications/ theatre reinforcement, churches, nightclubs; ES-Series includes ES-502, ES-602, ES-802, ES-1002, ES-2802 our Flush Mount Loudspeakers have multiple mounting offering an exclusive variety fo grille and matching baffle colors for architectural and interior designers that require high power audiophile custom home loudspeakers. **District Offices:** DB Marketing, East Rockway, NY, 516-596-1244 Factory Rep., Westlake Village, CA, 818-706-0228 Fanon Courier, 14281 Chambers Road, Tustin, CA, 92680 714-6690-9890, 800-345-1354 President: Frank Blaha Director Sales/Mkt'g .: Murray Trotiner Director of Engineering: Miguel Santana Product: PA amplifiers and systems, paging/talkback speakers, intercom systems, megaphones, FM scanning monitors, and CB transceivers. Fender Musical Instruments Corp. Fender Musical Instruments Corp., 1130 Columbia Street, Brea, CA, 92621, 714-990-0909 FGS Intergalactic Cartel and Holding Company (FGS), PO Box 619, Topanga, CA, 90290-0619, 213-455-2802 President: Boris D. Gato

audio sound, utilizing HM<sup>™</sup> (higher mathematical) techniques.

Fostex Corp. of America, 15431 Blackburn Ave., Norwalk, CA, 90650 213-921-1112 President: Y. Abe V.P. General Manager: Fred Huang V.P. Sales/Marketing: Mark Cohen National Sales Manager: Mike Flynn Products: a full-line for the Pro contract or including the MP Series multi-purpose powered mixers, SP & SPA11 portable speakers for many applications, raw frame speaker components from 18" to supertweeter, excellen monitors, headphones, and microphones.

Frazier, A Division of Sound-Craft Systems, Inc., Petit Jean Mountain Rt 3, Box 319, Morrilton, AR, 72110, 501-727-5476, 800-643-8747 Marketing: Earle Love Sales Manager: Hank Shaw Secretary/Treasurer: Katherine Foust V.P. Sales & Marketing: James Truelsen Sr. Engineer: Jay Mitchell Products: sound reinforcement loudspeaker systems featuring coincident-aligned transducers which offer frequency response and intelligibility and utility in a variety of light-weight compact designs. Our mounting system minimizes installation time. See full listing under Loudspeakers

## Galaxy Audio, 625 East Pawnee, Wichita, KS, 67211, 316-263-2852

Manager: R.D. Moneyhun Products: Hot Spot Monitors-Hot Spot P.A. monitor/ portable P.A.-Pro Spot Speakers/stage monitors-mixers, 8, 12 and 16 channels.

GLI/Integrated Sound Systems, 1227 Walt Whitman Road, Melville, NY, 11747, 516-351-2100

Gold Line, P.O. Box 115, W. Redding, CT, 06896, 203-938-2588 President: Martin E. Miller V. P. Marketing: Marj Miller Products: 10-band and ½-octave real-time analyzers, Loft Professional crossovers and quad-gate limiters, and Loftech audio test sets. District Offices: Pro Musica Sales, Keene, VT, 603-352-4831 Bill Ray Assoc., Atlanta, GA, 404-351-6367 RPM Sales, Carrolton, TX, 214-446-3010 Richard Lewis Sales, Glenside, PA, 215-886-1555

Heil Ltd., 2 Heil Drive, Marissa, IL, 62257, 618-295-3000

Henry Engineering Co., 503 Key Vista Dr., Sierra Madre, CA, 91024, 818-355-3656 Owner: Hank Landsberg Products: the matchbox is the ideal way to interface unbalanced semi-pro or "consumer" audio equipment

National Sales Manager: Natasha D. Gato

Products: FGS Precision Engineered Sound<sup>™®</sup>

Senior Scientist: Dennis Fink

pro-

with balanced LO-Z professional gear. Four independent active amplifier circuits provide level and impedance conversion to balanced 600 Ohm outputs.

Hill Audio, Inc., 5002#B.N. Royal Atlanta Dr., Tucker, GA. 30084 404-934-1851 President: David Ash Sales manager: Bob Allen Chief Engineer: Rick Rogers Financial Administrator: Virginia Ash Products: power amplifiers from 200 to 3,000 watts and mixing consoles featuring 16-channel rack-mount through 48-channel modular. The modular consoles have the new "Sidetraker" EQ as standard equipment. **District Offices:** Innovative Sales and Marketing, Santa Ana, CA, 714-549-7770 Ouzunoff and Assoc., Yorktown Heights, NY, 914-245-6452 Summit Sales, Houston, TX, 713-890-5333 Industrial Research Products, 321 Bond St., Elk Grove

Village, IL, 60007, 312-439-3600 General Manager: Mahlon Burkhard Marketing Manager: Roger Carroll Products: transversal equalizers, automatic microphone mixers, digital delay lines, power amplifiers, level-matic limiter.

Industry West Electronics, 270 N. Geneva, Rd., Orem, UT, 84057, 801-226-1000

Products: professional sound reinforcement equipment including amplifiers, portable PA systems and multiinput adaptor boxes.

District Offices:

Lichtenauer Assoc., Antioch, CA, 415-757-1200 West Tech Marketing, Culver City, CA, 213-870-9286 George M. Conneen Co., Inc., Springfield, PA, 215-544-5884 Dick Bellew Sales Co., Dallas, TX, 214-644-7881

C.L. Pugh & Assoc., Inc., Columbus, OH, 614-486-9678

Ineptronics, 3730 Lankenau Rd., Philadelphia, PA, 19131, 215-473-6176 President: So Sumi

Vice President: Hiram Levity

Products: model TA4761 Electroacoustical

Superflurator<sup>TM®</sup>, energy-efficient data-in-put/manipulation/data-output system, available in your choice of decorator colors.

Innovative Electronic Designs, Inc., 9701 Taylorsville Rd., Louisville, KY, 40299, 502-267-7436 President: Hardis G. Martin V.P. Engineering: Robert Ponto Treasurer: Ray Allen Dr. Mkt'g. & Sales: Tom Roseberry Products: models 500 & 500 AC microcomputer controlled audio systems, controlling mixing, routing, and level adjustment. 4000 automatic mixer, 5000 audio pro-

cessing system. 70-volt and low impedance 8 ohm ver-

sion 6270 power amplifier. District Offices: Derek Allen Assoc., Toluca Lake, CA, 818-840-8327 Bensik Assoc., Ocala, FL, 904-732-9775 Plus 4 Marketing, Pleasant, CA, 415-937-0650 Yore Company, White Bear Lake, MN, 612-770-9760 International Music Co (I.M.C.), PO Box 2344, Ft. Worth, TX, 76113, 817-336-5114 Chairman of the Bd./CEO: Tommy Moore President: Jerry Freed V.P. Sales: C.H. Murray Dir. of Akai EMI: Mike McRoberts Akai Product Specialist: Kevin Kennedy Products: Akai: multitrack recorders. digital patch bays, digital samplers, electronic wind instruments, and synthesizers. Ross: multitrack recorders, PA systems, guitar amps, microphones and effects. Bob Connelly, Woodland Hills, CA, 818-999-4854 Frank White, Severna Park, MD, 301-647-0995 Rob Payne, Knoxville, TN, 615-966-3786 Ray Baragary, Lakewood, CA, 213-633-5820 Larry Wilson, Englewood, CO, 303-779-8686 Neil Buckley, San Jose, CA, 408-978-5649 Harry Starbird, Portland, ME, 207-774-8448 Monte Lamb, Hinsdale, IL, 312-323-0530

John Chez, Ringos, NY, 201-788-5151 Cliff Uttley, Lenexa, KS, 913-888-7940 Glen Hadley, Germantown, TN, 901-757-2524 Jack Charles, Portland, OR, 503-284-0216

Jerry Sehi, Ft. Lauderdale, FL 305-525-0872

Intersonics, Inc., 3453 Commercial Ave., Northbrook, IL, 60062, 312-272-1772 President: Dr. Charles Rey Acoustical Engineering: Thomas Danley Sales Manager: Tom Melzer Products: Servodrive Subwoofers(SDL), featuring the new line of SDL-series subwoofers. These are run by a hi-tech servomotor and a rotary-to-linear converter, no coice-coils. An active cooling system eliminates output loss caused by heat—an industry first. See full listing under Loudspeakers

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J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers

JBL Professional, 8500 Balboa Blvd, Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Market Manager/Sound Contracting: Steve Romeo Products: loudspeakers and loudspeaker systems of all kinds; automatic microphone mixer; electronic crossover; special loudspeakers for musical instruments; video projector.

See full listing under Loudspeakers

Korg U.S.A., Inc., 89 Frost St., Westbury, NY, 11590, 516-333-9100 President: Don England Exec. V.P.: Michael Kovins V.P. Sales: Art Miller Products: synthesizers, signal processing equipment, drum computers, electronic tuners, and Marshall amplification. District Offices:

Korg U.S.A., Inc., Canoga Park, CA, 818-888-2022

Len Finkler Company, 80 Alexdon Road, Downsview, Ontario, M3J2B4, 416-630-9103 Products: amplifiers, speakers for ceiling,& wall bafflers.

Lenco, Inc., PO Box 348, Jackson, MO, 63755, 314-243-3141, 800-325-8494 Products: audio video terminal and enclosures.

McCauley Sound, Inc., 13608 94th Ave. E., Puyallup, WA, 98373, 206-848-0363

Pres./Sales Mgr.: Tom McCauley

V.P./Production: Pete McCauley

Products: a complete line of touring and commercial loudspeaker systems. They feature a high-powered series of low-, mid-, and high-frequency loudspeakers and compression drivers, as well as CD horns, passive networks, and enclosure hardware.

District Offices:

Taub Sales, Silver Springs, MD, 301-622-9100 Ed Proctor, Ft. Worth, TX, 817-535-2771 Ward Marketing, Chicago, IL, 312-409-3635

Micro Audio, Inc., 4438 S.W. Hewett, Portland, OR, 97221, 503-292-8896, 800-445-1248 President: Eugene B. Rimkeit Dir. of Engineering: Richard Schomburg V.P. Manufacturing: David Elsbernd Sales Mgr.: M.C. Garrison Products: computer-controlled 1/3 octave equalizers, programmers include the μA2800 EQ POD Programmer/Automatic EQ/RTA, a hand-held programmer, and the software/bardware to turn the IBM PC@ into a pro-

and the software/hardware to turn the IBM PC® into a programmer.

See full listing under Audio Signal Processors

Nakamichi America, Corp., 19701 South Vermont Ave., Torrance, CA, 90502, 213-538-8150 President: Yas Yamazaki Exec. V.P. & G.M.: Dean A. Miller V.P. Sales: Jett Logan V.P. Mkt'g.: Bill Rosenzweig V.P. Operations: Ray Privette Products: MR-1 discrete head professional cassette deck, MR-2 2-head professional cassette deck, SP-7 stereo headphones, RM-5 remote control for MR-1 and MR-2, DM-10 head demagnetizer. District Offices: Professional Audio Assoc., Burlington, MA, 617-229-6050 Rancilio Assoc., St. Louis, MO, 314-631-3326 Applied Audio, Asheville, NC, 704-252-9313 Tenicki & Assoc., Houston, TX 713-528-2005 Western Audio Sales, Glendale, CA, 818-246-3806 Audio Assoc. Corp., Verona, NJ, 201-239-3727 Audio Resources, Inc., Westmont, IL, 312-655-1180 Bencsik Assoc., Inc., Ocala, FL, 904-732-9775 CM Sales, Farmington, Hills, MI, 313-553-8070 JB Parent Co., Worthington, OH, 614-764-0064 Keiser, Torbett & Assoc., Loveland, CO, 303-532-3313 LP Marketing, Oakland, CA, 415-532-5600 Northshore Marketing, Seattle, WA, 206-284-9699 Prorep Hawaii, Honolulu, HI, 808-847-4038 Signal Marketing, Valley Forge, PA, 215-783-6666

Niles Audio Corporation, P. O. Box 160818, Miami, FL, 33116, 305-238-4373

Oxmoor Corporation, 237 Oxmoor Circle, Birmingham, AL, 35209, 205-942-6779 President: Lynn A. McCroskey Production Manager: Steve Holt National Sales Mgr.: Richard Mitchell Products: DEQ-29 Programmable 1/3 Octave Equalizer with 100 non-volatile memory locations; DCA-2 Digital Control Attenuator and RC-16 remote control unit; 4x4 Buffer Amplifier with independent mixing busses, any of the four inputs can be assigned to any of the four outputs. See full listing under **Audio Signal Processors** 

Pacific Recorders & Engineering Corp., 2070 Las Palmas Dr., Carlsbad, CA, 92009, 619-438-3911 President: Jack K. Williams General Sales Mgr.: John F. Kenyon Reg. Sales Mgr.: Sandy Berenics Reg. Sales Mgr.: Michael Uhl Products: a line of audio mixing consoles and broadcast cartridge machines, in addition to designing and building turnkey radio studios.

Panasonic Industrial Company/Ramsa, 6550 Katella Ave, Cypress, CA, 90630, 714-895-7272 National Marketing Mgr.: Steve Wooley Products: Ramsa, the professional audio division of Panasonic Industrial Company's Audio/Video Systems Group, markets a comprehensive line of mixing and production consoles, power amplifiers, microphones and speaker systems.

Peavey Electronics Corp., PO Box 2898, Meridian, MS, 39301, 601-483-5365

Prod Mgr/Sound Reinf.: Hollis Calvert Prod Mgr/Digital Product: Ken Valentine Products: audio amplification systems; mixing consoles; portable PA systems; dynamic, condenser, and wireless microphones; signal processing gear; loudspeaker systems from small portable enclosures to large venue highlevel, multi-way systems including motion-picture theater systems.

Portasound Inc., Route 3, Box 319, Morrilton, AR, 72110, 501-727-5543

Precision Electronics, Inc., 9101 King St., Franklin Park, IL 60131, 312-678-5350 President: William S. Grommes Chief Engineer: A.A. Hart Sales Manager: William Stow General Manager: G. Hussain Products: PA amplifiers, mixer preamplifiers, power amplifiers, am/fm tuners, tuner amplifiers with paging, graphic equalizers, automatic volume limiter, telephone music-onhold amplifier, and sound accessories. See full listing under **Audio Amplifiers** 

Protech Audio Corp., Flowerfield, Bldg. #1, St. James, NY, 11780, 516-584-5855 Sales Mgr.: Bill Murphy Sales Engineering: Joe Giambone Products: automatic level controls, voltage controlled amplifiers, distribution amplifiers, mixers, tone supervisor systems, microphone and line preamplifiers, compressor/limiters, switching cards, ramp controlled preamplifiers, engineered and modular sound systems. District Offices: Peregrine Rep's, Houston, TX, 713-772-6765

Randall Electronics, Inc., 1132 Duryea, Irvine, CA, 92714, 714-261-6304 Dir. of Operations: Chuck Weidener Dir. of Engineering: Gary Sunda National Sales Mgr.: Bill Acton Products: top line musical instrument amplifiers and sound reinforcement equipment. District Offices: Bill McDaniel, Indianapolis, IN, 317-823-4206 Dan Castro, Irvine, CA, 714-261-6304 Jody Carver, Somers, NY, 914-248-5806 Bob Seidman, Ft. Lauderdale, FL, 305-581-5666 Tim Lawson, Baton Rouge, LA, 504-291-0371

Rane Corp., 6510 216th S.W., Mountlake Terrace, WA, 98043, 206-774-7309 V.P. Marketing: Larry Winter Dir. Tech. Dev.: Terry Pennington Products: graphic and parametric equalizers, real-time analyzers, headphone amps, active crossovers, program mixers, splitters, compressor/limiters. See full listing under Audio Signal Processors

Rauland-Borg Corp., 3535 W. Addison St., Chicago, IL, 60618, 312-267-1300 President: William Krucks Sr. V. P.: Kenneth T. James National Sales Manager: Rick Blunt Chief Engineer: Lawrence Gleason Products: amplifiers, preamplifiers, mixers, equalizers, intercoms, telephone systems, school communications systems, health care communications systems, professional sound systems, paging systems, AM-FM tuners, loudspeaker systems. **District Offices:** Harry B. Hahn, Olathe, KN, 913-829-9427 William C. Zophy, Ft. Myers, FL, 813-433-4766 Harold DeVaney, Dickinson, TX, 713-337-1040 Hank Plaisier, Midway City, CA, 714-898-2499 Vince Ward, Redmond, WA, 206-643-1074 John Hoover, Cherry Hill, NJ, 609-667-1297

William Lewis, Louisville, KY, 502-491-4275

Ray Bailey, Granville, IL, 815-339-6789

Dennis C. Hansen, Piscataway, NJ, 201-463-3827 Jim Welch, Scarborough, ONT., CD, 416-438-4756 Rauland-Borg Inc., Mississauga, ONT., CD, 416-821-222

Renkus-Heinz, Inc., 17191 Armstrong Ave., Irvine, CA, 92714, 714-250-0166, FAX: 516-767-9335 President: Harro K. Heinz Dir. of Mkt'g.: G.R. "Russ" Farrell Nat'l. Sales Mgr.: Greg McLagan Products: compact processor-controlled sound reinforcement systems providing studio monitor sound quality at high SPL. Performance-ready systems including power racks & cabling are factory assembled and tested, and hav multiple speaker protection features.

Roland Corp. US, 7200 Dominion Circle, Los Angeles, CA 90040, 213-685-5141 President: Tom Beckman Dir. Of Communications: Nancy Kewin Communications: Barbi Clark Products: electronic musical instruments including samplers, synthesizers, sequencers, line mixers, signal processing devices, drum machines and other percussion products, effect pedals, contemporary keyboard products, music software, and computer peripherals including plotters and high-resolution graphics monitors.

**RTS Systems**, 1100 West Chestnut St, Burbank, CA, 91506, 818-840-7119 President: Bob Ringer V. P. Mkt'g: Douglas Leighton Sales Manager: Shelley Harrison Sales Engineer: Dave Richardson Chief Engineer: Stan Hubler Products: Professional Intercommunications Systems conference-line and dedicated-line, IFB systems. Professional Audio Products - amplifiers, preamps, 10-watt monitor amp and buffer amp. See full listing under **Intercom Duplex** 

Ruslang Corp., 247 Ash St., Bridgeport, CT, 06605

Russco Electronics Mfg. Inc., 5690 East Shields Avenue, Fresno, CA, 93727, 209-291-5593

Sescom, Inc., 2100 Ward Dr., Henderson, NV, 89015, 702-565-3400, 800-634-3457 President: Franklin J. Miller Products: a line of over 300 Audio devices for all professional and semi-professional needs & all the devices to make systems work.

Sony Professional Audio , 1600 Queen Anne Road, Teaneck, NJ, 07666, 201-833-5200 President: William G. Connolly Vice President: Jerry Smith Products: analog and digital audio recorders, compact disc mastering systems, mixing consoles, microphones(wired and wireless), monitoring equipment and public address systems. District Offices: Gary Rosen, Paramus, NJ, 201-368-5185

Gareth Nelson, Chicago, IL, 312-773-6001 Ken Hyer, Burbank, CA, 818-841-8711 Sound Control Technologies, Inc., 114A Washington Street, Norwalk, CT, 06854, 203-854-5701 President: Adolph Neaderland Sales/Mkt'g: David Neaderland Products: full duplex patented VOICELIFT™ voice rein-

forcement and TELEPLEX<sup>™</sup> teleconferencing systems for boardrooms, conference and training rooms and teleconferencing areas. Proprietary implant microphones for both plenum and non-plenum installations.

See full listing under Teleconferencing Systems

Soundcraft USA, PO Box 2200, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411, FAX: 818-893-3639

President: Ron Means

V.P. Sales: Ken Lopez

V.P. Marketing: Mark Gander

Nat'l. Sales Mgr.: David Kimm

Tech. Applications: Gordon Cochran

Products: audio mixing consoles and multi-track tape machines. Applications include sound reinforcement, live recording, studio recording, remote recording, broadcast and post production.

See full listing under Mixers & Mixing Consoles

Soundtech, 230 Lexington Dr., Buffalo Grove, IL, 60089, 312-541-3520

Spectra Sonics, 3750 Airport Rd., Ogden, UT, 84405, 801-392-7531 President/Owner: William G. Dilley Engineer/Sales: Gregory D. Dilley Products: amplifiers, mixers, equalizers, compressor/limiters, power supplies, speaker systems, and consoles. We specialize in sound reinforcement equipment. District Offices: William Watkins, Merrick, NY, 516-546-5374

St. Louis Music, 1400 Ferguson Avenue, St. Louis, MO, 63133, 314-727-4512

Sales Training Dir.: Tony Moscal

Product Manager: Gary Byers

Dir. of Operations: John Karpowicz

President: Gene Kornblum

Products: musical instrument amplifiers, sound reinforcement equipment, mixing consoles, loudspeakers, power amplifiers.

**District Offices:** 

St. Louis Music, St. Louis, MO, 314-727-4512

Studer Revox America, Inc., 1425 Elm Hill Pike, Nashville, TN, 37210, 615-254-5651

V. P./Gen. Mgr.: Thomas E. Mintner

Dir. of Prof. Products: David C. Bowman

Products: audio recorders - super low speed loggers and playback only machines to 2-inch multichannel; professional CD players & cassette recorders; computer controlled automation interface; mixing consoles, 19-inch & portable units to complete studio systems; amplifiers & loudspeakers.

District Offices: New York, NY, 212-255-4462 Dallas, TX, 214-943-2239 Los Angeles, CA, 818-780-4234 San Francisco, CA, 415-930-9866 Pro Audio LTD, Chicago, IL, 312-526-1660

Sunn, 1130 Columbia Street, Brea, CA, 92621, 714-990-0909

President: Bill Schultz

Director of Mkt'g: Joe Green

National Sales Mgr.: Don Johnston

Products: sound reinforcement products include: powered and non-powered mixers, mixing consoles, power amplifiers and speaker enclosures. Professional stage lighting products.

Swintek Enterprises, Inc., 587 Division St., Campbell, CA, 95008, 408-378-8091 President: William P. Swintek V.P.: Les Underwood Products: RF full-duplex intercoms, switching diversity receivers for sound reinforcement, mini receivers for video cameras, lavalier and hand-held FM transmitters, antenna

distribution amplifiers to 470 mHz. See full listing under **Microphones** 

Switchcraft Inc., 5555 N. Elston Ave., Chicago, IL, 60630, 312-792-2700

Marketing Manager: Terry Leen

Mkt'g Prod. Mgr./Audio: William Kysiak Mkt'g Prod. Mgr./Telecomm.:Thomas DeFotis Products: a broad line of electronic and electromechanical components for the telecommunications, data communications, sound, computer, medical, military, appliance, transportation and instrumentation markets.

Symetrix, Inc., 4211 24th Ave. West, Seattle, WA, 98199, 206-282-2555, 800-288-8855 President: Dane Butcher Marketing Director: Doug Schauer Mkt'g/Sales Admin: Lavina Speer Products: signal processing equipment includes compressors, limiters, MIC input processor, expanders, gates, near-field monitoring power amp, and the 571 SPL computer microprocessor driven ambient sensing automatic level controller.

Technics Professional, One Panasonic Way, Secaucus, NJ, 07094, 201-348-7000 Products: full line of professional reel-to-reel tape recorders, cassette decks, tuners, receivers, and CD players.

Telex Communications, Inc., Pro Audio Dept., 9600 Aldrich Ave. S., Minneapolis, MN, 55420, 612-887-5550 President: John Howe Sales Manager/Microphones: Gary Fisher Sales Manager/Intercom: Claude Kleiman Director of Marketing: Donald Mereen Products: dual antenna (diversity) wireless microphome systems, single antenna wireless microphone systems, wired microphones, and intercom systems. District Offices: Wes-Tech Marketing, Culver City, CA, 213-870-9286 Bensik Assoc., Ocala, FL, 904-732-9775 Monfort Electronic Marketing, Indianapolis, IN, 317-872-8877 Mountain Representatives, Denver, CO, 303-623-0972 Murphy & Cota, Inc., Atlanta, GA, 404-875-2525

Northland Assoc., Moorhead, MN, 218-233-4616 Pusecker Sales, Upper Montclair, NJ, 201-744-1834 Rancifio Assoc., Inc., St. Louis, MO, 314-631-3326 SAGA, Oswego, NY, 315-343-5739 Signal Marketing, Inc., Valley Forge, PA, 215-783-6666 J.Y. Shoonmaker Co., Dallas, TX, 214-349-1650 Weller Electronic Sales, Columbus, OH, 614-885-7819 Ziskind Assoc., Rolling Meadows, IL, 312-577-1624 Burcaw Company & Assoc., Warren, MI, 313-573-4605 S&F Northwest, Seattle, WA, 206-525-5203 Lichtenauer & Assoc., Antioch, CA, 415-757-1200

Times One Technology, 22937 Arlington Ave., Torrance, GA, 90501, 213-325-5200, 714-554-0903 General Manager: Leo Young Network CEO, Dir. of Engineering: Brahm Segal Applications Engineer: Chris Calnan Products: a unique patented design concept reduces phase delay in the signal at low and high level. Discmastering, and mixing studios have verified significant improvement in signal clarity. 100 watts @  $8\Omega$  to 500 watts @  $8\Omega$ , and 200 watts @  $4\Omega$  to 960 watts @  $4\Omega$ , 4-year warranty; depots in Europe, USA, Brazil, and Canada. See full listing under Audio Amplifiers

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle

Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems.

Turbosound, Inc, 611 Broadway, #841, New York, NY, 10012, 212-460-9940 President: Alan Wick V. P. Sales/Mkt'g: Dan Abelson V. P. Operations: Hilary Michener Products: Turbosound loudspeaker enclosures utilize patented principles to provide the installer pre-engineered loudspeaker systems complete with certified rigging hardware designed for ease of installation and safety. See full listing under **Loudspeakers** 

UREI, 8500 Balboa Blvd., Northridge, CA, 91329, 818-893-8411 President: Ron Means V.P. Sales: Ken Lopez V.P. Marketing: Mark Gander Applications Engineer: Drew Daniels Mkt'g. Mgr. Sound Contracting: Steve Romeo Products: power amplifiers, limiters, compressors, equalizers, filters, Time Aligned<sup>™</sup> speakers, direct boxes, electronic crossover, digital metronome, transcription preamplifier, disco mixers, broadcast consoles. See full listing under Audio Signal Processors

Voltage Variable Systems Div., 251 Windward Passage, Clearwater, FL, 33515 Wissco, 1599 Superior Ave., A-1, Costa Mesa, CA, 92627. 714-645-1281

President: J. Wanlass

Products: wireless microphones and receivers, power megaphones, sound lecterns, mobile sound systems, portable PA systems, mixers, speakers, telephone intercom systems, professional sound systems, amplifiers, power supplies, AC regulators, IR links. See full listing under **Microphones** 

Yamaha International Corp., Audio Products Division, 6600 Orangethorpe Ave., Buena Park, CA, 90620, 714-522-9011

General Manager: John Gatts

Nat'l. Sales Manager: Bob Shomaker

Adv. Manager: Robert T. Davis

Products: full line of audio mixing consoles, power amplifiers, speaker systems, digital signal processing equipment, and microphones.

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# REMOTE CONTROLS

**4MX**, 12506 Forestgate Dr., Dallas, TX, 75243, 214-644-3048

President: Scott Miller

V.P. Sales/Mktg.: Bruce Christianson Products: remote control systems for media & environmental equipment. SX Series features: programmable controls, wireless (RF), software (3-6 wires) or custom control panels. SX16+ & DCU for infrared & serial data control unit.

**District Offices:** 

Vilanese Assoc., Phila., PA, 215-763-2138 Advanced Communications, Lag. Nig., CA, 714-582-5167 Veyer Marketing, Deerfield Beach, FL, 305-481-9250 Evans Sales & Marketing, Nashville, TN, 615-297-7997 Audio Visual Marketing, Ft. Worth, TX, 817-246-7166

Crestron Electronics, Inc., 101 Broadway, Cresskill, NJ, 07626, 201-894-0660

Sales Manager: George Herbert

Dir. of Dealer Sales: Patricia Large

Products: off-the-shelf and custom designed wired and wireless a/v control systems with a variety of interface modules; dissolve controls; audio-video-control switchers; architectural dimming systems; random access projectors. See full listing under **A-Visual Equipment/Systems** 

<sup>-</sup>SR, Inc., 220 Little Falls Rd, Cedar Grove, NJ, 07009, 201-239-0988

President: William G. Fitzsimmons Vice President: Janice Sandri Engineering Mgr.: Joseph Fischer Production Mgr.: John Macaluso Service Dept.: Robert Allen Products: boardroom control systems (digital, IR and hardwired); hotel audio combining systems; remote control modules for audio and video applications; custom engineering and metal products. **District Offices:** Design Factors, LaHebra Heights, CA, 213-697-7576 Brian Trankle, Belmont, CA, 415-595-4004 Ziskind Assoc., Chicago, IL, 312-577-1624 Richard Pass Assoc., Langhorne, PA, 215-757-6100 Henry Phillips, Atlanta, GA, 404-992-3070 Avwest, Inc., Fountain Hills, AZ, 602-946-1811 Burcaw Co., Warren, MI, 313-573-4605 Metrorep, Freehold, NJ, 201-462-1221 Meyer Marketing, Miami, FL, 305-872-8877 Monfort Electronics, Indianapolis, IN, 317-872-8877 Pacnor Marketing, Seattle, WA, 206-771-6010 Peregrine Southwest, Houston, TX, 713-589-8481 Piper Assoc., Boston, MA, 617-449-1144 Presentation Sales, Minneapolis, MN, 612-925-2691

Gentner RF Products, PO Box 32550, San Jose, CA, 95152, 408-926-3400

President: John E. Leonard, Jr.

Products: remote control/monitoring system with dial telephone access, provides control of remote equipment (2way, transmitters, etc.) with digitized voice reporting, auto-

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THE OXMOOR RC-16 REMOTE CONTROL Oxmoor Corporation, 237 Oxmoor Circle, Birmingham AL 35209

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matic alarm generation and correction. District Offices: Gentner Engineering, Salt Lake City, UT, 801-268-1117

J. W. Davis & Co., 3030 Canton Street, Dallas, TX, 75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and PA-70, Bessel Array Columns. See full listing under Audio Amplifiers

Monroe Electronics, Inc., 100 Housel Ave., Lyndonville, NY, 14098, 716-765-2254 President: W.E. Vosteen Exec. V.P.: B.D. Ives Marketing Manager: E.B. Fuller Products: DTMF remote control units with up to 16 channels of control and monitor, 60 event timer and autodial

alarm, tone signal generators and decoders, telephone couplers, audio/video relay panel, programmable timer panel.

Musically Intelligent Devices, 3 Brian St., Commack, NY, 11725, 516-864-1683 Products: recording studio automation.

Oxmoor Corporation, 237 Oxmoor Circle, Birmingham, AL, 35209, 205-942-6779 President: Lynn A. McCroskey Production Manager: Steve Holt National Sales Mgr.: Richard Mitchell Products: DEQ-29 Programmable 1/3 Octave Equalizer with 100 non-volatile memory locations; DCA-2 Digital Control Attenuator and RC-16 remote control unit; 4x4 Buffer Amplifier with independent mixing busses, any of the four inputs can be assigned to any of the four outputs. See full listing under **Audio Signal Processors** 

Protech Audio Corp., Flowerfield, Bldg. #1, St. James, NY 11780, 516-584-5855 Sales Mgr.: Bill Murphy Sales Engineering: Joe Giambone Products: automatic level controls, voltage controlled amplifiers, distribution amplifiers, mixers, tone supervisor systems, microphone and line preamplifiers, compressor/limiters, switching cards, ramp controlled preamplifiers, engineered and modular sound systems. See full listing under **Pro Audio Sound Systems & Products** 

Teatronics Inc., 3100 McMillan Road, San Luis Obispo, CA 93401, 805-544-3555

Video Link, Division of Xantech Corp., 12950 Bradley Ave., Sylmar, CA, 91342, 818-362-0353 President: H. E. Seymour Treasurer: Paul Amutis National Sales Manager: David Lorsch Marketing Manager: Rocky Caldwell Chief Engineer: Mike Robbins Products: XTRA-LINK<sup>TM</sup> - Patented remote control extension relay system, COPYCAT<sup>TM</sup> - Video stabilizer, COCKPIT<sup>TM</sup> - Remote control organizer, other video accessories.



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# SOUND MASKING **PRODUCTS & SYSTEMS**

Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026. PA-70, Bessel Array Columns. 314-349-3110 Director of Sales: Paul Grote E. Region/Sales: Andy Musci W. Region/Sales: Bud Waters V.P., Consultant for Mkt'g.: Herbert Jaffe Products: selection of masking loudspeaker assemblies for Sales Manager: Keith Worsley all installation configurations. Components for sound masking including signal generators, baffles, speaker packages, backbox enclosures, rotary switches and attenuators, control cabinets and racks, self-contained single unit, sound masking system. See full listing under Loudspeakers Dukane Corporation, 2900 Dukane Dr., St. Charles, IL. 60174, 312-584-2300 President: Jack Stone Marketing Mgr.: Craig Lyons Distributor Sales Mgr.: Doug Fellabaum Service Manager: Cliff Carlson **Division General Mgr.: Steve Deppe** Products: standard and special systems of products: nurse call, intercom, voice paging, clock, sound masking, staff registry and voice evacuation systems for health care, institutional and industrial markets. levels & mute. See full listing under Portable Sound Systems Dyna-Systems, 5371 Tennyson St., Unit 1, Denver, CO, Oaktron Industries, Inc., 1000 30th St., Monroe, WI, 80212, 303-455-5400 President: Robert C. Chanaud, Ph.D. Mgr. of Operations: Vince Pietraban Mkt'g. Director: Thomas A. Koenig Products: sound masking and paging systems. Dyna-Systems, Atlanta, GA, 404-429-1570 Insul-Art Acoustics Corp., 107 Allen Blvd., Farmingdale, NY, 11735, 516-694-0002, 800-526-0908 President: Jack D. Leonard Vice President: Harold Goldstein Sales Coordinator: Johnathan Leonard

Sales Coordinator: Marge Lohr Plant Manager: Richard Brunson Products: Centrallite Sound Masking System, 1/3-band equalizer with built-in noise source, matching preamp and amplifiers; Satellite Sound Masking System, 10-band equalizer with preamp and noise sources all built in; Scamp Sound Masking System, self-contained speaker with noise source built in and volume control.

Intersonics, Inc., 3453 Commercial Ave., Northbrook, IL, 60062, 312-272-1772 President: Dr. Charles Rey Acoustical Engineering: Thomas Danley Sales Manager: Tom Melzer Products: Servodrive Subwoofers(SDL), featuring the new line of SDL-series subwoofers. These are run by a hi-tech servomotor and a rotary-to-linear converter, no coice-coils. An active cooling system eliminates output loss caused by

heat - an industry first. See full listing under Loudspeakers

J. W. Davis & Co., 3030 Canton Street, Dallas, TX.

75226, 214-651-7341, in TX, 800-442-1564, Nationally 800-527-5705 President: Charles Griffiths Vice President/Sales: Jack W. Tucker Products: Patronis Pataxial Speaker Systems PA-150 and See full listing under Audio Amplifiers

#### Klark-Teknik Electronics, Inc., 30B Banfi Plaza N.

Farmingdale, NY, 11735, 516-249-3660 President: Jack Kelly Salesman: Harry Klane Service Manager: Jim Jacobelli Products: 1/3 and 2/3 octave graphic equalizers, parametric equalizers, digital delay lines, digital reverberation systems, sound masking processors, reference monitors, 1/3 octave RTA w/RT-60 measurement capabilities, BSS crossovers, compressor/limiter, MIDI noise gate, mic splitter, ancillary equipment. See full listing under Audio Signal Processors

Lyntec/Technical Visuals, 7030 Grandview, Merriam, KS, 66204, 913-722-4047 President: Lynn J. Potter Products: programmable audio controller for time/level control of masking noise & music/paging. Masking noise source with SLO-START. Programmable Multi-channel attenuator for remote selection of A, B, or C field presettable

53566, 800-257-4538 President/CEO: Jerry Disch Executive V. P.: Bob Taller V. P. Sales: Jim Hendrickson Products: commercial loudspeakers and accessories, sound masking speakers. Background and paging systems and a total line of accessories. See full listing under Loudspeakers

Office Technologies, 4551 Bloomington Ave., S., Minneapolis, MN, 55407, 612-721-2457 President: Steven J. Orfield Vice President/Sales: Marianne Seitz Products: sound masking system components; 70 volt masking systems; master units with masking generator, amp and equalizer; 8-inch speakers in enclosures; power supply and power cables; speakers and enclosures for central systems. **District Offices:** 

Raleigh C. Ferry & Assoc., Inc., Buford, GA, 404-945-314;

Powertronix, 10623 Lawson River Ave., Fountain Valley, CA, 92708, 714-963-5411 President: Robert Gehlke Sales Mgr.: Bill Organ Products: self-contained 200 watt voice evacuation sys-

tem; 400 watt current drive distribution amplifiers with 24V 48VDC emergency back-up power capability; 24VDC mobile amplifier with three electronically-switched, prioritized inputs.

See full listing under Audio Amplifiers

Rane Corp., 6510 216th S.W., Mountlake Terrace, WA,

98043, 206-774-7309 V.P. Marketing: Larry Winter Dir. Tech. Dev.: Terry Pennington Products: graphic and parametric equalizers, real-time analyzers, headphone amps, active crossovers, program mixers, splitters, compressor/limiters. See full listing under **Audio Signal Processors** 

SonoMask Systems, Inc., 1130 Route 22 West, Mountainside, NJ, 07092, 201-232-7000 Products: noise masking components and systems.

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka Vice President: Bill Hooper

#### Controller: Cal Weddle

Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems.

See full listing under Pro Audio Sound Systems & Products

White Instruments, P.O. Box 698, Austin, TX, 78767, 512-892-0752, TLX: 776-409 INST AUS President: Carl Van Ryswyk Vice President: Shirley Van Ryswyk Mkt'g. Manager: Emory Straus Products: graphic equalizers, real-time analyzers, crossover networks & filters for audio applications, masking generators. See full listing under Audio Signal Processors

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### TELECONFERENCING SYSTEMS

Ansett Technologies, Inc., 7595 E. Gray Rd., Scottsdale, AZ, 85260, 602-483-2956

Auditel Systems Ltd, 78 Ashbridge Road, Chesham, Bucks, England, HP5 2PY, 0494-778 043

President: David A. Langtry

Sales Director: Tony Roberson

Products: conference communication systems including manual and computer controlled microphone systems. Audio systems cover input mixing switching systems and multi-channel distribution by cable, induction loop, and infra-red.

**District Offices:** 

Wood and Co., Buffalo, NY, 716-886-1615

Avtec Industries, Inc, 5 Audrey Pl., Fairfield, NJ, 07006, 201-882-9460

Products: Vantage Point<sup>™</sup> multi-media lecturn and Conferscan<sup>™</sup> boardroom conference table designed to record meetings (audio and video).

See full listing under A-Visual Equipment/Systems

Colorado Video, P.O. Box 928, Boulder, CO, 80306, 303-530-9580

Compression Labs Inc., 2305 Bering Dr., San Jose, CA, 95131, 408-435-3000 Products: video teleconferencing.

DIS-USA, 2831 15th St. NW, Washington, DC, 20009, 202-387-7934

President: Jack Cassell

Vice President: Michael Bier

Products: computerized microphone systems, simultaneous translation systems, computerized voting systems. Services include sales, engineering, installation, and rental of equipment and systems.

District Offices:

DIS Congress Service, Copenhagen, Denmark, 171-2244

Eby Co., 2751 Southampton Rd., Philadelphia, PA, 19154, 215-969-4200

FSR, Inc., 220 Little Falls Rd, Cedar Grove, NJ, 07009, 201-239-0988 President: William G. Fitzsimmons Vice President: Janice Sandri Engineering Mgr.: Joseph Fischer Production Mgr.: John Macaluso Service Dept.: Robert Allen

Products: boardroom control systems (digital, IR and hardwired); hotel audio combining systems; remote control modules for audio and video applications; custom engineering and metal products.

See full listing under Remote Controls

Gentner Engineering Co., Inc., 540 W. 3560 South, Salt Lake City, UT, 84115, 801-268-1117 President: Russell Gentner Sales Manager: Gary Crowder Marketing Manager: Elaine Jones Dir. of Engineering: William Gillman Sales Engineer: David Pedersen Products: teleconferencing system with high quality telephone audio; telephone interface products (couplers, hybrids); pre-wired audio patch panels; audio products (intercom, distribution amp, turntable preamp, timer, switchers). District Offices:

Gentner RF Products, San Jose, CA, 408-926-3400

Rauland-Borg Corp., 3535 W. Addison St., Chicago, IL, 60618, 312-267-1300 President: William Krucks Sr. V. P.: Kenneth T. James National Sales Manager: Rick Blunt Chief Engineer: Lawrence Gleason Products: amplifiers, preamplifiers, mixers, equalizers, inte coms, telephone systems, school communications systems, health care communications systems, professional sound systems, paging systems, AM-FM tuners, loudspeaker systems. See full listing under **Pro Audio Sound Systems & Products** 

Shure Brothers, Inc, 222 Hartrey Ave, Evanston, IL, 60202-3696, 312-866-2200 President: James Kogen V.P. Sales/Mkt'g: Richard Murphy Marketing Manager: Sandy Schroeder Sales: Tim Vear Sr. Product Cdr: Max Ann Buchanan Products: microphones and accessories, wireless microphone systems, mixers and related circuitry products, automatic microphone systems, compact sound reinforcement systems, teleconferencing systems. See full listing under **Microphones** 

Sound Control Technologies, Inc., 114A Washington Street, Norwalk, CT, 06854, 203-854-5701 President: Adolph Neaderland Sales/Mkt'g: David Neaderland Products: full duplex patented VOICELIFT<sup>™</sup> voice reinforcement and TELEPLEX<sup>™</sup> teleconferencing systems fo boardrooms, conference and training rooms and teleconferencing areas. Proprietary implant microphones for both plenum and non-plenum installations. District Offices:

Allwest Electronics, Comarillo, CA, 805-388-1789 Meyer Marketing, Deerfield Beach, FL, 305-481-9250

Unex, A Dynatech Company, 4 Kidder Road, Chelmsford, MA, 01824, 617-256-8222

Products: infrared professional sound system for churches, schools, nursing homes, and auditoriums; connects easily to existing audio systems for interference-free aid to the hearing-impaired who wear lightweight wireless receivers.

See full listing under Hearing Assistance Systems

Westell, Inc., 7630 Quincy St., Willowbrook, IL, 60521, 800-323-6883

Products: audio teleconference bridges, terminals, and speakerphones for customer, premise or central office use.

## TELEPHONE SYSTEMS -KEYPHONES

Plant Equipment Inc., 28075 Diaz Rd., Temecula, CA, 92390, 714-676-4802

Telepath Industries, Inc., 3361 Melrose Ave., N.W., Roanoke, VA, 24017, 703-982-8844 Products: key system intercoms; PBX paging adapters; code-call units, complete line of 1A2 key enhancement products.

TIE/Communications Inc., 5 Research Dr., Shelton, CT, 06484, 203-926-2000

TN Communications Corp., 42-15 Crescent St., Long Island City, NY, 11101, 718-729-9400 Vice President: R. A. Humphrey Vice President: W. J. Strauss Products: key telephone systems, PBX, intercom systems, stock trader turrets.

Toshiba America, Inc., Telecommunications Systems Div., 2441 Michelle Dr., Tustin, CA, 92680, 714-669-5197 Products: the Strata series of electronic key systems that serves 2 to 56 users; microprocessor-based stored program control technology provides an abundance of features.

Unistrut, GTE Prod. Corp., 35005 Michigan Ave. W., Wayne, MI, 48184, 313-721-4040

V-Band Systems, Inc., 5 Odell Plaza, Yonkers, NY, 10701, 914-964-0900

Products: electronic key telephone systems for the financial community, 911 applications, load control centers and military communications.

Walker Telecommunications Corp., 200 Oser Avenue, Hauppauge, NY, 11788, 516-435-1100 President/CEO: Burt Walker

Products: programmable electronic key system combining a wide range of standard and advanced features with unique modular expansion capabilities that allow it to grow from 6 lines and 12 phones to 30 lines and 60 phones in two easy, add-on steps. Also, WALKER MVP voiceprocessing system that provides voice-mail and messaging on an individual basis.

Walker Telecommunications Corp. of Canada, Ontario, CN, 416-477-0395

## TELEPHONE SYSTEMS -PBX

Digital Sound Corp., 2030 Alameda Padre Serra, Santa Barbara, CA, 93103, 805-569-0700 Products: digital sound 2000.

Harris Digital Telephone Systems, 1 Digital Dr., Novato, CA 94948, 415-472-2500

Inter-Tel, Inc., 6505 W. Chandler Blvd., Chandler, AZ, 85226, 602-961-9000

Mitel, Inc., 5400 Broken Sound Blvd. N.W., Boca Raton, FL, 33431, 305-994-8500 Products: telecommunications equipment & PBX.

Siemens Communications Systems, Inc., 5500 Broken Sound Blvd., N.W. Boca Raton, FL, 33431, 305-994-8100

Solid State Systems, Inc., 1990 Delk Industrial Blvd., Marietta, GA, 30067, 404-423-2200

Teledial Devices Inc., 125 Schmitt Blvd., Farmingdale, NY, 11735, 516-293-8400 Products: PBX and centrix feature phones, secured memory phones, restriction and courtesy phones. Automatic memory dials-DTMF and Pulse; toll restriction dials-DTMF and Pulse; Pulse dials with last number recall; solid state tone dials; automatic single number dials, data/voice phone and data sets.

TIE/Communications Inc., 5 Research Dr., Shelton, CT, 06484, 203-926-2000 See full listing under **Telephone Systems - Keyphones** 

Tone Commander Systems, Inc., 4320 150th N.E., Redmond, WA, 98052-1039, 206-883-3600 Products: PBX and Centrex answering consoles, small business PBX's multi-link intercoms and key systems and enhancement products.

Toshiba America, Inc., Telecommunications Systems Div., 2441 Michelle Dr., Tustin, CA, 92680, 714-669-5197 Products: the Strata series of electronic key systems that serves 2 to 56 users; microprocessor-based stored program control technology provides an abundance of quality features.

See full listing under Telephone Systems - Keyphones

# TELEPHONE SYSTEM PERIPHERALS

ACS Communications, 250 Technology Circle, Scotts Valley, CA, 95066, 408-438-3833 (in CA), 800-538-0742 President: AI Butcher Executive V.P.: Phil Gattey V.P. Sales: Kurt Siem V.P. Consumer: George Poston Products: pioneer line of ultra-light wireband and contour (over-the-ear) telephone headsets, the newest model is the MicroSet<sup>™</sup>, a minicontour weighing less than 1/5 oz.; units available with connectors compatible with virtually any telephone made today; TelecTret II™ designed specifically for the business user in mind. **District Offices:** Dana Ahern, Quincy, MA, 617-770-9914 Skip Hill, Lonoke, AR, 501, 843-7310 Rod Cur, Denver, CO, 303-322-3646 John Oehler, Maraga, CA, 415-283-5244 Al Gary, Wash. D.C., 202-479-2242

Alaun Engineering, 2305 Florencita Drive, Montrose, CA, 91020, 818-957-0618 President: Al Braun Marketing: M. E. Antoniak

Advertising: M. Kringen

Products: earphone listening system with automatic volume control for industrial or educational use to furnish data, or entertainment to personnel working at fixed locations or in noisy areas.(i.e. at computer terminals, machines and consoles). Complete multi-channel system.

Audicom, Inc, 8100 Oak Lane Penthouse 401, Miami Lakes, FL, 33016, 305-825-4653 President: Ron Deblinger Director of Operations: Art Hecht Director of Mkt'g: Stuart L. Ginsberg Products: promotions on hold - customized messages with music that callers hear while they wait "on hold."

Telephone system peripherals including digital announcers, multi-line announcers and interactive voice-response systems.

District Offices:

Audiocom, Inc., New York, NY, 212-688-9654 Audiocom, Inc., Chicago, IL, 312-498-2255 Audiocom, Inc., Houston, TX, 713-589-0484

Automation Electronics Corp, 11501 Dublin Blvd., Dublin, CA, 94568, 415-828-2880

BFI Communication Systems, Inc, 1806 Robert Fulton Dr., Suite 210, Reston, VA, 22090, 315-735-9526, 800-654-5097

Products: network access and System 4000 Teleflex (telephone enhancement product), Call DATA/TRAC (stand-alone call accounting system).

Buscom Systems, Inc, 490 Gianni St., Santa Clara, CA, 95054, 408-988-5200

Products: telephone CPE equipment, auto dialer, and call extenders.

Butler National Corp., 8246 Nieman Rd., Lenexa, KS,

66214, 913-888-8585 Products: automatic dialing.

Cambridge Electronics Laboratories, 20 Chester St., Sommerville, MA, 02144-3005, 617-629-2805 President: Dr. Jeffrey Race Sales Manager: Charlotte Bissell Products: telecom accessories including PABX/Key System music-on-hold source, mini telephone ringing generator, and Quiklink™ self-contained automatic ringdown unit for office, residence, and security use as a "hotline" and sales/trade-show use as a CO line simulator.

CEAC, Inc, 15 Hunter Loop Rd., Montgomery, AL, 36108 205-263-2311

Products: telephone systems/operator ridges.

Ceeco, 1580 NW 65th Ave., Plantation, FL, 33313, 305-587-5430 Products: autodialer.

Cetec Raymer, 7315 Fulton Ave., N. Hollywood, CA, 91605, 213-875-0423 President: Hugh T. Wilcox Products: audio equipment for paging, background music and sound systems, including amplifiers, tuners, receivers test equipment, telephone interconnect devices and accessories. Direct connection telephone trunk and station access paging devices.

See full listing under Paging Systems

Command Communications, Inc., 800 E. Girard, #416, Denver, CO, 80231, 303-750-6434 Products: message alerting.

Dacon Electronics, 8 Industrial Ave., Upper Saddle, NJ, 07458, 201-825-4640 President: Daniel J. Connelly V. P. Marketing: James N. Taylor Technical Support: Rick Herburger Products: call sequencers answer and hold calls in queue, are compatible with all major telephone/PBX systems and feature a comprehensive management data package. The DART Automatic Receptionist is a single port unit with many features and a cost under \$1000 each. **District Offices:** Dacon Electronics, McLean, VA, 703-883-0770 Dacon Electronics, Cypress, CA, 714-527-9222 Jeff Beyer, Minneapolis, MN, 612-536-9154 Gary Low, Laguna Beach, CA, 714-494-7903 Joan Beachner, Arlington, VA, 703-671-0892

Doorking, 929 W. Hyde Park Blvd., Inglewood, CA, 90302 213-673-3299, 800-826-7493 Products: electronic gate and teleanswering.

ETC, 64 Addison Rd., Glastonbury, CT, 06033, 203-633-3188 Products: implant microphones.

Harris Corporation, Dracon Division, 809 Calle Plano, Camarillo, CA, 93010, 805-987-9511 V.P. Gen'l. Mgr.: John R. Mason Dir., Domestic Sales: Tom Erdmann Chief Engineer: Tom Durston V.P. Sales & Mkt'g.: Jack McGuigan Products: PAGEPAC telephone integrated loudspeaker paging voice systems, linemen's test sets, craft tools, extensive line of relay racks. See full listing under **Paging Systems** 

Information Dynamics Corp., 1251 Exchange Drive, Richardson, TX, 75240, 214-783-8090 President: Chuck Friedman V. P. Engineering: Dan Power Products: busy visual displays, line status indicators, centrex displays, wall displays, stations and trunk displays in all sizes to 240 stations.

International Tapetronics/3M, 2425 S. Main St., P.O. Box 241, Bloomington, IL, 61702, 309-828-1381, 800-447-0414

Marketing Manager: Bob Bomar Sales Manager: Chuck Kelly

Sales Rep.: John Schaab

Sales Rep.: Tom Becker

Sales Rep.: Jim Woodworth

Products: digital and analog tape cartridge systems, audio routing switchers, telephone answering interfaces and accessories.

# See full listing under Magnetic Tape Systems & Supplies

Itera Ltd., 73 E. Merrick Road, Freeport, NY, 11520, 516-379-4333

Products: accessories for audio/video and telephones.

ITW Linx, 195 Algonquin Rd., Des Plaines, IL, 60016, 312-296-5469

Products: 66 black terminal component, backboard systems protector.

Melco, A Division of Telzon, 1600 132 Ave. NE, Bellevue, WA, 98005, 206-462-6700 Products: telecommunications.

Metro-Tel Corp., 485-13 So. Broadway, Hicksville, NY, 11801, 516-937-3420 President: Venerando Indelicato Sales Manager: Steve Shelton Dir. of Eng.: Don Bellenger Products: telecommunications test sets and customer premise equipment. District Offices: DDI/Buscom, Santa Clara, CA, 408-988-5200

Microvoice Corp., 5 Vanderbuilt, Irvine, CA, 92718, 714-859-1091 Products: apex call processor, voice center and voice mail system.

Nevada Western, 930 W. Maude Ave., Sunnyvale, CA, 94086-2801, 408-737-1600 Products: voice data connection systems.

Plantronics, Inc., 1762 Technology Dr., Suite 225, San Jose, CA, 95110, 408-426-5858 R/DC, 920 Holt Road, Webster, NY, 14580, 716-872-2100 Products: Teletrek II, Directory Plus/I.

Raven Electronics Corp., 400 Wolverine Way, Sparks, NV, 89431, 702-359-3700

V.P. & GM Carl A. Dawson Market Manager: Dave Young

Sales Manager Mil/Gov: Don Chandler

CE Wook Shim

Sr. App. Engineer: Dave Giannotti

Products: Order Wire (engineering service channel) systems, Alarm Reporting and Remote Control systems, and Voice Frequency Switching products for use with microwave radio systems, carrier systems, and fiber optic transmission systems. There are many optional features available with the Order Wire systems for specialized applications.

Ritron, Inc., 148 W. Carmel Dr., P.O. Box 1998, Carmel, IN, 46032, 317-846-1201 Products: electronic telemetry, repeaters and walkie talkies.

Tele-Assemblies, 4 Ferndale Ave., Miller Place, NY, 11764, 516-744-7433 Products: code call unit, telephone relay control, custom telephone circuits.

Telephone Dynamics Corp., 2473 Jerusalem Ave., Box 514, North Bellmore, NY, 11710, 516-221-9870 President: Leonard E. Young V. P. Operations: Joseph Borg Products: telephone answering and computerized dialing units - armored telephone headsets.

Telephonic Equipment Corp., 17401 Armstrong Ave., Irvine, CA, 92714, 800-854-8269 President: Henry McNulty V.P. Marketing/Sales: Gary Sprouse Inside Sales Manager: Bill Barbarick Products: call sequencers, ACD's, automated operators, and teleconferencing equipment. Specialize in engineering and custom design plus national installations and service.

Teltone Corporation, 10801 120th Ave. NE, Kirkland, WA, 98036, 206-827-9626 Products: T-310 telephone accesss unit - RS232-C compatible controller for telephone lines, allowing computers to answer/originate calls, send/receive DTMF signals, couple audio sources onto lines.

TIE/Communications Inc., 5 Research Dr., Shelton, CT, 06484, 203-926-2000 Products: See full listing under **Telephone Systems -Keyphones** 

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: Engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems.

# See full listing under Pro Audio Sound Systems & Products

Viking Electronics, Inc., PO Box 362, 1531 Industrial St., Hudson, WI, 54016, 715-386-8861
President: Lee Berghoff
Vice President: Mary Martin
Chief Engineer: Don Springer
Sales Manager: Roy Crist
Products: door box, DTMF relay closer, paging products, digital announcers, call sequencers, and auto attendants.
District Offices:
Graybar Electronics; all major cities, local listings
North Supply, Industrial Airport, KS, 913-791-7000
Wheelock, Inc., 273 Branchport Ave., Long Branch, NJ, 07740, 201-222-6880, FAX: 201-222-8707
President: P. W. Tarlton

V.P. Mktg/Sales: W.L. Goldstein V.P. Engineering: Stephan W. Andrews

Market Mgr. Tel./Paging: Art Arlow

Market Mgr. Life Safety/Ind.: Rein Haus

Products: audible/visual signalling devices for life safety, alarm, industrial, and telephone systems applications. Paging systems for telephone system access. Products include bells, horns, speakers, strobes, chimes, speaker amplifiers, talk-back speakers, zone controls & power supplies.

See full listing under Alarm & Security

# TEST EQUIPMENT & TOOLS

3M Minicom Div., Ind. Instrumentation, 3M Center, St. Paul, MI, 55101, 612-733-1110

A&D Engineering, Inc., 1555 McCandless Dr., Milpitas, CA, 95035, 408-263-5333 Products: FFT-Spectrum Analyzers.

A.W. Sperry Instruments Inc., 245 Marcus Blvd., Hauppauge, NY, 11788, 516-231-7050 President: Fred Malawista V. P. Sales/Mkt'g: Dennis W. Carroll Controller: Rebecca Bellinato Engineering Mgr.: Ed Grenzit Assistant to V. P.: Roseann Bedell Products: broad line of electrical and electronic test equipment including digital multimeters oscilloscopes, snap arounds, analog multimeters and accessories for all of the above.

Acoustilog, 19 Mercer St., New York, NY, 10013, 212-925-1365

Products, impulser, RT60 meter, and accessories.

CA, 91360, 805-529-2496 Products: audio tape diagnostics.

Amber Electro Design, Inc., 4810 Jean Talon West, Montreal, Canada, H4P 2N5, 514-735-4105, US 800-361 3697

President: Wayne Jones

Products: 3501 portable audio generator and distortion analyzer, and 5500 Programmable Audio Measurement System a computer-based audio generation and measurement system for level, power, noise, distortion, crosstalk and frequency measurement.

American Reliance Inc., 9241 E. Valley Blvd., Rosemead, CA, 91770, 818-287-8400 Products: digital multimeter.

Anatrol Corp., 10895 Indeco Dr., Cincinnati, OH, 45241, 513-793-8844 Products: FFT, acoustics, and noise and vibration control software.

Apogee Electronics Corp., 1517 20th ST, Santa Monica, CA, 90404, 213-828-1930 Products: realtime analyzers, and digiatally-controlled metering systems.

Asaca/Shibasokui, 12509 Beatrice St., Los Angeles, CA, 90066, 213-827-7144, 800-423-6347

Audio Control Industrial, 6520 212th St Southwest, Lynnwood, WA, 98036, 206-775-8461 President: Thomas E. Walker Products: SA-3050A third octave real time spectrum analyzer with 6 memories, memory averaging, peak hold; pink noise generator, SPL bar graph and digital SPL display, printer interface and internal battery pack optional, calibrated microphone included.

Audio Precision, Inc., PO Box 2209, Beaverton, OR, 97075, 800-231-7350 President: Bob Metzler Prod. Mkt'g. Mgr.: Adolfo Rodriquez Products: System One audio test system for harmonic and intermodulation distortion, amplitude & noise, phase, frequency, and wow & flutter, with instant graphic display of test results on IBM-PC® compatible.

Audioanalyse Instruments, Rue de la Fontaine Z.I. Beaucouze, Angers, France, 49000, (41)-48.84.30

AVNC/Instrument Division, 250 Shagbark Dr., RD #1, Cheswick, PA, 15024, 412-265-4444 Products: sound intensity measurement equipment, and calibrated plane wave tube systems.

B & B Systems, Inc., 28111 N. Avenue Stanford, Valencia CA, 91355, 805-257-4853 Products: metering systems.

Banner, P.O. Drawer 1803, Shelby, NC, 28150, 704-487-7012 Products: realtime analyzers.

Altair Electronics Inc., 1694 Calle Zocalo, Thousand Oaks,

BBC-Metrawatt/Goerz, 2150 W. 6th Ave., Broomfield, CO

World Radio History

80020, 303-469-5231, 800-821-6327 General Manager: Daric Jarvis Marketing Manager: Brad Seavov Sales Manager: Erik Pfanku Products: high-frequency waveform recorders and digital storage oscilloscopes with integrated hardcopy; strip chart recorders; XY-recorders and 8-pen digital plotters; analog and digital multimeters; analog oscilloscopes. Beckman Ind., Instrumentation Div., 630 Puente St., Brea, CA, 92621, 714-773-8111 Products: full-line measuring instruments. Boonton Electronics Corp., 791 Rt. 10, Randolph, NJ. 07869. 201-584-1077 Products: full-line measuring instruments. Bruel & Kjaer Instruments, Inc, 185 Forest St., Marlborough, MA, 01752, 617-481-7000 President: G. Perry V. P. Sales: G. Michel Products: studio microphones; electroacoustic, building acoustic test and measurement equipment, real time analyzers, speech transmission meter/receiver, sound level meters, etc. **District Offices:** Bruel & Kjaer, Livonia, MI, 313-522-8600 Bruel & Kiaer, Hoffman Estates, IL, 312-358-7582 Bruel & Kjaer, Anaheim, CA, 714-978-8066 Bruel & Kjaer, Marietta, GA, 404-422-5200 Bruel & Kjaer, West Caldwell, NJ, 201-227-6100 Celestial Software, Inc., 125 University Ave., Berkeley, CA, 94710, 415-420-0300 Cetec Ivie, 1366 West Center St, Orem, UT, 84057, 801-224-1800 President: Craig Berry Mkt'g Manager: Glen Meyer Production Manager: Larry Driskill Products: a complete line of modular sound reinforcement electronics including mixers, equalizers, amplifiers, etc. We also have a line of octave & 1/3 octave hand-held real time analyzers and stand alone automatic microphone mixers. See full listing under Audio Signal Processors Chadwick Helmuth, 4601 N. Arden Dr., El Monte, CA, 91731, 818-575-6161 Products: vibration analysis control. Communications Co., Inc, 3490 Noell St., San Diego, CA, 92110, 619-297-3261 Products: programmable two-way intercom amplifier w/vox., media distribution amplifier, projector patch, room combining systems, record patch, RT-60 reverberation measuring device, burst octave noise generator, 1/3 octave real time analyzer, 27 B.I.T. oscillosope adapter, audio CA, 92675, 714-493-8181 inductive loop receivers. See full listing under Intercom Institutional/School Cyborg Corp., 55 Chapel St., Newton, MA, 02158, 617-964-9020

Products: FFT instrumentation for acoustics.

Dallas Instruments, Inc., 10205 Plano Rd., Dallas, TX, 75238, 800-527-7071

Data Check Corp., 9918 Via Pasar, San Diego, CA, 92126. 619-578-0101 Products: instrumentation for tape recorders.

Data Physics Corp., 1210 S. Bascom Ave., Suite 224, San Jose, CA, 95128, 408-977-0800 Products: FFT intrumentaion for acoustics.

Data Precision, Div. Analogic, Electronics Ave., Danvers, MA, 01923, 617-246-1600

Datacraft, Inc., 13714 S. Normandie, Gardena, CA, 90249, 213-321-2320

Davis Instruments Mfg. Co., Inc., 513 E. 36th St., Baltimore, MD, 21218, 301-243-4301

DAX Audio Group, Inc., 1231 S.E. Gideon St., Portland, OR, 97202, 503-232-4445 President: Rich Stevenson Engineering Manager: Bob Herb Products: graphic equalizers, 31-bands, dual 15-band, and dual 31-bands; mixing consoles from 8x2 to 32x8; powered mixers in 6 and 8 channels; real-time analyzer; amplifier; crossover. See full listing under Mixers & Mixing Consoles

dbx, Div. of BSR North America, Ltd., 71 Chapel St., Newton, MA, 02195, 617-964-3210 Sales Mgr., Pro/OEM Products: John Stiernberg Dir. of Prod. Development: Scott Berdell V.P. Engineering: Les Tyler V.P. Sales: Jim Tipton President: A.J. Menozzi Products: patented noise reduction equipment, compressor/limiters, de-essers, noise-gates, RTA-1 real-time analysis system, equalizers, signal routing and processing equipment; patented OEM components, and licensed technology; digital signal processors. See full listing under Audio Signal Processors

DSP Development Corp., One Kendall Square, Cambridge, MA, 02139, 617-577-1133

Dunegan Div., Physical Acoustics Corp., 19-B Thomas St., Irvine, CA, 92718, 714-380-1544

Dynamic Software Systems, 6272 Guyson Ct., Pleasanton, CA, 94566, 415-484-1111

Eaton Corp., 1199 S. Chillicothe Road, Aurora, OH, 44202, 216-562-9111

Endevco, 30700 Rancho Viejo Rd., San Juan Capistrano,

Four Designs Co., 6531 Gross Ave., Canoga Park, CA, 91307, 818-716-8540 Products: studio rackmount furniture units, portable plastic rack units, cable testers, mic splitters, audio cable adapters. See full listing under Cabinets, Furniture, Cases, & Racks

GenRad Inc., 300 Baker Ave., Concord, MA, 01742, 617-369-4400

Products: full-line of instrumentation from SPL meters to dual-channel FFT analyzers.

GHI Systems, Inc., 916 N. Western Ave., 201, San Pedro, CA, 90732, 213-548-6544

Products: integrated test systems, shock and vibration analyzers & door alarms.

Gold Line, P.O. Box 115, W. Redding, CT, 06896, 203-938-2588 President: Martin E. Miller

V.P. Marketing: Marj Miller

Products: 10-band and 1/3-octave real-time analyzers, Loft Professional crossovers and quad-gate limiters, and Loftech audio test sets.

See full listing under Pro Audio Sound Systems & Products

Grozier Technical Systems, Inc., 157 Salisbury Rd., Brookline, MA, 02146, 617-277-1133 President: Richard G. Cann Products: sound level monitoring systems for recording and controlling sound levels. Impulsive noise sources and signal processing instrumentation.

Gulton Industries/Servonic Div., 1644 Whittier Ave., Costa Mesa, CA, 92627, 714-642-2400 Products: transducers, measurement and control.

Harris Corporation, Dracon Division, 809 Calle Plano, Camarillo, CA, 93010, 805-987-9511 V.P. Gen'l. Mgr.: John R. Mason Dir., Domestic Sales: Tom Erdmann Chief Engineer: Tom Durston V.P. Sales & Mkt'g.: Jack McGuigan Products: PAGEPAC telephone integrated loudspeaker paging voice systems, linemen's test sets, craft tools, extensive line of relay racks. See full listing under Paging Systems

Heath Co., Hilltop Road, St. Joseph, MI, 49085, 616-982-3200 Products: diverse electronic test equipment.

Hewlett-Packard Co., 1820 Embarcadero Rd., Palo Alto, CA, 94303

Products: full-line of instrumentation from signal generators, oscilloscopes, to dual-channel spectrum analyzers, plotters, and computers.

Hitachi Denshi America Ltd., 175 Crossway Park West, Woodbury, NY, 11797, 516-921-7200, 800-824-9751 Products: oscilloscopes.

Hoffend & Sons, Inc., 34 E. Main St., Honeoye, NY, 14471, 716-229-5998 Products: stress and load meter.

Honeywell Test Instruments Div., PO Box 5227, Denver, CO, 80217, 303-773-4700 Products: dual-channel spectrum analyzers. 92643, 714-539-7842 President: William Elder V. P.: Douglas Evered Products: Audio Signal Analyzers, PC-based Models 401 and 416-2a single and dual channel; Reference Microphones - Model 302, 20-20kHz; Model 312, 5-40kHz; Arbitrary Waveform Signal Generator - Model SSM-1; Audi Analysis FFT Software - Spectrum Analyst Pak 1® Signal Analyst Pak®.

Iwatsu America, Inc., 430 Commerce Blvd., Carlstadt, NJ, 07072, 201-935-8580 Products: oscilloscopes.

Jensen Tools, Inc., 7815 S. 46th St., Phoenix, AZ, 85044 602-968-6241 President/Gen. Mgr.: Arnold Schwartz Sales Manager: Herb Oberman

Prod. Engineer Mgr.: Sherman Jensen Products: electronic tools, tool kits, test equipment for service, maintenance and repair of electronics, telecommunications, and computer equipment.

Jensen Transformers, Inc., 10735 Burbank Blvd., N. Hollywood, CA, 91601, 213-876-0059 President: Deane Jensen Products: audio transformers, microphone preamplifiers-Jensen Twin Servo 990, power amplifiers-Boulder 500, 160, Opamps-990-C, software-circuit simulation for HP desktops.

See full listing under Audio Amplifiers

John Fluke Mfg. Co., Inc., P.O. Box 9090, Everett, WA, 98206 Products: full-line of hand-held and bench-top instrumentation.

Kay Elemetrics Corp., 12 Maple Ave., Pine Brook, NJ, 07058, 201-227-2000 President: John M. Crump SalesMgr.: Stephen Crump Dir. Engineering: Bill Harbeson Purchasing Agent: Marsden Shaw Dir. of Advertising: Cathy Ditzig Products: acoustic analysis equipment. DSP Sonagraph™ analyzes speech signals in real time on a color display monitor, narrow and wide-band spectrographic analysis. Visi-Pitch® clinical biofeedback tool used in speech evaluation training. District Offices:

Mark V, Mountainview, CA, 415-964-6275

Keithley Instruments Div., 28775 Aurora Rd., Cleveland, OH, 44139, 216-248-0400 Products: full-line of hand-held and bench-top instrumentation.

Kinemetrics/TrueTime, 3243 Santa Rosa Ave., Santa Rosa, CA, 95407, 707-528-1230 VP/General Manager: John vanGroos Sales Manager: Rick Dielman Engineering Manager: Ed Petroka Production Manger: Gerry Wilson Purchasing Agent: Chuck Hundley Products: synchronized digital clocks and frequency com-

parators, receiving signals from NBS (National Bureau of

IQS, Inc., 12812-J Garden Grove Blvd., Garden Grove, CA,

Standards) & US Naval Observatory (WWV, WWVH, WWVB, OMEGA, GOES, GPS, MSFIDCTI). Provide accu- rate time worldwide.	Music Supply Co., Inc., 809 N. Madison, Dallas, TX, 75208, 214-946-8450, 800-527-1522 President: W. E. Brown
Krohn-Hite Corp., 255 Bodwell St., Avon, MA, 02322, 617-580-1660 Products: generators, filter, and amplifiers for precision measurements.	Sales: Betty Brown Products: installation and service aids for the sound con- tractor and background music operator. See full listing under Hardware & Tools
Larson-Davis Laboratories, 280 S. Main, Pleasant Grove, UT, 84062, 801-785-6352 Products: complete line of hand-held SPL meters, noise	N. A. Soar Corp., 1126 Cornell Avenue, Cherry Hill, NJ, 08002, 609-488-1060 Products: hand-held, battery-powered, portable LCD oscilloscope, strip-chart recorders, and multimeters.
measurement equipment, and accessories.	Nicolet, Oscilloscope Div., 5225 Verona Rd., Madison, WI,
Leader Instruments Corp., 380 Oser Ave., Hauppauge, NY, 11788, 516-231-6900 Products: full-line of measuring instruments and oscilloscopes.	53711-0288, 608-273-5008 Products: oscilloscopes, digital oscilloscopes, and line of spectrum analyzers.
Leasametric Instrument Rental Division, 1164 Triton Dr., Foster City, CA, 94404, 800-553-2255 General Manager: Rick Warp	Non-Linear Systems/Div. of Kaypro Corp., 533 Stevens Avenue, Solana Beach, CA, 92075, 619-481-4300 General Manager: Ben Fisher Products: portable electronic test equipment and digital
Product Manager: Mike Nelson Products: rental, leasing, and used sales of electronic test	panel meters.
test equipment, microprocessor development systems, logic analyzers, technical desktop computers, and person-	Norland Corp., Norland Dr., Fort Atkinson, WI, 53538, 414- 563-8456 Products: spectrum analyzers.
al computers. District Offices: Leasametric, Foster City, CA, 800-553-2255	Panasonic Ind. Co., Instrumentation Dept., Two Panasonic Way, Secaucus, NJ, 07094, 201-392-4050
Leasametric, Media, PA, 800-553-2255 Leasametric, Gaithersburg, MD, 800-553-2255	Department Mgr.: Frank Orrow Accounts Mgr: Dan Pallas
LEQ Measurements Ltd., 175 Advance Blvd., Brampton, Ontario, Canada, 12, 416-791-3440	Accounts Mgr: Howard Anderson Products: analog and digital oscilloscopes, Logic analyz- ers, FFT analyzers, Signal generators, Audio analyzers. District Offices:
MetraByte Corp., 440 Myles Standish Blvd., Taunton, MA 02780, 617-880-3000 President: Dr. B.W. Philips	
V.P. Operations: John Powderly V.P. Marketing: Robert Judd V.P. Sales: Bendrix Bailey	Princeton Applied Research, PO Box 2565, Princeton, NJ, 08540, 609-452-2111 Broducto: spectrum analysis systems
Products: a wide variety of data acquisition, industrial con- trol, and communications interfaces for the IBM	Products: spectrum analysis systems. Quest Electronics, 510 S. Worthington St., Oconomowoc,
PC/XT/AT®, and VME Bus computers.	WI, 53066, 414-567-9157 V.P./General Manager: Robert J. Wurm
Metrosonics, Inc., PO Box 23075, Rochester, NY, 14692 716-334-7300	Ass. Manager: Rita Suechting 'National Sales Manager: Paul James Products: complete line of sound measuring and analyzing
Products: sound measurement.	instruments, and the Silent Page Assistive Listening Device for the hearing impaired.
Multigon Industries, Inc., 559 Gramatan Ave., Mt. Vernon, NY, 10522, 914-664-7300 V. P. : William Stern	Quest Electronics, Baltimore, MD, 301-252-3347 Quest Electronics, Atlanta, GA, 404-979-6281
Norman Fayne Robert Frumm Fishel Botnick	Quest Electronics, Los Angeles, CA, 714-836-5087 Rapid Systems, 433 N. 34th St., Seattle, WA, 98103, 206-
Bernard Miller Products: Uniscan II, an all digital Fast Fourier (FFT) real	547-8311 President: John Overbeck
time spectrum analyzer with a built-in frequency time history display for spectrum analysis of noise, vibration, and au dio analysis of telephone systems. It is ideal for audio sig-	- V.P. Marketing: Bo Ray
nal processing. District Offices: William Stern, Mt. Vernon, NY, 914-664-7300	Products: PC-based digital storage oscilloscopes and real- time spectrum analyzers in the audio range; low-cost easy to use, with screen display on your computer monitor; save

to disk and hard-copy functions. Simpson Electric Co., 853 Dundee Ave., Elgin, IL, 60120, **District Offices:** 312-697-2260 EIL Instruments, Sparks, MD, 301-771-4800 President: H. B. Washburn Cascade Control, Oyster Bay, NY, 516-922-0071 Secretary/Treasurer: D. S. Anderson ASI Assoc., Ann Arbor, MI, 313-663-3733 Director of Marketing: M. J. Scala Director of Engineering: J. C. Reich RC Electronics Inc., 5386 Hollister Ave., Santa Barbara, Products: electronic test equipment. Analog and digital in-CA, 93111, 805-964-6708 dicating instruments. Products: digital oscilloscopes, AD converters, plug in **District Offices:** board data acquisitions for IBM computers. Simpson Electric Co., Downey, CA, 213-862-4259 Simpson Electric Co., Great Neck, NY, 516-482-3103 RE Instruments, 31029 Center Ridge Rd., Westlake, OH, Seacom Sales Co., Lauderdale Lakes, FL, 305-486-0260 44145, 216-871-7617 Sola, A Unit of General Signal, 1717 Busse Road, Elk President: Joergen Voldby Grove Village, IL, 60007, 312-439-2800 Applications Engineer: Steve Watts Advertising Manager: T. Zavesky Products: automated audio test systems for tape & tape Solartron Instruments, Two Westchester Plaza, Elmsford, recorder testing, transmission link testing, and car audio NY, 10523, 914-592-9168 testing. RF signal generators for AM stereo, FM stereo, and FMX, RDS, and MTS test equipment. Soltec Corp., Sol Vista Park, San Fernando, CA, 91340, 818-365-0800 Rockland Scientific Corp., 10 Volvo Dr., Rockleigh, NJ, President: Marvin Solomon 07647, 201-767-7900 V.P. Sales E. Region: Byron McIntire Products: line of spectrum analysis equipment for noise V.P. Sales W. Region: Gary Paiser and vibration, speech, and acoustics work. Products: high-performance test & measurement instruments for industries world-wide including high-/low-fre-Rohde & Schwarz-Polarad Inc., 5 Delaware Dr., Lake quency recorders, digital waveform recorders, and data acquisition systems. Success, NY, 11042, 516-328-1100 Scantek Inc./Norwegian Electronics, a/s, 1559 Rockville Sound Technology, 1400 Dell Ave, Campbell, CA, 95008, Pike, Rockville, MD, 20852, 301-468-3502 408-378-6540 President: Richard J. Peppin, P.E. President: John E. Williamson Service Manager: Gary Fraiman V. P. Engineering: Robert A. Anderson Business Manager: Susan Yardin V. P. Sales and Mkt'g: W. Kent McGuire Products: precision electronic instrumentation for sound Sales and Mkt'g: Cindy Alderson analysis and measurement, includes real-time analyzers, Products: a full line of professional audio test systems for automatic spectrum shapers, building acoustic instrudistortion analysis, tape recorder testing, MTS stereo anaments. lyzers, programmable transmission testing and multi-chan-See full listing under Audio Signal Processors nel switchers. Features include CRT read-outs, hard copy test results, choice of stand-alone operation or standard Scientific-Atlanta, Spectral Dynamics Div., PO Box 23575, computer interface buses. San Diego, CA, 92123, 619-268-710 District Offices: Products: spectrum analyzers. Sound Technology Midwest Office, Hanover Park, IL, 312-289-8419 Scott Instrument Laboratories, 13 Sagamore Rd., Hudson, Funke & Assoc., Campbell, CA, 408-866-0648 NH, 03051, 800-343-0683 Hartmann Assoc., Union, NJ, 201-850-3750 Atlantic Marketing Services, Matthews, NC, 704-542-3380 Sencore, 3200 Sencore Dr., Souix Falls, SD, 57107, 605- Charles Lucas Sales Company, Dallas, TX, 214-330-8181 339-0100 Products: full-line of instrumentation for audio, electronics. Speco Div., Components Specialties, Inc., 1172 Rt. 109, CCTV, and video work. P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516 Shigma, Inc./Ono Soki C. Ltd., 80 Martin Ln., Elk Grove President: Louis W. Keller Village, IL, 60007, 312-640-8640 V.P. & General Manager: James J. Ganci V,P,/Sales & Marketing: Mel Hulkower Products: spectrum analyzers. Regional Sales Manager: Eric Forman SIGnology, 1750 Silacci Dr., Campbell, CA, 95008, 408-Regional Sales Manager: Bruce Kurtz Products: 60 watt PA amplifier with AM/FM tuner & auto re-374-6464 ceiver cassette, 45 watt PA amp with amplifier tuner; com-President: Bill Huber plete line of PA amplifiers; complete line of 8" speakers Sales Manager: Dick Benson Products: fourier and spectrum analysis systems used to w/transformers & grilles; wall baffles & wall baffle assemexcite and measure the frequency response of; sound blies, outdoor/indoor, background/foreground enclosed processing systems, electrical networks, speakers, and speakers w/25/70V transformers; high-tech ceiling grille, microphones, and measure room acoustics, and auditorisound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers, um equalization.

attenuators, microphones, & intercoms. See full listing under Audio Amplifiers

SPM Instrument Inc., 359 N. Main St., Marlborough, CT, 06447, 203-295-8241

Structural/Kinematics Corp., 950 Maplelawn, Troy, MI, 48084, 313-643-4622



**Techron, div. of Crown International, Inc.**, 1718 W. Mishawaka Rd., Elkhart, IN, 46517, 219-294-8300 TEF Product Specialist: Larry J. Shank Products: TEF Acoustic Analyzer measures time of arrival, RT60, ALcons; simulates anechoic frequency response, and phase response; generates group-delay, polar plots, and impedance measurements. Can also function as DVM, SPL meter, function generator, and oscilloscope. District Offices:

Aim Marketing Group, Mishawaka, IN, 219-256-2025 Audio Marketing Assoc., Brecksville, OH, 216-526-2426 Audio Resources. Westmont, IL. 312-655-1180 Bensik Assoc., Inc., Ocala, FL, 904-732-9775 Darmstedter Assoc., Baldwinsville, NY, 315-638-1261 Dobbs-Stanford Corp., Dallas, TX, 214-358-0800 GMI/New England, Avon, MA, 617-588-8043 Kodo Assoc., Minneapolis, MN, 612-881-1255 Licthenauer & Assoc., Antioch, CA, 415-757-1200 Marshank Sales Co., Culver City, CA, 213-559-2591 Metrorep, Freehold, NJ, 201-462-1221 Northshore Marketing, Seattle, WA, 206-284-9699 Pro Tech Marketing, Salt Lake City, UT, 801-943-8331 Secom Systems, Atlanta, GA, 404-455-0672 R.J. Throckmorton, Ballwin, MO, 314-227-7222

Tektronix Inc., P.O. Box 500, Beaverton, OR, 97077, 503-627-7111800-, 800-547-1512 Products: full-line of audio/electronic measuring instrumentation including, audio test-sets, distotion analyzers, function generators, oscilloscopes, and spectrum analyzers; instrumentation for CCTV and video testing and calibration.

TeleMatic (division of UXL Corp.), 108-02 Otis Ave., Corona, NY, 11368, 718-271-5200 President: Ben Frankenstein Sales Manager: Neil Howard Chief Engineer: Salverio Guardi Office Manager: Dorothy Davis Products: Color (TV) Monitor Test Jig—including 19" leaded glass CRT with 35kV meter and audio speaker—for substitutio/test on most popular color monitors. CRT brightners—isolation-type and regular boost/no boost.

VIZ Test Equipment, 335 E. Prince St., Philadelphia, PA, 19144, 215-844-2626

Wavetek San Diego, Inc., 9045 Balboa Ave., San Diego, CA, 92123, 619-279-2200 Products: function generators and spectrum analyzers. White Instruments, P.O. Box 698, Austin, TX, 78767, 512-892-0752, TLX: 776-409 INST AUS President: Carl Van Ryswyk V.P.: Shirley Van Ryswyk Mkt'g. Mgr.: Emory Straus Products: graphic equalizers, real-time analyzers, crossover networks & filters for audio applications, masking generators. See full listing under **Audio Signal Processors** 

Zonic Corp., 2000 Ford Circle, Milford, OH, 45150, 513-248-1911 Producto: EET apactrum applyingers

#### Products: FFT spectrum analyzers.

# SOUND & COMMUNICATIONS

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# TUNERS & CD PLAYERS

Benjamin International, Inc., 1460 Old Country Road, Plainview, NY, 11803, 516-753-0700 President: Joseph N. Benjamin Vice President: Charles Tanner Products: background music equipment including cassette and CD changers, bulk tape erasers and professional tape splicers. See full listing under **Back/Foreground Systems** 

Libraries

Bogen Communications, Inc., PO Box 575, 50 Spring St., Ramsey, NJ, 07446, 201-934-8500 President: John H. Ochtera V.P. Marketing: Carl C. Dorwaldt Nat'l. Sales Mgr.: David A. Chambers Products: commercial sound and communication systems and equipment, including amplifiers, mixer-preamplifiers, loudspeakers and horns (including amplified types), telephone paging equipment, FM/AM tuners and receivers, intercoms, microphones, centralized sound systems, audio surveillance monitor.

See full listing under Audio Amplifiers

Paso Sound Products, 14 First St., Pelham, NY, 10803, 914-738-4800 Executive V.P.: Paul Mastrangelo Sales Manager: David Moore Product Manager: Ken O'Brien Credit Manager: Marilyn Beckerson Operations Manager: Anthony Sgueglia Products: comprehensive line of commercial sound equipment including 4000 series engineered sound systems. Hexcolumn loudspeakers, Handler's microphones, CMDS components, Elvox intercoms, packaged sound systems, Nikko Audio products. See full listing under **Audio Amplifiers** 

Precision Electronics, Inc., 9101 King St., Franklin Park, IL, 60131, 312-678-5350 President: William S. Grommes Chief Engineer: A.A. Hart Sales Manager: William Stow Products: General Manager: G. Hussain PA amplifiers, mixer preamplifiers, power amplifiers, am/fm tuners, tuner amplifiers with paging, graphic equalizers, automatic volume limiter, telephone music-on-hold amplifier, and sound accessories. See full listing under **Audio Amplifiers** 

Speco Div., Components Specialties, Inc., 1172 Rt. 109, P.O. Box 624, Lindenhurst, NY, 11757, 516-957-8700, 800-645-5516 President: Louis W. Keller V.P. & General Manager: James J. Ganci V.P. Sales & Marketing: Mel Hulkower Regional Sales Manager: Eric Forman Regional Sales Manager: Bruce Kurtz Products: 60 watt PA amplifier with AM/FM tuner & auto receiver cassette, 45 watt PA amp with amplifier tuner; com plete line of PA amplifiers; complete line of 8" speakers w/transformers & grilles; wall baffles & wall baffle assemblies, outdoor/indoor, background/foreground enclosec speakers w/25/70V transformers; high-tech ceiling grille, sound columns, & a full line of PA horns, L-Pads, multitesters & oscilloscopes, megaphones, outdoor speakers attenuators, microphones, & intercoms. See full listing under **Audio Amplifiers** 

Studer Revox America, Inc., 1425 Elm Hill Pike, Nashville TN, 37210, 615-254-5651

V. P./Gen. Mgr.: Thomas E. Mintner

Dir. of Prof. Products: David C. Bowman

Products: audio recorders - super low speed loggers and playback only machines to 2-inch multichannel; professional CD players & cassette recorders; computer controlled automation interface; mixing consoles - 19-inch & portable units to complete studio systems; amplifiers & loudspeakers.

See full listing under Pro Audio Sound Systems & Products

Tascam/TEAC Professional Division, 7733 Telegraph Road, Montebello, CA, 90640, 213-726-0303 Marketing Manager: Bill Mohrhoff Sales Manager: Gregg Hildebrand W. Reg. Manager: Fred Allard S. Reg. Manager: Bill Stevens E. Reg. Manager: Chuck Prada Products: professional recorder/reproducers from 1/4" 2track to the ATR-80, a new 2" 24-track designed for video production. Recording and performance consoles from 6input to the M-600, a 32-input/16-buss large frame console. Also, receivers, cassette decks, and CD players. See full listing under **Magnetic Tape Systems & Supplies** 

Technics Professional, One Panasonic Way, Secaucus, NJ, 07094, 201-348-7000

Products: full line of professional reel-to-reel tape recorders, cassette decks, tuners, receivers, and CD players.

See full listing under Pro Audio Sound Systems & Products

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka Vice President: Bill Hooper Controller: Cal Weddle Products: engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems. See full listing under **Pro Audio Sound Systems &** 

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Products
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# USED/REBUILT EQUIPMENT & BROKERS

Communication Equipment Brokers, Inc., 1500 W. Carroll Ave., Chicago, IL, 60607, 312-829-88'10, 800-621-4397 President: Mark Hastings Director: John Presti

Products: repair, refurbishing, and resale of telephone equipment, headsets, answering machines, PCBs, consoles (telephone), power supplies, modems, CRT display phones, printers, PBX systems, Key Systems, dialers, peripherals, and more.

Electro Rent Corp., 4209 Vanowen Pl., Burbank, CA, 91505, 818-843-1221 CEO: Dan Greenberg President: William Weitzman Products: rent, sell, lease electronic test equipment; general purpose; RF microwave; telecommunications; digital design; data acquisition; data I/O. District Offices: ER, San Francisco, CA, 800-421-4848

ER, San Diego, CA, 619-571-7905

ER, Elk Grove, IL, 800-323-8893

ER, Cedar Grove, NJ, 800-631-4278

ER, Norcross, GA, 404-925-9199

LN, NOICIUSS, GA, 404-925-9199

Ocean Audio International, Inc., 366 Las Casas Ave., Pacific Palisades, CA, 90272, 213-459-2743 Chief Handler: David Hadler Products: buy and sell pre-owned audio and electronic equipment, systems, and studios; complete listings.

## WIRE/CABLE COMPONENTS

Acopian Corp., Box 638, Easton, PA, 18044,215-258-5441

All Electronics Corp., PO Box 567, Van Nuys, CA, 91408, 818-904-0524, 800-826-5432

Products: electronic components, parts, and accessories; resistors, capacitors, IC's, relays, switches, transformers, transistors, diodes, semiconductors, and many unusual and hard to find items.

District Offices:

All Electronics Corp., Los Angeles, CA, 213-380-8000 All Electronics Corp., Van Nuys, CA, 818-997-1806

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

AMF Potter & Brumfield, 200 S. Richland Creek Dr., Princeton, IN, 47671, 812-386-1000

AMP Netcon, P.O. Box 1776, Southeastern, PA, 19482, 215-647-1000

Amphenol Products, 4300 Commerce Court, Lisle, IL, 60532, 312-983-3500

Audio Quest, Inc., PO Box 940, N. Chicago, IL, 60064, 312-473-1200, 800-457-4579 President: Matt Coleman Marketing Manager: Kimberly Heeres Products: speaker wire (also Monster Cable) and single conductor wire; convoluted tubing; coaxial and RCA cable speed clips, connectors; terminals, fuses and fuse holders; crimp caps; nuts, bolts, screws, etc.

Audra International, P.O. Box 38, Silverado, CA, 92676, 714-649-2207, TLX: 493 1854 Owner: Algis Renkus Products: miniature microphones, mic splitters, precision audio transformers, and made-to-order transformers. See full listing under **Microphones** 

Belden Wire & Cable, P.O. Box 1980, Richmond, IN, 47375, 317-983-5200 President: Roger Cornett General Sales Mgr.: Bill Donahue Mkt'g Director: Ron Stier Mkt'g Manager: Dave Billish Products: electronic wire and cable including coax, plenum, multi-conductor and fiber optic cables. District Offices: Atlanta, GA, 404-934-6767 Oakbrook, IL, 312-574-0800 Dallas, TX, 214-788-4300 Shrewsbury, MA, 617-845-5000 Irvine, CA, 714-474-1200

Berk-Tek, Inc., RD 1, Box 888, New Holland, PA, 17557, 717-354-6200, 800-237-5835 President: Joseph L. Boscov V.P. Sales/Mkt'g: Sue Stefar Corporate Controller: Steve Bright V.P. Production: Hal Styer Nat'l. Sales Manager: Chet Klinke Products: plenum and vinyl data, and telecommunication cables in electronic and fiber optic designs. Coaxial and fiber optic connectors are also available. District Offices: Arnold Harris, Clinton, MA, 617-365-6364 Berk-Tek Warehouse, Torrance, CA, 213-327-6848 Jerry Petty, Dallas, TX, 214-386-3809 Frank Smith, Huntingtown, MD, 301-855-1258 David Zaabel, Schaumburg, IL, 312-980-8805

BI-Tronics, Inc, 76 Main Street P.O. Box 125, Tuckahoe, NY, 10707, 914-793-3221, 800-522-7377 President: J. Schwartz Engineering/Sales Mgr.: R. Huppert Sales Admin.: C. Viafore Products: audio, video and data cable, connectors, adaptors, tools and installation aids for the professional installer. Featuring MOGAMI Cable products.

Brim Electronics, Inc, 120 Home Place, Lodi, NJ, 07644, 201-796-2886 President: B. Danziger Products: Sales Manager: Bob Brown wire, cable (including shielded braiding, retractile cords), tubing, sleeving, ceramic insulators, adhesive-backed fastening devices, nylon and brass hardware, solderless terminals, plugs, jacks, switches. District Offices: GH Assoc., Stow, MA, 617-897-1741

Cabletronix, 366 Washington Street, PO Box 3003, Newburgh, NY, 12550, 914-565-7570, 800-431-WIRE, TLX: 703848, FAX: 914-564-5332 President: Stephen L. Roth Vice President: Leonard Ellentuch Products: "amp,"connectors; staplers, staples; "B" connectors; bridging clips; Drive-rings; tie wraps; drive pins; electrical, masking and packing tape, molly & toggle bolts; pan head screws and plastic anchors, pole-line hardware, modular blocks (flush and base mount) modular cords and RG 31X jacks, adhesive cable duct, and Fiber optic Cable.

Cal Switch, 13717 S. Normandie Ave, Gardenia, CA, 90249, 800-CAL—S—W—C—H President: Irwin Perlman Vice President: Bob Andrade Vice President: Herb Poncher Products: patch bays, pre-wired jack panels, audio connectors, switch assemblies, test equipment, I.D. collars, wire and cable, amp connectors. See full listing under **Patch Bays & Routing Switchers** 

Calrad Engineered Electronic Products, 819 No. Highland Ave., Los Angeles, CA, 90038, 213-465-2131

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

General Manager: Barry Brenner

Products: professional cable products for the sound contractor, broadcast engineer, musical interface speacialist, and industrial systems designer. Featuring L-4E6S 'Star Quad' low-noise, flexible mic cable, available in 10-colors.

Champlain Cable Corp., P.O. Box 7, Winooski, VT, 05404, 802-655-2121

Chester Cable/Division of Celwave Systems Inc., P. O. Drawer D, Chester, NY, 10918, 914-469-2141 President: Frank Leibold V.P. Sales/Mkt'g: Yves Bonnamour Sales Engineer: Nancy Spadinger Engineer: Steve Luciana

Inside Sales Rep.: Sheri Hatton

Products: precision video cables, component RGB analog video cables, triax, audio, multiple audio pair cable, microphone, computer cables and custom design cables. District Offices:

C. H Newson & Assoc., Flourtown, PA, 215-233-0333 G. Thelen & Assoc., Ft. Mitchell, KY, 606-341-8181

Clarostat Mfg. Co., Inc., 3 Washington St., Dover, NH, 03820, 603-742-1120

Clifford, Inc., P.O. Box 51, Bethel, VT, 05032, 802-234-9921

Products: Quick-pull, multi conductor bundle cord.

Connectronics Corporation, 652 Glenbrook Road, Stamford, CT, 06906, 203-324-2889, 800-322-2537 **Executive V.P.: Richard Chilvers** 

Products: specialized high-flexibility colored audio wire and cable-everything from microphone cable through 32-pair foil-shielded multipair, from phono cable to individually shielded and jacketed and color-coded multipairs, from "starquad" to heavy-duty four conductor speakerflex. Portable audio mixing console from "SECK." District Offices:

GMI, Avon, MA, 617-588-8043

Evans Sales & Marketing, Nashville, TN, 615-297-7997 North Coast Marketing, Erie, PA, 814-456-6435 Pacific Audio Group, Torrance, CA, 213-375-2611 New Horizons, Bannockburn, IL, 312-234-5911

**Conquest Electronic Wire & Cable**, 7319 Duvan Dr., Box 757, Tinley Park, IL, 60477, 312-429-1770, 800-323-7671, in IL 800-344-2667 President: Robert Jares, Jr. Vice President: Larry Spalla Sales Manager: Al Novak Plant Manager: Dennis Wood Products: 250 types of bulk wire including alarm, security, co-ax, plenum, telephone, multi-pair audio, microphone, speaker, multi-conductor unshielded, data transmission, computer, station, TELCO cables, computer cables. See full listing under **Alarm & Security** 

**Conquest Sound, Inc.**, 7319 Duvan Dr., Box 757, Tinley Park, IL, 60477,-, 800-323-7671, in IL 800-344-2667 President: Robert Jares, Jr. Vice President: Larry Spalla Sales Manager: Al Novak Plant Manager: Mike Sanfilippo Plant Manager: Dennis Wood Products: audio wiring systems from mic cables to splitting systems to multi-channel systems; largest supplier of Switchcraft connectors and parts to audio industry; stock o over 1,000,000 Ft. assorted wire and 200,000 Switchcraft parts; separate division for alarm, co-ax security wire.

Consolidated Electronic Wire & Cable Corp., 11044 King St., Franklin Park, IL, 60131, 312-455-8830, 800-621-4278

See full listing under Wire/Cable Systems

Current Cable Co., Inc., 2610 W. Chicago Ave., Chicago, IL, 60622, 312-486-7100, 800-821-2432 President: Arthur Shaiman Sales Mgr.: Bernard Lewis Chief Engineer: John Rudd Products: cables for burglar and fire alarm systems, communications and control systems, direct burial and lowvoltage/low-cost E-Series multi-conductor and zip-cord cables. CCTV coaxial cables, multipair UO 1007 and UO 1015 hook-up wire.

CZ Labs, Inc, 55 Railroad Ave., Garnerville, NY, 10923, 914-268-5056

Daburn Electronics and Cable Corp., 70 Oak St., Norwood, NJ, 07648, 201-768-5400 Presidentz: Howard Danziger Nat'l. Sales Manager: Randy Hibshman Inside Sales Manager: Steve Kirton

#### Products:

a full line of communications products including wire and cable, shrink tubing, retractile cords, electronic hardware, computer cords and cable, and modular cords cable & accessories. Plenum cable for all NEC codes, RS232 cables, and fiber optic cable. Most orders ship in 24 hours. District Offices:

Hendrickson Co., N. Scituate, MA, 617-545-0652 FMA Assoc., King of Prussia, PA, 215-337-9211 Impact Electronics, Anaheim, CA, 714-533-1351 KKB Assoc., St. Louis, MO, 314-647-2400 Millar Electronics, Atalanta, GA, 404-634-3350

Delta Wire & Cable, PO Box 833, N. Chicago, IL, 60064, 312-473-4990 President: Matt Coleman Sales Manager: Perry Stein

Products: wire and cable for audio, telephone, electronic and electric products.

Duncan Electronics, 2865 Fairview Rd., Costa Mesa, CA, 92626, 714-545-8261 Products: potentiometers, slideline, and console faders.

EVG Inc., 1 Lee Place, Freeport, NY, 11520, 516-536-5000 Products: electronic components.

General Instrument Network Cable Div., P. O. Box 1729, Hickory, NC, 28602, 704-324-2200, 800-982-1708

Gotham Audio Corp., 1790 Broadway, New York, NY, 10019-1412, 212-765-3410 President: Russ R. Hamm Eastern Sales Mgr.: Jerry Graham Western Sales Mgr.: Juergen Wahl Sales Engineer: Peter Engel Products: Neumann condenser microphones, limiters/compressors, and equalizers and accessories; EMT digital delays; Gotham audio cable; K & H loudspeakers, and parametric equalizers; Audio Developments mixers; NTP limiters/compressors and meters. See full listing under **Microphones** 

International Wire & Cable, 520 Bus Ctr Dr, Mt Prospect, IL, 60056, 312-299-0021

ITT Pomona Electronics/Div. ITT Corp., 1500 E. Ninth St., P.O. Box 2767, Pomona, CA, 91766, 714-623-3463

Kable King, P.O. Box 2646, Savannah, GA, 31402, 912-233-8959 King Wire & Cable Corp., 179-45 110th Ave., Jamaica, NY, 11433, 718-657-4422 President: Lester Dorfman Treasurer & Sec'y.: Henry Zelinger Vice President: Robert Dorfman Vice President: Marty Newman Products: electrical and electronic wire and cable. District Offices: King Wire, Dallas, TX, 214-484-8600 King Wire, Dallas, TX, 214-484-8600 King Wire, Ft. Lauderdale, FL, 305-735-1300 King Wire, Cleveland, OH, 216-431-1234 King Wire, Phoenix, AZ, 602-867-1222 Kulka-Smith Inc., 1913 Atlantic Ave., Manasquan, NJ, 08736, 201-223-9400

Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-231-1414, USA 800-LEE DAN1 President: Leon Goldberg Sales Manager: Lawrence J. Goldberg V.P. Finance & Administration: David H. Goldberg Chief Engineer: Sanford Hoffman Sales/Service Representative: Linda E. Scaturro Products: multi-conductor intercom wire and cable, including special purpose cables for CCTV and music systems. See full listing under Intercom Apartment/Residential

Lemo USA, Inc., 335 Tesconi Circle, Santa Rosa, CA, 95401, 707-578-8811 General Manager: Samuel M. Sokolik National Sales Mgr.: David Battaglia Sr. Applications Engineer: Bill Lee, P.E. Materials Control Mgr.: John Connolly Controller: Cheryll Powers Products: precision engineered, self-latching quick connect/disconnect cylindrical connectors for audio/video applications. These are available in coaxial, triaxial, multicontact, and mixed coax-multicontact configurations. Cable assemblies available. Custom design requests welcome. District Offices: Balzer-Wolf Assoc., Irvine, CA, 714-261-6877 Canavan-Scanlon Assoc., Syracuse, NY, 315-437-1271 Earl & Brown Co., Portland, OR, 503-245-2283 Hanna-Lind, Edina, MN, 612-925-5700 Hollingsworth & Still, Norcross, GA, 800-241-5712 Jim Hughes Co., Dallas, TX, 214-221-1536 Jacobson Assoc., Horsham, PA, 215-674-2937 K/T Depco, Cleveland, OH, 216-442-6200 Mechtronics Sales, Inc., Rockville, MD, 301-340-2130 Midtec Assoc., Lenexa, KS, 913-541-0505 Raines & Assoc., Northbrook, IL, 312-498-0890 Ruppert Sales & Eng., San Jose, CA, 408-998-8717 Sprung-Nussbaum, Englewood, NJ, 201-569-5666 Jack M. Thorpe, East Detroit, MI, 313-779-6363 Trembly Assoc., Albuquerque, NM, 505-266-8616 ^n Zieco, Inc., Boston, MA, 617-861-8300

Mallory Capacitor Co., 3029 E. Washington ST., P.O. Box 372, Indianapolis, IN, 46206, 317-636-5353

Marietta Wire & Cable, 463 Commerce Park Drive, Marietta, GA, 30067, 404-422-5708, 800-692-9473

Marshall Electronics Inc., P.O. Box 2027, Culver City, CA, 90230, 213-390-6608, FAX: 213-391-8926 President: Henry Schultz V.P. & General Mgr.: Leonard Marshall Mgr Cust. Svc./Mkt'g: Leroy Ellingworth Products: Mogami, superflexible cables for audio/video and broadcast; Tajimi precision connectors; Sound Runner Professional Studio Series and speaker cables. District Offices: BI-Tronics, Inc., Tuckahoe, NY, 212-402-6600 Evans Sales & Mktg., Nashville, TN, 615-297-7997 Jacobson & Assoc., Newark, CA, 415-791-2336 Aicrotran Co., Inc., 145 E. Mineola Ave. PO Box 236, /alley Stream, NY, 11582-0236, 516-561-6050 President: Albert J. Eisenberg /:P. Sales: Walter Benscher

**Chief Engineer: Vulf Ozechov** 

Products: electronic transformers and inductors, laminated ¿ toroidal in open, molded, or hermetically sealed construction. Catalog & custom, audio-power, commercial-miliary.

**District Offices:** 

Nationwide sales & distribution network, contact factory.

MS-Audiotran, Laitilantie 10, Helsinki, Finland, 00420, 358-0-566-4644

Music Supply Co., Inc., 809 N. Madison, Dallas, TX, 75208, Manasquan, NJ, 08753, 201-223-9400 214-946-8450, 800-527-1522 President: W. E. Brown

Sales: Betty Brown Products: installation and service aids for the sound contractor and background music operator.

See full listing under Hardware & Tools

National Electric Cable, 1730 Elmhurst Rd., Elk Grove Village, IL, 60007, 312-593-8100

Nemal Electronics Inc., 12240 N.E. 14th Ave., N. Miami, FL, 33161, 305-893-3924 President: Benjamin L. Nemser Products: electronic wire, cable, connectors, and MATV equipment.

Neutrik/DIALIGHT Corp., 1913 Atlantic Ave., Product Mgr.: James Cowan Dir. of Sales/Mkt'g.: John McNamara

#### Such annual reports as the May Contracting Business In-Depth Market Report and the December Industry Report keep readers wellinformed on new industry trends, what's on the horizon in the sound and communications contracting market and the state of the economy as it relates to the industry. Special pull-out sections-from mixing consoles to alarm & securityprovide the sound contractor with a diverse selection of products to choose from to suit his particular needs. Look for these special features and more in upcoming issues of Sound & Communications. Want to stay on top of this aggressively competitive industry? Read SOUNDE **COM MUNICATIONS** SPECIAL

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McCoy Assoc., Inc., Richardson, TX, 214-864-1838 R. F. C. Sales, Brea, CA, 714-990-9695 Rouzer Sales Co., Minneapolis, MN, 612-544-3145

R-Columbia Products Co. Inc., 2008 St. Johns Ave., Highland Park, IL, 60035, 312-432-7915

Remee Wire Products Corp., 41 Bridge St., Florida, NY, 10921, 914-651-4431

Resco, Inc., 366 Washington St., P. O. Box 2244, Newburgh, NY, 12550, 914-565-7583, FAX: 914-564-5332, TLX: 703848 President: Stephen L. Roth

Vice President: Leonard Ellentuch

Products: "B" connectors, "B" bridging clips, plastic anchors, hollow wall anchors, toggle bolts, RJ31X, modular wire bulk. Modular accessories for large-volume manufacturers; computer cable assemblies. Import and export agents of components, devices and special requirements.

RMS Electronics, Inc., 50 Antin Place, Bronx, NY, 10462, 212-892-6700, 800-223-8312 Chairman: Joseph F. Bradway Jr. President: Roger Nejes National Sales Manager: Lee R. Heller Products: MATV, CATV, Audio cassette and telephone accessories, F-connectors, manufacture cable assemblies, replacement video camera with camcorder batteries.

Saxton Wire & Cable Products, Inc., 215 N. Rt. 303, Congers, NY, 10920, 914-268-6846

Shallco, Inc., Box 1089, Smithfield, NC, 27577,919-934-3135

Shape Magnetronics Inc., 901 DuPage Avenue, Lombard, IL, 60148, 312-620-8394 Products: transformers.

Shure Brothers, Inc, 222 Hartrey Ave, Evanston, IL, 60202-3696, 312-866-2200 President: James Kogen V.P. Sales/Mkt'g: Richard Murphy Marketing Manager: Sandy Schroeder Sales: Tim Vear Sr. Product Cdr: Max Ann Buchanan Products: microphones and accessories, wireless microphone systems, mixers and related circuitry products, automatic microphone systems, compact sound reinforcement systems, teleconferencing systems. See full listing under **Microphones** 

Signal Cable Co., 2500 Commonwealth Ave., North Chicago, IL, 60064, 312-689-9090, 800-323-9355 Sales Manager: Don Prochilo V.P. Sales: Kerry Glicken Products: electronic wire and cable for the communications industry, PVC, plenum, coaxial, and fire alarm.

Stancor Products, 131 Godfrey St., Logansport, IN, 46947, 219-722-2244

Standard Wire & Cable Co., 2345 Alaska Ave., El Segundo, CA, 90245, 213-536-0006

# ۲۵۹ TAPPAN WIRE • CABLE, INC

Tappan Wire & Cable, Inc., 256 Oak Tree Rd., Tappan, NY, 10983, 914-359-9300 President: Sidney Grant V.P. Nat'l. Sales Mgr.: Paul Kutcher Products: shielded and unshielded audio, intercom, instrumentation, video and low-capacitance cables. Belden equivalance, UL and commercial specifications. District Offices: Martin Weinberg, Glenside, PA, 215-885-4244 Alby Kurrant, Pittsford, NY, 716-586-1110 Craig Davidson, Gaithersburg, MD, 301-670-0022 Bill Roberts, Norcross, GA, 404-263-9349 TEI Electronics Inc., 570 W. 18th St., Hialeah, FL, 33010, 305-888-3980, 800-327-8811

Teledyne Thermatics, P.O. Box 909, Elm City, NC, 27822, 919-236-4311 Products: Plenair™(Plenum) wire and cable, U.L. classified for NEC Articles 800, 760, and 725. Sound, broadcast, audio, communications, control, instrumentation, computer, paging, energy management, fire alarm, security, and local area networks.

Trimm Inc., P.O. Box 489, 400 W. Lake Street, Libertyville, IL. 60048, 312-362-3700

Trompeter Electronics, Inc., P. O. Box 5069, West Lake Village, CA, 91359, 818-707-2020 Products: coax connectors and video patch panels.



West Penn Wire Corp., 2833 West Chestnut St., Washington, PA, 15301, 412-222-7060, 800-245-4964 Vice President: Donald J. Hastings

Sales Manager: Louis Valente Products: wire and cable for the total communication market; specializing in plenum (non-conduit) cables, fire alarm, CCTV, co-ax for MATV and security, health care cables, data cables, lo-cap data cables, plenum coax, dual 59 coax.

Wilco Communications Inc., P. O. Box 60579, Sunnyvale, CA, 94088, 408-746-3993

Zippertubing Co., 13000 S. Broadway, Los Angeles, CA, 90061, 213-321-3901 President: Terry Plummer Executive V. P.: Bruce Hoffine Director of Mkt'g: Michael Sullivan Ziptape Sales Mgr.: Ed Hackett Southwest Sales Mgr.: Don Ernewein Products: 'Zip-On' Jacketing for environmental protection and/or shielding of wire and cable, custom jacketing and shielding for special applications, wire and cable identification systems. Ziptape Indentification Systems, Tempe, AZ, 602-967-

8888 **District Offices:** 

Tom Maguire & Assoc., Norwood, MA, 617-551-0500 Eastern Sales Office, Wayne, NJ, 201-256-4980 Southwest Sales Office, Dallas, TX, 214-931-7060 Components Specialty Co., Cleveland, OH, 216-734-0655



# WIRE/CABLE SYSTEMS

Audio-Technica U. S., Inc., 1221 Commerce Drive, Stow. OH, 44224, 216-686-2600 President: Jon R. Kelly V.P. Marketing: Ken Reichel Nat'l. Sales Mgr./Pro Products: Mark Taylor Mkt'g. Mgr./Pro Products: Greg Silsby Sales Mgr./Pro Products: Mike Wuellner Products: studio condenser microphones, fixed charge condenser microphones, dynamic microphones, UniPoint™ Microphone Series, boundary layer microphones, microphone accessories, mixers, cables, direct boxes, microphone stands and booms, weatherproof hi-fidelity speaker systems. See full listing under Microphones

BI-Tronics, Inc, 76 Main Street P.O. Box 125, Tuckahoe, NY, 10707, 914-793-3221, 800-522-7377 President: J. Schwartz Engineering/Sales Mgr.: R. Huppert Sales Admin.: C. Viafore Products: audio, video and data cable, connectors, adaptors, tools and installation aids for the professional installer. President(FM Acoustics LTD): Manuel Huber Featuring MOGAMI Cable products.

See full listing under Wire/Cable Components

Conquest Sound, Inc., 7319 Duvan Dr., Box 757, Tinley Park, IL, 60477, 800-323-7671, in IL 800-344-2667 President: Robert Jares, Jr.

Vice President: Larry Spalla Sales Manager: Al Novak Plant Manager: Mike Sanfilippo Plant Manager: Dennis Wood Products: audio wiring systems from mic cables to splitting systems to multi-channel systems; largest supplier of Switchcraft connectors and parts to audio industry; stock of over 1,000,000 Ft. assorted wire and 200,000 Switchcraft parts: separate division for alarm, co-ax security wire.

Dean Markley Electronics Inc., 3350 Scott Blvd., Suite 45, Santa Clara, CA, 95054, 408-988-2456, 800-538-8330 President: Dean Markley

Executive V. P.: Bari Wilson Nat'l Sales Manager: Tom Dreibelbis

Products: professional audio sound systems and support, powered and non-powered mixers, powered and unpowered enclosures, power amps, microphones, cables and accessories.

See full listing under Pro Audio Sound Systems & Products

FM Acoustics Limited (USA), PO Box 854, Benicia, CA, 94510, 707-745-4444 Dir.(FM Acoustics USA): Gene Michalski Products: line of premium swiss made amplification equipment for studio, theatre and quality sound enhancement applications. Electronic crossovers with 36db attenuation and linear phase. Precision balanced line drivers and line level interfaces. High energy transfer speaker cable.



#### See full listing under Audio Amplifiers

Four Designs Co., 6531 Gross Ave., Canoga Park, CA, 31307, 818-716-8540

Products: studio rackmount furniture units, portable plastic rack units, cable testers, mic splitters, audio cable adapters. See full listing under **Cabinets, Furniture, Cases, & Racks** 

Ideal Wire Products, Inc., Lorum St., Tewksbury, MA, 01876, 617-851-4541 President: Robert T. Leahy Products: engineered cables for the intercom and sound contractor.

L and L Sales Co., Inc., 441 E. Old Hickory Blvd., PO Box 238, Madison, TN, 37116, 615-868-6976 President: George Lewis Vice President: Mona Lewis Public Relations: Kimberly Lewis Operations Manager: Lisa Gifford Products: solderless table systems in the .155 and .225 sizes with 1/4" right-angle audio pin and mini plugs available in both sizes. We custom make any size table in 20 seconds. Also available is our solderless speaker wire system available only with a 1/4" phone plug.

Monster Cable Products, Inc., 101 Townsend St., San Francisco, CA, 94107, 415-777-1355

Pearson Technologies, 18656 Merridy Street, Northridge, CA, 91324-1503, 818-885-7191 Products: fiber optic systems, turnkey.

Pro Co Sound, Inc., 135 E. Kalamazoo Ave., Kalamazoo, MI, 49007, 616-388-9675 President: Charlie Wicks Vice President: Tish Weber Nat'l. Sales Mgr. Com.: Jeff Garstick Nat'l. Sales Mgr. Studio: Jerry Smelker Chief Engineer: Scott Burnham Products: wire, connectors, audio interface products, cabling assemblies, and custom fabrication. Helix Standard HC/20 multi-pair audio systems for portable and permanent installation, TT448 Patch Bay Systems, Audio Interface, Linear Crystal Multi-pair, and Quad Microphone Cable.

Rapco Cable & Lighting, Route 1, Box 50, Jackson, MO, 63755, 314-243-1433 President: R.T. Lorenz Vice President: Phyllis Lorenz Sales Manager: James LaFerney Chief Engineer: Mike Torbet Plant Manager: John Walter Products: audio cables, interfaces, wire and connectors. Stagecraft Lighting Division manufactures stage lighting and related accessories. Whirlwind Interface International, 100 Boxart St., Rochester, NY, 14612, 716-663-8820, 800-772-9997 President: Michael Laiacona General Manager, V.P.: Jim Bonis Regional Sales Mgr.: Ray Bellizia Regional Sales Manager: Will Young Engineering: Jim Kelsey Products: instrument cables, microphone cables, multiline wiring systems, impedance matching devices, speakers cables, custom wiring systems, bulk cable and connectors, signal routing devices, cable test equipment, MIDI interface products, cable reels, and transformers.

Wireworks Corp., 380 Hillside Ave., Hillside, NJ, 07205, 201-686-7400 President: Gerald Krulewicz Vice President: Larry J. Williams Customer Service Mgr.: Angela DiCicco Outside Sales Rep.: Bill Hogan Products: complete line of audio cabling components and

assemblies - ranging from 3-50 channels. Product line includes multipin disconnect stageboxes, trunks, tails, transformer isolated splitters, hardwired multicables, microphone cables, cable reel, and mic cable tester.

# SIGNALLING SYSTEMS

Atlas/Soundolier, 1859 Intertech Dr., Fenton, MO, 63026, 314-349-3110 Director of Sales: Paul Grote E. Region/Sales: Andy Musci W. Region/Sales: Bud Waters V.P., Consultant for Mkt'g.: Herbert Jaffe Products: audio-visual and visual call systems, door monitors, telephone type and voice intercom signalling. UL-listed audio evacuation and electronic siren loudspeakers. Emergency telephone communication systems and accessories. See full listing under Loudspeakers

Elenex, Inc., 7392 Trade St., San Diego, CA, 92121, 619-566-7515 President: Sten Persson V.P. Marketing: Dennis Berglund Product Sales: Dave Arseneau Business Manager: Sally Marshall Products: Freedom<sup>™</sup> wireless drive-thru communications, Moducom<sup>™</sup> intercom for drive-thru/correctional high-noise applications, vehicle sensing equipment, Touch-Mic<sup>™</sup> microphone systems, amplifiers, horns, and speech processing systems. See full listing under Intercom Duplex Faraday, Inc., 805 S. Maumee St., Tecumseh, MI, 49286, 517-423-2111 President: Robert Bell

Executive V.P.: Ron Miller

District Sales Manager: Chuck Stevens

Products: fire alarm and life safety detection and signaling equipment, audible and visual signaling devices, corrective clock systems and intercommunications equipment. District Offices:

Al Chaney & Assoc., Miami, FL, 305-558-3933 Corrigan Agency, Covington, LA, 504-893-7455 Dardon & Assoc., Olmstead Twp., OH, 216-234-4555 R.W. Sales, St. Paul, MN, 612-646-2710

B and E Assoc., San Leandro, CA, 415-351-1550 Products: standard and customized light signaling systems such as, room status, room sequencing, doctor message, nurse call and patient processing for medical and dental facilities.

Lathem Time Recorder Co., 200 Selig Dr. SW, Atlanta, GA, 30378, 404-691-0400, 800-241-4990 Executive VP: Bill Lathem National SIs Mgr.: Gary Henry Sales/Sys. Products: Jack Callihan Clock Sys. SIs Rep: Carol Lathem Products: LTR Series a full line of electronic master controls, choice of 2, 4, 6, or 8 circuits to control bells, horns, or intercoms; a full line of wall clocks is also available.

District Offices: Lathem Time Ca., Santa Fe Springs, CA, 800-352-4314



Lee Dan Communications, 155 Adams Ave., Hauppauge, NY, 11788-3699, 516-231-1414, NY 800-

231-1414, USA 800-LEE DAN1
President: Leon Goldberg
Sales Manager: Lawrence J. Goldberg
V.P. Finance & Administration: David H. Goldberg
Chief Engineer: Sanford Hoffman
Sales/Service Representative: Linda E. Scaturro
Products: communication and security systems for apartment house, home and industry. Intercom, music an paging systems, mailboxes, directories, annunciators, signaling devices, communications cable, nurse-call systems, Enterview audio/visual systems.
See full listing under Intercom Apartment/Residential

Protech Audio Corp., Flowerfield, Bldg. #1, St. James, N` 11780, 516-584-5855 Sales Mgr.: Bill Murphy Sales Engineering: Joe Giambone Products: automatic level controls, voltage controlled amplifiers, distribution amplifiers, mixers, tone supervisor systems, microphone and line preamplifiers, compressor/limiters, switching cards, ramp controlled preamplifiers, engineered and modular sound systems. See full listing under **Pro Audio Sound Systems & Products** 

TOA Electronics, Inc, 480 Carlton Court, South San Francisco, CA, 94080, 415-588-2538 President: Yoshiro Ishida V. P./Treasurer: Tom Kohsaka V. P.: Bill Hooper Controller: Cal Weddle Products: Engineered/commercial sound systems; prosound systems; amplifiers, signal processors, loudspeakers, microphones, mixers and mixing consoles, wireless systems, microcomputerized intercom systems, CCTV and security systems. See full listing under **Pro Audio Sound Systems** 

Valcom Inc., 1111 Industry Ave., Roanoke, VA, 24013, 703-982-3900 President: J.W. Mason Sales Manager: Donald Buck Chief Engineer: D. Lynch Products: telephone integrated paging and intercom systems, talkback, bell-buzzer, code call, PBX adapters, key telephone systems ancillaries, loud-ringers, power supplies, amplified and talkback speakers. See full listing under **Paging Systems** 

Wheelock, Inc., 273 Branchport Ave., Long Branch, NJ, 07740, 201-222-6880, FAX: 201-222-8707 President: P. W. Tarlton V.P. Mktg/Sales: W.L. Goldstein V.P. Engineering: Stephan W. Andrews Market Mgr. Tel./Paging: Art Arlow Market Mgr. Life Safety/Ind.: Rein Haus Products: audible/visual signalling devices for life safety, alarm, industrial, and telephone systems applications. Paging systems for telephone system access. Products include bells, horns, speakers, strobes, chimes, speaker amplifiers, talk-back speakers, zone controls & power supplies.

See full listing under Alarm & Security

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Villiphonics         Visco/Minneapolis Speaker Co.         Vitel, Inc.         Vitel/Datacom, Inc.         Volume Audio Products         Volume Audio Products         Volume Collectronics, Inc.         Vonroe Electronics, Inc.         Vonroe Electronics, Inc.         Vonroe Inc./Ceramic Products         VPO Videotronics Inc.         VS-Audiotran         VTX Loudspeakers - The Mitek Group         Vulti-Vox Ltd.         88, 94, 97,         Vultiplex Technology, Inc.	.140 116 184 15 32 117 180 180 
Villiphonics         Visco/Minneapolis Speaker Co.         Vitel, Inc.         Vitel/Datacom, Inc.         Volume Audio Products         Volume Audio Products         Volume Collectronics, Inc.         Vonroe Electronics, Inc.         Vonroe Electronics, Inc.         Vonroe Inc./Ceramic Products         VPO Videotronics Inc.         VS-Audiotran         VTX Loudspeakers - The Mitek Group         Vulti-Vox Ltd.         88, 94, 97,         Vultiplex Technology, Inc.	.140 116 184 15 32 117 180 180 
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Milliphonics         Misco/Minneapolis Speaker Co.         Mitel, Inc.         Mitel/Datacom, Inc.         Modular Audio Products         Modular Sound Systems - The Mitek Group         Monroe Electronics, Inc.         Montrola, Inc./Ceramic Products         MOV         Videotronics Inc.         Motorola, Inc./Ceramic Products         MPO Videotronics Inc.         MS-Audiotran         MTX Loudspeakers - The Mitek Group         Multi-Vox Ltd.         Multiplex Technology, Inc.         Multiplex Technology, Inc.         Music & Sound, Inc.         Music & Sound, Inc.         Music Supply Co., Inc.         Musically Intelligent Devices         Muzak.         N. A. Soar Corp.         Nady Systems, Inc.	.140 116 .184 15 32 117 180 201 117 68 197 117 162 90 90 90 90 
Ailiphonics         Aisco/Minneapolis Speaker Co.         Aitel, Inc.         Aitel/Datacom, Inc.         Modular Audio Products         Modular Sound Systems - The Mitek Group         Monroe Electronics, Inc.         Monroe Electronics, Inc.         Motorola, Inc./Ceramic Products.         MPO Videotronics Inc.         MS-Audiotran         MTX Loudspeakers - The Mitek Group         Multi-Vox Ltd.         Multiplex Technology, Inc.         Music Sound, Inc.         Music Supply Co., Inc.         Musically Intelligent Devices         Muzak.         N. A. Soar Corp.         Nady Systems, Inc.         Makamichi America, Corp.	.140 116 184 15 32 117 180 201 117 68 197 117 68 90 90 90 97 90 90 97 
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Miliphonics         Misco/Minneapolis Speaker Co.         Mitel, Inc.         Mitel/Datacom, Inc.         Modular Audio Products         Modular Sound Systems - The Mitek Group         Monroe Electronics, Inc.         Montroe Cable Products, Inc.         Motorola, Inc./Ceramic Products         MPO Videotronics Inc.         MS-Audiotran         MTX Loudspeakers - The Mitek Group         Multi-Vox Ltd.         Multiplex Technology, Inc.         Multiplex Technology, Inc.         Music & Sound, Inc.         Music Supply Co., Inc.         Music	.140 116 184 15 32 17 180 17 180 17 68 90 68 57 90 57 90 57 197 197 15 12 197 15 12 
Miliphonics         Misco/Minneapolis Speaker Co.         Mitel, Inc.         Mitel/Datacom, Inc.         Modular Audio Products         Modular Sound Systems - The Mitek Group         Monroe Electronics, Inc.         Monster Cable Products, Inc.         Motorola, Inc./Ceramic Products.         MPO Videotronics Inc.         MS-Audiotran         MTX Loudspeakers - The Mitek Group         Multi-Vox Ltd.         Multiplex Technology, Inc.         Multiplex Technology, Inc.         Music Sound, Inc.         Music Soupply Co., Inc.         Music Supply Co., Inc.         Music Soupply Co., Inc.         Music Soupply Co., Inc.         Music Soupply Co., Inc.         Music Supply Co.,	.140 116 184 15 32 117 180 17 
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