

FOR THE PRO & SEMI PRO

the

NATIONAL RECORDING INDUSTRY DIRECTORY

VOL. 3 NO. 6

OCTOBER 1979

Mix

Studio Listings
NEW YORK

Interview
BOB JAMES

MUSIC EDITING
Film/T.V.

HOWARD SCHWARTZ
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Berkeley
CA 94706



feedback

Ed'd note: Jo Ann Semones' response to Layman Green's inquiry to the Small Business Administration will appear in the November issue instead of this issue, as originally scheduled.

Dear Mix,

I saw a copy of your new M.I. Magazine (June 1979) and thought it was great. Although I didn't get to read it, I did get to look it over briefly, and copy down your address. I've read many music magazines, but M.I. appeared to be complete. It seemed to cover a variety of subjects. Besides being a professional musician myself (acoustic guitars & vocals) I own and operate Lost River Recording Studio. I also sell some musical equipment. Since I am a music dealer, I buy wholesale and sell retail. If I understand your ad correctly, I can receive your great magazine free since I am in the music business. I would like very much to distribute M.I. Magazine to my customers. Please rush me some M.I. Magazines as soon as possible, and it will be greatly appreciated. Please start with (Volume 1, Issue 1, June 1979) as I do not have it.

P.S. Also I noticed your other ad for Mix Magazine. I would also like to receive it along with M.I. Magazine. If possible, I would like to have every issue of Mix, starting with (Volume 1, Issue 1). If a back issue supply is not available, just send me a copy of each back issue for myself, so that I won't miss out on reading your super magazines.

Hope to hear from you very soon as I will be looking forward to reading M.I. and Mix myself, and also letting my customers know about them.

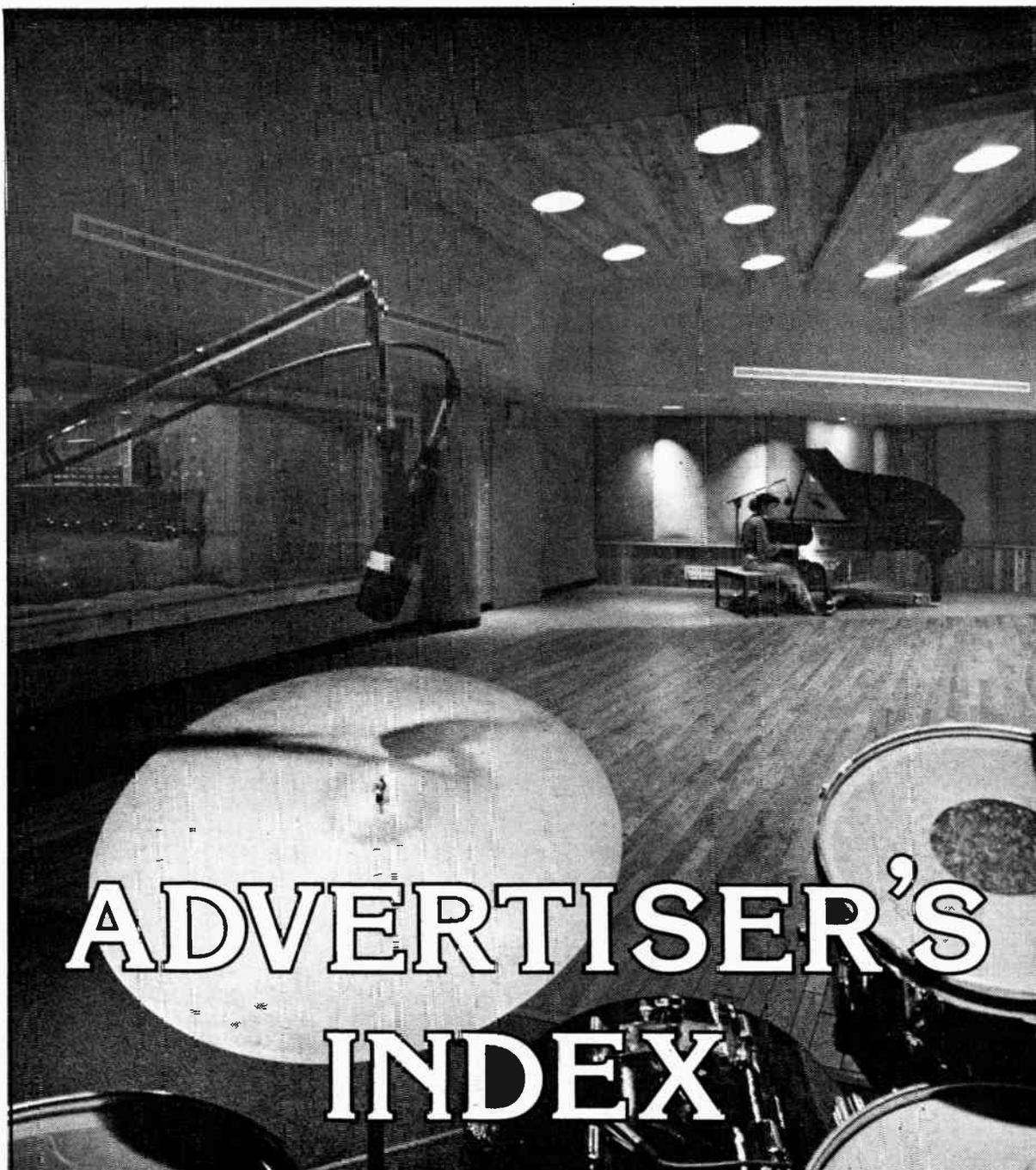
Sincerely,
Mr. Laddie Wood
c/o Lost River Recording Studio
Paducah, Kentucky 42001

Dear Laddie,

We're glad you like M.I. We've gotten quite a lot of response on it and think it's appropriate to review our distribution procedures.

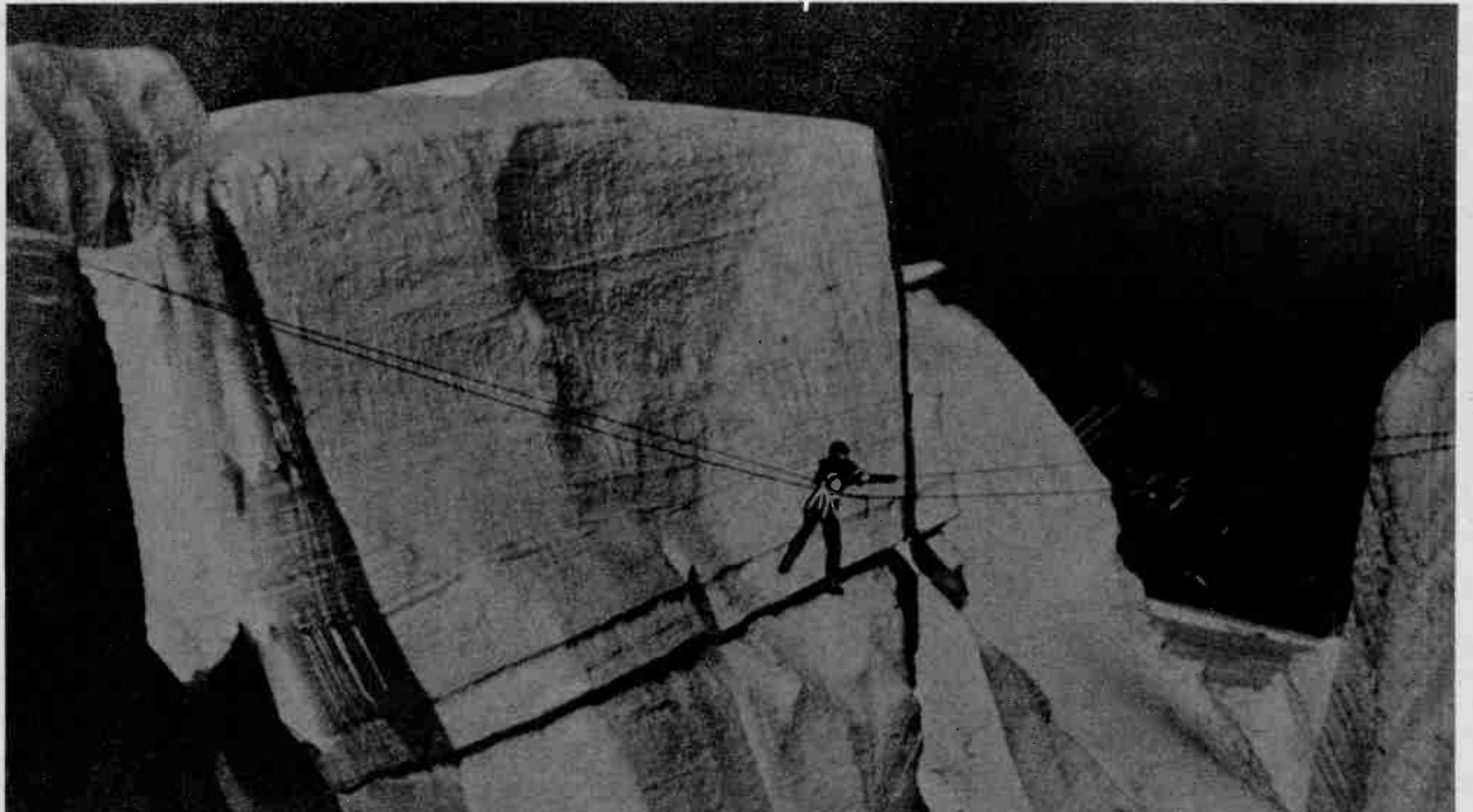
As a musical instrument dealer (or recording studio) you are entitled to complementary subscriptions to both the Mix and M.I. If you happened to be located within our major distribution areas (West Coast, New York, Nashville and Memphis areas) you would be able to receive free bundles for distribution. Outside of these areas there is a charge of \$10 per bundle of 20 magazines for each issue of Mix or M.I.

Thanks for writing.



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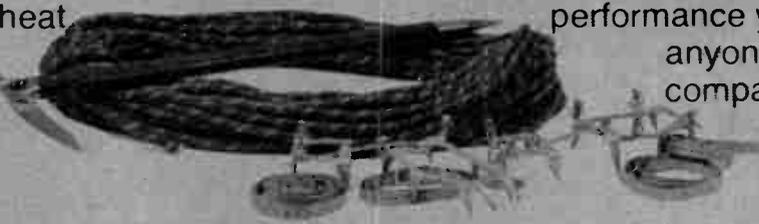


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twenty four track

•••• RPM SOUND STUDIOS

12 East 12th St., New York, NY 10003
(212) 242-2100

Owner: Bob Mason.

Studio Manager: Helene Greenspan.

Engineers: Neal Teeman.

Dimensions of Studios: 40' x 20'.

Dimensions of Control Rooms: 15' x 20'.

Tape Recorders: Studer B67 2 track; Studer A80 RC 2 track; Studer A80 Mark 2 24 track; Scully 280-4 4 track; Studer Revox A77 1/4 track Akai 750 cassette.

Mixing Consoles: MCI 428, 28 in x 24 out.

Monitor Amplifiers: Yamaha P2200, Crown DC300A, 2 Crown AC150, McIntosh 250.

Monitor Speakers: Big Reds 604E, JBL 4311, ROR E2.

Echo, Reverb, and Delay Systems: EMT 250, 2 EMT 140.

Other Outboard Equipment: 2 LA2A's; 3 1176 LN Eventide Digital Delay, Harmonizer 8, Kepex, 4 Gain Brains, flanger, MXR phaser, 6 Pultec.

Microphones: Neumann U-87's, U-47's; AKG 414's, 451's; Sennheiser 421's, 441's; Shure 57's, 58's 54's; Beyer 180's; RCA 77's; E-V RE-15's, RE-20's.

Instruments Available: Fender Rhodes, Steinway B, clavinet, ARP Odyssey, full set drums, Hammond B3, various percussion.

Extras: Guitar amp, MESA/Boogie, Music Man 212HD, Fender Deluxe, Ampex B15.

Rates: \$140/hr.

Direction: Album oriented. Credits: Dee Dee Bridgewater, Ubiquity Star Booty, Mantus, Talking Heads, Janus Ian, Stan Getz. Philosophy: Cinnamon in the coffee, water the plants daily.

•••• SECRET SOUND STUDIO, INC.

147 West 24 Street, New York, NY 10011
(212) 691-7674

Owner: Jack Malken.

Studio Manager: Gene Chamlin.

Engineers: Jack Malken, Gus Skinas, Michael Barry, Darroll Gustamachio, Jason Corsaro, Ed Sullivan.

Dimensions of Studios: 25' x 33'.

Dimensions of Control Rooms: 15' x 18'.

Tape Recorders: Studer A-80 24 track; Studer B-67 2 track; Ampex ATR-100 2 track.

Mixing Consoles: MCI JH-416, 32 in x 24 out.

Monitor Amplifiers: McIntosh, Citation, Crown.

Monitor Speakers: 2 Klipschorns, 2 Klipsch LaScalas, 2 Secret Sound Cubes, 2 JBL 4311's.

Echo, Reverb, and Delay Systems: EMT 240, EMT 140, Eventide Digital Delay, Cooper Time Cube, Eventide Harmonizer.

Other Outboard Equipment: dbx, Dolby noise reduction, compressor/limiters, UREI, Roger Mayer, Bell Electronics flanger, Eventide Instant Flanger, API Graphic, Pultec, Lang equalizers.

Microphones: Neumann, Beyer, AKG, Shure, Sennheiser, Sony, etc. Approx. 40 mics available.

Instruments Available: Fender Rhodes, Moog, Yamaha grand piano, Melletron, full drum set, MESA/Boogie amp, Fender Twin reverb amp, Sunn Twin 15 amp.

Extras: JWC 6300 video cassette recorder, full video recording and editing available.

Rates: 24 track \$150/hr; 16 track \$120/hr.

Direction: Southside Johnny and the Jukes, "Hearts of Stone," Spyro Gyra, "Morning Dance," third album in progress; Michael Zager Band, "Life's a Party," albums 1 and 2; Evelyn "Champagne" King, "Music Box"; Tony Williams, "Joy of Flying"; Harry Chapin, "Living Room Suite," "Dance Band on the Titanic," untitled new LP; Todd Rundgren, "Wizard," "Todd," "Faithful," Brecker Brothers, "Brecker Brothers".

•••• SIGMA SOUND STUDIOS OF NEW YORK INC.

1697 Broadway, 10th Floor, New York, NY 10019
(212) 582-5055

Owner: Joseph D. Tarsia.

Studio Manager: Barbara Tiese, Jap Mark, Harry Chipetz.

Engineers: Andy Abrams, Jim Dougherty, Mike Hutchinson, Jay Mark, Steven Tose.

Dimensions of Studios: Studio 5: 26' x 40' (shell); Studio 7: 23' x 35'.

Dimensions of Control Rooms: Studio 5: 17' x 17'; Studio 6: 12' x 12' (production room); Studio 7: 19' x 20'; Studio 8: 19' x 20' (mix room).

Tape Recorders: 4 3M M79 24 track; 4 ATR 100 2 track; 2 3M M79 2 track; 2 3M M64 2 track; Scully 280 4 track; 5 Revox A700 1/4 track; 5 Nakamichi 700 Mark 2 cassette.

Mixing Consoles: 2 MCI Custom, 32 in x 16 out; MCI Custom, 48 in x 16 out; Custom Production Desk, 12 in x 2 out.

Monitor Amplifiers: Marantz 250, Marantz 500, Phase Linear 400 Crown DC 300.

Monitor Speakers: UREI 813's, Big Reds, ROR's.

Echo, Reverb, and Delay Systems: EMT 140, EMT 240, Lexicon 224 digital reverb, Lexicon Prime Time DDL, Lexicon stereo, Delta T DDL, Delta Lab DDL, Marshall Time Modulator.

Other Outboard Equipment: UREI limiter, CBS limiter, Allison Gain Brains, dbx limiter, Compex limiter, Orban DS, Eventide Phaser, Eventide Flanger, MXR flangers, Orban parametric equalizer, Pultec equalizers, EXR Exciter, Aphex, Eventide Harmonizer, Dolby, dbx, Kepex.

Microphones: AKG D224, 451, 452, 414; Beyer 160, 260, M500; Sony ECM 22; E-V RE-15, RE-20, 635A, 666; Shure 56; Neumann 87, 84, 89, 47; RCA BX 5, DX77, DX44; Altec 663; Sennheiser 421, 816.

Instruments Available: Steinway 7' grand pianos, Hammond organ, Hohner clavinet, Rhodes pianos; MESA/Boogie, Music Man, Ampeg, Marshall amplifiers; Ludwig and Hayman drums, percussion equipment, Wurlitzer electric piano.

Extras: 24 to 24 track transfers.

Rates: 24 track recording and mixing \$170/hr; SMPTE 48 track mixing \$270/hr; 2 inch to 2 inch transfer \$210/hr; 2 track dubbing and assembly \$55/hr; 2 track production \$85/hr; extra 2 track \$25/hr; weekends add \$30/hr.

Direction: Our goal is and has been to provide our clients with a relaxing, comfortable studio environment, state-of-the-art equipment and services, and an uncompromising attitude on the part of our engineering and maintenance staff toward producing the best possible product.

•••• SOUND IDEAS STUDIOS

151 West 46th St., New York, NY 10036
(212) 575-1711, 245-8221

Owner: George Klabin.

Studio Manager: Bob Schaffner.

Engineers: Jim McCurdy, George Klabin, Kathy Dennis, Tom Roberts; chief technical engineer Paul Hulse.

Dimensions of Studios: A: 1200 sq. ft.; C: 1700 sq. ft.

Dimensions of Control Rooms: A: 20' x 16'; C: 30' x 16'.

Tape Recorders: 2 MCI JH 114-24 24 track; MCI 210 2 track; MCI JH-110 4 track; Scully 280 2 track.

Mixing Consoles: API 32/32, 28 in x 24 out; Aengus Series II w/Penny & Giles, 32 in x 24 out.

Monitor Amplifiers: McIntosh and SAE.

Monitor Speakers: Altec A-19's, 604E's; JBL 100's, 99's; Auratones.

Echo, Reverb, and Delay Systems: AKG BX20's, EMT plate (stereo), live chamber, Eventide DDL, Harmonizer, phaser, Omnipressor, Loft analog delay flanger.

Other Outboard Equipment: UREI 1176's, LA3A, LA2A, dbx 160's; Kepex; Gain Brains; Pultec & Ashly Outboard EQ.

Microphones: Neumann U-87, U-47, M-49, KM-84, KM-86; AKG 451, 414, D224E, D202, D-1000E; Sennheiser MD 421, 441; E-V RE-20, 666, 654, 654A; Beyer M160, M500; RCA 77; Sony ECM-50.

Instruments Available: Steinway grand pianos, Hammond B-3 organ w/Leslie, full drum sets, bass amps, Fender guitar amps, Roland, Yamaha, misc. percussion.

Extras: Fender Rhodes piano, Hohner D-6 clavinet, Musser vibes, Roto Toms, LP conga & tumba, Roland string synthesizer, Syndrum, full coat and mag stripe 35 mm, color video projection, Allison Fadex automation, Dolby noise reduction.

Direction: Service oriented, no hype; commercials and film scores as well as records. Credits: "A Fifth of Beethoven," album, Walter Murphy; "You Are My Starship," album, Norman Connors; "Brass Construction III," Meat Loaf, "Bat Out of Hell," mix; Dexter Gordon, "Sophisticated Giant," album; James Brown, "Hot," "Hell," "Reality," Albums; "Quazar," Artista album; film scores: "Coffy," "The American Game," "Cold River," "Summer Dog".

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If you have a commercially available 4/8/16/24 track recording studio in California, Washington, Oregon, New York, or the Nashville/Memphis area, and would like to be listed, free, in our directory, fill in the coupon below and return it to:

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Albany Branch
Berkeley, CA 94706

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4 TRACK 16 TRACK
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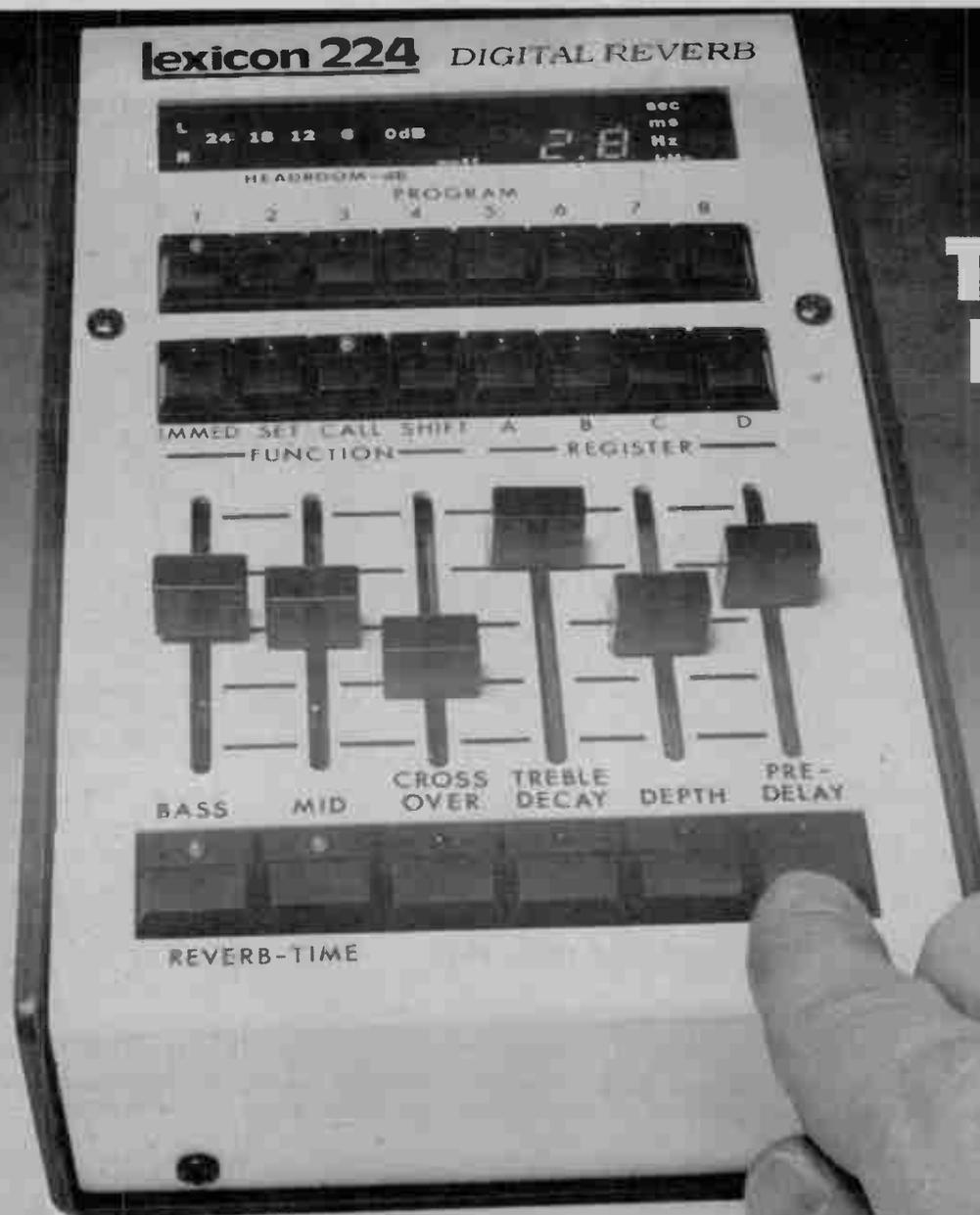
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**Model 224 reverberation system
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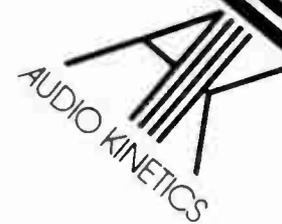
652 Glenbrook Road, Stamford, CT 06906 Tel: (203) 359-2312

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Tape Recorders: MCI JH-16 24 track.
Mixing Consoles: MCI automated JH400. 28 in x 24 out; Audio Design, 20 in x 16 out.
Monitor Amplifiers: Crown D 150s, McIntosh 60s.
Monitor Speakers: Big Reds, Auratones.
Echo, Reverb, and Delay Systems: EMT Plate (stereo), Fairchild Spring.
Other Outboard Equipment: Marshall Time Delay.
Microphones: Neumann 47s, 67s; Sennheiser 421s; E-V RE-15s.
Instruments Available: Steinway 6½' grand piano, Wurlitzer Tack piano, Hammond C-3 w/Leslie, Fender reverb amp, Fender Bassman amp, drum kit.
Extras: Hat collection.
Rates: \$165/hr, no charge for set up.
Direction: Sex, drugs, rock and roll, and disco.

•••• PENNY LANE STUDIOS

1350 Avenue of the Americas, New York, NY 10019
 (212) 697-4800

Owner: Harley Flaum.
Studio Manager: Mandy Aimetti.
Engineers: Alan Varner, John Terelle, Brian Marine.
Dimensions of Studios: 25' x 36'.
Dimensions of Control Rooms: A: 18' x 20'; B: 17' x 19'.
Tape Recorders: 3M 79 24 track; 2 Ampex ATR 4 track; 4 Ampex ATR 2 track.
Mixing Consoles: Trident TSM. 32 in x 24 out; Trident Felix-mix, 8 in x 4 out.
Monitor Amplifiers: McIntosh 2200s.
Monitor Speakers: Big Reds, EM Long MDM 4's.
Echo, Reverb, and Delay Systems: EMT 140, AKG BX20, Lexicon Prime Time, Eventide.
Other Outboard Equipment: 1176's, LA-3A's, Kepex, Gain Brain, Trident limiter, compressor, phasers, flangers.
Microphones: Neumann 87's, 48, 67; AKG 414, 452; Sennheiser 421; Beyers 88, 201; E-V RE-16, RE-20; Sony 22; Shure SM-57.
Instruments Available: Drums, piano (Steinway), Rhodes.
Rates: 24 track \$180/hr, 4 or 2 track \$75/hr.
Direction: Recent projects include, Aretha Franklin, Stephen Bishop, Steely Dan, Anacostia.

•••• PLAZA SOUND STUDIOS, INC.

10 Brussel Dr., New Hyde Park, NY 11040
 (212) 757-6111

Owner: Gregg Raffa, Jr.
Studio Manager: Rob Freeman.
Engineers: Rob Freeman, Don Hunerberg, Eric Block, Reese Virgin.
Dimensions of Studios: 60' x 35' x 20'.
Dimensions of Control Rooms: 12' x 20'.
Tape Recorders: Studer A 80 24 track; Studer A 80 2 track; Studer B 67 2 track; MCI 4 track.
Mixing Consoles: API, 32 in x 24 out.
Monitor Amplifiers: McIntosh.
Monitor Speakers: JBL 4311's, E-V, Sentry III, Auratones.
Echo, Reverb, and Delay Systems: EMT, Eventide Digital Delay.
Other Outboard Equipment: UREI limiters, Pultec EQ, Eventide Harmonizer, Orban EQ, MXR flanger, Audio Design Com-pex.
Microphones: Neumann 47, 87, 56; Sennheiser 421; Beyers 500, 160; AKG C60; others.
Instruments Available: Steinway 9' piano, Yamaha CP30, Celeste, vibes, xylophone, drums, Baldwin electric harpsichord, Kramer bass and guitar.
Extras: 3 manual Wurlitzer pipe organs in studio.
Rates: 24 track \$190/hr (incl. Dolbys).
Direction: Kiss, Blondie, Rupert Holmes, Milt Jackson and Wes Montgomery, Robert Gordon, John Miles, The Laughing Dogs, Ramones. Good sounds. To provide the best possible engineers and equipment within a pleasurable atmosphere so that excellent productions are guaranteed.

•••• POWER STATION

441 W. 53rd, New York, NY 10019
 (212) 248-2900

Owner: Bob Walters, Tony Boujou.

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•••• PREMIER SOUND RECORDING

2 W. 45th St., New York, NY 10036
 (212) 730-0757

Owner: Dan Kornfield, Martin Grupp.
Studio Manager: Manny Corrello, James Babbit.
Engineers: Alfred Vanderbilt, John Orr, Kevin Halpin.
Tape Recorders: Ampex MM1200 24 track; Scully 16, 4, and 2 track, mono.
Mixing Consoles: API, 35 in x 24 out.
Monitor Amplifiers: Crown.
Monitor Speakers: JBL 4243.
Echo, Reverb, and Delay Systems: Master Room, EMT.
Microphones: AKG 414; Neumann 67, 47, 48, 49; Sennheiser 421; E-V RE-15; Beyers MD101; RCA 77, 44; Shure 57; Altec; Birdcage.
Instruments Available: Steinway grand, Hammond B3, xylophone, vibes, tympani, tack piano, bells, chimes, percussion, drum kits.
Extras: Video facilities, 35 mag equip.
Rates: On request.
Direction: Specializing in commercials and demos.

•••• RCA RECORDING STUDIOS

1133 Ave. of the Americas, New York, NY 10036
 (212) 598-5900

Owner: RCA.
Studio Manager: Gene Cattani; director of operation Larry Schapf.
Dimensions of Studios: A: 60' x 100' x 30'; B: 50' x 75' x 28'; C: 50' x 75' x 25'; D: 30' x 40' x 15'; E: 15' x 25' x 10'; F: 15' x 25' x 10'.
Dimensions of Control Rooms: A, B, C: 30' x 40'; x 25.
Tape Recorders: ATR 100 24 track; Ampex 1200 24 track; MCI 24 track; AG 440 8, 4 and 2 track; Scully.
Mixing Consoles: 6 Neve.
Monitor Amplifiers: Crown, McIntosh 2100.
Monitor Speakers: Modified Super Red.
Echo, Reverb, and Delay Systems: All brands, full compliment.
Other Outboard Equipment: All brands, full compliment.
Microphones: Complete line.
Instruments Available: All major instruments.
Extras: 9 Mastering rooms, Laquer channel, 2 Scully lathes, 3 Neumann SAL74, VMS 70, 2 half speed for quad, direct to disc facilities.
Rates: On request. Manager of custom sales, Leonard Lawson (212) 598-4041.
Direction: A complete recording facility; records, movies; from Beethoven to Bowie.

•••• RECORD PLANT STUDIOS LTD.

321 W. 44th St., New York, NY 10036
 (212) 581-6505

Owner: Roy Cicala.
Studio Manager: Paul A. Sloman.
Engineers: Jay Messina, Shelly Yakus, Dave Thoerner, Rod O'Brien, Sam Ginsburg, Jay Krugman, Tom Panunzio.
Dimensions of Studios: A: 24' x 40' x 11½'; plus 2 isolation booths; B: 29' x 36' x 11'; C: 28' x 18' x 10'; Mix: 9½' x 16' x 10'.

Tape Recorders: Ampex 1200 24 track; Ampex ATR-100 2 track.

Mixing Consoles: API 3232, 40 in x 32 out; Spectra Sonics Custom, 40 in x 32 out; API Custom; Black Truck API Custom, 44/88 in x 32 out; White Truck DeMedio Custom.

Monitor Amplifiers: Crown.

Monitor Speakers: Westlake (Hidley).

Echo, Reverb, and Delay Systems: EMT, Industrial Research, Eventide.

Other Outboard Equipment: Too.

Microphones: Please call for info. We have all types.

Instruments Available: Guitar amps, drums, pianos, organs.

Extras: SMPTE (48 track).

Rates: 24 track record and mix \$175/hr; 16 track record and mix \$165/hr.

•••• REGENT SOUND STUDIOS

25 W. 56th St., New York, NY 10019
 (212) 245-2830

Owner: Robert Liftin.
Studio Manager: Operations manager, Ken Hahn.
Engineers: Chief engineer Bill Marino; assistant, Elissa Kline; Dan Nash.
Dimensions of Studios: A: 46' x 32'; B: 16' x 20'.
Dimensions of Control Rooms: A and B: 16' x 20'.
Tape Recorders: 2 Ampex MM1200 24 track; Sony 2800 ¾ video; Nakamichi cassette; stereo lay back head; ATR 110 2 track; Ampex 440 2 track; Ampex 440 4 track; Nagra 440 mono.
Mixing Consoles: 2 MCI 528, 28 in x 24 out; 2 EECO MQS100, synchronizer.
Monitor Amplifiers: Crown.
Monitor Speakers: JBL 4311, Altec 604E, Auratone.
Echo, Reverb, and Delay Systems: Live chamber in "A", Master-Room in "B", Lexicon 224 reverberator, Lexicon 102 digital delay.
Other Outboard Equipment: Marshall Time Modulator, Scamp rack, UREI Little Dipper, UREI limiters.
Microphones: Neumann 89, 87, 84; E-V 20, 16, 15; AKG 451; Barcus Berry; ECM 50.
Instruments Available: Yamaha C-3, Fender Rhodes, Ampeg and Fender amps, Steinway "B", Hammond B-3, Ludwig and Sonor drums, xylophone, vibe, tympani.
Extras: Click track, SMPTE time code 60Hz, 59.95 Hz, 14 KHz.
Rates: On request.
Direction: Basically a recording facility that can provide synchronization for all its sources with SMPT time code; unlimited tracks; records, TV, commercials. Try me to bring the quality of audio associates with video, film, TV, non comm TV and future video disc. A leader in this field. Consultation for sync problems and solutions.

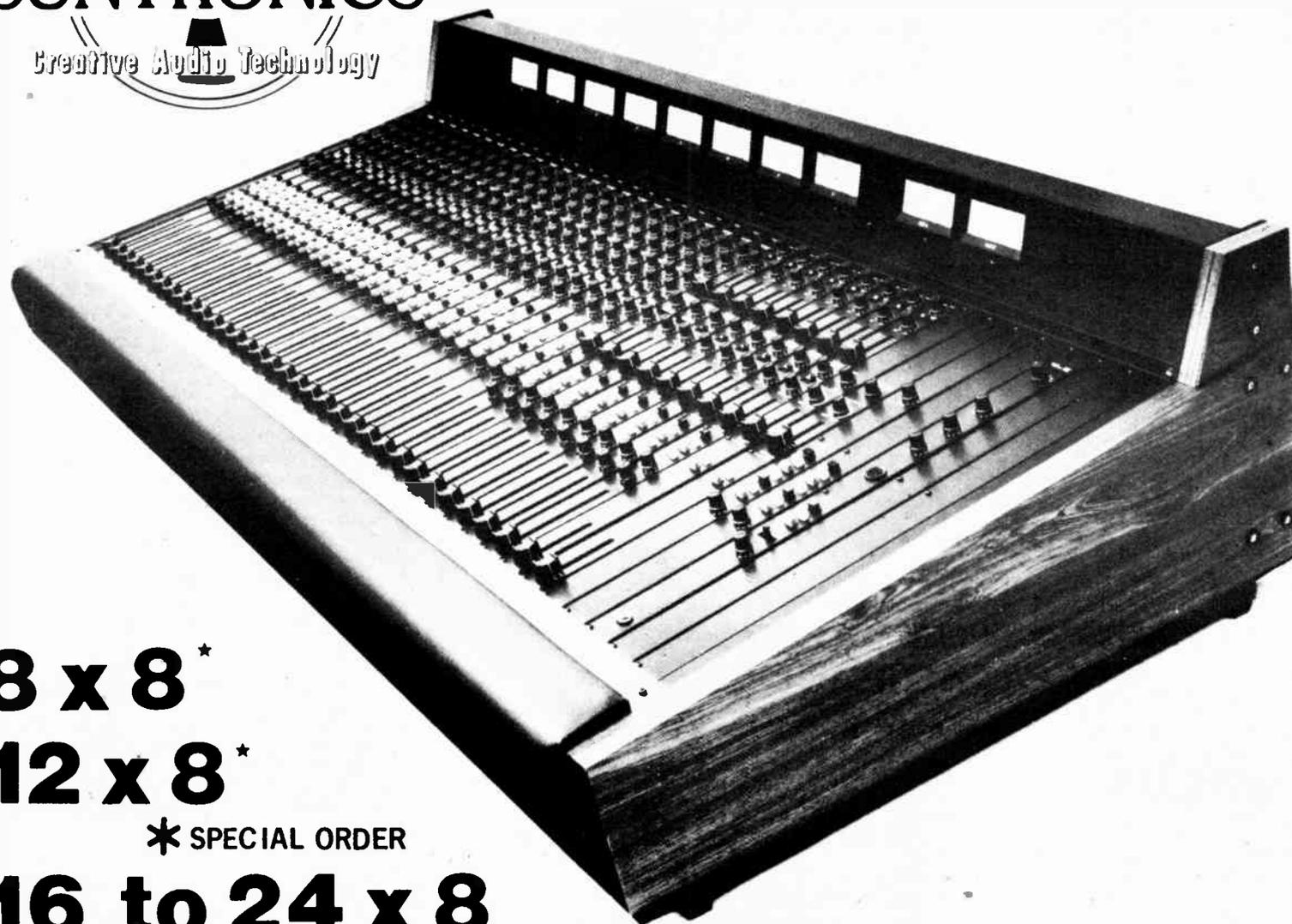
•••• RIGHT TRACK RECORDING

49 N. 24th St., New York, NY 10010
 (212) 243-4782

Owner: Simon Anarewi.
Studio Manager: Simon Anarewi.
Engineers: David Stone, chief engineer; Paul Stevens, assistant engineer; Lucy Laurie.
Dimensions of Studios: 30' x 30'.
Dimensions of Control Rooms: 16' x 16'.
Tape Recorders: MCI JH14/24 24/16/8 track; Ampex ATR 100 2 track; Scully 280B 2 track.
Mixing Consoles: Audiotronics/Allison Research 501/Fadex automation, 32 in x 24 out; plus 4 sub prop.
Monitor Amplifiers: BGW and Crown.
Monitor Speakers: JBL 4330, Auratones, Big Reds.
Echo, Reverb, and Delay Systems: EMT, AKG.
Other Outboard Equipment: Delay, Harmonizer, Marshall Time Modulator, Kepex, RM, parametric Orban and SAE limiters, UREI 1176, UREI LA4, dbx 160, flanger, etc. Full dbx noise reduction.
Microphones: Neumann U-87, U-47; Sennheiser M4L1, 441; AKG; Shure, etc.
Instruments Available: Yamaha concert grand, Fender Rhodes, ARP String, Mini Moog, Syn DMS, Gretsch drum kit, Hammond B3.
Extras: No extra charges.
Rates: 24 track \$125/hr with automation; 16 track \$75/hr, 8 track \$50/hr.



TASCAM Model 15



8 x 8*

12 x 8*

* SPECIAL ORDER

16 to 24 x 8

SUNTRONICS now has available the Teac Tascam Model 15 Recording Mixing Console, available with 8 to 24 input module configurations, which are determined by your particular requirements. This allows you to maintain eight outputs and add extra input modules for effects and microphone inputs, as needed.

PRICES

8 x 8*	\$5,500
12 x 8*	\$6,500
16 x 8	\$7,500
20 x 8	\$8,500
24 x 8	\$9,500

Additional modules are available for \$250 each (exchange) with blank filler Panel.

These Prices include Teac cables for hookup to the recorder and auxiliary equipment (cables up to 10 feet).

Quantity to be determined at point of sale.

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 1620 W. Foothill Blvd. **UPLAND, CA**
 91786

•••• LA TIERRA SOUND STUDIOS LTD.

1440 Broadway, New York, NY 10018
(212) 354-0040

Owner: Fania Record's.

Studio Manager: Terry Borges.

Engineers: Mario Salvati, Irv Greenbaum.

Dimensions of Studios: 25' x 30' x 20'

Dimensions of Control Rooms: 15' x 15' x 8'

Tape Recorders: MCI JH-114 24 track; Scully 280-B 2 track; Scully 280-B mono.

Mixing Consoles: Acoustilog custom design, 24 in x 28 out.

Monitor Amplifiers: McIntosh and Crown.

Monitor Speakers: Super Red's, Auratones, Altec.

Echo, Reverb, and Delay Systems: 2-Live Chambers.

Other Outboard Equipment: LA2A limiters, vocal stresser ROR stereo parametric, Pultec EQ.

Microphones: Neumann U-87, U-67s, U-47s, U47 FET, KM86, M49, Sennheiser 421s, 441; Beyer 201s, M160s; AKG C451s, D12, D1000; RCA 44s, BK-5.

Instruments Available: Steinway 6' grand, Fender Twin, Ampeg B-15, congas.

Extras: Production and performer assistance, staff of session musicians.

Rates: Call for information.

Direction: Credits: All Fania records and subsidiary productions; philosophy: the best in Latin recording.

•••• LATIN RECORDING SOUND STUDIOS

1733 Broadway, New York, NY 10019
(212) 541-6072

Owner: Raul Alarcon.

Studio Manager: Alfredo Li.

Engineers: Jon Fausty, Alfredo Li, Fred Weinberg, Willy Lopez, Jorge Rosales.

Dimensions of Studios: A: 40' x 20'; B: 10' x 7'; C: 10' x 10'

Dimensions of Control Rooms: A: 20' x 30'; B: 20' x 40'; C: 10' x 15'

Tape Recorders: Ampex MM1200 24 track; Scully 100 16 track; MCI 4 track; MCI 2 track; Scully 280 2 track; Scully 280 1 track.

Mixing Consoles: Audiotronics, 27 in x 24 out; Audio Designs, 20 in x 16 out; TEAC, 100 in x 4 out.

Monitor Amplifiers: McIntosh, Crown.

Monitor Speakers: Altec 604E, JBL 411, Big Reds.

Echo, Reverb, and Delay Systems: AKG, Eventide DDL.

Microphones: Neumann, Sennheiser, AKG, Sony.

Instruments Available: Steinway and Son piano, Gibson bass, Gretsch drum set, Road bass amps, Hammond B-3 organs.

Extras: Gates cart machines, Technics turntables, Nakamichi cassette deck, Roberts portable recorder, complete sound effects library.

Rates: A: 24 track \$125/hr, 16 track \$85/hr; B: 16 track \$85/hr, 8 track \$60/hr; C: 4 track \$50/hr, 2 track \$40/hr.

Direction: For over 5 years, Latin Sound has been serving the Latin recording industry. We are generally considered the mecca of the Latin music industry as is evidenced by the long list of our prominent clients. Recently, we have also been doing quite a number of disco dates. Our studio C has for years been the first and foremost promotional spot recording studio for the Hispanic market.

•••• MAI FAIR RECORDING STUDIO LTD.

701 7th Ave., New York, NY 10036
(212) 581-2178

Owner: William Schreer.

Studio Manager: Joyce Manchess.

Engineers: Edward Smith, Leneord Manchess.

Dimensions of Studios: 30' x 40'

Dimensions of Control Rooms: 15' x 30'

Tape Recorders: Ampex 24, 8, 4, 2, and 1 track.

Mixing Consoles: Custom, 8 in x 16 out; Audio Designs, 32 in x 24 out.

Monitor Amplifiers: Altec Lansing.

Monitor Speakers: "A" Super Red, "B" 605.

Echo, Reverb, and Delay Systems: BX20 (2).

Microphones: Neumanns, AKG, Sennheiser, E-V.

Instruments Available: Steinway, Hammond, drum kit.

Extras: 35 mag equipment, AMPE 7800, video recording, Mastering equipment.

Rates: \$65/hr, 24 track; \$135/hr, 16 track; \$90/hr, 8 track; \$60/hr, 4 track; \$50/hr, 2 track and mono.

Direction: Specializing in commercial recording.

twenty four track

•••• MALCOLM ADDEY RECORDERS

A Division of Kaleb Sounds Inc.

also REMOTE RECORDING

210 Riverside Drive New York, NY 10025
(212) 865-3108

Owner: Malcolm Addey.

Studio Manager: Malcolm Addey.

Engineers: Malcolm Addey, chief; Allan Tucker, assoc.

Dimensions of Control Rooms: 15' x 15', remixing, multi-machine mixing and tape editing and copying only.

Tape Recorders: E-V, MCI, 3M & Ampex 2-24 tracks; Ampex mono.

Mixing Consoles: Custom, 48 in x 24 out.

Monitor Amplifiers: Crown.

Monitor Speakers: Altec 604E, JBL 4311, Auratone.

Echo, Reverb, and Delay Systems: AKG BX10E.

Other Outboard Equipment: UREI LA3A, 175 & 1176LN; Fairchild 670; Orban Stereo synthesizer; Orban parametric EQ 622B; Pultec EQ; Hi/Lo pass filters; Dolby A, etc.

Microphones: Neumann U-87; Sony C38; ECM22P; Beyer 160, 500; AKG 451; Sennheiser 421; RCA 44BX, 77DX; E-V; Shure, etc.

Extras: Snakes (27 & 15 pairs), direct boxes, splitters, etc.

Rates: According to facilities, call for quotation.

Direction: We specialize in remote packages that cater to smaller labels with modest budgets as well as the superstar category. Credits include "live" recordings for Mel Torme, Buddy Rich, Yuri Egorov, John Lee Hooker, Kenny Burrell, Dexter Gordon, Savoy Records, Muse Records, radio and TV broadcasts. Malcolm Addey's recent studio recording studio credits include Debby Boone's "You Light Up My Life" (at A&R, New York).

•••• MEDIASOUND INC.

311 W. 57th St., New York, NY 10019
(212) 765-4700

Owner: Joel Rosenman, John Roberts.

Studio Manager: Susan Planer.

Engineers: Fred Christie, Alec Head, Harvey Goldberg, Doug Epstein, Mike Barbiero, Michael Brauer, Bill Stein, Phil Shrago.

Dimensions of Studios: A: 30' x 50' (former church); B: 20' x 20'; C: 10' x 15'; lounge 15' x 15'.

Dimensions of Control Rooms: A: 15' x 10'; B: 14' x 14'; C: 10' x 14'; lounge control room 10' x 14'.

Tape Recorders: 3M M-79 24 track; MCI JH-114 24 track; Studer A-80RC 2 track; MCI JH-110 4 track; Scully 280 mono.

Mixing Consoles: Neve 8086 modified, 42 in x 32 out; Harrison 4032 32 in x 32 out; API 280, mono.

Monitor Amplifiers: Phase Linear 700.

Monitor Speakers: Big Reds, Mastering Lab crossover.

Echo, Reverb, and Delay Systems: EMT-140, AKG, Gram-phon, Eventide DDL, Lexicon Prime Time.

Other Outboard Equipment: Pultec EQ, UREI limiters, Neve limiters, Eventide Phasers and Flangers, MXR phasers and flangers, Kepex, Gaia Brain, Eventide Harmonizers, Marshall Time Modulators.

Microphones: Neumann, AKG, Shure, Sennheiser, E-V, Beyer, Pressure Zone.

Instruments Available: Vibes, xylophone, Celeste, Hammond organ, Fender Rhodes, clavinet.

Rates: Upon request.

•••• MINOT SOUND

19 South Broadway, White Plains, NY 10601
(914) 428-8080

Owner: Ron Carran.

Studio Manager: Thom Cimillo.

Engineers: Ron Carran, Ray Bardani.

Dimensions of Studios: 40' x 25'.

Tape Recorders: MCI JH100 24 track; Ampex 440A 2 track;

Scully 280B 2 track; MCI JH114 2 track.

Mixing Consoles: MCI 428, 28 in x 24 out.

Monitor Amplifiers: McIntosh 2300, H/H 100s.

Monitor Speakers: Big Reds.

Echo, Reverb, and Delay Systems: EMT, AKG, Eventide, Cooper, Lexicon.

Other Outboard Equipment: Kepex, Pultec, UREI limiters, Orban EQ, API limiters, EQ, phaser, flanger, scamp rack, auto pan-ner, dbx limiters, DG metronome, VTR facilities.

Microphones: Neumann U-87, KM84, KM86, U-47; Sennheiser 421; Shure SM-57; AKG 414, 451; E-V; plus many others.

Instruments Available: Rhodes, Steinway, clavinet, Hammond guitar amps, bass amps, drums, congas, vibes, timpani, misc. perc. equip., synthesizers.

Extras: Storage, production arranging.

Rates: \$110/hr, 24 and 16 track; \$50/hr, 2 track.

Direction: Tasha Thomas, Atlantic; Nils Lofgren, AM; Harry Chapin, Electra; Country Joe, Fantasy; Chip Taylor, Columbia, Capitol; Pat Adams, Atlantic; Laura Nyro, Columbia; plus all other major labels.

•••• NATIONAL RECORDING

730 5th Ave., New York, NY 10019
(212) 757-8440

Owner: H.W. Lustig, I. Kaufman.

Studio Manager: Geo. DiVita.

Engineers: More than 30 staff engineers.

Dimensions of Studios: 72' x 54' (largest). We have 10 operating studios and are constructing seven more.

Dimensions of Control Rooms: 18' x 24' (largest).

Tape Recorders: MCI, Ampex, Scully up to 48 track. More than 40 recorders.

Mixing Consoles: MCI, Audio Design, Altec, etc.

Monitor Amplifiers: Crown and McIntosh.

Monitor Speakers: Altec.

Echo, Reverb, and Delay Systems: EMT, AKG.

Other Outboard Equipment: Too numerous to list.

Microphones: Too numerous to list.

Instruments Available: All.

Extras: You name it, if we don't have it we'll get it.

Rates: Call for rates.

Direction: We are active in audio, video and film. We have an 8 track cassette factory. We have just taken over the entire West Side Air Terminal Bldg. and are in the process of building more facilities. We will probably be the largest in the country.

•••• NOLA RECORDING STUDIOS INC.

"THE PENTHOUSE"

111 W. 57th St., New York, NY 10019
(212) 586-0040.

Owner: Phil Johann, John Post, Jim Czak.

Studio Manager: Karen Taylor.

Engineers: John Post, Jim Czak, Tim Mulligan.

Dimensions of Studios: A: 45' x 27'; B: 25' x 20'.

Tape Recorders: MCI 24 track; MCI 2 track; Auto-Tec 2 track; Ampex 300-351 2 track.

Mixing Consoles: MCI 428, 28 in x 24 out.

Monitor Amplifiers: Crowns 300, 150s; MAC 75, 150, 250.

Monitor Speakers: UREI Time Align 604s, JBL 4311, Auratones.

Echo, Reverb, and Delay Systems: EMTs (2 each), Lexicon Prime Time, Fairchild Rev., Eventide Harmonizer.

Other Outboard Equipment: Eventide Limiters, UREI graphic EQs, API 525s, Altec limiters, Kepex's, Pultecs, Cine filters.

Microphones: U-47s, U-67s, U-87s, RE-15, 16, 20s, 421s; Shure 57s; Altec 665; Salt Shakers, 44BXs, 77DX.

Instruments Available: Steinway "B", Hammond B-3, Gretsch drums, vibes, xylophone, chimes, orch. bells, bell tree, Syna drum, Mini Moog, Fender Rhodes, perc. inst.

Extras: Dolby noise reduction, Burwen noise filter, guitar amps, Fender, Ampeg, Roland, automatic Scully lathe, Westrex 3D, Mastering system.

Rates: Vary \$50-150/hr.

Direction: To make recordings a most comfortable and pleasureable experience and to produce the highest quality state of the art product. Aspirations: to make Nola the best.

•••• OPAL STUDIOS INC.

254 West 54th St., New York, NY 10019
(212) 489-8097

Owner: John Gomez and Elliot Rosoff.

Studio Manager: Terry L. Rodie.

Engineers: Llew Horowitz, chief engineer; Billie Kessler, Terry L. Rodie.

Dimensions of Studios: 125' x 75'.

Dimensions of Control Rooms: 25' x 15'.

 **YAMAHA PROFESSIONAL SOUND PRODUCTS**

AVAILABLE FROM:

PRO MEDIA 

(415) 957-1383



YAMAHA PM-2000 MIXER

•••• EAST SIDE SOUND CO., INC.
99 Orchard Street, New York, NY 10002
(212) 228-6365

Owner: Pres.: Lou Holtzman.
Studio Manager: Susan Holtzman.
Engineers: Lou Holtzman, John Rhodes.
Dimensions of Studios: 20' x 35'.
Dimensions of Control Rooms: 20' x 18'.
Tape Recorders: 3M with selectake M79, 24 track; Ampex ATR 100 2 track; MCI 2 track.
Mixing Consoles: MCI JH-636, 28 in x 24 out, fully automated.
Monitor Amplifiers: Crown.
Monitor Speakers: UREI 813 Time Aligned.
Echo, Reverb, and Delay Systems: Master-Room 'C' Series, Master-Room MK2, Lexicon Prime Time.
Other Outboard Equipment: UREI, dbx, Roger Mayer limiters; Orban/Parasound parametric EQ, UREI parametric EQ, 24 channels dbx noise reduction, 8 channels Roger Mayer noise gates, Orban D'Esser.
Microphones: Neumann U-87's, Sennheiser 421's, 441's; E-V RE-20's; AKG C-414's, etc.
Instruments Available: Steinway grand piano, Rogers drums, amps, Hammond organ, Fender Telecaster bass, Wurlitzer tack piano.
Extras: Large drum booth, isolation booth, all outboard equipment included in rate. Lounge. Full high-speed tape duplicating service—cassette and reel to reel. Large and small runs for studio clients and the general public.
Rates: \$85/hr.
Direction: Call for an invitation to our grand opening, mid October.

•••• ELECTRIC LADY STUDIOS
52 West 8th St., New York, NY 10011
(212) 877-4700

Owner: Alan Selby.
Studio Manager: Steve Bramberg.
Engineers: Dave Wittman, Tom Bush, Mike Frondelli, Jim Gallante.
Dimensions of Studios: A: 42' x 37'; B: 22' x 32'; C: 25' x 20'.
Dimensions of Control Rooms: A: 16' x 24'; B: 13' x 16'; C: 20' x 24'.
Tape Recorders: (2) 3M M79 24 track; MCI JH114 24 track.
Mixing Consoles: A: Neve 8078, 72 in x 40 out; B: Neve 8068, 36 in x 32 out; C: Neve 8068, 36 in x 32 out.
Monitor Amplifiers: Crown, Yamaha.
Monitor Speakers: Westlake 4-way HR1.
Echo, Reverb, and Delay Systems: (5) EMT 140, (4) Eventide, (3) Lexicon.
Other Outboard Equipment: (3) Pultec PEQ, (3) MEQ, (3) LA2A, (2) 1176LN, (2) dbx 160, (6) Kepex phaser, flanger, Klark-Teknik graphic EQ, Orban/Parasound in each room.
Microphones: Neumann U-87, SM-69, KM-84, KM-86, KM-88, U-47; AKG 414, D-12, 451E; Electro-Voice RE-20, 666, RE-15; Shure 56, 57, 81, SM-7; Sennheiser 421, 441.
Rates: \$185/hr 24 track.

•••• ERAS RECORDING CORPORATION
226 E. 54th St., New York, NY 10022
(212) 832-8020

Owner: Boris Midney,
Studio Manager: Ray Volpe.
Engineers: Dmitri Zbizer, Brad Johnson, Ray Volpe.
Dimensions of Studios: 30' x 25'.
Dimensions of Control Rooms: 25' x 12'.
Tape Recorders: 2 Telefunken magnetophon 15A 32 track; 2 Telefunken magnetophon 15A 2 track.
Mixing Consoles: Harrison 4848, 48 in x 48 out.
Monitor Amplifiers: Altec 9440A (2), Technics SE9600P, Harmon Kardon Citation 12.
Monitor Speakers: Custom design w/JBL and ESS components.
Echo, Reverb, and Delay Systems: EMT 240 (2), Delta Lab digital delay, 2 tape delays, Fisher spring reverb.
Other Outboard Equipment: UREI 1176LN (5), UREI LA3A (2), UREI LA4 (2), Kepex (8), Eventide Harmonizer and Instant Flanger, Orban Parasound de-esser, Klark-Tekniks stereo graphic equalizer.
Microphones: Neumann U87 (4), AKG 414 (6), AKG 452 (3), Shure SM-81 (4), E-V RE-20, Sennheiser 421, E-V Re-16.
Instruments Available: Steinway Model "D" 9' Concert grand piano, Yamaha CS80 synthesizer, Wurlitzer elec. piano, Ludwig drums, LP congas, assorted percussion instruments.
Extras: dbx and Telcom noise reduction at no extra charge.
Rates: Recording, mixing and editing: 16, 24 track \$195/hr; 32 track \$225/hr; 48 track \$250/hr.
Direction: First studio designed and built for 48 track recording.

twenty four track

•••• GENERATION
1650 Broadway, New York, NY 10019
(212) 765-7400

Owner: Alan Murchio.
Studio Manager: Ben Stern.
Engineers: Anthony Stanislawski, Tony May, Nayen Harris.
Dimensions of Studios: A: 60' x 50'; C: 50' x 40'.
Dimensions of Control Rooms: A: 50' x 15'; C: 35' x 20'.
Tape Recorders: MCI 24 track; MCI 16 track.
Mixing Consoles: Audio Design, 36 in x 24 out.
Monitor Amplifiers: McIntosh 2100.
Monitor Speakers: Big Red 604E.
Echo, Reverb, and Delay Systems: EMT, Lexicon digital delay, time cube delay.
Other Outboard Equipment: Eventide Harmonizer, Kepex, UREI and dbx limiters, Eventide Flanger.
Microphones: Neumann, Sennheiser, AKG, E-V RE-20.
Instruments Available: Baldwin grand, tack piano, Leslie organ, Fender Rhodes, drum kit, SY.
Extras: Dolby dbx.
Rates: On request.
Direction: Generation 80% record dates, 20% advertising.

•••• THE HIT FACTORY
353 West 49th St., New York, NY 10036
(212) 581-9590

Owner: Ed Germano
Engineers: Ed Sprigg, Kevin Herron, Bruce Tergesen, Ted Spencer, Michael Gedlin, Frank D'Augusta, Joe Barbaria, Dave Still.
Dimensions of Studios: A-6: 40' x 30' record; A-2: 30' x 30' record; A-5: 10' x 15' o/d and mix.
Dimensions of Control Rooms: A-6: 16' x 18'; A-2: 21' x 16'; A-5: 15' x 18'.
Tape Recorders: 2 Studer A-80 24 track; MCI JH-116 24 track; STuder A-80 2 track; Studer B-67 2 track; Scully 280 2 and 4 track.
Mixing Consoles: Neve 6068 Necam, 32 in x 32 out; MCI JH-528 automated, 28 in x 32 out; Custom, API EQ.
Monitor Amplifiers: McIntosh.
Monitor Speakers: Hidley Westlake; JBL 4311, 4310; Mitsubishi DS-35B; Auratone ADS, Big Reds, Little Reds; Altec D19; Infinity's KLH.
Echo, Reverb, and Delay Systems: EMT, Eventide, Master Room, Lexicon Cooper time cube, Marshall Time Modulator, AKG.
Other Outboard Equipment: UREI limiters, Eventide Harmonizer, Pultec EQ, Lang EQ, Kepex, Omnipressor, Orban EQ, Orban D'Esser, Teletronics, Quad 8, Phaser, Roger Mayer gates, limiters, dbx, Dolby, dbx limiters, flanger, Neve limiters, UREI EQ, UREI notch filter.
Microphones: Neumann U87, KM84; Tube 47, 67, U86; Sennheiser 421, 441, 415, 416, 805; Beyer M-101, M-88; Sony C-500, ECM 22, ECM 50; AKG 452 EB, 414, C-12; RCA 77, E-V 635A.
Instruments Available: Hammond B-3, Ludwig drums, vibes, Fender Rhodes, clavinet, congas, syndrums, 2 Steinway grands, Baldwin upright.
Extras: Amps: Roland, Fender, Super-Bassman, Princeton, Ampeg, MESA/Boogie, etc.
Rates: \$200/hr.

•••• HOWARD M. SCHWARTZ RECORDING, INC.
420 Lexington Ave., Suite 1934, New York, NY 10017
(212) 687-4180

Owner: Howard M. Schwartz.
Studio Manager: Roslyn Schwartz.
Engineers: Tom Jung, Roy Latham, Bob DeFranco, Paul Lynch, Tony Little John, Tom Cahill, Dan Zellman.

Dimensions of Studios: A: 18' x 14'; B: 20' x 12'; D: 38' x 36'; F: 36' x 18'.
Dimensions of Control Rooms: A: 18' x 14'; B: 25' x 24'; C: 14' x 18'; D: 26' x 24'; F: 26' x 24'.
Tape Recorders: 6 MCI JH-114 24 track; 4 MCI JH-114 4 track; 8 MCI JH-114 2 track; 5 MCI JH-114 1 track.
Mixing Consoles: MCI 556, 56 in x 56 out; MCI 542, 38 in x 32 out; MCI 428, 28 in x 28 out; MCI 428, 28 in x 28 out.
Monitor Amplifiers: Many Crown 300/150/75, Sound 80 (6), Yamaha, Southwest Technical, H&H and Home Brew.
Monitor Speakers: UREI 813, A/T Big Red, Home Brew, Tannoy, JBL, ROR, Altec.
Echo, Reverb, and Delay Systems: EMT 250, EMT 240, Lexicon 224 (3), Audicons (2), AKG, MICMX, Prime Time, Delta T., Eventide, Marshall.
Other Outboard Equipment: 2 A&D Scamp racks, 2 A&D Compex limiters, A&D vocal stresser, Orban Parametrics, Orban D'Esser, Trident EQ's and compressors, UREI 1176, LA 2's, etc., Dolby, dbx, etc.
Microphones: All models and all manufacturers.
Instruments Available: Steinway 9', 7' and 6', Fender Rhodes, drums, amps.
Extras: Video EECO/SMPTE, mags, cassettes, high speed duplication.
Rates: Upon request.

•••• JAC RECORDING
45 W. 57th St., New York, NY 10019
(212) 753-8446

Owner: Charles Leighton.
Studio Manager: Kyle Davis.
Engineers: Charles Leighton, John Dawkins.
Dimensions of Studios: A: 42' x 28' x 12'; B: isolation.
Dimensions of Control Rooms: A: 14' x 20'; B: 13' x 17'.
Tape Recorders: Auto-Tec 624 24 track; Ampex 351 2 track.
Mixing Consoles: Custom, 32 in x 24 out.
Monitor Amplifiers: Crown B1-amp.
Monitor Speakers: Altec Hybrid A-19.
Echo, Reverb, and Delay Systems: EMT, MXR digital delay.
Other Outboard Equipment: 5 dbx and Allison limiters, Kepex, Orban Parametric EQ, Click Track, Eventide Phase Shifter, Grafik EQ.
Microphones: Neumann, E-V, RCA, Sennheiser, AKG, Beyer.
Instruments Available: Steinway "B", Fender Rhodes, drum kit, vibes, Hammond B3.
Rates: 24 track \$150/hr; 16 track \$110/hr.
Direction: All phases of recording; specializes in industrial shows; philosophy: to do anything that has to be done.

•••• KINGDOM SOUND STUDIOS, INC.
6801 Jericho Turnpike, Syosset, NY 11791
(516) 364-8666

Owner: Bill Civitella, Clay Hutchinson, Andy Matranga.
Studio Manager: Nancy Sirianni, studio mgr.; John Devlin, technical mgr.
Engineers: Clay Hutchinson, John Devlin.
Dimensions of Studios: 26' x 32'.
Dimensions of Control Rooms: 16' x 26'.
Tape Recorders: 3M MK79 24 track; 3M MK79 2 track; Ampex 440 2 track.
Mixing Consoles: Harrison 4032C, fully automated.
Monitor Amplifiers: 2 Crown 300's, Crown 150, Phase Linear 300, Auratones.
Monitor Speakers: Big Reds, JBL 4311's, The New Advents, Auratones.
Echo, Reverb, and Delay Systems: EMT 140TS, EMT 240 Gold Foil, AKG BX20, Lexicon 224 digital reverb.
Other Outboard Equipment: 2 dbx compressors; UREI LA3A, LA-4 compressors; 2 stereo A&D compressors; 2 Allison Kepex's; 2 Allison Gain Brains; 24 API 560 graphic EQs; 4 Orban parametric EQs; Eventide Flanger, Phaser, and two Harmonizers; MXR flanger; Lexicon Prime Time digital delay, digital metronome; Vari-speed (all machines).
Microphones: Over 50 microphones, all major manufacturers.
Instruments Available: 7 1915 rebuilt Steinway grand, Hammond B3 with Leslie, 88 key Fender Rhodes, Oberheim polyphonic synthesizer, Mini Moog, clavinet, stereo harpsichord, Melletron, full drum set and plenty of guitar amps.
Extras: Lounge area with lots of coffee and munchies and hospitality abounding. Plenty of free parking.
Rates: Please call for rates.
Direction: We are presently a well equipped single room studio, with plans for at least two more rooms.

Twenty four track

Dimensions of Control Rooms: 16' x 22' x 14' high.
Tape Recorders: Studer A-80 16 and 24 and 2 track.
Mixing Consoles: Neve 8058, 28 in x 24 out.
Monitor Amplifiers: Crown 300A, McIntosh 50, 75, 100, 220.
Monitor Speakers: Big Red, Altec 604E, JBL 4311, Auratone.
Echo, Reverb, and Delay Systems: EMT 140 ST, AKG BX-20, Eventide, 2 TR.
Other Outboard Equipment: Kepex, Gain Brain, UREI, Roger Mayer, Marshall, Dolby, dbx, Eventide, MXR.
Microphones: Neumann, AKG, Sony, Shure, Beyer, RCA, Electro-Voice, Sennheiser.
Instruments Available: Steinway, Hammond, Fender Rhodes, Fender, VOX, Hi-Watt, Sunn, Ampeg guitar amps.
Extras: NY State sales tax when applicable.
Rates: \$175/hr.

Direction: Joe Simon; Philip D'Arrow, Polydor; Kinks "Low Budget"; Arista; Spinners, Michael Zager, Jerry Love, Atlantic; Richard T. Bear, RCA; Tom Verlaine, Elektra; Screamin' Jay Hawkins; Bob Dylan, Columbia; Don Cherry; Etta James; Houston Person; Mike Oldfield, Philip Glass, Virgin Records; Chuck Jackson, Sun Ra, Brian Eno, Richard Lloyd, Alan Gordon, Gene Simmons (Kiss), Casablanca.

•••• CBS RECORDS

49 E. 52nd St., New York, NY 10022
 (212) 975-5901

Owner: CBS Inc.

Studio Manager: Diane Brooks.

Dimensions of Studios: Studio 30: 100' x 50' x 20'; Studio B: 35' x 50' x 14'; Studio E: 20' x 35' x 12'.

Tape Recorders: MCI 24 track; Ampex MM1000 16 track Ampex/Scully 8, 4, 3, 2 track and mono machines.

Mixing Consoles: Custom, 36 in x 24 out; MCI (AVC), 32 in x 24 out.

Monitor Amplifiers: Crown, McIntosh.

Echo, Reverb, and Delay Systems: Live, EMT echo, Cooper Time Cube, Eventide, Delta Labs.

Other Outboard Equipment: Eventide Flanger, Countryman phaser, Instant Phaser, UA LA2A, LA3A, 1176, Fairchild, RCA BA6A, Neve limiters; Kepex, Quad/Eight gates, UREI limiters.

Instruments Available: Steinway pianos, Hammond B-3, Rhodes, Celeste, vibes, bells, chimes, xylophone, tympani, Rogers drums, Fender amplifiers.

Extras: 200 Dolby channels, 24 dbx channels, Sony digital pulse code modulator (PCM) w/Betamax recorder, Bode ring modulator.

•••• CELEBRATION RECORDING INC.

2 West 45th St., New York, NY 10036
 (212) 575-9095

Owner: MZH Inc.

Studio Manager: Piers Plaskitt.

Engineers: Piers Plaskitt, Michael Farrow, Douglas Pomeroy, Edward Bowleg, John Cyr.

Dimensions of Studios: A: 33' x 28' plus drum booth and additional isolation booth. B: 14' x 16' including drum booth.

Dimensions of Control Rooms: A: 18' x 24'; B: 15' x 17'.

Tape Recorders: (2) 3M M79 24 track; (2) 3M M79 4 track; (2) 3M M79 2 track; Scully 280 4 track; (2) Scully 280B 2 track; (4) Scully 280B mono; MCI JH110 mono; Revox 1/2 track; Revox 1/4 track; Tandberg TCD310 cassette; Sony TCK711 cassette.

Mixing Consoles: Harrison 3232, 32 in x 32 out; Harrison 3624, 36 in x 24 out.

Monitor Amplifiers: (2) Crown 300 per control room; Phase Linear 400.

Monitor Speakers: Super Reds, Big Reds, JBL 100, Auratones.

Echo, Reverb, and Delay Systems: AKG BX-20 (2), EMT, MICMIX, Eventide Digital H910, Cooper Time Cube, Marshall Time Modulator.

Other Outboard Equipment: Eventide Phaser and Envelope Follower, Pultec, Kepex, Gain Brain, Orban parametric EQ, Eventide Flanger, Orban stereo synthesizer, dbx limiters, UA limiters, Teletronix limiters, Eventide Omnipressor, Dolby's, Mutron Bi-Phase.

Microphones: Neumann U-87, U-67, U-47, KM-84, KM-64; AKG 414, D-224E; Beyer M-160; Electro-Voice 635, RE-15, RE-20; Sennheiser 421, 441.

Instruments Available: All at no charge: Fender Rhodes, Honkytonk piano, Hohner clavinet, RMI Roc-Si-Chord, Musser Vibes, pedal tympani, congas, 2 complete drum kits, guitar and bass amps, Steinway grand piano, Baldwin grand piano, and we can rent for you (with no price mark up), every instrument under the sun from New York's best rental services.

Extras: Our parent company, MZH Inc, is a music for advertising production house, so we have complete facilities for jingle production; all types of sync, VTR playback, tape to 35mm magnetic film transfer, and a pool of arrangers, lyricists and composers. All our outboard equipment and studio instruments are available at no ex-

tra charge. We have coffee, tea, beer, soda, and charge accounts at local restaurants for your convenience.

Rates: Competitive and flexible. Outside New York, please call collect, 212-575-9095, in New York, please call direct for a quote, and for any other information you may require.

Direction: With the completion of Studio B, we were able to accept bookings from outside clients. Our first Gold Albums came in as a result of Meco's "Star Wars," and Ashford & Simpson's "Is It Still Good To Ya" Since then we have worked with: David Sanborn, Diana Ross, Joey Travolta, Sam The Band, The Pointer Sisters, Henry Gaffney, Loudon Wainwright, Slide Hampton, and many more. Our atmosphere is one of efficient relaxation; everything works, and we allow plenty of time between sessions, so you never feel rushed. If you want to present your finished product to your record company in the studio, we will lay on champagne and a cold buffet. For your additional information: our tape formulation is Ampex Grand Master 456, and we run our multi-track machines at 370NWb/m. We carry most other brands, and will be happy to change for your project, if you give us at least 48 hours notice.

•••• CELESTIAL SOUND

919 2nd Ave., New York, NY 10017
 (212) 355-4825

Owner: Toni Pinelli.

Studio Manager: Michael Jay.

Engineers: Michael Jay, Peter Sobel.

Dimensions of Studios: 22' x 20'.

Dimensions of Control Rooms: 19' x 17'.

Tape Recorders: Lyrec 24 track; Studer 2 track; Nakamichi.

Mixing Consoles: MCI 600, 36 in x 24 out; JH50 automation.

Monitor Amplifiers: BGW 750-B.

Monitor Speakers: UREI 813 Time Aligned, Big Reds, with Mastering Lab ADS 300's, Tannoy, JBL 4311, Auratones.

Echo, Reverb, and Delay Systems: EMT 250 digital reverb, Master-Room Super C reverb, Lexicon Prime Time, Eventide Harmonizer, Phaser, Flanger.

Other Outboard Equipment: dbx 165 and 160 comp/limiters, UREI LA4 limiters, Audio Arts, Orban, UREI parametrics; White and UREI graphic EQ, Symetrix noise gates, Orban stereo synthesizer.

Microphones: Neumann U-87, U-89, KM-86, KM-85, KM-84; AKG 414; E-V RE-20; Sennheiser 421, 441; Shure SM-57's and PML DC-96.

Instruments Available: Steinway B 7, Hammond B-3 w/Leslie, Prophet 5, Emu 5-voice, Mini Moog, Moog modular, Roland 100, Moog Prototype guitar synthesizer, Fender Rhodes, Pearl drums, Roto Toms, MESA/Boogie, Sunn bass amp, Yamaha upright, guitars, etc.

Extras: Lounge, video tape playback.

Rates: \$150/hr., block booking available.

•••• CHELSEA SOUND STUDIOS, INC.

135 West 14th St., New York, NY 10011
 (212) 242-7326

Owner: Mark Freeh.

Studio Manager: Philip Bulla.

Engineers: Robert Clifford, Philip Bulla, Bradshaw Leigh, Robert Miller, Mark Freeh, (misc. free lance.)

Dimensions of Studios: 40' long x 23' wide x 12' ceiling.

Dimensions of Control Rooms: 12' wide x 18' deep x 12' ceilings.

Tape Recorders: MCI JH 114-24 24 track; Scully 280-B 2 track; Ampex 440-B 2 track; TEAC/Tascam 40-4 4 track; Tandberg cassette machine.

Mixing Consoles: MCI 428, 28 in x 24 out.

Monitor Amplifiers: Crown 300A, Crown 150A, McIntosh 250.

Monitor Speakers: UREI Time Align 813, Altec 604E, Auratones.

Echo, Reverb, and Delay Systems: EMT (stereo plate), AKG BX-20, Lexicon Prime Time, Harmonizer.

Other Outboard Equipment: Scamprack, 4 Pultecs, 5 graphic EQ's, ITI parametric EQ's, 6 Kepex's, 2 Roger Mayer noise gates, UREI digital metronome, 2 dbx 160 limiters, 2 UREI LA3A limiters, UREI LA2A limiter, MXR D'Esser, digital clock.

Microphones: Neumann U-47's, U-67's, U-87's, KM-86; AKG 414 EB's, D-1000E's; Sennheiser 421's, 441's; Electro-Voice RE-20's, RE-16's; E-V 635A's; RCA 44DX's, 77DX's; Shure SM-57's, SM-58's.

Instruments Available: Custom double headed Slingerland drums w/Pearl hardware, Yamaha C-3 conservatory grand piano, Hammond B-3 organ, Fender Rhodes piano, marimba, ARP String Ensemble, misc. small Latin percussion.

Extras: Fender Twin Reverb amp, Music Man amp, Fender Tremolux amp, Yamaha 410 amp, Ampeg Gemini amp, Pignose amp, Ampeg B18 amp.

Rates: 24 track \$145/hr, 16 track: \$120/hr, 8 track: \$85/hr, 2 track: \$50/hr.

•••• C.I. RECORDING, INC.

110 West 57 St., 6th Floor, New York, NY 10019
 (212) 582-5310

Owner: Elvin G. Campbell.

Studio Manager: Kathy Weber.

Engineers: Elvin Campbell, David Achelis, Chuck Irwin, Tommy O'Connell, Patrick Jacques.

Dimensions of Studios: A: 26' x 56' with a 18' ceiling; B: 16' x 28' with a 14' ceiling.

Tape Recorders: Ampex MM1000 24 track; 3M 16 track; assorted 4, 2, and mono.

Mixing Consoles: Audio Designs (Studio A), 24 in x 24 out; Audio Designs (Studio B), 20 in x 16 out.

Monitor Amplifiers: McIntosh/60 Watts per.

Monitor Speakers: Altec A-19's.

Echo, Reverb, and Delay Systems: 4 EMT chambers, MXR digital delay.

Other Outboard Equipment: 24 track Dolby A, 15 channels Kepex, 3 Pultec program equalizers, 3 Teletronix leveling amps, 2 Creatronics limiters, Eventide Phaser.

Microphones: We are mostly equipped with Neumanns, but we carry Shure, Electro-Voice, and Sony as well—a large selection.

Instruments Available: 2 full sets of drums, 2 Steinway B pianos, Hammond B-3 organ, vibes, xylophone, orchestra bells, chimes, and tymps.

Extras: 3/4" video cassette projection.

Rates: \$175/hr 24 track; \$140/hr 24 track mix; \$140/hr 16 track; \$110/hr 16 track mix.

Direction: We mostly do album work, which includes approximately 50 jazz albums per year. We have done film score work and Broadway soundtracks as well as advertising-commercial work.

•••• DIMENSIONAL ECHO SOUND

301 W. 54th St., New York, NY 10019
 (212) 247-6010

Owner: Chaltin.

Tape Recorders: 3M 24 track (2).

Mixing Consoles: API console.

•••• DON ELLIOTT PRODUCTIONS

15 Bridge Rd., Weston, CT 06883
 (203) 226-4200

Owner: Don Elliott.

Studio Manager: Liz Gallagher.

Engineers: Ron Bacchiocchi, Peter Levin.

Tape Recorders: MCI JH100, Scully.

Mixing Consoles: Syncon.

Monitor Amplifiers: BGW, McIntosh.

Monitor Speakers: Big Reds, Auratones.

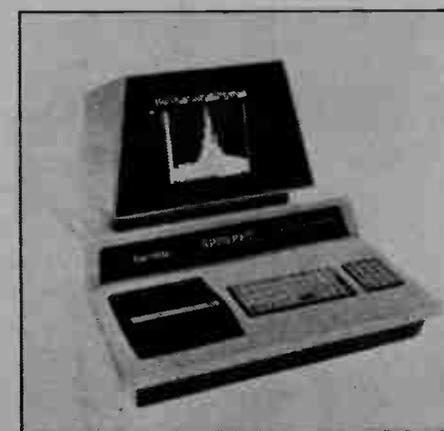
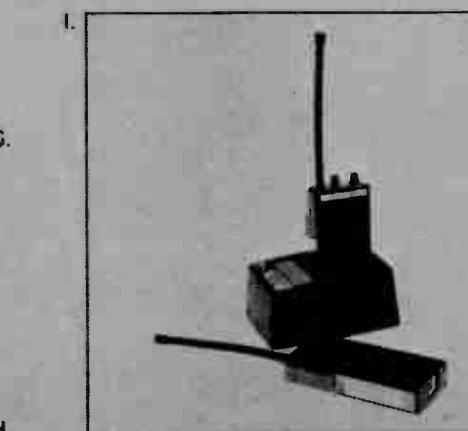
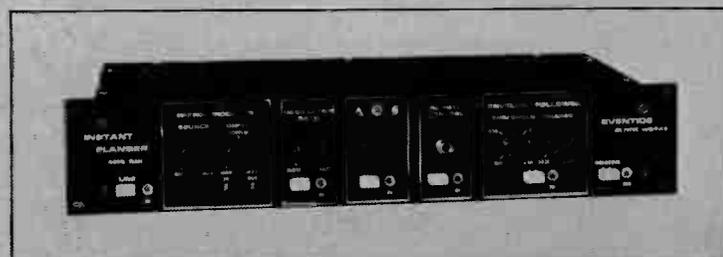
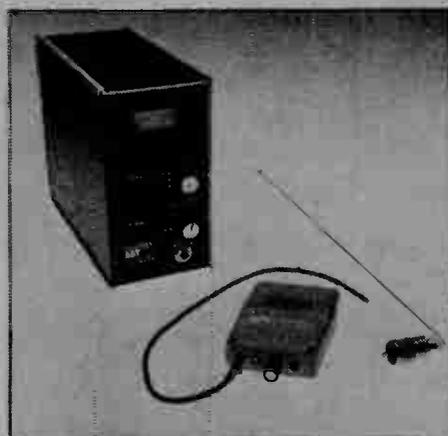
Echo, Reverb, and Delay Systems: EMT 140, Space Station digital reverb.

Other Outboard Equipment: Harmonizer, Marshall Time Modulator, Eventide Flanger, Roger Mayer noise gate, LA3A, 1176 UREI, Omnipressors.

Microphones: AKG, Sony, Neumann, Electro-Voice, Shure, Sennheiser.

Instruments Available: Baldwin piano, Fender Rhodes, Pearl drum set, ARP Odyssey synthesizer, Roland, ARP String Ensemble.

SUPER GROUP



- A. The Schaffer-Vega Diversity System—SVDS**
The world's foremost wireless transmission system, the SVDS features crystal controlled, interference-proof, no-drift tuning, full diversity receiver (eliminates drop outs), a Signal-To-Noise Ratio of better than 90 dB, more than 100 yard range, compatibility with all effects, no special installation.
- B. The Schaffer B&T Wireless System**
All the quality features of the famous SVDS, except diversity receiver, make the B&T a moderately priced system for the transmission of music and vocals.
- C. Eventide HM-80 "Baby" Harmonizer™**
The first Eventide created for the working musician, the "Baby" is fully digital. Interactive controls, like Delay, Pitch Change, Repeat, On-Board Mixing, Feedback and a unique new feature, Reverse, offer limitless sound possibilities.
- D. Eventide H910 Harmonizer™**
The most popular special effects unit in the industry,

- the Harmonizer is a full-fledged digital delay line and a pitch changer with a two-octave range.
- E. Eventide H949 Harmonizer™**
The newest Eventide, the H949 allows for a multitude of exciting new effects, including Reverse, Flanging, Automatic Repeat, Micro Pitch Change, Random Delay, Feedback, Two P/C Algorithms and much more. Surprisingly affordable.
- F. Eventide 1745M Digital Delay**
Its modular construction makes it exceptionally flexible—up to five outputs, each with a maximum of 320 ms of delay (640 ms in double mode), selectable in 20 us steps.
- G. Eventide FL201 Instant Flanger™**
Designed to meet the demands of professional industry users, the Instant Flanger's controls—oscillator, manual, remote and envelope may be used in any combination.
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The Omnipressor is a compressor, expander, noise

gate and limiter in one package, with a dynamic reversal feature which makes high level input signals lower than correspondingly low level signals.

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Based on a Commodore PET™ 2001-8K computer, this programmable video-display, third-octave, real time audio spectrum analyzer is an intelligent, interactive analyzer costing about half the price of currently available Display-Only units.

The equipment has become the industry standard for thousands of major bands and recording studios. Write or phone us for complete specifications and pricing details. We'll give it to you straight.

THE KEN SCHAFFER GROUP, INC.

10 East 49th Street, New York, N.Y. 10017
(212) 371-2335



•••• A-1 SOUND STUDIOS, INC.

2138 Broadway (Beacon Hotel Bldg.), between 74th & 75th St., New York, NY 10023
(212) 362-2603

Owner: Herb Abramson, Pres.

Studio Manager: Barbara Abramson

Engineers: Herb Abramson, Stewart MacFarlane, Marco, Edwin Habgood.

Dimensions of Studios: 23' x 34'.

Dimensions of Control Rooms: 17' x 23'.

Tape Recorders: Ampex MM1100 8, 16, 24 track; Ampex (4) 350-2 2 track; Studer B67 2 track.

Mixing Consoles: MCI custom, 20 in. x 24 out.

Monitor Amplifiers: McIntosh, Kenwood.

Monitor Speakers: JBL 110; Altec 604B.

Echo, Reverb, and Delay Systems: Acoustic chamber (stereo), Fisher reverb.

Other Outboard Equipment: UREI Little Dipper, dbx noise reduction 24 channels, Pultec Equalizers, Neumann EQ's, UREI limiters.

Microphones: Neumann U-47, U-49; Sennheiser 403; Electro-Voice, Shure, RCA.

Instruments Available: Steinway grand piano, Fender Rhodes electric piano, Hammond B-3 organ, tack piano, guitar and bass amps, drums.

Extras: Isolated studios with floating floors and walls. Disc mastering "one stop" reload pressing including album jacket production.

Rates: 8 track \$35/hr. 16 track \$55/hr. 24 track \$75/hr.

Direction: Studic founder and pres. Herb Abramson is a veteran of all phases of the record business as producer, engineer and record exec. He was one of the original founders of Atlantic records and produced some of the biggest names in R&B and soul: Ray Charles and Clyde McPhatter to name a few.

•••• A&R RECORDING

322 W. 48th., New York, NY 10036

795 7th Ave., New York, NY 10019

(212) 397-0300

Studio Manager: Milton Brooks, Nancy Sorkow.

Engineers: Elliot Schiner, Jim Boyer, Glen Berger, John Curcio, Ed Rak.

Dimensions of Studios: A-1: 50' x 40' x 40' ceiling; A-2: 8.1m x 9m; R-1 C-shaped 12m x 9m; R-2: 9m x 6m.

Dimensions of Control Rooms: All approx 400 sq. ft.

Tape Recorders: MCI JH114 24 track; Lyrec 24 track; Studer A-800; Studer A-67, B-67 2 track; MCI 2 track.

Mixing Consoles: MCI JH528 auto, 32 in. x 32 out; Neve w/Necam, 32 in. x 24 out.

Monitor Amplifiers: McIntosh 2200.

Monitor Speakers: UREI 813.

Echo, Reverb, and Delay Systems: EMT 140 stereo (17), Lexicon 240, Eventide DDL.

Other Outboard Equipment: Scamprack, Orban D'Essers, LA3, LA2A (Universal), Universal 1176, Fairchild stereo 280, Kepex and Roger Mayer gates, Pultec.

Microphones: Neumann U 87, KM-84, U-47 (tube and FET); AKG 414, C-60, 452; Beyer 88; Sennheiser 421; Sony C-37, C-38, C-22, ECM 251, ECM 33F, ECM 50; E-V RE-20.

Instruments Available: Steinway pianos, Ludwig drum, Ampeg B-15's, Fender Super Reverb.

Rates: On request.

Direction: A good client mix; records, advertising and film.

•••• ASSOCIATED RECORDING

723 7th Avenue, New York, NY 10019

(212) 245-7640

Owner: Nathan Schnapf, Paul Friedberger.

Studio Manager: Bob Fava.

Engineers: Bob Fava, Alan Cove, Nat Schnapf, Paul Friedberger.

Dimensions of Studios: A: 35' x 30'; B: 12' x 20'.

Dimensions of Control Rooms: A: 15' x 15'; B: 8' x 12'.

Tape Recorders: MCI 24 track; Scully 280.8 track; Scully 280 4/2 track; Ampex 350 mono; Otari 5050 2 track.

Mixing Consoles: Fairchild custom, 20 in. x 12 out; Western Electric custom, 8 in. x 2 out.

Monitor Amplifiers: Fairchild 70W (2), custom designed 70W (2).

Monitor Speakers: Altec 604E, control room; Voice Of The Theatre, studio playback.

Echo, Reverb, and Delay Systems: EMT 140 (2).

Other Outboard Equipment: (3) UREI LA2A limiters, Fairchild compressors, Roger Mayer limiter, MXR flanger, and phaser, Delta Labs digital delay unit.

Microphones: Neumann U-67's, U-48; E-V RE-20; Shure SM-57's, 58's; RCA BX-44's; Altec Saltshakers.

Instruments Available: Steinway 7 grand (2), Hammond B-3 organ, drums, Celeste, Fender Rhodes, ARP Omni 2.

Rates: 24 track: \$150/hr; 16 track: \$120/hr; 8 track: \$90/hr. Studio B: 8 track: \$50/hr.

•••• ATLANTIC STUDIOS

1841 Broadway, New York, NY 10023

(212) 484-8490

Owner: Atlantic Recording Corp.

Studio Manager: Dave Teig.

Engineers: Lew Haha, Jimmy Douglass, Gene Paul, Bobby Warner, Studio. George Pinos, Dennis King, Cutting Tom Heid, Randy Mason, Mike O'Reilly, Bill Dooley, Assistants: Joel Rice, Barry Diamant, Tape Copy.

Dimensions of Studios: A: 45' x 23'; B: 16' x 35'.

Dimensions of Control Rooms: A: 22' x 18'; B: 16' x 35'; Mix Room: 17' x 22'.

Tape Recorders: MCI JH110 24 track.

Mixing Consoles: MCI JH528, 28 in. x 24 out.

Monitor Amplifiers: Crown DC 300.

Monitor Speakers: UREI A3A, Altec 19's.

Echo, Reverb, and Delay Systems: EMT 140, EMT 250, Eventide Digital Delay.

Other Outboard Equipment: EXR Exciter, Dolby, MXR Flanger, Phaser, Scamp, Orban parametric EQ, Eventide Harmonizer, Kepex, Gain Brain.

Microphones: U-47, 49, 67, 87, 84, 86; Sennheiser 415, 421,

441; Shure 57, 81; Electro-Voice 15, 16, 20, 55; AKG 451, 414; RCA SK-46, 44, 77; Sony 37A, 37P.

Instruments Available: Hammond organ, grand piano, drums, guitar amps, bass amps.

Rates: Studio and mix time, Monday thru Friday until midnight \$200 per hour.

Direction: AWB, Carly Simon, Chaka Khan, Roberta Flack, Bette Midler.

•••• AUTOMATED SOUND STUDIOS

1500 Broadway, New York, NY 10036

(212) 869-8520

Owner: Herb Gordon, Steve & Arthur Freidman.

Studio Manager: Harvey Gordon.

Dimensions of Studios: A: 45' x 45'; B: 30' x 25'.

Dimensions of Control Rooms: A: 20' x 20'; B: 15' x 15'.

Tape Recorders: (2) Studer A-80 24 track; (3) Studer A-80 4 track; (5) Studer B-67 2 track; (5) Studer A-67 2 track; Studer A-80 2 track (2).

Mixing Consoles: (2) Neve (custom) 8050, 38 in. x 24 out.

Monitor Amplifiers: (10) McIntosh 2100's; (8) Crown head-phone amps.

Monitor Speakers: (8) 604-8G's, (4) Big Reds, (1 pair) JBL 4311's, (2 pair) Kirksaeters.

Echo, Reverb, and Delay Systems: (2) DDL, (6) EMT, Master-Room reverb.

Other Outboard Equipment: Harmonizers, Orban parametrics, LA4A, LA3's, Neve compressors, etc., Dolby.

Microphones: Neumann U-87's, F-47's, AKG 414's, 60 others.

Instruments Available: 2 sets Ludwig drums, 2 Steinway grand pianos, 2 Fender Rhodes pianos, 2 Hammond B-3 organs, 2 Musser vibes, 5 Fender amps, assorted percussion.

Extras: 2 color VTR's (1 cassette, 1 reel to reel.)

•••• BLANK TAPES INC., RECORDING STUDIOS

37 West 20th St., New York, NY 10011

(212) 255-5313

Owner: Richie Vetter, President; Lou Vetter, Vice President; Bob Blank.

Studio Manager: Lou Vetter.

Engineers: Chief Engineer: Bob Blank; Chief of Maintenance: Chuck Ange; Engineers: Joe Arlotta, Butch Jones, John Bradley.

Dimensions of Studios: A: 24' x 35'; B: 8' x 10'; C: 20' x 26'.

Dimensions of Control Rooms: A: 12' x 16'; B: 14' x 16'; C: 16' x 20'.

Tape Recorders: (4) MCI JH-114 24 track; (5) MCI JH-110 2 track; Scully 280 4 track; (4) Scully 280 2 track; (2) Ampex 300 2 track; Ampex 400 mono.

Mixing Consoles: MCI automated 542, 42 in. x 32 out; MCI automated 428, 28 in. x 24 out; MCI 416, 24 in. x 24 out.

Monitor Amplifiers: (3) Crown 300's, (3) Crown 150's, (3) Crown 75's, (3) Crown 60's, (2) McIntosh 2105's, (2) McIntosh 2505's.

Monitor Speakers: Big Reds, JBL 4311's, Auratones, also any additional speaker on request.

Echo, Reverb, and Delay Systems: The Plate, AKG BX-10, BX-20, Lexicon digital reverb, Lexicon DDL and MXR DDL.

Other Outboard Equipment: Pultec MCO 5 & EQH 2 equalizers, UREI 539, 1176, 530 EQ's; parametric 622B; Soundcraftsmen 20-12A. Teletronics LA2A, LA3A's, UREI 175-A limiter, Kepex and Roger Mayer noise gates, Gain Brains, dbx 160's, Fairchild 160 compressor, Eventide Harmonizers and Instant Phasers, Altec Filter 9067B, Orban Sibillance Controller 516 EC, Dolby and dbx noise reduction on every machine.

Microphones: Neumann U-87's, U-47's, U-67's, U-64's, KM-85's, KM-84's; Sennheiser 421's, 441's; RCA DX-77's 44's; Electro-Voice RE-20's, RE-16's, RE-15's; Sony 224's, ECM 50's; AKG 451's, D-190ES, D-60's; Shure SM-57's, D-24's; Beyer M-160's.

Instruments Available: Steinway M grand piano, Yamaha C-7 grand, 2 Hammond B-3 organs, Melletron, String Ensembles, Slingerland drums, clavinet, Fender Rhodes 88 and 73, Syn-drums, congas, timbales, vibes, percussion kits, other rentals also available on request.

Extras: TV room, pinball machines, electronic games.

Rates: Rates upon request, contact Studio Manager.

•••• BLUE ROCK STUDIO

29 Greene Street, New York, NY 10013

(212) 925-2155

Owner: Edward Korvin.

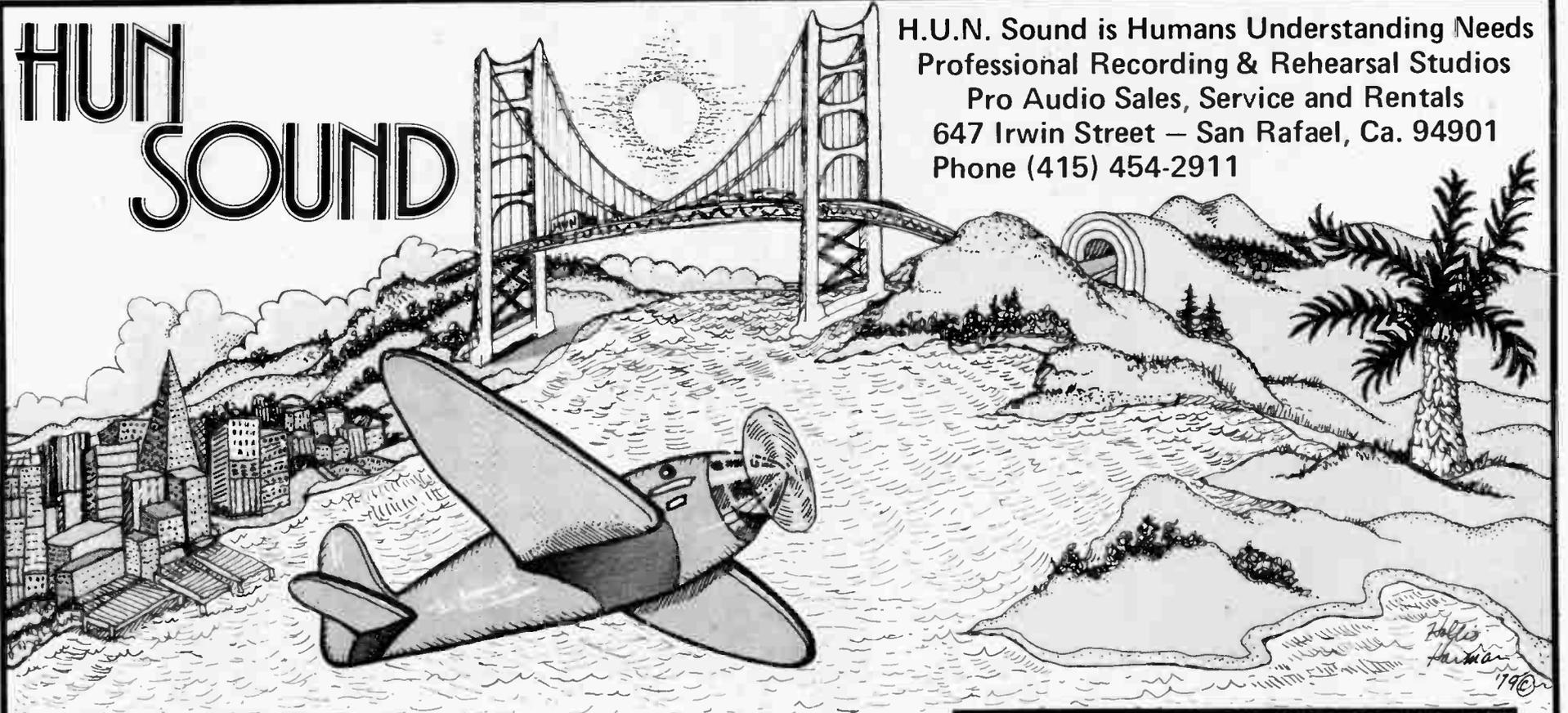
Studio Manager: Edward Korvin.

Engineers: Edward Korvin, Michael Ewasko.

Dimensions of Studios: 22' x 45' x 14' high.

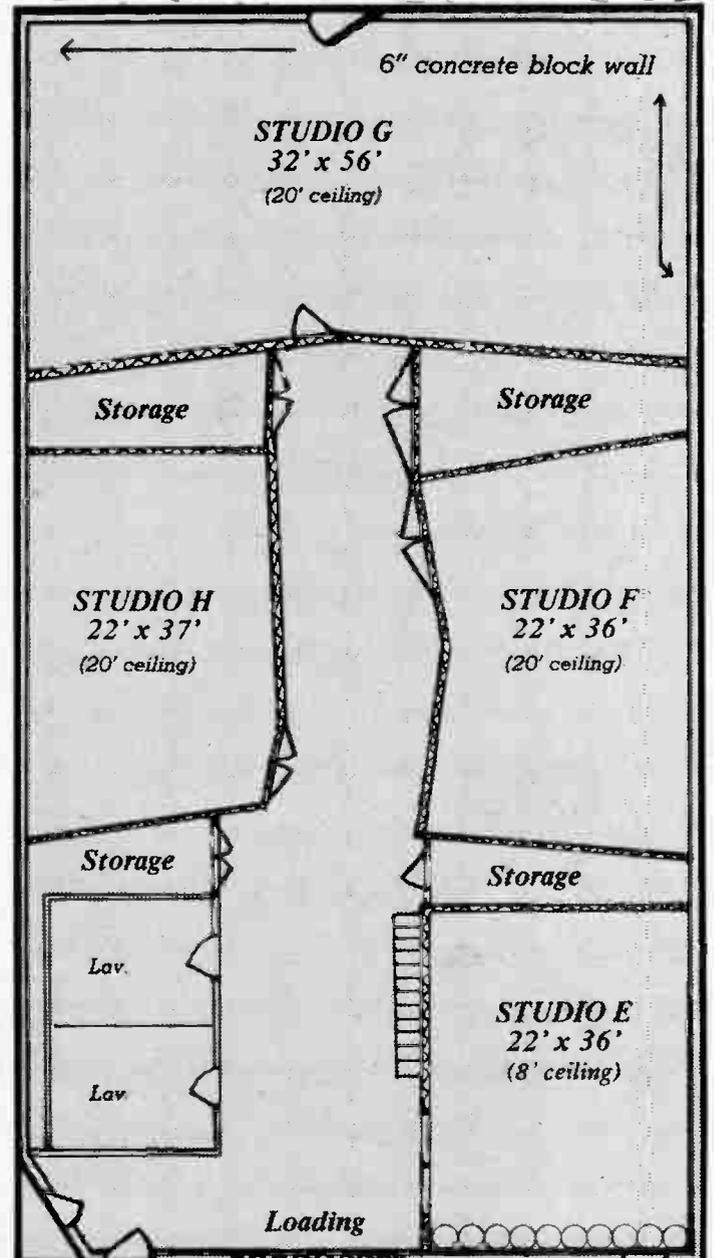
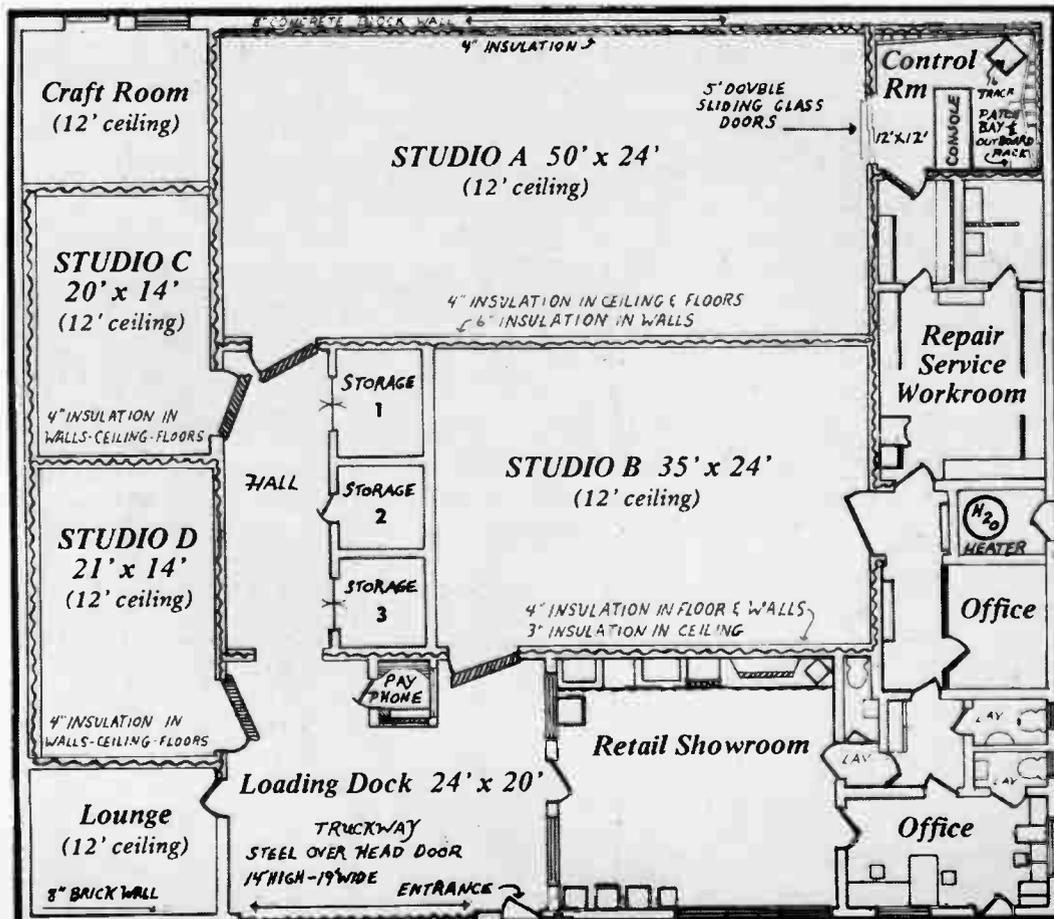
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| Sennheiser | Hard Truckers |
| Gauss Speakers | Sweet "C" Amplifier's |
| Furman Sound | Allen and Heath |
| Shure | H & H Amplifier's |
| Crown | Harbinger |
| Electro Voice | Eventide |
| Linear Audio Systems | EXR |



WALL CONSTRUCTION: STUDIOS "F" "G" & "H"
 The walls are 2" X 6" stud framing, 16" on centers, insulated with fiberglas. Both sides are surfaced with 5/8" sheetrock, hung on special acoustic hangers. All joints are thoroughly taped and all seams are well caulked with acoustic sealant. The walls have been designed at angles which avoid parallel surfaces, thereby preventing standing-wave problems.

Echo, Reverb, and Delay Systems: EMT 140, Fisher K-10, Fairchild tape delay.

Other Outboard Equipment: UREI, Pultec, equalizers; Fairchild, Teletronix compressors.

Microphones: Neumann U-47 (tube type), U-67, U-87, KM 86, KM 56; RCA 44, 77; Shure SM-57; AKG C12; Sony C 37; Sennheiser MKH 405; E-V RE-16, 666-R.

Instruments Available: Steinway grand, Hammond B-3, RMI Rocksichord, Baldwin electronic harpsichord, Celeste, Moog Model C synthesizer, Slingerland drums.

Extras: Film mix, dubbing and screening rooms; film editing.

Rates: 16 track \$75/hr; 8 track \$50/hr; 2 track, mono \$35/hr.

Direction: Our studio is built with about 90% tube electronics, including the console. We find the "warmer" tube sound to be much more pleasing to the human ear.

••• SKYLINE STUDIOS, INC.

36 West 37th Street, New York, NY 10018
(212) 594-7484

Owner: Paul Wickliffe, Paul Blank

Engineers: Paul Wickliffe, chief engineer; Paul Blank, electronic design.

Dimensions of Studios: 30' x 30' x 13'

Dimensions of Control Rooms: 25' x 20' x 10'

Tape Recorders: Ampex MM1000 16 track w/Dolby N.R.; Otari 8 track; Ampex and Otari 2 tracks.

Mixing Consoles: Tangent 3216, modified.

Monitor Amplifiers: Yamaha, McIntosh

Monitor Speakers: Custom UREI 838 time-aligned, Auratones, Altec 9844; additional switching for two additional pairs of speakers at producer's request.

Echo, Reverb, and Delay Systems: EMT plate, AKG BX20E, Lexicon DDL

Other Outboard Equipment: Dolby N.R.; 7 compressor/limiters (UREI, dbx); 14 outboard equalizers; 4 noise gates (Roger Mayer, Allison); UREI digital metronome, Eventide Flanger.

Microphones: Full selection of Neumann, AKG, Sennheiser, Shure, E-V, Sony, Calrec, etc.

Instruments Available: Baldwin 1909 grand piano, Rhodes Suitcase 73 piano, Hammond C3 w/Leslie, Gretsch drums w/Zildjian cymbals, Ampeg and Fender amplifiers.

Extras: Isolation booth large enough for at least 3 vocalists, drum platform, overhead observation booth looking upon studio. Facilities are fully air-conditioned. Oberheim or Buchla synthesizer with operator available at extra charge.

Rates: Please call for rates; block rates are available.

Direction: In addition to technological excellence, Skyline Studios was designed with the comfort of the musician, as well as that of the producer and engineer, in mind as a proper atmosphere in which to devote one's energies to the creation of music.

••• SOUND HEIGHTS RECORDING STUDIO, LTD.

124 Montague St. (entrance on Henry St.), Brooklyn Heights, NY 11201
(212) 237-0250

Owner: Vince Traina

Studio Manager: Bob Motta

Engineers: Vince Traina, Questar Welsh

Dimensions of Studios: 25' x 30'

Dimensions of Control Rooms: 12' x 15'

Tape Recorders: MCI JH-114 16 track; Scully 280-4 4 track; Scully 280-2 2 track.

Mixing Consoles: MCI 461, 18 in x 16 out.

Monitor Amplifiers: Phase Linear, Crown.

Monitor Speakers: Big Reds.

Echo, Reverb, and Delay Systems: EMT, Lexicon Prime Time.

Other Outboard Equipment: Eventide Harmonizer, Allison Kepex, UREI 1176 LN peak limiters, UREI LA-A limiters/compressors, variable speed oscillators.

Microphones: Neumann U-67, U-47, KM-84; Sennheiser 441; Synchron AU8; AKG 224; Sony ECM 377, ECM-23; E-V RE-15; Beyer 201.

Instruments Available: Steinway Model A (1914) 7' grand piano, Hammond B3 organ.

Extras: Instrument amplifiers, Fender, Ampeg, percussion devices at no extra charge.

Rates: 16 track \$75/hr; 8 track \$50/hr; 4 and 2 track \$30/hr.

Direction: 24 track Dolby by November 1979; automation by November 1980. Credits: Harry, Tom & Steve Chapin, B.T. Express, Teddy Randazzo, Pete Fornatale, Elektra-Asylum Records, Dawnbreaker Music, Fantasy Records, Roadshow Records, Ron Haffkine-Bob Heller, Wright & Forrest, WKTU-FM Radio, Brook Benton, Bob W. Motta/West End Records, James Nebb/Polydor, Bruce Kapler/Mercury Records, Bob Gallo/CBS.

sixteen track

••• STUDIO 21 SOUND

635 Madison Ave., 11th floor, New York, NY 10022
(212) 688-4070 or 688-1576

Studio Manager: Sandi Morrof, business representative.

Engineers: Frank Heller, chief music engineer; Jerry Summers, music engineer, production engineer; Tom Cardade, assistant engineer.

Dimensions of Studios: 41' x 15' x 8½'

Dimensions of Control Rooms: 23' x 14' x 11'

Tape Recorders: 3M M-56 16/8 track; 4 Scully 280 2 track; 2 Scully 280-B 2 track.

Mixing Consoles: Modified Allen and Heath mod ½, 24 in x 10 out; 22 db outputs

Monitor Amplifiers: Dynaco 120.

Monitor Speakers: Altec Valencias, JBL 100's.

Echo, Reverb, and Delay Systems: MXR digital delay, Master Room MICMIX 1.

Other Outboard Equipment: 4 UREI LN1176 limiters, Pultec filter, Martin Varispeed, 2 Lang PEQ equalizers, 2 MXR flangers, 2 Aengus graphic EQ, Burwen noise reduction.

Microphones: 2 Shure SM-54's; AKG 2 414's, 2 C451's, D-25; Sennheiser 3 421's, 5 441's, 5 402/802's, 416, 2 415's; Sony 2 C-500's, 2 BK5's, RCA 77DX; Group 128.

Instruments Available: Yamaha grand piano, Gretsch drum kit with Ludwig hardware and hydrolic skins, Ampeg B-15 and twin reverb amps, Hammond B3 organ and Leslie, Hohner D6 clavinet, Fender Rhodes, Wurlitzer electric piano, Remo Roto toms, timbales, ARF Odyssey and 2600 synthesizers with Aries 300 outboard modules.

Extras: 8 track is 1" format running both at 15 and 30 ips; 16 track both at 15 and 30 ips; Burwen non-encoding noise reduction for voice; musicians lounge; terrace overlooking Manhattan and Central Park

Rates: 2 track mono: 1 or 2 instruments and voice \$40/hr; 2 track live mix 3 or more instruments \$50/hr; 8 track (1") 15 or 30 ips \$50-80/hr; 16 track 15 or 30 ips \$60-100/hr.

Direction: Studio 21 Sound specializes in sophisticated multi-track demo production for bands and artists as well as LP and singles for record companies. The studio is well known as an LP and singles for record companies. The studio is well known as an excellent rhythm room (rock, funk, disco, etc.) and an excellent keyboard room. Our clientele include major NY advertising agencies for whom we record and produce jingles and commercial spots; music for Broadway shows and tapes for working jazz and rock groups and artists. Our facilities are friendly and congenial; our recording and mixing extremely high quality.

••• TNG EARTHLING

110 W. 86th., New York, NY 10024
(212) 794-4181

Owner: Bob Sakayama

Studio Manager: Lynne Sakayama

Tape Recorders: Ampex M1200 16 track; Ampex 8 track; Ampex 2 track; Scully 2 track.

Mixing Consoles: Tangent, 16 in x 16 out.

Monitor Amplifiers: BGW

Monitor Speakers: JBL 4310.

Echo, Reverb, and Delay Systems: Phillips, AKG BX-20, MXR Digital.

Microphones: Neumann, AKG, Sony.

••• TRAD NOSSEL

10 George St., P.C. Box 57, Wallingford, CT 06492
(203) 269-4465

Owner: Thomas 'Doc' Cavalier

Studio Manager: Richard Robinson

Engineers: Richard Robinson

Tape Recorders: Scully

Mixing Consoles: API

Rates: \$87/hr, \$225 for 4 hours.

••• VARIETY RECORDING STUDIOS

130 West 42nd. (Room 551), New York, NY 10036
(212)221-6625

Owner: Warren Allen Smith and Fred Vargas.

Studio Manager: Joseph Cyr.

Engineers: Joseph Cyr, Mike Dacek.

Dimensions of Studios: 36' x 45'

Dimensions of Control Rooms: 16' x 18'

Tape Recorders: MCI 16 track; Scully 280 4 track; Scully 280 2 track; Scully 280 mono; Ampex 2 track.

Mixing Consoles: Audio Designs, 24 in x 16 out.

Monitor Amplifiers: Misc.

Monitor Speakers: Misc.

Echo, Reverb, and Delay Systems: MXR Digital Delay, Eventide Instant Flanger.

Microphones: Misc. including Neumann 87's.

Instruments Available: 7' Kawai grand piano; Hammond church organ, Hammond portable organ; drums; Melletron, Fender Rhodes, Farfisa VIP 345 organ.

Extras: dbx 158, Scully lathe for cutting stereo acetates plus masters.

Rates: \$70 for 16 track; \$60 for 8 track.

Direction: Since 1960, we have worked with a variety of showbusiness people (including pianist Marvin Hamlisch, who brought Liza Minnelli for her first demo). Our reputation for quality work at competitive prices has led to inclusion in *Who's Who In The World*, and we prize a large international clientele for recording, acetates, cassettes, cartridges, tape copies, pressings in quantity, and album jackets.

Nashville
and
Memphis
studio listings

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in December

A Little of Our Amp is a Big Sound Improvement

Most amplifiers are built too large to save you any space and money.

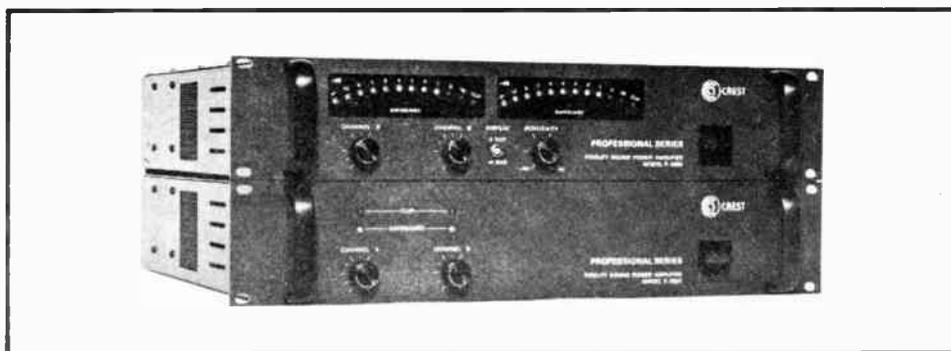
You're serious about your sound. You're serious about wanting uncompromising performance and maximum reliability from your amps. You're serious about wanting power, efficiency and ruggedness.

So when it comes to selecting your pro-amp you want to know you're getting the very best amplifier you can put your hands on. You want to know your amplifier has been designed and built by professionals who have your needs uppermost in mind. People who care about you.

That's why putting your needs first has been our most important "idea" right from the start. That's why we designed our new P-3500 Series amp to save you lots of space and lots of money right from the beginning.

First, Crest recognized the advantages of perfecting a low-profile 3½ inch high package with no sacrifice in power. So our engineers custom designed a compact power supply. One for each channel. With each channel conservatively FTC rated at 250 Watts/8 Ohms, 400 Watts/4 Ohms and 800 Watts/8 Ohms/Mono. With fully complimentary circuitry. With super-low distortion of less than 0.03% THD, 0.02% IMD and 0.01% TIM.

These independent power supplies are super efficient and quiet. This boosts



Top: P-3500 Professional Power Amp. Bottom: P-3501 Professional Power Amp.

performance by eliminating all cross-talk. This gives you extremely accurate reproduction with no sound degeneration from either channel during heavy program material. This gives you more available headroom in the P-3500 than any amplifier in its class.

Second, there's the advanced forced air cooling system. Combining constant air-flow within large "channelled" heat sinks to guarantee continuous operation. To guarantee smooth performance at maximum loads. Even under the hottest surrounding conditions.

Third, is the sophisticated "Safeguard" protection circuitry. We wanted to make sure you could operate your system with the utmost confidence. So we designed a high speed relay protection

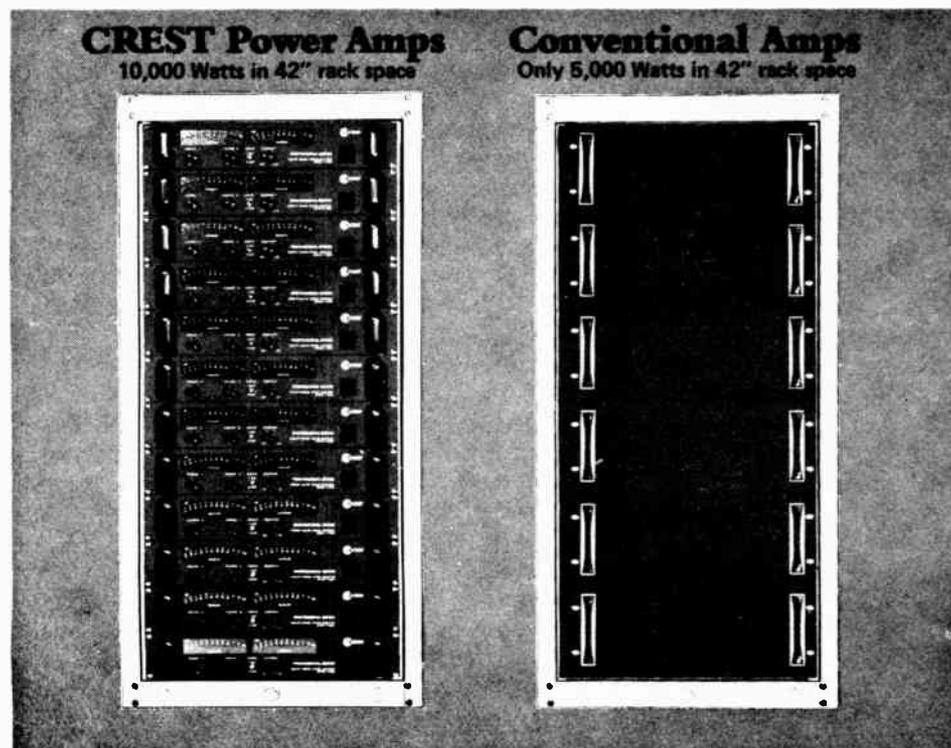
circuit to protect your speakers from harmful DC voltage in the output stage. And also to protect against thermal overload.

Fourth, there's the new twin VU meter L.E.D. display for each channel in the P-3500. With optional "bar" or "dot" mode. These meters will accurately track even the briefest of transient bursts and include a visual "clip" L.E.D.

Fifth, a whole range of very impressive features. Such as the high SOA (safe operating area) — no limiting circuitry required. Such as the built-in circuit-breaker protection for each channel—no fuses needed. Such as the XLR input connectors and ¼ inch phone jack (active balanced or unbalanced) — no external transformers required. Such as the totally modular construction—readily accessible for easy servicing. Such as the rugged steel construction—with all components and modules securely sandwiched for added strength.

Finally, Crest's P-3500 Series amplifiers are ready to live up to their promise. With the totally accurate sound you want. With the advanced features you've asked for. With reliability ready to take anything you dish out. All this in a compact 3½ inch package that will save you lots of space and money. And once you hear the difference in action other amps will sound obsolete.

So if you haven't yet heard our P-3500 Series amplifier your dealer will be glad to arrange a demonstration. But don't listen to anything until you hear from us.



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CREST You Can Hear The Difference

CREST AUDIO

9171 Gazette Ave., Chatsworth, Ca. 91311
(213) 998-3120

••• DICK CHARLES RECORDING SERVICE INC.

729 7th Ave., New York, NY 10019
(212) 582-7920

Owner: Dick Charles.

Studio Manager: Dick Charles.

Engineers: Les Paul Jr., Gordon Shelp

Dimensions of Studios: 28' x 25'

Dimensions of Control Rooms: 18' x 25'

Tape Recorders: 3M M-79 16/8 track; (4) Ampex 440 2 track; (2) Nakamichi cassette; (4) Pioneer 1/4 track.

Mixing Consoles: Audiotronics 501, 18 in x 16 out.

Monitor Amplifiers: Crown DC300A, McIntosh (6).

Monitor Speakers: Altec, JBL 4311.

Echo, Reverb, and Delay Systems: EMT.

Other Outboard Equipment: MXR phasers; MXR flangers; Lang EQ, Teletronics limiter/compressors; UREI click track; Parasond stereo EQ; Roger Mayer stereo limiter; Parasound stereo limiter; Dolby noise reduction.

Microphones: Neumann U87, KM86; Electro-Voice RE-20, RE-55, RE-15, 635A, 666, 650; AKG 202E, D104.

Instruments Available: Baldwin piano, Hammond organ, Fender Rhodes, Mini Moog, Celeste, drums.

Extras: AKG earphones Model K140, Neumann SX68, stereo mastering system.

Rates: From \$50/hr up, multiple hours special price; please call for quote.

Direction: For more than twenty years, this small independent studio has prided itself on its high quality in sound and its personal attention to the complete needs of many of this country's most successful artists, musicians, songwriters and producers such as the late Bobby Darin and the early efforts of such super stars as Barry Manilow, Neil Diamond, Carol King, Tony Orlando, Melissa Manchester, Carole Bayer Sayer, producers like Bill Szymczyk, Don Kirshner and many others. Dick Charles Recording is unique in that the studio is now fully equipped to cover the complete audio package for its clients from the studio recording, re-mixing, right through to the final mastering of stereo disk for pressing. Because of this, and because the work is handled by a small but dedicated staff, the product remains constant and the artist and producer maintain complete control over their work.

••• DOWNTOWN SOUND

173 Christopher St., New York, NY 10014
(212) 989-1010

Owner: Hank O'Neal.

Studio Manager: Jon Bates.

Engineers: Phil Clendenninn, James Mason.

Tape Recorders: Ampex MM1100 16 track; Scully 2 track; TEAC A2300SX 1/4 track; JVC ICD3030 cassette.

Mixing Consoles: Audiotronics Son of 36 Grand, 20 in x 16 out.

Monitor Amplifiers: Crown.

Monitor Speakers: Big Red, Auratone.

Echo, Reverb, and Delay Systems: Custom plate echo, tape delay.

Other Outboard Equipment: Kepex, Teletronics and UREI limiters, Furman EQ, Eventide flanger, Pultec EQ, McIntosh headphone amp.

Microphones: Neumann U-87, U-67, U-47; Sennheiser 451; AKG; E/V RE 20, 15, 13, 11, 10; Shure.

Instruments Available: Steinway "B" grand, Fender Rhodes, Slingerland/Sonor drums, Polytone bass amp, Fender Pro Reverb.

Extras: Only studio with RMI keyboard computer.

Rates: 16 track \$100/hr; 2 track \$65/hr w/discounts for block rates.

Direction: Hank O'Neal has produced a catalog of over 100 jazz albums of jazz greats Earl Hines, Joe Venuti; nominated in Downbeat poll for producer award; history in quality mainstream jazz; direction lately more contemporary, combination of jazz, rock and disco.

••• F-V SOUND LTD.

17 East 45th Street, New York, NY 10017
(212) 697-8980

Owner: Fred Venitsky.

Studio Manager: Ann McGuire.

Engineers: Vernon Sollecito, Steven Day, Fred Venitsky, Jimmy Regan.

Dimensions of Studios: 30' x 40'; 25' x 30'; 15' x 15'.

Dimensions of Control Rooms: 50' x 30'; 30' x 40'; 10' x 15'.

Tape Recorders: 3 Scully 280 B full track; 4 Scully 280 B 2 track; 2 Scully 280 B 4 track; 1 TEAC small sync A-334C5 4 track; Ampex MM-1000 16 track.

Mixing Consoles: Audiotronics 110A, 8 in x 2 out; Audiotronics, 12 in x 4 out; Audiotronics, 16 in x 8/8 out.

Monitor Amplifiers: (7) Crown D-60, Crown D-150.

Monitor Speakers: 6 JBL 4311, 2 Altec 604 B.

Echo, Reverb, and Delay Systems: Master-Room echo system.

sixteen track

Other Outboard Equipment: 4 UREI LA3A's, Pultec equalizers and filters.

Microphones: RCA-77, RE 20's, AKG C12A's, assorted AKG and Sandok.

Instruments Available: Set of drums, baby grand piano.

Rates: \$60/hr, record, mix, edit, pulse transfer; \$25/hr, one unit of 1/4 tape; \$50/hr, one unit 1/2 tape; after 6:00 pm \$100-150/hr, record, edit, mix.

Direction: Record, radio spots, create and produce audio visual shows.

••• GOLDEN FLEECE "RECORD" PRODUCTION CO.

1673 Newbridge Rd., Bellmore, L.I., NY 11710
(516) 781-7576

Owner: Frank Grittani, President.

Studio Manager: Anthony Giunta.

Engineers: Frank Grittani, engineer and producer; Anthony Giunta, director.

Tape Recorders: Tascam 80-8 8 track; Tascam 35-2 2 track; Tascam 90-16 16 track.

Mixing Consoles: Tascam Model-15, 24 in x unlimited out.

Direction: Our direction is to be as big someday as CBS (Columbia Records), also we plan to build a studio in Florida. Golden Fleece has an open door policy to any disco artist or other great talent.

••• G & T HARRIS, INC.

215 Lexington Avenue, New York, NY 10016
(212) 481-6500

Engineers: Bill Taylor, Warren Mazur.

Dimensions of Studios: 23' x 24'; 6' x 10'.

Dimensions of Control Rooms: 18' x 20'; 23' x 18'; 21' x 18'.

Tape Recorders: Ampex MM-1200 8 and 16 track; Ampex 440 4 track; Scully 280 4 track; Scully 280B 2 track; 6 Ampex 350 2 track; 3 Ampex 300 1 track.

Mixing Consoles: Custom XXX, 24 in x 24 out; Tascam 10, 8 in x 8 out.

Monitor Amplifiers: Crown DC-300A, D-150, D-75.

Monitor Speakers: Big Reds (Altec 604E).

Echo, Reverb, and Delay Systems: AKG BX-20.

Other Outboard Equipment: Pultec, UREI equalizers and limiters, cinema equalizers, Clic-Trac, 14K sync, 60HZ sync, Dolby, Kepex, dbx.

Microphones: Neumann U-47, U-67, KM85; AKG C12; Electro-Voice RE-20, RE-15, RE-16; Sennheiser; AKG; Shure; RCA.

Instruments Available: Yamaha grand piano 7'4", drums.

Extras: 1/2" video playback, disc to tape, hi speed cassette dupes, computerized slide show programming, sound rentals, audio consulting, screening room.

Rates: Call.

••• MAGNAGRAPHICS

72 Bedford Street, New York, NY 10014
(212) 691-2333

Owner: Robert Prewitt.

Studio Manager: Tina Prewitt.

Engineers: Robert Prewitt, chief engineer; Ken McCaleb, George Laccorn, Michael Kelly, assistant engineers.

Dimensions of Studios: 25' x 15' x 12'.

Dimensions of Control Rooms: 9' x 15' x 10'.

Tape Recorders: Scully 288-16 16/8 track; Scully 280-4 4 track; Scully 280-2 2 track; Magnecord 2 2 track; Optonica computerized cassette duplicator.

Mixing Consoles: Spectra Sonics Custom, 26 in x 16 out.

Monitor Amplifiers: Spectra Sonics, North American Phillips, Akai, Dina.

Monitor Speakers: JBL, Altec, Infinity.

Echo, Reverb, and Delay Systems: MICMIX Super C stereo chambers, MXR full digital, Custom analog lines.

Other Outboard Equipment: Gainbrain, Kepex, Martin PEQ 500A's, dbx, Dolby.

Microphones: Neumann U-87's (3); Neumann KM84's (2); Pressure Zone microphones (2).

Instruments Available: New Baldwin grand piano, Hammond C3 organ w/Leslie, Ludwig and Slingerland drums, Moog-3, Rhodes ARP strings.

Rates: 16 track \$55/hr; 8 track \$45/hr; 4 track \$40/hr; 2 track \$35/hr.

Direction: John Lennon, Yoko One Band, Kiss, Bette Midler, National Public Radio (Wash. DC), Donna Pescow ("Angie" ABC), Sesame Street "PBS", Peter Allen, Harry Chapin. Philosophy: getting the best sound possible.

••• MASTERTONE RECORDING STUDIO INC.

also REMOTE RECORDING

130 W. 42nd St., New York, NY 10036

(212) 840-1730

Owner: Warren C. Slayton (Audio International).

Studio Manager: Warren C. Slayton.

Engineers: Sidney Feldman, Richard LaPage, Marilyn Ries.

Dimensions of Studios: A: 35' x 45'; B: overdub; C: edit room; stereo cutting room.

Dimensions of Control Rooms: A: 15' x 18'; B: 12' x 10'; C: 12' x 15'.

Tape Recorders: 3M 8 track; MM1000 16 track; Ampex 2 track; Scully 2 track.

Mixing Consoles: Electrodyne, 16 in x 16 out; Tascam 5B, 8 in x 4 out; RCA, 8 in x 2 out.

Monitor Amplifiers: BGW, Crown, Sony.

Monitor Speakers: Altec 604, JBL 4311, RCA, LC1A.

Echo, Reverb, and Delay Systems: AKG BX20, Orban 111, Fairchild 658.

Other Outboard Equipment: dbx, N/R and limiters, UREI limiters, Pultec EQ, Orban EQ, Techniques EQ, Lexicon "Prime Time" digital delay.

Microphones: Neumann 87, 47, 67; AKG 202; E-V; Sennheiser.

Instruments Available: Steinway grand, Tack piano, Rhodes Rodgers drums, Celeste, Vibes, Hammond B3, percussion.

Extras: Direct to disc cutting, location recording.

Rates: On request.

Direction: Self-service Tascam studio.

••• MEGA MUSIC

345 E. 62nd St., New York, NY 10021

(212) 838-3212

Owner: Don Dannemann and Norris O'Neill.

Engineers: Howard Kaufman.

Dimensions of Studios: 8' x 12' studio; 5' x 7' drum/isolation booth.

Dimensions of Control Rooms: 15' x 25'.

Tape Recorders: Ampex MM-1100 16 track; Scully 280 1, 2, and 4 track; Scully 280-B 1, 2, and 4 track; Ampex 350 1 track; Otari MX5050 1 and 2 track; Nakamichi 1000 2 track.

Mixing Consoles: Ashly (Custom), 20 in x 8 out.

Monitor Amplifiers: McIntosh 2100, (2) Crown D60.

Monitor Speakers: JBL 4311, Auratone.

Echo, Reverb, and Delay Systems: Master Room (MICMIX), Orban 111B, Ibanez AD-230.

Other Outboard Equipment: UREI LA-3A, leveling amps.

Microphones: Neumann U-47 FET, U-87; E-V RE-20; Shure SM-58; Beyer M88; Sony ECM-22P.

Instruments Available: Mini Moog, Yamaha upright piano, Crumar orchestrator drum kit, percussion, amps, clavinet, Celeste, xylophone, tympani.

Direction: Basically Mega's studio is an in-house production facility. It is made available on a limited basis for hire.

••• SEAR SOUND

235 W. 46th St., New York, NY 10036

(212) 582-5380

Owner: Walter Sear.

Studio Manager: Roberta Findlay.

Engineers: Walter Sear, Bob Schwall.

Dimensions of Studios: 37' x 15'.

Dimensions of Control Rooms: 15' x 11'.

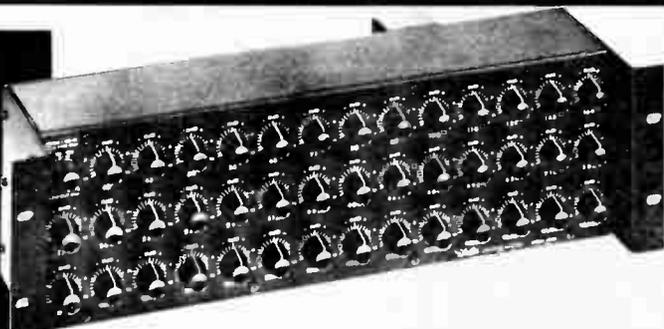
Tape Recorders: Ampex MM1200 16 track; Ampex 300 2 track; Ampex 350 2 track; Ampex 300 1 track.

Mixing Consoles: Custom built, 16 in x 16 out.

Monitor Amplifiers: McIntosh M175.

Monitor Speakers: JBL.

**1
6
OCTAVE**



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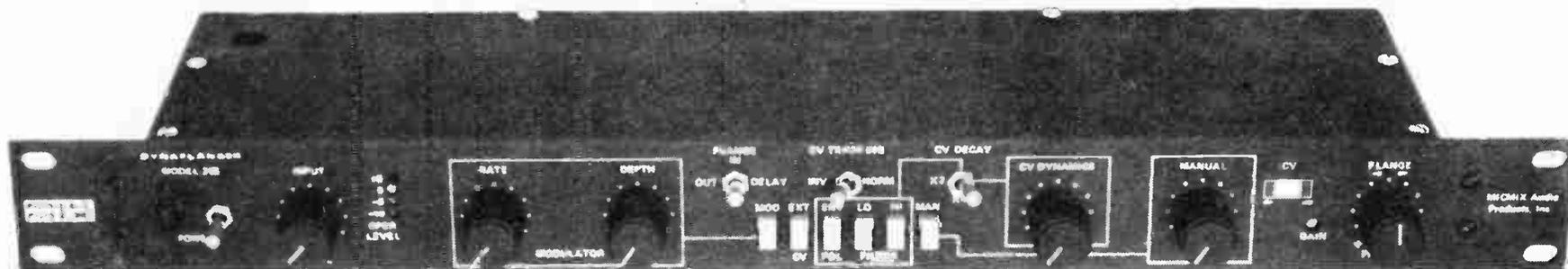
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- 10 dB boost or cut on continuous, calibrated, Mil-Spec controls
- Equal Q in both boost and cut conditions.
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- Noise guaranteed — 90 dBv or better
- Accessory socket to permit insertion of 12 dB/octave or 18 dB/octave low-level crossover networks for **bi-amping** or **tri-amping**.
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- Input attenuation control variable to 20 dB of attenuation accessible from front panel.
- Variable high-pass filter 20 Hz through 160 Hz, 12 dB/octave
- Security cover

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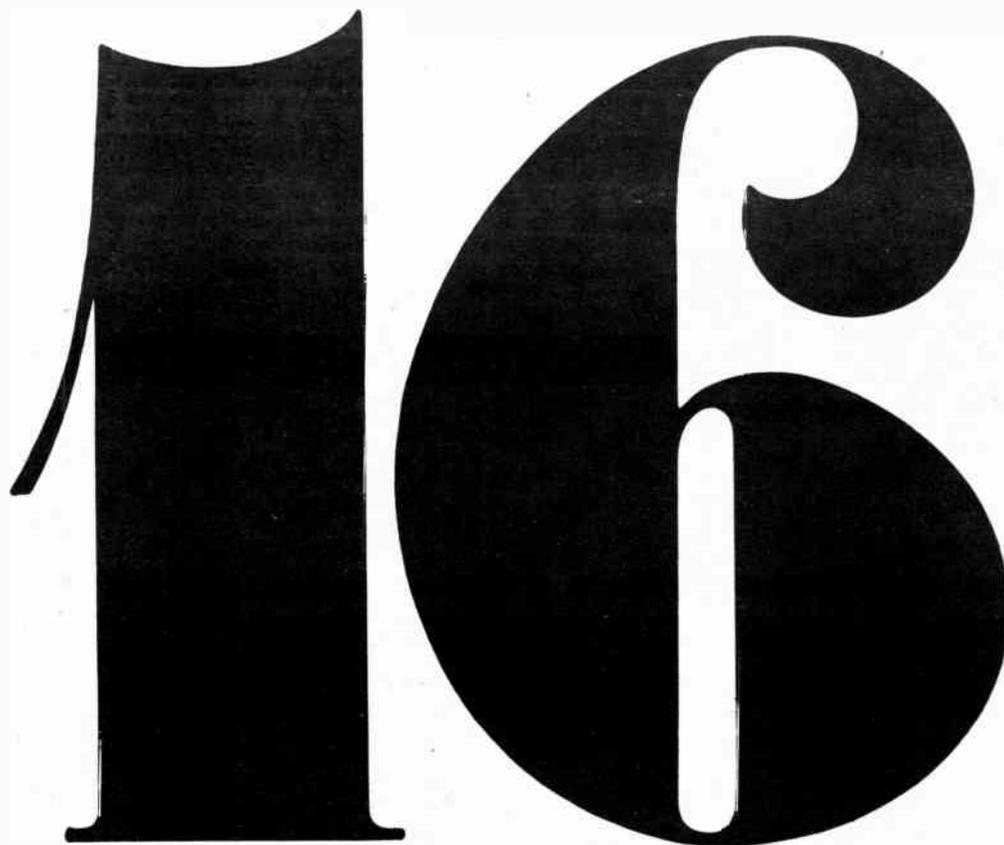
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 Dallas, Tx 75220



••• **AAA RECORDING STUDIO**
130 W. 42nd. Suite 551. New York, NY 10036
Owner: Variety Sound.
Studio Manager: Fred Vargas.
Engineers: Joe Cyr, Mike Bacek, Clarence Stacey, Fred Vargas.
Tape Recorders: MCI JH 16.
Mixing Consoles: Audio Designs, 16 in x 16 out.
Rates: \$60/hr.

••• **ALLISON DELTA CORP.**
16 W. 46th St., New York, NY 10036
Owner: Bernard Zimney.
Studio Manager: Robert Liebert.
Engineers: Andrew Milano, John Clemente.
Tape Recorders: Ampex MM 1000.
Mixing Consoles: Audio Designs, 24 in x 24 cut.
Rates: \$75/hr.

••• **ARTCRAFT RECORDING STUDIO**
285 E. 49th St., New York, NY 11203
(212) 778-5150
Owner: M. Serby.
Studio Manager: Anthony Sebiniano.
Engineers: Anthony Sebiniano.
Dimensions of Studios: 20' x 30'.
Dimensions of Control Rooms: 16' x 10'.
Tape Recorders: MCI JH10, 16 track; MCI JH110, 4 track; Ampex, 2 track; Otari, 2 track.
Mixing Consoles: MCI JH 416, 16 in x 16 out.
Monitor Amplifiers: McIntosh.
Monitor Speakers: (4) Altec A700's, JBL 100, Realistic Mini's.
Echo, Reverb, and Delay Systems: MICMIX echo, Korg stage echo w/delay.
Other Outboard Equipment: MXR 31-band EQ, dbx 165, API 525, dbx 16-track noise reduction.
Microphones: Sennheiser, AKG, Neumann, Beyer.
Instruments Available: Gretsch drums, RMI Rocksichord, Crumar string ensemble, Hammond B-3, Weber piano.
Extras: Fender and custom amps, full video capability 3/4" system.
Rates: 16 track \$80/hr (\$65/hr block), 8 track \$45/hr, 4 track \$45/hr, 2 track \$45/hr (also 3 track).
Direction: Spec. reggae, disco, rock.

••• **BIG APPLE RECORDING STUDIO, LTD.**
112 Greene Street, New York, NY 10012
(212) 228-4278
Owner: Billy Arnell, Steve Loeb.
Studio Manager: Michael Rubinstein.
Engineers: Roddy Hui, Jim Jordan, Kurt Munkacsi.
Dimensions of Studios: 19' x 34'.
Dimensions of Control Rooms: 15' x 17'.
Tape Recorders: MCI JH-110 16 track; Ampex 440C 2 track; Ampex 440C 4 track; Ampex 440C mono. Copy machines:

TEAC 3300S (1/4 tk) 2 track; Revox HS77 (1/2 tk) 2 track; Nakamichi 600II cassette 2 track.
Mixing Consoles: Neve 4018 (modified), 16 in x 16/4 out.
Monitor Amplifiers: Crown DC-300, D-150 (3), D-60.
Monitor Speakers: JBL 4331, 4311, 4310; Auratones.
Echo, Reverb, and Delay Systems: AKG BX-20E, Eventide 1745 A, Lexicon Prime Time, Eventide 910 Harmonizer.
Other Outboard Equipment: Orban 621 B stereo parametric EQ, Auditratics PEQ 82 EQ, Neve limiter/compressors (4), Gain Brain (4), Kepex (4), A&D Compex compressor/limiter/expander (2), Eventide Phases, Eventide Harmonizer, UREI 1176 compressor/limiter (2), UREI Dipper 565.
Microphones: Neumann U-87's, KM-86's, U-47 tube; AKG 414's, 452E's; Shure SM-53's; Sennheiser 421's, 441; AKG D-202E's; Altec 21's; Schoeps tube MK-2's; Sony ECM-50; assorted dynamics.
Instruments Available: Steinway concert grand, Hammond B-3 w/leslie, Rhodes Yamaha organ/synth, Hohner pianet, ARP Soloist, ARP Explorer, full drum kit, assorted percussion, congas.
Extras: Dolby A on 16, 4, 2 and mono machines.
Rates: Call for rates.
Direction: Our direction remains the same as our philosophy, which is to offer a highly qualified staff complimented by the latest equipment. Each session is always treated individually with a great deal of involvement and cooperation from our staff. Big Apple has recorded #1 hits both on domestic and foreign charts. Among its clients are; Gloria Gaynor, George McCrae, Brian Eno, Philip Glass, Brecker Brothers, Harry Belafonte, Janis Ian, Don Cherry, Elvis Costello, United Artists Music and many others.

••• **CONDOR**
143 W. 51st. 4th floor, New York, NY 10019
(212) 581-3674
Owner: Joe Venneri, Sandy Messina.
Engineers: Joe Venneri, Sandy Messina.
Tape Recorders: Ampex 16.
Mixing Consoles: Electrodyne.
Rates: \$125/hr.

••• **CO-ORDINATED SOUND SYSTEMS INC.**
320 W. 48th St., New York, NY 10036
(212) 541-7799
Owner: Art Polhemus.
Engineers: Art Polhemus, Dave Halbert, Marianne Malitz.
Dimensions of Studios: 55' x 30' x 11'.
Dimensions of Control Rooms: 22' x 20'.
Tape Recorders: Ampex MM1000, MM1005, 16 track; Ampex 440B 2 track; Ampex 4 track; and various Ampex mono and stereo machines.
Mixing Consoles: Custom, 20 in x 16 out.
Monitor Amplifiers: Altec 1569A and 1568A.
Monitor Speakers: Altec 604E (Big Reds), KLH6's, Auratones.
Echo, Reverb, and Delay Systems: AKG BX10 reverb unit, MXR DDL, and an acoustic echo chamber.
Other Outboard Equipment: dbx noise reduction; dbx com-

pressors/limiters; Altec limiters; Lang equalizers; Orban parametrics (622B); UREI 530's; UREI 545; UREI 537 (31 band EQ); Fairchild 660, Roger Mayer noise gates and various others.
Microphones: AKG 414EB, RE20, Telefunken, RE-16's, MD421's, Neumann KM-84's, AKG C-60; and various other Electro-Voice, AKG and Shure microphones.
Instruments Available: Fender Rhodes, Steinway grand B, Hammond-B organ, Hohner clavinet, upright piano.
Extras: Guitar amps, Guild, Ampeg, Fender.
Direction: What concerns us most is achieving the best sound and having happy, satisfied clients to show for it.

••• **DAWN RECORDING STUDIOS INC.**
756 Main Street, Farmingdale, NY 11735
(516) 249-9819

Owner: James J. Bernard.
Studio Manager: Kathi McCabe.
Engineers: Thomas Schizzano, Joseph Lupis, James Bernard.
Dimensions of Studios: 25' x 23'; 16' x 20'.
Dimensions of Control Rooms: (B) 12' x 14'; (A) 12' x 28'.
Tape Recorders: Xedit 16R 16 track; Scully 280 2 track; TEAC 310; Revox A-700; Nakamichi 500.
Mixing Consoles: API, 12 in x 8 out.
Monitor Amplifiers: McIntosh 2105.
Monitor Speakers: JBL 99's.
Echo, Reverb, and Delay Systems: Loft analog delay, Fairchild 658, live room echo.
Other Outboard Equipment: Ashly parametric equalizer, Eventide phase shifter.
Microphones: AKG 414's; Beyer 260's, 500's; Sennheiser 421.
Instruments Available: Knabe grand piano, drums.
Rates: 16 track \$70/hr, package rates available; 2 track stereo \$30/hr. All rates do not include tape cost.
Direction: As well as a 2-studio facility, the Audio Recording Technology Institute is located here, for the benefit of teaching the knowledge behind the recording industry. Mono disc cutting is available soon to be changed over to stereo. Aspirations include being a centrally located facility for all recording and copy needs, and to treat the people that walk through our doors in the proper manner.

••• **DELTA RECORDING STUDIOS**
16 W. 46th Street, New York, NY 10036
(212) 840-1350

Owner: Bernard Zimney.
Studio Manager: Robert Liebert.
Engineers: Robert Liebert, Andrew Milano (chief engineer), John Clemente.
Dimensions of Studios: 30' x 30', Studio A; 20' x 20', Studio B.
Dimensions of Control Rooms: 12' x 25', Control A; 12' x 20', Control B.
Tape Recorders: Ampex MM 1000 16 track; Scully 280 B 4 track; Scully 280 B 2 track; Ampex 440 B 1 track.
Mixing Consoles: Audio Designs, 20 in x 16 out; Tascam Model 5, 8 in x 4 out.
Monitor Amplifiers: McIntosh 2105, McIntosh M-75, Crown D-60.
Monitor Speakers: Big Reds (Altec), JBL 100, Auratone, Altec 9844.
Echo, Reverb, and Delay Systems: AKG BX-20, EMT.
Other Outboard Equipment: Eventide Delay, Marshall Time Modulator, dbx, Dolby, dbx compressors, Orban parametric EQ, Pultec EQ, UREI compressor/limiter, UREI digital click track, Quad/Eight noise gates.
Microphones: Neumann U-47, U-48, U-87; Sennheiser 421; AKG 457; Electro-Voice RE-10, RE-20; RCA 77.
Instruments Available: Steinway grand piano, Hammond B-3 w/leslie, Ludwig/Gretsch drums w/Zildian cymbals, Fender Rhodes, ARP string ensemble, Mini Moog, ARP 2600 synthesizer, Hohner clavinet, Ampeg B-15 bass amp, Fender Deluxe Reverb guitar amp.
Extras: Disc cutting (stereo), original music scoring for commercials and jingles, reel to reel and cassette duplication, music library, EFX library, full musician contracting, narrator and actor contracting.
Rates: 16 track \$75/hr; 8-4 track \$55/hr; 2 track and mono \$45/hr.
Direction: Jingles, top Latin recording artists, has Latin album of the year with Charanga '76 on T.R. records; jingle done: Tasty cake, Sasson jeans, WBLB disco and more, Crazy Ball, Clouds jeans, Sid's Pants; radio and TV commercials; TSS, Brands Mart, Sam Goody, GQ Magazine, Danskins, Roosevelt & Yonkers Raceways, Kaufman Carpet, A/V Production, McDonalds, Air India, Hawaiian Holidays; sound track for King features classic comics syndicate radio shows live from the Bottom line for Dan Neer and Radio-On.

"Before you make a sound, listen to us"



George Kincheloe

John Kincheloe

Michael Joseph
Sound Genesis

Keta Bill

Paul Davis

—Boardinghouse Reach

James Atkinson

Don Harriss

Boardinghouse Reach is striving for the best. So when they decided to improve their PA system, they came to Sound Genesis—on a moderate budget. The group was having difficulty hearing themselves sing while

performing. Upgrading the PA system would mean being able to improve their performance. And the overall sound quality of the band.

Here's what Boardinghouse Reach had to say about their experience with Sound Genesis:

Sound Genesis Selection

"We got things here that we couldn't get anywhere else. The only thing they didn't supply us with was a truck to haul the stuff around."

Sound Genesis carries over eighty lines of professional PA mics and recording equipment; the Bay Area's largest selection. Some equipment manufacturers even rely on our tweaking service to help test and perfect their equipment designs. Which is why you can often find gear at Sound Genesis that no other audio dealers have even seen.

Sound Genesis Prices

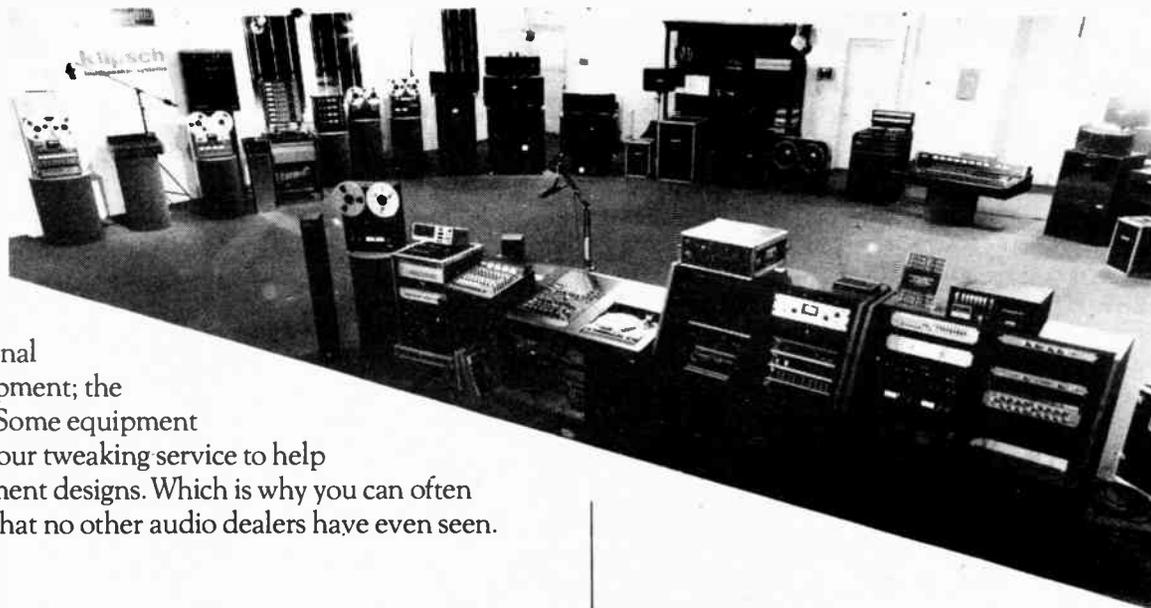
"Compared to the list price and the retail price, Sound Genesis is very reasonable."

We work with your budget to get you what you need; either upgrade your existing equipment, or put together a complete new system. Financing is available through a company that's familiar with the cost of sound equipment—so it's easier to get what you really want.

Sound Genesis Service

"After we purchased our PA here, the salesman came out to our gig to see that everything was working right. That's rare."

Our service starts with our undivided attention in the private showroom and doesn't stop when you walk out the door. We see to it that you're satisfied with the equipment you buy from us; even if it means a trip to your studio or stage.



Sound Genesis Showroom

"I was allowed to sing and hear what I sounded like on all the different speakers... with no one around me. You can't do that anywhere else."

For maximum use of our showroom, we ask that you make an appointment. This allows you to test and select equipment in the privacy of a 40' x 60' room alone. Other customers won't be around to distract you; no one

playing guitar in your ear. And you'll get our undivided attention.

"We're now a lot better because we can hear ourselves!"

If you're a professional musician, engineer, or just someone interested in the creation of sound, we invite you to come in and check us out for yourself. But if you want to hear about us first hand, or book this band, call Spud Boy Productions at 415-661-5793.

sound genesis

San Francisco

Sound Genesis, 2001 Bryant St., San Francisco, CA 415-285-8900,
TWX 910-372-7393. Store hours: Monday-Friday, 9-6.
Sales, Service and Financing.

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If you have a commercially available 4/8/16/24 track recording studio in California, Washington, Oregon, New York, or the Nashville/Memphis area, and would like to be listed, free, in our directory, fill in the coupon below and return it to:

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Albany Branch
Berkeley, CA 94706

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- 4 TRACK 16 TRACK
 8 TRACK 24 plus TRACK

Name _____

Studio Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Comments: _____

eight track

•• TRITON RECORD PRODUCTIONS, INC.

25 W. 43rd St., New York, NY 10036
(212) 575-8055/575-7809

Owner: Sylvia K. Israel.

Studio Manager: David W. Smith.

Engineers: David W. Smith, Jack Babraitis.

Dimensions of Studios: 20' x 14'; 30' x 60'.

Dimensions of Control Rooms: 8' x 14'; 10' x 12'.

Tape Recorders: Ampex AG 350, 1/2 track; Ampex AG 440, 4 track; Scully 280, 8 track.

Mixing Consoles: Tascam Model 10, 4 out; custom console, 8 out.

Monitor Amplifiers: BGW.

Monitor Speakers: JBL, KLH.

Echo, Reverb, and Delay Systems: AKG.

Other Outboard Equipment: UREI, Pultec, Koss.

Microphones: Neumann M-496; AKG 251, C-60, 451; Beyers M-500; Shure SM-58.

Instruments Available: 9' Steinway, 6' Yamaha.

Rates: 2 track: B: \$35/hr, A: \$45/hr; 4 track: B: \$45/hr, A: \$55/hr; 8 track: B: \$60/hr, A: \$85/hr.

•• UNIQUE RECORDING

701 7th Ave., 8th floor, New York, NY 10036

(212) 398-0574

Owner: Joanne Georgio, Robert Nathan.

Studio Manager: Bob Nathan.

Engineers: Bob Nathan, Joanne Georgio, various NY freelance engineers. Studio will accept your own engineer if he meets with our approval.

Dimensions of Studios: 30' x 15'.

Dimensions of Control Rooms: 15' x 15'.

Tape Recorders: Tascam 80-8, 8 track; Otari MX 5050-B, 2 track; Akai 709D cassette; Sony reel to reel 350.

Mixing Consoles: Sound Workshop 1280-B w/super EQ, 12 in x 8 out.

Monitor Amplifiers: (2) Crown DC 150's, Yamaha P2050 (headphones).

Monitor Speakers: JBL 4311WX (control room); JBL 4663 (studio PA system); Cerwin-Vega SM-12 (studio playback); Auratone (control room mix down); (6) AKG headphones (K140).

Echo, Reverb, and Delay Systems: Echoplex, Roland Space Echo, Sound Workshop stereo reverb.

Other Outboard Equipment: 2 Ashly SC-50 compressor/limiters; Soundcraftsmen 10-band stereo graphic EQ; Mutron phase shifting; MXR flanging.

Microphones: Shure SM-58, SM-57; Sennheiser MD 421; AKG 414, 451; Neumann U-87.

Instruments Available: Aeolian grand piano, Suitcase Rhodes 73, Micro Moog, Multi Moog, Polymoog, ARP Omini, MESA/Boogie, Ampeg VT-22, Acoustic 360, Slingerland drums.

Extras: Kitchen, shower, ultra modern atmosphere, air conditioning; 1 block from Manny's Music and 48th Street Music Exchange; accessible to all subways and parking.

Rates: \$25/hr (2 hr min), \$20/hr (10 hr block rates) mix down; \$20/hr rehearsal; \$12-15/hr w/free cassette taping w/3 hrs rehearsal; house studio musicians available for all sessions.

Direction: Unique Studios is owned by musicians and run for musicians. It is for the group or songwriter who wants to demo their material. We feel demos are our only business since we already cater to the major NY publishing houses, we can be a great help to the novice group or songwriter who would need a little helpful coaching to produce a very commercial demo recording.

•• WILDFLOWER RECORDING

Scott's Corners, (P.O. Box 81), Pound Ridge, NY 10576
(914) 764-8220

Owner: Wildflower Enterprises, Ltd. (Jerry Bock).

Studio Manager: John A. Keil.

Engineers: John A. Keil.

Dimensions of Studios: 18' x 25'.

Dimensions of Control Rooms: 10' x 15'.

Tape Recorders: Scully 284-B, 8 track; Ampex AG-440B, 2 track; (2) Tandberg series 10X, 2 track; Tandberg TCD-330, 2 track; Nakamichi Model 700, 2 track.

Mixing Consoles: Sound Workshop Model 1280B-12EQ, 12 in x 8 out.

Monitor Amplifiers: BGW Systems and McIntosh.

Monitor Speakers: Control room: JBL 4315's, Auratone 5C's; Studio: Electro-Voice Sentry's.

Echo, Reverb, and Delay Systems: Reverb: AKG BX-20, Orban 111-B. Delay: Delta Lab DL-2 Acousticcomputer; UREI 964 digital metronome, etc.

Other Outboard Equipment: Noise reduction: dbx 158 (8 track) and 155 (2 track); Ashly limiters and parametric equalizers; Delta Lab DL-2 Acousticcomputer; UREI 964 digital metronome, etc.

Microphones: AKG 414's, 452's; Sennheiser 421; Shure SM-57's; Electro-Voice RE-20, RE-15, 635A; Neumann U-87; Beyers M-160, X-1.

Instruments Available: In studio: Yamaha piano, Ludwig drum set with Remo Roto-Toms. On rental basis: Hammond organ, ARP Omni-2, ARP Strong Ensemble, ARP Axxe, Fender Rhodes, Mellotron, Roland SH-2000 synthesizer.

Extras: Ground level loading, relaxed atmosphere, friendly natives, "THE WESTCHESTER SOUND." Also mastering to cassette or disc, duplication, laquers, etc.

Rates: 8 track recording/mixing \$40/hr plus tape, 2 track recording/mixing \$25/hr plus tape. Rate applies seven days a week, anytime.

Direction: The studio has completed an album for the Candy Band, (children's music) and several demos for various groups; Spoons, a new Westchester band (rock), Eclipse, a popular southern Connecticut band, (pop/easy listening); and several solo performers as well as various composers. Wildflower Recording is just 7 months old, officially opening its doors January 1, 1979. Our direction has been down the demo route for most of our clients, but those have been varied from acoustic duets and solos to rock and even political commercials.

•• ZEAMI STUDIO

102 Green St., New York, NY 10012

(212) 226-3885

Owner: Takashi Tsuruta.

Studio Manager: Naka Suzuki.

Engineers: Naka Suzuki.

Tape Recorders: Ampex ATR 100 2 track; Otari 7800 8 track; Revox 2 track.

Mixing Consoles: Syncon, 16 in x 8 out.

Monitor Amplifiers: BGW.

Monitor Speakers: Big Reds.

Echo, Reverb, and Delay Systems: AKG, Lexicon, Prime-Time.

Other Outboard Equipment: UA limiter board, UREI compressor/limiter, Roger Mayer noise gate.

Microphones: AKG 414; Neumann U-87; Sennheiser 521; Shure 57, 54, 53; Aiwa.

Instruments Available: Music Man bass amplifier, B-15 Fender Rhodes, Hammond B-3.

Rates: Call for rates.

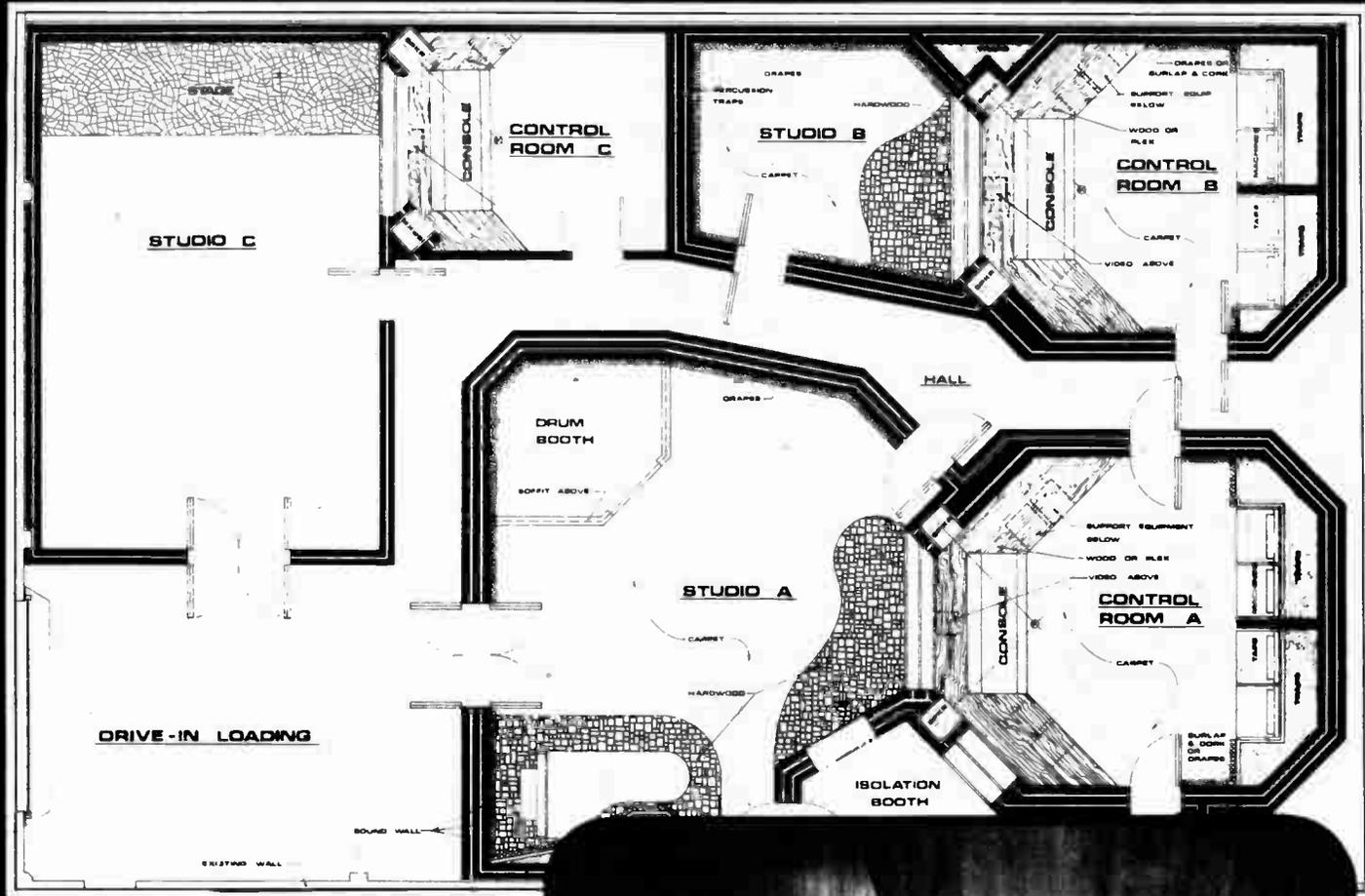
Direction: Acoustic design is Live End, Dead End. We can provide special Japanese products not available elsewhere in U.S.A.

Mix Classifieds -

Coming in November

see p.57 for details

Music Annex announces the opening of studios B and C.



Music Annex now has four great rooms in the Bay Area: Studios A, B, and C located near Highways 84 and 101 in Menlo Park, and our Cowper Street studio in Palo Alto. Call (415) 328-8338 for rates.



MCI 16/24 track • Amek 28/24 consoles
Studios designed by Everything Audio



Music Annex Recording Studios

Echo, Reverb, and Delay Systems: AKG BX10 reverb, Lexicon Prime Time.

Other Outboard Equipment: 4 channel Delta Graph EQ; 2 channel Audio control EQ; 2 channel Orban Parasound parametric EQ; 2 channel M&M complimiter; 2 channels dbx complimiter; Burwen noise reduction, etc.

Microphones: Neumann U87; AKG 414EB's; Sennheiser 421's and 441's; E-V RE20 and PL-6; AKG 451's; RCA DX77; Sony ECM 22P; AKG D1000E; Beyer 500 plus 3 custom designed direct boxes (passive).

Instruments Available: Fender Precision bass, Gibson Firebird, Fender Jaguar, Fender Rhodes piano, Haynes baby grand piano; Slingerland, Ludwig and Gretsch drums, Fender Bassman amp, Fender Princeton amp, Gibson Ranger amp; Sunn and SVT speaker cabinets, Musser marimba, percussion, ARP synth, clarinet, etc.

Extras: AKG headphones (3 cue mixes); 3 isolation rooms w/visual access (drum, piano and vocal). Access to primo musicians. Production and publishing available. Test equipment includes Crown 1/3 octave analyzer and Hewlett Packard generator. **Rates:** \$30/hr (10 hrs or less), discounts for longer blocks of time. Tape, Prime Time and electric keyboards are extra.

Direction: The clock does not dictate. In our 8 months of operation, we've gotten a reputation for laid back professionalism. Currently involved in 2 LP projects and numerous demos. Both engineers are professional musicians.

•• REEL APPEAL

308 West Main, Smithstown, NY 11787
(516) 724-1593

Owner: Jim Karcher, Charlie Spero.

Engineers: Jim Karcher, Charlie Spero.

Tape Recorders: TEAC 80-8, 25-2.

Mixing Consoles: Sound Workshop 1280 parametric EQ, 12 in x 8 out.

Rates: \$25/hr.

•• SADLER RECORDING STUDIO INC.

120 W. 44th St., New York, NY 10038
(212) 575-0295

Owner: John H. Sadler.

Studio Manager: John H. Sadler.

Engineers: J. Sadler, Ken Dovel.

Dimensions of Studios: 24' x 12'.

Dimensions of Control Rooms: 24' x 12'.

Tape Recorders: Scully 280 8 tracks; Ampex AC-440 4 track; Ampex AG-350 2 track; Ampex 350 1 track.

Mixing Consoles: Allen and Heath, 16 in x 8 out.

Monitor Amplifiers: Crown, Dyna.

Monitor Speakers: Altec, KLH.

Echo, Reverb, and Delay Systems: Orban, Fairchild.

Other Outboard Equipment: Burwen noise eliminator-reducer, Kepex filters, etc.

Microphones: AKG 451, Sony C37, EV 666, and others.

Instruments Available: Piano, drums, Moog.

Rates: \$50/hr 8 track; \$40/hr 4 track; \$35/hr mono.

Direction: Mostly advertising, location recordings, demos.

•• SHUSTER SOUND

29 Burt Court, Valley Stream, NY 11581
(516) 791-2985

Owner: Bob Shuster.

Studio Manager: Bob Shuster.

Engineers: Bob Shuster.

Dimensions of Studios: 12' x 28'.

Dimensions of Control Rooms: 9 1/2' x 15'.

Tape Recorders: TEAC/Tascam series 70H8 (1/2") 8 track; Scully 280 280-2-4 (1/4"-1/2") 2, 4 track; TEAC 3340S (1/4") 4 track; TEAC 3300S (1/4") 1/4 track stereo; Akai GX-220 (1/4") 1/4 track stereo; JVC KD-75, cassette deck; Ampex AG-600, 1/2 track mono.

Mixing Consoles: Custom built Sontec 1, 12 in x 4, 8 out; graphic EQ on each channel, 2 cues, 2 echo sends.

Monitor Amplifiers: Sansui AU6600, Dynaco Mark III.

Monitor Speakers: Altec 9865 8A; BSR SS70, bookshelf type; Lafayette radio, PIP Speaker Model 1.

Echo, Reverb, and Delay Systems: Echoplex tape delay, Gramplan 636 reverb unit.

Other Outboard Equipment: dbx 160 compressor, Deltagraph EQ, Dolby noise reduction, TEAC AN300, TEAC AN-80, Technics SL-1500 MKII turntable, Jensen transformer direct boxes.

Microphones: AKG 451E; Neumann M49, U67, U87, KM84; Sennheiser 421, 441; Shure SM57, SM81; Sony ECM22P, ECM33P; TEAC ME180.

Instruments Available: Baby grand piano, drums, amps.

Extras: Air conditioned, parking, sound effects and music library, color TV, free set-up.

Rates: 8 track \$25/hr plus tape/materials; 4 track \$16/hr plus tape/materials; 2 track \$16/hr plus tape/materials; tape copies,

eight track

reel to reel or cassettes, please call.

Direction: Our main operation is to produce high quality demos for bands and songwriters, though some of the material done here has been pressed for local distribution, mainly in the local clubs where the bands play. We also do jingle work for local radio stations.

•• SORCERER SOUND

19 Mercer St., New York, NY 10013
(212) 226-0408

Owner: Al Feierstein.

Studio Manager: Gregory S. Curry.

Engineers: Terry Murphy, Gregory Guarino, Poco Byrd, Gregory S. Curry, Al Feierstein, Ken McKim.

Dimensions of Studios: 13' x 27'.

Dimensions of Control Rooms: 11' x 13'.

Tape Recorders: Tascam 80-8 8 track; Revox A-77 2 track; Technics 1500 2 track; Akai GXC 760D cassette; Nagra Model 3 full track mono.

Mixing Consoles: Acoustilog, Inc.

Monitor Amplifiers: Phase Linear, Crown, BGW.

Monitor Speakers: Allison Three's, ROR E³.

Echo, Reverb, and Delay Systems: Delta Lab digital delay, Master-Room reverb, analog delay.

Other Outboard Equipment: ROR parametric EQ's, Kepex, Acoustilog Spectrum Multilyzer, Eventide Harmonizer, phaser and compressors.

Microphones: AKG 414, 451, 422, C-33, C-34, D-224, etc.; Electro-Voice RE-15, DS-35; Shure SM-57, SM-58, 545, 565; RCA 77-DX.

Instruments Available: Baldwin upright piano, Fender Rhodes piano, Tama drums, amps, etc.

Rates: 8 track \$30/hr.

Direction: Sorcerer Sound is owned by Acoustilog, Inc., a manufacturing, studio design and electro-acoustical consulting firm. As a showroom for our design services, the studio must also provide the most up-to-date equipment in a logical arrangement for our recording clients. More importantly, the equipment is expertly maintained and upgraded regularly, assuring that the quality of our sound is second to none. As we expand to 24 track this fall, we will maintain competitive rates along with several new capabilities that make Sorcerer unique.

•• SOUND LAB STUDIOS, LTD.

2897 E. 14 St., Brooklyn, NY 11235
(212) 934-8585

Owner: Peter Diorio.

Studio Manager: Peter Diorio.

Engineers: Peter Diorio.

Dimensions of Studios: 30' x 20'.

Dimensions of Control Rooms: 20' x 20'.

Tape Recorders: TEAC 80-8 8 track; TEAC 7300 1/2 track master; TEAC 1200 1/4 track copy.

Mixing Consoles: Sound Workshop 1280, 12 in x 8 out.

Monitor Amplifiers: Crown, Dynaco.

Monitor Speakers: 4 Frazier capsules, 2 JBL C50's.

Echo, Reverb, and Delay Systems: Sound Workshop 242A stereo reverb, Multi-Vox MX-312 echo.

Other Outboard Equipment: Sound Workshop doubler (voice).

Microphones: Sennheiser MD-421's, ME-40's, MKH 416T; AKG C-451EB's, D-224E; Shure SM-57, SM-58; E-V 1777.

Instruments Available: Crown PA system with JBL cabinets, Ludwig drum set, oversized Acoustic 220 bass amp with Sunn bottom, (2) 15" JBL's, (2) Fender Twin amps, Music Man guitar amp, Acoustic 150 guitar amp, Marshall 100W, Marshall 50W, Sohmer baby grand piano, Hammond L-100 with Leslie cabinet, 88 stereo Suitcase Rhodes, Mini Moog synthesizer, Crumar Orchestrator (strings).

Rates: 8 track recording \$30/hr, mixing \$25/hr; 4 track recording \$20/hr, mixing \$15/hr; 2 track \$15/hr, mixing \$10/hr; Rehearsal time, Mon thru Friday before 6PM \$10/hr, after 6PM \$12/hr; Sat and Sun \$12/hr.

•• SOUND REALM RECORDING STUDIOS INC.

880A West Beech Street, Long Beach, L.I., NY 11561
(516) 431-8705

Owner: Sound Realm Recording Studios Inc.

Studio Manager: Heath Morgan, President; Jon Bart, Vice President.

Engineers: H. Morgan, D. Moore, J. Bart.

Dimensions of Studios: 25' x 16' x 10'.

Dimensions of Control Rooms: 12' x 12'.

Tape Recorders: Autotech 1" 8 track; Ampex 440 and 350 1/2 track; Nakamichi 1000 cassette; TEAC 1/4 track; BIC T-3; Tandberg 11-1P.

Mixing Consoles: Langevin, 12 in x 8 out; Tascam 5B; Shure SE-30's.

Monitor Amplifiers: Crown DC-300, McIntosh 2105, Nikko Alpha I.

Monitor Speakers: Altec.

Other Outboard Equipment: Orban/parasound reverb, Shure limiter/compressors, Nikko Beta III, Nikko EQ-1, Soundcraftsmen 20-12 EQ.

Microphones: Neumann U-87's; Shure SM-81's, 58's; E-V RE-55's, RE-15's; AKG 160E's.

Instruments Available: Harrington upright, Hammond B-3 and 145 Leslie, ARP Strings, CAT synthesizer, Roland synthesizer, assorted percussion, amps, guitars, and effects.

Extras: Relaxed, professional atmosphere catering to the performing arts. Production and promotion assistance from concept to distribution available. Located in Long Beach on the Atlantic Ocean with convenient travel to Manhattan and airports. Graphic arts and video services available.

Rates: We are the most affordable pro studio anywhere specializing in the 8 track format. Special block rates available on request for 2 1/4/8 track.

Direction: Sound Realm is an innovative studio dedicated to helping recording artists achieve their creative goals. Our engineers make the recording experience both enjoyable and artistically rewarding. We offer full management and promotional support offering personalized attention. New York Metro bookings of artists and bands are directed through our in-house agency, Wizard Talents, Terri Knobel, specializing in new original artists and bands. We have pressed five singles to date, and our most recent recording is being aired on WLIR FM with more to come.

•• SOUNSCAPE STUDIO

also REMOTE RECORDING

393 Sunrise Highway, Lynbrook, NY 11563
(516) 599-4448

Owner: Jeffrey Poretsky, President.

Studio Manager: Doreen Dickler.

Engineers: Chris Jensen.

Dimensions of Studios: 500 square feet.

Dimensions of Control Rooms: 700 square feet.

Tape Recorders: Ampex, Scully, Redux, Sony, TEAC 8 track, 4 track, 2 track, mono, cassette.

Mixing Consoles: Tascam Model 10.

Monitor Amplifiers: Crown monitor amps.

Monitor Speakers: JBL studio monitors.

Echo, Reverb, and Delay Systems: Analog delay lines.

Other Outboard Equipment: Variety of special effects devices.

Microphones: Sennheiser, AKG, Shure, RCA.

Instruments Available: Baby grand piano, ARP synthesizer, and drums.

Extras: Location recording for film, or video tape soundtracks.

Rates: \$35/hr multi track recording/mix; \$65/hr audio edit/production.

Direction: Soundscape Studios is heavily involved with the production of radio spots, multimedia soundtracks, and audio tracks for film and tape TV spots. We are quite familiar with impossible deadlines, demands for new and better effects, good dramatic scoring, and tight editing required by the most exacting of clients. Audio production for audio visual projects requires skills and creativity that is very different from music production. We pride ourselves on our ability to satisfy the most demanding producers.

•• SOUNDWAVE RECORDING STUDIOS, INC.

50 West 57th St., New York, NY 10019
(212) 582-8320

Studio Manager: Carol Baker

Engineers: Ray Hagerty, Don Van Gorden.

Dimensions of Studios: No studio for recording available at the moment. Specializing now in master disk cutting, using Scully lathes, Neumann SC 74 cutting head, and Westrex.

Dimensions of Control Rooms: Control room used for remixing purposes only 8 track, 4 track and 2 track.

Tape Recorders: Scully 280 8, 4, and 2 track.

Mixing Consoles: Electrodyne, 16 in x 4 out.

Monitor Amplifiers: McIntosh MC 40.

Monitor Speakers: Altec 846.

Echo, Reverb, and Delay Systems: EMT Chambers (2).

Other Outboard Equipment: dbx, Dolby, Varispeed.

Extras: Custom disk mastering including toy records.

Rates: Available on request.

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•• ANGEL SOUND

1576 Broadway, New York, NY 10036
(212) 785-7480

Owner: Sandy Sandoval.
Studio Manager: Sandy Sandoval.
Engineers: Sandy Sandoval, Craig Bradley, Kenneth Steiger.
Dimensions of Studios: 15' x 15'.
Dimensions of Control Rooms: 9' x 12'.
Tape Recorders: Ampex 354 2 track; Ampex 351 1 track; TEAC 8-80 8 track.
Mixing Consoles: Custom.
Monitor Amplifiers: McIntosh.
Monitor Speakers: K.L.H.
Echo, Reverb, and Delay Systems: Plate type.
Microphones: (EC100) Telefunken; Telefunken (4-67).
Instruments Available: Piano, Fender Rhodes, drums, bass amp, guitar amp, conga.
Rates: \$25/hr daytime up to 6:00 pm; \$30/hr after 6:00 pm; \$35/hr after 9:00 pm.
Direction: Expect to go 16 tracks soon.

•• BOOGIE WOOGIE SOUND

176 W. 87th, New York, NY 10024
(212) 874-8135

Owner: Walter Booker

•• CHARLES LANE STUDIOS

7 Charles Lane, New York, NY 10014
(212) 242-1479

Owner: Michael F.J. Lynch.
Studio Manager: Cliff Petroll.
Engineers: Gee Strongbear.
Dimensions of Studios: 20' x 30'.
Dimensions of Control Rooms: 12' x 16'.
Tape Recorders: Ampex AG350 8 track; Ampex 350 2 track; Ampex 960 2 track.
Mixing Consoles: Northwest custom 20 in x 16 out.
Monitor Amplifiers: Crown DC 300A.
Monitor Speakers: Altec 604E.
Echo, Reverb, and Delay Systems: Sound Workshop 242A; Dynacord DRS 78.
Other Outboard Equipment: Altec compressors; Pultec EQ; Dynacord TAM19.
Microphones: Neumann U-47; AKG C12A, 224, C60A; RCA 77DX; Shure SM56; Altec 633.
Instruments Available: Hammond B-3, Fender Rhodes, Ludwig drum set, Sunn and Yamaha amps.
Rates: 8 track \$40/hr, block time discounts.
Direction: We specialize in artist development.

•• CLACK INC.

58 W. 45th, New York, NY 10036
(212) 245-8770

Owner: Thomas Courtenay-Clack.
Studio Manager: Karen Finn.
Engineers: Tom Clack, Douglas DiFranco, John Child, Karen Finn.

Tape Recorders: Ampex 8 track; Scully 8 track.
Mixing Consoles: Trident flexi mix 12 in x 4 out; API 12 in x 4 out.
Monitor Amplifiers: Crown.
Monitor Speakers: Advent 1; KLH 6.
Echo, Reverb, and Delay Systems: EMT, Allison.
Microphones: AKG C414; Neumann U87, C47.
Rates: \$110/hr; \$90/hr.
Direction: Specialize in sound effects; voice overs (primary) for TV, radio, FM; mag transfer for film. Extensive sound effect and stock music collection (incl. BCC collection).

•• CUE RECORDING

1156 Avenue of the Americas, New York, NY 10036
(212) 757-3841

Owner: Mel Kaiser.
Studio Manager: Bruce Kaiser.
Engineers: Harvey Lertchner, George Hansen, Mike Sobol, Scott Salem, Steve Dworkin.
Tape Recorders: Scully 8, 4, 2 and 1 track; Ampex 2 and 1 track; TEAC 4 and 2 track.
Mixing Consoles: Audio Designs custom made 12 in x 4 out.
Rates: Vary between \$50 to \$80. Please call for quote.
Direction: We are New York's most complete audio-visual service.

•• DEMO-VOX SOUND STUDIO, INC.

1038 Bay Ridge Avenue, Brooklyn, NY 11219
(212) 680-7234

Owner: Frank J. Grassi and Laura Grassi.
Studio Manager: Laura Grassi.
Engineers: Frank J. Grassi, Bob Croce.
Dimensions of Studios: 20' x 15'.
Dimensions of Control Rooms: 20' x 8'.
Tape Recorders: TEAC/Tascam 80-8 (w/dbx noise reduction) 8 track; Ampex 300 4 track; Revox HS-77 2 track; Tapesonic 70 TRSH 2 track; Tapesonic 70 DFT full track; Sony TC-355, 366 quarter track.
Mixing Consoles: Custom built MPR 6-A 12 in x 4 out.
Monitor Amplifiers: Ultra Linear (tube type) 60W per channel.
Monitor Speakers: Rectilinear Research Mini 3; Demo-Vox Model Spectra-Vox 6.
Echo, Reverb, and Delay Systems: Ross Analog delay system. Fisher K-10 springs; Tapesonic tape delay.
Other Outboard Equipment: Sanyo limiter; Olson HF-16 graphic equalizers; dbx noise reduction (8 tracks).
Microphones: Shure 545S; Sony C-22; Sony AD-39; Electro-Voice 666, 664; Realistic Omni Condenser; Univox CE-2.
Instruments Available: Drums, acoustic upright piano, Gibson K-101 organ, Celeste polyphonic synthesizer; Univox K-2 synthesizer, ARP Omni and string synthesizer available; various percussion instruments such as tambourine and temple blocks.
Extras: Amplifiers: Ampeg Jet, Reverberocket 2 guitar amps and Ampeg B-15N bass amp, Univox wah-wah pedals, fuzz and sustain boxes and Maestro Octave doubler boxes available.
Rates: Mono \$25/hr; 2 track \$30/hr; 4 track \$35/hr; 8 track \$40/hr; mixing \$25/hr. (Note: All rates for time and tape are pro-

rated on actual time used, rather than time booked basis. We will charge back to last quarter hour used for partial segments of an hour.

Direction: We maintain a small, comfortable full service professional operation and attitude. We offer pressing and album jacket production, booking of talent for sessions, and promotion of artists by agreement, in addition to recording. Our feeling is that our industry has gotten caught up in a track race and has lost sight of the services a musician expects. A Professional Sound... with A Personal Touch is a trademark we live by. We expect to go 16 soon, and move to a larger studio because we're running out of space here, but we'd also like to establish a record label that puts out quality artists we'd also manage.

•• HOME STUDIO

136 Cambridge Place, Brooklyn, NY 11201
(212) 822-2124

Owner: Home Studios Corp.
Studio Manager: Lennox Church.
Engineers: Lennox Church, Ulvin Belfast, Ali Abuwi.
Dimensions of Studios: 25' x 25'.
Dimensions of Control Rooms: 40' x 20'.
Tape Recorders: TEAC 80-8 8 track; Dokoder 1140 4 track; Revox HS77 2 track; Pioneer CTF7171 2 cassette.
Mixing Consoles: TEAC/Tascam 5, 8 in x 8/4/2 out; Sony MX16,8 in x 4 out.
Monitor Amplifiers: Custom built 4 channel power amp.
Monitor Speakers: JBL 15".
Echo, Reverb, and Delay Systems: Multi-Vox MX201.
Other Outboard Equipment: RM 160 noise gates; dbx 117 expander-compressor; dbx 161 compressor-limiter; dbx 4 channel noise reduction (155); TEAC/dbx DX8 noise reduction (8 channel); Orban parametric EQ; Shure Audiomaster EQ; Shure mike mixers; Tektronics; 465 scope.
Microphones: AKG 451; Neumann U87; MB Electronics C520; Sennheiser MKH40; AKG C414; Electro-Voice 667A.
Instruments Available: Wurlitzer electric and custom spinet upright, keyboards, Ludwig full set with Zildjian congas, timbales.
Extras: Fender and acoustic instrument amps.
Rates: \$30/hr record and mix.

Direction: We have been in operation for 3 months, and aspiring to 24 tracks via 16. We consider ourselves a high class demo and low budget master studio. We believe in full co-operation with producers and musicians alike, permitting the easy type atmosphere conducive to group creativity. We strive hard for excellence and will often help the producer who's short on mix time so that we can live up to our motto, "It does not leave the studio, till it sounds just right."

•• LYNN OLIVER STUDIOS

250 W. 89th, New York, NY 10024
(212) 874-9871

Owner: Lynn Oliver.
Studio Manager: Lynn Oliver, Ann Oliver.
Engineers: Lynn Oliver.
Dimensions of Studios: Studio A 25' x 25'; Studio B 25' x 30'.
Tape Recorders: Ampex 8, 4 and 2 track.
Mixing Consoles: Custom 8 out.
Direction: Primarily rehearsal space w/available recording equipment.

•• NATURAL SOUND

214 W. 29th, New York, NY 10001
(212) 695-4289

Owner: Conell Scott, Samuel Scott, Samuel Scottman, Dave Gilliam, Skip Jackson, Clyde Brooks.
Engineers: Skip Jackson.
Tape Recorders: Scully 8 track; Otari 2 track.
Mixing Consoles: Allen and Heath.
Rates: \$30/hr.

•• OPEN SKY STUDIO

208 W. 30th St., New York, NY 10001
(212) 695-2401

Owner: Michael Goyle.
Studio Manager: Karen Gardner.
Engineers: Michael Goyle, Thomas Young.
Dimensions of Studios: 24' x 19 1/2' (main studio); 18' x 8' (drum room).
Dimensions of Control Rooms: 12' x 14'.
Tape Recorders: TEAC/Tascam 80-8 w/dbx 8 track; Scully 280 series 4 track; Sony TC-650 2 track; Nakamichi 700 II cassette 2 track; Scully 280 series 2 track.
Mixing Consoles: 2 TEAC/Tascam modified Model 5's, 16 in x 8 out; 1 TEAC cue mixer Model 1, 1 in 2 out.
Monitor Amplifiers: Phase Linear 400; Crown D-60.
Monitor Speakers: JBL 4315 (custom), ROR, Auratone and Fried.

BACK ISSUES

Engineers: E.J. Rosinus.
Tape Recorders: Revox 2 channel Crown 4 track.
Mixing Consoles: Tascam Model 5.
Rates: \$50/hr. \$25/hr editing.

• **SIGHT & SOUND STUDIOS**
 1719 Princeton Dr. W., Wantagh, NY 11793
 (516) 221-1936

Owner: Sight & Sound Inc.
Studio Manager: Disa Bart.
Engineers: Jon Bart.
Dimensions of Studios: 25' x 18' x 10'.
Tape Recorders: Nakamichi 1000II, BIC T-3, TEAC ¼ track, Tandberg 11-1P film sync.
Mixing Consoles: Tascam 5A, Shure M-688, Tascam 5B.
Monitor Amplifiers: Nikko Alpha 1 with Nikko Beta III pre-amp.
Monitor Speakers: (4) #66 4 way.
Other Outboard Equipment: Nikko EQ-1; K-10 space expander; Shure limiters.
Microphones: Neumann; EV; Shure; Sony, AKG; Beyer; RCA.
Extras: Attention to details, aware of market trends.
Rates: Upon request.

Direction: We provide highly effective multi-media services important to successful marketing. Whenever audio, video and/or graphic arts are used, we share a strong list of highly satisfied clients. We realize the importance of efficient and effective marketing presentations. We would like to discuss your next promotion package with our innovative ideas.

• **SKY HIGH STUDIOS**
 215-30 Jamaica Ave., New York, NY 11428
 (212) 343-1596

Owner: John Tedesco.
Studio Manager: J. Angelo Grasso.
Engineers: John Tedesco and J. Angelo Grasso.
Dimensions of Studios: 32' x 28', studio A; 42' x 30', studio B.
Dimensions of Control Rooms: 12' x 15'.
Tape Recorders: AKAI GX400 DSS 4 track; Pioneer RT1050 (½) track 2 track.
Mixing Consoles: EV Tapco C-12 12 x 4 x 2 x 1.
Monitor Amplifiers: 2 Harman Kardon/Citations.
Monitor Speakers: 2 Vox with 15" Altec Lansing horns w/200 w/crossovers; 2 Altec Lansing model 19's.
Echo, Reverb, and Delay Systems: Roland space echo; RE-101; patchable reverb system.
Other Outboard Equipment: 128 dbx, phase linear pre-amp, I.V.C. 22 band EQ, Harman-Kardon H.K. 1000, cassette recorder, Optonica RT 6501, APLD cassette deck.
Microphones: Shure 545SD-CNI.
Instruments Available: All drums, P.A. guitar amps, electric piano, guitar and bass.
Extras: Pinball machines, soda machine, a/c, comfortable surroundings, 24 hrs., bulk rates available.
Rates: \$20/hr, 4 track; \$15 cassettes; \$10 rehearsal.
Direction: Sky High Studios is like nothing you've ever imagined!

• **STAFFORD SOUND**
 11 West 17th Street, New York, NY 10011
 (212) 929-1441

Owner: Lee Stafford.
Studio Manager: Bruce Derusha.
Engineers: Lee Stafford.
Dimensions of Studios: 25' x 18'.
Dimensions of Control Rooms: 8' x 6'.
Tape Recorders: Tascam series 70 (½") 4 track; TEAC A-7300 2 track; TEAC A-2300 ¼ track; TEAC 360S cassette.
Mixing Consoles: Tascam 5 8 in x 4 out.
Monitor Amplifiers: 2 Marantz 250; 2 Dynaco 70.
Monitor Speakers: 2 JBL 4311XL (CR); 4 Bose 901 series II (studio).
Echo, Reverb, and Delay Systems: Sound Workshop stereo reverbs #242, Maestro Echoplex.
Other Outboard Equipment: 4 dbx 161 compressor/limiter; 2 Soundcraftsmen 20-12A audio frequency equalizer; dbx 117; TEAC AN300 noise reduction unit; AX300 aux 6" mixer; Pioneer PL51A turntable.
Microphones: Electro-Voice 16, 55, 635, Shure.
Instruments Available: Sohmer console piano, upright acoustic, RMI electric piano, Ludwig drums.
Extras: Chinese bell tree, tamborine, maracas, etc.
Rates: Call for rates.
Direction: John Cullum (Toni Award winner), New Orleans Jazz Band, Howard Cosell, Warner Cable TV, Warner Com., Barron's Mag.; producing Steve Haggard for Small Axe Records to be released in Sept.

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- Chris Stone
- Ambrosia
- Studio Building
- Audio/Video at IAM



• VOL. 3 #1

- Near Field Monitoring
- Studio Economics
- Van Morrison
- Aphex and EXR
- Jean Luc Ponty



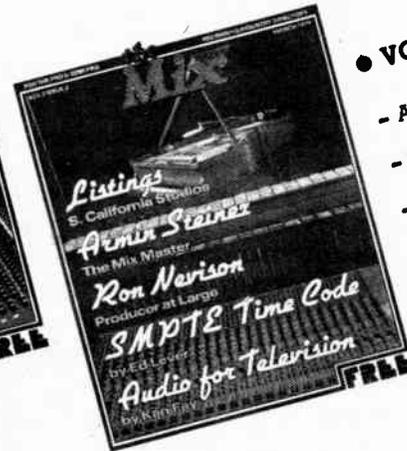
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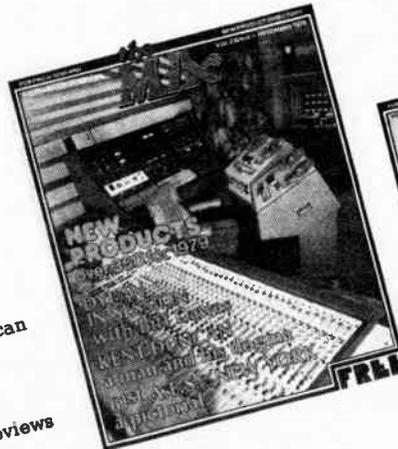
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- Book Reviews



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- Architectural Acoustics
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- Drum Miking Part 1
- Doug Sax



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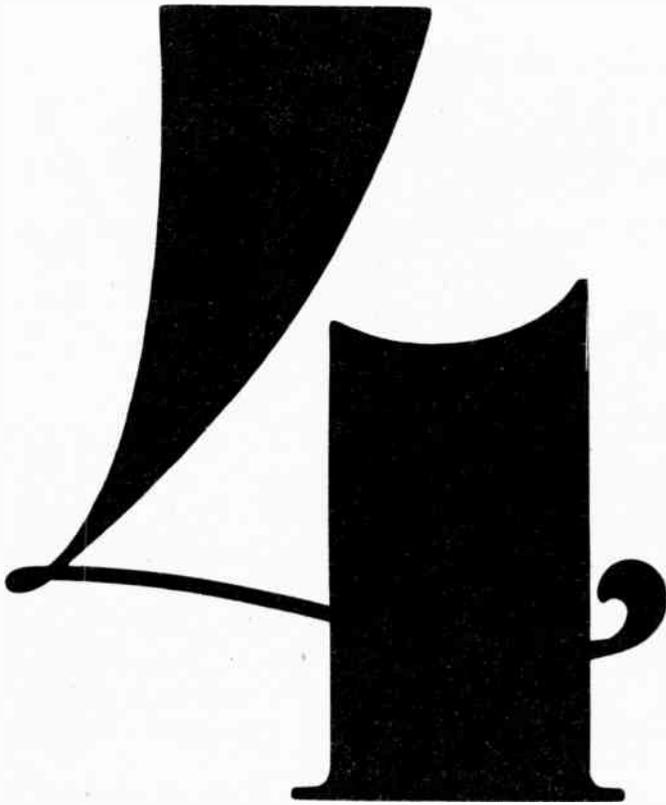
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- Vol. 2 #5 Vol. 3 #3

Name _____

Address _____

City _____

State _____ Zip _____



• **THE AUDIO DEPARTMENT, INC.**
110 W. 57th St., New York, NY 10019
(212) 586-3503

Owner: Joe Danis.
Studio Manager: Joe Danis, Pat McCauley.
Engineers: Bob Chapman, Gene Coleman, Bob Bolbach.
Dimensions of Studios: A: 20' x 16', B: 10' x 12'.
Dimensions of Control Rooms: A: 15' x 16', B: 11' x 12'.
Tape Recorders: (2) Scully 280B 4 track; (5) Scully 280B 2 track; (4) Scully 280B full track.
Mixing Consoles: (2) Audiotronics 110, 8 in x 4 out.
Monitor Amplifiers: (3) McIntosh 2505; (2) Crown DC75; (1) Crown DC30.
Monitor Speakers: (2) JBL 4315; (6) JBL 4311; (2) JBL 4301; (4) Auratones.
Echo, Reverb, and Delay Systems: (2) AKG BX10; Eventide Harmonizer.
Other Outboard Equipment: (3) UREI LA3A leveling amplifiers; Martin 14KC sync generator; Eventide Harmonizer; Kepex; Orban/Parasound D'Esser; Orban parametric EQ; UREI band-pass filter; ADM noise gates; phone patches; ESE timers.
Microphones: Neumann U-87, U-47; Sennheiser 421; AKG D-1000; Sony ECM 50, 53.
Extras: Music and SFX libraries, editing room, phone patches, Nakamichi 1000 and 550.
Rates: A: \$75/hr; B: \$65/hr; C: \$45/hr (mono editing).
Direction: The Audio Department, Inc. is a comparatively new recording studio whose personnel and facilities are oriented toward the recording and production of commercials for radio and TV.

• **AUDIO ONE RECORDING INC.**

2 W. 48th
New York, NY 10036
(212) 730-1490
Studio Manager: Ed Rice.
Engineers: Ed Rice, Arnie Rosen, Gary Roth, Michael Repp; maintenance chief: Ed Craig.
Dimensions of Studios: 7 studios, "7" 3000 sq. ft.
Tape Recorders: AMPEX 3M multitrack; VTR equipment.
Mixing Consoles: Custom
Rates: On request.
Direction: A complete production facility.

• **AUDIO TECH LABS**
2319 Newkirk Ave.
Brooklyn, NY 11228
(212) 489-7134

Owner: Joseph Giovinelli
Studio Manager: Joseph Giovinelli
Engineers: Joseph Giovinelli
Dimensions of Studios: 10' x 12'.
Dimensions of Control Rooms: 12' x 15'.
Tape Recorders: Apex AG350; Revox A700, A77 2 track; Otari 50/50 QX 4 track.
Mixing Consoles: Gately Pro kit, 6 in x 2 out.

Monitor Amplifiers: Crown D-60, Scott 299.
Monitor Speakers: Custom built.
Echo, Reverb, and Delay Systems: Fisher K-10, Shobud, audio pulse digital delay.
Microphones: Beyer M-360, M-550; Synchron S-10.
Instruments Available: Steinway grand, ARP Omni.
Extras: Scully/Westrex 3-D head, disc lathe; Telex hi-speed, tape dupe.
Rates: 4 track \$24/hr; mixing/editing \$16/hr. By appointment.
Direction: EMPA transfers tape to tape, tape to disc.

• **BLUEWAVE**

55 W. 19th St.
New York, NY 10011
Owner: Ed Salas.
Studio Manager: Ed Salas.
Engineers: Bob Cloyd.
Tape Recorders: Tascam 70-4.
Mixing Consoles: Tascam Model 10.
Rates: \$25/hr; \$15/hr for rehearsal.

• **COLLEGIUM SOUND, INC.**

35-41 72nd St.
Jackson Heights, NY 11372
(212) 428-8555
Owner: Don Wade, Jerry Epstein.
Engineers: Don Wade, Jerry Epstein.
Dimensions of Studios: 12' x 12'.
Dimensions of Control Rooms: 10' x 18'.
Tape Recorders: TEAC 4340, 7030; Ampex 350; Sony 850; Revox A77.
Mixing Consoles: Sound Workshop, Tapco, Gately, Shure.
Monitor Amplifiers: Dyna.
Monitor Speakers: JBL L-100, Avid.
Other Outboard Equipment: Audio-pulse digital reverb; spring reverb, Phase Linear Autocorrelator, dbx, Dolby B, Shure Audio Masters, UREI notch filter, dbx limiters.
Microphones: Neumann KM-84; Shure SM-81; Sony ECM-22; AKG-C-414, D-200E, 202, 1000; Shure SM-58; E-V 1776, RE-15; Beyer M-160, 100; direct boxes.
Instruments Available: None.
Rates: \$25/hr (less 10% if over 4 hours); \$180 day rate.
Direction: We aim toward folk and acoustic music. Because of our small studio we do a lot of remote recording. We also do a lot of sound reinforcement either in conjunction with recording or, alone.

• **CP SOUND INC.**
200 Madison Ave.
New York, NY 10016
(212) 532-5528
Owner: Steve Dwork.

Studio Manager: Steve Dwork.
Engineers: Steve Dwork, Peter Bengtson, Keith Alexander.
Dimensions of Studios: 11' x 13'.
Dimensions of Control Rooms: 11' x 15'.
Tape Recorders: Ampex 440 4 track; Ampex 440 two track; Ampex 440 2 track; Ampex 440, neo pilot sync multi-track; Nagra 3 neo pilot sync multi-track.
Mixing Consoles: API custom 8 in x 2 out.
Monitor Amplifiers: Crown D150, D300.
Monitor Speakers: JBL 4313, Auratones.
Echo, Reverb, and Delay Systems: Quad/Eight.
Other Outboard Equipment: UREI, Pultec, dbx.
Microphones: Neumann U87's, KMS86, AKG, RCA, Sennheiser.
Extras: Sync transfer facilities to 16 mm and 35 mm; audio pulsing and programming; cassette and open reel duplication; location recording; original music; music scoring, music research.
Rates: Mono and stereo \$40/hr edit and record; 4 track \$50/hr edit and record; audio pulsing \$50/hr.
Direction: To provide a pleasant, moderately priced studio facility for producers in the film, radio and TV, and audio visual fields. Our new association with DSM Producers, a division of CP Sound has given us the added capabilities of original scoring and music research and, since our inception three months ago, we have over 10 commercials for Motorola, Cloud Jeans, Music Factory, Tail Lord Jeans, among others. Our short term goals are to go 16 track and ultimately we hope to expand into being a full service music production facility.

• **INTERNATIONAL PRODUCTIONS**

514 W. 57th St., New York, NY 10019
(212) 582-8530
Owner: Al Natwenson, President.
Studio Manager: Henry Bornstien, V.P.
Dimensions of Studios: Video 56' x 50' x 18'.
Dimensions of Control Rooms: Video 11' x 10' x 14'.
Tape Recorders: Video, Sony BVH 1000; Audio TEAC J340S 4 track.
Mixing Consoles: TEAC/Tascam, 8 in x 4 out; Sony, 4 in x 4 out.

• **POSTHORN RECORDINGS**

185 Avenue C, Suite 5g, New York, NY 10009
(212) 877-4082
Owner: Jerry Bruck.
Studio Manager: Frank Stettner.
Engineers: Jerry Bruck, Frank Stettner, Helene Kaplan.
Dimensions of Studios: 35' x 60'.
Dimensions of Control Rooms: 12' x 17'.
Tape Recorders: Studer/Levinson A-80/ML-5 2 track; Ampex ATR-100 4 track; Ampex AG-440 4 track; Nagra IV-SL 2 track; Nagra 4 RL 1 track.
Mixing Consoles: Mark Levinson custom, 4 in x 4 out; SATT Sam 82, 8 in x 2 out.
Monitor Amplifiers: Dyna 416, Crown D40.
Monitor Speakers: IMF RSPM IV; IMF super-compact; Rogers LS-3/5A.
Echo, Reverb, and Delay Systems: None.
Other Outboard Equipment: 16 mm magnetic film dubber (Amege), 35 mm magnetic film dubber (Cinotech), A&D, F760X-RS limiter/compressor/expander, Regis RA-402 parametric equalizer.
Microphones: Schoeps CMC 441UK, CMC 45UK, MSTC 44, CMTS 3IV; Calrec soundfield system.
Instruments Available: Harp.
Rates: \$60/hr.
Direction: New World Records, Nonesuch, CBS/Odyssey, CRI, Unicorn, Mercury, Lyrrichord, etc. "Purist" recording techniques preferred. Location concert and session work editing and production for LP release 16 and 35 mm film sound transfer. Location motion picture recording.

• **RECORDING PLACE INC.**

250 W. 57th, Room 1220, New York, NY 10019
(212) 582-2805
Owner: Ed Friedner
Studio Manager: Abby Horowitz
Engineers: Ed Friedner
Rates: \$70/hr.
Direction: Mainly a voice over studio.

• **SESSION RECORDING**

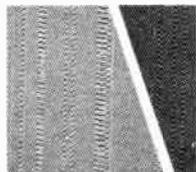
355 Lexington, New York, NY 10017
(212) 861-9040
Owner: John Lotas.
Studio Manager: E.J. Rosinus.

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56	Dimensional Echo Sound	24	62	Record Plant Studios, Ltd.	24
56	Don Elliot Productions	24	44	Reel Appeal	8
50	Downtown Sound	16	62	Regent Sound Studios	24
58	East Side Sound	24	62	Right Track Recording	24
58	Electric Lady Studios	24	65	RPM Sound Studios	24
58	ERAS Recording Corp.	24	44	Sadler Recording Studio, Inc.	8
			50	Sear Sound	16
			65	Secret Sound Studio, Inc.	24
			40	Session Recording Studio	4
			44	Shuster Sound	8
			41	Sight & Sound Studios	4
			65	Sigma Sound Studios, Inc.	24
			41	Sky High Studios	4
			52	Skyline Studios, Inc.	16
			44	Sorcerer Sound	8
			52	Sound Heights Recording Studio, Ltd.	16
			65	Sound Ideas Studios	24
			44	Sound Lab Studios, Ltd.	8
			66	Sound Mixers	24
			44	Sound Realm Recording Studios, Inc.	8
			44	Sound Scape Studio	8
			44	Soundwave Recording Studios, Inc.	8
			41	Stafford Sound	4
			52	Studio 21 Sound	16
			66	Sun Dragon Productions, Inc.	24
			52	TNG Earthling	16
			46	Triton Recording Productions, Inc.	8
			52	Trad Nossel Recording	16
			46	Unique Recording	8
			66	Vanguard Recording Society, Inc.	24
			52	Variety Recording Studios	16
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All studio information listed has been supplied to the Mix by studios responding to questionnaires mailed in August, 1979. People, equipment and locations change, so please verify critical information with the studios directly. The Mix does not take responsibility for the accuracy of the information supplied to us by the studios.



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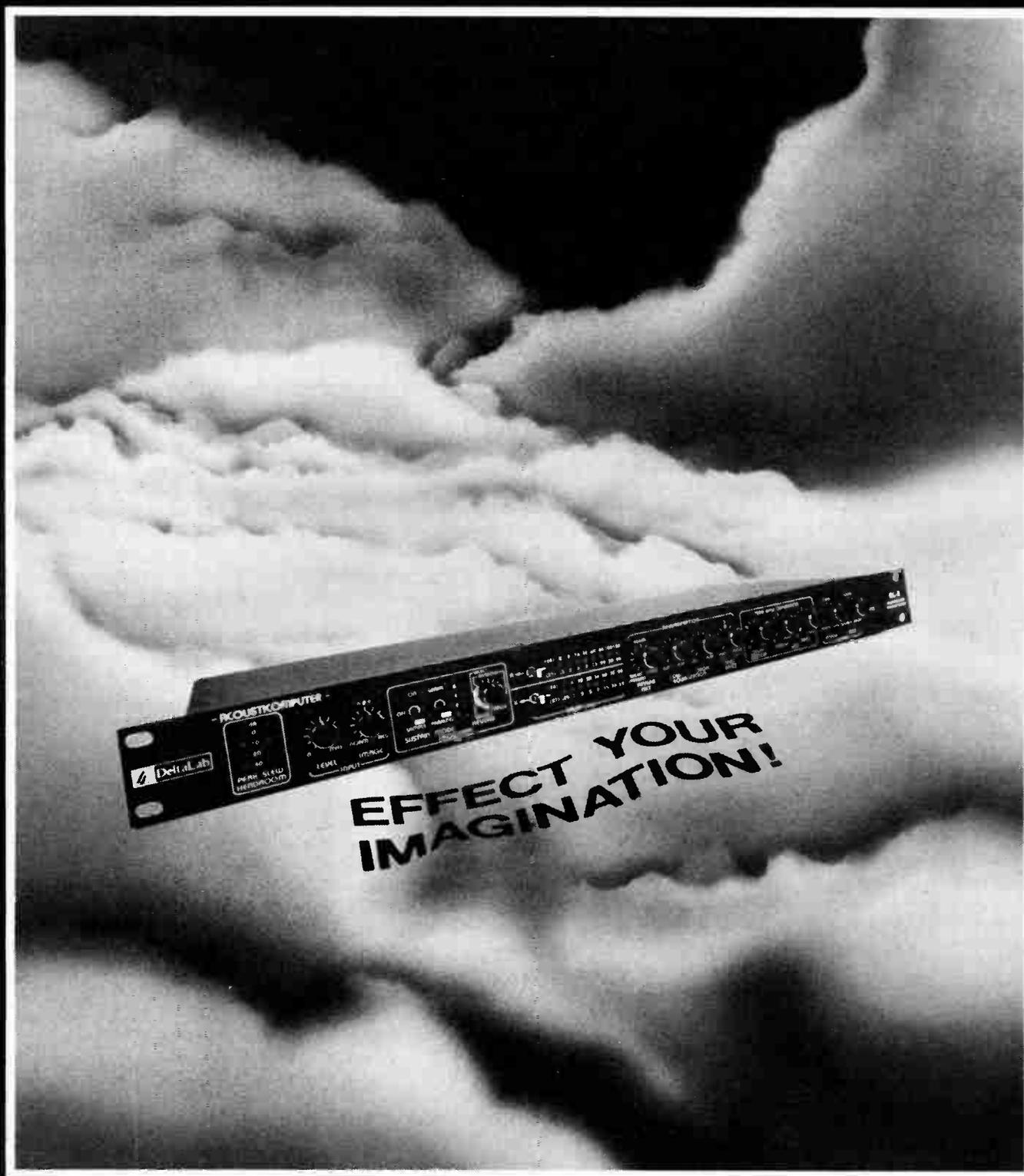


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Other Side of the

LIVING OFF THE FAT OF THE LAND

by Mr. Bonzai

Ed's note: In this issue we continue the saga of life in the recording studio as seen through the eyes of Mr. Bonzai—a bon vivant and studio manager. Mr. Bonzai will be sharing his diary with us on a monthly basis.

Managing a recording studio means keeping the studio recording. If the studio is sitting empty, it is gathering dangerous dust. Get those bands in to do their demo's, get the audio-visual companies in to do their soundtracks, get the agencies in to do their commercials. Present a busy, bustling, active image and you will draw energy and business to the studio. Sometimes it gets out of hand, but that is a better dilemma than none at all.

One free day I booked a Dr. Julius LaPear to record his cassette pitch for weight loss through hypnosis. I estimated a half hour for recording his reduction message and another half hour for minor editing of any pops, floots, pucks, and whooters. These are specific names that engineers have coined to describe the auxiliary noises that occur while speaking. You would never notice them at the lunch counter, but when someone gurgles near a Neumann you pick up every fleck.

Dr. LaPear would be finished early, so I scheduled a later session with Meda-Film, a company that was looking for a soundtrack for a surgery film. The doctor who was backing the operation was a film buff and was making quite a name for himself with special effects, original scores, and fancy production. Our engineer, Cart, is also our composer and he would view the film and we would discuss budget and production. Two easy jobs today. Just right. Then the phone rang.

It was Zig Worthington, premier guitar genius with the Lorne Rogers band. We knew Zig when he was just a little plucker, and he had remembered us. Now we had a chance to do some demos for the new Lorne Rogers album. This is the kind of breakthrough a studio prays for. Lorne Rogers, the soft-spoken personality in the background of such legendary groups as Custer's Last Band, the Smoothies, and of course, Rogers and Muskogee. (Everyone thought Muskogee was the brains in that super-duo. Now he was on the flip-side circuit and Rogers had a string of platinum monsters.) Not only would we get prestige and money, but we could watch a sure-fire hit in the making.

Zig informed me there could be no publicity and the budget could only cover half of our book rate. I excused myself to talk it over with Cart. We looked at each other, shrugged, and nodded. We needed the business. I got back to Zig and we agreed on late afternoon. At least we would get to see the creation of a hit.

Anyway, back to the everyday side of studio life. Dr. Julius LaPear arrived and I had to smuggle my Chuckles into my socks. The guy was immense. How could this gigantus sell people on weight loss? I learned he was strictly mail order. We went into the studio and the real fun began. As Dr. LaPear began to mesmerize us with his soothing message, he also produced a true symphony of new and disturbing body sounds. Burps would begin deep within his guts and slowly rise in pitch and volume until they broke through his teeth with a whistle and a pop.

"I knew I shouldn't have eaten those extra cantaloupes for breakfast," apologized the doctor. He squirmed like a cherubic Macy's float.

I told the doctor that he shouldn't worry. A couple of tape splices here and there and no one would hear a thing. His mind at ease, he continued gurgling his way through the hypnotic discourse. With luck I could edit it while Cart was viewing the medical film and we could still relax before the Rogers session.

I set Cart up in the lounge with Herbie from the Meda-Film company and went back to the editing on the hypnosis tape. I remembered we still had to calibrate the 24-track recorder before the Rogers session. Midway through a gulp and a gurgle, Herbie came rushing in to tell me Cart had fainted. My god, over a little medical film. I rushed in as Layla, our receptionist, was breaking open a vial of amyl-nitrate under Cart's nose. This girl was a real scout... always prepared.

"Lucky you had that," I complimented her.

"They had a special last night." She winked and patted her disco bag.

I sent Layla back to the desk to wait for the Rogers group and sent Cart off to take a nap. I told Herbie to show me the film and I would give Cart the specs for production and style. Herbie said they wanted something with a "Love Story" feeling. He switched on the projector and I gagged. It was a tummy tuck film. The surgeon was literally flaying off slabs of blubber like Captain Ahab as he transformed this plump lady into a trim disco queen. Today, you might say, our studio was living off the fat of the land. No time to philosophize through, we had a heavy session coming up. So was my lunch. I shook hands with Herbie and convinced him we had done lots of these soundtracks and it would be no problem at all. I got Smilin' Deaf Eddie, our maintenance man, out of his sleeping bag in the tech room and steered him into the control room to do the calibration. Cart was returning to normal as Chris Heidelberg, Lorne Rogers' drummer, was arriving.

Chris proudly broke open a packing crate to show us his snare drum. He was endorsing a new line of drums with bulletproof heads and we would be the

first to record them. Great. Drum sounds are the hardest to get and we would have to handle this new fiberglass head. We smiled like always and started moving his thirty-eight piece kit with two kicks, eight floor toms, four syndrums, the autographed Ziljians, and the mounted bells and temple blocks.

Next arrived Brian Brann, youngest member of the group and son of Xavier Brann, founder the Brann Pipe Organ Academy. Hand over ten grand to Xavier and you got a full size Detroit Steam Organ and lessons for life. Brian had inherited his father's same musical gusto and added an academic edge to the Rogers' sound.

Walter Vesuvius, the incredible bass player, arrived later with Vince Levi, the legendary flute and sax man who has been with Rogers since the Haight-Ashbury days. Vince goes back to pre-beatnik and exuded a confidence that lent the session a welcome "cool" touch. From the way he nodded and salivated on his reeds you could tell everything was happening.

We spent the next eight hours getting a drum sound, balancing the stereo outputs on Brian's Mutron Fuzz-phazer, and testing the new vocal synthesizer from Chipley Labs. We gave Walter a direct line for his bass, an amplifier, and a six-pack of Heineken. Vince was baffled and go-boed in his own sound-proofed saxophone chamber. The band was ready and we waited patiently for Lorne himself to arrive. We would shortly be hearing the first stage of a song that could eventually reach every record market in the world from Terre Haute to Sierra Leone. This is the real thrill of life in the studio.

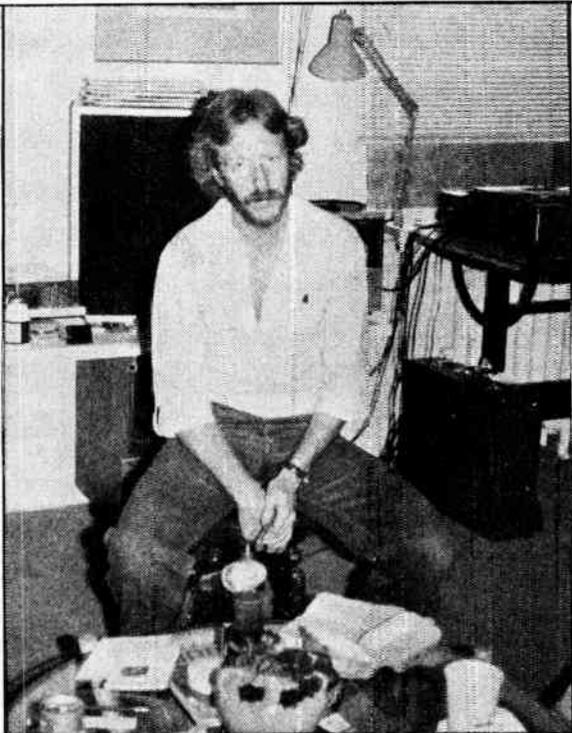
Four hours later, the limo arrived and Lorne sauntered easily into the studio. He was like a trail boss and the ranch hands scurried to get ready. He took one look around and said he wanted to reverse two of the toms on Chris' set and to replace the fiberglass heads with some old Walton antelope heads from the Thirties. Brian had to give up on the vocal synthesizer 'cause Lorne said it sounded like Darth Vader imitating Al Jolson. Zig had arrived with Lorne and we started setting up his familiar pedal autoharp. While Lorne went out for dinner with his wife, we broke down and set up again to his specifications. Soon it would finally happen.

About dawn, Lorne returned and strode directly out to his microphone in the middle of the studio. Each musician had his part written out. Lorne ran them through it once and gave the count for the take. What basic tracks! They had the unmistakable foundation and ingenuity of a master.

Then came the moment we had been waiting for: the vocal. As Cart pushed the record button, Layla and Smilin' Eddie held their breath as we anticipated that unique Rogers style. No words came out of his mouth. He just kinda hummed like Gomer Pyle with a sock in his mouth. There was no vocal. That was it. As we prepared for a rough mix, we learned that Lorne hadn't written the words yet. He just wanted some instrumental tracks so he could go off to his ranch in Idaho to get into some poetry again.

What a letdown, but that's studio life. At least we got a chance to hear Lorne hum. With luck we might get some work on the album. Our hypnotist was ecstatic over his weight tape and Cart was preparing a theme for the surgery film. The jobs walk in the door, you just nod and say: "Let's do some recording."

To be continued next issue....



Don Kettler, a frequent contributor to leading audio and recording magazines, is currently the managing director for Meatloaf Enterprises, Inc. A former chief engineer for Hanley Sound in Boston, Don has mixed the sound for Kiss, worked as production/stage manager for Ashford and Simpson and served as sound manager for The Bottom Line in New York City.

A Sidelight From Howard Schwartz

Our studios are in the 5th largest office building in New York. To protect ourselves against our neighbors, Con Ed, and our environment we have incorporated a couple of extravagant, albeit necessary systems.

To maintain our line voltage's integrity, we've installed 50 kba power conditioners. When we built our first rooms we were plagued by this phantom buzz in our monitors. After weeks of trying to isolate and identify the buzz we discovered there was a dentist on the 23rd floor of the building with an ancient x-ray machine which sent out horrendous glitches in the line voltage when used. It actually would have been cheaper to buy him a new x-ray machine. But because we were also faced with Con Ed's poor track record regarding momentary black outs—which play havoc with computer memories—and varying line voltages, we invested in the conditioners.

Even more elusive and outside of our control than our power are the RF conditions under which we exist. Being on 43rd Street in midtown Manhattan and having the Empire State building just around the corner on 34th, we have 40 radio stations sending out from 50,000 watts am, to 250,000 watts fm nine blocks away. To respond to this circumstance, and along with the conditioners and other special networks we devised and incorporated, we totally surrounded each studio with a chicken wire shield known as a Faraday Cage. Each of these shields intercepts RF and directs it to two ground wires that are soldered to the two cages. From there, the grounds go to the power supply racks, which are then grounded to the power conditioners, and then to a riser on our floor. The riser goes to a substation in the basement of our building which is finally strapped to 170,000 miles of railroad track emerging from Grand Central Station. Fortunately someone else paid for the track. ☺

A salute to Howard Schwartz

Congratulations, Howard Schwartz, on the opening of your superb new studio. MCI is happy to be part of such an outstanding project. May you enjoy the success you have so abundantly earned.

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Cont'd from page 32

long to sink in and be applied.

Joe: It is somewhat difficult to comprehend now because we are used to conceptualizing sound in control rooms in terms of frequency response. And the point of these theories, if you will, is not that frequency is not important. It is that you cannot consider frequency devoid of time.

Don: *What you're saying is, that given this design for a room and these criteria, if you put a pair of time corrected monitors that have a flat frequency response in a room, they will now realize that response over time and relate to you the reality of aural events in the studio?*

All: Yes!

Don: *These means of realizing what have always been general goals in the industry would seem to be revolutionary.*

Joe: Yes, it's a big step forward. By incorporating some of this thinking, which comes from almost a pure science 13 years ago to its popularization by Don Davis and others, this idea is about to realize itself on a practical, user level. That's the premise upon which this room has been designed. It has some relationship to LEDE thinking, but LEDE thinking has rather become a low level buzz word in the industry, much as quad was. Live End-Dead End is not something that everyone wants to talk about, but no one understands.

John: I, for one, refuse to use LEDE. First of all I don't think it's true.

Don: *But aren't you in fact having a more reflective back wall than a front wall?*

John: If 70% of your front wall is glass, you can't call it dead.

Don: *So it's a misnomer to call it Live End-Dead End?*

John: Yes, however, I'm not discouraging it because the thinking that went behind that little acronym is solid, and if a label of some sort is what's required to get people to start thinking, I'm for it. Time Delay Spectometry is the important thing. People rise to the occasion when they have the tools. When no one had fast Fourier transform analyzers and could not measure level versus time it was academic. If you couldn't measure it, it wasn't much good to talk about

it. Now you can measure it, and once you can measure it and see it on a graph it becomes crystal clear.

Howard: What we have proven is that this word "art" is out. We've gotten it close to a science only in need of specific development. I want it because it's different and makes recording easier, more consistent and more gratifying. What you hear is what you've got.

Joe: The method of testing appears to allow such an uncommonly large amount of information. It's more than that which we are used to having, in terms of finding out what's going on in a room. It also has the ability to be altered on the spot. I think the design of this control room is a forward, possibly pioneering design, abetted by a client who is certainly taking risks in the interest of progress and adventure and has the business foresight to see it could be of great benefit to himself. Sugarloaf has been able to employ a new vision in control room design, incorporating new ideas based on thinking that had previously been in the province of a drier, more scientific realm which had not been brought to fruition. The theoretical concepts can now in fact be brought to bear in reality. It's our feeling that this room actually does represent that. Aural transparency. Its naturalness makes it more accessible to the growingly sophisticated users—producers and the maintenance and studio engineers who have been too much in the background previously.

If on no other level, what we're seeing here is a period of incredible forward motion. Studios that are being designed now the same way they were ten years ago are not responding to that motion—they're inert. What this studio represents is a complex which is responsive to the last fifteen years of audio and other technologies which relate to the audio field.

For example, computer technology. This studio has made a massive investment in future computer use, as well as digital considerations which will allow for almost instantaneous conversions with minimal down time.

John: I think along these lines of responsiveness and sophistication, the builder and all of the specialists and support people of this project, whose importance has grown with the caliber and responsibilities of the work, should be mentioned.

Joe: This project absolutely couldn't have been done without Warren Pearl, the contractor.

John: You will rarely find a builder who knows more about recording studios than Warren. He has built twenty of them in the last three years and Warren understands Time Delay Spectometry to the point that he can implement the design from a concept into physical existence as a control room. One reason we were able to go with so much new technology, and I mean by that, that 30% of that floor is new and untested in commercial use, is that we always were adaptable and confident because of Warren.

Joe: Also, there is a whole range of other people who are integrally involved in this and every other project we do. Lighting and mechanical engineers, technical staff, the mixers themselves and equipment manufacturers are all offering critical information.

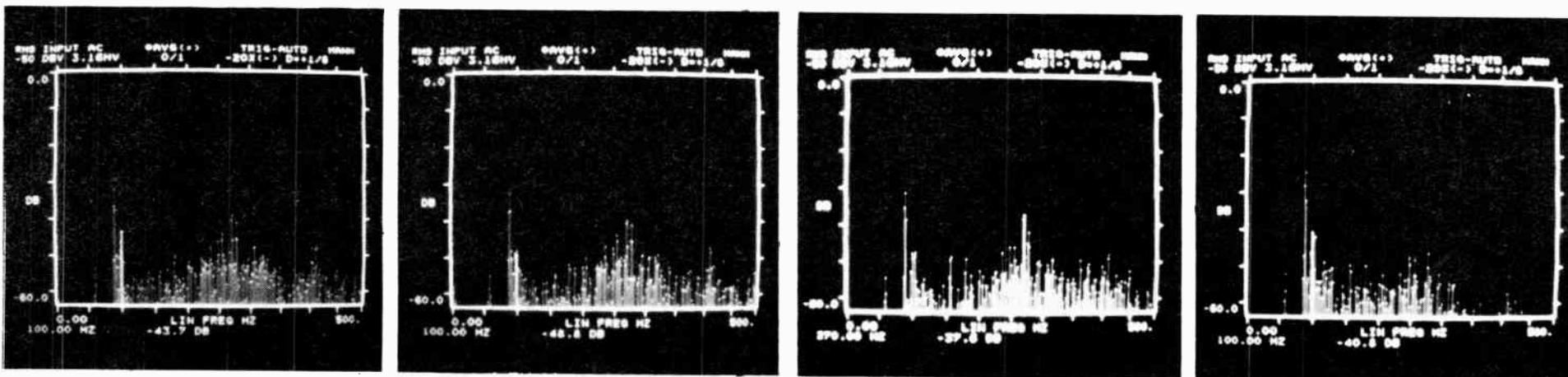
I think this cooperation is a trend and necessity for future projects! There is simply too much at stake, and the level of sophistication and cost too great, for one or two people to assume total responsibility.

Howard: Our interests have increasingly centered on building our staff with the best possible personnel, from our engineering department of Tom Cahill, Dan Zellman and Tom Jung, on. They have totally designed, executed and sat through this project from day one.

Don: *It's clear that in order to build a premiere studio today architectural imagination, cooperation, skilled builders, intelligent equipment choice and lots of money are required. With this in mind, Howard would you define what the new Howard Schwartz studio represents?*

Howard: Today, you either compromise, or you don't. In building a studio a potential studio owner will approach a designer, an equipment supplier, a contractor and they will ask him what he wants. He may be able to answer that question intelligently and then again, he may not. But too many projects have been compromised because potential operator/owners did not have the faith and money to allow the experts he hires to do it right. By that, I mean having the trust in them and their ideas and recommendations along with your input and money to go full speed ahead, no holds barred.

I think these studios are a statement of that faith and input. If they gave me the option between a five dollar item and a twenty dollar item there was no question in my mind, I took the twenty dollar one because I never wanted anyone to be able to say it was compromised.



EXPLANATION OF FIGURES Figure 1: Shows ETC with cursor on nearest first reflection—the console meter housing. Figure 2: Console meter housing—covered. Figure 3: Cursor "tuned" on potentially dangerous reflection—exactly 361 inches (within Haas distant). Figure 4: Reflection surface is at last located, analyzed and eliminated.

Preliminary ETC of the room shows: a. Clean, crisp 1st arrival with no time smear (for at least 18 dB). b. Time-Delay-Cap of approximately 30 dB. c. Very evenly spaced 2nd, 3rd, etc. reflections well out into the Haas effect time zone (i.e. 25 ms).

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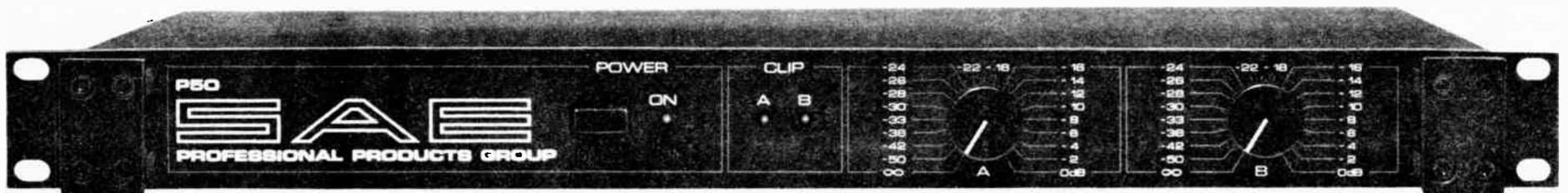
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Cont'd from page 31

lines. I don't think any designer has spent hours and hours consciously analyzing what goes on in the room. For instance, have you ever watched what happens to a cup of coffee in a control room? Does anyone know what the relationship between mix and record time is? Does anyone know how many times a tape machine stops and starts in a week? This is the kind of information we are examining that most people overlook. So what we tried to do was to solve ergodynamic problems.

Personally, that's what I like to do. I like to solve architecture. I like to look at how people use space. And the control room is a pretty fascinating 500 square feet of space.

Control rooms go for a hundred dollars a square foot. They've got to have temperature within 2 or 3 degrees, they've got to have humidity within 20%, they've got to have 60 to 80 foot candles on about 8 square feet and then should have no foot candles on a lot of other square feet. They have to be able to handle anywhere from one to fifteen people very quickly. Those people have to feel like they're sleeping and dreaming one hour and then the next at full work. It has to have an NC rating of 20 but has to be able to handle 115 DB. They're placed in all kinds of weird places where they shouldn't be (like on the 19th floor of an office building over Grand Central Station—Howard's studio). It's a pretty interesting 500 square foot space. I can give you examples of more boring equivalent spaces—like a garage.

So we took the ergonomics and acoustics and interfaced them. We said to ourselves, maybe we can use some of this stuff to help us. For instance, if we need a lot of reflective, scattering surfaces in the back rear portions of the room and that's where the equipment should be, maybe we can angle the equipment so that it could work for us. You can't, however, always get your optimum control room because you've got things like columns, wires, unions, etc. But with this information and tools we have a much better chance and are more flexible about it.

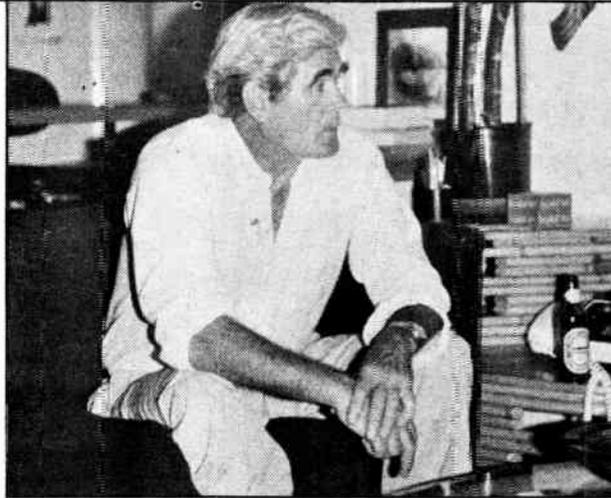
Joe Schick enters at this point.

Don: You describe the criteria for the control room and the studio becoming one acoustically. What are the techniques to do this?

Joe: There's no sort of grand solution to it all. But by virtue of a number of techniques either acquired or studied there is a coherent system by which one takes things like equipment racks, which are chronic offenders in terms of the misdirection of sound, and makes them useful. A design which incorporates the racks as part of the room and uses them to displace unwanted sound or reinject desired sound is one of the techniques with which you begin to make a room disappear. Dimmers, machines, furniture and equipment all can be incorporated in an intelligent manner rather than an arbitrary one.

Another example arises with the console, which in many ways is the most difficult problem because no one has managed to get rid of the console like you can the racks. Because of the way consoles are constructed—there are a lot of hard, flat, reflective surfaces—and because of their position in the room relative to the monitors, they have become a major source of first reflection sound. This first reflection is an aural interference to the listener.

John: Consequently, this will be the first room with a console shield, which means the console will not affect the acoustic environment.



This is a redefinition of the traditional role of the control room."

Ham Brosious

Don: In this new era of control rooms, is it that you're trying to create an environment of greater, but controlled ambience?

John: Aurally, the goal of this room is to make the clearest, most precise first reflection possible—a deep, minimum 15 to 20 dB time delay gap about 20 milliseconds out, and then as even a repetition of secondary reflections as far out as the room volume will permit. Keep in mind we've said nothing about frequency response.

It turns out that all the anomalies and lack of stereo focusing and imaging, etc. are affected by, and are a function of, these concepts. It doesn't have as much to do with 4 dB down at 2 K as anybody thought. It has more to do with a clear arrival of first reflections, then a gap, and then the presence of evenly distributed second reflections. That is the goal.

Ham: What you're hearing is an old book, that all studios were designed by, thrown out the window. All of a sudden there now is technology available that allows the designers to look at all of the surfaces of the control room that they've never been able to really examine before.

John: I think people sensed this, but until they had the measuring equipment, nobody could look at it.

Don: At some point then, they were designed

"...what we're seeing here is a period of incredible forward motion.

Joe Schick



aurally around these criteria, but not as a science?

Ham: Yes. It was more of a black art because up to the advent of this particular technology it was a lot of guessmanship.

John: You are now going to see in the next 12 to 18 months, in black and white, the definitive acoustic realities of control rooms and studios. Time delay spectrometry will allow us to do things like free field measurements of a speaker in a room—you could never do that before. If you wanted to generate such speaker response data you would have to take it out of the room and into an anechoic chamber. You can now find out what the response of every surface is. You can then take all that information, rotate it 90 degrees, and see what it looks like over time. All sound is heard over time. There is no such thing as timeless sound.

Howard: Don Davis explained it while we were testing the room. One of the reasons for using time delay spectrometry and energy time curves is to make the initial time delay gap of the control room equal to that of the studio. Never before have I really heard what my studios sound like. What I heard was the sound that was going through those microphones, thru the speakers, and emanating in my control room. It wasn't necessarily the sound that originated in the studio. Now what happens is, that instead of just hearing the control room version of the studio, I am hearing the studio.

John: Producers have automatically equalized themselves. You stick a good pair of ears in an environment for an hour and they adjust. But that doesn't always mean it's right.

Don: I certainly appreciate the techniques involved and the goals that you're realizing, but I don't quite see how that has allowed you to, in fact, listen to the studio, so to speak.

Howard: If you take the initial delay gap in the control room and make it longer than what it is in the studio, you're going to hear the studio first.

John: Most recording in the studio, except if you were to put one mic overhead in a room and record 80 instruments is, "near field micing"—close micing. There is an initial time delay gap, in most instances—it's the distance between your mouth and the floor and back again.

Howard: It's the reflection from the nearest surface.

Ham: This is a redefinition of the traditional role of the control room. Up until recently the control room was to as accurately as possible reproduce that sound which either was coming out of the studio or off of the tape. Therefore, we wanted to have a control room which was as acoustically accurate as possible in terms of frequency response. Now there is being substituted, or added as an adjunct of this, a requirement to create a oneness between the studio and the control room within these time dimensions.

Whether this particular approach will hold up in time is yet to be seen. As many people believe it as don't. I must say, though, that I feel most of the people who don't believe it don't understand it.

John: These ideas, by the way, were first put forth 13 years ago by Dick Heyser. He invented time delay spectrometry and the energy/time curves. He also invented the machines to measure it. It's just taken this

Don: *What about possible conflicts with Mac and Criteria's new studios and design ideas?*

Howard: Well, we talked and looked at the designs and I did feel there was the possibility of one-upping him a bit which I certainly didn't want any misunderstandings about. But, being the gentleman that he is, he said he would love us to go ahead because we would probably be done long before him and we could pay for the mistakes. Besides, there is no real competition between Florida, Los Angeles, and New York.

Don: *So, how do you build a world class studio?*

Howard: Let's take one step back. We had many discussions with Sugarloaf about the actual program. The basic consideration being whether or not to try and do two studios with identical control rooms. This was a question of whether two studios were feasible in the space, because I was definitely into having both.

Ham: Now, the one area where Sugarloaf is probably preeminent in this field is in space utilization. I don't think that anyone else could have gotten two studios and control rooms, lobby, reception area, etc. out of that space.

John: If you do this in New York for eight years and you deal with the problems of space and people who are paying \$15 per square foot for it, it's pounded into your head in project after project to figure out how to put 12 lbs into a 10 lb container.

Also, our techniques are very different. This office has never used giant traps, so we didn't have any trouble not using them in our new designs where they're inappropriate. This made it easy for us to, basically, flip the surfacing of the rooms and get into time delay and energy/time curve thinking.

Howard: And the rooms are virtually identical.

John: The fact of the matter is, that they are not identical physically, but acoustically they are.

Don: *It goes without saying that budget is all important. Can you put a finger on just how much the budget affects what you do?*

Ham: Budget is the common denominator. For example, without ample budget, instead of going on sixteen inch centers, you go on a little more, you use 2 x 4's rather than 2 x 6's. Your mass is effected and your studio's physical integrity. You keep cutting down here and there.

John: I remember the doors of one studio we designed were 3'4" and they changed them all to 3' at the end to save a few thousand dollars. They actually lost a date because a group couldn't get their equipment through the doors.

Don: *So it's a little more cut and dried with equipment than with design?*

John: With equipment, you either have it or you don't. But if a guy says, I want a control room, and you draw one big piece of glass and at the last minute the glass gets shrunk or you put a column in the middle of it because it's cheaper, or the sight lines are not exactly the way they were, or they change $\frac{3}{8}$ " glass to $\frac{1}{2}$ ", you've sacrificed to save money. These things add up, believe me, and they make the difference between an average studio and a great one.

Don: *It seems that it's execution that really loses*



"...the goal of this room is to make the clearest, most precise first reflection possible."

John Storyk

John: It's execution at the end of the design stage. It happens so often at about 70%, and it's detail that suffers. Conceptually, everybody gets the best that we know about. There are, you should keep in mind, studios who right from the jump realize, or soon find out they don't want to go for broke. It's just inappropriate from a projected business standpoint. That's fine if they don't really want or need it. But, if you're going for it you can't compromise and that means budget. There are still people who want it, are told they can't afford it, and insist that they can.

Don: *Howard, along these lines, how much was your first studio, and how has your budgeting progressed?*

Howard: My first studio five years ago had a budget of \$50,000, and I think we pulled it in for \$52,000. With the first expansion after that there was more money and less compromise. For this move I was determined to have whatever was necessary in the way of money to do it right.

Before we started construction we had a projection of how much we were going to need for a top of the line facility. With that in mind, I went out and got 25% more, to make sure. I had been to lots of studios, and in every one I went to there always seemed to be something missing, unfinished or not finished right. You might say that when the job was 70% completed, 90% of the money was gone. Every single studio that I went into couldn't finish, they had to open before they were ready. I made a promise to myself, I didn't care if I had to sell my house and all my cowboy boots, I wouldn't let these rooms open until they were finished.

Don: *What did Sugarloaf get to do as an architectural firm with the freedom this budget allowed. Where did the new design thoughts manifest themselves?*

John: There are many parts to Howard's project, the most important for us probably being the control room. I don't think this office has any qualms in saying it is part of a new generation of control rooms. Most of the research came out of the Criteria project in which they had commissioned us to do a room along these lines. The Criteria story goes like this:

They had commissioned us to do their new West Complex, but I did not use the new thinking at first

because I felt there was so much at stake I couldn't risk something that I hadn't tested. I was prepared to do it in a cutting room because if it didn't work it would be easy to change—but a control room would not be so easy to rectify. On a trip to New York, however, Mac saw the drawings on my table and asked what they were. I mean, you only have to glance at them to realize they're radically different. I told him it was a very new and essentially untried idea. He wanted to know more, so we went over it. He went back to Florida and explained it to his guys and the next thing I knew I was down there going over the whole thing with Ron and Howard Albert, Alby Galuten, Karl Richardson, Don Gaemon, Tommy Dowd and Mac in this intense meeting—and they went for it. It actually turned out that their thinking had not been so different and there were many ideas in common between us!

As a result of the West Complex being drawn, Mac decides there should be a fifth room in Florida reflecting those ideas. So they're also building one there which is almost a carbon copy of the West rooms.

Don: *Just what is this new generation of control rooms. I'm hearing a lot of generalities but no detail.*

John: There are two problems that reoccur in control room after control room. One is, they still color the sound. It's just that some rooms color it differently than others. Acoustically the ultimate goal of this new room is to try and make the front wall of the control room disappear, so there is no difference between the control room and the studio, and therefore no coloration.

If you had to describe to yourself ultimately what would be the best control room, it would be no control room. It would be to have all the equipment in the studio. There are some people that actually do that. But there are also an infinite number of problems with doing it, to the point that it is unrealistic. If you could get away with it though, that would ideally be the best control room—in which the front wall becomes transparent, you would have solved that problem and have the best of the applied studio/control room conditions operationally. Then, if the studio/control room environment was no longer coloring the sound as far as frequency was concerned, and if a whole other arena of psychoacoustics were solved, namely that of initial time delay gap, and an averaging of first, second and third reflections—you would have a room which would sound as natural as it could. That is the acoustic principal we're after.

Howard: And in regard to that, consider the prominence in control rooms of near field monitoring. One of the purposes of it is to eliminate those walls and control room coloration.

Ham: And to eliminate the effect of the back wall.

John: The second problem has nothing to do with acoustics. It has to do with ergodynamics—which is the actual relationship of everything that has to go on in the room. A fancy word for where things go with respect to human needs. For the most part rooms give that idea no consideration, or a lot of wrong considerations.

Don: *What's the relationship of ergodynamics to aesthetics?*

John: Aesthetics is something else again. Forget about aesthetics for a minute. It's more along these

building a WORLD CLASS STUDIO

Howard Schwartz's New York Facility

by Don Ketteler

photos by Howard Sherman

In the last five years Howard Schwartz's New York studio clientele has grown to include about 40% of this country's major network jingle business. With ever increasing demands for studio time, no expense has been spared to put together Howard's latest contribution to the New York recording scene. Scheduled for an early October opening, the studio is the product of innovative design, careful and thorough planning and an overall commitment to excellence and quality.

On August 28, as the project was near completion, Don Ketteler met with the principals of the studio design group to give us a first hand look at the present studio and the planning that preceded it.

Participating in the discussion were Ham Brosious, president of Audiotechniques, the major equipment supplier and consultant; Joe Schick, managing partner of Sugarloaf View, and John Storyk, Design partner of Sugarloaf, creators of the studio design and construction supervisors; and Howard Schwartz, studio owner and operator.

Don: Howard, how did this project get started from your standpoint?

Howard: We started seriously considering doing something along the lines of expansion after 3 years of operation because we simply had too much work. We didn't have the time or room to handle the business that was coming in. We were essentially an advertising studio at that time and we were turning down 14 hours of work a day.

Ham: And they didn't have the luxury of being able to do what others did—raising their rates, the alternative to building another room—because they were already getting top dollar.

Howard: We would raise the rates 20% and see what percentage of our clients would go elsewhere, but they just kept coming back. We'd raise them again and they'd still keep coming.

Ham: We frequently talk people out of building rooms because we think their rates are too low, and rather than testing the demand for work with a costly studio expansion, we suggest testing it by increasing the rates. If clients respond, there's probably the need and market for another studio.

Don: How did you get from turning down business to building these two studios?



"Now what happens is, instead of just hearing the control room version of the studio, I am hearing the studio."

Howard Schwartz

Howard: I called Ham and asked him to make two projections for me. One would be an equipment package that would just take care of my projected business. For the second projection, I asked him to lay out for me the difference between just meeting standards and becoming something better. We started to talk about just what "something better" means and he said, "You know, what this town really needs, and nobody has ever really done, is a world class studio."

Ham: By world class studio, we mean the studio that any of the world's top half-dozen recording groups could walk into and not have to ask for anything beyond what's sitting there. It would have everything, with no exceptions. The real surprise is that the difference between the basic start-up costs and a world class studio package are not all that great. You've got to keep in mind that you can't even get into the game for less than \$150,000.

Howard: Well, I went for that one. I said, "Okay, wise guy, put it down on paper." The projections started coming in. As we examined it, the difference for a single room in equipment on these two levels of production was only about \$125,000. And, it's much easier to finance it beforehand than to keep buying this stuff because you're always strangled by cash flow—or lack of it.

Don: Okay, it pays to think ahead and have a program. What specific questions did you foresee in your planning?

Ham: Well, for example, a new technique in recording has been the use of twin 24's, and the discussion about whether the standard would be a single 3" 32 track machine or two 24's linked together surfaced. Most of the people on the West Coast were going with the two 24's and we felt they were right. Why do you need to do that? You need a console that has a fader dedicated for each one of those 48 track, plus you need a few extras for effects. All of a sudden you're up to 56 inputs, which is an unbelievable number.

Don: There aren't a lot of stock boards capable of handling those kinds of numbers are there?

Ham: It just so happened that CBS Records in London had placed an order with MCI for a 56 input console, a 556 series. When I found that one of those consoles was at MCI about two days before being shipped, I grabbed Howard and we flew down to MCI and looked at the thing. Howard freaked out.

Don: The 556 is specially designed to gang two 24's?

Ham: Right, but Howard looked at it and felt the execution was wrong. He didn't feel it had been laid out in a usable manner. So, in about a six hour session with the MCI engineers, Howard went through the whole thing and virtually redesigned the switching features and how the console split.

Howard: We easily changed fifty things on the board. As a matter of fact, the whole concept of the console changed in the next thirty days.

Don: How did Sugarloaf get into this?

Howard: What happened was that while we were down in Florida there was a guy I was dying to meet—an old friend of Ham's named Mac Emerman, owner of Criteria Studios. Criteria, as it happens, was planning a humongous complex on the West Coast and Mac was using Sugarloaf to design it. So, we naturally spent a great deal of time discussing Sugarloaf, who coincidentally had built my first two studios which were very successful.

Ham and I discussed Sugarloaf's merits and their design ideas and the conclusion became obvious. I called and said come on, let's do it again. I felt good about it because I think Sugarloaf was the right firm, in the right place for the job.

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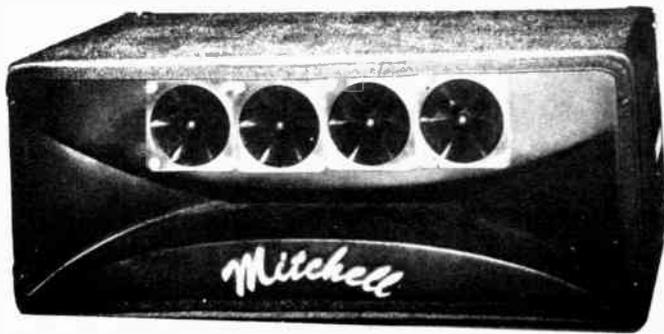
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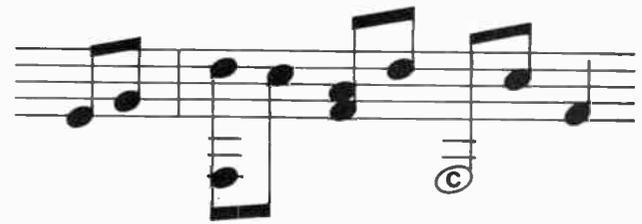
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Cont'd from page 26

writers, Authors and Composers (SESAC). ASCAP, founded in 1914, is the oldest of these organizations. BMI was not established until 1941, but today is the largest of the organizations; its repertoire typically includes 60-65 percent of the top 100 songs.

A publisher and songwriter each enter standardized agreements with one of these performing rights organizations to permit the organization to license non-dramatic public performances of the composition. Because the license fees are small and the number of songs broadcast almost imponderable, neither individual songs nor performances are licensed. Rather BMI, ASCAP and SESAC generally enter broad arrangements with radio stations, television stations, theaters, clubs and schools, permitting them to use any material in the performing rights organization's catalogs as often as they like in exchange for a blanket license fee. The fee for radio and TV stations is usually based on the user's gross income. Restaurants, clubs and schools pay on the basis of several factors—including capacity, cover charge, and annual entertainment budget.

The performing rights organizations theoretically divide the license fees they receive among their publishers and writers on the basis of how often the songs are performed. The difficulty in monitoring every radio and TV broadcast and public concerts, however, forces the performing rights societies to use sampling techniques to determine approximate airplay and to split performance receipts on that basis. The sampling techniques of these societies are different and each has its proponents, but in the end each aims to collect and pay the public performance fees to the copyright owners who have signed agreements with it.

As noted, the actual fee paid to the publisher and to the writer for the single performance of a song is determined by each of the performing rights organizations through an intricate weighting formula and depends on factors such as whether a radio broadcast is AM or FM, network or local, and on the aggregate number of times the song is performed. A number-one record on the Billboard Top 100 would generate roughly between \$20,000 and \$30,000 in performing rights royalties to be split between songwriter and publisher. A local hit might not even turn up in the samples, and even though it was publicly performed, the songwriter might receive no royalties. The royalties that are paid for performances are split between the publisher and songwriter according to their agreement, and the performing rights society sends each a check for its respective share. ♪

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ventions, so its inclusion is advised.

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The application form for songs is Form PA. It is used for all published and unpublished works of performing arts (hence "PA") including musical and dramatic works, pantomimes and choreographic works, motion pictures and other audio-visual works. Form PA has replaced old Form E for songs.

When using Form PA to register copyrights in songs, you should submit two lead sheets for deposit if the song has already been published as lead sheets or in some other visually perceivable form. If the published musical work exists only as a phonorecord, two copies of the best edition of the phonorecord should accompany the application for registration. This rule means that if your song has never been transcribed, you can send in two cassette tapes or other phonorecords and satisfy the Copyright Office's requirements. Accepting cassettes is a major change from the pre-January 1, 1978 provision which required transcribed music.

Remember, if neither copies nor phonorecords of a musical work exist, then the work has not been fixed and cannot be copyrighted until it is reduced to a tangible form—either transcribed copies or phonorecords. A performer who plays his own songs live from memory cannot register them until they are recorded or written down.

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The ten dollar fee for initial registration of a copyright is the same regardless of the type of form used. It should be in the form of a check or money order payable to the Register of Copyrights. The Copyright Office accepts personal checks.

UNPUBLISHED WORKS

When registering unpublished works, one copy or phonorecord of the work must accompany the registration form. If the unpublished work exists only as a

phonorecord, deposit of one phonorecord is required with the application for registration. If the unpublished work exists in both copies and phonorecords, the form best representing the work should be deposited with the application. This usually is a written copy.

INCOME ON SONGS FROM RECORD SALES

When a phonograph record (or prerecorded tape) is sold at retail, the song copyright owner is entitled to receive a license fee for the mechanical use of each song on the phonorecord. Essentially the term *mechanical use* refers to every phonorecord physically made and sold. This mechanical use fee is guaranteed under the compulsory licensing provisions of the Copyright Act discussed in chapter 1. The Act provides for a set license fee of 2¾ cents for each song on a phonorecord that is sold. The copyright owner and licensee, however, can voluntarily agree to increase or decrease this fee.

Most songs are voluntarily licensed through an organization established by music publishers, known as the Harry Fox Agency, which acts as the interface between the record manufacturers and most publishers in the United States. For a charge of between 3 and 4½ percent of the fees collected, the Harry Fox Agency makes arrangements with record companies to grant mechanical licenses and collects license fees for records manufactured and remits them to publishers. This arrangement relieves publishers and record companies from tracking each other down, serves to centralize the bookkeeping, and avoids the procedural complications of compulsory licensing. Mechanical license collection could be handled by individual songwriters or publishers, but as a practical matter the Harry Fox Agency handles most of this task.

In the typical situation, assuming a license fee of 2¾ cents per song, the songwriter will receive about 1⅜ cents for each album sold with one of his songs on it. The publisher (which also may be the songwriter and/or the record company) will get the other approximately 1⅜ cents. If the songwriter wrote ten songs on one album, his income would rise to 13.8 cents per album sold (plus in some cases an equal amount for the songwriter's role as a publisher.)

INCOME ON SONGS FROM PUBLIC PERFORMANCE

Under the Copyright Act, a radio or television broadcast, like a live concert, is a public performance, and no one can publicly perform a copyrighted song for profit without the permission of the song copyright owner.

As a practical matter, songwriters and their publishers grant this permission to perform their songs through one of the performing rights organizations—usually Broadcast Music Incorporated (BMI), the American Society of Composers, Authors and Publishers (ASCAP) or the Society of European Song-

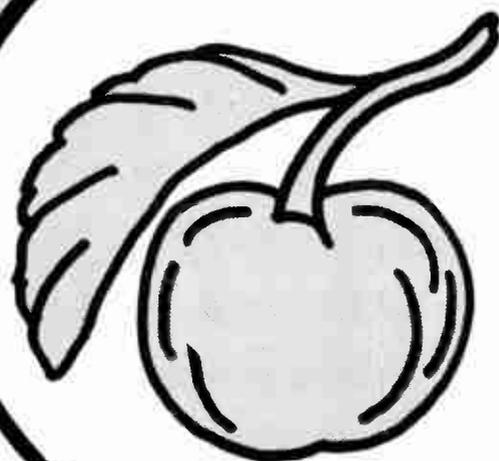
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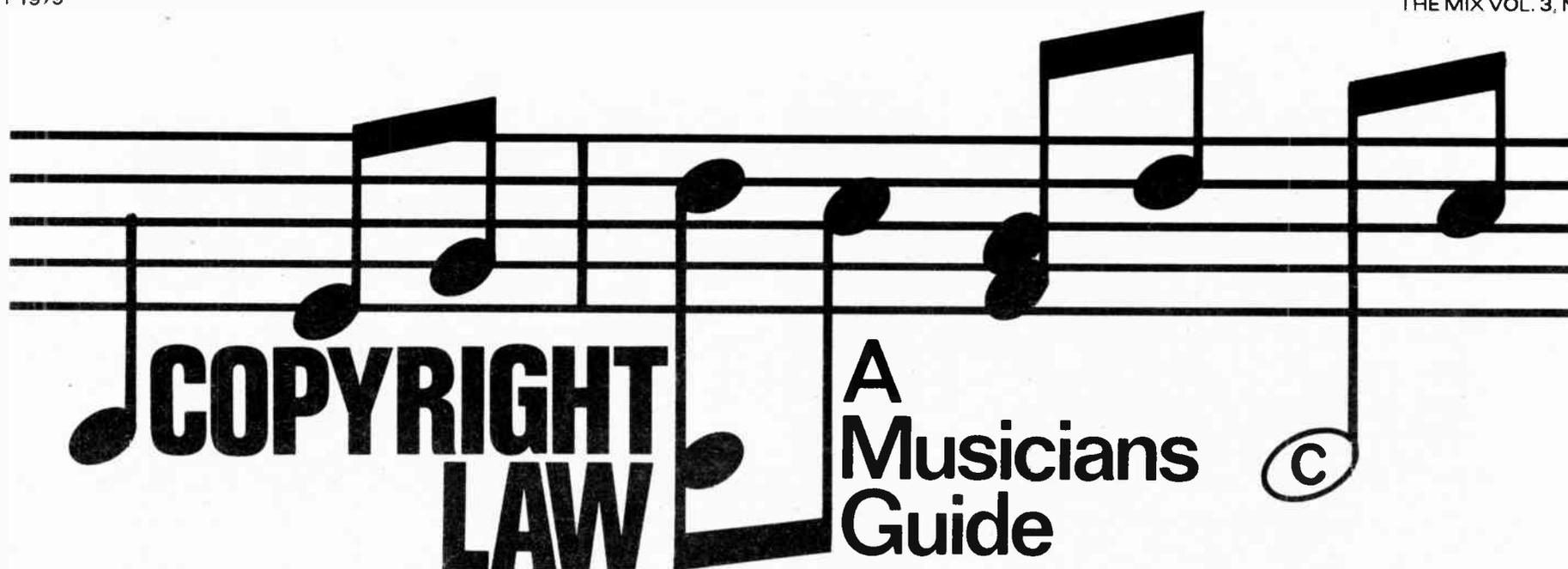
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C The Federal Copyright Law provides certain protections and secures certain rights to the creators of works of art, including musical compositions. Anyone who writes songs should try to understand how to obtain the benefits of the Federal Copyright Law in order to fully enjoy the fruits of their music-writing efforts. Bay Area Lawyers for the Arts ("BALA") has published a book entitled "Musician's Guide to Copyright," which details in readable English all the information that you as a songwriter should know about copyrights. Excerpted below from the book, which is co-authored by J. Gunnar Erickson, Edward R. Hearn, and Mark E. Halloran are certain selections which, if you understand, will get you on your way to knowing your rights as a songwriter.

WHAT CAN BE COPYRIGHTED

To qualify for copyright protection under the Copyright Act a work must be original to the author and must be fixed in a tangible medium of expression. To understand this statement and what copyright means, it is important to grasp the legal meaning of the following terms:

Original. To be *original* under the Copyright Act a work need not pass any requirement of novelty, ingenuity or aesthetic merit. That a work is original means nothing more than that the work is original to the author; that is, he or she made the work. Conceivably the same or a similar work could be created by someone else. As long as those same or similar works are created by their respective authors *independently* of one another, each work is entitled to copyright protection.

Fixed. A work of art is considered to be *fixed* when it has been put in a tangible medium of expression (for example, on paper or on a phonorecord) so that it can be perceived, reproduced or otherwise communicated for a period of more than transitory duration. Having an idea for a song and singing the song to a friend or to an audience does not constitute a fixing; if the song is recorded or transcribed, however, then it has become sufficiently fixed in a tangible medium of expression to qualify for copyright protection.

Created. At the time the work of art is fixed, it is considered to have been *created* and as of that moment is entitled to protection under the Copyright Act.

Publication. *Publication* is the distribution of copies of work of art or phonorecords of a sound recording to the public by sale or some other means of transferring ownership or control over the work, such as renting, leasing, lending or even giving the work away. Consequently, distributing copies or phonorecords to a group of persons for the purpose of public display by them would constitute a publication. A public performance of a work (for example, the acting out of a pantomime or the singing of a song) does not constitute a publication since there has been no transfer of ownership resulting from that performance. Sending a demo record of a song to a publisher or record company for review generally is not a publication when the demo is only for the recipient to listen to and there is no intent that the demo be publicly distributed.

Works. *Works* are the creations of authors that the Copyright Act protects. The Act divides works into seven broad categories:

1. Literary works
2. Musical works (including accompanying words)
3. Dramatic works (including accompanying music)
4. Pantomimes and choreographic works
5. Pictorial, graphic and sculptural works
6. Motion pictures and other audio-visual works
7. Sound recordings

It should be noted that these categories sometimes overlap and are not exclusive. In the musical field, the most important works are musical works and sound recordings.

Musical Works. The most familiar example of a *musical work* is a song—both lyrics and music together comprise the work. Symphonies and other musical creations that can be performed also are musical works.

Sound Recording. A *sound recording* is a work that is a series of recorded sounds. For example, the performance of a song on a tape constitutes a sound recording. It is important to remember that the sound recording and the song itself are separate, independent *works*. Each time an artist records "White Christmas" a separate sound recording or work is created. The song "White Christmas" itself, however, is a single musical work separate and apart from the individual sound recordings made by others. To run that by once again: a song is a music work and each sound recording of that song is a separate work in its own right.

Copy. A *copy* is not a work; it is the physical manifestation of the work. In general a copy is an ob-

ject from which a work can be visually perceived. Lead sheets and other notated music are copies of a musical work.

Phonorecord. A *phonorecord* is not a work; rather it is a physical object, typically audio tapes and phonograph records, embodying the fixed sounds of a sound recording. A phonorecord is *not a copy* of a sound recording, because the audio performance is not directly represented in a visual form.

Music works and sound recordings therefore are published in the form of copies and phonorecords, respectively. When a copy of sheet music is sold, the songs in it are published. When a phonorecord is sold, the sound recording is published; but technically, as a matter of copyright law, the songs (musical works) on the phonorecord are not necessarily published.

NOTICE

Putting a proper copyright notice on each copy or phonorecord that is publicly distributed is the most important step in protecting a copyright. This is the step that secures the copyright and puts other people on notice of your claim of ownership. The United States copyright notice has three elements: symbol, year, and owner.

C (1) *Symbol.* For copies of all works except sound recordings, the first element is the word *Copyright*, the abbreviation *Copr.* or the symbol ©. Use of the symbol © also meets the notice requirements of certain foreign countries, so it is recommended. Often you will see a notice utilizing both *Copyright* and ©. This is redundant and unnecessary, but does not invalidate the copyright notice. For sound recordings (phonorecords and tapes, for example) the first element of the notice is the symbol ©.

(2) *Year.* The second element is the first year of publication of the work. Note that it is the year of first publication—not the year of creation—that must be included in the notice.

(3) *Owner.* The name of the owner of the copyright is the final element in the copyright notice. The name should be the present owner, not the original creator, if ownership has been transferred. By adding the words *All rights reserved*, additional international copyright protection is gained in Latin American countries under the Pan-American Con-

Cont'd on page 26



Left-to-right, label principal and lp producer Bob James, Harry Hirsch, president and founder of Soundmixers Recording Studios, artist Earl Klugh and engineer Joe Jorgensen.

you'd like to keep it in led us to the decision to go with an independent studio. We went with Soundmixers because we were very comfortable there.

"Our goals are simple as far as our studio requirements," James continued, "The best quality we can find. We do have some special needs in order to get our LP's to sound the way we want them to sound, and the people at Soundmixers have been extremely cooperative right from the beginning."

"Also, Joe was able to give them lots of input in terms of his ideas about the way the studio should be set up. Fortunately we were in a position with Soundmixers to have some of our ideas about mikes and monitors and outboard equipment incorporated as the studio was being completed. For us Soundmixers is the closest thing to having our own studio without having the responsibility of ownership and other headaches."

James feels there is no such thing as a "typical session." "You think you get to know a studio well," he says, "but every new project has something different. We try to develop routines to keep the quality high, and we keep refining everything we do. But everytime a new lp comes along something else has changed. You're starting all over again."

"I find this to be a good, a positive thing, because these constant changes in equipment or performer styles force you to be creative. Last year's record is not good enough for next year, and if you're too

locked into the old ways you don't stay open and you loose the element of freshness in your work."

James has found a number of changes over the past years, both in himself and in the way he is working. "I'm not as panicky as I was," he confides, "I was always nervous in the studio during the early part of my career. During my first stints as a producer I was trying for the greatest lp of the century, every date had to have a hit. But the longer you're in the business, the more you learn that some days things work and some days things don't, and often the harder you push, the more difficult it is for something really good to happen."

"You're in the process of trying to develop the art of patience as much as anything else. You have to allow things to happen, and be confident that if you put the right ingredients together, the right people and material, you may walk away with a winner. There are days when someone may be in a bad mood and the tempo of the session goes off, but a day or two later everything may suddenly jell. Everyone is happy and the juices are flowing. You may get no tunes the first day and one the second, but maybe you'll get four or five on the third. I guess it's become important for me to take things more in stride and enjoy myself more than worry."

The music business is perhaps too "hit conscious," and the urge to "pick up on a happening sound" is as understandable as it is widespread throughout the industry. Bob James, however, has a somewhat different point of view. "I believe in longevity, and that solid talent will always find a way of reaching the public. Talent will cut through trends. We happen to be talking at a time when the industry is in a strange place. Profits are down, people are being laid off, the disco movement was not exactly what they thought it would be, there are more returns, business is slow."

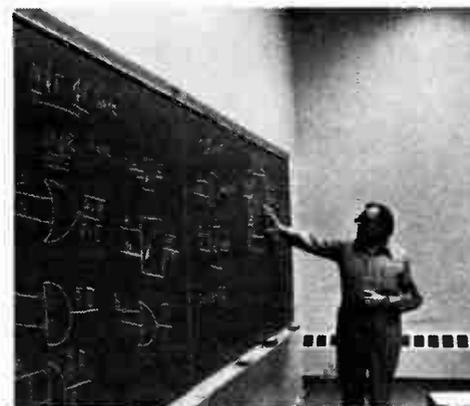
"But, I don't feel particularly interested in those problems. I didn't come to the music industry with a Wall Street analyst's skills. I'm a musician, and I always felt that the best thing for me to do is just keep making music and responding to whatever is happening in society by saying whatever it is we have to say in our own abstract way."

"I'm sure we'll all continue to have our ups and downs, artistically and economically, but the music is not going to go away, and if it's not me making the records, someone else will. I'd just like to keep on making them as long as I have my health and, as long as I have something to say." ☺



Tappan Zee engineer Joe Jorgensen, Kenny Loggins and Soundmixers' Studio president/founder Harry Hirsch during the cutting of Loggin's platinum "Nightwatch" lp last year.

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BOB JAMES

artist,
producer,
label exec.



By: Howard Sherman

Photos by Howard Sherman

Although Bob James entered the music business as a pianist, he quickly developed a reputation for his skills at arranging material for other artists. As James' career developed, his proficiency at helping other people with their music seemed to be racing neck and neck with his abilities as a performer and composer. For awhile, in fact, his own music took something of a back seat as James served as musical director for Sarah Vaughan, arranger for Dionne Warwick, Roberta Flack and Aretha Franklin, orchestrated Paul Simon's Grammy winning "Still Crazy After All These Years," created the charts for Neil Diamond's "A Beautiful Noise" and worked with many other major artists including Hubert Laws, Eric Gale and Kenny Loggins.

Quincy Jones, a staunch supporter throughout Bob James' career guided him towards a recording contract with Creed Taylor's CTI Record Label, where, in addition to releasing four albums of his own music, he also got his first experiences as a producer. In 1976 Bob joined CBS as Director of Progressive A&R. It was during his time there that he began breaking away from his jazz artist image and working with pop stars like Paul Simon, Neil Diamond, Blood, Sweat & Tears and others.

In time, however, James began feeling somewhat tied down by the responsibilities that came along with the territory in his Columbia gig. Three years ago he became available as a recording artist. The weight generated by the sales of his own lps coupled with his reputation as a creative executive opened the

way for negotiations for the formation of his own label, Tappan Zee Records, which is distributed by Columbia.

Running Tappan Zee provides Bob James with an element of control over his projects that translates into a style that distinguishes it from most other labels. He has signed a select group of artists all of whom are held in exceptionally high regard by their industry peers. Mongo Santamaria, pianists Richard Tee and Joanne Brackeen, guitarist Wilbert Longmire and saxophonist Mark Colby are all accomplished musicians. While Mongo Santamaria is an established star, the other Tappan Zee artists are in an "about to break wide open" position according to James, and he is very personally involved with each of their record projects.

The business side of running Tappan Zee Records is made considerably easier for Bob James by the presence of his General Manager Peter Paul, a veteran music industry exec. James considers his main role to be a creative one, and spends the bulk of his time with recording projects, touring and composing.

"It is tougher than I thought it would be," James said during a recent interview. "You can't do justice to a creative project unless you pour yourself into it completely, and if I find myself being distracted by too many business decisions, it's difficult for me to switch back and forth quickly.

"The ideal situation would be for me to spend a full week in the office handling the business, and then two or three weeks exclusively in the studio. Unfor-

tunately scheduling doesn't seem to allow that to happen very often."

"Nightwatch," the platinum lp James produced for Kenny Loggins last year might appear to be his most satisfying project to date. James, however has a different view of success. "There are lots of ways of adding up the score board," he says. "Financially it was rewarding, certainly Kenny's lp was the largest selling record I've ever been involved with, but the success of my own records has meant more to me financially.

"As far as my feelings of gratification about the project, I have to weigh the factor of Kenny's sales against the fact that he had already achieved major stardom as a performer. My role as a producer therefore, is not the same with Kenny Loggins as it might be with a new artist like a Wilbert Longmire or a Richard Tee. I enjoyed working with Kenny, and it was a terrific learning experience, because his music was in a different area than I've been used to, but there is still that expectation of success in working with a Kenny Loggins, and the reward with a hit lp for him is a different kind of victory.

"I'm still waiting as far as Tappan Zee is concerned for the excitement of breaking a new artist into stardom. We're still working towards our first super hit lp. It takes time."

Bob James has performed countless live dates throughout his career, but the studio environment has a very special meaning to him. "I've really grown to love the time I spend in the studio," he says. "It seems to me the studio is the most creative environment around. There are always 'hot' moments, creative situations that arise in the studio, and you can build a record around them. For me working in the studio is a way of life, my hobby, my occupation, everything rolled into one. I can go into a studio and spend ten or twelve hours a day, and it doesn't seem like work.

"I like to perform live," James continues, the excitement of a concert date can be a vacation of sorts, and being in front of an audience is fun. But putting them together has many drawbacks. The headaches of touring, the mechanics, have proved to be enough of a burden so that I try to keep them to a minimum.

"Also, I get spoiled working in the studio because of the caliber of musicians that I get to deal with. The best musicians in the world tend to gravitate to New York or Los Angeles because of the economic realities of this business. It is almost always possible to get phenomenal musicians to play with in the studio, but most of the real greats are far too busy or too expensive to take on the road. The studio is the place where I find the most fun and excitement.

"For the past two years we've been working almost exclusively at Soundmixers in New York," James reports. "We were one of their first clients when they opened their doors, and we were looking for a home. I have a full time engineer, Joe Jorgensen, who's worked on all our Tappan Zee lps, and the final say as to where we record is his.

"We both feel that the ideal situation for us would be to have our own studio, although the economics make that a bit difficult. Although we do a tremendous volume of work, in order to make a studio profitable we would still have to rent time to other clients, and that always feels to be a major negative. The hassle of getting your own studio and then not being able to keep the equipment in exactly the condition

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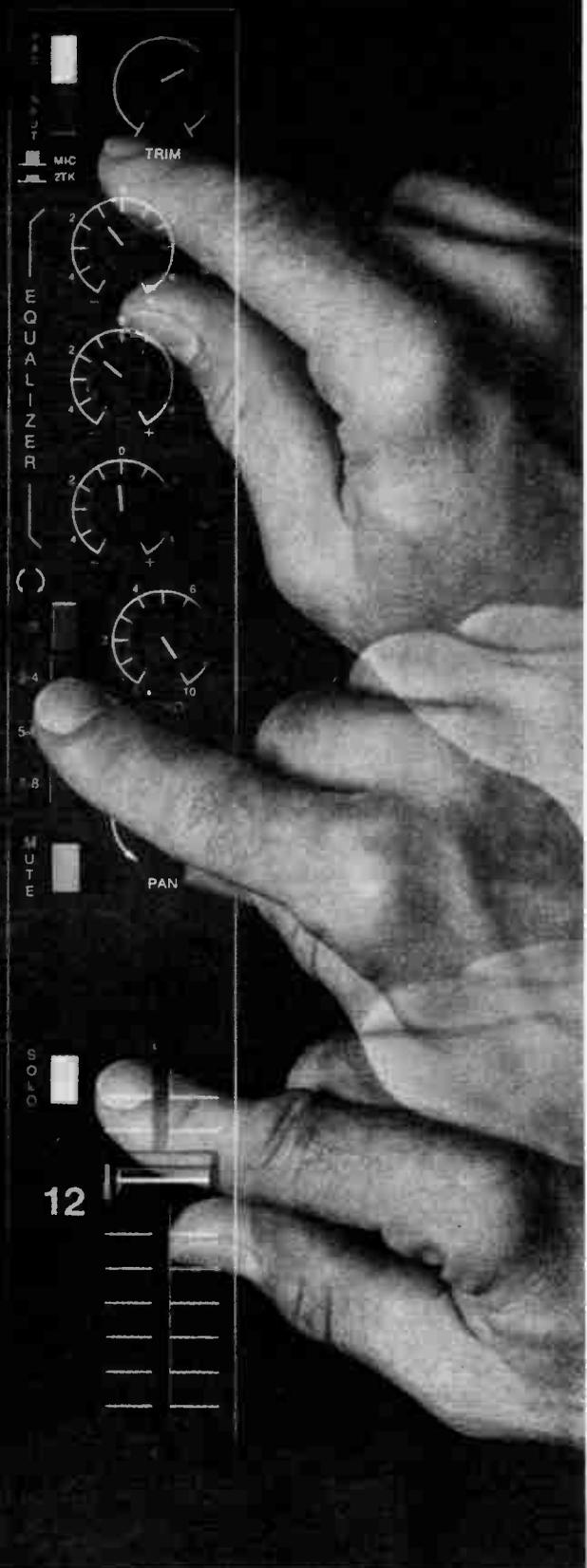
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TAPE

Part Two

TALK



by Warren Simmons

Ed's Note: This month *The Mix* presents the second installment in a three-part series devoted to magnetic tape fundamentals and audio recorder set-up procedures. Though the article is written to be easily understood by the novice, there is much here for old hands as well.

Mr. Simmons is Senior Audio Products Manager for the Ampex Magnetic Tape Division. Throughout his 10 years in the professional recording field his work with Ampex, RCA, and others has had a major influence on the development and direction of the audio recording industry in the U.S. and abroad. Most recently he was instrumental in the market development of Ampex's 456 Grand Master analog mastering tape and the new 460 Series digital tape used with the Soundstream master recorder.

So far we have examined the physical and magnetic properties of magnetic tape and what these properties mean to you as a recorder. But the tape's electrical characteristics are equally important in affecting your ability to make a high quality recording.

Electrical Properties

Ideally, we want to make a recording which sounds identical to the live session. There should be no "coloration" of the original sound of any kind; that is, no distortion. The loudest passages should be reproduced at the same sound level and the quiet passages should be likewise faithfully reproduced. The quiet passages should not be contaminated with extraneous noise or hiss; and when the music stops, there should be, as in the live session, no background noise. (These parameters present the theoretical ideal.)

These are the electrical characteristics we would like to build into the ideal recording system, including both tape and equipment. The ideal recording system, of course, has not yet been devised. However, by applying certain well-established electrical tests, we can predict to a large degree how the tape will sound on a high quality master studio recorder.

Distortion

Third harmonic distortion is the distortion component most displeasing in the tape recording process. This type of distortion is the third harmonic of the fundamental note and is measured in percent of the signal level of the original note.

Maximum Output Level (MOL) or Head Room

Third harmonic distortion increases as recorded level or recorded energy increases, that is, as the loudness of the music increases. It is generally agreed that when 3% of third harmonic content is exceeded, the recording is excessively distorted and is unacceptable. The record level at which 3% of third harmonic content is exceeded is considered to be the maximum output level, referred to as MOL, or the maximum useful record level of that particular magnetic tape. The 3% point is measured above a standard record level in decibels (dB). High quality

tapes have high MOL or the ability to accept loud music without excessive distortion. Percent of third harmonic content below 0.5% is considered very good and provides a crisp, clean sound.

Noise

All tape recording systems produce extraneous noise. The tape itself possesses noise or hiss which is inherent in the design of the tape, but high quality tapes are designed to have less noise. Noise is described as the signal level below some standard record level and is measured in decibels (dB).

Dynamic Range or Signal-to-Noise Ratio

Dynamic range or signal-to-noise ratio is the total electrical distance measured in decibels from the noise level, or noise floor as it is sometimes called, to the maximum output level. This is the usable range of the magnetic tape. The greater the dynamic range, the better the performance and the better your recording will sound.

Modulation Noise

Modulation noise is an additive noise component inherent in the design of all magnetic tapes. It can be controlled at low levels by exercising care in the manufacturing processes known as mixing and calendering.

Intermodulation Distortion or IM Distortion

When tones or signals of two different frequencies are mixed, the output signal will contain unwanted frequencies which are sums and differences of the components of the original signal. A standard test for IM distortion has been agreed to by the trade standardizing group known as the Society of Motion Picture and Television Engineers (SMPTE) for determining IM distortion characteristics of magnetic tape. The measurement is made as a percent of the unwanted frequencies compared to the level of the original frequencies. IM distortion is inherent at certain levels in all magnetic tape. Tapes designed to have low IM distortion levels will provide higher quality recordings.

Print-through

All magnetic tape possesses a characteristic known as print-through, which is the unwanted signal transfer from one layer of tape to the adjacent layers of tape. When the tape is played, it is heard as a pre-view or echo of the intended signal. Print-through is inherent in the design (dB) as the electrical difference between the intended signal and the printed signal. Print-through can be controlled by reducing record level, by storing tape reverse wound (tails-out), and by exercising tape (several fast forward and rewind passes) before mix-down or before the cutting of disc masters. Print-through is also less on tapes utilizing the thicker 1.5 mil base film as compared with tapes using the thinner 1.0 mil base film. ☺

Ed's note: Part III will be published in the November issue. (Vol. 3, No. 7.)

**to be
continued**

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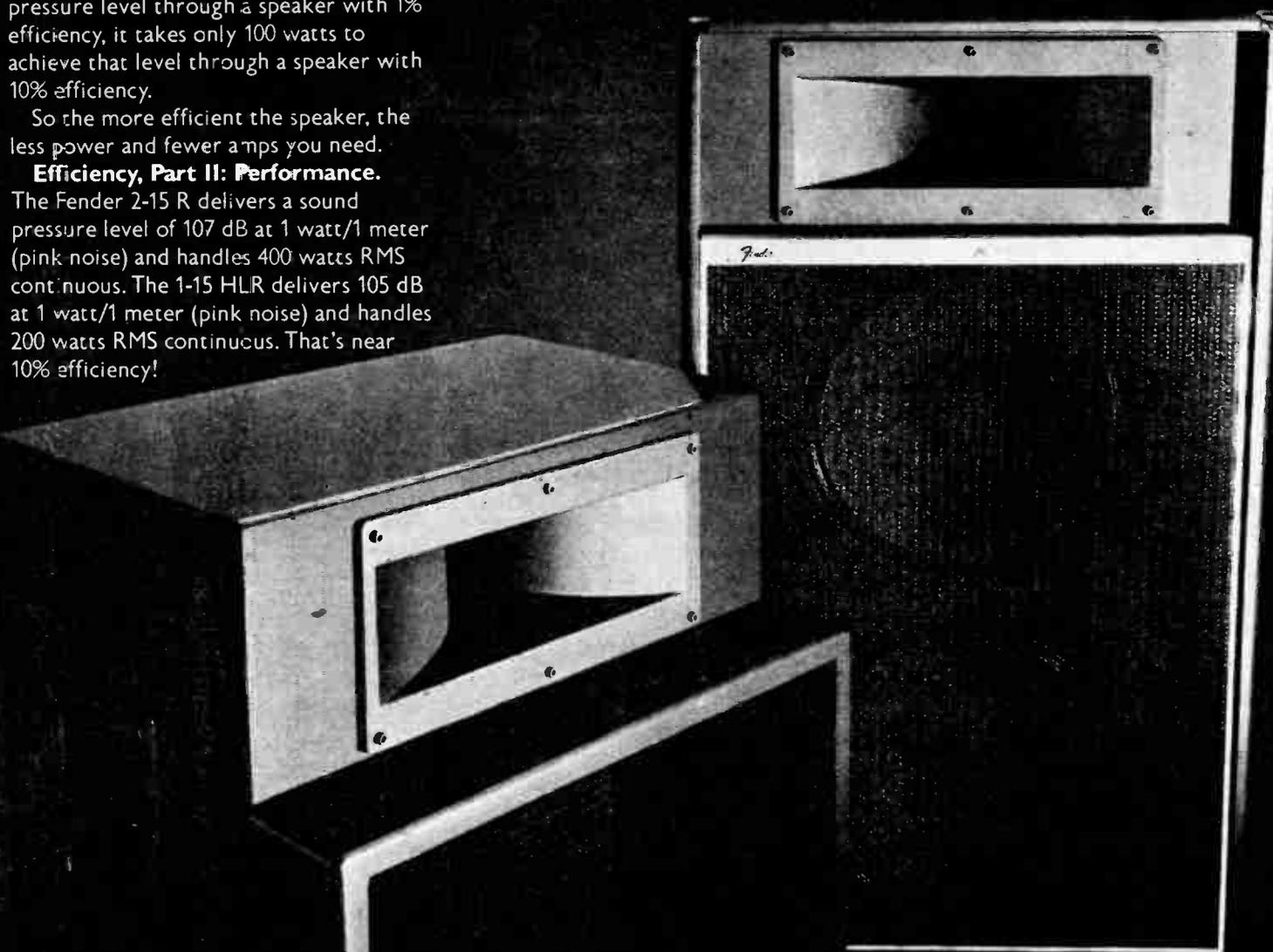
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D. MISCELLANEOUS
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4. How long have you been involved in recording?

5. How much time do you spend in recording studios in one month?

6. What other recording related publications do you read?

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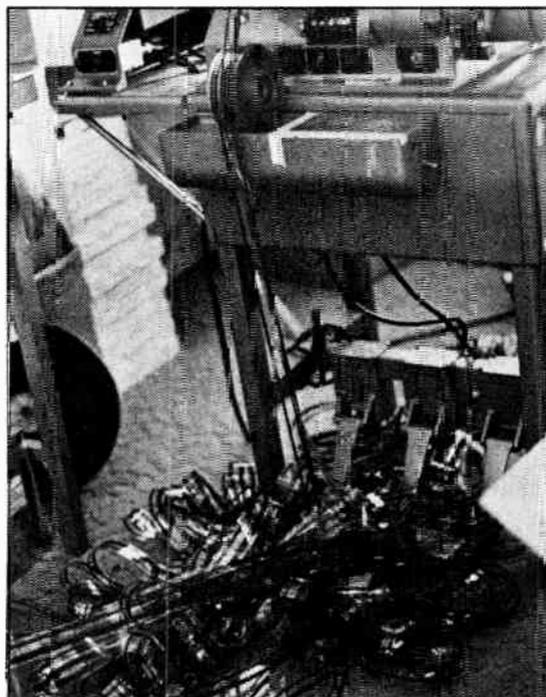
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The film that ends up on the floor is probably the music which will be in the film.

Cont'd from page 17

tant aspects of their work occurs at this time, when they demonstrate their loyalty to the composer. Often the composer is out of the picture by the time the film reaches the final dubbing stage. The music editor has some control over the score at this point and must work to protect the composer's music, while at the same time satisfying the producer and director. Often, the producer or whoever is in charge of the film, would just as soon dial out a segment of the score rather than take the time to rework it to fit the film. This happens through no lack of professionalism on the part of the producer, but rather a lack of time in having to meet critical deadlines, and, of course, budgets. After these considerations, the producer or director may allow the music editor to make a critical change of the scene to fit the latest needs of the film.

ANOTHER POINT OF VIEW

Ken Johnson, president of Damask Productions is a music editor/film editor. As a music editor Johnson has credits on films like *Nashville*, *Shampoo*, and *Harold & Maude* and *Avalanche Express*, as well as the television shows *Eight Is Enough* and *I Spy*. Johnson offers still another view of the music editor. Unlike the other music editors mentioned on this article, Johnson is not a composer or a musician, but has a feel and ear for music and is regarded with high respect.

"I look at myself as a translator. I translate the mechanical information of the film into something the composer can work with, and then translate the composer's music back into the mechanics of the film."

Johnson found working on *I Spy* very rewarding. The television show was the first for a major network to be shot on location all around the world. The music recorded was indigenous to various foreign countries. Subsequently, the guidelines used for music editing became inadequate for much of the music score. Johnson's innovative talents were put to the test. As Carlin would say, "Nothing is a problem, only a challenge."

MUSIC SUPERVISOR

Joe Renzetti is a composer/music supervisor who

works a little differently on some of his projects. Renzetti was nominated and subsequently won the best original song score and its adaptation score for the *The Buddy Holly Story*. Renzetti got his start in music as a musician during the 50's and 60's and arranged such songs as *Sunny*, *Mandy*, etc. Renzetti eventually went to work in New York on commercials, where he got his training for films. This enabled a smooth transition to Hollywood.

One of the things that Renzetti loves about *The Buddy Holly Story* is that the film was shot almost 100% live, without the use of playback tapes. Renzetti hired two engineers with extensive experience in sound reinforcement, studio and live location work. The three men succeeded in hiding the recording apparatus so well that watching the film you never have the idea that there is a multi-track in the record mode. Renzetti became a music director and coach for the actors of the film.

On the *Elvis* film for television, Renzetti only had 10 days to do his job. They kept changing the picture on him and each time he had to change the score. Every time a change in the film was made Renzetti, like the music editors, had to change and adapt.

EXPERIENCE NECESSARY

All of the music editors and supervisors queried are in unanimous agreement that the best way to break into this business is through experience. Nearly all music editors began their careers working for a major film studio.

Valuable experience in this field is also available through advertising agencies, local television news stations, industrial film companies and smaller independent film production companies. Three current books for anyone wishing to pursue this field include: *Projects TEMP Book* by Carroll B. Knudson, *Scoring for Film* by Earle Hagen, (Hagen also teaches a class in the Los Angeles area) and a book by Henry Mancini entitled *Sounds and Score*.

Each music editor and supervisor interviewed agreed that it is a tough business requiring total dedication. All have worked nights, weekends, everything in-between and are constantly pushing to meet brutal deadlines. However, none of them would rather be doing anything else—it's a satisfying and creative area.



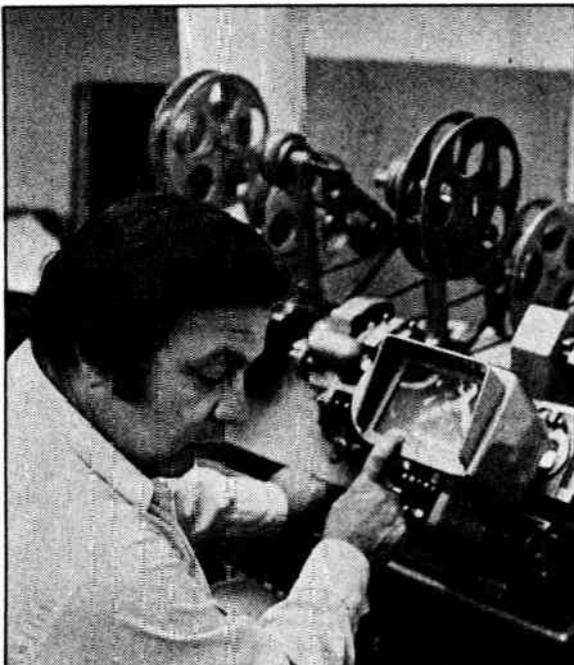
Linda Feldman began her career in the training department of Teac Corporation of America, eventually becoming their training manager. Previously, she had been a recording engineer with several Los Angeles recording studios. Linda was a studio manager for an audio/video post production house for major television and films. She is currently a consultant to the entertainment and audio industry specializing in promotion, training and marketing research.

MUSIC EDITING

FOR MOTION PICTURE AND TELEVISION

by Linda Feldman

Photo by Linda Feldman



John Caper Jr. is running music track against dialogue track on his Moviola.

Today there is a Renaissance of music in film. The Mix takes you behind the scenes to demystify and examine this world.

To a music editor, being "on location" could mean the actual film set. More often than not, though, his work takes place in the recording studio, his own studio, office or home, as well as the location of the final dubbing.

Not many people really know what the music editors do, why they do it, or if it is really necessary to engage their services from the embryonic development of a project.

John Caper Jr., president of Trinton Entertainment, is a music editor/supervisor/contractor whose credits as a music editor include *Saturday Night Fever*, *Sergeant Pepper's Lonely Hearts Club Band*, *The Muppet Movie*, *A Star Is Born*, *Car Wash* and the soon to be released *The Fish That Saved Pittsburgh*. Caper feels that music editing is one of the least understood fields in the entertainment industry. Caper has expressed a desire for the "Academy of Motion Pictures" to recognize music editors as a separate category in the film industry awards. The sound effects editor is nominated, yet the music editor whose profession is equally as creative, technical and sophisticated in comparison, has thus far been overlooked. A possible explanation lies in the fact that when movies first came out there was only a film editor. It wasn't until the late thirties, when music became important in films, that the job of 'music editor' evolved.

SCORING AND TRACKING

What does a music editor do? There are two basic types of music editing: SCORING and TRACKING. Scoring means a composer is hired to write the music for the film. In this instance the music editor is the composer's most important aid. When working with the composer of a score, the music editor sits with the producer, director and composer to SPOT the film for the music. This means deciding where the film needs music. This can be done in the projection room or on the editor's Moviola. After the spotting session, a music editor times for the composer the portions of the film that need music. The composer then writes the music to fit these timings. Next, the orchestra is called in to record the music that has been written by the composer. The music editor then takes this recorded music and synchronizes it to the picture. This important job is one that must be done everytime an editing change occurs in the film. If the picture happens to be a musical, the editor's job becomes more involved in the building of CLICK TRACKS. These are a timed series of mathematically calculated metronomic sounding clicks running in synchronization with the picture while recording the cue. Used during scoring is a digital metronome which electronically delivers clicks to the musicians' headsets. This is used to prepare the pre-score music (playback tape) for the camera shoot.

Ted Roberts, music editor for Trinton Entertainment, was required to do a BAR BREAKDOWN on every musical number of *The Wiz*. This tells the composer what is happening pictorially on every bar and beat in the scene that is covered musically. This assures that the music written will fit the film. With the emergence of recording artists and record producers into film scoring and music arranging, the music editor's job becomes even more critical. A professional and creative music editor can assist this new talent to become an orchestra for film music.

When TRACKING, the music editor replaces the composer and selects and edits existing library music to fit the film. In the case of *Saturday Night Fever* and *Car Wash*, Caper had to take pre-recorded albums and make them fit the picture.

In the tracking process the composer is not directly involved. The music editor fits the script according to the TIMING SHEET. He employs a breakdown of the scenes, in sequential order, in seconds and tenths of seconds indicating where music will start and stop as well as indicating verbatim dialogue, action, scene cuts and camera movements. The timing for the cue starts at zero and gives the fraction-of-a-second continuity of every action mentioned until the point where the music cue is to end. Shortening or lengthening music sequences to fit the film is where the real imagination and creativity come in. Good tracking can sometimes produce a score sounding like it was written expressly for the picture.

Dan Carlin Sr., president of La Da Productions Inc., started in this business thirty years ago and today has his own music editing/supervising company. Carlin remembers a time not too long ago when he would have to literally rearrange pre-recorded music for a series on television. Carlin did *Mission Impossible* for eight years. "The studio would shoot twenty-six episodes and record the music for thirteen," he recalls. "The music for the other thirteen shows would have to be completely rearranged and made to sound entirely different for the remaining thirteen. That was the height of creativity for a music editor." Today, this practice is no longer permitted by the unions. In addition to *Mission Impossible*, Carlin has done features for television and film release such as *Rainbow*, *Bud & Lou*, *Demon Seed*, *Sextette* and *The Lou Grant Show*.

ON THE SET

Caper explains a typical day on location for *The Muppet Movie*. This movie was shot and recorded much like any other musical utilizing playback tapes. "It was necessary to change the music in the playbacks to fit a new version of the scene. The music editor is now able to protect the composer's music (the composer is not always on the location set) when he is asked to edit the playback tape to conform to the new ideas the director has for the scene. His presence assures the director the playback tape will be edited musically correct."

The music editor, however, is not usually brought in to a film that only has a small section of music spots until final shooting has been completed. Only then are his problems in the recording and shooting of the film discovered. Consequently, by the time he enters production, he often works much harder and longer than if he had been brought in on the original filming. Another problem occurs when the film editor is asked to make changes normally done by the music editor. In many cases this convenience to the producer causes inconvenience to the music editor's job. It could be called cheap insurance to have a music editor on the set while any music scene is being shot.

Ken Wannberg, music editor/supervisor/composer for 20th Century Fox explains why. "Without a music editor on the set when shooting to a LIVE PERFORMANCE, (group of people singing or solo vocal for example) there can be costly mistakes." For instance, there may be 4 or 5 takes (angles) of the live performance. It is the music editor's job to see that they all are shot in the same tempo and same pitch so that they will all intercut smoothly. Otherwise the performers have to be LOOPED later. Looping, a costly procedure, means re-recording dialogue to match the picture. Also, the music editor should be on the set when shooting to playback to see that the performers stay with the playback on all takes, in order to intercut smoothly.

Wannberg, although under contract to 20th Century Fox, occasionally works out of other studios on major productions. Among his music editing credits are *A Rose*, *Star Wars*, *Close Encounters of the Third Kind*, *The Last Waltz*, *At Long Last Love*, as well as the composing of the music score of *The Late Show*.

FINAL DUB

The final mixing of music, sound effects and dialogue with picture is one of the last stages before the film is released to the general public. Music editors are in agreement that one of the more impor-

Cont'd on next page

YEARS AFTER

Cont'd from page 14

Some of the students who register at the Institute have a strong musical background, and may in fact be taking the course just to understand more about the recording process and how microphones can change the properties of sound. Many students aspire to become producers and studio managers.

Not many people would want a doctor who made a C- in anatomy operating on them, and neither do recording artists want a mediocre engineer recording their music. In accordance with this idea, the Institute maintains a policy of requiring all students to complete every assignment satisfactorily for every course. No letter grades are issued. Instead, the assignment is marked "complete" or "incomplete," and the student is required to change or revise the assignment until it is entirely correct.

Normally, a student can complete the standard program in one year at the Institute and emerge capable of studio equipment operation. A new two-year program being planned is directed at studio equipment maintenance as well as operation. This program will concentrate even more heavily on the electronics of audio equipment.

Some students go on to complete their college work after attending the Institute. There is a 4-year



Students are learning to convert a master tape into a master disc.

B.S. degree program in Music Technology established jointly by the Institute of Audio Research and nearby New York University, in which the student spends one year at the Institute and three years at NYU.

School officials estimate that approximately 100 students a year complete the 12-month course, though more than that attend classes. Director Phil Stein points out that the school is not for those who shirk hard work. On the average, most students spend 10-12 hours a week in class and 1-2 hours studying on their own for each hour of time spent in class.

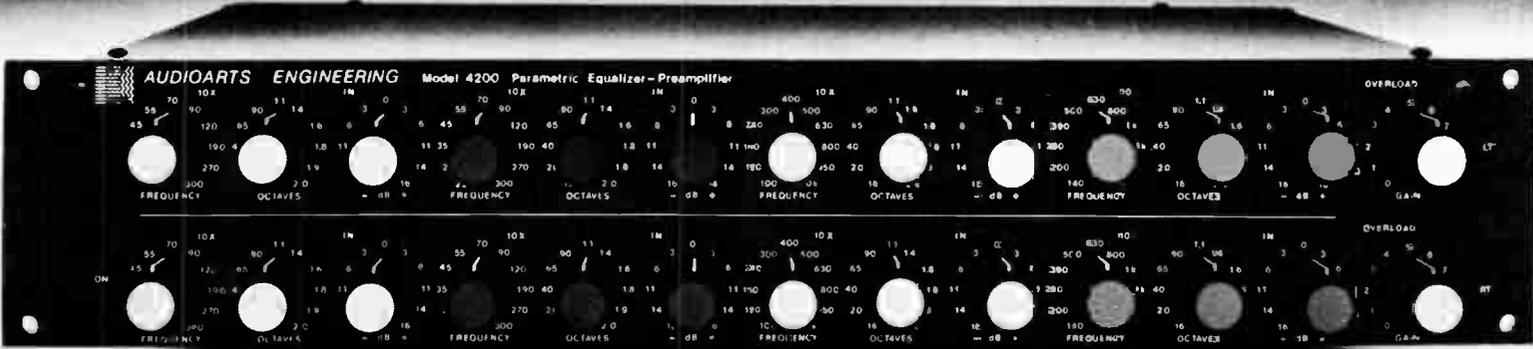
Realistically, the directors of the Institute do not even pretend to guarantee every graduate an im-

mediate job with a major recording studio. Rather, the stress is that in most cases, "immediate" engineering jobs do not exist. The majority of studio employers prefer that newcomers start out by serving an apprenticeship in their studio—a period of time in which studio personnel can train the potential recording engineer to operate according to the style of that studio.

What the Institute hopes to provide is a foundation of technical knowledge—one on which the engineer can build during his or her lifetime. The directors also note that there are opportunities for jobs other than engineering at a "top 40" studio. The technical background acquired at the Institute qualifies students for jobs as sound engineers for road tours as well as sound reinforcement in theaters and radio recording.



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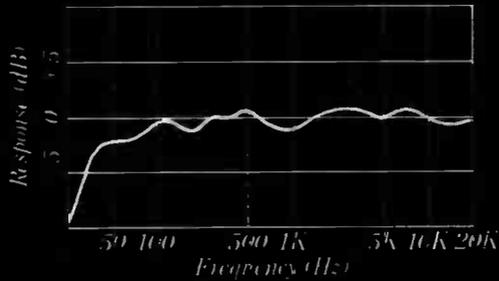
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10 YEARS AFTER

THE INSTITUTE OF AUDIO RESEARCH

by Diana Le Doux

The Institute of Audio Research in New York, currently celebrating its tenth birthday, is dedicated to the principle that a recording engineer should know how the technical devices work and understand the technology involved in producing sound.

Sound is an art form, capable of evoking an emotional response. But when dealing with the hardware of amplification and recording, one must consider as well the physical properties of sound waves and how they can be effectively recorded, altered, or mixed with electronic recording equipment. Microphones and all hardware have sound-altering capabilities that must be reckoned with when reproducing sound—either when amplifying it at a live concert or when recording it. The Institute of Audio Research teaches aspiring engineers that equipment can be understood and manipulated as fine instruments. A recording engineer must appreciate the creative function of recording, for it is in the recording and the mix that the unique sound of the recording artists may be created.

The program at the Institute of Audio Research is structured in accordance with these principles. The student starts with the physical basics of sound and learns the steps between reproducing a pure tone and producing a master tape and disc of complex musical sounds.

Al Grundy, the president of the school, was a pioneer in founding the Institute of Audio Research in 1969, the first multitrack recording school in the country. The original purpose of the Institute was to provide courses for those already working in the recording industry who wanted to increase their understanding of the rapidly moving technology. In 1973 Phil Stein joined the staff and the school expanded to include students new to the field of audio technology. Today the school's curriculum has grown to include a comprehensive introductory program for newcomers to the field of recording and audio technology.

The Institute of Audio Research is located at 64 University Place, in the historic Greenwich Village area of New York City. Within an approximately 6000 square foot area the Institute maintains classrooms,



Students from the Institute of Audio Research are being introduced to the "big board" at the Big Apple Recording Studio, 112 Greene St., New York, NY.

fully equipped laboratory facilities for the control room and console lab, the synthesizer lab, the disc cutting labs, the digital lab and the audio technology labs.

Students first take a basic course in audio technology, covering the fundamentals of sound, acoustics, electricity, and electronics. Topics discussed include the physics of sound, hearing, sine wave analysis, musical tone analysis, decibels, AC and DC fundamentals, and principles of transistors. A complementary lab course allows reinforcement of the concepts of sound and electricity by way of practical procedures.

The audio technology course provides the basis for a later course on studio technology and practice. In the studio course, which includes study of the multitrack tape recorder, consoles, microphones, and signal processing devices, the student further develops the technical foundation required for studio operation and the creative responsibilities of session engineering.

In the course on studio synthesizer technique and accompanying lab, students acquire an understanding of each module of the synthesizer system, and learn how to use such knowledge to interconnect modules and to program the instrument for signal processing. They also learn to correlate the audible presentation of a note with the visible wave-shape display. This is, their ears are trained to correlate the pattern shown on an oscilloscope with the kind of tone produced. Musicians as well as engineers find this course useful and apply this knowledge to musical composition.

Classes at the Institute of Audio Research are not limited to the principles and operation of professional studio systems. Two courses also deal with design aspects. Covered in one course is the relatively new digital approach, the other course concentrates on audio system design, that is, the "how" and "why" of building a system and making component interconnections.

Two of the most exciting courses at the Institute are the Practical Disc Recording course (with a lab) and

the Recording Studio Workshop. In the first, the students are introduced to the principles, mechanics and techniques of tape-to-disc transfer, and then in six guided operating classes, they cut lacquers on a professional disc recording system. In the Recording Studio Workshop, students participate in actual recording sessions with live musicians. Every student functions in each of several studio positions, including recording engineer, assistant engineer, tape operator, and microphone set-up.

These sessions are important, for experience can be the best teacher. Fortunately, the musicians who agree to be "guinea pigs" for the students pay nothing, and the resulting mixed-down tape is of professional quality and belongs to the musicians. The amateur engineers are, of course, supervised by a competent instructor, who frequently plays a major role in solving problems; but, at the typical recording session students participate fully in every phase of the recording.

Most of the equipment at the school is organized not by a systems approach, that is, as a studio, but by a component approach, as a laboratory. This organization permits students to grasp the fundamentals of each component of a studio before being faced with the whole. For example, students spend time working with a line and signal trace, and learn the testing and alignment procedures for each component of a studio. They also experiment with noise reduction and echo chambers, and with a 16-track mixing console.

The Institute of Audio Research is open to all men and women who are high school graduates or have equivalent background, though a large percentage come in with some college background. One specific requirement is that applicants' transcripts must show a good knowledge of algebra. Applicants without a sufficient background will be required to take a short algebra refresher course.

Phil Stein, director of the Institute, notes that the number of women at the school has increased dramatically during the past two or three years. Women now account for about 20-25% of all students.

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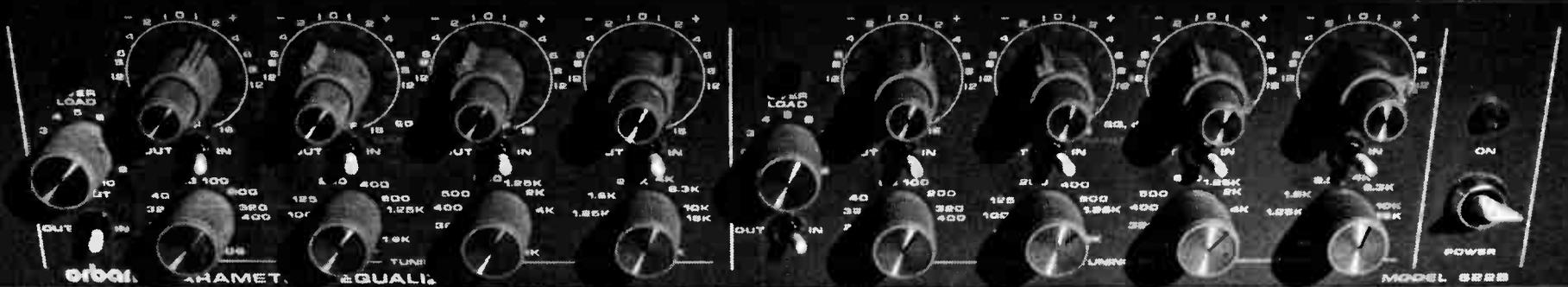
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Cont'd from page 10

The Integra equalizer had a frequency control and a boost/cut control for each band. The Flickinger model was similar in concept. However, the ITI Parametric had an additional feature which was a third control to adjust the "Q" (bandwidth). The Integra and Flickinger models were of the three-band type and, I believe, the original ITI Parametric was a four-band equalizer.

The early variable frequency equalizers were faced with much resistance by mixing engineers. Many complained of the difficulty of re-setability. For example: a fixed frequency equalizer could be used to obtain certain results and the frequency setting, along with the amount of boost or cut, could be marked down on a sheet of paper. This same setting could be easily duplicated at a later date by simply switching to the appropriate frequency and amount of boost or cut. The variable frequency equalizers did not and can not have detented switch positions. The frequency to be equalized must be selected by ear. However, there are frequency markings indicated on the panel. The frequency adjust controls on variable frequency equalizers are continuously variable (as in the operation of a level control.)

Those engineers who were looking for greater versatility and had enough faith in their ability to re-create the same effects at a later date loved what this new concept in equalization would do for them. It has just been in the last two or three years that this concept in equalization has started to catch on in the professional audio industry.

The term "variable frequency" is not often used today, however, the term "parametric" did become very popular. We are also faced with confusion regarding the basic types of variable frequency equalizers. A process of evolution has brought us the following terms which are in use today:

1. Sweepable Equalizer: an equalizer where the center frequency or indicated frequency is continuously variable over a given frequency range. A second control will provide the indicated amount of boost or cut.

2. Tunable Equalizers: Same as above.

3. Parametric Equalizer: an equalizer where the center frequency or indicated frequency is continuously variable over a given frequency range. A second control will provide the indicated amount of boost or cut. There is a third control provided to adjust the "Q" (bandwidth).

It is important to remember that there can be one-band, two-band, three-band, or even more, versions for any of the above types of variable frequency equalizers. There are two-band, three band, and four-band parametric equalizers. There are also two-band, three-band, and four band sweepable (tunable) equalizers. Some companies offer equalizers that have fixed high and low frequency bands with a sweepable mid band frequency section. A new concept in equalizers is that of the "paragraphic". This is a graphic equalizer that is usually a one octave (10-band) type, with a frequency control to adjust each band to any frequency in that particular band. There is also a separate control to adjust the "Q". The "paragraphic" equalizer is ideal for voicing of speaker systems.

It looks like the variable frequency equalizer has finally come of age. Any mixing engineer who will take the time to try one of these equalizers will find it an extremely creative tool. Today's parametric and sweepable (tunable) equalizers allow the creative mixing engineer tremendous flexibility in equalization that was never before possible.

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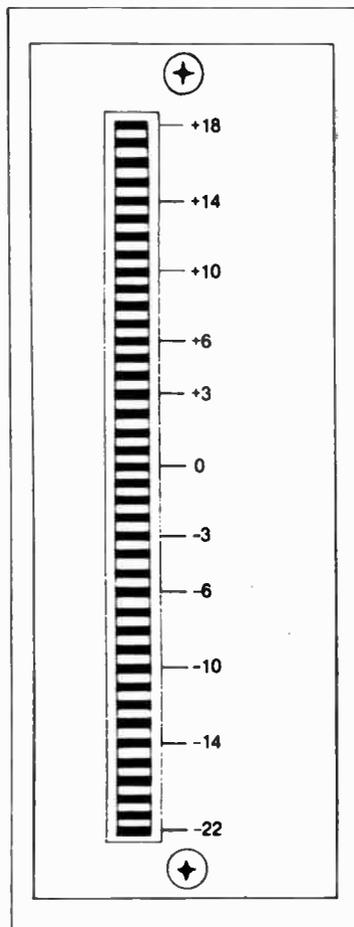
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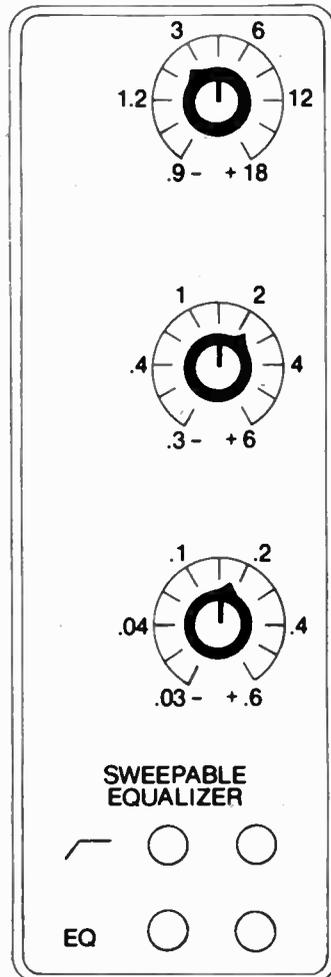
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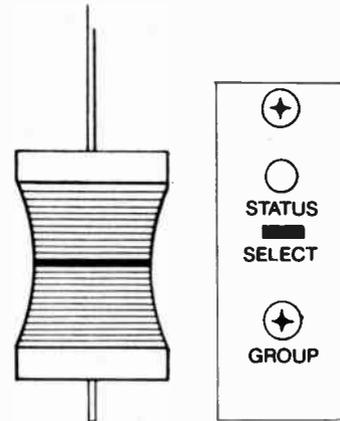
The Sound Workshop Series 1600 is now offered with a High Resolution Meter/Output Module. The 40 segment light bar meter features a 40dB dynamic range, built in spectrum analyzer, and peak, average, and peak/hold modes. (The standard LED column meter is now available with peak reading capability and the Series 1600 can also be fitted with standard mechanical VU meters.)

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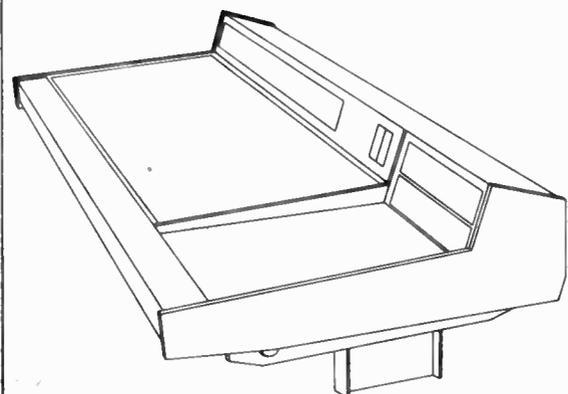


In addition to the standard 15 frequency equalizer and the full parametric EQ, a new sweepable equalizer is available for the 1600. Functionally it is identical to the parametric EQ without variable "Q." Three bands are offered, each with a 20:1 frequency range, and a boost/cut capability of 14dB. As with all Sound Workshop equalizers, the new sweepable EQ is fully stable in all parameters and is totally musical in its action.

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Variable Frequency Equalizers

by Larry Blakely

In 1966, during a recording session at Sunset Sound Recorders in Hollywood, California, I was trying to obtain a certain sound for the cymbals on a trap drum set. I naturally reached for the equalizer on the recording console that had boost/cut frequencies of 2kHz, 5kHz, and 10kHz. The 10kHz frequency was too high, in as it would make the cymbals sound paper thin, and 2kHz was too low to affect much of the cymbal sound. The 5kHz frequency is often used for the equalization of cymbals, but in my particular case it would not provide the desired effect.

It was now necessary for me to find an out-board equalizer with different frequencies. I found an equalizer with frequencies of 3kHz, 7kHz, and 12kHz and patched it in, but again, 12kHz was too high, 3kHz was too low, and the 7kHz frequency would still not boost the exact frequency range to get the particular sound that I was looking for. Another engineer asked me, "What frequency are you looking for?" to which I replied, "I don't really know, but it is somewhere between 4 and 7kHz." After several tries at equalizing I found out that there was not much that I could do to get the exact cymbal sound that I was looking for on this session. This problem did get me thinking, though.

The commonly used fixed frequency equalizer had a number of selectable frequencies that could be chosen by the operator. Most equalizers had only 4 or 5 available frequencies in the entire frequency spectrum (20 Hz to 20kHz), while some of the more sophisticated equalizers of the time (1966) had up to 10 frequencies at which equalization could be done. This all started to look very limited and restrictive from a creative mixing standpoint.

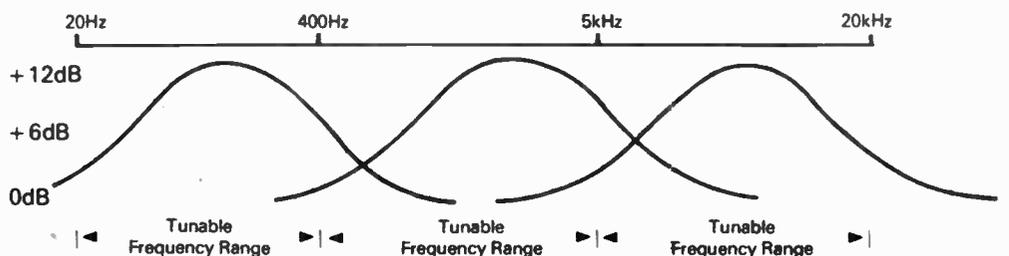
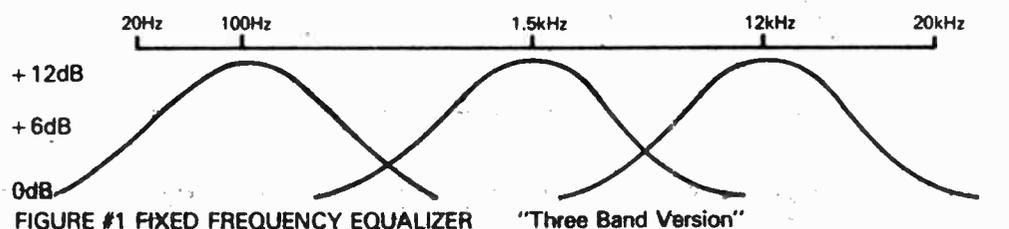
What I really needed was a special type of equalizer that would have every frequency on it from 20 Hz to 20 kHz; one that I could *tune in like a radio*. I wanted two controls on such an equalizer, one for boost/cut and another to tune the frequency range to be equalized. It would then be possible to set the boost control for a few dB of boost and adjust the tuning knob until I could obtain the desired effect. This all sounded great in theory and I expressed the idea of this "tunable frequency equalizer" to a few of my fellow engineers. Most of them said, "Sounds great, but it's a little far out isn't it?" The more that I thought about it for the next couple of years the more sense it made. Why should a good mixing engineer be "boxed in" by a handful of pre-determined frequency ranges on an

equalizer. It is like instructing an artist to paint with four or five basic colors with no shades or color mixing.

To better understand these concepts let us first look at the basic workings of a fixed frequency equalizer. Figure 1 shows a fixed frequency peaking type equalizer.

See Figure I

Notice that there are five frequencies



available: 100Hz, 1.5kHz, 3kHz, 5kHz, and 12kHz. Each of these frequencies as shown may be boosted or cut 12 dB.

See Figure II

In Figure 2 there is a three-band (section) variable frequency equalizer. Notice that the low frequency band is variable from 20Hz to 400 Hz, the mid frequency band is variable from 400 Hz to 5kHz, and the high frequency band is variable from 5kHz to 20kHz. With the equalizer shown in figure 2 virtually any frequency between 20 Hz and 20kHz can be equalized by simply turning (tuning) the frequency control like you would tune in a radio. Well, this all looked great on paper and the idea sure sounded good.

In 1970 two friends of mine—David Baskind and George Noritake—who were electronic design engineers, started working on the first variable frequency equalizer. This was a difficult task during this time because the idea was ahead

of the 1970 electronic technology. It took a little better than a year to find a way for this concept to be reduced to practice.

In early 1971 the first working prototype was ready to take into the studio. We first took a two track master tape and processed it through the variable frequency equalizer and found that we could in fact tune into certain instruments or sounds and lift them right out of the mix. By having this wide range of frequencies which could be equalized, we found that a vast number of

sounds could be obtained from individual instruments. We played with this exciting new signal processor for most of the evening and were knocked out with all of the incredible things that it could do.

One interesting side effect was as the frequency control was swept, it produced a flanging effect. At the time Frank Zappa was mixing the *200 Motels* album at Whitney Recording Studios in Glendale, California. We took the variable frequency equalizer to him for a demonstration. After a few minutes Frank said "Let me get my hands on that sucker." A number of weeks later he purchased one of these units. This new device was called the Integra Variable Frequency Equalizer and was displayed as the first variable frequency equalizer at the AES Convention in Los Angeles in 1971. About one or two years later a company called ITI introduced a variable frequency equalizer called the ITI Parametric Equalizer. About the same time Daniel Flickinger (a console manufacturer of the time) offered variable frequency equalizers in some of his recording consoles.

Cont'd on page 12

HOW TO CHOOSE FROM SOME OF THE CHOICEST MICROPHONES WE'VE EVER MADE.



Among recording professionals, Sony is widely recognized as an expert on microphones. That's because we're continually applying new technology to deliver better sound.

Our latest innovation is the exclusive Back Electret condenser microphone capsule, which delivers response truer than ever thought possible.

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is ideal. It provides flat frequency response over the entire range, and picks up amplified and non-amplified instruments equally well.

Both of the above plug into mixers for multi-channel recording.

LOCATION MIKES, FOR STUDIO SOUND WITHOUT THE STUDIO.

But suppose you want to record on location. At a rock concert, say, or a performance of your church choir or glee club. Sony has mikes that, combined with your tape recorder, practically make up a portable studio.

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Or choose an ECM-23F. It runs more than 6,500 hours on a single AA battery, and it's uni-directional. Use a pair when you want to create a stereo effect. The ECM-23F also incorporates Sony Back Electret technology.

RECORD FOR RECREATION AND STILL RECREATE NATURAL SOUND.

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home, to record family sing-alongs. Or someone's performance on guitar or piano, for your own enjoyment.

You can still get a Sony Back Electret mike at a very affordable price. It's the ECM-260F, which plugs into a tape recorder and makes whatever you record—instrumentals, singing or speech—sound true to life.

For greatest versatility, use our ECM-150 omni-directional condenser mike. It's Sony's tiniest mike, smaller than a dime in circumference, and you can clip it to the fingerboard of a guitar or use it as a lapel or tie tack mike. (Incidentally, it's great for business conferences or any occasion when you want the mike to be inconspicuous.)

Whatever you need to record, and wherever you need to record it, there's a choice Sony mike to do the job.

And now that you know which mikes to choose, all you need to do is see your Sony dealer.

SONY

We've never put our name on anything that wasn't the best.

Sound Advice

by Dr. Richie Moore

In the last installment of this series I discussed just how important air conditioning systems are to the well being of the studio environment. In the same writing I touched briefly on using a separate feed to the console and tape machines, thus lowering the temperature the components must survive in. We have to face the fact that the heat sinks and other heat dissipating devices are all too often inadequate in the original manufacturer's form. Whether resulting from cost factors or simplicity in design, most solid state components can use a little extra cooling. So, if you want to keep the equipment from falling prey to the demon heat, the Doctor prescribes cool forced air to all machines, consoles, rack equipment, etc. I cannot stress this point too much. High temperatures cause component fatigue, component fatigue causes down time, and down time you don't need. Enough.

Staying "On Line" is more than a simple phrase, it is the way of life in every successful studio. It takes an entire staff to keep it running. Awareness and communication between mixers and technicians is a must at all times. Trouble reports should be written up when you find a problem, or suspect that something is not right. Mixers should not be afraid to speak up (hopefully, not around the client) about what he feels may be a potential, or actual, problem. Mixers should also describe the situation in its most complete condition, not in fifteen words or less as most trouble sheets usually allow. By the same token, the tech support should evaluate every report as extensively as they can. The maintenance crew should work with the mixer to get the best and most from the equipment. What is more, mixers and tech people can probably learn a lot from each other.

Now let us go over some things to be aware of to stay on line. It goes without saying that the clients will be happy with all the great sounds that you will be able to deliver, and don't forget that big smile on your face when you're at your best.

Consoles

Except for the multi-track recorder, the console probably has to face the most demanding punishment that a person can give. I have seen knobs literally wrenched from their sockets during the course of a mix; mute buttons smashed by the force of trying to turn them off before the bridge of a song comes along. The common male hand exerts about 14 lbs. per square inch of pressure when using one finger on a button. Think about that one. God help the poor console if you are above average.

A console should be aligned by tech support at least after every 50 hours of use; more often if it is warranted. A simple alignment covers the topographical area (surface of the console.) The medium alignment covers a check of all the console's main outputs for signal to noise. The whopper alignment checks for noise and distortion figures—they should all be within specifications—as well as fixing the moving parts.

Remember, if you can possibly pick up a few dB, even 1 dB, in overall performance you have helped yourself immensely.

Most consoles with the I/O (input/output) design that is becoming more of a standard in

STAYING ON LINE

PART 2

the recording industry are available with heavy support packages. It may cost you a couple of thousand dollars extra at the time you purchase a console to have a few extra not so easy to find chips and selected transistors, but, unless you live right next to the dealer who has a man by the phone 24-hours a day, you will probably earn the original cost back in a day or two.

Bad contacts on modules are a real headache. I recommend that you use the Dow Corning 510 solvent. This industrial cleaner does a fabulous job on metal contacts, and is most amazing when used for cleaning conductive plastic faders. I must thank John Shepard, Customer Service—MCI, for turning me on to this gem. If you can't find the Dow Corning 510, trichlorethylene will also do quite nicely. A regular plan should be set up according to your needs.

A console will last a long time if you *ca. s.* Be aware of the way it uses the information that you feed it. If something feels out of place, investigate the situation. Accurate program material will be the end result, and no down time, hopefully.

Tape Machines

Next to the console, the other real workhorse is the multi-track tape machine. It is wonderful to get a great sound on the console, but it is up to the tape machine to reproduce every nuance that you hear on the line out.

The most often used alignment steps are basically cleaning and de-magnetizing the heads. However, if you keep the machine working long hours, you are bound to notice annoying little problems that are part of any multi-track recording. They need not exist if a little care is taken.

One common bugaboo is the old warped reel on the machine. We all know the scraping sound given off by such a warped reel is very annoying to listen to. It also does not make for a very tight wrap. The best thing to do in this case is to return to the days of old for an answer. It used to be a necessity on older tape machines that you used a precision takeup reel so that the tape path was pretty stable. Fortunately we have come a ways on tape path stability, but the warped reel problem is still with us.

Ampex tape in the 2-inch format is now shipped with a collar to prevent the sides of the reel

from being bent in while in storage; also for protection of the tape pack if dropped. The one inch, half inch, and the quarter inch do not have this, although it would be very nice if the one inch mastering tape had this "collar" also. The thing to do is to purchase a precision reel manufactured by both Ampex and 3M. This reel is made of a better metal alloy, a little thicker than a normal tape reel, and made to more exacting standards than those shipped with the tape.

Its use would be as the supply reel for every roll of tape used. You simply put every roll of tape on the takeup side of the machine and re-wind on to the precision reel. You now have actually accomplished the removal of two annoying problems: better tape path because of the even guidance of the precision feed reel; and, by unpacking the roll of tape to the precision reel, you have gotten out any flat spots in the tape resulting from sitting around on the shelf. Also, you will not have problems (as a rule) with good tape to heads contact.

Another problem is the inherent residual magnetism on and around the tape machine itself. This is never discussed by the manufacturers of tape machines, thus it may never come to your attention. A good little experiment with a galvanometer will show you where the greatest amount of residual magnetism exists on the deck. You will probably find that it usually exists up to around 5 gauss or more in the area of capstan solenoids and brake solenoids. The tape usually runs over or near these devices.

Here is something to think about. How many times have you started a lengthy project that had a great sound when you cut the basics. Then by the time you get to the mixdown things start sounding a little dead or muffled. You think it's just ear fatigue, but you find out the tape really is duller. What has happened is that you have run the tape back and forth in the course of recording many times. It passes over these residually magnetized areas constantly. A reading of 3 to 6 gauss will mean the loss of about 1/12 of a dB at 15kHz on every pass, and is most certainly cumulative. About the best way to combat this problem is to work with the client and not run the tape any more than necessary. You will be very happily surprised at the end of a project if you can eliminate unnecessary playback of the multi-track master.

As far as making punch ins and outs work a little faster, just get your tech man to go over the bias amplifier cards and he can get the slew rate of the bias card (master bias card) to be a little faster than it is usually sent from the factory. Your punch in and out prowess will make you a legend and bring more people to your studio door.

If you find any other problems or idiosyncracies in your studio, please contact me at The Mix. I am very interested in the things you find annoying with regards to equipment you have purchased. By this you and I can find some solutions to those annoying problems in the equipment and hopefully some great solutions that may be simple.

Part III, of this series will be on the effects of ambient noise in the studio environment; their effects and remedies. Until then, stay "on line" and have a good Mix. 

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STRAIGHT INSIDE

T

his is a very special issue for us at *The Mix*. The calls and letters from those of you wanting us to spotlight the New York recording scene have been exceeded only by our desire to do so. And now,

thanks to the tremendous response and generous support of our friends in the New York area, we are proud to present *The Mix* view of recording in and around the Big Apple.

We expect that this issue will be reaching some new readers. If you like what you see, please let us know. Also let us know what you don't like and what you would like to see in future issues. As far as back issues, (we've been around for a couple of years now) there are some available and you can find more information on page 41.

Our studio listings are the result of extensive surveys, questionnaires, phone calls and other forms of friendly harassment, and the information is supplied directly by the studios. A special thanks goes to Julian Shapiro for his assistance in compiling the data.

If you happen to be associated with a studio within a 75 mile radius of the Empire State Building, and you don't find it in our listings, a thousand apologies. If you would be so kind as to let us know about it (or send us the "Lost in the Mix" coupon on page 46 or 65) we will make sure it is included in the next New York spotlight issue (April, 1980).

Features

Aside from our brilliant monthly columnists, we have some excellent features to amuse, amaze and perhaps educate. This month we are running Part Two of "Tape Talk"—a three part primer on magnetic tape assembled by Ampex's Warren Simmons. We suggest you commit it to memory or at least pin in to your wall if you happen to be doing serious work in the tape medium. Part One ran in September and Part Three comes up in November.

Linda Feldman has provided us with a look into the work of the music editor for film and television. The unsung heroes of our times, these talented individuals are entrusted with adding that aural dimension to so much of our visual entertainment.

In response to many inquiries we have had concerning copyrights and publishing under the new laws, we are pleased to reprint excerpts from the newly released book, *Musician's Guide to Copyright*, by attorneys J. Gunnar Erickson, Edward R. Hearn and Mark E. Halloran, published by Bay Area Lawyers for the Arts.

It will come as no surprise that several of our

feature articles deal with the New York recording scene. The oldest recording school in the country, the Institute of Audio Recording, celebrates its tenth anniversary this year. Diana Le Doux gives us a close look at the origins of the school, where it's going and the intense training in the recording arts it provides to more than 100 students each year.

Bob James is one of those rare individuals who seems to do everything right. As a musical artist and composer, his albums climb high on the charts. As producer, arranger, orchestrator and music director, Bob has added his Midas touch to the work of such notables as Kenny Loggins, Paul Simon, Dionne Warwick, Roberta Flack, Aretha Franklin and Hubert Laws. In an exclusive interview by the erudite Howard Sherman, Bob shares his industry insight and talks about his most recent adventure—presiding over his recently formed Tappan Zee record label.

A true success story in the New York recording scene, Howard Schwartz has just completed building a studio of uncompromising quality. With the expert design team of John Storyk and Joe Schick of Sugarloaf View, and the nuts and bolts planning of Audiotechniques' Ham Brosious, this studio will certainly be a trend setter. Don Ketteler, noted industry writer and soundman, called the above gentlemen together

for a remarkable interview in "Building A World Class Studio."

New Products

Be sure to stay tuned next month when we do our semi-annual New Product issue. Timed to correspond with the Audio Engineering Society Convention in New York, November 2-5, 1979, this edition of the *Mix* will carry indepth listings of the latest in audio equipment.

Nashville and Memphis

In December we will present our first closeup of recording in the Nashville and Memphis areas. With so much great music coming from Tennessee, we couldn't go much longer without checking it out.

M.I.

The new (Vol. 1, No. 2) issue of M.I. is now out and about. M.I., or Musicians' Industry, if you prefer, is available for free at your neighborhood music dealer or by subscription. You can write us for more details. If you happen to be an active musician, this bi-monthly (every other month) is made with your mind in mind. Volume 1, No. 3 comes out on November 15. They go fast, so be sure to have your favorite music dealer save you one. 

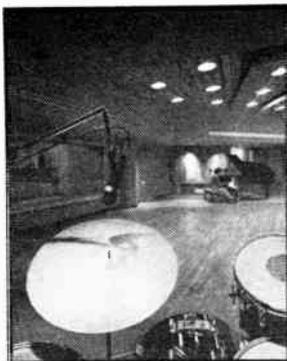
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the Mix

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Sometimes it's the little things that count.

In today's electronic music, some devices can change your sounds radically. You can get a guitar to sound like an organ; or a keyboard to sound like steel drums. But what happens when you need your guitar to sound like a guitar? Did you ever feel that your sound was lifeless and dull? This is because your pickup is loaded by the amplifiers input. Loading causes a loss of highs and lows. If you play an acoustic instrument with a contact-type pickup you are probably experiencing this. If you are running long wires on stage, or are using several effects devices, consider the following alternatives.

The new MXR Micro Amp is a bi-fet operational amplifier with a high input impedance, which eliminates the effects of loading on an instruments' pickups. It has a low output impedance so it can drive a wide range of amplifiers, and a gain control so you can adjust the gain from unity (output level equal to input level) to 26 dB, or *twenty times* the input level.

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many effects devices. In the front of a signal chain, the Noise Gate Line Driver, provides a buffer to preserve the proper line level for successive devices and amplification. At the end of the chain, it is used to "gate-out" unwanted noise leaving only clean signal. The threshold level, is adjustable allowing the unit to discriminate between program material and unwanted noise. In addition, the Noise Gate Line Driver provides a convenient high/low impedance interface for direct signal taps (i.e., live recording/PA).

Both the Noise Gate Line Driver and the new Micro Amp are ruggedly constructed, designed for long battery life, and backed by MXR's long term commitment and experience in providing the finest electronic devices for the music industry.

So, in the light of the many different modification devices available today; if musical accuracy is important to you, see your MXR dealer. Sometimes it's the little things that count.

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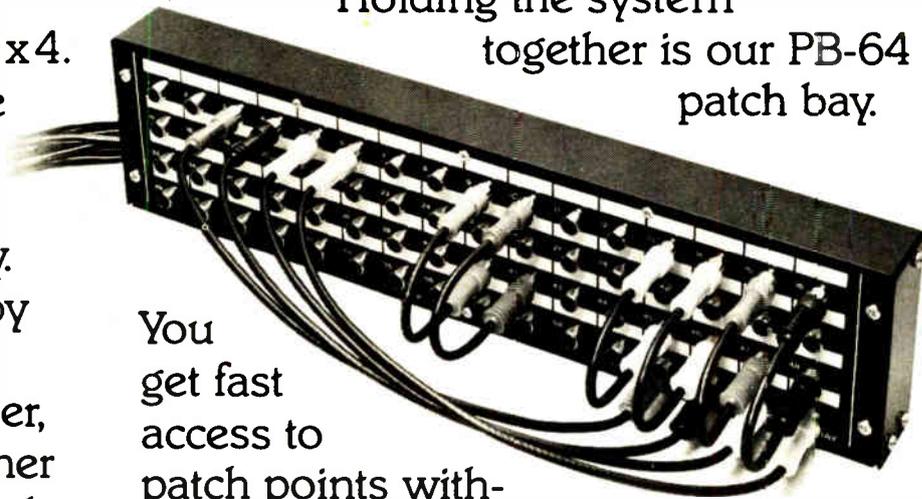
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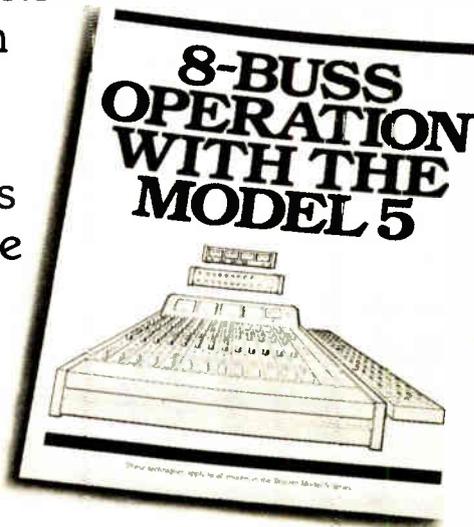
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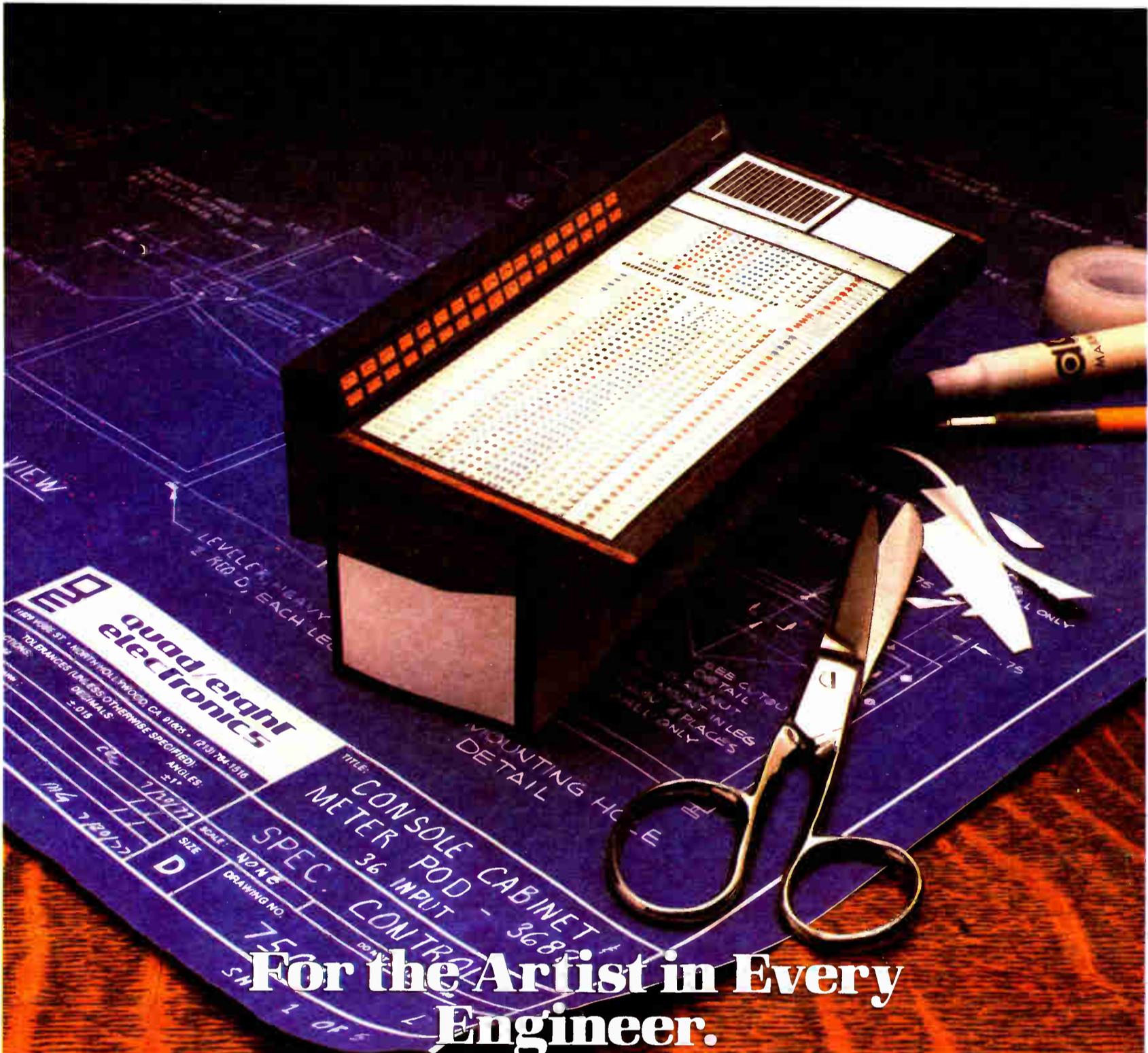
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